INTRODUCTION AND SUMMARY

INTRODUCTION

History of the census of irrigation.—Inquiries relating to irrigation have been included in each decennial census of agriculture since 1890. A special census pertaining to irrigation was taken in 1902. Inquiries relating to the acreage irrigated in each farm were included in the mid-decennial censuses of agriculture in 1935 and 1945.

Beginning in 1910, a special census of irrigation in the States in which irrigation is most extensive has been taken in addition to the decennial census of agriculture. In this special census of irrigation, data are obtained from irrigation enterprises, i. e., the irrigation companies, districts, and other irrigation organizations, and from farms that operate their own individual irrigation supply works. The States included in the census in 1910, 1920, and 1930 were the 17 Western States and Arkansas and Louisiana. In 1940 and 1950, Florida also was included.

Legal basis for the 1950 Census of Irrigation.—Authorization for the 1950 Census of Irrigation was made in an act of Congress approved June 18, 1929, providing for the fifteenth and subsequent decennial censuses.

Questionnaires used.—Two irrigation questionnaires, designated I–1 and I–2, were used. The I–1 questionnaire was used for enumeration of irrigation enterprises operated by farms individually, and the I–2 for the irrigation companies, districts, and other enterprises not operated by farms individually.

On the irrigation questionnaires, inquiries were included as to type of enterprise; irrigation supply works and equipment; pumping lift of pumped wells; sources of irrigation water; pumping of water; storage of water; whether water was obtained from or delivered to other enterprises; new capital investment between January 1, 1940, and December 31, 1949; number of farms and the acreage irrigated; acreage of irrigated land artificially drained and acreage in need of drainage; cost of water to farms; and season of irrigation. For the irrigation companies, districts, and other irrigation organizations (but not for irrigation enterprises operated by individual farms), additional inquiries were included as to whether the enterprise was a multipurpose enterprise; indebtedness of the enterprise; arrearage in payment of indebtedness; arrearage of water users in payments to the enterprise; amount of payment for water for purposes other than operation and maintenance; measurement of water delivered to farms; and quantities of water obtained, lost in conveyance, and delivered to farms.

The inquiries included in the irrigation questionnaires and the wording of the inquiries were determined with the assistance of an irrigation advisory committee and on the basis of experience gained in two pretests of tentative questionnaires. The advisory committee consisted of representatives of the Bureau of Reclamation and the Bureau of Indian Affairs of the Department of Interior; and of the Bureau of Agricultural Economics, the Soil Conservation Service, and the Bureau of Plant Industry, Soils, and Agricultural Engineering of the Department of Agriculture. A pretest of the tentative questionnaires was made in areas in Colorado and Idaho in October 1948. The questionnaires were then revised and were again pretested in several areas in the Western States in May 1949.

Irrigation data from the 1950 Census of Agriculture.—Inquiries were included in the 1950 Census of Agriculture questionnaire for each of the 48 States as to acreage of irrigated land and acreage irrigated by means of sprinklers. For the States in which the special census of irrigation was taken (the 17 Western States and Arkansas, Louisiana, and Florida), additional inquiries were included on the questionnaire for the census of agriculture as to the major uses of the irrigated land, acreages of individual crops that were irrigated, acreages irrigated with the water from each irrigation enterprise from which the farm obtained water, and the names of irrigation companies, districts, or other organized enterprises from which water was obtained.

The enumeration.—Enumeration of the larger irrigation enterprises (those supplying water to 10 or more farms), was accomplished during January, February, and March, 1950. Lists of these enterprises were compiled from the reports of the 1940 Census of Irrigation. In most cases, copies of the irrigation questionnaire were mailed to irrigation enterprises a short time before the enumerator planned to visit them, in order to enable officials of the enterprises to have necessary data available and to fill out the questionnaire if they so desired.

These larger enterprises were enumerated by specially qualified irrigation technicians. Most of these technicians were professional employees of the Soil Conservation Service of the United States Department of Agriculture, who were familiar with irrigation conditions and practices in the areas in which they worked, and who were detailed to the Bureau of the Census to assist in taking the census of irrigation. Their special knowledge and ability contributed materially to the obtaining of reliable information for the larger irrigation enterprises, which supply water for more than one-half of the irrigated land in the United States.

The irrigation enterprises operated by farms individually were enumerated at the same time that the other census information for farms was obtained, by regular census enumerators who received special training in the use of the I–1 questionnaire. This enumeration was completed during April and early May 1950.

The names of irrigation enterprises from which the farms obtained irrigation water during 1949 were reported on the agriculture questionnaire. In each census supervisor's office a list was kept of the irrigation enterprises, other than single-farm enterprises, that had been enumerated in January, February, and March. Another list was kept of all enterprises which were listed on agriculture questionnaires, but which had not been enumerated in the irrigation census. These were chiefly enterprises that supplied water for from two to nine farms. These enterprises were enumerated by special irrigation enumerators, trained and supervised by the irrigation technicians. By means of this procedure, practically complete coverage of irrigation enterprises was secured.

For each irrigation enterprise reported on the questionnaires for the census of agriculture, a listing was made of the farms that reported acreage irrigated with water obtained from the enterprise. When the farm enumeration in the area served by the enterprise was completed, the irrigated acreages reported on the agriculture questionnaire were totaled and compared with the acreage irrigated as reported on the irrigation questionnaire for the enterprise. In cases of a difference of 10 percent or more, the irrigation technicians investigated the reasons for the difference. Errors in reporting on the questionnaires, disclosed by these investigations, were then corrected. By this procedure, most of the overestimation of irrigated acreage by the enterprises, under-reporting of irrigated acreage for individual farms, and

duplication of reports for the same enterprise under different names were corrected.

The census date.—Data pertaining to type of enterprise, inventory of irrigation works, indebtedness, and arrearage in payments were taken as of January 1, 1950. New capital investment was for the 10-year period, January 1, 1940, to December 1, 1949. All other data were for the calendar year 1949.

PRESENTATION OF STATISTICS

This report presents data for 1950 with comparable data from the 1945 and prior censuses of agriculture and from the 1940 and prior censuses of irrigation. Data are presented for each State, for drainage basins, and for counties.

Irrigation data from the 1950 Census of Agriculture, except those for individual irrigated crops, are presented by counties in County Table 1. The acres and quantity of crop harvested for each irrigated crop are given by counties in county table 5*a* of Volume I, Counties and State Economic Areas, of the reports for the 1950 Census of Agriculture.

The data obtained in the 1950 Census of Irrigation are presented by counties in County Tables 2 and 3, by drainage basins in Drainage Basin Table 1, and by types of enterprises in State Table 3. In State Table 4 are presented comparisons of irrigation enterprises by acreage irrigated and by type of water. These comparisons are limited to "complete system enterprises," i. e., enterprises that are independent of other irrigation enterprises in obtaining and delivering water.

Maps.—State maps, on a scale of about 16 miles to 1 inch, showing the location of irrigated land by counties and by drainage basins are available separately.

For convenience of reference, the drainage basins by which the data are tabulated have been identified in the tables and on the map by a uniform system of drainage basin numbers, or symbols. Major drainage basins are designated by Roman numerals, submajor basins (subdivisions of the major drainage basins) by capital letters, part or tributaries of the submajor basins by Arabic numerals, and further subdivisions by small letters. Thus, the number II–D–5c represents the drainage basins of the Yuba River (basin 5c) which is a tributary of the Sacramento River (submajor basin D) which is a part of the South Pacific Coast drainage basin (major basin II). Parts of basins designated as the basin "direct" include tributaries not shown separately.

The major and submajor basins and map symbols are as follows:

Basin	*Map Symbol*
NORTH PACIFIC COAST:	
Excluding Columbia River	I–A
Columbia River:	
Below Snake River	I–B
Above Snake River excluding Yakima River	I–C
Yakima River	I–D
Snake River:	
Below Weiser, Idaho	I–E
Weiser to King Hill, Idaho	I–F
King Hill to American Falls, Idaho	I–G
Above American Falls	I–H
SOUTH PACIFIC COAST:	
Klamath River	II–A
Klamath River to Santa Maria River excluding Central Valley	II–B
Central Valley:	
Sacramento-San Joaquin Delta area	II–C
Sacramento River	II–D
San Joaquin River	II–E
San Joaquin Valley above San Joaquin River	II–F
Santa Maria River and south	II–G
GREAT BASIN:	
Northwest Great Basin	III–A
Humboldt River	III–B
South Central Great Basin	III–C
Bonneville Basin excluding Bear River	III–D
Bear River	III–E
GULF OF CALIFORNIA:	
Excluding Colorado River	IV–A
Colorado River:	
Colorado River below Lees Ferry, Ariz.:	
Excluding Gila River	IV–B
Gila River	IV–C
Colorado River above Lees Ferry:	
Excluding Green and Gunnison Rivers	IV–D
Green River	IV–E
Gunnison River	IV–F
GULF OF MEXICO EXCLUDING MISSISSIPPI RIVER:	
Excluding Rio Grande and Mermentau River	V–A
Rio Grande:	
Rio Grande below Fort Quitman, Tex	V–B
Rio Grande above Fort Quitman	V–C
Mermentau River	V–D
MISSISSIPPI RIVER:	
Excluding Arkansas and Missouri Rivers	VI–A
Arkansas River	VI–B
Missouri River: Below Three Forks, Mont., excluding Platte and Yellowstone Rivers	VI–C
Platte River:	
Excluding South Platte River	VI–D
South Platte River	VI–E
Yellowstone River:	
Excluding Big Horn River	VI–F
Big Horn River	VI–G
Missouri River headwaters above Three Forks, Mont.	VI–H
HUDSON BAY (Red River of the North)	VII
ATLANTIC COAST (Florida)	VIII

Completeness of enumeration.—The listing of all irrigation enterprises reported for farms on the questionnaires for the census of agriculture and the follow-up procedure to insure that irrigation enterprise reports were obtained for all such enterprises insured practically complete coverage of all irrigation enterprises. In some areas, particularly in the Great Plains region where only a few farms reported small acreages of irrigated land, irrigation enterprise reports were not obtained because of the difficulties of training enumerators to prepare such reports where so few enterprises existed. In these cases, the reports for farms and acreages irrigated are included in the census of agriculture but not in the census of irrigation. However, the total number of irrigation enterprises not included and the total acreage irrigated by them are negligible in their effect on State totals.

Accuracy of the statistics.—By means of the reconciliation during the enumeration of the acreages irrigated as reported by irrigation enterprises with those reported by farms, the overestimation of acreage irrigated by some enterprises, and duplication in the counting of the same acreage irrigated by two or more enterprises, have been more fully eliminated than in previous censuses. For all of the 20 States, the acreage of irrigated land reported by irrigation enterprises was about 2½ percent more than that reported by farms. Differences of that amount in the total figures may be attributed largely to the fact that, in some areas, farmers tended to under-report acreage of irrigated land, and in some cases, through misunderstanding, reported only irrigated cropland, omitting irrigated pasture. With the exception of South Dakota and Oklahoma, the acreages for individual States as reported by farms and by irrigation enterprises differ by less than 5 percent. In both South Dakota and Oklahoma, the differences in the figures are the result of incompleteness of the enumeration for the census of agriculture.

For most counties, the acreages irrigated as reported by irrigation enterprises and those reported by farms differed by 10 percent or less. For most of the counties in which the difference was greater than 10 percent, the variation was chiefly the result of difference in method used by the census of agriculture and the census of irrigation in tabulating irrigated land reported by a farm with land located in two or more counties. In the census of agriculture, all of the land in such a farm was tabulated in the county in which the headquarters of the farm was located;

in the census of irrigation, the land was usually tabulated in the county in which it was located.

Data obtained for United States Bureau of Reclamation projects, which supplied all or part of the water for nearly 20 percent of the total irrigated acreage in the 17 Western States, were checked for accuracy by representatives of the Washington office of the Bureau of Reclamation.

The reports for the larger storage reservoirs were compared with those in published lists of water-storage reservoirs in the United States in order to insure completeness and accuracy.

Information for all items appears to have been completely reported, with the exception of pumping lift of pumped wells and season of irrigation, on both the I–1 and I–2 questionnaires, and of measurement of water and quantities of water on the I–2 questionnaire. The data shown for pumping lift, season of irrigation, measurement of water, and quantities of water are for only the enterprises that reported, not for all enterprises.

Comparability with prior censuses.—The 1950 Census of Irrigation shows a decrease of about 9 percent in irrigated land in Colorado, and small decreases in Idaho, Nevada, Utah, and Wyoming, as compared with 1940. This decrease was not actual, because it is the result of differences in the method of processing the questionnaires for the 1950 and the 1940 censuses. Overestimation and duplication of irrigated acreage were more fully eliminated during office processing in the 1950 than in the 1940 census. If procedures similar to those used in 1950 had been used in 1940, the 1939 acreages shown for those States would have been less, and increases in acreage from 1939 to 1949, instead of decreases, would have been shown. The increases between 1940 and 1950 shown for other States would have been somewhat greater if the office processing in 1940 had been the same as in 1950.

Lack of comparability of data from the 1950 census and similar data from prior censuses for certain other items is indicated in connection with the definitions and explanations of the items, or in the footnotes for the tables.

DEFINITIONS AND EXPLANATIONS

Irrigation Data From the 1950 Census of Agriculture

Irrigated land is land to which water is applied by artificial means for agricultural purposes. Only land actually irrigated in 1949 is included. Land in irrigated farms that was used for purposes such as roads and farmsteads, to which irrigation water was not applied, is excluded.

Irrigated farms are farms in which 1 acre or more of land was irrigated in 1949. Places containing 3 or more acres that produced agricultural products valued at $150 or more in 1949, and places containing less than 3 acres with sales of agricultural products of $150 or more in 1949, are counted as farms.

Wholly irrigated farms are farms that reported 1 acre or more of cropland harvested in 1949 and on which *all* of the cropland harvested was irrigated. All, part, or none of the other land in the farm may have been irrigated.

Partly irrigated farms are all farms other than "wholly irrigated farms" with 1 acre or more of irrigated land in 1949.

Land irrigated by sprinklers is land to which water was applied, under pressure, from stationary or revolving sprinklers, or from perforated pipes, either overhead or on the surface of the ground, in 1949. Land for which sprinkler irrigation equipment was available, but which was not irrigated by sprinklers in 1949, is not included.

Irrigated wild grass pasture is irrigated pasture consisting predominantly of original stands of grasses native to the locality or reestablished stands of such grasses.

Irrigated tame grass pasture is irrigated pasture consisting predominantly of grasses not native or wild in the locality, and of alfalfa and clovers.

Value of land and buildings.—In County Table 1 the average value of land and buildings per farm and per acre for all irrigated farms and the average value of land and buildings per farm for wholly irrigated and for nonirrigated farms are shown. These average values are based on reports from a 20 percent sample of the farms plus reports from all farms classed as "large farms."

The value of land and buildings for irrigated farms in a county was computed by multiplying by 5 the values reported for sample farms that were irrigated, and adding to the amount thus obtained, the values reported for irrigated "large farms." The number of irrigated farms, and acreage of land represented by this figure, were computed in the same way. Similar calculations were made for the value of land and buildings for wholly irrigated and for nonirrigated farms.

The computed number of irrigated farms and acreage of land for which value of land and buildings is reported may be more or less than the actual number of irrigated farms and the actual acreage of land in irrigated farms. For example, if there were 100 irrigated farms in a county, but 21 of them were included in the sample for which value of land and buildings was reported, the computed number of irrigated farms for which value was reported would be 105, or 105 percent of the actual number of irrigated farms.

For any county, the value of land and buildings based on the sample may differ considerably from the value that would have been secured if the value had been obtained for all irrigated, wholly irrigated, or nonirrigated farms. The following tabulation may be used as a guide as to the reliability of the data for average value of land and buildings per acre and per farm for varying numbers of farms:

If the total number of farms is—	*The chances are about 2 in 3 that the estimated value of land and buildings would differ from the results of a complete tabulation for all farms by less than—*
50	35 percent
100	26 percent
500	11 percent
1,000	8 percent
5,000	7 percent
10,000	5 percent
50,000	2 percent
100,000	1.5 percent

Other data from agriculture questionnaires.—For definitions and explanations of other terms used in connection with the data from the census of agriculture, see pages IX to XX of the Introduction to Volume I, Counties and State Economic Areas, United States Census of Agriculture, 1950.

1950 Census of Irrigation

Irrigation enterprise.—An irrigation enterprise is a business, either private or public, that operates irrigation works to supply water for irrigation. Thus, an individual farm, a cooperative arrangement of two or more farmers, or a commercial company, irrigation district, or any other organization that operates irrigation supply works, is an irrigation enterprise. Enterprises that delivered no water in 1949 because of water shortage or other reasons were included if they were going concerns that normally do deliver water for irrigation. New irrigation enterprises with construction of works not fully completed were included if water from the part of the works completed was delivered, or was available for delivery, for irrigation in 1949.

Complete system enterprises are those that are practically independent of other enterprises in the obtaining and delivering of

irrigation water. Enterprises that obtained from, or delivered to, other enterprises less than 10 percent of their water in 1949 are designated "complete system" enterprises.

Acreage irrigated.—The acreage irrigated by an enterprise is the acreage of farm land irrigated in 1949 with water delivered directly to farms by the enterprise. It does not include the acreage irrigated with water which one enterprise delivered to another enterprise and which the other enterprise delivered to farms. In "acreage irrigated direct," as used in this report, the acres of land that were irrigated with water delivered directly to the farm by two or more different irrigation enterprises are counted for each enterprise. The total of "acreage irrigated direct" therefore is sometimes greater than the total acreage of irrigated land.

Acreage irrigated, like acreage of irrigated land in the census of agriculture, is the net acreage of farm land to which water was actually applied in 1949. It does not include land that could be irrigated, or that usually is irrigated, but was not irrigated during 1949. Land in irrigated farms used for purposes such as roads and farmsteads, to which water was not applied, is excluded. Also excluded is irrigated land used for purposes other than farming, such as land in rural residential areas, cemeteries, parks, and golf courses.

Acreage irrigated includes land on which water was applied to the surface of the ground and land on which water was applied beneath the surface by subirrigation. Land flooded during high-water periods was classed as irrigated only if water was purposely applied to the land for agricultural purposes by dams, canals, or other works. Regulation of the "water table" of land by drainage works was not considered as irrigation.

Primary and supplemental irrigation.—In many cases land receives irrigation water from two or more irrigation enterprises. The acreage of such land is counted as "acreage irrigated direct" for each of the irrigation enterprises. To avoid counting this acreage more than once as irrigated land, it is designated "primary" irrigation for one of the enterprises and "supplemental" irrigation for the other enterprises. The terms "primary" and "supplemental" are used only to distinguish between water supplied directly to land by one irrigation enterprise and additional water supplied directly to the same land by other enterprises. Selection of the enterprise for which the water is designated as "primary" was entirely arbitrary and does not necessarily indicate the largest supply of water or the earliest supply. Hence, as used here, "supplemental" water does not mean water obtained by one irrigation enterprise from another irrigation enterprise to supplement its own supply—a rather common usage of the term. Such water is referred to as "water obtained from other enterprises."

Acreage of irrigated land is the acreage of land receiving primary irrigation.

Number of farms irrigated.—Places of 3 acres or more, and places of less than 3 acres that produced $150 worth or more of farm products for sale in 1949 were considered as farms in preparing reports for the census of irrigation.

Farms that received water from two or more irrigation enterprises are counted for each enterprise in the census of irrigation. For most areas, therefore, the number of "farms irrigated direct" exceeds the number of irrigated farms in the area.

Many irrigation enterprises have no record of number of farms irrigated, but only of the number of parcels of land or the number of stockholders. In such cases, only estimates of the number of farms were obtained. These estimates sometimes were too high because the number of parcels of land or the number of stockholders usually exceeds the number of farms. When information obtained in the investigation of discrepancies in irrigated acreage reported for the census of irrigation and for the census of agriculture indicated that the number of farms reported as receiving water from an enterprise was more nearly correct than the number of farms estimated by the enterprise, the former was substituted for the latter during the processing in the Washington office.

For some States, particularly Arizona and New Mexico, the number of irrigated farms counted for irrigation enterprises considerably exceeds the number of irrigated farms counted in the census of agriculture, largely because on the irrigation questionnaire the individual Indian allotments were reported as "farms" whereas in the census of agriculture the entire reservation, or an administrative unit of a reservation, was reported as a single farm.

Type of enterprise.—The types of enterprises under which data are classified are as follows:

Single-farm enterprises are farms that individually operate irrigation supply works or equipment to obtain their own irrigation water. Single-farm enterprises may also supply water to one or more neighboring farms.

Single-farm enterprises in the 1950 census are reasonably comparable with those designated "Individual and partnership" in the 1940 census. Most of the enterprises designated "Partnership" in 1940 were classified "Unincorporated mutual" in 1950, but these comprised only a very small proportion of the total "Individual and partnership" group.

For many counties, the number of single-farm enterprises does not agree with the total number of farms reporting water obtained by means of their own individually operated irrigation supply works. Reasons for this difference are as follows: (1) In the census of agriculture, a farm extending into two or more counties was counted only in the county in which its headquarters was located, but in the census of irrigation the single-farm irrigation enterprise was counted in each county in which any part of its irrigation works or irrigated land was located; (2) if a farm had irrigation supply works that were not used during 1949, the works were reported as an irrigation enterprise but the farm was not reported as irrigated; (3) in some cases, tracts of land enumerated as separate farms were combined as single farms during the office processing for the census of agriculture, but it was not feasible to make corresponding changes in the census of irrigation; (4) in other cases, corrections were made in the census of irrigation figures for errors in reporting how farms obtained irrigation water, but it was not feasible to make corresponding changes in the census of agriculture; and (5) irrigation questionnaires were not obtained in some areas where only a few farms reported small acreages of irrigated land.

Mutual, or cooperative, enterprises are those controlled and operated by two or more water users primarily to supply water to their own farms, with the exception of "District" enterprises that are organized under special State laws. If 50 percent or more of the acreage irrigated was not in the farms of the water users that controlled and operated the enterprise, the enterprise was classified as "commercial." Mutual enterprises include the operation of irrigation supply works or equipment by two or more farms in "partnership"; by groups of water users informally associated under verbal or written agreements; by mutual irrigation companies or water companies; by water-user associations; by "lateral" companies; and by the community ditches or "acequias" in the Southwest that were organized originally in accordance with old Spanish, Mexican, or Indian customs. Mutual enterprises may be either *unincorporated* or *incorporated*.

Large increases in number of unincorporated mutual enterprises from 1940 to 1950 are shown for several States. These increases resulted more from the classification as "mutual" in 1950 of enterprises that were classified as "partnership" in 1940, and more nearly complete enumeration of small mutual enterprises in the 1950 census, than to the actual increase in number of unincorporated mutual enterprises during the decade.

District enterprises are public corporations established under special State laws. Included are irrigation districts, and also other types of districts such as water-improvement, water-conservation, and reclamation, which, in some States, are authorized in addition to irrigation districts, and in other States in lieu of them. Reclamation districts, organized under State laws, should not be confused with United States Bureau of Reclamation projects.

Commercial enterprises are privately operated enterprises (by individuals, partnerships, or corporations) with more than 50 percent of the acreage irrigated in farms of water users that do not share in the control and operation of the enterprise. In some cases commercial enterprises are public utilities regulated by a State commission or by the governing board of a county.

United States Bureau of Reclamation enterprises are those operated by the United States Bureau of Reclamation. If the operation of works constructed by the Bureau of Reclamation had been transferred entirely to a water-user organization, the enterprise was classified according to the type of water-user organization, such as "District" or "Mutual." If part of the works of an irrigation project was operated by the Bureau of Reclamation, and part by a water-user organization, the parts operated by each were reported as separate enterprises.

In State Table 3, data for United States Bureau of Reclamation projects operated by water users, and also for enterprises that received water from projects operated by the Bureau of Reclamation, are shown separately and are also included with specific types in which the enterprises are classified. The purpose of presenting these data separately is to give as nearly as possible complete information for all irrigation enterprises that received all or part of their water, directly or indirectly, from Bureau of Reclamation projects.

Single-farm enterprises, and small enterprises of other types in some States, particularly in Idaho and Utah, were not included in the separate tabulation of enterprises that received water from Bureau of Reclamation projects, because the merging of water from the Bureau projects with water from other sources made complete reporting of such enterprises impossible. Consequently, for most States the Census figures for the total acreage irrigated directly or indirectly with water from Bureau of Reclamation projects are somewhat less than shown by reports of the Bureau of Reclamation. Other reasons for differences between the figures published by the Bureau of Reclamation and those in this report are (1) the acreage for a few enterprises that received very small quantities of water from Bureau of Reclamation projects in 1949 is included in the Bureau of Reclamation figures but not in the Census figures, and (2) the Census figures do not include irrigated acreage for rural residential areas and other nonfarm uses. For the entire 17 Western States, the Census figures differ by less than 10 percent from those published by the Bureau of Reclamation.

United States Bureau of Indian Affairs enterprises are those operated by the United States Bureau of Indian Affairs. Irrigation works constructed by the Bureau of Indian Affairs but operated in 1949 by individual farms are counted as single-farm enterprises; in 1940 they were counted as Bureau of Indian Affairs enterprises.

State enterprises are those operated by a State agency of any kind.

City enterprises are those operated by a city or town, usually in combination with supply of domestic water. City enterprises supplying water for irrigation of less than 100 acres of farm land were not included.

Irrigation supply works and equipment.—Irrigation supply works and equipment are the dams, canals, ditches, pipelines, tunnels, reservoirs, wells, pumps, and motors that are used to obtain or store irrigation water and to convey it to one or more farms or to other irrigation enterprises. Supply works do not include the ditches and pipelines used to distribute and apply the water on the farms. Ditches or pipelines, less than 1 mile in length, operated by individual farms to bring water to the farm from an irrigation enterprise not operated by the farm individually were considered to be distribution works and were not counted as supply works. Only irrigation supply works and equipment were reported on the irrigation questionnaires, not the distribution works and equipment on farms.

If a single item of works or equipment, such as a dam or a pump, was used for other purposes such as drainage, power, or municipal water supply as well as for irrigation, it was counted as irrigation works if 50 percent or more of its usage was for irrigation purposes. If multiple items, such as several dams or pumps, or divisible items, such as miles of canals, were used for other purposes, only the part proportional to the amount of use for irrigation was counted as irrigation works.

Works and equipment that were used jointly by two or more enterprises were divided between the enterprises proportionately according to use, if the items were divisible. In cases of single items used jointly, the item was counted only for the enterprise with largest proportion of use, or, in cases of equal use, for the largest enterprise.

Diversion dams.—A diversion dam is an obstruction placed in a natural stream in order to divert the water into a ditch, or to form a pool of water for pumping. On farms where water was obtained by diverting it by gravity from a stream on the place, any means used to divert the water was reported as a diversion dam, even if the means consisted only of making an opening in the bank of the stream with a shovel. In some cases such a "division dam" was the only irrigation "supply works" operated by a single-farm enterprise. Diversion dams as reported in the 1950 census, therefore, vary from extremely simple to large, permanent, concrete structures.

Reservoirs.—Only storage reservoirs used to store irrigation water for use later in the season or in a subsequent year were counted. Reservoirs used merely to regulate the flow of water, and "overnight ponds" used to accumulate a flow of water during the night for use during the day, were not included. In the 1940 census all reservoirs capable of storing one-half acre-foot or more of water were reported, thus including some small reservoirs that are not included as "storage" reservoirs for 1950.

Reservoir dams.—Reservoir dams are structures built to form reservoirs. A reservoir dam and the material of which it was constructed was reported for each reservoir. In the 1940 census, dams used to form reservoirs were called "storage dams," and dams were not reported for small reservoirs used as "overnight ponds."

Pumping lift.—Pumping lift of pumped wells is the vertical distance in feet, from the average water level in the well, when the pump is operated, to the highest point to which the water is pumped. It was apparent in some cases that the respondents reported the depth of the well instead of pumping lift. All such cases of reporting detected during the office processing were omitted from the tabulation of pumping lifts.

Multiple-purpose enterprises.—Multiple-purpose enterprises are those with functions other than that of supplying irrigation water, such as drainage of land, power development, flood control, or supplying water for domestic use. Many of the larger irrigation projects are multiple-purpose enterprises, and most of the "city" enterprises are multiple-purpose because they supply water for domestic use in addition to use for irrigation.

Sources of water.—Sources from which water was obtained were classified on the questionnaires as natural streams, natural lakes, springs, flowing wells, pumped wells, drainage water, sewage, and "any other source." Since the actual sources of supply for practically all water obtained from lakes is the streams that feed the lakes, the enterprises reporting lakes as a source, and the acreages irrigated with water from lakes, have been combined in the tables with the corresponding items for water obtained from streams. Flowing or artesian wells were counted as pumped wells if they were pumped at any time during 1949. Drainage water is drainage, seepage, or return-flow water from ditches or other drainage channels, but not drainage water that has returned to a stream or other natural source of water.

For an enterprise that received water from more than one source, information was not obtained as to the portions of the acreage irrigated direct receiving water from each source, because in most cases the water from the different sources was merged. For such an enterprise, therefore, the entire acreage irrigated direct is counted for each source of water reported. In some cases this results in an overstatement of the acreage for sources from which only a small part of the water was obtained. For example, for an enterprise that obtained 95 percent of its water from streams, and only 5 percent from flowing wells, the entire acreage is included for both streams and flowing wells as sources.

Stored water.—Stored water is water that is held in a reservoir to make it available for future use when needed. It does not include stream flow that merely passes through a reservoir.

Capital investment.—"New capital investment" is the amount spent by an irrigation enterprise from January 1, 1940, to December 31, 1949, for original purchase, new construction, enlargement,

or new improvements of irrigation works, or for acquiring water rights. It does not include expenditures for repairs or replacements, nor payments for works constructed prior to 1940. For works used for other purposes such as municipal water supply, hydroelectric power, or drainage in addition to use for irrigation, only the estimated part of the investment cost chargeable to irrigation is included. For new irrigation enterprises that were included in the census because they delivered irrigation water in 1949 but that still had irrigation works under construction, the amount spent on both the completed and uncompleted parts of the works from January 1, 1940, to December 31, 1949, was included. New capital investment for enterprises not yet in operation in 1949 was not included.

Total capital investment in 1950 was computed by adding the "new capital investment" to the total capital investment reported in the 1940 Census of Irrigation. In State Table 3, in which data by types of enterprises are presented, if an enterprise was a different type in 1950 from what it was in 1940, i. e., a "Commercial" enterprise reorganized as a "District," its capital investment prior to 1940 is included in total capital investment for the type that the enterprise was in 1940, and only the "new capital investment" is included in total capital investment for the type that the enterprise was in 1950. Hence, for "District" and "Mutual" enterprises that in 1950 were operating irrigation works reported as Bureau of Reclamation enterprises in 1940, the capital investment for such works is included in State Table 3 in the total capital investment for Bureau of Reclamation enterprises and not in that for "District" or "Mutual."

For intercounty and interdrainage basin enterprises in the 1950 census, the new capital investment was tabulated for the county or drainage basin in which the investment was made. In the 1940 census, total capital investment for such enterprises was allocated to the counties and drainage basins in which the irrigated land was located. Hence, in some cases, when the location of the irrigation works and the location of irrigated land was different, the figures for total capital investment in 1950 by counties or by drainage basins are not comparable with the corresponding figure for total capital investment in 1940. In such cases, combinations should be made of the figures to obtain data for a comparable area before comparisons are made. The average new capital investment per acre of irrigated land is unusually high in some counties and drainage basins because land irrigated with water from the works for which the new investment was made was located in other counties or drainage basins, or because all of the land eventually to be irrigated was not irrigated in 1949.

Indebtedness.—Indebtedness represents the total indebtedness of an irrigation enterprise in outstanding bonds, notes, or balance payable on construction or purchase cost as of January 1, 1950. This item was not obtained for single-farm enterprises.

Only indebtedness for expenditures made prior to January 1, 1950, is included. Indebtedness assumed in a few cases for works to be constructed after that date is not included.

For enterprises that extended into two or more counties or drainage basins, indebtedness was prorated among the counties or drainage basins proportionately to acreage irrigated direct, with the exception of two Bureau of Reclamation projects (the Columbia Basin project in Washington and the Central Valley project in California) that were only partly completed at the time of the census. For the Columbia Basin project, indebtedness assumed, or to be assumed, by the water users for investment as of January 1, 1950, was divided proportionately to the acreage of lands expected to be irrigated. For the Central Valley project, such indebtedness was divided in the same way as the capital investment, because data on acreages to be irrigated were not available.

Arrearage on indebtedness is the amount that the enterprise was in arrears in payment of principal or interest on indebtedness as of January 1, 1950. For intercounty and interdrainage basin enterprises, this arrearage was prorated proportionately to acreage irrigated direct. This item was not obtained for single-farm enterprises.

Arrearage in payments is the amount that the water users were in arrears as of January 1, 1950, for any payments owed by them to an irrigation enterprise. This item was not obtained for single-farm enterprises.

Irrigated land artificially drained.—Irrigated land artificially drained is the acreage of land irrigated in 1949 for which drainage had been provided by artificial means, such as drainage ditches, tile, or pumped drainage wells. In the 1940 Irrigation Census, the acreage of all land for which artificial drainage had been provided by an irrigation enterprise was reported as land artifically drained, instead of only the acreage of irrigated land that had been drained. In this report, for counties in which the reported acreage of land drained in 1940 exceeded the acreage irrigated, the 1940 acreage of land drained has been reduced to equal the acreage irrigated, in order to make the 1950 and 1940 acreages of land drained more nearly comparable. Corresponding adjustments have been made in the drainage basin and State total figures for land drained.

Irrigated land in need of drainage.—Irrigated land in need of drainage is the acreage of land irrigated in 1949 that was reported as needing artificial drainage, including land already artificially drained if it was in need of additional drainage. Adjustments in the 1940 acreages of land in need of drainage similar to those described above for the 1940 acreages of irrigated land artifically drained have been made.

Cost of water to farms.—For single-farm enterprises, cost of water to the farm or farms that received water is the sum of the following four items that were reported for the year 1949: (1) Cost of electricity used for pumping for irrigation; (2) cost of fuel and oil used for pumping for irrigation; (3) cost of repairs, maintenance, and replacements for irrigation supply works and equipment (including the estimated value at prevailing wage rates of any work done by the farm operator in repair or maintenance); and (4) payments made for water obtained from another irrigation enterprise and delivered to the land in the farm by means of the irrigation supply works operated by the farm.

For all enterprises other than single-farm enterprises, cost of water to farms is the amount of the payments for irrigation water made by farms to the enterprises in 1949. Included are all kinds of payments such as assessments per acre or per share of stock, water tolls, construction payments, bond and interest payments, and payments for operation and maintenance. If farmers performed maintenance or repair work on the irrigation works or equipment in lieu of payments to the enterprise, the estimated value of such work is included.

In some cases, a farm obtains water from two or more enterprises but the water from all of the enterprises is delivered directly to the farm by only one of the enterprises. In some of these cases, all payments for the water are made to the enterprise that delivers the water directly; in others, the farm makes separate payments to each of the enterprises involved. In the census of irrigation, all payments for water delivered directly to farms by an enterprise were reported on the questionnaire for that enterprise, including any payments made by farms to other enterprises that supplied water to the enterprise making the delivery direct. This procedure minimized the possibility of duplication in reporting payments for water. "Cost of water to farms" thus represents the total cost to the farms for the water which an enterprise delivered directly to the farms, and does not include payments that an enterprise may have received directly or indirectly for water which it delivered to other enterprises. Hence, no cost of water to farms is reported for enterprises that delivered all of their water to other enterprises, with the exception of a few "water-spreading" or ground-water re-

plenishment enterprises. (These enterprises put water into the ground, and it is then pumped by all of the enterprises in the area served.) Payment for the water in the case of ground-water replenishment enterprises is obtained by a tax levied on all of the irrigated land that is benefited. Because it was impracticable, in these cases, to apportion the cost of the water to all the enterprises involved, the total amount of the tax collected in 1949 was reported as "cost of water to farms" on the questionnaires of the "water-spreading" enterprises even though no land was irrigated direct.

For some areas with a small number of enterprises, unusually high repair expense incurred by one or more single-farm enterprises resulted in abnormally high cost of water for the area. Many single-farm enterprises with gravity diversions from streams, especially those where the diversion was from a stream on the farm, reported no maintenance or repair work for 1949 and therefore had no cost for obtaining irrigation water.

Payments other than for operation and maintenance is that part of the total payments for water for purposes such as construction or purchase cost, bonds and interest, or sinking fund. This item was not obtained for single-farm enterprises.

In 1949, payments for purposes other than operation and maintenance were unusually high for some enterprises, because the enterprises took advantage of the unusually good income of farmers to collect larger than usual payments for the purpose of reducing indebtedness or making improvements.

Measurement of water to farms.—Measurement of water to farms means the use of any measuring device such as a weir, or meter, or calibration of a pump, to measure the water delivered to each individual farm.

Quantity of water.—Quantities of water are reported in the tables in acre-feet. An acre-foot is the quantity sufficient to cover 1 acre to a depth of 1 foot, or 43,560 cubic feet. Quantities of water reported on the questionnaires in units other than acre-feet were converted to acre-feet. Quantities of water obtained and used were not reported by single-farm enterprises. For enterprises that operated storage reservoirs, the quantity of water obtained represents the quantities withdrawn from and not the quantities diverted into, reservoirs in 1949.

A calculated average quantity of water per acre for the total irrigated land, primary and supplemental irrigation combined, is given in County Table 2 and in Drainage Basin Table 1. This figure was calculated by multiplying the total acres of primary irrigation and of supplemental irrigation by the average quantities of water per acre reported for each (by the enterprises that reported quantity of water) and dividing the total quantity of water thus calculated for all irrigated land by the total acres of irrigated land.

Drainage basin.—A drainage basin is the area of land from which water flows into a given stream, lake, or other body of water, or into a natural depression. Drainage basins from which water does not flow into streams that lead to the ocean are termed "independent basins."

With a few exceptions, the data have been tabulated separately in the 1950 census only for drainage basins in which 5,000 acres or more of irrigated land was reported for 1949, thus eliminating a number of drainage basins with smaller acreages of irrigated land, shown for the 1940 census. However, a number of basins with large acreages shown as single basins in the 1940 census have been subdivided into two or more basins for the 1950 census.

A number of changes were made for 1950 in the drainage basin boundaries used in 1940, in order to conform more closely with drainage basin boundaries used by other Government agencies and with stream-gaging stations. Acreages of irrigated land within the revised drainage basin boundaries were estimated for 1940 from the 1940 maps showing location of irrigated land. These estimated figures are given in Drainage Basin Table 1. Revised 1940 data for other items are not available for the basins with changed boundaries.

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SUMMARY OF THE STATISTICS

This summary deals with data pertaining to irrigated farms and irrigated land in farms obtained in the 1950 and previous censuses of agriculture, and with data pertaining to irrigation enterprises and use of irrigation water obtained in the 1950 and previous censuses of irrigation.

The purpose of compilation of irrigation statistics is to provide information for the use of Federal and State agencies, educational institutions, and private businesses and individuals interested in agricultural production and irrigation development. Irrigation farming forms a major part of the agricultural economy of the western half of the United States and an important part of our total agriculture. Statistics relating to irrigation, therefore, provide useful knowledge about agriculture and provide a basis for the planning and guiding of agricultural production. Such statistics furnish assistance in the wise planning of further irrigation developments in which large additional amounts of both public and private money are still being invested.

IRRIGATED FARMS AND LAND

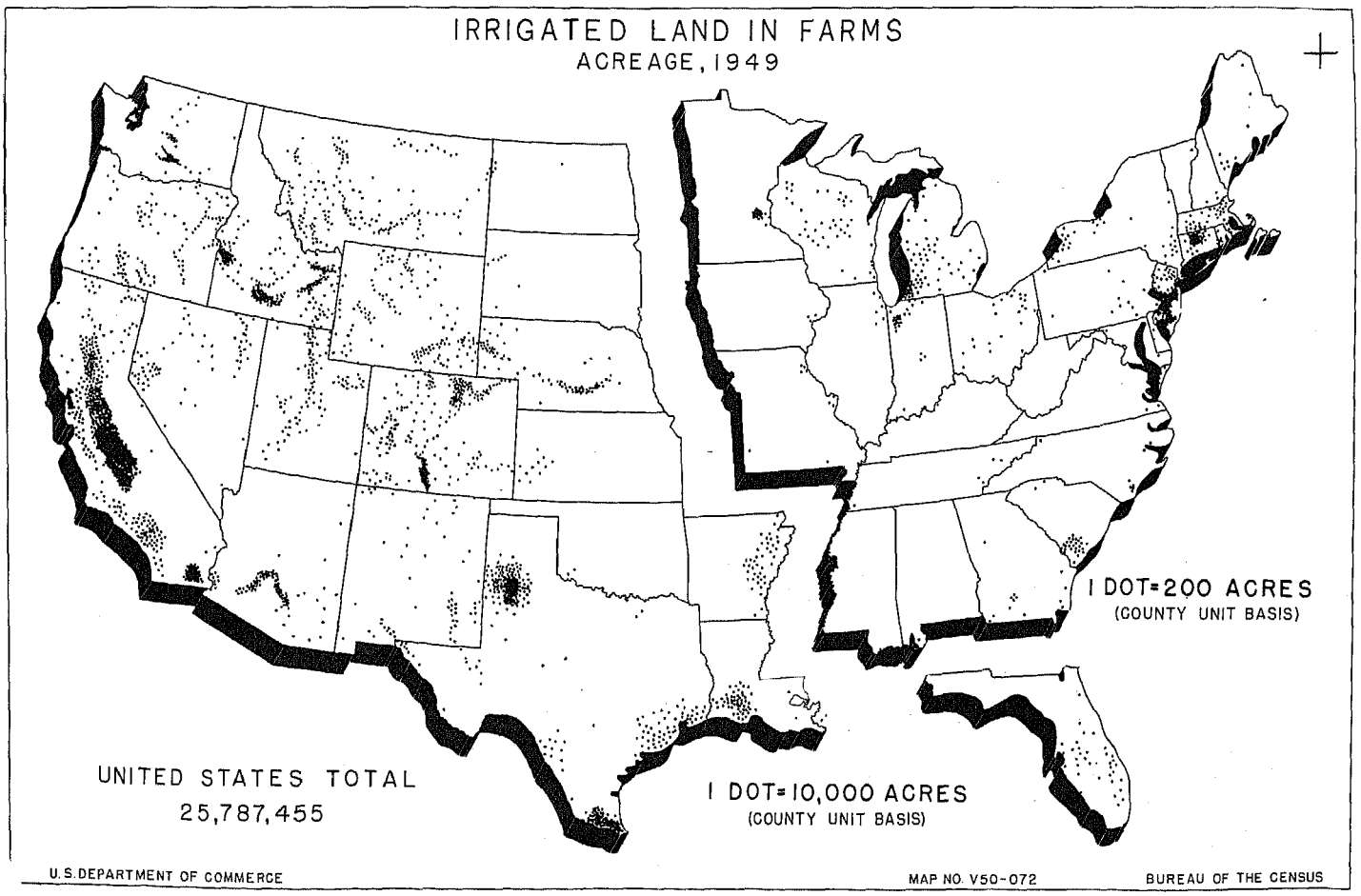
A total of 305,061 farms in the United States reported land irrigated in 1949, according to the 1950 Census of Agriculture. In 1944, irrigated land was reported for 288,195 farms, and in 1939, there were 299,604 farms with irrigated cropland harvested and/or irrigated pasture. The smaller number of farms reporting irrigated land in 1944, as compared with 1939, was probably the result of incomplete reporting rather than an actual decrease in number of irrigated farms.

For the United States, the number of irrigated farms increased approximately 2 percent from 1939 to 1949. For the 17 Western States, the number decreased from 283,089 to 281,476, or approximately 1 percent. In Arkansas and Louisiana, where irrigation is chiefly for rice-growing, the number increased from 8,566 to 10,498, or 23 percent; in Florida, from 3,947 to 6,075, or 54 percent; and in the remaining 28 States, from 4,002 to 7,012, or 75 percent.

Irrigated land was reported in 1949 for farms in all of the 48 States. The total acreage of irrigated land in farms for 1949, according to the 1950 Census of Agriculture, was 25,787,455 acres.

The acreage of irrigated land reported for irrigation enterprises in the 17 Western States, and Arkansas, Louisiana, and Florida was 26,233,215 acres, according to the 1950 Census of Irrigation. (Irrigation enterprises are the companies, districts, and other organizations that supply water for irrigation, and farms that operate their own individual irrigation supply works.) The corresponding figure according to the 1950 Census of Agriculture for these 20 States was 25,634,869 acres. The difference between these figures, 2.3 percent, is largely the result of the incompleteness of the coverage of the census of agriculture and the under-reporting of irrigated land by farmers. In some cases, farmers through misunderstanding, reported only irrigated cropland, omitting irrigated pasture.

A comparison of total acreages of irrigated land, as reported in the censuses of agriculture and of irrigation from 1890 to 1950, is shown in the accompanying chart. Although the figures for censuses prior to 1940 (with the exception of the special irrigation census of 1902) are for only the 17 Western States and Arkansas and Louisiana, they undoubtedly represent more than 99 percent of the total irrigated land in farms for the United States, since in the 1940 Census of Agriculture the acreage reported for the other 29 States amounted to less than 1 percent of the total.

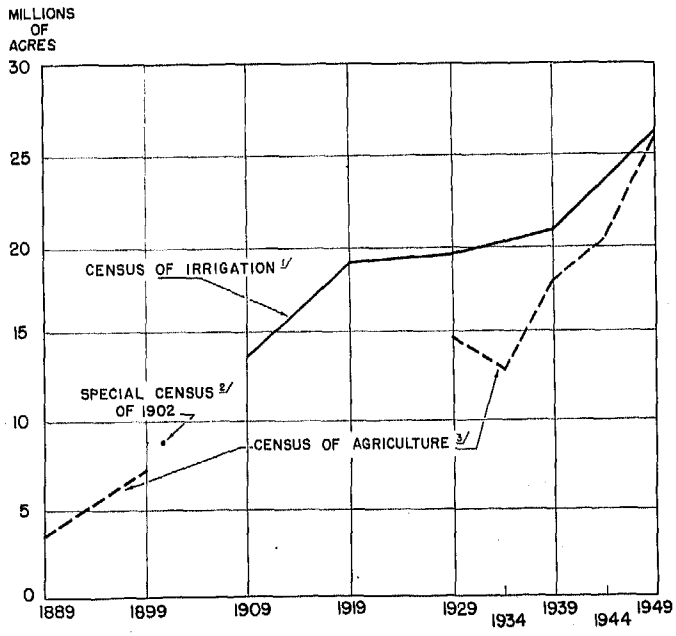


For the years 1929 and 1939, the large differences between the acreages reported in the census of irrigation and in the census of agriculture may be explained by: (1) The overestimation and duplication of irrigated acreage as reported for irrigation enterprises; (2) the under-reporting of irrigated acreage in farms; and (3) the limitation of the acreage reported for the 1940 Census of Agriculture to irrigated cropland harvested plus irrigated pasture, and for the 1930 Census of Agriculture, to irrigated cropland harvested. The acreage for the 1935 Census of Agriculture was limited to irrigated crops and the acreage may have been incompletely reported.

The irrigated land in farms as reported for the 1950 Census of Agriculture was distributed as follows: In the 17 Western States, 94.1 percent; in Arkansas and Louisiana, 3.9 percent; in Florida, 1.4 percent; and in the other 28 States, 0.6 percent. California had the largest area, with 6.4 million acres, or 25 percent of the total for the United States; Texas was second with 3.1 million acres; and Colorado, third with 2.9 million acres. Among the 28 States other than the 17 Western States and Arkansas, Louisiana, and Florida, New Jersey was first, with 28,117 acres; New York, second, with 19,248 acres; and Massachusetts, third, with 18,507 acres.

The 25.8 million acres of irrigated land in farms in the United States reported for the 1950 Census of Agriculture was an increase of 43 percent over the 18.0 million acres of irrigated cropland harvested plus irrigated pasture reported for the 1940 Census. Increases were reported for every State except Iowa, Nevada, and West Virginia. The largest increase, from 0.9 to 3.1 million acres, was in Texas; the second largest, from 4.3 to 6.4 million acres, was in California; and the third largest, from 2.5 to 2.9 million acres, was in Colorado. Excluding States in which less than 1,000 acres of irrigated land were reported for 1939, the largest proportionate increase was in Massachusetts, from 2,049 to 18,507 acres; the second largest, in Oklahoma, from 4,437 to 34,071 acres; and the third largest, in Michigan, from 2,960 to 13,901 acres.

ACREAGE OF IRRIGATED LAND IN THE UNITED STATES: 1889 TO 1949



1/ TOTAL IRRIGATED LAND IN FARMS. FOR 1909, 1919, AND 1929, IRRIGATION CENSUS INCLUDED THE 17 WESTERN STATES AND ARKANSAS AND LOUISIANA; FOR 1939 AND 1949, FLORIDA ALSO INCLUDED.

2/ TOTAL IRRIGATED LAND, ALL STATES.

3/ FOR 1889 AND 1899, CENSUS TOTAL FOR IRRIGATED LAND IN FARMS INCLUDED THE 17 WESTERN STATES, ARKANSAS AND LOUISIANA; FOR 1929, IRRIGATED LAND FROM WHICH CROPS WERE HARVESTED, SAME 19 STATES; FOR 1934, IRRIGATED CROPS, SAME 19 STATES; FOR 1939, IRRIGATED CROPLAND HARVESTED PLUS IRRIGATED PASTURE, 48 STATES; FOR 1944 AND 1949, TOTAL IRRIGATED LAND 48 STATES. DATA FOR 1909 AND 1919 NOT AVAILABLE.

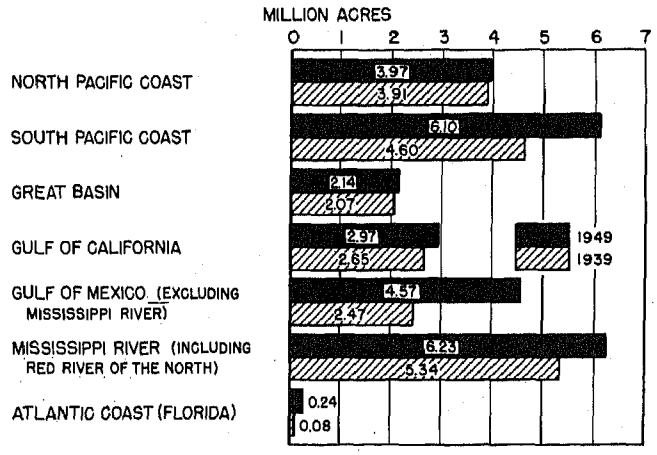
The increases in irrigated land from 1939 to 1949 shown by the census of agriculture are in general overstated, as it is believed that the reporting of irrigated land was more nearly complete for the 1950 than for the 1940 Census. However, undoubtedly, for the country as a whole, a greater increase in the acreage of irrigated land occurred from 1939 to 1949 than for any previous decade. The large increase in Texas was caused mainly by ground-water development in the High Plains area; and the increase in California, by ground-water development in the San Joaquin Valley.

The increases in irrigated land from 1939 to 1949, shown by the census of irrigation, on the other hand, understate the increases that actually occurred, because duplication and overestimation of acreage irrigated were more nearly eliminated for the 1950 than for the 1940 Census. In the 17 Western States and Arkansas, Louisiana, and Florida, the acreage increased from 21.1 to 26.2 million acres, or 24 percent. In the 17 Western States alone, the increase was from 20.4 to 24.9 million acres, or 22 percent. By States, the largest increase, from 1.0 to 3.2 million acres, was reported in Texas; the second largest, from 5.1 to 6.6 million acres, was in California; and the third largest increase, from 0.7 to 1.0 million acres, was in Arizona.

For Colorado, for which the 1950 Census of Agriculture showed an increase of 404,800 acres, the 1950 Census of Irrigation showed a decrease of 276,790 acres (from 3,220,685 acres to 2,943,895 acres). The acreages for 1949, as shown by the census of agriculture and by the census of irrigation, differ by less than 2.5 percent. It is believed that the acreage for 1939 shown by the census of irrigation was considerably too high because of the duplication and overestimation of the acreage irrigated, and that the acreage shown by the census of agriculture may have been too low.

Differences between the changes from 1939 to 1949 in irrigated land, as shown by the census of agriculture and the census of irrigation, are largely the result of the differences in procedures used for the 1940 and 1950 Censuses of Irrigation for eliminating duplication and overestimation of acreage irrigated, although the reporting of the acreage irrigated for the census of agriculture may have been less complete for 1939 than for 1949.

ACREAGE OF IRRIGATED LAND BY MAJOR DRAINAGE BASINS IN THE 17 WESTERN STATES AND ARKANSAS, LOUISIANA, AND FLORIDA: 1949 AND 1939 (CENSUS OF IRRIGATION)



For major drainage basins, the largest acreage of irrigated land in 1949, 6.2 million acres, as shown by the census of irrigation, was in the Mississippi River basin; and the second largest, 6.1 million acres, in the South Pacific Coast basin. The largest increase in irrigated acreage from 1939 to 1949, from 2.5 to 4.6 million acres, was in the Gulf of Mexico basin excluding the Mississippi River, chiefly as a result of the large increase in Texas. The second largest increase, from 4.6 to 6.1 million acres, was in the South Pacific Coast basin, chiefly as a result of the large increase in California.

Irrigated land in farms in 1949 (1950 Census of Agriculture) amounted to 2.2 percent of all land in farms for the country as a whole. In the 17 Western States, irrigated land represented 3.5 percent of all land in farms; in Arkansas and Louisiana, 3.3 percent; in Florida, 2.2 percent; and in the other 28 States, less than 0.05 percent.

Size of irrigated farms.—For the 17 Western States and Arkansas, Louisiana, and Florida, the average size of irrigated farms in 1950 was 575 acres. This was an increase of 50 percent over the 383 acres per farm reported for 1940. By States, the average size of farm varied from 195 acres in Washington to 2,651 acres in Arizona. The counting of Indian reservations as single farms was responsible, in part, for the large average size of irrigated farms for Arizona.

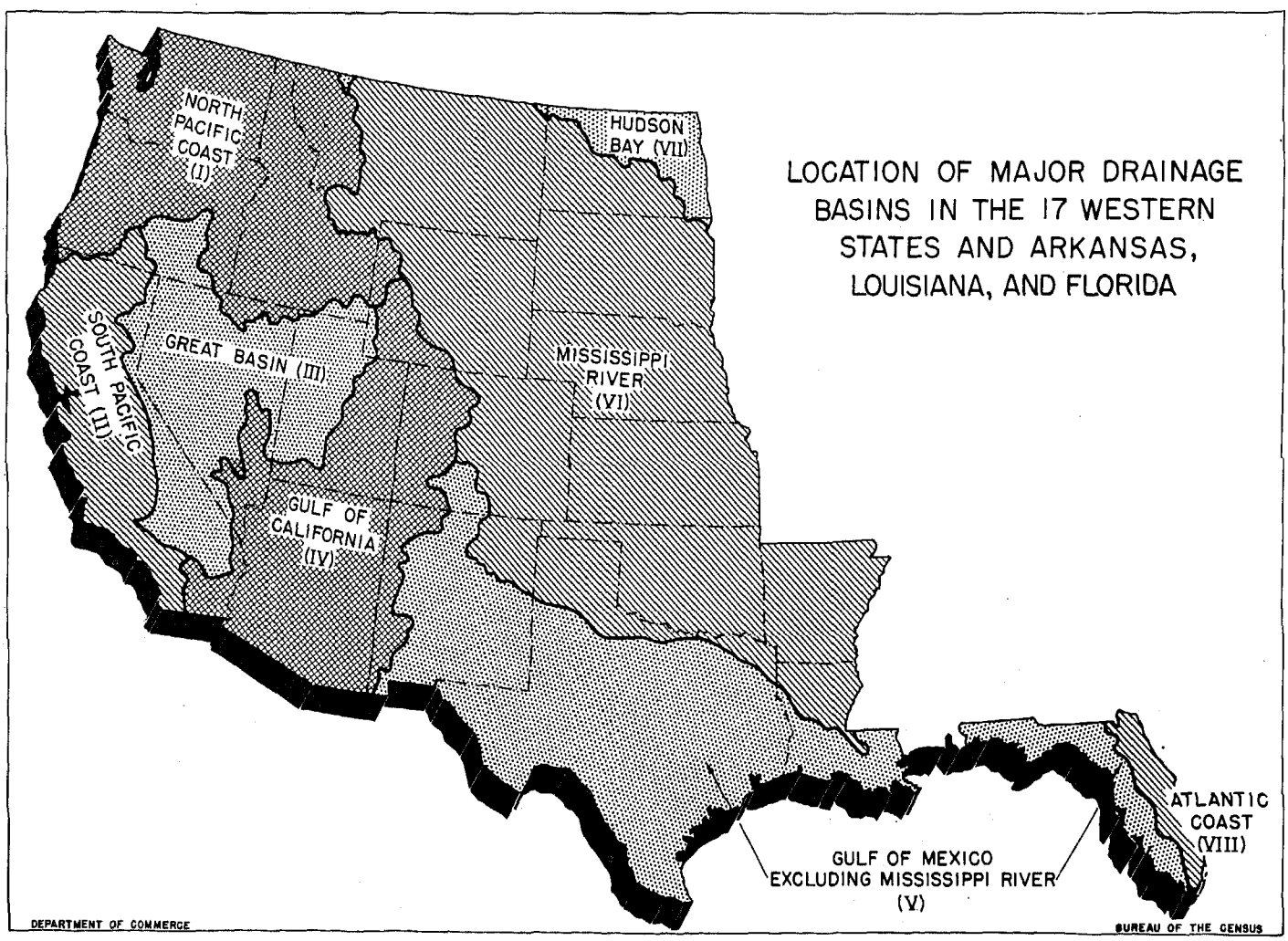
For the entire United States, the average acreage of irrigated land per irrigated farm increased from 60 acres in 1940 to 85 in 1950. For the 17 Western States, the average increased from 61 to 86; for Arkansas and Louisiana, from 67 to 95; for Florida, from 32 to 60; and for the other 28 States, from 10 to 22 acres. The average by States for 1950 ranged from 4 acres for West Virginia to 258 acres for Nevada. Among the 17 Western States, the lowest average per farm was 35 acres for Washington.

Of the 289,049 farms with irrigated land in the 17 Western States and Arkansas, Louisiana, and Florida in 1950, 71,428, or 24 percent, had less than 10 acres of irrigated land. About 9 percent of the total, or 26,659 farms, had more than 200 acres of irrigated land per farm.

Use of land in irrigated farms.—Most of the land in irrigated farms in the 20 States was pasture and grazing land. For 1949, 76 percent was reported as land pastured; 17 percent, as cropland harvested; 3 percent, as cropland not harvested and not pastured; and 4 percent, as other land in farms. The percentage of the irrigated land represented by pastureland varied by States from 15 percent for Arkansas, to 94 percent for Arizona.

Most of the irrigated land, however, was cropland harvested. For 1949, 82 percent was cropland harvested; 16 percent, pasture; and 2 percent, other land in farms. Of the total cropland harvested in irrigated farms, 74 percent was irrigated. Of the total land pastured, only 3 percent was irrigated. The percentage of all land that was irrigated in irrigated farms averaged 15 percent for the 20 States, and varied from 5 percent in New Mexico to 38 percent in Louisiana.

For the 20 States, 12 percent of all cropland harvested in all farms was irrigated in 1949, as compared with 10 percent in 1939. For the 17 Western States, 39 percent was irrigated in 1949, as compared with 42 percent in 1939. The percentage of all cropland harvested that was irrigated in 1949 varied from less



than 1 percent in Kansas, North Dakota, Oklahoma, and South Dakota, to 48 percent in Nevada.

Of the total of 4.0 million acres of irrigated pasture in the 20 States in 1949, 51 percent was reported as tame grass pasture and 49 percent as wild grass pasture. The proportion reported as tame grass pasture varied from 17 percent for Nevada to 77 percent for Arizona.

Tenure of irrigated farms.—For the 20 States, the proportion of irrigated farms operated by tenants dropped from 24 percent in 1940 to 17 percent in 1950, and varied by States from 7 percent in both Nevada and Utah to 43 percent in Nebraska. The proportion decreased in all of the States except Oklahoma, where there was a slight increase. The proportion operated by full owners and managers, increased from 62 to 64 percent and by part owners, from 14 to 19 percent.

Value of land and buildings in irrigated farms.—The average value of land and buildings per farm for irrigated farms was $34,706 for the 20 States in 1950, as compared with $11,992 in 1940, and $17,461 in 1930. The average value per acre was $72 in 1950, $31 in 1940, and $59 in 1930. The values for 1950 are estimates based on only a sample of farms. The average value per farm in 1950 varied by States from $19,537 in Utah to $69,624 in Kansas.

Wholly irrigated, partly irrigated, and nonirrigated farms.—Farms that reported cropland harvested, with all cropland harvested irrigated, were classified "wholly irrigated." All other farms reporting irrigated land were classified "partly irrigated." For the 20 States for 1950, the average size of partly irrigated farms was 943 acres as compared with 424 acres for wholly irrigated farms. The average acreage of irrigated cropland harvested was 146 acres per farm for partly irrigated farms as compared with 74 acres for wholly irrigated farms. Only 43 percent of the cropland harvested was irrigated on partly irrigated farms.

The average size of wholly irrigated farms in 1950 was 424 acres as compared with 411 acres for nonirrigated farms. The average acreage of cropland harvested per farm was 74 and 103 acres, respectively. There were significant differences between irrigated and nonirrigated farms in acreages of certain crops as shown by the following data:

Crop	Average acreage per farm	
	Wholly irrigated farms	Non-irrigated farms
Small grains including sorghums	20.1	57.8
Fruit orchards, planted nut trees, and vineyards	6.9	.6
Vegetables harvested for sale	4.1	.4
All hay	24.6	14.8

For the 20 States as a whole, farm tenancy was lower in 1950 for wholly irrigated than for nonirrigated farms chiefly because of the large numbers of tenant-operated nonirrigated farms in the Southern States. By States, the proportion of tenancy was higher for irrigated farms than for nonirrigated farms in all States except Florida, Louisiana, Nevada, New Mexico, South Dakota, Texas, and Utah. Of the farms wholly irrigated, 16.4 percent were operated by tenants, as compared with 28.9 percent for nonirrigated. The value of land and buildings averaged $32,173 per farm for the wholly irrigated farms as compared with $16,802 for the nonirrigated.

Source of irrigation water, 1950.—For the 20 States, for 30 percent of the irrigated farms containing 39 percent of the irrigated land, all irrigation water was obtained from supply works operated by the farms individually. For an additional 8 percent of the farms with 15 percent of the irrigated land, part of the irrigation water was secured from supply works operated by individual farms and part from one or more other irrigation enterprises. For 57 percent of the farms with 39 percent of the irrigated land, irrigation water was obtained from a single irrigation enterprise, and for an additional 5 percent of the farms with 7 percent of the irrigated land, water was obtained from 2 or more irrigation enterprises other than supply works operated by individual farms.

Sprinkler irrigation.—In recent years, there has been a rapidly increasing use of sprinkling equipment of various kinds for irrigation for farm crops. In response to many requests for information, an inquiry was included on the 1950 Agriculture Questionnaire as to how many acres in each farm were irrigated by sprinklers.

The use of sprinklers was reported for 25,049 farms, or 8 percent of the 305,061 irrigated farms in the country. Approximately one-third of these, or 8,152 were in California. The number of farms reporting sprinklers in the 17 Western States was 17,420; in Arkansas and Louisiana, only 76; in Florida, 2,084; and in the remaining 28 States, 5,469.

The proportion of all irrigated farms for which the use of sprinklers was reported, however, was much higher in the East than in the West. In the 17 Western States, the use of sprinklers was reported for only 6 percent of the farms; in Arkansas and Louisiana, for only 1 percent; in Florida, for 34 percent; and in the other 28 States, for 78 percent.

A total of 639,987 acres, or 2.5 percent of the total acreage of irrigated land, was irrigated by means of sprinklers. In the 17 Western States, approximately 2 percent of all irrigated land was irrigated by sprinklers; in Arkansas and Louisiana, less than 1 percent; in Florida, 22 percent; and in the 28 other States, 72 percent. The average number of acres irrigated per farm by means of sprinklers was 26 in the 17 Western States, 36 in Arkansas and Louisiana, 38 in Florida, and 20 in the 28 other States.

Drainage of irrigated land.—For 1949, 4.6 million acres of irrigated land were reported as having been artificially drained. This acreage represented 17.4 percent of the total irrigated land in the 20 States. For 1939, 3.9 million acres, or 18.5 percent of the total acreage of irrigated land, were reported artificially drained.

Irrigated land in need of drainage was reported as 1.8 million acres or 6.8 percent of the total irrigated land for 1949, as compared with 0.9 million acres, or 4.3 percent of the total for 1939.

The percentage of irrigated land artificially drained varied by States from 1.3 percent for Kansas to 61.2 percent for South Dakota. The percentage in need of drainage varied by States from 0.4 percent for Kansas to 16.6 percent for Texas.

Irrigated crops.—On the basis of acreage irrigated, alfalfa hay was the leading irrigated crop in the 20 States in 1949. A total of 3.4 million acres was reported for farms on which the entire acreage of the crop was irrigated. Cotton was second, with 2.4 million acres; rice, third, with 1.8 million acres; wild hay, fourth, with 1.7 million acres; and orchards, vineyards, and planted nut trees, fifth, with 1.6 million acres.

The irrigated acreage of a crop on individual farms where only part of the crop was irrigated was not reported for 1949. Such acreage in relation to the total irrigated acreage of all crops is of minor importance. For a few crops, however, such as corn, sorghums, wheat, and cotton, and especially in some of the Great Plains States, the irrigated acreage of crops on farms on which only part of the acreage is irrigated, represents a considerable proportion of the total irrigated acreage of all crops.

Practically 100 percent of the rice crop in the 20 States was irrigated. Of the total production of various crops, the percentage produced on farms where the entire acreage of the crop was irrigated was 96 percent for sugar beets; 85 percent for hops; 83 percent for dry beans, excluding lima beans; and 78 percent for

Irish potatoes. Only 2.3 percent of the production of winter wheat, however, was on farms where the entire crop was irrigated. An additional 2.1 percent of wheat production was on farms where the crop was partly irrigated. Only 4.2 percent of the corn harvested for grain was on farms on which the entire acreage was irrigated, and 3.0 percent was on farms on which the crop was partly irrigated. For cotton, 28 percent of the production was on farms on which the entire acreage was irrigated, and 5 percent on the farms on which only a part of the acreage of the crop was irrigated. Generally, the percentage of individual crops harvested on farms on which the entire acreage was irrigated was much larger in the more arid Mountain and Pacific States than in the Great Plains and Southern States.

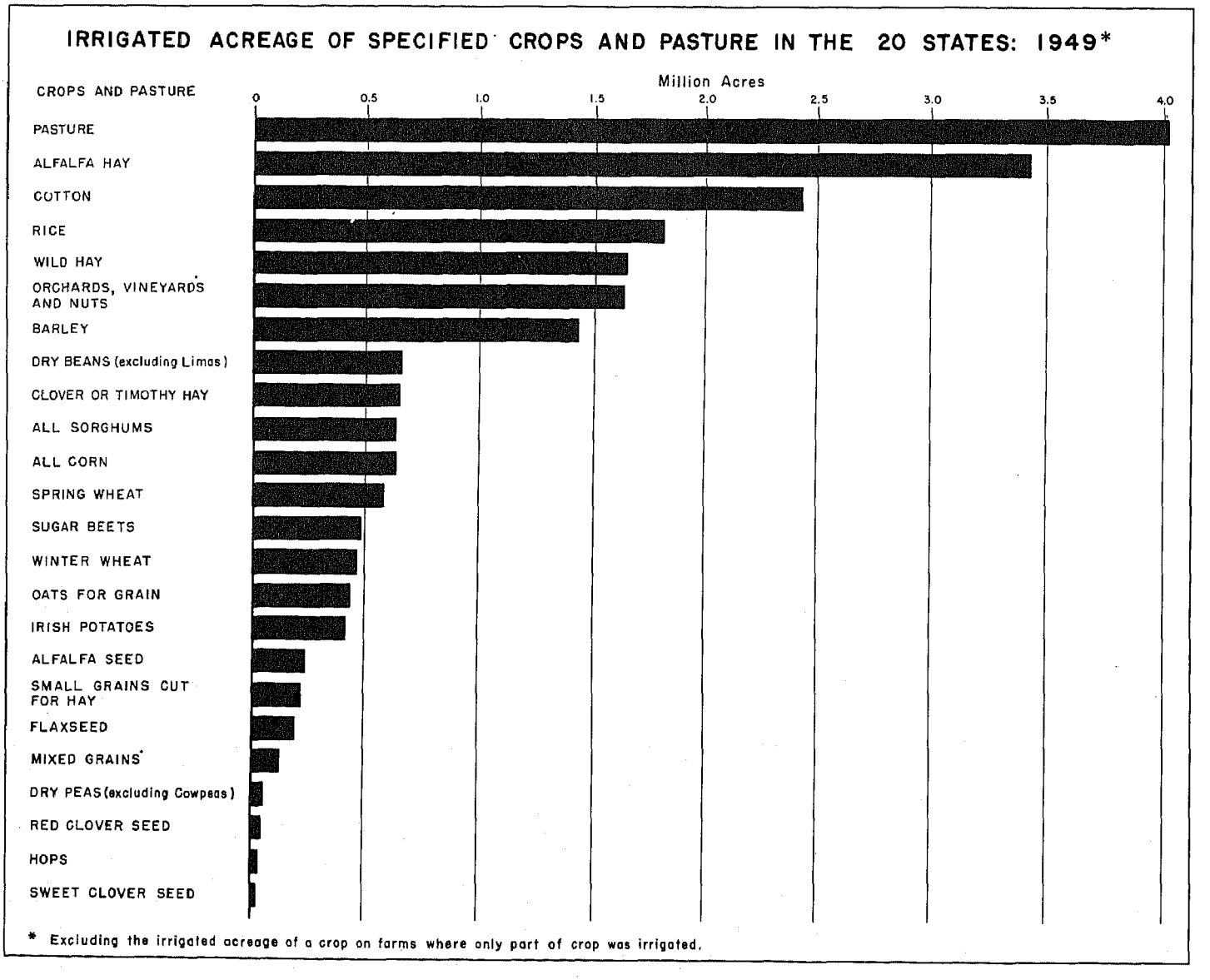
Yields per acre of most crops on irrigated land were much higher than on nonirrigated land. The average yield per acre for farms on which all the crop was irrigated was more than double the yield per acre for nonirrigated land for cotton, alfalfa seed, barley, sorghums harvested for grain, and mixed grains harvested for grain. The yield per acre of crops irrigated was more than three times the yield per acre on nonirrigated land for spring wheat, flaxseed, dry beans, and red clover seed. In making these comparisons, it should be noted that the irrigated and nonirrigated crops are not necessarily grown on land of comparable quality nor under other conditions that are comparable. Hence, the difference in yield per acre on irrigated and nonirrigated land may be, in part, the result of factors other than irrigation.

IRRIGATION ENTERPRISES

A total of 123,926 irrigation enterprises was reported in the 1950 Census of Irrigation for the 17 Western States and Arkansas, Louisiana, and Florida. This was an increase of 28,661, or 30 percent, over the 95,265 reported for 1940.

Types of irrigation enterprises.—The number of single-farm enterprises reported in 1950 was 113,358, an increase of 23,730, or 26 percent, over the 89,628 "individual and partnership" enterprises reported in 1940. Increase in single-farm enterprises accounted for most of the increase in both total number of enterprises and total acreage of irrigated land between the two censuses. This was because the new irrigation was brought about chiefly by development of irrigation from ground water by individual farmers.

A total of 12.9 million acres was reported irrigated direct by single-farm enterprises in 1949, as compared with 8.0 million acres irrigated by "individual and partnership" enterprises in 1939. (It should be kept in mind that, for 1949, acreage irrigated direct by 2 or more enterprises is included for each in the figures on acres irrigated, and for 1939, acreage irrigated by a primary enterprise and by one or more supplemental enterprises is in-



cluded for each. The total "acres irrigated" by all enterprises therefore exceeds the acreage of irrigated land, and for any group of enterprises "acres irrigated" does not necessarily represent a corresponding proportionate part of the irrigated land.) About 76 percent of this increase was in Texas and California. The percentage of the total acreage irrigated direct by all enterprises that was reported for single-farm enterprises varied by States from 4 percent for North Dakota to 95 percent for Arkansas.

The reported number of unincorporated mutual (or cooperative) enterprises increased from 1,690 in 1940 to 6,488 in 1950, and the acreage irrigated by such enterprises, from 1.0 million acres to 2.1 million acres. These large increases are largely the result of classifying in 1950 as "unincorporated mutual," enterprises that were classified "partnership" in 1940, and the more complete reporting of this type of enterprise in 1950, rather than actual changes during the decade. By States, the largest number of unincorporated mutual enterprises were in Colorado, with 1,579; the second largest number, in Montana, with 994; and the third largest number, in California, with 709. On the basis of acreage irrigated by such enterprises, Colorado also ranked first, with 559,708 acres; Montana, second, with 323,918 acres; and Wyoming, third, with 275,597 acres.

The number of enterprises other than single-farm and unincorporated mutual increased only from 3,947 in 1940 to 4,080 in 1950. The acreage irrigated reported for such enterprises decreased from 15.4 million to 12.9 million acres. This decrease resulted largely from the use of procedures by which overestimation and duplication in reporting of acreage irrigated were more nearly eliminated for 1950 than for 1940, rather than to an actual change.

Incorporated mutual enterprises increased only from 2,705 in 1940 to 2,886 in 1950. Colorado had the largest number in 1950, with 686; Utah was second, with 634; and California was third, with 561. The acreage irrigated by incorporated mutuals, 5.6 million acres, was larger than by any other type of enterprise except single-farm. Among the States, on the basis of acreage irrigated, Colorado ranked first with 1.7 million acres; Idaho, second, with 1.0 million; and Utah, third, with 0.9 million.

The total number of commercial enterprises increased from 285 in 1940 to 446 in 1950. In the 17 Western States, the number decreased from 245 to 131, as a result of commercial enterprises being taken over by mutual or district organizations or ceasing to operate as irrigation enterprises. In Louisiana, however, the reported number increased from 28 to 270, and in Arkansas, from 2 to 38. The increase in these States was the result, in part, of a change in definition or the interpretation of definition from 1940 to 1950. Most of the commercial enterprises in these States were operated by individual farms but supplied more water to other farms than to the farm by which operated. In 1940, some of such enterprises were classified by type as "individual and partnership."

In 1950, the number of district enterprises reported was 489, as compared with 441 in 1940. By States, California had the largest number, 114, in 1950; Washington was second, with 74; and Idaho, third, with 54. A total of 5.0 million acres irrigated direct was reported for district enterprises for 1949. By States, California ranked first in acreage irrigated direct with 1,821,295; Texas, second, with 590,529; and Idaho, third with 567,261 acres.

In 1940, there were 97 enterprises operated by the Bureau of Reclamation with 3.3 million acres irrigated. During the decade of 1940 to 1950, the operation of many of these was taken over by water-user organizations such as districts and mutuals, and in 1950, these enterprises were classified according to the type of enterprise by which they were operated. For 1950, only 37 enterprises, with 682,413 acres irrigated direct, were reported as operated by the Bureau of Reclamation. Bureau of Reclamation projects that were operated by water users numbered 79 and reported 1.5 million acres irrigated direct; and 247 enterprises, with 2.2 million acres irrigated direct, reported water received from Bureau of Reclamation projects. The combined acreage irrigated direct by enterprises receiving all or part of the irrigation water from Bureau of Reclamation projects was 4.4 million acres. This total does not include single-farm enterprises that received water from Bureau of Reclamation projects, nor a number of small multiple-farm enterprises that received a part of the water supply indirectly.

The reported number of U. S. Bureau of Indian Affairs enterprises decreased from 188 in 1940 to 141 in 1950, and the number of acres irrigated, from 515,765 to 506,076. These decreases may be attributed chiefly to the fact that a number of small irrigation projects constructed by the Bureau of Indian Affairs and included as Indian enterprises in 1940, were classified in 1950 as single-farm enterprises because they were operated by individual farms.

From 1940 to 1950, the number of State enterprises decreased greatly in all States except Montana. In 1940, a total of 143 State-operated enterprises with 19,022 acres irrigated was reported. Of these, 105 enterprises with 9,110 acres irrigated were in Montana; and 38, with 9,912 acres irrigated were in 11 other States. In 1950, only 31 enterprises were reported, of which 29 were in Montana. The number of acres irrigated, however, increased to 51,782, of which 51,752 acres were in Montana.

City enterprises, relatively unimportant in the supplying of irrigation water, decreased from 62 in 1940 to 50 in 1950, and the number of acres irrigated from 91,187 to 56,845. In 1940, 24 of these enterprises and 46,419 of the acres irrigated, and in 1950, 22 of the enterprises and 39,929 of the acres irrigated, were in California.

Interrelationships between irrigation enterprises.—Many irrigation enterprises do not deliver all of their irrigation water direct to farms, but deliver part or all to other irrigation enterprises which may deliver it to farms or in turn pass part or all on to other enterprises. In some cases, the water is passed on through several different enterprises before it reaches farms. A farm may buy water from one enterprise, but the water is delivered to the farm by a different enterprise. Some enterprises own no irrigation water, and obtain none from natural sources, but merely act as carriers of water for other enterprises. One of the difficult problems in taking the census of irrigation is the separation of data affected by these interrelationships so that duplication in totals will be minimized.

Of the 10,568 multiple-farm enterprises in the 20 States in 1950, 8 percent obtained part of their water from other enterprises, and 11 percent obtained all from other enterprises. Of the 15.0 million acres irrigated direct by multiple-farm enterprises, 37 percent were irrigated by enterprises that received part or all of their water from other enterprises.

The delivery of part of their water to other enterprises was reported by 1,777 multiple-farm enterprises, or 17 percent of all enterprises; and the delivery of all their water to other enterprises was reported by 323 or 3 percent. The 1,777 enterprises that delivered part of their water to other enterprises, irrigated 9.1 million acres direct or 61 percent of the total acreage irrigated direct by multiple-farm enterprises.

Of the 113,358 single-farm enterprises, 2 percent received part and 3 percent received all of their water from other enterprises.

Enterprises that delivered water direct to farms and neither obtained from, nor delivered to, other enterprises more than 10 percent of their irrigation water, have been termed "complete-system" enterprises. Comparisons of data for enterprises classified by type of water and by acreage irrigated are limited to the "complete-system" enterprises in order to provide significant information.

On many farms, water received direct from 2 or more different irrigation enterprises is used to irrigate the same land. To avoid duplicate counting of the acreage of such land, the acreage was designated "primary irrigation" for one of the enterprises that delivered the water, and "supplemental irrigation" for the others. Of the 122,023 enterprises that delivered water direct to farms, 89 percent were designated as delivering all water for primary irrigation. These supplied water for 21.5 million acres, or 77 percent of the total acreage irrigated direct. Designated as delivering part for primary and part for supplemental irrigation were 2,893 enterprises, or 2.4 percent of the total number. These enterprises supplied water for 4.7 million acres of primary irrigation and for 0.7 million acres of supplemental irrigation, or for 17.0 and 2.7 percent, respectively, of the total acreage irrigated direct. Enterprises delivering only water for supplemental irrigation totaled 10,836, or 8.9 percent of the total, and supplied water for 3.4 percent of the total acreage irrigated direct.

Size of irrigation enterprises.—For the 20 States, the average acreage irrigated direct in 1949 was 225 acres per enterprise. For single-farm enterprises, the average was 114 acres; for unincorporated mutuals, 331 acres; and for multiple-farm enterprises other than unincorporated mutuals, 3,156 acres.

For most enterprises, acreage irrigated direct provides a reasonably good measure of the size of the enterprise. It should be noted, however, that for some relatively large enterprises the acreage irrigated direct is small or zero because most or all of the water is delivered to other enterprises instead of direct to farms.

Of the 113,358 single-farm enterprises, 1,559 supplied no water to farms in 1949, chiefly because either irrigation was not needed or water was not available. Single-farm enterprises reporting from 1 to 9 acres irrigated direct totaled 22,370; and enterprises reporting 10 to 29 acres numbered 24,913. Delivery of water to farms for the irrigation of 1,000 acres or more was reported for 1,453 enterprises.

Of the 10,568 multiple-farm enterprises, 344 supplied no water to farms, because, in most cases, all water was delivered to other enterprises. Enterprises supplying water for 30,000 acres or more irrigated direct totaled 78. Of the multiple-farm enterprises, 2,471 supplied water for the irrigation of 1 to 99 acres, and 5,697 supplied water for the irrigation of 100 to 999 acres.

By States, the average acreage irrigated direct per enterprise varied from 64 acres for Florida to 1,022 acres for North Dakota.

Irrigation works.—Much larger proportions of multiple-farm than of single-farm enterprises reported diversion dams, reservoirs, supply canals and ditches, supply pipe lines and siphons, and tunnels. On the other hand, much larger proportions of single-farm than of multiple-farm enterprises reported flowing wells, pumped wells, and pumps and motors used for pumping irrigation water. The percentage of single-farm and of multiple-farm enterprises reporting the various kinds of irrigation works, for the 20 States in 1950, were as follows:

Kind of works	Percent of single-farm enterprises reporting	Percent of multiple-farm enterprises reporting
Diversion dams	18	62
Irrigation reservoirs	4	8
Supply canals and ditches	16	85
Supply pipelines and siphons	5	17
Tunnels	0	3
Flowing wells	3	1
Pumped wells	69	15
Irrigation pumps	81	20
Electric motors used for pumping	54	14
Other motors and engines used for pumping	31	7

A total of 50,131 diversion dams was reported in 1950 as compared with 34,547 in 1940. The increase was largely the result of difference in definition and method of reporting in 1950 as compared with 1940 rather than of actual increase in number of diversion dams.

The total number of irrigation reservoirs reported in 1950 was 7,717, almost exactly the same as the number, 7,716, reported in 1940. Small reservoirs of the "overnight pond" type, however, were included in 1940 and not included in 1950. The reported number of reservoirs with capacity of 1 to 99 acre-feet decreased from 5,754 in 1940 to 4,986 in 1950; the number with capacity of 100 to 999 acre-feet increased from 1,108 to 1,249; and the number with capacity of 1,000 acre-feet and over decreased from 851 to 767.

The total reported storage capacity of irrigation reservoirs increased from 33.8 million acre-feet in 1940 to 42.4 million in 1950. Storage capacity was not reported for 715 reservoirs for 1950 but most of these were small and the capacity not reported would not affect significantly the total capacity for all reservoirs.

Decreases in storage capacity from 1940 to 1950 of more than a million acre-feet in Arizona and in Utah, and more than 2 million in Nebraska, resulted from the fact that large reservoirs that were included in 1940 were used more for purposes other than for irrigation in 1950 and were not classified as irrigation reservoirs. If these reservoirs were excluded from the 1940 figures, the total capacity for the 20 States for 1940 would be approximately 29 million acre-feet and the increase from 1940 to 1950 around 13 million, or 45 percent.

United States Bureau of Reclamation enterprises accounted for 58 percent of the total storage capacity in 1950. Storage capacity by States varied from 1,101 acre-feet in North Dakota to 8,711,667 in California.

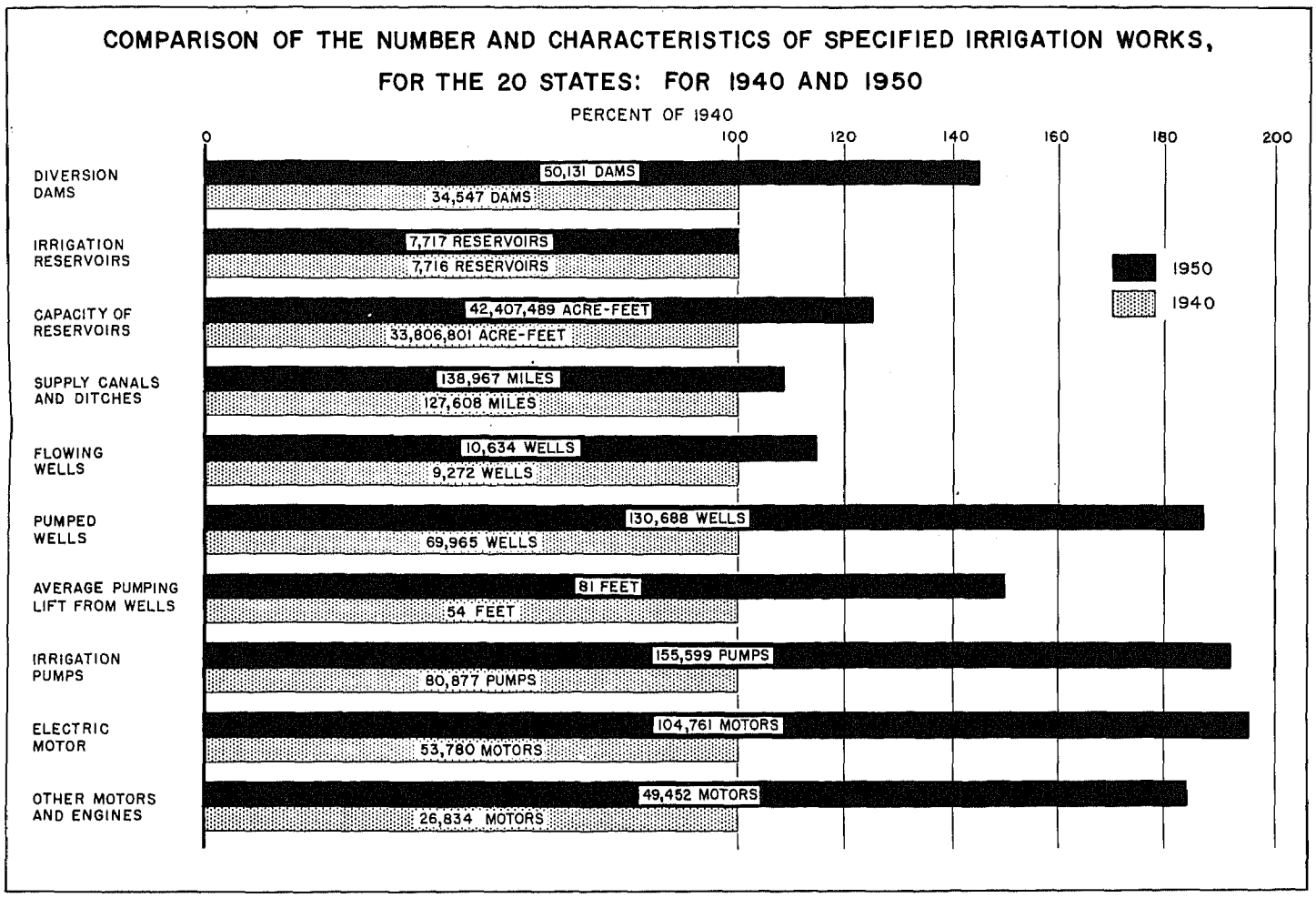
A total of 138,967 miles of canals and ditches was reported in 1950 as compared with 127,608 miles in 1940, an increase of 9 percent. The total length of supply pipelines, including siphons, reported for 1950 was 15,851 miles. This figure is not comparable with the 32,845 miles of pipelines reported in 1940, because the figure for 1940 included the estimated length of pipelines in the farm-distribution system. In 1950, farm-distribution pipelines were excluded. Nearly two-thirds of the mileage of pipelines reported in 1950 was in California.

Flowing wells increased from 9,272 in 1940 to 10,634 in 1950. Florida had a larger number, 4,181, than any other State although the number in Florida was less than the 4,631 reported for 1940. Utah had the second largest number, with 1,925, an increase from 1,216 in 1940. Colorado was third, with 1,371.

The greatest increases for the number of irrigation works from 1940 to 1950 were for pumped wells, irrigation pumps, and motors and engines used for pumping. Pumped wells increased 87 percent; irrigation pumps, 92 percent; electric motors used for pumping, 95 percent; and other motors and engines used for pumping, 84 percent. Most of these increases were in California and Texas where the big expansion in pumping from ground water occurred. Of the total of 130,688 pumped wells, 55 percent were in California.

The average reported pumping lift of pumped wells for the 20 States was 81 feet for 1949 as compared with 54 for 1939, an increase of 50 percent. The average pumping lift was greater in 1950 than in 1940 for all States except Arkansas, Louisiana, and Oregon. The deepest average pumping lift was in Arizona, with 134 feet, and the greatest increase in average pumping lift from 1939 was also in Arizona. The second deepest average pumping lift was in Texas, with 125 feet, as compared with 82 feet in 1939.

The deeper average pumping lifts reported for 1949 than for 1939 should not be interpreted as indicating a lowering of ground-water levels to the same extent, because the increase in depth may be due in part to new wells that were drilled to lower ground-water levels between 1939 and 1949.



Capital investment.—The census data on capital investment of irrigation enterprises are far from precise. The amounts reported for the individual and many of the smaller mutual enterprises are largely estimates. The greater part of the works of such enterprises was built by the owners or their predecessors who kept no records of funds or labor expended. The works of many of the larger enterprises were built decades ago, and the enterprises have gone through repeated changes in ownership, organization, and valuation.

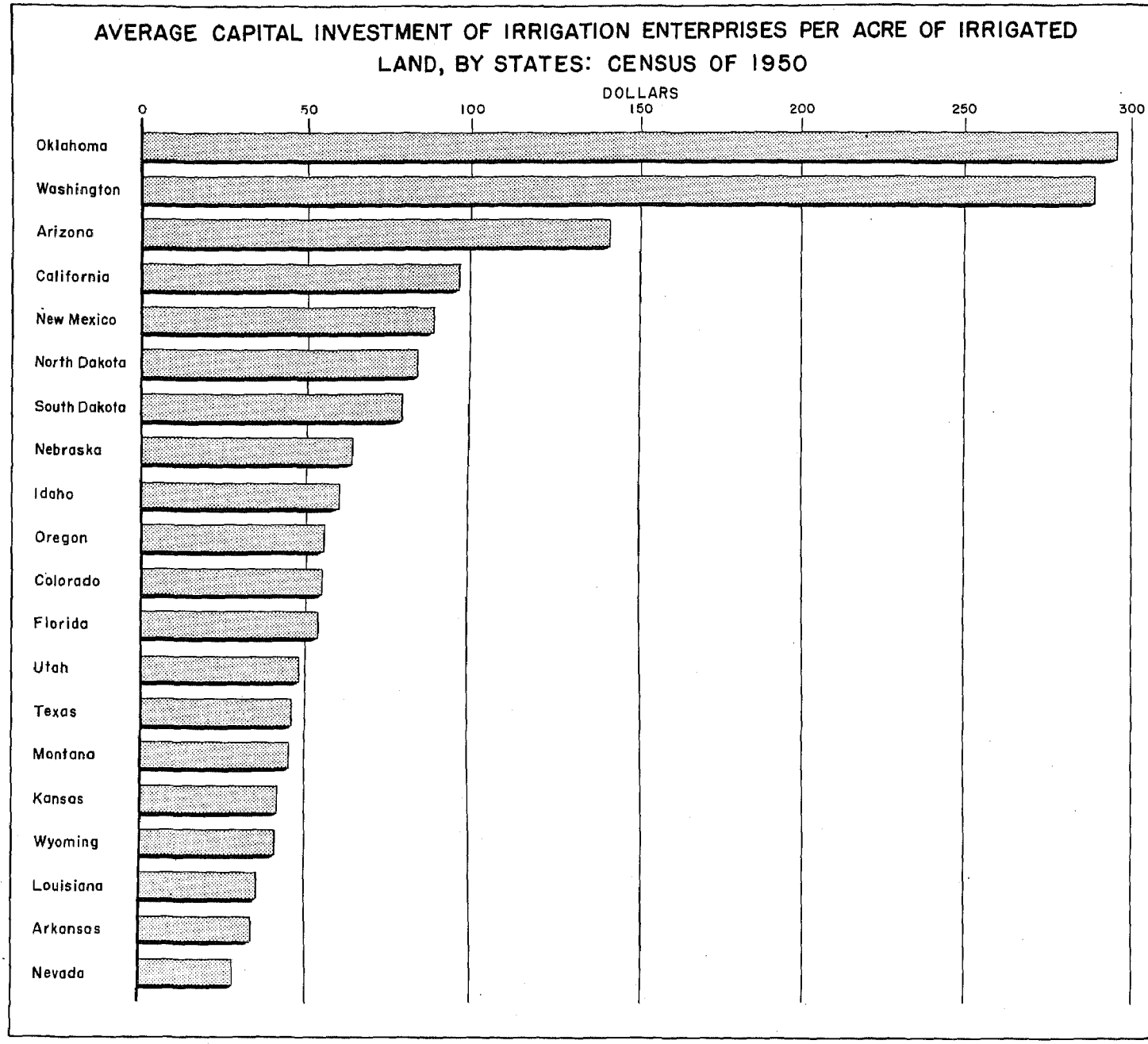
The total capital investment of irrigation enterprises reported in 1940 for the 20 States was $1,059 million. The reported new capital investment from 1940 to 1950 was $829 million. Adding these two figures gives $1,888 million as the total capital investment in 1950, an increase of 78 percent over 1940.

The largest total capital investment in 1950 in any State was in California, with $640 million. The State of Washington had $178 million, the second largest capital investment. The rank of Washington is largely the result of large investment of the U. S. Bureau of Reclamation in the Grand Coulee and other projects in that State. Colorado was third with $163 million. California, Washington, and Texas led in new investment from 1940 to 1950, and had 63 percent of the capital investment made from 1940 to 1950.

Average capital investment per acre of irrigated land for the States included in the census of irrigation, increased from $36 in 1920 to $46 in 1930, $50 in 1940, and $72 in 1950. By States, the average per acre in 1950 varied from $28 in Nevada to $296 in Oklahoma. The large investment per acre in Oklahoma resulted from about three-fourths of the irrigation in the State being supplied by one large enterprise with relatively large capital investment. The second largest average investment per acre was in Washington, with $288, chiefly as a result of the large recent investment in the Grand Coulee project for which only a very small part of the land to be irrigated was actually irrigated in 1949. The third largest average per acre was in Arizona.

Since the classification of enterprises by type for 1950 is not comparable with the classifications for 1940, it is not possible to obtain (1) accurate data on the total capital investment by type of enterprise for 1950, and (2) comparable data on total capital investment by type of enterprise for 1940 and 1950. The total capital investment by type of enterprise shown in the tables has been obtained by adding the capital investment from 1940 to 1950 for a type of enterprise to the total capital investment for the corresponding type for 1940. As explained under the paragraph "type of enterprise," some enterprises were classified differently in 1950 and 1940. This procedure results in the understatement of the total capital investment for some types of enterprises and an overstatement for other types. The change in the classification had little effect on the totals for single-farm and unincorporated mutual enterprises combined and totals for all types other than single-farm and unincorporated mutual enterprises. Hence, for a combination of single-farm and unincorporated mutuals and a combination of all other types, the 1950 investment represents approximately accurate totals for these groups of enterprises and provides a total comparable with the 1940 investment for the same groups of enterprises. Comparative figures for these two groups of types of enterprises are shown for the 17 Western States in table 67.

The enterprises classified by type as "single-farm" in 1940 and as "unincorporated mutual" in 1950 were mostly enterprises that



provided water to less than 5 farms. If the data for unincorporated mutual enterprises that provided water to less than 5 farms are combined with those for single-farm enterprises, approximately comparable figures for capital investment of single-farm and multiple-farm enterprises for the 20 States are obtained for 1950 and 1940. These data are as follows:

Type of enterprise and year	Capital investment (dollars)		
	Total	Average per enterprise	Average per acre irrigated direct
Single-farm:			
1950	523, 482, 530	4, 448	38
1940	194, 149, 969	2, 166	24
Multiple-farm:			
1950	1, 364, 256, 177	218, 456	97
1940	864, 955, 153	153, 442	53

Indebtedness.—Data on indebtedness and arrearage on indebtedness were obtained for 1950 only for multiple-farm enterprises, and in 1940, only for enterprises providing water for 5 or more farms.

The total number of enterprises reporting indebtedness decreased from 1,419 in 1940 to 1,155 in 1950. The total reported indebtedness, however, increased from $387 million to $696 million. The average indebtedness per acre of all irrigated land increased from $18.41 in 1940 to $26.52 in 1950. In 1950, the average indebtedness per acre of all irrigated land varied by States from 0 for Arkansas to $186 for Washington.

The largest part of the indebtedness was for Bureau of Reclamation projects. Of the total of $696 million, more than one-half or $350 million, was reported for projects operated by the Bureau in 1949. An additional $159 million was for Bureau of Reclamation projects operated by water users, and represented mostly indebtedness to the United States Government. For enterprises

receiving all or part of their water from Bureau of Reclamation projects, an indebtedness of $52 million was reported. Much of this indebtedness may have been to private investors rather than to the Federal Government.

In 1940, the arrearage in payments of irrigation enterprises on their indebtedness was reported as $31 million, or 8 percent of the total outstanding indebtedness. In 1950, the arrearage had decreased to $8 million, or only 1.2 percent of the total indebtedness. Only 133 enterprises reported arrearage in 1950 as compared with 202 enterprises in 1940.

Arrearage in payments by water users to irrigation enterprises in the amount of $7 million was reported in 1950 for 999 enterprises. Comparable data are not available for 1940.

IRRIGATION WATER

Types and sources of water.—The acreage irrigated direct by enterprises reporting all water obtained from pumped wells increased from 3.0 million acres in 1939 to 7.5 million acres in 1949, or 147 percent. The percentage of all acreage irrigated direct reported for such enterprises increased from 12 percent in 1939 to 27 percent in 1949. By States, the percentage in 1949 ranged from less than 0.1 percent in Montana and North Dakota to 88 percent in Arkansas.

The acreage irrigated direct by enterprises reporting all water from surface sources was 17.7 million in 1949, or 11 percent less than in 1939. The actual change from 1940 to 1950 was probably much less than shown by these data as the data were affected by the use of procedures in 1950 that eliminated a larger part of the overestimates and duplications in the reporting of acreage irrigated than in 1940. For enterprises reporting water from both pumped wells and surface sources, the acreage irrigated direct was 2.7 million acres in 1949, and 1.5 million in 1939.

Of the 17.7 million acres for enterprises reporting only surface sources for 1949, 78 percent was for enterprises reporting all water obtained by gravity; 14 percent for enterprises reporting all water pumped; and 8 percent for enterprises reporting part of the water pumped.

Single-farm enterprises obtained a much larger proportion of water from pumped wells than any other type of enterprise. Single-farm enterprises obtained water from pumped wells for the irrigation of 55 percent of the acreage irrigated direct. For unincorporated mutuals, 92 percent of the acreage irrigated direct, and for incorporated mutuals, 81 percent was for enterprises reporting gravity surface water only.

The proportion of enterprises reporting all water from pumped wells was largest, on the average, for small enterprises, and smallest for large enterprises. For complete-system enterprises, the proportion varied from 67 percent for enterprises that supplied water for 1 to 99 acres, to 8 percent for those supplying water for 10,000 acres or more.

The principal source of surface water was streams. (Lakes were included with streams as a source, because they are supplied chiefly by streams.) Of the 20.4 million acres irrigated direct in 1949 by enterprises obtaining all or part of their water from surface sources, 97 percent was for enterprises with all or part of their water from streams; 3.8 percent for those with all or part from springs; 2.6 percent for those with all or part from flowing wells; 10.2 percent for those with all or part from drainage water; and 0.1 percent for those with all or part from other sources. The acreage irrigated for enterprises reporting more than one source are included for each source.

Storage of water.—Use of only water stored in reservoirs was reported for 1949 for 2,923 enterprises with 1.9 million acres irrigated direct. The 4,517 enterprises that stored only part of the water used, provided irrigation for 7.6 million acres, or 27 percent of the total acreage irrigated direct. The percentage of the total acreage irrigated direct supplied by enterprises reporting all or part of their water stored varied by States from 1 percent in North Dakota to 78 percent in Oklahoma. Of the acreage irrigated by single-farm enterprises, only 2 percent was for enterprises reporting all water stored; and of that irrigated by U. S. Bureau of Reclamation enterprises, only 2 percent was for those reporting no water stored.

Season of irrigation.—Ninety-two percent of the total acreage irrigated direct in 1949 was for enterprises that reported delivery of water to farms both before and after July 1. Water delivered only before July 1 was reported for 6,198 enterprises with 3.3 percent of the total acreage irrigated direct; and water delivered only after July 1 was reported for 9,707 enterprises with 2.5 percent of the total acreage irrigated direct. Season of irrigation was not reported for 5,110 enterprises with 1.8 percent of the acreage irrigated direct.

Measurement of water.—Information on the extent of measurement of water to farms as used, was obtained only for multiple-farm enterprises. For the 20 States, the summary of the measurement of water to farms in 1949 is as follows:

Extent of measurement of water	Enterprises	Area irrigated direct	
		Acres	Percent of total
Total multiple-farm enterprises	10,568	15,022,523	100.0
All water measured	2,095	6,174,852	41.1
Part of water measured	716	2,903,624	19.3
None of water measured	6,666	5,012,798	33.4
Not reported	1,091	931,249	6.2

The percentage of the total acreage irrigated direct by multiple-farm enterprises accounted for by enterprises reporting all or part of the water measured to farms, varied from 0 percent in Louisiana to 99 percent in Oklahoma.

Quantity of water delivered to farms.—In the 1940 Census, quantity of water was reported for 90 percent of all enterprises. In 1950, the inquiry regarding quantity of water was limited to multiple-farm enterprises because satisfactory estimates of quantity of water cannot be given for a large proportion of the single-farm enterprises. Acceptable reports were obtained for 9,625 or 91 percent of the multiple-farm enterprises. For 1940 and 1950, an average quantity of water per acre of all land irrigated was calculated on the basis of data for those enterprises for which the quantity of water was reported. This calculation assumed that the average quantity of water per acre for all enterprises reporting "primary" and "supplemental" irrigation are the same as for those enterprises reporting the quantity of water delivered.

For the 20 States, the average calculated quantity of water delivered to farms per acre of irrigated land was 3.3 acre-feet for 1949 as compared with 3.1 acre-feet for 1939. The average quantity per acre for 1949 varied by States from 0.5 acre-feet for Oklahoma to 5.3 for Idaho, and varied by drainage basins from 0.8 acre-feet in the Atlantic Coast drainage basin (Florida) to 5.0 acre-feet in the North Pacific Coast basin.

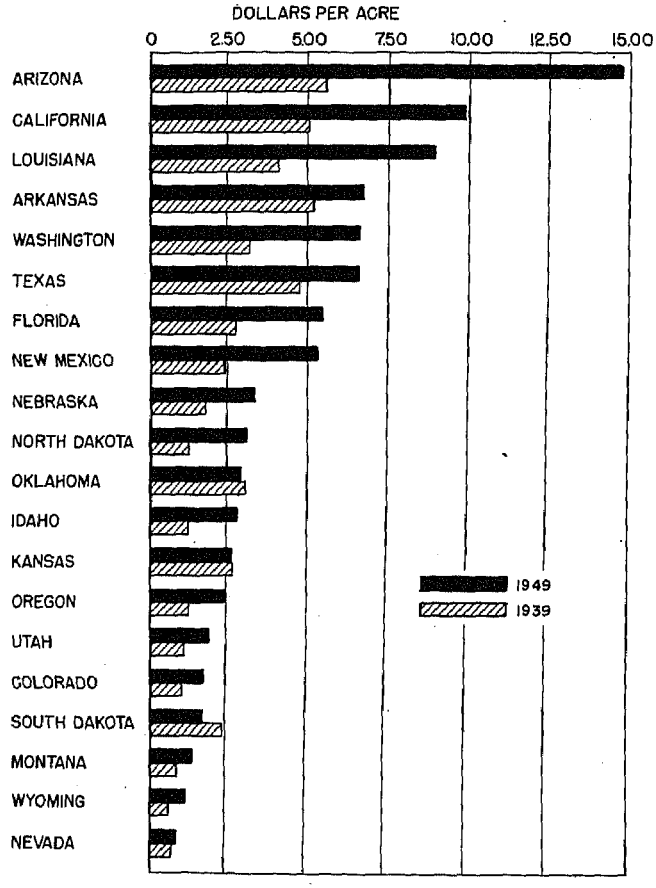
Differences in average quantity per acre in 1949 and 1939 may be the result of differences in weather conditions, water supply, etc. The difference in the completeness of reporting should be considered in making comparisons between 1949 and 1939 for States and smaller areas.

Cost of water.—The cost of irrigation water to farms was considerably greater in 1949 than in 1939. The change in the general price level should be considered in making comparisons of cost between the two censuses. The average cost per acre of irrigated land was $5.48 in 1949 as compared with $2.57 in 1939. The increase in cost during the 10 years was the result in part, however,

of the irrigation of a larger proportion of the acreage by pumping in 1949 than in 1939, and also of water being supplied by the more recently constructed irrigation projects which in general have higher costs than projects constructed earlier.

On the basis of the calculated average quantity of water delivered to farms per acre of irrigated land, the average cost of water per acre-foot was $1.66 in 1949 as compared with $0.83 in 1939.

COST OF IRRIGATION WATER TO FARMS PER ACRE OF IRRIGATED LAND, BY STATES: 1949 AND 1939



By States, the average cost of water per acre of irrigated land in 1949 varied from $0.87 in Nevada to $14.78 in Arizona. Of the total acreage irrigated direct in the 20 States, 39 percent was reported for enterprises with average costs of less than $2 per acre irrigated direct, while 15 percent was for enterprises with average costs of $10 or more per acre.

For single-farm enterprises in 1949, and for enterprises serving less than 5 farms in 1939, the costs of operation and maintenance were considered to represent the total cost for water to farms. The 1950 Questionnaire for multiple-farm enterprises contained an inquiry regarding the part of the total cost for purposes other than for operation and maintenance. For enterprises serving more than 5 farms in 1939, "total annual charges" for water and also operation and maintenance cost were reported. The difference between total annual charges and operation and maintenance cost represented costs other than for operation and maintenance. Cost of water to farms for purposes other than operation and maintenance, as thus obtained, averaged $0.59 per acre of irrigated land in 1949 as compared with $0.38 in 1939. The greater cost for purposes other than operation and maintenance in 1949 as compared with 1939 indicated a higher rate of payment either on principal and interest of indebtedness or for new capital investment.

By major drainage basins, the lowest average total cost of water to farms per acre of irrigated land in 1949 was $2.02 for the Great Basin, and the highest, $9.71 for the South Pacific Coast basin. For unincorporated mutual enterprises, the average cost per acre irrigated direct was only $1.37 as compared with $6.00 for single-farm enterprises, $3.53 for incorporated mutuals, $5.71 for districts, $6.43 for U. S. Bureau of Reclamation enterprises, and $6.81 for commercial, Indian, State, and City enterprises combined.

For complete-system enterprises that obtained all water from surface sources by gravity, the average cost per acre irrigated direct was $1.27; for those that obtained all water from surface sources by pumping, $7.40; and for those that obtained all water from pumped wells, $9.22. For enterprises that irrigated 1 to 99 acres direct, the average was $8.57 per acre; for those that irrigated 100 to 199 acres, $5.27; for those that irrigated 1,000 to 9,999 acres, $4.04; and for the largest enterprises, those that irrigated 10,000 acres or more, $5.46.

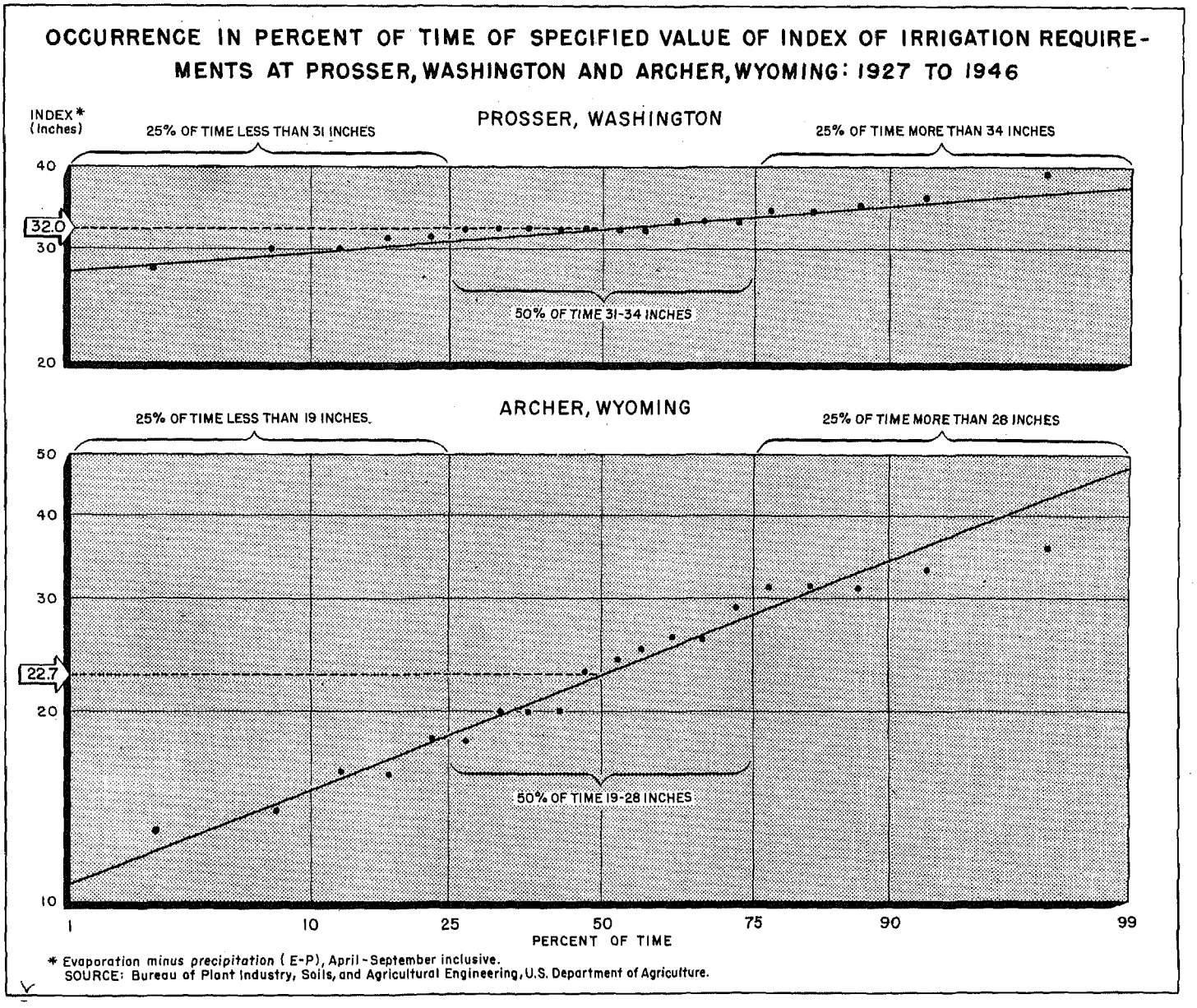
WEATHER AND AVAILABLE WATER, 1949 AND 1939

The extent of irrigation in a given year is influenced by weather conditions and by the available water in streams, reservoirs, and ground water supplies. The 6 charts on pages 20, 22, and 24–26 show comparative weather and water-supply data for selected points in the 17 Western States for the 1949 and 1939 irrigation seasons.

The first chart shows a computed index of "irrigation requirement" for 1949 and 1939 for selected weather stations. The other charts pertain to supply of irrigation water. Those for stream flow during the winter preceding the irrigation season, stream flow during the irrigation season, and water stored in reservoirs show data for the 1949 and 1939 seasons relative to "normal" years. The last 2 charts show depth to ground water in selected observation wells during the 1949 and 1939 irrigation seasons, and on or about March 31, for the years 1930 to 1950.

Index of irrigation requirement.—Within the last decade, several methods of varying complexity have been devised to estimate, from climatic data, water requirements of crops. All these methods have been based on rather limited experimental data and involve computations which, if applied to a number of years, would entail considerable expenditure of time and funds. The method used to compute the index of irrigation requirement necessitated only data readily available at a sufficient number of locations and over a long enough period to establish satisfactory "normals."

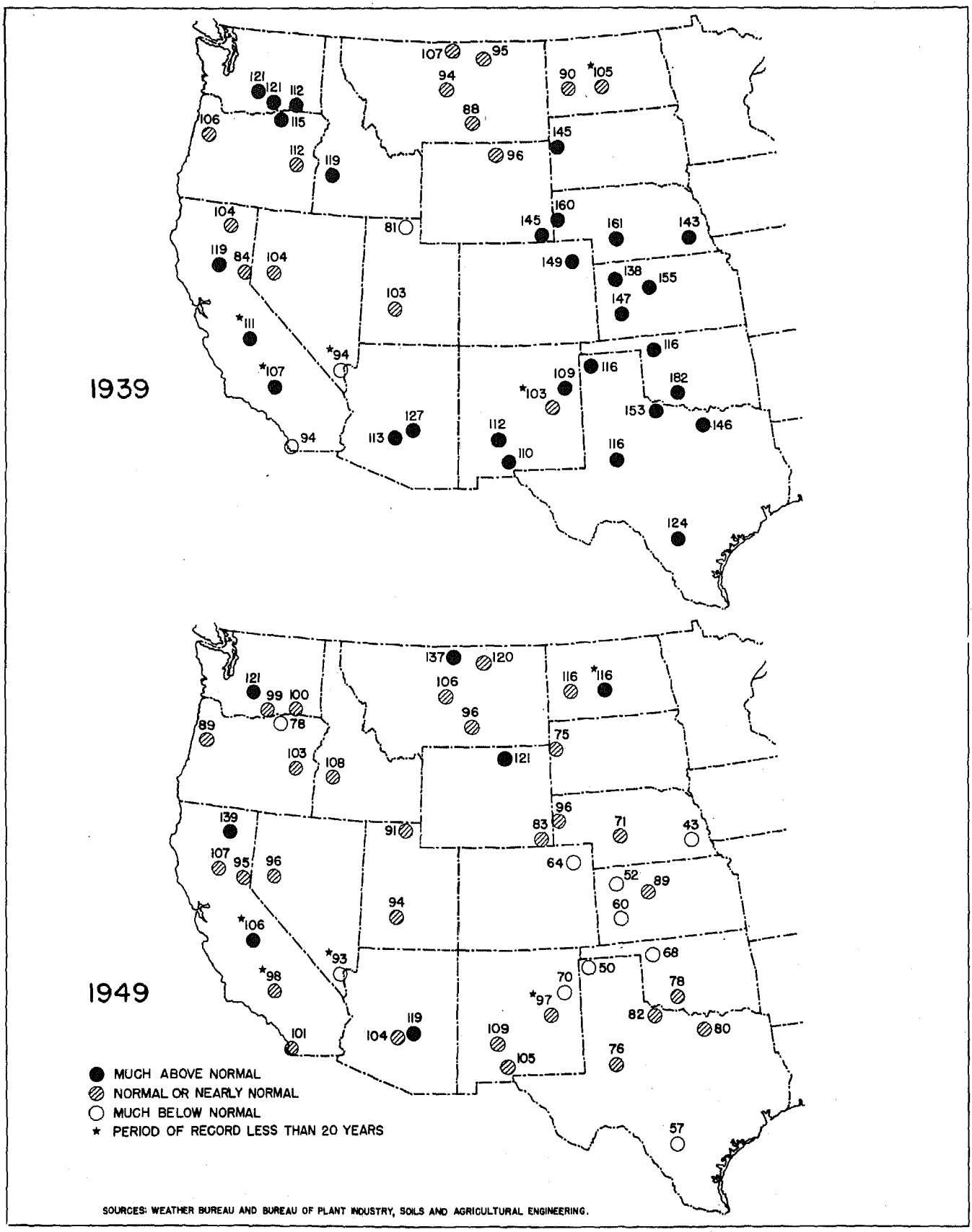
Evaporation from a water surface for the growing season minus the precipitation for the same period, expressed as a percentage of "normal," is used as the index of irrigation requirement. This index is based on the assumption that evaporation from a water surface is an adequate, even if indirect, measure of quantities of water used by crops and other vegetation. For practical purposes, this assumption is essentially correct, since evaporation from a water surface does in effect integrate the several climatic factors that control transpiration by plants. This index assumes also that all precipitation occurring during the growing season replenishes available soil moisture or is otherwise utilized by the growing crops. This assumption is not always correct because (*a*) some of the precipitation falling during the growing season, particularly in the arid West, occurs in such small amounts that it evaporates before it becomes available to plants, and (*b*) on sloping land, some of the rainfall runs off into waterways and streams and is not available to plants. However, practically everywhere in the 17 Western States evaporation during the growing season is so much greater than the total precipitation for the same period that any error introduced by this assumption has little influence upon the index of irrigation requirement.



For computation of the index of irrigation requirements, all available published and unpublished records of evaporation and of concurrent precipitation in the 17 Western States were examined. This examination revealed that a representative record period should include both the dry '30's and the wet '40's. It was decided to use the period from 1927 to 1946. A longer period would have been preferable, but would have reduced the number of stations for which usable records were available. The choice of stations was further restricted because it had to be limited to those with records both of evaporation and of precipitation for both 1939 and 1949. By expressing the index of irrigation requirement as a percentage of normal, it was possible to use records of "Class A" Weather Bureau Stations and of the Bureau of Plant Industry Stations without converting the evaporation data to comparable units of measure. It was necessary in order to obtain greater coverage of area to include records for a few stations with records for a period of less than 20 years, and also for some stations with records for only part of the growing season. Records for stations with records of less than 20 years were used only to provide a comparison between 1949 and 1939 and not for establishing a long-time "normal." The 46 stations for which records were used are indicated in the accompanying table.

For each station, the values of evaporation minus precipitation (E−P) for the growing season (April to September) of each year, or for the part of the season for which records were available, were computed and arranged in ascending order of magnitude. Plotting positions in percent of time of occurrence were computed for each value by the formula $\frac{2(n-1)\times 100}{2\,T}$ where n is the order of magnitude and T is the number of years for which records were used. These values of E−P were plotted against percent of time on logarithmic-probability paper. Freehand curves were drawn through the plotted points, and values were recorded on these curves for 25, 50, and 75 percent of the time period. The value at the 50 percent of the time period was taken to be the "normal."

The E−P values for 1939 and 1949 falling in the upper quartile of the probability curve were designated as "much above normal," those in the second and third quartiles as "normal or nearly normal," and those in the lowest quartile as "much below normal." Thus, "much above normal" values are in the range of values to be expected in 25 percent of the years with highest values; "much below normal" are in the range of those to be expected in 25 percent of the years with lowest values; and "normal or nearly



IRRIGATION REQUIREMENT, 1949 AND 1939

INDEX OF IRRIGATION REQUIREMENTS (EVAPORATION MINUS PRECIPITATION, IN PERCENT OF NORMAL) AT SELECTED WEATHER STATIONS. FOR EXPLANATION OF INDEX AND DEFINITION OF "NORMAL" SEE TEXT.

normal" are in the range between the highest and lowest quartile, and are to be expected in 50 percent of the years.

The computed values for each station are given in the accompanying table. In the heading of the columns, "lower quartile" and "upper quartile" are used to designate the values for the lower 25 percent and the upper 25 percent of the time period. A comparison of the arithmetic mean with the "normal" is given to indicate that for many of the stations, the "normals" or medians are practically the same as the arithmetic mean. This comparison indicates that at these stations evaporation minus precipitation, or what we here call index of irrigation requirement, follows the normal distribution. The fact that the curves on the logarithmic-probability paper for most of these stations approximate straight lines supports this indication. It appears that at these locations, simple averages and standard deviations can be used in determining probable values of E—P within narrow limits. The variability in values of E—P are given for the different stations. Because of greater variability, 125 percent of normal would be classed as "normal or near normal" for Archer, Wyoming, while 107 percent of normal would be "much above normal" for Prosser, Washington. The chart on page 19 shows the logarithmic-probability graphs for these two stations and illustrates the method used in arriving at the values shown in the table.

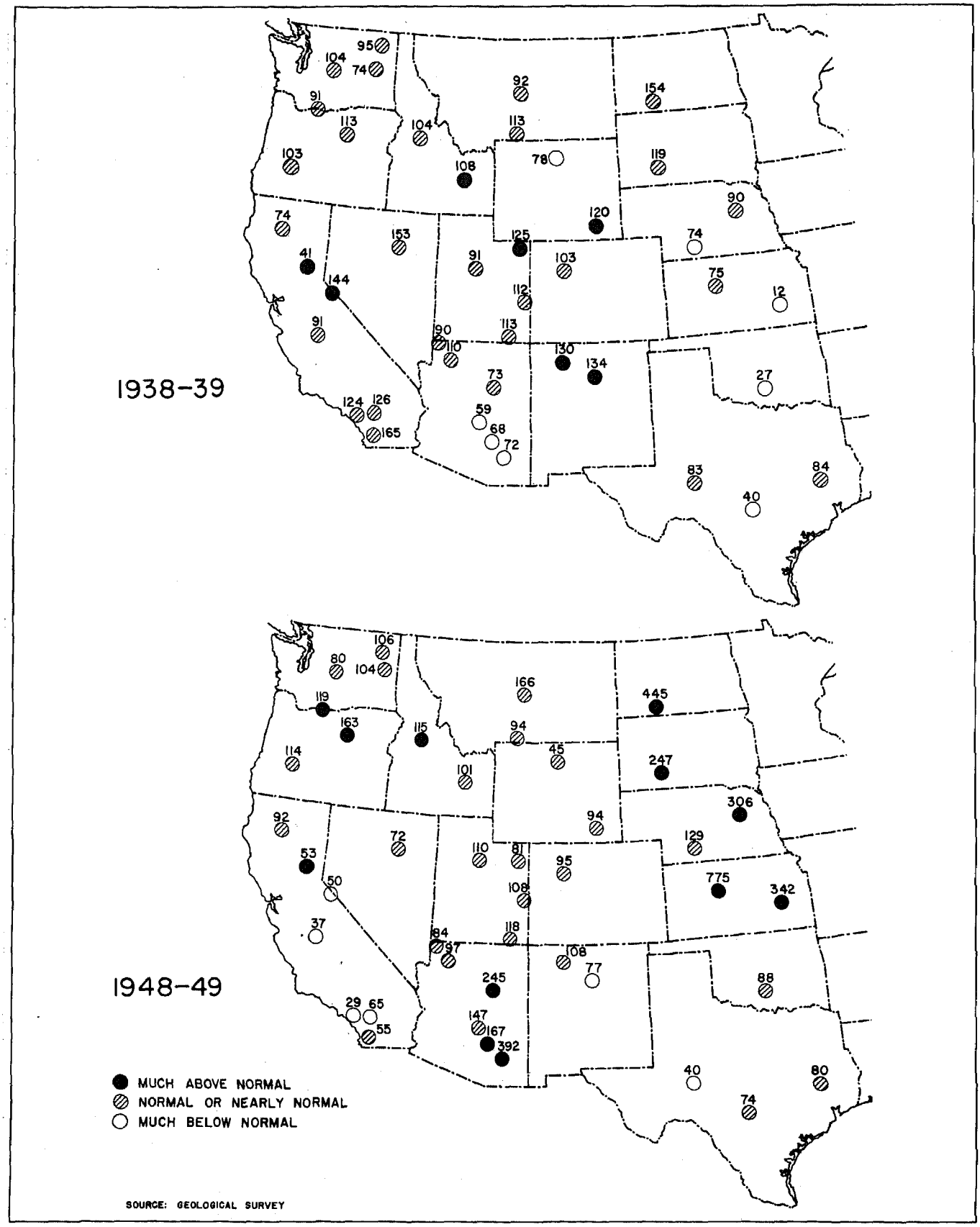
Stream flow during the winter preceding the irrigation season.—The measures of the 1948–49 winter stream flow in percent of normal were obtained from the Geological Survey of the U. S. Department of the Interior. These are practically the same as those published in the Water Resources Review for the six-month period ending March 31, 1949. The corresponding values for the 1938–39 winter stream flow were computed from

INDEX OF IRRIGATION REQUIREMENTS AND LOCATION OF STATIONS USED IN THEIR CALCULATION

[Sources of data: U. S. Weather Bureau and U. S. Bureau of Plant Industry, Soils, and Agricultural Engineering]

Station			Evaporation minus Precipitation [1] (E—P)				Index		Season	Period	Remarks
State	Name	Type	Lower quartile (inches)	Upper quartile (inches)	Normal (inches)	Arithmetic mean (inches)	1939 percent of normal	1949 percent of normal			
Arizona	Mesa	Class A	50	58	54	55	113	104	Apr.-Sept.	1927-46	
	Roosevelt	Class A	41	60	52	53	127	119	Apr.-Sept.	1927-46	
California	Biggs	BPI	30	37	34	33	119	107	Apr.-Sept.	1923-46	1924, 1926, 1927, and 1932 omitted.
	Chula Vista	Class A	37	42	40	39	94	101	Apr.-Sept.	1927-46	
	Fall River Mills	Class A	38	58	53	53	104	139	Apr.-Sept.	1927-46	
	Tahoe	Class A	14	20	17	17	84	95	June-Sept.	1927-46	
	Bachus Ranch	Class A	82	91	87	87	107	98	Apr.-Sept.	1937-49	
	Friant	Class A	60	64	62	62	111	106	May-Sept.	1939-49	
Colorado	Akron	BPI	25	34	30	30	149	64	Apr.-Sept.	1927-46	
Idaho	Arrow Rock	Class A	33	40	36	36	119	108	May-Sept.	1927-46	May 1942 computed.
Kansas	Colby	BPI	24	36	30	30	138	52	Apr.-Sept.	1927-46	
	Garden City	BPI	33	51	42	42	147	60	Apr.-Sept.	1927-46	
	Hays	BPI	24	41	32	32	155	89	Apr.-Sept.	1927-46	
Montana	Huntley	BPI	21	28	25	24	88	96	Apr.-Sept.	1927-46	
	Havre	BPI	26	34	30	29	107	137	Apr.-Sept.	1927-46	
	Malta	Class A	16	26	20	21	95	120	June-Sept.	1926-46	1932 omitted.
	Moccasin	BPI	20	30	26	24	94	106	Apr.-Sept.	1927-46	
Nebraska	Lincoln University Farm	Class A	23	33	28	29	143	43	Apr.-Sept.	1923-45	1933, 1936 and 1941 omitted.
	Mitchell	BPI	18	32	25	25	160	96	Apr.-Sept.	1927-46	
	North Platte	BPI	18	34	26	25	161	71	Apr.-Sept.	1927-46	
Nevada	Fallon	BPI	32	41	38	39	104	96	Apr.-Sept.	1927-46	
	Boulder City	Class A	82	90	86	85	94	93	Apr.-Sept.	1936-49	1935 omitted.
New Mexico	Agricultural College	Class A	54	63	58	59	110	105	Apr.-Sept.	1927-46	
	Elephant Butte	Class A	60	75	67	68	112	109	Apr.-Sept.	1927-46	
	Tucumcari	BPI	44	48	46	44	109	70	Apr.-Sept.	1927-46	
	Alamagorda	Class A	62	68	65	64	103	97	Apr.-Sept.	1939-49	
North Dakota	Dickinson	BPI	24	32	26	24	90	116	Apr.-Sept.	1927-46	
	Mandan	BPI	14	22	19	18	105	116	Apr.-Sept.	1925-49	1931-38 omitted.
Oklahoma	Lawton	BPI	20	33	27	27	182	78	Apr.-Sept.	1927-46	
	Woodward	BPI	32	43	37	36	116	68	Apr.-Sept.	1927-46	
Oregon	Corvallis	Class A	16	20	18	18	106	89	May-Aug.	1927-49	1930, 1941, and 1948 omitted.
	Warm Springs Reservation	Class A	38	47	42	42	112	103	Apr.-Aug.	1929-49	1948 omitted.
	Hermiston	BPI	37	46	41	41	115	78	Apr.-Sept.	1926-46	1927 omitted.
South Dakota	Newell-Belle Fourche	BPI	15	26	20	20	145	75	Apr.-Sept.	1927-46	
Texas	Big Spring	BPI	35	48	43	39	116	76	Apr.-Sept.	1927-46	
	Dalhart	BPI	34	44	40	37	116	50	Apr.-Sept.	1927-46	
	Dilley	Class A	30	46	37	35	124	57	Apr.-Sept.	1929-49	1943 omitted; Aug. and Sept. 1949 computed.
	Chillicothe	BPI	15	23	20	18	153	82	Apr.-Sept.	1927-46	
	Denton	BPI	16	26	21	20	146	80	Apr.-Sept.	1927-46	
Utah	Piute Dam	Class A	32	38	35	35	103	94	June-Sept.	1926-48	1928, 1944, and 1947 omitted.
	Logan	BPI	16	21	18	18	81	91	Apr.-Sept.	1927-46	
Washington	Lake Kachess	Class A	12	15	13	14	121	121	June-Aug.	1925-46	1936 and 1941 omitted.
	Prosser	BPI	31	34	32	32	121	99	Apr.-Sept.	1927-46	
	Walla Walla	Class A	38	42	40	39	112	100	Apr.-Sept.	1925-46	1943 and 1945 omitted.
Wyoming	Archer	BPI	19	28	23	23	145	83	Apr.-Sept.	1927-46	
	Sheridan	BPI	20	28	24	23	96	121	Apr.-Sept.	1927-46	

[1] Values of Evaporation minus Precipitation *in inches* from Class A and BPI stations not comparable because of difference in equipment used in measuring evaporation.



STREAMFLOW DURING WINTER PRECEDING IRRIGATION SEASON, 1949 AND 1939

STREAMFLOW OCTOBER TO MARCH, 1948–1949 AND 1938–1939 IN PERCENT OF NORMAL, AT SELECTED STREAM GAUGING STATIONS.

records obtained from the Geological Survey. The method employed in making these computations is similar to that used for the index of irrigation requirements.

Stream flow during the irrigation season.—The values for stream flow during the 1949 and 1939 irrigation season in percent of normal were derived from records of the Geological Survey in the same manner as the values for winter stream flow.

Water in irrigation reservoirs.—The values for available water in irrigation reservoirs in percent of normal were derived from data obtained from the Geological Survey, the Bureau of Reclamation, and the Bureau of Indian Affairs of the U. S. Department of the Interior. The method used in computing the values was essentially the same as that used for the index of irrigation requirement.

Ground water.—There is no general relationship between ground-water levels and yields of water. It is not possible to determine a normal yield or a normal water level of a well in which the yield or the water level, or both, have been steadily declining, as has been the case in many irrigation pumping areas. Measures regarding the supply of water for irrigated land with ground water as the sole or principal source therefor cannot be obtained in the same manner as for land irrigated from surface sources. The general trend of ground-water levels over as long a period as the records would permit a comparison and the variations in water levels during the 1949 and 1939 irrigation season are given for the purpose of indicating the relative availability of ground water for 1949 and 1939.

Records of key observation wells maintained by the U. S. Geological Survey in the more important irrigation pumping areas were examined and 11 wells with the longest period of record were selected to provide the necessary data. The key observation wells represented wells either not pumped at all, or wells allowed to recover before the observations are recorded. The records for water level for them therefore do not represent pumping lifts.

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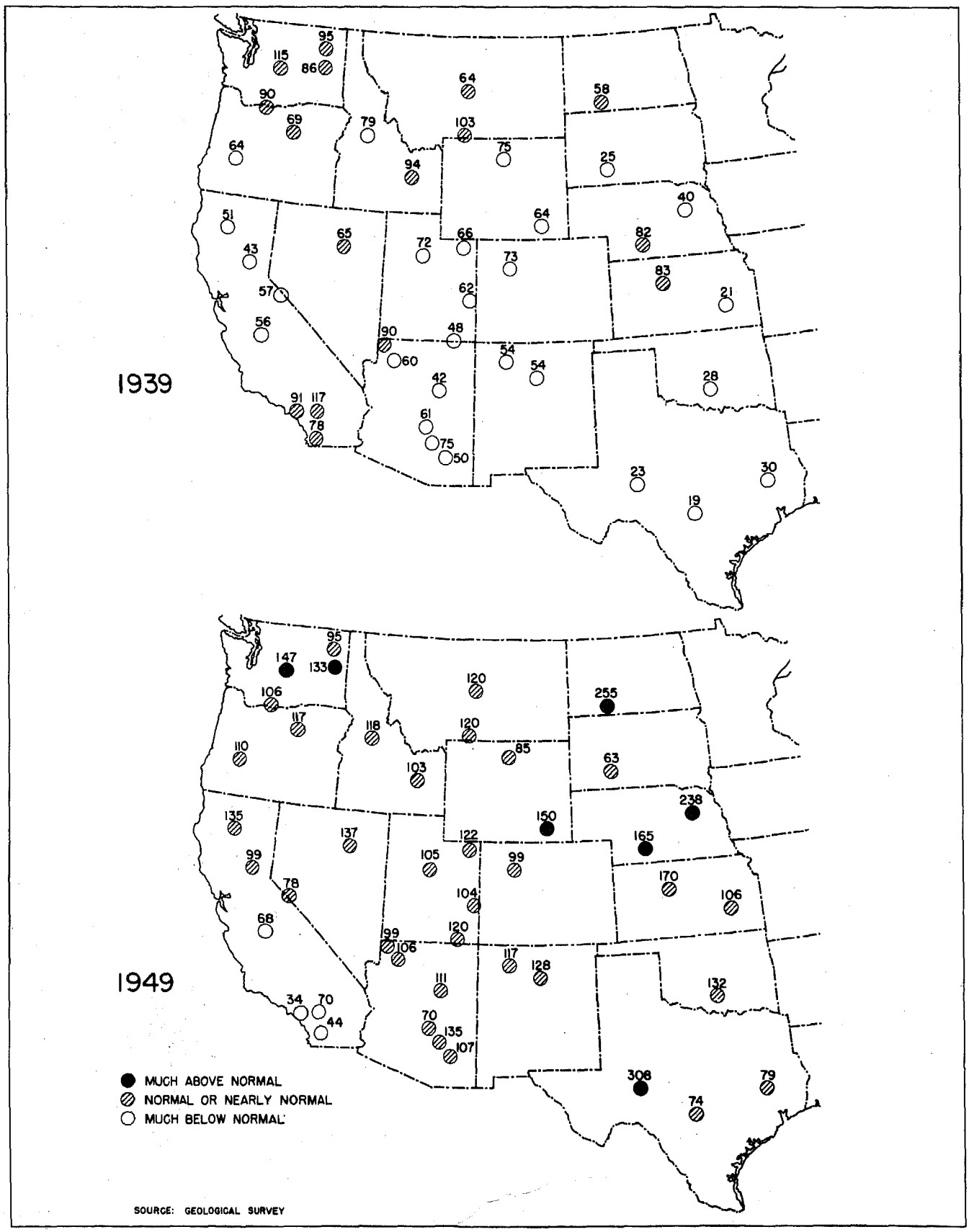
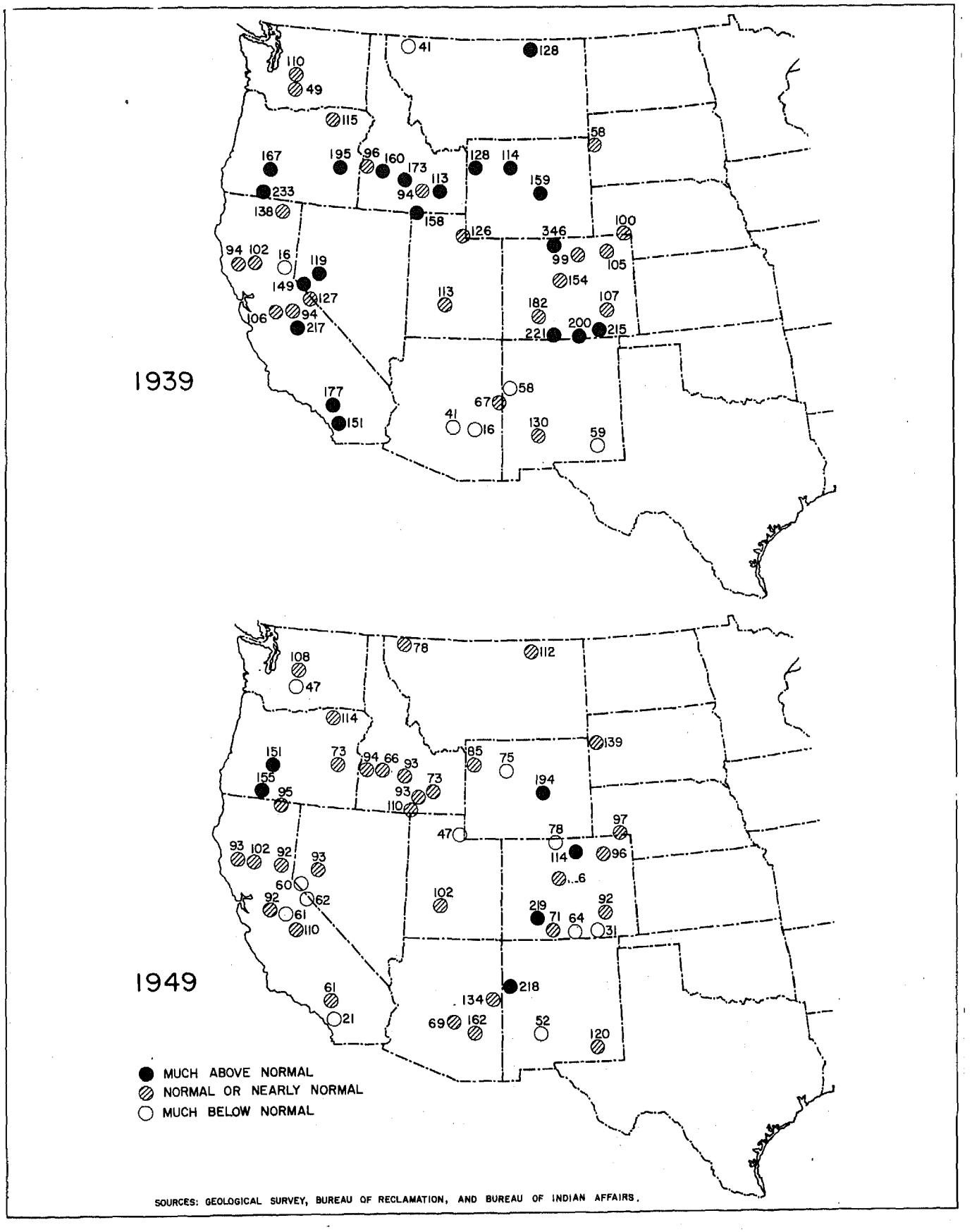


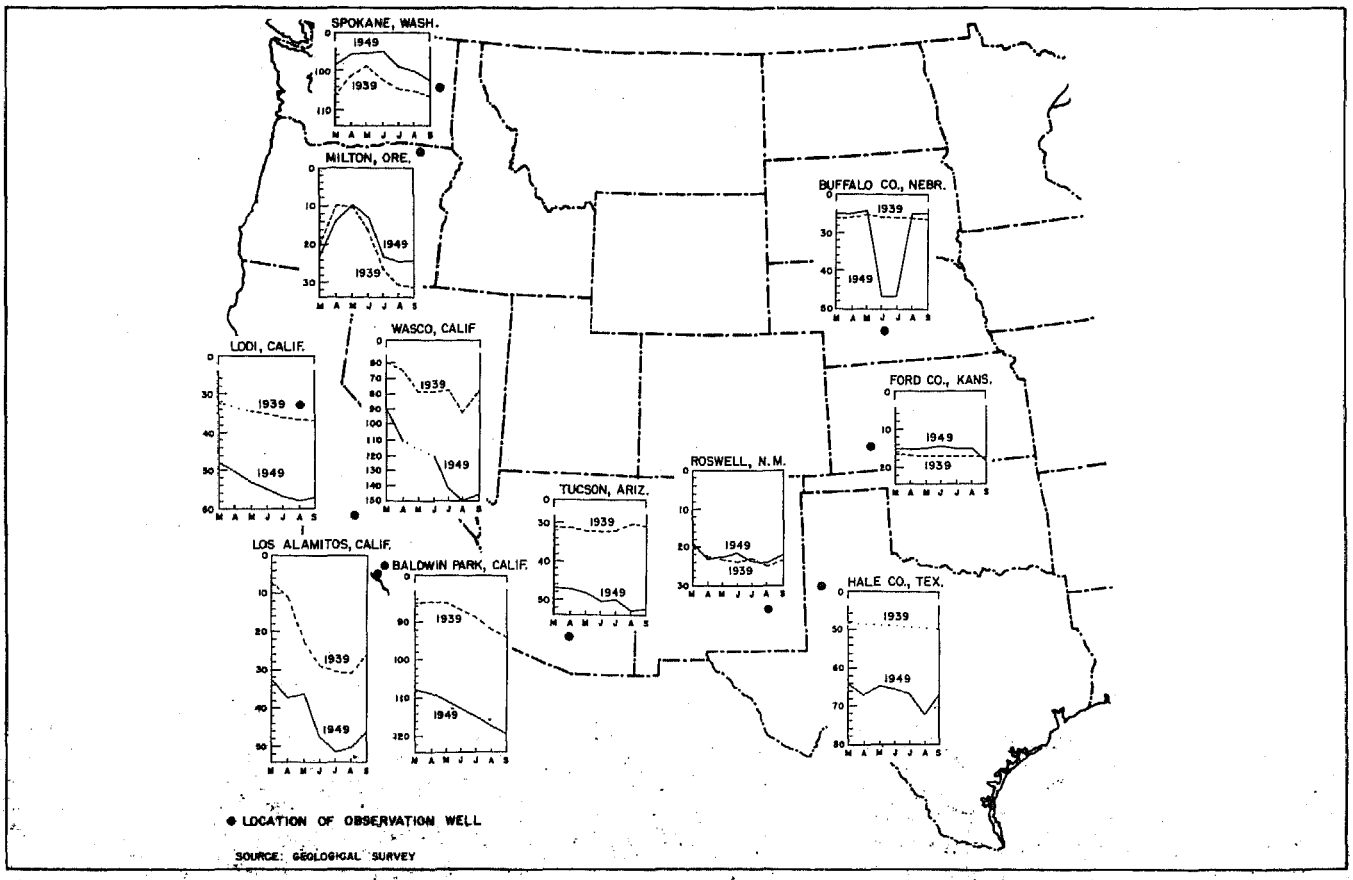
STREAMFLOW DURING THE IRRIGATION SEASON, 1949 AND 1939

STREAMFLOW APRIL TO SEPTEMBER IN PERCENT OF NORMAL AT SELECTED STREAM GAUGING STATIONS.



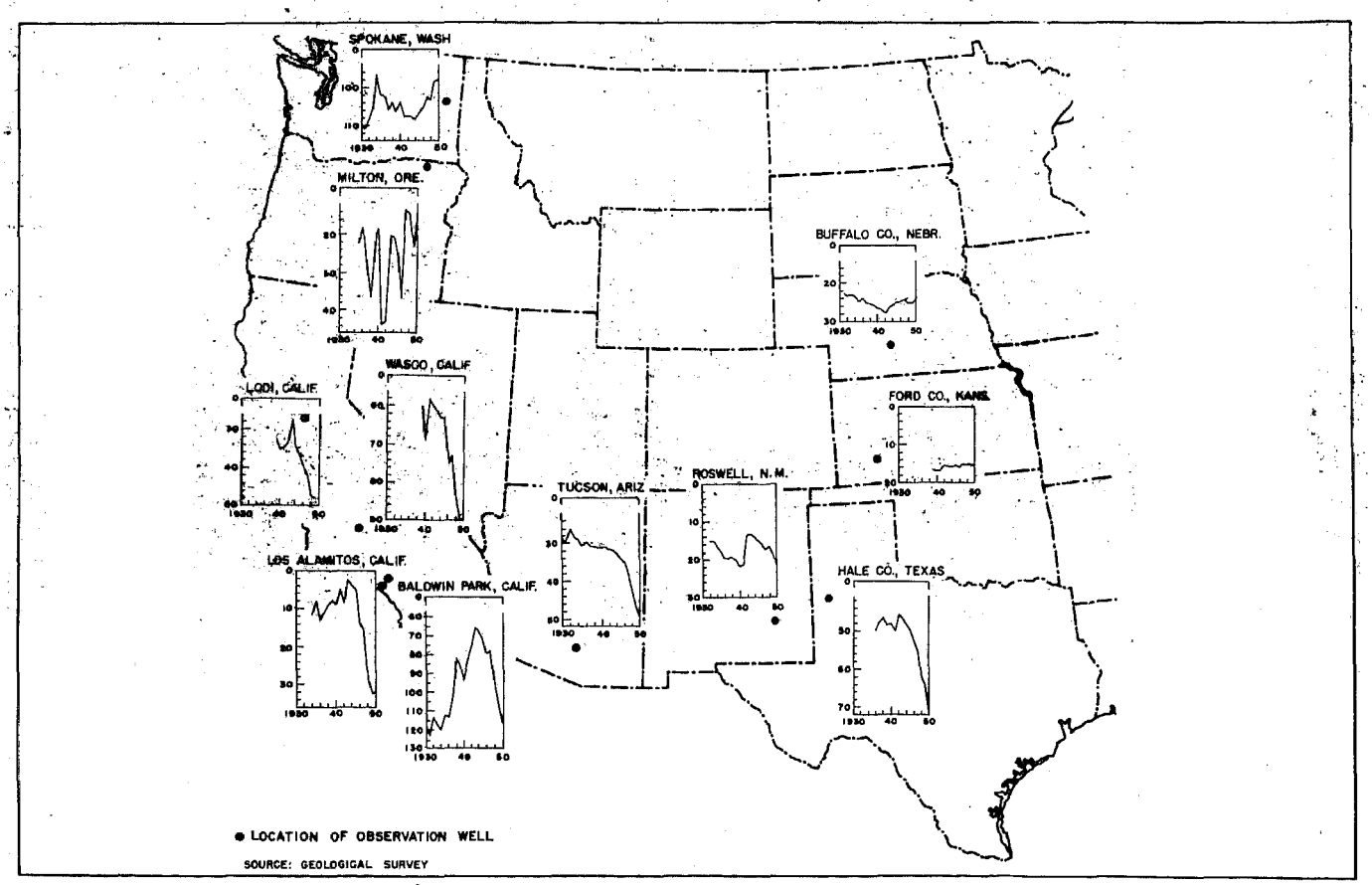
WATER IN IRRIGATION RESERVOIRS, 1949 AND 1939

WATER STORED IN SELECTED IRRIGATION RESERVOIRS ON OR ABOUT MARCH 31 IN PERCENT OF NORMAL.



DEPTH TO GROUND WATER, MARCH TO SEPTEMBER, 1949 AND 1939

DEPTH IN FEET TO GROUND WATER IN SELECTED OBSERVATION WELLS



DEPTH TO GROUND WATER, 1930 TO 1950

DEPTH IN FEET TO GROUND WATER ON OR ABOUT MARCH 31 OF EACH YEAR IN SELECTED OBSERVATION WELLS

The Questionnaire

(27)

IRRIGATION OF AGRICULTURAL LANDS

This inquiry is authorized by Act of Congress (46 Stat. 21; 13 USC 201–218) which requires that a report be made. The information furnished is accorded confidential treatment.

Form **I-1**

U. S. DEPARTMENT OF COMMERCE—BUREAU OF THE CENSUS
WASHINGTON

IRRIGATION QUESTIONNAIRE

Questionnaire for Single-Farm Irrigation Supply Works
(Include ranches as farms)

Seventeenth Decennial Census of the United States: **1950**

Definition.—SINGLE-FARM IRRIGATION SUPPLY WORKS are the irrigation works and equipment that are operated by a single farm to obtain its own irrigation water. Such works may also supply water to one or more neighboring farms. Supply works include ditches or pipe lines outside the farm boundaries, and any wells, pumps, diversion dams, or reservoirs that are used to get a supply of irrigation water FROM a source of supply INTO the farm's distribution ditches or pipe lines. The supply works DO NOT INCLUDE the ditches or pipe lines on the farm used to distribute and apply the water.

THIS QUESTIONNAIRE IS TO BE USED in the 17 Western States and Arkansas, Louisiana, and Florida to report irrigation works that supply water for 1 acre or more of farm land in most years and that ARE OPERATED BY A SINGLE FARM.

Section I.—OPERATOR OF THESE IRRIGATION SUPPLY WORKS, 1950

(Enter name and address from questions 1 and 2 of the Agriculture Questionnaire.)

1. Name _____

2. Address _____ (Route or street number) _____ (Post Office) _____ (State)

Section II.—IRRIGATION SUPPLY WORKS AND EQUIPMENT OPERATED BY THIS FARM, 1950

Office Use Only

3. How many miles of IRRIGATION SUPPLY DITCHES are operated by this farm individually? ☐ None Miles _____ (10) —
(Include ditches and open flumes used to get water to the farm. Do not include ditches and laterals on the farm.)

4. How many miles of SUPPLY PIPE LINES are used for irrigation? . . . . . ☐ None Miles _____ (10) —
(Include pipe lines of all sizes used to get water to the farm. Do not include pipe lines on the farm.) X

5. How many STORAGE RESERVOIRS (artificial lakes) are used for irrigation? . . . . . ☐ None Number _____ —
(Do not count "overnight ponds" as storage reservoirs.)

(If reservoirs are reported in question 5)—

(a) Give the following information for each reservoir: 1 —

Name of reservoir	Capacity (acre-feet*)	Material of which reservoir dam is made

2 — 3 — 4 — 5 —

*One acre-foot is the quantity of water sufficient to cover 1 acre to depth of 1 foot, or 43,560 cubic feet.

6. How many DIVERSION DAMS are used? . . . . . ☐ None Number _____ 6 —
(Report a diversion dam for each place where water is diverted from a natural stream or spring by this farm individually.) 7 —

(If diversion dams are reported in question 6)—

(a) How many are made of—

Earth and rock? . . . . . Number _____ —

Timber? . . . . . Number _____ —

Concrete? . . . . . Number _____ —

Other or mixed materials? _____ (Describe) Number _____ —

7. How many FLOWING WELLS are used for irrigation? . . . . . ☐ None Number _____ —
(Report wells pumped any time last year as pumped wells in question 8.)

8. How many PUMPED WELLS are used for irrigation? . . . . . ☐ None Number _____ —

(If pumped wells are reported in question 8)—

(a) What was the average pumping lift of these wells last year? . . . . . Feet _____ —
(Report vertical distance from average water level in well when pump is operated to highest point to which water is pumped.)

9. How many IRRIGATION PUMPS of all kinds are used? . . . . . ☐ None Number _____ —
(Include irrigation pumps of all kinds.)

10. How many ELECTRIC MOTORS are used for irrigation? . . . . . ☐ None Number _____ —

11. How many OTHER MOTORS OR ENGINES are used for irrigation? . . . . . ☐ None Number _____ —

All of the remaining questions relate only to the works reported in Section II or to the water delivered or to the land irrigated by these works.

For Office Use Only — No.

Section III.—SOURCE OF WATER OBTAINED IN 1949 THROUGH WORKS REPORTED IN SECTION II

B

12. Where did the water obtained through these works last year come from? X
(Check each source from which water was obtained and GIVE NAMES OF STREAMS AND LAKES. If water was obtained from partnership ditches, ditch companies, or other irrigation enterprises, check the sources from which those enterprises obtained the water.)

☐ Natural stream (not canals or ditches): 8 — Area

Name of stream _____

☐ Natural lake (not constructed reservoirs or artificial lakes):

Name of lake _____ Type enterprise: 1

☐ Spring.

☐ Flowing well (consider wells pumped any time last year as pumped wells). Drainage basin

☐ Pumped well.

☐ Drainage water (drainage, seepage, or return flow water from ditches or other drainage channels, but not drainage water that has returned to a stream or other natural source). 9 10 — Type water

☐ Sewage.

☐ Any other source _____ (Describe) Complete system

13. What part of the water obtained through these works was PUMPED either by this farm or by anyone from whom the water was obtained? . . . . . (Check one) ☐ All ☐ Part ☐ None Acreage group

14. What part of the water obtained through these works was STORED IN A RESERVOIR (artificial lake or enlarged natural lake) either by this farm or by anyone from whom the water was obtained? . . . . . (Check one) ☐ All ☐ Part ☐ None —

15. What part of the water obtained through these works was obtained from irrigation enterprises such as partnership ditches, ditch companies, or irrigation districts? (Check one) ☐ All ☐ Part ☐ None —

(Do not consider water delivered by an irrigation enterprise directly into the farm's distribution system as water obtained through these works.)

(If answer to question 15 is "All" or "Part")—

(a) What is the name of each enterprise (or its owner)?

Name of enterprise _____

Name of enterprise _____

Section IV.—NEW CAPITAL INVESTMENT

16. How much was spent between January 1, 1940, and December 31, 1949, for original purchase, new construction, enlargement, or new improvements of these irrigation works, or for acquiring water rights? . . . . . ☐ None $_____/00 (Dollars only) - -
(Do not include amount spent for repairs, replacement of old or worn-out equipment, or for the distribution system within the farm boundaries.) X X X X

Section V.—FARMS AND ACREAGE IRRIGATED, 1949 12 —

(Enter answer for question 17 from the Agriculture Questionnaire, question 227(a).)

17. Acres irrigated in this farm by these works last year. . . . . ☐ None Acres _____ C —

18. Did this farm supply irrigation water to any other farms last year?

☐ No. If "No," check and skip to question [19]. 13 —

☐ Yes. If "Yes," give the following information: 14 —

Name of operator of each farm: ↓ *Acres irrigated on each farm with the water supplied:* ↓

Name _____ Acres _____ 15 —

Name _____ Acres _____

Name _____ Acres _____

Name _____ Acres _____

[19] How much of the land irrigated last year with water from these works has been artificially drained? . . . . . ☐ None Acres _____ —

20. How much of the land irrigated last year with water from these works is in need of drainage? . . . . . ☐ None Acres _____ —
(If any of the land reported in question 19 needs additional drainage, include that land also in the answer to question 20.)

(Reduced facsimile)

ly, subject to the provisions of law. *The Census report cannot be used for purposes of taxation, investigation, or regulation.* Bureau of the Budget No. 41-4951. Approval expires December 31, 1950.

Section VI.—COST OF IRRIGATION WATER, 1949

Office Use Only

(If electric motors are reported in question 10)—

21. What was the total cost of electricity for pumping for irrigation last year? . . . . . ☐ None $_____/00 (Dollars only)

(If other motors or engines are reported in question 11)—

22. What was the cost of fuel and oil for pumping for irrigation last year? . . . . . ☐ None $_____/00 (Dollars only)

23. What was the total cost of repairs, maintenance, and replacements for irrigation pumps, motors, ditches, or other irrigation works last year? . . . . . ☐ None $_____/00 (Dollars only)

(Do not include the cost of repairs to the distribution system within the farm boundaries.)

B

16

17 C

18

(If water is reported in question 15 (a) as obtained through these works from another irrigation enterprise)—

24. How much did this farm pay for the water obtained through these works from the . . . (enterprise reported in question 15a)? . . . ☐ None $_____/00 (Dollars only)

(Include all types of payments, such as assessments, water tolls, construction, bonds and interest, operation and maintenance, etc.)

19 X

Section VII.—SEASON OF IRRIGATION, 1949

20

25. What were the first and last months of last year in which water obtained through these works was used for irrigation? . . . . . First month _____ (Month); Last month _____ (Month)

Section VIII.—LOCATION OF LAND AND WORKS, 1950

(If the land irrigated by these works (reported in questions 17 and 18) is less than 300 acres, skip questions 26 and 27.)

26. Where is the land that was irrigated by these works located? . . . . . ☐ None outside this E. D. ☐ All or part outside this E. D.

(a) If all or part is located outside this E. D., give number of acres of such land by township and range numbers and by county. If located in more than one township, list each township and give the acreage in each. If township and range location is not available, give the best possible description of the location that you can.

..... acres in Township .....; Range .....; County .....

..... acres in Township .....; Range .....; County .....

Other description of location .....

27. Where are the irrigation works located? . . . . . ☐ None outside this E. D. ☐ All or part outside this E. D.

(a) If all or part are located outside this E. D., list the kind of works (well, ditch, etc.) by township and range numbers, and by county, or give the best possible description of their location.

KIND OF WORKS:

..... in Township .....; Range .....; County .....

..... in Township .....; Range .....; County .....

Other description of location .....

REMARKS: .....

ENUMERATOR'S RECORD

State ..... County ..... E. D. No. .....

Agriculture Questionnaire No. .....

Certified by ..... (Enumerator) Date ..... (Month) (Day), 1950

Checked by ..... (Crew Leader) Date ..... (Month) (Day), 1950

EXPLANATIONS AND INSTRUCTIONS

This questionnaire is to be used in the following States:

Arizona	Idaho	Nevada	South Dakota
Arkansas	Kansas	New Mexico	Texas
California	Louisiana	North Dakota	Utah
Colorado	Montana	Oklahoma	Washington
Florida	Nebraska	Oregon	Wyoming

WHEN TO TAKE THIS QUESTIONNAIRE.—This questionnaire is to be filled for each farm in the above States for which the answer to question 227 in the Agriculture Questionnaire is "Yes," with the following three exceptions—

(1) If the acreage irrigated by the farm's own irrigation supply works in most years is less than 1 acre, or,

(2) If the farm's own irrigation supply works consist ONLY of a supply ditch or pipe line that is less than 1 mile in length and also is used to get water to the farm from a partnership ditch, ditch company, or other irrigation enterprise, or,

(3) If the farm's own irrigation supply works consist ONLY of a small reservoir or "overnight pond" that merely regulates the daily delivery of water to the farm from an irrigation enterprise.

But DO fill this questionnaire for ANY irrigation works including any length of ditch or pipe line, that are operated by this farm individually to obtain water from a stream, well, or other original source to irrigate 1 acre or more of land in most years.

If the answer to question 227 in the Agriculture Questionnaire is "Yes," make sufficient inquiry to determine whether the above exceptions apply before filling out this questionnaire.

Report in a single I-1 Questionnaire all individually operated irrigation supply works used to obtain irrigation water for any land reported in a single Agriculture Questionnaire. For example, if water is pumped from a well on one part of the farm and other water is obtained by gravity on another part, both sets of irrigation works should be reported in one I-1 Questionnaire for the farm.

Section II.—IRRIGATION SUPPLY WORKS AND EQUIPMENT, 1950

Report irrigation works and equipment as of January 1, 1950.

Do not include ditches, pumps, or other works used primarily for drainage, but do include works, such as pumps, that are used primarily to utilize drainage water for irrigation. Include works or equipment maintained chiefly for irrigation use, even if not used for irrigation last year; in such cases make a note under REMARKS as to which works or equipment were not used in 1949, and why.

A DIVERSION DAM (question 6) is an obstruction placed in a natural stream to divert the water into a ditch or to form a pool of water for pumping. Report as a diversion dam any means of diverting water by gravity from any natural channel even if the means consist only of making an opening in the bank of the channel with a shovel. Do not report headgates or diversion boxes in canals or ditches as diversion dams. Also do not report STORAGE dams (dams used to form reservoirs) as diversion dams.

Section III.—SOURCE OF WATER, 1949

The water supply may come from two or more sources—for example, part from a stream and part from a well. If the supply was from more than one source, check each of these sources in question 12. If stored water was obtained from a reservoir (artificial lake or enlarged natural lake) report as the source the principal STREAM from which the stored water came. Check "Natural stream" for storm water from any natural run-off channel, even though water flows in the channel only during or after storms. If the stream or channel has no name, report "No name."

Stored water (question 14) is water that must be held in a reservoir to make the water available for use when needed. Stored water does not include natural flow water that merely flows through a reservoir nor water released from a reservoir to replace natural flow water.

The information on works reported in Section II and the information on sources of water reported in Section III must be consistent. For example, if water from a stream is reported in question 12 of Section III, either a diversion dam or pump to get the water out of the stream should be reported in Section II, or question 15 should show water obtained from another enterprise that has a diversion dam or pump to get the water out of the stream.

Section IV.—CAPITAL INVESTMENT

Do not include purchase cost of works or equipment used more for other purposes than for irrigation—for example, do not include a tractor used for pumping irrigation water if it was used more for other farm work.

If diversion dams, pumps, or other works or equipment are merely replaced with new ones of similar type, do not report the cost as new capital investment. But if items are replaced with new ones of materially different or improved type, report the additional cost over and above the cost of merely making a replacement of similar type. For example, if a brush diversion dam is replaced with a new brush diversion dam, do not report the cost as new investment. But if it is replaced with a concrete dam, report as new investment the part of the cost in excess of the cost of a brush dam.

Include the estimated value at prevailing wage rates of any work done by the farm operator since January 1, 1940, in new construction or enlargement and improvement of irrigation supply works. Do not include costs for the farm distribution system within the farm boundaries.

Section V.—FARMS AND ACREAGE IRRIGATED, 1949

In question 18, only the acreage actually irrigated last year with water supplied by these irrigation works should be reported as "acres irrigated." Do not report land in roads, ditches, or other uses to which water was not applied.

Section VI.—COST OF IRRIGATION WATER, 1949

Report all costs of water OBTAINED THROUGH THESE WORKS last year, including water delivered to other farms.

In question 23, include the estimated value at prevailing wage rates of any work done by the farm operator in the maintenance or repairs of these works. DO NOT INCLUDE costs of distributing and applying the water to the land, nor of maintaining the farm distribution system. If an unusually large expenditure was made for repairs or replacements, explain what it was for under "REMARKS."

(Reduced facsimile)

This inquiry is authorized by Act of Congress (46 Stat. 21; 13 USC 201-218) which requires that a report be made. The information furnished is accorded conf

FORM **I-2**

U. S. DEPARTMENT OF COMMERCE—BUREAU OF THE CENSUS
WASHINGTON

IRRIGATION QUESTIONNAIRE

Questionnaire for Multiple-Farm Irrigation Enterprises (Include ranches as farms)

Seventeenth Decennial Census of the United States: **1950**

Definition.—An IRRIGATION ENTERPRISE is a business, either private or public, that operates irrigation works to supply water for irrigation. (The irrigation works of the enterprise do not include the farm ditches or pipe lines that are used to distribute and apply the water on the farms.)

THIS QUESTIONNAIRE IS TO BE USED in the 17 Western States and Arkansas, Louisiana, and Florida to report each separately managed irrigation enterprise except those operated by single farms.

PLEASE READ the explanations and instructions on the back of this form.

Section I.—NAME AND TYPE OF ENTERPRISE, 1950

1. Name of irrigation enterprise _____

2. Other names by which this enterprise is commonly known: _____

3. Persons supplying information:

Name _____ Title or relationship to enterprise _____

Address _____ (Street or route number) (Post Office) (State)

Name _____ Title or relationship to enterprise _____

Address _____ (Street or route number) (Post Office) (State)

4. Which of the following types does this enterprise represent? (*Check one*)

Cooperative or mutual { ☐ Unincorporated ☐ Incorporated
☐ District (irrigation or other)
☐ Commercial
☐ U. S. Bureau of Reclamation
☐ U. S. Office of Indian Affairs
☐ State
☐ City

Section II.—IRRIGATION WORKS AND EQUIPMENT, 1950

(Include all irrigation works and equipment operated by this enterprise. Do not include laterals, ditches, or other works that receive water from this enterprise but are operated by other organizations, groups of farmers, or individual farmers.)

Office Use Only

5. How many miles of CANALS and DITCHES are operated? ☐ None Miles _____ (Include open flumes. Report tenths of miles.)

6. How many miles of PIPE LINES are operated? ☐ None Miles _____ (Include pipe lines of all sizes and siphons. Report tenths of miles.)

7. How many feet of TUNNELS are operated? ☐ None Feet _____

8. How many STORAGE RESERVOIRS are operated? ☐ None Number _____

(*a*) Give the following information for each reservoir:

Name of reservoir	Capacity (acre-feet)	Material of which reservoir dam is made

9. How many DIVERSION DAMS are operated? ☐ None Number _____ (Do not count dams used to form reservoirs.)

If diversion dams are operated—

How many are made of—

(*a*) Earth or rock? _____

(*b*) Timber? _____

(*c*) Concrete or masonry? _____

(*d*) Other or mixed materials? _____ (Describe)

10. How many FLOWING WELLS are used? ☐ None Number _____ (Report wells pumped any time last year as pumped wells in question 11.)

11. How many PUMPED WELLS are used? ☐ None Number _____

If pumped wells are used—

(*a*) What was the average PUMPING LIFT of these pumped wells last year? Feet _____ (Report vertical distance from water level in well when pump is operating to highest point to which water is pumped.)

12. How many IRRIGATION PUMPS of all kinds are used? ☐ None Number _____

13. How many ELECTRIC MOTORS are used for pumping? ☐ None Number _____

14. How many OTHER MOTORS OR ENGINES are used for pumping? ☐ None Number _____

15. Are any of the irrigation works owned jointly with any other irrigation enterprise? No ☐ Yes ☐

If "Yes," answer the following questions:

(*a*) Which of the works (reservoir, canal, etc.) are jointly owned?	(*b*) What percent of each of the works is owned by THIS enterprise?	(*c*) For each of the works, what are the names of the other enterprises that have an ownership interest?

16. Are any of the works of this enterprise used for other purposes, such as drainage, hydroelectric power, flood control, etc., in addition to irrigation? No ☐ Yes ☐

If "Yes," answer the following questions:

(*a*) Which of the works (reservoir, canal, etc.) are used for other purposes?	(*b*) What are the other uses (drainage, power, etc.) of each of the works?	(*c*) What percent of the use of each of the works is chargeable to irrigation?

Section III.—SOURCE OF WATER, 1949

17. Where did the water obtained by this enterprise last year come from? (Check EACH SOURCE from which water was obtained, and GIVE NAMES OF STREAMS AND LAKES. If water was obtained from other irrigation enterprises, check the source from which these enterprises obtained the water.)

☐ Natural stream (not canals or ditches)— 8

Name of stream _____

☐ Natural lake (not constructed reservoirs or artificial lakes)—

Name of lake _____

☐ Spring 9

☐ Flowing well (consider wells pumped any time last year as pumped wells) 10

☐ Pumped well

☐ Drainage water (drainage, seepage, or return flow water from ditches or other drainage channels, but not drainage water that has returned to a stream or other natural source)

☐ Sewage

☐ Any other source _____ (Describe)

18. What part of the water obtained by this enterprise was PUMPED either by this enterprise or by other enterprises from which the water was obtained? ☐ All ☐ Part ☐ None

19. What part of the water was STORED IN A RESERVOIR (artificial lake or enlarged natural lake) either by this enterprise or by other enterprises from which the water was obtained? ☐ All ☐ Part ☐ None

20. What part of the water was obtained from other irrigation enterprises? ☐ All ☐ Part ☐ None

If all or part of the water came from other enterprises:

(*a*) What is the name of each enterprise (or its owner)?

Name of enterprise _____

Name of enterprise _____

Section IV.—NEW CAPITAL INVESTMENT; FINANCING

21. How much was spent by this enterprise between Jan. 1, 1940, and Dec. 31, 1949, for original purchase, new construction, enlargement, or new improvements of irrigation works, or for acquiring water rights? ☐ None $_____/00 (Dollars only) (Do not include repairs or replacements, nor payments for works constructed prior to 1940.)

22. What was the total indebtedness of this enterprise in outstanding bonds, notes, or balance payable on construction or purchase cost as of Jan. 1, 1950? ☐ None $_____/00 (Dollars only)

If this enterprise has indebtedness:

(*a*) How much was this enterprise in arrears in payment of principal or interest on indebtedness as of January 1, 1950? ☐ None $_____/00 (Dollars only)

23. How much were water users in arrears for payments to this enterprise as of January 1, 1950? ☐ None $_____/00 (Dollars only)

FOR OFFICE USE ONLY

No.

Area

Type enterprise

Drainage basin

Type water

Complete system

Acreage group

(Reduced facsimile)

ential treatment, subject to the provisions of law. *The Census report cannot be used for purposes of taxation, investigation, or regulation.* Bureau of the Budget No. 41-4002. Approval expires December 31, 1950.

Section V.—FARMS AND ACREAGE IRRIGATED, 1949

(Report as farms any places of 3 acres or more, and places of less than 3 acres that produced $150 worth or more of farm products for sale last year. Include ranches as farms.)

Office Use Only

24. How many farms received any water from this enterprise last year? . . . . . ☐ None Number of farms _____ B

25. How many of these farms (reported in question 24) received the water from this enterprise through separately operated laterals or other irrigation enterprises? . . . . . ☐ None Number _____

(Disregard separately operated laterals less than one mile in length outside the boundaries of the farms that are served, AND that have no organization or officer to report them.) 11 —

If water was delivered through such enterprises:

(a) What is the name of each separately operated lateral or other enterprise (or name of owner) and how many farms received water from each?

Name_____ Number of farms_____

Name_____ Number of farms_____

Name_____ Number of farms_____

(Continue under REMARKS if necessary. If continued, check here: ☐)

26. How many farms received water direct from this enterprise? . . . . . ☐ None Number of farms_____ —
(The sum of the farms in questions 25 and 26 should equal the number of farms in question 24.)

27. What was the total net acreage irrigated by this enterprise last year in the farms (reported in question 26) that received water DIRECT FROM THIS ENTERPRISE? . . . . . ☐ None Acres_____ C
(Net acreage means land actually irrigated, not including land in roads, farmsteads, etc., nor land sometimes irrigated but not irrigated last year. Do not count land twice even though two crops were harvested from the same land.) 13 — 14 —

28. How much of the land irrigated direct last year (reported in question 27) has been artificially drained? . . . . . ☐ None Acres_____ X —

29. How much of the land irrigated direct last year (reported in question 27) is in need of drainage? . . . . . ☐ None Acres_____ —
(If any of the land reported in question 28 needs additional drainage, include that land also in the answer to question 29.)

Section VI.—COST OF WATER TO FARMS, 1949

30. How much was paid to this enterprise last year by the farms (reported in question 26) that received water DIRECT FROM THIS ENTERPRISE?
(Include all types of payments such as assessments per acre or per share of stock, water tolls, construction payments, bond and interest payments, and "O and M" payments.)

REPORT EITHER:

Total payments . . . . ☐ None $_____/00 (Dollars only) 16 — 17 —

OR

Payment PER ACRE ACTUALLY IRRIGATED . . . . . $_____/_____ (Dollars and cents) 18 —

31. How much did those farms (that received water DIRECT) pay direct to any other enterprises for that water?

REPORT EITHER:

Total payments . . . . ☐ None $_____/00 (Dollars only) 19 —

OR

Payment PER ACRE ACTUALLY IRRIGATED . . . . . $_____/_____ (Dollars and cents)

32. How much of these payments (see questions 30 and 31) was for purposes such as construction or purchase cost, bonds, and interest, or sinking fund? Do not include payments for operation or maintenance.

REPORT EITHER:

Total payments other than for operation and maintenance . . . . . ☐ None $_____/00 (Dollars only) —

OR

Payment other than for operation and maintenance PER ACRE ACTUALLY IRRIGATED . . . . . $_____/_____ (Dollars and cents)

Section VII.—QUANTITIES OF WATER, 1949 20 —

33. What were the first and last months in which water was supplied for irrigation last year? . . . . . First month_____ (Month) Last month_____ (Month)

34. What part of the water was measured to the individual farms? . . . . . ☐ All ☐ Part ☐ None —

35. What was the total quantity of water delivered last year to farms (reported in question 26) that received water DIRECT?

_____ acre-feet, or, _____ million gallons

or _____ cu. ft. per sec. for _____ hours 21 —

or _____ gal. per min. for _____ hours 22 —

or _____ miner's inches for _____ hours

36. How many acre-feet of water were OBTAINED in each of the following ways last year?

(If acre-feet cannot be estimated satisfactorily, what is the estimated percent of the total supply of water obtained in each way?)

	Acre-feet; OR	Percent of total supply	D
(a) By diversion or pumping from surface water sources BY THIS ENTERPRISE . . . (Include water from flowing wells.)	_____ or	_____%	—
(b) By pumping from ground water sources BY THIS ENTERPRISE	_____ or	_____%	—
(c) From other enterprises (listed in question 20a)	_____ or	_____%	—
(d) Total supply of water	_____ or	100%	—

37. How many acre-feet of water were USED in each of the following ways?

(If acre-feet cannot be estimated satisfactorily, what is the estimated percent of the total supply of water used in each way?)

	Acre-feet; OR	Percent of total supply	
(a) Conveyance loss—seepage, evaporation, etc. .	_____ or	_____%	—
(b) Direct to farms for irrigation (as reported in question 35)	_____ or	_____%	—
(c) To other irrigation enterprises (listed in question 25a)	_____ or	_____%	—
(d) Other use_____ (Describe)	_____ or	_____%	—
(e) Total supply of water . . . . . (Acre-feet in 37e should be the same as in 36d.)	_____ or	100%	

Section VIII.—LOCATION OF LAND AND WORKS, 1950

38. Are either the irrigation works of this enterprise or the land irrigated direct (reported in question 27) located in more than one county? . No ☐ Yes ☐

(a) If "Yes," give the location by counties of each of the items indicated below.

Question No.	Write name of county →	County	County	County	County
5.	Canals, ditches . . . . miles				
6.	Pipe lines . . . . . miles				
7.	Tunnels . . . . . feet				
8.	Reservoirs . . . . (by name)				
9.	Diversion dams . . . number				
10.	Flowing wells . . . number				
11.	Pumped wells . . . number				
12.	Pumps . . . . . number				
13.	Electric motors . . . number				
14.	Other motors . . . . number				
21.	New capital . . . . . dollars				
26.	Farms irr. direct . . number				
27.	Acres irr. direct . . . . acres				
28.	Acres drained . . . . . acres				
29.	Needing drainage . . . acres				

REMARKS: .....

ENUMERATOR'S RECORD
(To be filled by Census Enumerator)

Are either the works or land irrigated direct, within a county, located in more than one drainage basin? . . . . . No ☐ Yes ☐

If "Yes," give drainage basin location of items on back of questionnaire.

State _____ County_____ Drainage basin _____ Irrigation Questionnaire No. _____

Certified by_____ (Enumerator) Date _____ (Month) _____ (Day), 1950

Checked by_____ (Irrigation Technician) Date _____ (Month) _____ (Day), 1950

(Reduced facsimile)

EXPLANATIONS AND INSTRUCTIONS

All questions are to be answered.—If exact information is not available, please give the best possible estimate. Use the space for REMARKS when additional space is needed to explain the answer to any question; number the explanation to correspond to the question. Any unusual or abnormal answer should be explained. The shaded blocks in the questionnaire are for Census Office use.

Interrelated enterprises.—In many cases, two or more enterprises are closely related in their source of water, area irrigated, use of works, or otherwise. For example, an irrigation district may supply water to one or more lateral companies that deliver the water to farms, or one enterprise may own an interest in a reservoir or canal operated by another enterprise. A separate report is to be made for each separately managed enterprise that operates irrigation works to deliver water either to farms or to other irrigation enterprises. In order to assure complete enumeration and also to prevent duplication, all relationships to other enterprises should be clearly shown in questions 15, 20, and 25, or explained under REMARKS. A report should be made for an enterprise even though it delivers no water direct to farms, if it supplies water to one or more other irrigation enterprises.

Even though no irrigation water was delivered last year because of water shortage or other reasons, an enterprise should be reported if it is a going concern, has works capable of delivering water, and normally does deliver water for irrigation. In such cases omit the questions in Sections III, V, VI, and VII.

Section I.—NAME AND TYPE OF ENTERPRISE, 1950

Questions 1 and 2.—If the enterprise itself has no name, give the name or names of the owners.

Question 3.—Give the name or names of the person or persons supplying the information and their titles or positions if employees of the enterprise, or their relationship to it, such as "Partner," "Part owner," or "Water user."

Question 4.—***Cooperative or mutual*** enterprises are those controlled and operated by two or more water users primarily to supply water to their OWN farms, with the exception of "District" enterprises that are organized under special State laws. If 50 percent or more of the acreage irrigated is not in the farms of the water users that control and operate the enterprise, the enterprise should be classified as "Commercial." Cooperative or mutual enterprises include the operation of irrigation supply works or equipment by two or more farms in "partnership"; by groups of water users informally associated under verbal or written agreements; by mutual irrigation companies or water companies; by water-user associations; by "lateral" companies; and by the community ditches or "acequias" in the Southwest that were organized originally in accordance with old Spanish, Mexican, or Indian customs. Cooperative or mutual enterprises may be either unincorporated or incorporated.

District enterprises are public corporations established under special State laws. Included are irrigation districts, and also types of districts such as water improvement, water conservation, and reclamation, which in some States are in addition to irrigation districts and in other States are in lieu of them. Reclamation districts, organized under State laws, should not be confused with U. S. Bureau of Reclamation projects.

Commercial enterprises are privately operated (by individuals, partnerships, or corporations) and more than 50 percent of the acreage irrigated is in farms of water users that do not share in the control and operation of the enterprise. In some cases commercial enterprises are public utilities regulated by a State commission or by the governing board of a county.

U. S. Bureau of Reclamation enterprises are those operated by the U. S. Bureau of Reclamation. If the operation of works constructed by the Bureau of Reclamation has been transferred entirely to a water-user organization, classify the enterprise according to the type of water-user organization, such as "District" or "Cooperative or mutual." If part of the works of an irrigation project are operated by the Bureau of Reclamation and part by a water-user organization, separate reports should be made for the parts operated by each.

U. S. Office of Indian Affairs enterprises are those operated by the U. S. Office of Indian Affairs.

State enterprises are those operated by a State agency of any kind.

City enterprises are those operated by a city or town, usually in combination with a domestic water supply. If a city water enterprise supplies water for irrigation of 100 acres or more of farm land, a report should be made for it as an irrigation enterprise.

Section II.—IRRIGATION WORKS AND EQUIPMENT, 1950

Report irrigation works and equipment as of January 1, 1950.

Canals, pumps, or other works used only for drainage should be excluded, but works, such as pumps, that are used to reclaim drainage water for irrigation should be reported. Joint ownership of works with any other enterprise should be clearly explained in question 15, and multiple uses of works in question 16, with supplemental explanation under REMARKS if necessary. Include irrigation works or equipment not used last year but maintained for future use.

Question 9.—A ***diversion dam*** is an obstruction placed in a natural stream to divert the water into a ditch or to form a pool of water for pumping. Diversion dams vary from a few loose rocks to permanent concrete structures. Do not report headgates or diversion boxes in canals or ditches as diversion dams. Also do not report ***storage*** dams (dams used to form reservoirs) as diversion dams.

Section III.—SOURCE OF WATER, 1949

Question 17.—The water supply may come from two or more sources—for example, part from a stream and part from a well. If the supply was from more than one source, check each of these sources in question 17. If stored water was obtained from a reservoir (artificial lake or enlarged natural lake), report as the source the principal stream from which the stored water came. Check "Natural stream" for storm water from any natural run-off channel, even though water flows in the channel only during or after storms. If the stream or channel has no name, report "No name."

Question 19.—Stored water is water that must be held in a reservoir to make it available for use when needed. It does not include natural flow water that merely flows through a reservoir nor water released from a reservoir to replace natural flow water.

The information on works reported in Section II and the information on sources of water reported in Section III, must be consistent. For example, if water from a stream is reported in question 17 of Section III, either a diversion dam or pump to get the water out of the stream should be reported in Section II or question 20 should show water obtained from another enterprise that has the diversion dam or pump to get the water out of the stream.

Section IV.—NEW CAPITAL INVESTMENT; FINANCING

Question 21.—If there are no records of investment costs during the period January 1, 1940, to December 31, 1949, or if the owners did all or part of the construction work, the best possible estimate of cost should be reported, including the estimated value of work done by the owners. Include any filing and legal fees for acquisition of water rights and the purchase price of water rights, if any were purchased. Do not include investment cost of works used only for drainage, but include the cost of pumps or other works used to reclaim drainage water for irrigation. If any of the new works are used for other purposes, such as domestic water supply, hydroelectric power, or drainage, as well as for irrigation, report only the estimated part of the investment cost chargeable to irrigation.

If works are merely replaced with new ones of similar type, do not report the cost as new capital investment. But if items are replaced with new ones of materially different or improved type, report the additional cost over and above the cost of merely making a replacement of similar type. For example, if a brush diversion dam is replaced with a new brush diversion dam, do not report the cost as new investment. But if it is replaced with a concrete dam, report as new investment the part of the cost in excess of the cost of a brush dam.

Section V.—FARMS AND ACREAGE IRRIGATED, 1949

If precise information as to the number of farms or the acreage irrigated is not available, please give estimates.

Question 24.—If a landowner has one or more tenants or managers, the land operated by each is considered a farm.

(Reduced facsimile)

Questions 25 and 26.—Farms to which this enterprise supplies water, but to which the water is delivered through an independently operated lateral or some other enterprise, are to be reported in question 25 and not reported in question 26. This will prevent duplicate reporting. Those farms will be reported in question 26 of the questionnaires of the independently operated laterals or other enterprises. For the same reason questions 27 to 35 are to be answered only for the farms, reported in question 26, on which this enterprise delivered the water directly into the farm distribution systems. Give estimated figures for these farms, if necessary. If this enterprise delivers all water to independently operated laterals or other enterprises, the answers to questions 26 to 35 inclusive should be "None."

Question 27.—***Irrigated land*** is land to which water was applied for agricultural purposes by artificial means at any time during the year 1949. It includes land on which water was applied to the surface of the ground and land on which water was applied beneath the surface by subirrigation. Land flooded during high-water periods should be classed as irrigated only if water was purposely applied to the land for agricultural purposes by dams, canals, or other works. Regulation of the "water table" of land by drainage works should not be included as irrigation.

Section VI.—COST OF WATER TO FARMS, 1949

Question 30.—Report all payments to this irrigation enterprise last year by the water users on the farms to which this enterprise delivered water direct (the farms in question 26) including all water assessments, taxes, tolls, etc. Do not include payments for the farms reported in question 25 for water delivered by this enterprise to other irrigation enterprises, even though the payments were made direct to this enterprise by the water users on those farms.

Question 31.—Report any payments made by the farms reported in question 26 to other enterprises (reported in question 20) that delivered water to these farms through this enterprise, or for any other cost to these farms last year incidental to obtaining the water.

Section VII.—QUANTITIES OF WATER, 1949

Question 34.—Measurement of water to individual farms means use of any measuring device, such as a weir or meter, to measure the water delivered to each individual farm.

Question 35.—Quantity of water should be reported in acre-feet if possible, but alternative spaces are provided in question 35 for reporting in the unit of measure commonly used by the enterprise. Commonly used units of measure of ***quantity*** of water are acre-feet and gallons. One ***acre-foot*** is the quantity sufficient to cover 1 acre to a depth of 1 foot, or 43,560 cubic feet. Commonly used units of measure of the rate-of-flow of water are cubic-feet-per-second (sometimes expressed merely "second-feet" or "c. f. s."); gallons-per-minute; and miner's inches (sometimes expressed merely "inches" of water). Quantity of water cannot be determined from these units of rate-of-flow unless the length of time of the flow is known also; so, if these units are used in answering question 35, the number of hours of flow must be given. If the time of flow is given in days, give also the average number of hours of flow per day.

The quantity of water to be reported in question 35 is the quantity delivered into the distribution system of the farms reported in question 26. If the quantity delivered to farms is not known, but the quantity diverted or otherwise obtained is known, deduct estimated conveyance loss of water to arrive at the estimated quantity delivered to farms.

In some cases the most feasible basis of estimating quantity of water delivered to farms may be to estimate the average depth, in feet, of water applied, and to multiply this by total acreage irrigated to obtain total acre-feet.

Question 36.—If water was obtained from a reservoir, report the quantity of water withdrawn from the reservoir, not the quantity diverted into the reservoir. Report the quantity withdrawn as obtained from (a) surface sources, (b) ground water, or (c) other enterprises, as the case may be, according to the source from which the water was obtained when diverted into the reservoir, either during last year or in a previous year.

Section VIII.—LOCATION OF LAND AND WORKS, 1950

Question 38.—If precise information is not available as to the part of any item located in each county, give either the estimated amount or the estimated percent of the item in each county.

DRAINAGE BASIN LOCATION—To be filled by Census Enumerator

Question No.	Name of county →	County		County	
	Drainage basin No. →	D. B. No.	D. B. No.	D. B. No.	D. B. No.
5.	Canals, ditches . . . . . miles				
6.	Pipe lines . . . . . miles				
7.	Tunnels . . . . . feet				
8.	Reservoirs . . . . (by name)				
9.	Diversion dams . . . number				
10.	Flowing wells . . . . number				
11.	Pumped wells . . . . number				
12.	Pumps . . . . . number				
13.	Electric motors . . . number				
14.	Other motors . . . . number				
21.	New capital . . . . . dollars				
26.	Farms irr. direct . . . number				
27.	Acres irr. direct . . . . acres				
28.	Acres drained . . . . . acres				
29.	Needing drainage . . . . acres				

REMARKS: .....

(Reduced facsimile)

Table 1.—17 WESTERN STATES: IRRIGATION SUMMARY, 1890 TO 1950—SPECIFIED DATA FROM CENSUS OF AGRICULTURE AND CENSUS OF IRRIGATION

Census year	All farms[1]		All land in farms[1]		Irrigated farms[1 2]			Irrigated land in farms[1] (reported for farms)	
	Number	Percent increase or decrease (-) from preceding census	Total acres	Average per farm (acres)	Number	Percent increase or decrease (-) from preceding census	Percent of all farms	Total acres	Average per irrigated farm (acres)
1950	1,305,916	-9.0	687,976,159	526.8	281,476	4.0	21.6	24,270,566	86.2
1945	1,435,396	-6.3	673,980,491	469.5	270,629	-4.4	18.9	19,431,367	71.8
1940	1,531,164	-12.1	601,009,661	392.5	283,089	0.4	18.5	[3]17,243,396	[3]60.9
1935	1,761,415	6.2	580,134,183	329.4	281,910	9.1	16.0	[4]12,441,259	[4]44.1
1930	1,659,034	7.2	543,285,306	327.5	258,463	20.1	15.6	[5]14,085,967	[5]54.5
1920	1,548,324	7.5	477,964,382	308.7	215,152	34.6	13.9	(**)	(**)
1910	1,440,822	31.5	388,606,991	269.7	159,801	46.2	11.1	(**)	(**)
1900	1,095,675	47.9	348,780,221	318.3	109,298	101.9	10.0	7,542,782	69.0
1890	740,824	.....	171,160,286	231.0	54,136	.....	7.3	3,631,559	67.1

Census year	Irrigation enterprises		Irrigated land in farms (reported for irrigation enterprises)			Capital investment in irrigation enterprises		
	Number	Percent increase or decrease (-) from preceding census	Acres	Percent increase or decrease (-) from preceding census	Average per enterprise (acres)	Amount (dollars)	Percent increase or decrease (-) from preceding census	Amount per enterprise (dollars)
1950	112,031	27.6	24,853,210	21.9	222	1,832,515,061	77.1	16,357
1945	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
1940	87,833	21.7	20,395,043	7.7	232	1,034,716,793	18.9	11,781
1935	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
1930	72,156	18.3	18,944,856	1.9	263	870,174,399	28.6	12,060
1920	60,981	10.3	18,592,888	32.5	305	676,410,825	115.4	11,092
1910	55,311	.....	14,035,332	.....	254	314,007,008	365.3	5,677
1900	(*)	.....	(*)	.....	(*)	67,481,275	128.5	(*)
1890	(*)	.....	(*)	.....	(*)	29,533,921	.....	(*)

* Not available.
** Available data not comparable.
[1] Census of Agriculture.
[2] Farms reporting irrigated land, 1950, 1945, 1900, and 1890 Censuses; farms reporting irrigated cropland harvested and/or irrigated pasture, 1940 Census; farms reporting irrigated cropland harvested, 1935 Census; and farms reporting irrigated crops, 1930, 1920, and 1910 Censuses.
[3] Irrigated land from which crops were harvested plus 2,744,879 acres of irrigated land used only for pasture.
[4] Irrigated land from which crops were harvested.
[5] Acreage of irrigated crops including some duplication where 2 or more crops were harvested from the same land.

Table 2.—UNITED STATES: IRRIGATED FARMS AND IRRIGATED LAND IN FARMS, BY STATES: CENSUSES OF 1950, 1945, AND 1940

[Source: Census of Agriculture. Data for 1940 are for farms reporting irrigated cropland harvested and/or irrigated pasture in 1939. Percent of increase not shown when 1,000 or more]

State	Irrigated farms				Irrigated land in farms													
	Number			Percent increase or decrease (-) 1940-1950	Total acres			Percent increase or decrease (-) 1939-1949	Percent distribution			Percent of all land in all farms			Average per irrigated farm (acres)			Percent increase or decrease (-) 1939-1949
	1950	1945	1940		1949	1944	1939		1949	1944	1939	1949	1944	1939	1949	1944	1939	
United States, total	305,061	288,195	299,604	1.8	25,787,455	20,539,470	17,982,830	43.4	100.0	100.0	100.0	2.2	1.8	1.7	84.5	71.3	60.0	40.8
20 specified States, total	298,049	284,135	295,602	0.8	25,634,869	20,477,568	17,942,968	42.9	99.4	99.7	99.8	3.5	2.9	2.8	86.0	72.1	60.7	41.7
Arkansas	3,060	2,229	1,529	100.1	422,107	288,665	159,412	164.8	1.6	1.4	0.9	2.2	1.7	0.9	137.9	129.5	104.3	32.2
Louisiana	7,438	7,185	7,037	5.7	576,775	535,619	413,969	39.3	2.2	2.6	2.3	5.1	5.3	4.1	77.5	74.5	58.8	31.8
Florida	6,075	4,092	3,947	53.9	365,421	221,917	126,191	189.6	1.4	1.1	0.7	2.2	1.7	1.5	60.2	54.2	32.0	88.1
17 Western States, total	281,476	270,629	283,089	-0.6	24,270,566	19,431,367	17,243,396	40.8	94.1	94.6	95.9	3.5	2.9	2.9	86.2	71.8	60.9	41.5
Arizona	7,822	9,634	10,339	-24.3	963,560	736,027	575,464	67.4	3.7	3.6	3.2	2.4	1.9	2.2	123.2	76.4	55.7	121.2
California	90,755	87,205	84,310	7.6	6,438,324	4,952,819	4,276,554	50.5	25.0	24.1	23.8	17.6	14.1	14.0	70.9	56.8	50.7	39.8
Colorado	27,121	28,054	29,766	-8.9	2,872,348	2,698,579	2,467,548	16.4	11.1	13.1	13.7	7.6	7.5	7.8	105.9	96.2	82.9	27.7
Idaho	29,413	28,571	29,898	-1.6	2,137,237	2,026,280	1,895,048	12.8	8.3	9.9	10.5	16.2	16.2	18.4	72.7	70.9	63.4	14.7
Kansas	1,166	636	1,578	-26.1	138,686	96,248	82,872	67.3	0.5	0.5	0.5	0.3	0.2	0.2	118.9	151.3	52.5	126.5
Montana	13,457	12,997	15,087	-10.8	1,716,792	1,555,480	1,587,602	8.1	6.7	7.6	8.8	2.9	2.6	3.4	127.6	119.7	105.2	21.3
Nebraska	9,680	7,156	6,913	40.0	876,259	631,762	473,775	85.0	3.4	3.1	2.6	1.8	1.3	1.0	90.5	88.3	68.5	32.1
Nevada	2,819	3,072	3,264	-13.6	727,498	674,204	755,636	-3.7	2.8	3.3	4.2	10.3	10.9	20.0	258.1	219.5	231.5	11.5
New Mexico	12,691	14,299	15,811	-19.7	655,287	534,640	436,402	50.2	2.5	2.6	2.4	1.4	1.1	1.1	51.6	37.4	27.6	87.0
North Dakota	304	206	479	-36.5	35,294	22,814	19,975	76.7	0.1	0.1	0.1	0.1	0.1	0.1	116.1	110.7	41.7	178.4
Oklahoma	466	74	275	69.5	34,071	2,237	4,437	667.9	0.1	(1)	(1)	0.1	(1)	(1)	73.1	30.2	16.1	354.0
Oregon	17,663	15,597	16,159	9.3	1,306,810	1,129,059	1,030,228	26.8	5.1	5.5	5.7	6.4	5.7	5.7	74.0	72.4	63.8	16.0
South Dakota	807	708	967	-16.5	78,069	52,895	54,073	44.4	0.3	0.3	0.3	0.2	0.1	0.1	96.7	74.7	55.9	73.0
Texas	21,427	15,110	19,568	9.5	3,131,534	1,320,216	894,638	250.0	12.1	6.4	5.0	2.2	0.9	0.6	146.1	87.4	45.7	219.7
Utah	21,126	23,543	22,612	-6.6	1,137,995	1,124,081	911,135	24.9	4.4	5.5	5.1	10.5	10.9	12.5	53.9	47.7	40.3	33.7
Washington	16,928	15,974	17,426	-2.9	589,035	520,153	493,982	19.2	2.3	2.5	2.7	3.4	3.1	3.3	34.8	32.6	28.3	23.0
Wyoming	7,831	7,793	8,637	-9.3	1,431,767	1,353,873	1,284,027	11.5	5.6	6.6	7.1	4.2	4.1	4.6	182.8	173.7	148.7	22.9
All other States, total	7,012	4,060	4,002	75.2	152,586	61,902	39,862	282.8	0.6	0.3	0.2	(1)	(1)	(1)	21.8	15.2	10.0	118.0
Alabama	34	153	37	-8.1	367	487	281	30.6	(1)	(1)	(1)	(1)	(1)	(1)	10.8	3.2	7.6	42.1
Connecticut	280	24	57	391.2	8,088	496	520	.....	(1)	(1)	(1)	0.6	(1)	(1)	28.9	20.7	9.1	217.6
Delaware	10	3	2	400.0	404	22	7	.....	(1)	(1)	(1)	(1)	(1)	(1)	40.4	7.3	3.5	.....
District of Columbia	2	16	.....	.....	13	45	.....	.....	(1)	(1)	.....	1.0	2.4	.....	6.5	2.8	.....	.....
Georgia	139	14	26	434.6	3,161	423	158	.....	(1)	(1)	(1)	(1)	(1)	(1)	22.7	30.2	6.1	272.1
Illinois	139	47	72	93.1	1,510	368	307	391.9	(1)	(1)	(1)	(1)	(1)	(1)	10.9	7.8	4.3	153.5
Indiana	164	123	136	20.6	5,339	830	685	679.4	(1)	(1)	(1)	(1)	(1)	(1)	32.6	6.7	5.0	552.0
Iowa	76	54	88	-13.6	1,386	1,197	2,258	-38.6	(1)	(1)	(1)	(1)	(1)	(1)	18.2	22.2	25.7	-29.2
Kentucky	67	34	46	45.7	485	230	205	136.6	(1)	(1)	(1)	(1)	(1)	(1)	7.2	6.8	4.5	60.0
Maine	123	3	33	272.7	2,299	100	143	.....	(1)	(1)	(1)	0.1	(1)	(1)	18.7	33.3	4.3	334.9
Maryland	30	8	17	76.5	697	287	67	940.3	(1)	(1)	(1)	(1)	(1)	(1)	23.2	35.9	3.9	494.9
Massachusetts	1,053	874	231	355.8	18,507	11,355	2,049	803.2	0.1	0.1	(1)	1.1	0.5	0.1	17.6	13.0	8.9	97.8
Michigan	995	347	462	115.4	13,901	2,850	2,960	369.6	0.1	(1)	(1)	0.1	(1)	(1)	14.0	8.2	6.4	118.8
Minnesota	274	27	216	26.9	4,235	210	2,968	42.7	(1)	(1)	(1)	(1)	(1)	(1)	15.5	7.8	13.7	13.1
Mississippi	44	3	7	528.6	5,086	3	94	.....	(1)	(1)	(1)	(1)	(1)	(1)	115.6	1.0	13.4	762.7
Missouri	142	118	140	1.4	2,089	1,113	960	117.6	(1)	(1)	(1)	(1)	(1)	(1)	14.7	9.4	6.9	113.0
New Hampshire	51	10	7	628.6	622	63	25	.....	(1)	(1)	(1)	(1)	(1)	(1)	12.2	6.3	3.6	238.9
New Jersey	1,033	675	580	78.1	28,117	11,712	7,956	253.4	0.1	0.1	(1)	1.6	0.6	0.4	27.2	17.4	13.7	98.5
New York	888	646	567	56.6	19,248	10,316	5,948	223.6	0.1	0.1	(1)	0.1	0.1	(1)	21.7	16.0	10.5	106.7
North Carolina	96	19	37	159.5	2,083	229	246	746.7	(1)	(1)	(1)	(1)	(1)	(1)	21.7	12.1	6.6	228.8
Ohio	458	463	658	-30.4	5,706	4,178	4,536	25.8	(1)	(1)	(1)	(1)	(1)	(1)	12.5	9.0	6.9	81.2
Pennsylvania	287	94	299	-4.0	7,251	8,764	3,356	116.1	(1)	(1)	(1)	0.1	0.1	(1)	25.3	93.2	11.2	125.9
Rhode Island	52	9	10	420.0	1,631	133	109	.....	(1)	(1)	(1)	0.9	0.1	(1)	31.4	14.8	10.9	188.1
South Carolina	84	5	14	500.0	6,408	62	411	.....	(1)	(1)	(1)	0.1	(1)	(1)	76.3	12.4	29.4	159.5
Tennessee	35	21	21	66.7	1,012	393	311	225.4	(1)	(1)	(1)	(1)	(1)	(1)	28.9	18.7	14.8	95.3
Vermont	22	2	.....	.....	303	6	.....	.....	(1)	(1)	.....	(1)	(1)	.....	13.8	3.0	.....	.....
Virginia	71	31	53	34.0	2,817	1,419	687	310.0	(1)	(1)	(1)	(1)	(1)	(1)	39.7	45.8	13.0	205.4
West Virginia	9	11	23	-60.9	40	42	270	-85.2	(1)	(1)	(1)	(1)	(1)	(1)	4.4	3.8	11.7	-62.4
Wisconsin	354	226	163	117.2	9,781	4,569	2,345	317.1	(1)	(1)	(1)	(1)	(1)	(1)	27.6	20.2	14.4	91.7

[1] 0.05 percent or less.

Table 3.—UNITED STATES: SPRINKLER IRRIGATION—FARMS REPORTING AND ACREAGE IRRIGATED, BY STATES: CENSUS OF 1950

[Source: Census of Agriculture]

State	Irrigated farms			Irrigated land in farms						
	Total number	Reporting sprinklers		Total acres	Sprinkler irrigation		Acres per farm reporting		Percent distribution	
		Number	Percent of total number		Acres	Percent of total acres	Total	Sprinkler irrigation	Total	Sprinkler irrigation
United States, total	305,061	25,049	8.2	25,787,455	639,987	2.5	84.5	25.5	100.0	100.0
20 specified States, total	298,049	19,580	6.6	25,634,869	530,312	2.1	86.0	27.1	99.4	82.9
Arkansas	3,060	40	1.3	422,107	1,676	0.4	137.9	41.9	1.6	0.3
Louisiana	7,438	36	0.5	576,775	1,067	0.2	77.5	29.6	2.2	0.2
Florida	6,075	2,084	34.3	365,421	80,091	21.9	60.2	38.4	1.4	12.5
17 Western States, total	281,476	17,420	6.2	24,270,566	447,478	1.8	86.2	25.7	94.1	69.9
Arizona	7,822	51	0.7	963,560	4,011	0.4	123.2	78.6	3.7	0.6
California	90,755	8,152	9.0	6,438,324	181,828	2.8	70.9	22.3	25.0	28.4
Colorado	27,121	183	0.7	2,872,348	8,194	0.3	105.9	44.8	11.1	1.3
Idaho	29,413	344	1.2	2,137,237	9,995	0.5	72.7	29.1	8.3	1.6
Kansas	1,166	76	6.5	138,686	3,121	2.3	118.9	41.1	0.5	0.5
Montana	13,457	250	1.9	1,716,792	15,520	0.9	127.6	62.1	6.7	2.4
Nebraska	9,680	153	1.6	876,259	8,295	0.9	90.5	54.2	3.4	1.3
Nevada	2,819	33	1.2	727,498	1,435	0.2	258.1	43.5	2.8	0.2
New Mexico	12,691	53	0.4	655,287	1,822	0.3	51.6	34.4	2.5	0.3
North Dakota	304	9	3.0	35,294	318	0.9	116.1	35.3	0.1	(1)
Oklahoma	466	76	16.3	34,071	2,072	6.1	73.1	27.3	0.1	0.3
Oregon	17,663	4,140	23.4	1,306,810	98,769	7.6	74.0	23.9	5.1	15.4
South Dakota	807	12	1.5	78,069	391	0.5	96.7	32.6	0.3	0.1
Texas	21,427	415	1.9	3,131,534	41,508	1.3	146.1	100.0	12.1	6.5
Utah	21,126	48	0.2	1,137,995	1,766	0.2	53.9	36.8	4.4	0.3
Washington	16,928	3,411	20.2	589,035	67,852	11.5	34.8	19.9	2.3	10.6
Wyoming	7,831	14	0.2	1,431,767	581	(1)	182.8	41.5	5.6	0.1
All other States, total	7,012	5,469	78.0	152,586	109,675	71.9	21.8	20.1	0.6	17.1
Alabama	34	31	91.2	367	300	81.7	10.8	9.7	(1)	(1)
Connecticut	280	245	87.5	8,088	7,669	94.8	28.9	31.3	(1)	1.2
Delaware	10	10	100.0	404	404	100.0	40.4	40.4	(1)	0.1
District of Columbia	2	2	100.0	13	13	100.0	6.5	6.5	(1)	(1)
Georgia	139	92	66.2	3,161	2,249	71.1	22.7	24.4	(1)	0.4
Illinois	139	119	85.6	1,510	1,400	92.7	10.9	11.8	(1)	0.2
Indiana	164	160	97.6	5,339	5,285	99.0	32.6	33.0	(1)	0.8
Iowa	76	54	71.1	1,386	1,149	82.9	18.2	21.3	(1)	0.2
Kentucky	67	48	71.6	485	346	71.3	7.2	7.2	(1)	0.1
Maine	123	111	90.2	2,299	2,131	92.7	18.7	19.2	(1)	0.3
Maryland	30	20	66.7	697	568	81.5	23.2	28.4	(1)	0.1
Massachusetts	1,053	483	45.9	18,507	6,706	36.2	17.6	13.9	0.1	1.0
Michigan	995	898	90.3	13,901	11,894	85.6	14.0	13.2	0.1	1.9
Minnesota	274	248	90.5	4,235	4,097	96.7	15.5	16.5	(1)	0.6
Mississippi	44	13	29.5	5,086	177	3.5	115.6	13.6	(1)	(1)
Missouri	142	121	85.2	2,089	931	44.6	14.7	7.7	(1)	0.1
New Hampshire	51	38	74.5	622	556	89.4	12.2	14.6	(1)	0.1
New Jersey	1,033	811	78.5	28,117	19,058	67.8	27.2	23.5	0.1	3.0
New York	888	732	82.4	19,248	16,361	85.0	21.7	22.4	0.1	2.6
North Carolina	96	82	85.4	2,083	1,883	90.4	21.7	23.0	(1)	0.3
Ohio	458	431	94.1	5,706	5,134	90.0	12.5	11.9	(1)	0.8
Pennsylvania	287	240	83.6	7,251	6,611	91.2	25.3	27.5	(1)	1.0
Rhode Island	52	42	80.8	1,631	1,462	89.6	31.4	34.8	(1)	0.2
South Carolina	84	53	63.1	6,408	1,793	28.0	76.3	33.8	(1)	0.3
Tennessee	35	29	82.9	1,012	971	95.9	28.9	33.5	(1)	0.2
Vermont	22	14	63.6	303	259	85.5	13.8	18.5	(1)	(1)
Virginia	71	64	90.1	2,817	2,762	98.0	39.7	43.2	(1)	0.4
West Virginia	9	3	33.3	40	14	35.0	4.4	4.7	(1)	(1)
Wisconsin	354	275	77.7	9,781	7,492	76.6	27.6	27.2	(1)	1.2

[1] 0.05 percent or less.

Table 4.—20 SPECIFIED STATES: ALL FARMS AND IRRIGATED FARMS, BY STATES: 1950, 1940, AND 1930

[Source: Census of Agriculture. Data for 1940 are for farms reporting irrigated cropland harvested and/or irrigated pasture in 1939; for 1930, for farms reporting irrigated crops in 1929]

State	All farms								Irrigated farms											
	Number			Percent increase or decrease (-)		Percent distribution			Number			Percent increase or decrease (-)		Percent of all farms			Percent distribution		
	1950	1940	1930	1940-1950	1930-1940	1950	1940	1930	1950	1940	1930	1940-1950	1930-1940	1950	1940	1930	1950	1940	1930
20 States, total	1,669,447	1,960,093	2,121,779	-14.8	-7.6	100.0	100.0	100.0	298,049	295,602	265,147	0.8	[1]10.0	17.9	15.1	[1]12.9	100.0	100.0	100.0
Arkansas	182,429	216,674	242,334	-15.8	-10.6	10.9	11.1	11.4	3,060	1,529	1,096	100.1	39.5	1.7	0.7	0.5	1.0	0.5	0.4
Louisiana	124,181	150,007	161,445	-17.2	-7.1	7.4	7.7	7.6	7,438	7,037	5,588	5.7	25.9	6.0	4.7	3.5	2.5	2.4	2.1
Florida	56,921	62,248	58,966	-8.6	5.6	3.4	3.2	2.8	6,075	3,947	(*)	53.9	(*)	10.7	6.3	(*)	2.0	1.3	(*)
17 Western States, total	1,305,916	1,531,164	1,659,034	-14.7	-7.7	78.2	78.1	78.2	281,476	283,089	258,463	-0.6	9.5	21.6	18.5	15.6	94.4	95.8	97.5
Arizona	10,412	18,468	14,173	-43.6	30.3	0.6	0.9	0.7	7,822	10,339	8,523	-24.3	21.3	75.1	56.0	60.1	2.6	3.5	3.2
California	137,168	132,658	135,676	3.4	-2.2	8.2	6.8	6.4	90,755	84,310	85,784	7.6	-1.7	66.2	63.6	63.2	30.4	28.5	32.4
Colorado	45,578	51,436	59,956	-11.4	-14.2	2.7	2.6	2.8	27,121	29,766	31,288	-8.9	-4.9	59.5	57.9	52.2	9.1	10.1	11.8
Idaho	40,284	43,663	41,674	-7.7	4.8	2.4	2.2	2.0	29,413	29,898	27,953	-1.6	7.0	73.0	68.5	67.1	9.9	10.1	10.5
Kansas	131,394	156,327	166,042	-15.9	-5.9	7.9	8.0	7.8	1,166	1,578	683	-26.1	131.0	0.9	1.0	0.4	0.4	0.5	0.3
Montana	35,085	41,823	47,495	-16.1	-11.9	2.1	2.1	2.2	13,457	15,087	11,925	-10.8	26.5	38.4	36.1	25.1	4.5	5.1	4.5
Nebraska	107,183	121,062	129,458	-11.5	-6.5	6.4	6.2	6.1	9,680	6,913	4,602	40.0	50.2	9.0	5.7	3.6	3.2	2.3	1.7
Nevada	3,110	3,573	3,442	-13.0	3.8	0.2	0.2	0.2	2,819	3,264	3,031	-13.6	7.7	90.6	91.4	88.1	0.9	1.1	1.1
New Mexico	23,599	34,105	31,404	-30.8	8.6	1.4	1.7	1.5	12,691	15,811	14,347	-19.7	10.2	53.8	46.4	45.7	4.3	5.3	5.4
North Dakota	65,401	73,962	77,975	-11.6	-5.1	3.9	3.8	3.7	304	479	113	-36.5	323.9	0.5	0.6	0.1	0.1	0.2	([2])
Oklahoma	142,246	179,687	203,866	-20.8	-11.9	8.5	9.2	9.6	466	275	99	69.5	177.8	0.3	0.2	([2])	0.2	0.1	([2])
Oregon	59,827	61,829	55,153	-3.2	12.1	3.6	3.2	2.6	17,663	16,159	11,387	9.3	41.9	29.5	26.1	20.6	5.9	5.5	4.3
South Dakota	66,452	72,454	83,157	-8.3	-12.9	4.0	3.7	3.9	807	967	763	-16.5	26.7	1.2	1.3	0.9	0.3	0.3	0.3
Texas	331,567	418,002	495,489	-20.7	-15.6	19.9	21.3	23.4	21,427	19,568	10,861	9.5	80.2	6.5	4.7	2.2	7.2	6.6	4.1
Utah	24,176	25,411	27,159	-4.9	-6.4	1.4	1.3	1.3	21,126	22,612	23,847	-6.6	-5.2	87.4	89.0	87.8	7.1	7.6	9.0
Washington	69,820	81,686	70,904	-14.5	15.2	4.2	4.2	3.3	16,928	17,426	15,949	-2.9	9.3	24.2	21.3	22.5	5.7	5.9	6.0
Wyoming	12,614	15,018	16,011	-16.0	-6.2	0.8	0.8	0.8	7,831	8,637	7,308	-9.3	18.2	62.1	57.5	45.6	2.6	2.9	2.8

*Not available.
[1]Based on totals for 19 States; Florida excluded.
[2]0.05 percent or less.

Table 5.—20 SPECIFIED STATES: ALL LAND IN FARMS AND LAND IN IRRIGATED FARMS, BY STATES: CENSUSES OF 1950, 1940, AND 1930

[Source: Census of Agriculture. Data for 1940 are for farms reporting irrigated cropland harvested and/or irrigated pasture in 1939; for 1930, for farms reporting irrigated crops in 1929]

State	All land in farms						Land in irrigated farms[1]											
	Acres			Average acres per farm			Acres			Percent increase or decrease (-)		Percent of all farm land			Average acres per irrigated farm		
	1950	1940	1930	1950	1940	1930	1950	1940	1930	1940-1950	1930-1940	1950	1940	1930	1950	1940	1930
20 States, total	734,577,217	637,388,019	573,720,322	440.0	325.2	270.4	171,335,185	113,197,570	78,339,222	51.4	[1]43.7	23.3	17.8	[1]13.8	574.9	382.9	[1]295.5
Arkansas	18,871,244	18,044,542	16,052,962	103.4	83.3	66.2	1,386,098	592,920	363,549	133.8	63.1	7.3	3.3	2.3	453.0	387.8	331.7
Louisiana	11,202,278	9,996,108	9,355,437	90.2	66.6	57.9	1,528,991	1,066,655	892,604	43.3	19.5	13.6	10.7	9.5	205.6	151.6	159.7
Florida	16,527,536	8,337,708	5,026,617	290.4	133.9	85.2	2,346,115	596,139	(*)	293.6	(*)	14.2	7.1	(*)	386.2	151.0	(*)
17 Western States, total	687,976,159	601,009,661	543,285,306	526.8	392.5	327.5	166,073,981	110,941,856	77,083,060	49.7	43.9	24.1	18.5	14.2	590.0	391.9	298.2
Arizona	39,916,440	25,651,092	10,526,627	3,833.7	1,388.9	742.7	20,737,214	5,274,470	2,983,784	293.2	76.8	52.0	20.6	28.3	2,651.1	510.2	350.1
California	36,613,291	30,524,324	30,442,581	266.9	230.1	224.4	20,562,873	14,071,222	12,018,864	46.1	17.1	56.2	46.1	39.5	226.6	166.9	140.1
Colorado	37,953,099	31,527,240	28,876,171	832.7	612.9	481.6	17,083,200	12,522,458	10,390,299	36.4	20.5	45.0	39.7	36.0	629.9	420.7	332.1
Idaho	13,224,192	10,297,745	9,346,908	328.3	235.8	224.3	7,980,249	5,680,584	4,851,440	40.5	17.1	60.3	55.2	51.9	271.3	190.0	173.6
Kansas	48,611,366	48,173,635	46,975,647	370.0	308.2	282.9	1,065,691	871,189	311,174	22.3	180.0	2.2	1.8	0.7	914.0	552.1	455.6
Montana	59,247,434	46,451,594	44,659,152	1,688.7	1,110.7	940.3	21,055,272	16,022,060	12,032,619	31.4	33.2	35.5	34.5	26.9	1,564.9	1,062.0	1,009.0
Nebraska	47,466,828	47,343,981	44,708,565	442.9	391.1	345.4	4,396,958	3,577,439	1,648,339	22.9	117.0	9.3	7.6	3.7	454.2	517.5	358.2
Nevada	7,063,525	3,785,106	4,080,906	2,271.2	1,059.4	1,185.6	6,422,605	3,624,536	3,102,085	77.2	16.8	90.9	95.8	76.0	2,278.3	1,110.5	1,023.5
New Mexico	47,521,809	38,860,427	30,822,034	2,013.7	1,139.4	981.5	14,560,193	7,408,997	5,024,868	96.5	47.4	30.6	19.1	16.3	1,147.3	468.6	350.2
North Dakota	41,194,044	37,936,136	38,657,894	629.9	512.9	495.8	224,265	344,988	56,654	-35.0	508.9	0.5	0.9	0.1	737.7	720.2	501.4
Oklahoma	36,005,603	34,803,317	33,790,817	253.1	193.7	165.8	271,747	190,592	57,367	42.6	232.2	0.8	0.5	0.2	583.1	693.1	579.5
Oregon	20,327,683	17,988,307	16,548,678	339.8	290.9	300.1	10,925,924	8,730,104	6,306,825	25.2	38.4	53.7	48.5	38.1	618.6	540.3	553.9
South Dakota	44,785,529	39,473,584	36,470,083	674.0	544.8	438.6	1,175,463	1,021,659	379,270	15.1	169.4	2.6	2.6	1.0	1,456.6	1,056.5	497.1
Texas	145,389,014	137,683,372	124,707,130	438.5	329.4	251.7	10,929,981	11,619,780	1,899,240	-5.9	511.8	7.5	8.4	1.5	510.1	593.8	174.9
Utah	10,865,165	7,302,007	5,613,101	449.4	287.4	206.7	8,150,554	4,958,058	4,137,021	64.4	19.8	75.0	67.9	73.7	385.8	219.3	173.5
Washington	17,369,245	15,181,815	13,533,778	248.8	185.9	190.9	3,295,402	2,108,197	1,923,337	56.3	9.6	19.0	13.9	14.2	194.7	121.0	120.6
Wyoming	34,420,892	28,025,979	23,525,234	2,728.8	1,866.2	1,469.3	17,236,390	12,915,523	9,959,883	33.5	29.7	50.1	46.1	42.3	2,201.0	1,495.4	1,362.9

*Not available.
[1]Based on totals for 19 States; Florida excluded.

Table 6.—20 SPECIFIED STATES: LAND IN IRRIGATED FARMS ACCORDING TO USE, BY STATES: 1949 AND 1939

[Source: Census of Agriculture]

State	Cropland harvested				Cropland not harvested and not pastured, 1949 (acres)	Crop failure, 1939		Cropland idle or fallow, 1939 (acres)	Land pastured, total, 1949		Cropland used only for pasture, 1949 (acres)	Plowable pasture, 1939 (acres)	Woodland pastured, 1949 (acres)	Other pasture (not cropland and not woodland), 1949 (acres)
	Farms reporting		Acres			Farms reporting	Acres		Farms reporting	Acres				
	1949	1939	1949	1939										
20 States, total	279,967	287,418	28,353,909	19,883,014	5,611,522	35,811	1,256,719	3,544,958	173,512	129,923,436	7,714,648	8,978,916	19,264,421	102,944,367
Arkansas	3,059	1,529	653,195	276,440	198,105	296	11,925	84,015	1,831	205,745	88,373	79,256	86,326	31,046
Louisiana	7,421	7,037	622,994	494,290	67,641	297	4,391	108,541	5,374	681,017	475,227	315,008	73,287	132,503
Florida	5,971	3,931	425,155	171,564	112,071	358	9,891	27,553	2,097	1,349,046	136,227	38,989	837,818	375,001
17 Western States, total	263,516	274,921	26,652,565	18,940,720	5,233,705	34,860	1,230,512	3,324,849	164,210	127,687,628	7,014,821	8,545,663	18,266,990	102,405,817
Arizona	6,553	9,189	853,203	478,521	172,678	1,032	14,373	130,705	3,811	19,406,301	208,672	163,150	3,595,397	15,602,232
California	82,805	81,842	6,547,976	4,713,175	1,432,922	3,412	166,828	869,993	30,690	11,172,567	2,260,032	1,795,289	2,451,317	6,461,218
Colorado	26,058	29,189	2,698,393	2,378,532	451,288	7,685	245,753	271,040	18,488	12,946,085	647,571	1,077,575	2,113,259	10,185,255
Idaho	27,056	28,373	2,177,212	1,850,613	438,057	2,155	37,555	279,803	24,669	4,756,053	380,426	532,476	384,875	3,990,752
Kansas	1,148	1,569	464,363	202,911	210,928	989	125,911	111,252	817	365,747	30,209	135,583	7,870	327,668
Montana	12,951	14,860	2,064,646	1,783,766	644,653	1,558	50,116	412,992	12,437	17,834,333	682,454	1,174,255	1,458,130	15,693,749
Nebraska	9,619	6,892	1,798,581	1,025,290	224,340	2,897	119,790	151,291	7,376	2,219,546	110,204	262,601	30,188	2,079,154
Nevada	2,589	3,041	419,251	435,154	47,082	306	13,626	31,333	2,262	5,803,134	140,991	367,923	61,246	5,600,897
New Mexico	12,354	15,689	658,838	448,203	145,426	3,133	39,719	71,338	6,348	13,334,602	472,790	292,294	3,306,054	9,555,758
North Dakota	302	479	70,201	88,922	14,628	122	5,918	31,678	241	128,364	3,833	51,124	5,834	118,697
Oklahoma	464	275	112,225	30,510	15,676	83	6,176	4,597	337	131,599	9,684	7,087	10,543	111,372
Oregon	16,003	15,425	1,318,457	989,378	348,671	1,296	38,439	204,667	14,057	8,729,329	555,693	568,104	1,920,974	6,252,662
South Dakota	790	939	146,500	94,483	16,246	662	38,645	20,907	765	987,238	16,374	156,946	26,876	943,988
Texas	21,104	19,387	4,354,847	1,950,600	435,285	3,367	203,773	376,334	10,600	5,810,495	764,066	1,006,665	858,749	4,187,680
Utah	20,223	22,267	1,098,611	875,245	316,779	3,804	61,122	213,054	14,779	6,269,386	268,194	336,844	971,856	5,029,336
Washington	16,005	17,072	629,618	504,310	201,177	840	8,447	89,629	10,100	2,214,905	164,050	182,203	421,405	1,629,450
Wyoming	7,492	8,433	1,239,643	1,091,107	117,869	1,519	54,321	54,236	6,433	15,577,944	299,578	435,544	642,417	14,635,949

Table 7.—20 SPECIFIED STATES: IRRIGATED CROPLAND HARVESTED—FARMS REPORTING AND ACREAGE, BY STATES: 1949, 1939, AND 1929

[Source: Census of Agriculture]

State	Farms reporting			Acreage of irrigated cropland harvested															
				Total acres			Percent increase or decrease (-)		Percent of total cropland harvested, all farms			Percent of total irrigated land		Average per irrigated farm (acres)			Percent distribution		
	1949	1939	1929[1]	1949	1939	1929[2]	1939-1949	1929-1939	1949	1939	1929	1949	1939	1949	1939	1929	1949	1939	1929
20 States, total	273,347	285,167	265,147	21,095,886	15,191,156	14,633,252	38.9	[3]3.0	12.4	10.4	[3]8.2	82.3	84.7	70.8	51.4	[3]55.2	100.0	100.0	100.0
Arkansas	3,050	1,525	1,096	418,871	157,098	146,910	166.6	6.9	7.1	2.4	2.2	99.2	98.5	136.9	102.7	134.0	2.0	1.0	1.0
Louisiana	7,400	7,034	5,588	571,665	411,859	400,375	38.8	2.9	18.2	10.2	9.8	99.1	99.5	76.9	58.5	71.6	2.7	2.7	2.7
Florida	5,915	3,923	(*)	296,326	123,682	(*)	139.6	(*)	17.1	7.4	(*)	81.1	98.0	48.8	31.3	(*)	1.4	0.8	(*)
Western States, total	256,982	272,685	258,463	19,809,024	14,498,517	14,085,967	36.6	2.9	12.5	10.9	8.4	81.6	84.1	70.4	51.2	54.5	93.9	95.4	96.3
Arizona	6,507	9,134	8,523	839,037	471,372	448,806	78.0	5.0	94.9	89.6	93.8	87.1	81.9	107.3	45.6	52.7	4.0	3.1	3.1
California	79,887	81,046	85,784	5,309,653	3,732,215	3,540,350	42.3	5.4	66.7	57.1	54.1	82.5	87.3	58.5	44.3	41.3	25.2	24.6	24.2
Colorado	25,790	29,076	31,288	2,253,868	2,136,754	2,291,927	5.5	-6.8	32.7	44.8	34.0	78.5	86.6	83.1	71.8	73.3	10.7	14.1	15.7
Idaho	26,740	28,201	27,953	1,703,601	1,578,741	1,634,321	7.9	-3.4	46.7	53.8	51.9	79.7	83.3	57.9	52.8	58.5	8.1	10.4	11.2
Kansas	1,108	1,559	683	123,970	79,645	56,939	55.7	39.9	0.6	0.4	0.2	89.4	96.1	106.3	50.5	83.4	0.6	0.5	0.4
Montana	12,613	14,744	11,925	1,366,851	1,359,126	1,343,035	0.6	1.2	18.0	23.6	17.1	79.6	85.6	101.6	90.1	112.6	6.5	8.9	9.2
Nebraska	9,576	6,839	4,602	837,811	462,906	404,481	81.0	14.4	4.3	2.7	1.9	95.6	97.7	86.6	67.0	87.9	4.0	3.0	2.8
Nevada	2,573	3,033	3,031	412,929	430,743	390,192	-4.1	10.4	98.0	98.8	98.2	56.8	57.0	146.5	132.0	128.7	2.0	2.8	2.7
New Mexico	12,187	15,661	14,347	577,767	409,351	371,269	41.1	10.8	30.4	26.0	24.9	88.2	93.8	45.5	25.9	25.9	2.7	2.7	2.5
North Dakota	294	478	113	32,952	19,465	10,651	69.3	82.8	0.2	0.1	0.1	93.4	97.4	108.4	40.6	94.3	0.2	0.1	0.1
Oklahoma	451	273	99	32,420	4,031	2,109	704.3	91.1	0.3	(4)	(4)	95.2	90.8	69.6	14.7	21.3	0.2	(4)	(4)
Oregon	14,653	14,882	11,387	893,304	730,682	637,967	22.3	14.5	27.8	25.9	22.0	68.4	70.9	50.6	45.2	56.0	4.2	4.8	4.4
South Dakota	761	912	763	66,926	49,740	59,361	34.6	-16.2	0.4	0.4	0.3	85.7	92.0	82.9	51.4	77.8	0.3	0.3	0.4
Texas	20,948	19,272	10,861	2,969,799	843,839	594,287	251.9	42.0	10.6	3.2	1.9	94.8	94.3	138.6	43.1	54.7	14.1	5.6	4.1
Utah	20,068	22,217	23,847	847,271	761,093	917,139	11.3	-17.0	66.2	78.8	79.4	74.5	83.5	40.4	33.7	38.5	4.0	5.0	6.8
Washington	15,438	16,954	15,949	448,743	409,161	405,027	9.7	1.0	10.6	11.5	11.1	76.2	82.8	26.5	23.5	25.4	2.1	2.7	2.8
Wyoming	7,388	8,404	7,308	1,092,122	1,019,653	978,106	7.1	4.2	57.5	66.4	48.7	76.3	79.4	139.5	118.1	133.8	5.2	6.7	6.7

*Not available.
[1]Farms reporting irrigated crops in 1929.
[2]Acreage of irrigated crops including some duplication where 2 or more crops were harvested from the same land.
[3]Based on totals for 19 States; Florida excluded.
[4]0.05 percent or less.

Table 8.—20 SPECIFIED STATES: IRRIGATED PASTURE, 1949 AND 1939; WILD GRASS AND TAME GRASS PASTURE, 1949; AND IRRIGATED CROPLAND NOT HARVESTED AND NOT PASTURED, 1949: BY STATES

[Source: Census of Agriculture. Percent not shown when 1,000 or more]

State	Irrigated pasture													Irrigated cropland not harvested and not pastured, 1949			
	Farms reporting		Acres		Percent increase or decrease (-) 1939-1949	Percent of total irrigated land in farms		Average acres per irrigated farm		Wild grass pasture, 1949		Tame grass pasture, 1949		Farms reporting	Acres	Percent of total irrigated land	Average acres per irrigated farm
	1949	1939	1949	1939		1949	1939	1949	1939	Farms reporting	Acres	Farms reporting	Acres				
20 States, total	104,971	80,062	4,016,185	2,751,812	45.9	15.7	15.3	13.5	9.3	29,072	1,965,823	82,002	2,050,362	27,369	522,798	2.0	1.8
Arkansas	31	45	1,318	2,314	-43.0	0.3	1.5	0.4	1.5	12	641	19	677	32	1,918	0.5	0.6
Louisiana	74	40	4,434	2,110	110.1	0.8	0.5	0.6	0.3	46	3,400	30	1,034	65	676	0.1	0.1
Florida	212	87	56,916	2,509	.....	15.6	2.0	9.4	0.6	108	28,797	120	28,119	324	12,179	3.3	2.0
17 Western States, total	104,664	79,890	3,953,517	2,744,879	44.0	16.3	15.9	14.0	9.7	28,906	1,932,985	81,833	2,020,532	26,948	508,025	2.1	1.8
Arizona	2,936	3,467	102,568	104,092	-1.5	10.6	18.1	13.1	10.1	693	23,664	2,340	78,904	1,221	21,955	2.3	2.8
California	23,824	13,923	977,702	544,339	79.6	15.2	12.7	10.8	6.5	4,412	323,857	20,327	653,845	7,395	150,969	2.3	1.7
Colorado	10,789	7,916	557,664	330,794	68.6	19.4	13.4	20.6	11.1	3,947	320,537	7,750	237,127	2,897	60,816	2.1	2.2
Idaho	20,692	18,540	403,017	316,307	27.4	18.9	16.7	13.7	10.6	3,183	120,820	18,319	282,197	2,766	30,619	1.4	1.0
Kansas	161	134	5,127	3,227	58.9	3.7	3.9	4.4	2.0	48	1,897	124	3,230	174	9,589	6.9	8.2
Montana	6,585	5,667	317,734	228,476	39.1	18.5	14.4	23.6	15.1	2,792	187,243	4,388	130,491	1,267	32,207	1.9	2.4
Nebraska	1,006	514	27,624	10,869	154.2	3.2	2.3	2.9	1.6	302	14,115	749	13,509	478	10,824	1.2	1.1
Nevada	1,599	1,754	306,370	324,893	-5.7	42.1	43.0	108.7	99.5	855	253,361	940	53,009	297	8,199	1.1	2.9
New Mexico	2,435	1,984	52,896	27,051	95.5	8.1	6.2	4.2	1.7	1,050	28,747	1,511	24,149	1,551	24,624	3.8	1.9
North Dakota	77	42	1,135	510	122.5	3.2	2.6	3.7	1.1	17	354	63	781	47	1,207	3.4	4.0
Oklahoma	46	3	673	406	65.8	2.0	9.2	1.4	1.5	11	218	39	455	42	978	2.9	2.1
Oregon	10,435	8,597	367,242	299,546	22.6	28.1	29.1	20.8	18.5	2,774	207,926	8,232	159,316	2,055	46,264	3.5	2.6
South Dakota	248	172	9,483	4,333	118.9	12.1	8.0	11.8	4.5	154	5,960	117	3,523	75	1,660	2.1	2.1
Texas	3,091	1,653	105,688	50,799	108.1	3.4	5.7	4.9	2.6	1,089	35,273	2,210	70,415	1,750	56,047	1.8	2.6
Utah	9,597	6,405	271,063	150,042	80.7	23.8	16.5	12.8	6.6	4,080	149,672	6,414	121,391	1,877	19,661	1.7	0.9
Washington	7,227	5,770	121,606	84,821	43.4	20.6	17.2	7.2	4.9	1,857	32,977	5,736	88,629	2,452	18,686	3.2	1.1
Wyoming	3,906	3,349	325,925	264,374	23.3	22.8	20.6	41.6	30.6	1,642	226,364	2,574	99,561	604	13,720	1.0	1.8

Table 9.—20 SPECIFIED STATES: IRRIGATED FARMS BY TENURE OF OPERATOR, BY STATES: 1950, 1940, AND 1930

[Source: Census of Agriculture. Data for 1940 are for farms reporting irrigated cropland harvested and/or irrigated pasture in 1939; for 1930, for farms reporting irrigated crops in 1929]

State	Total number of irrigated farms			Owners and managers					
				Total number			Percent of all irrigated farms		
	1950	1940	1930	1950	1940	1930	1950	1940	1930
20 States, total	298,049	295,602	265,147	248,588	225,129	203,825	83.4	76.2	76.9
Arkansas	3,060	1,529	1,096	2,020	958	625	66.0	62.7	57.0
Louisiana	7,438	7,037	5,588	5,143	3,807	3,049	69.1	54.1	54.6
Florida	6,075	3,947	(*)	5,586	3,490	(*)	92.0	88.4	(*)
17 Western States, total	281,476	283,089	258,463	235,839	216,874	200,151	83.8	76.6	77.4
Arizona	7,822	10,339	8,523	6,812	8,787	6,750	87.1	85.0	79.2
California	90,755	84,310	85,784	79,792	69,306	71,911	87.9	82.2	83.8
Colorado	27,121	29,766	31,288	20,434	18,865	20,060	75.3	63.4	64.1
Idaho	29,413	29,898	27,953	23,472	21,773	20,486	79.8	72.8	73.3
Kansas	1,166	1,578	683	868	1,031	391	74.4	65.3	57.2
Montana	13,457	15,087	11,925	11,348	10,858	8,701	84.3	72.0	73.0
Nebraska	9,680	6,913	4,602	5,486	3,342	2,276	56.7	48.3	49.5
Nevada	2,819	3,264	3,031	2,618	2,811	2,656	92.9	86.1	87.6
New Mexico	12,691	15,811	14,347	11,099	13,396	11,477	87.5	84.7	80.0
North Dakota	304	479	113	259	309	85	85.2	64.5	75.2
Oklahoma	466	275	99	345	205	69	74.0	74.5	69.7
Oregon	17,663	16,159	11,387	15,875	13,345	9,339	89.9	82.6	82.0
South Dakota	807	967	763	650	586	453	80.5	60.6	59.4
Texas	21,427	19,568	10,861	15,595	12,181	6,056	72.8	62.2	55.8
Utah	21,126	22,612	23,847	19,618	19,583	20,886	92.9	86.6	87.6
Washington	16,928	17,426	15,949	15,203	14,069	13,129	89.8	80.7	82.3
Wyoming	7,831	8,637	7,308	6,365	6,427	5,426	81.3	74.4	74.2

State	Owners and managers—Continued						Tenants					
	Full owners (number)		Part owners (number)		Managers (number)		Number			Percent of all irrigated farms		
	1950	1940	1950	1940	1950	1940	1950	1940	1930	1950	1940	1930
20 States, total	187,286	176,522	56,433	42,129	4,869	6,478	49,461	70,473	61,322	16.6	23.8	23.1
Arkansas	1,077	640	893	287	50	31	1,040	571	471	34.0	37.3	43.0
Louisiana	3,334	2,728	1,759	1,053	50	26	2,295	3,230	2,539	30.9	45.9	45.4
Florida	4,377	2,783	809	300	400	407	489	457	(*)	8.0	11.6	(*)
17 Western States, total	178,498	170,371	52,972	40,489	4,369	6,014	45,637	66,215	58,312	16.2	23.4	22.6
Arizona	5,067	7,152	1,514	1,253	231	382	1,010	1,552	1,773	12.9	15.0	20.8
California	64,820	57,011	12,837	9,583	2,135	2,712	10,963	15,004	13,873	12.1	17.8	16.2
Colorado	15,171	14,442	5,033	4,092	230	331	6,687	10,901	11,228	24.7	36.6	35.9
Idaho	18,851	17,762	4,493	3,795	128	216	5,941	8,125	7,467	20.2	27.2	26.7
Kansas	320	537	534	470	14	24	298	547	292	25.6	34.7	42.8
Montana	7,044	7,227	4,162	3,441	142	190	2,109	4,229	3,224	15.7	28.0	27.0
Nebraska	2,932	1,951	2,510	1,320	44	71	4,194	3,571	2,326	43.3	51.7	50.5
Nevada	2,184	2,390	345	305	89	116	201	453	375	7.1	13.9	12.4
New Mexico	8,675	11,337	2,304	1,939	120	120	1,592	2,415	2,870	12.5	15.3	20.0
North Dakota	146	154	108	150	5	5	45	170	28	14.8	35.5	24.8
Oklahoma	165	120	169	69	11	16	121	70	30	26.0	25.5	30.3
Oregon	12,618	10,820	3,103	2,350	154	175	1,788	2,814	2,048	10.1	17.4	18.0
South Dakota	348	268	283	292	19	26	157	381	310	19.5	39.4	40.6
Texas	9,067	7,751	6,005	3,495	523	935	5,832	7,387	4,805	27.2	37.8	44.2
Utah	14,515	15,240	4,943	4,236	160	107	1,508	3,029	2,961	7.1	13.4	12.4
Washington	12,628	11,846	2,356	1,822	219	401	1,725	3,357	2,820	10.2	19.3	17.7
Wyoming	3,947	4,363	2,273	1,877	145	187	1,466	2,210	1,882	18.7	25.6	25.8

*Not available.

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Table 10.–20 SPECIFIED STATES: IRRIGATED FARMS BY NUMBER OF ACRES IRRIGATED, BY STATES: 1949

[Source: Census of Agriculture]

State	Number of irrigated farms, by acres irrigated							
	Total	1-9 acres	10-19 acres	20-29 acres	30-49 acres	50-99 acres	100-199 acres	200 acres and over
20 States, total	298,049	71,428	42,606	24,506	39,078	54,342	39,430	26,659
Arkansas	3,060	120	240	196	300	586	909	709
Louisiana	7,438	2,134	1,003	601	774	1,047	1,015	864
Florida	6,075	2,629	1,113	591	594	536	283	329
17 Western States, total	281,476	66,545	40,250	23,118	37,410	52,173	37,223	24,757
Arizona	7,822	2,266	1,097	642	983	1,029	740	1,065
California	90,755	29,047	17,875	8,435	12,244	11,005	6,163	5,986
Colorado	27,121	4,593	2,665	1,747	2,901	6,132	5,955	3,128
Idaho	29,413	4,352	2,387	1,810	5,164	9,617	4,543	1,540
Kansas	1,166	135	100	89	142	247	253	200
Montana	13,457	1,399	945	815	1,521	3,450	3,304	2,023
Nebraska	9,680	352	429	619	1,405	3,532	2,682	661
Nevada	2,819	345	262	198	423	529	420	642
New Mexico	12,691	4,841	2,359	1,088	1,289	1,497	992	625
North Dakota	304	24	9	10	30	73	122	36
Oklahoma	466	69	46	50	70	115	87	29
Oregon	17,663	5,259	2,736	1,688	2,371	2,870	1,650	1,089
South Dakota	807	88	60	53	100	202	200	104
Texas	21,427	2,601	2,268	1,436	2,044	3,319	4,971	4,788
Utah	21,126	4,605	3,016	2,350	3,823	4,561	1,988	783
Washington	16,928	6,054	3,673	1,772	2,183	1,966	915	365
Wyoming	7,831	515	323	316	717	2,029	2,238	1,693

State	Percent distribution of irrigated farms, by acres irrigated						
	1-9 acres	10-19 acres	20-29 acres	30-49 acres	50-99 acres	100-199 acres	200 acres and over
20 States, total	24.0	14.3	8.2	13.1	18.2	13.2	8.9
Arkansas	3.9	7.8	6.4	9.8	19.2	29.7	23.2
Louisiana	28.7	13.5	8.1	10.4	14.1	13.6	11.6
Florida	43.3	18.3	9.7	9.8	8.8	4.7	5.4
17 Western States, total	23.6	14.3	8.2	13.3	18.5	13.2	8.8
Arizona	29.0	14.0	8.2	12.6	13.2	9.5	13.6
California	32.0	19.7	9.3	13.5	12.1	6.8	6.6
Colorado	16.9	9.8	6.4	10.7	22.6	22.0	11.5
Idaho	14.8	8.1	6.2	17.6	32.7	15.4	5.2
Kansas	11.6	8.6	7.6	12.2	21.2	21.7	17.2
Montana	10.4	7.0	6.1	11.3	25.6	24.6	15.0
Nebraska	3.6	4.4	6.4	14.5	36.5	27.7	6.8
Nevada	12.2	9.3	7.0	15.0	18.8	14.9	22.8
New Mexico	38.1	18.6	8.6	10.2	11.8	7.8	4.9
North Dakota	7.9	3.0	3.3	9.9	24.0	40.1	11.8
Oklahoma	14.8	9.9	10.7	15.0	24.7	18.7	6.2
Oregon	29.8	15.5	9.6	13.4	16.2	9.3	6.2
South Dakota	10.9	7.4	6.6	12.4	25.0	24.8	12.9
Texas	12.1	10.6	6.7	9.5	15.5	23.2	22.3
Utah	21.8	14.3	11.1	18.1	21.6	9.4	3.7
Washington	35.8	21.7	10.5	12.9	11.6	5.4	2.2
Wyoming	6.6	4.1	4.0	9.2	25.9	28.6	21.6

Table 11.—20 SPECIFIED STATES: IRRIGATED FARMS—AVERAGE VALUE OF LAND AND BUILDINGS PER FARM AND PER ACRE, 1950, 1940, AND 1930; AND NUMBER OF FARMS AND ACRES IRRIGATED, BY ORIGIN OF WATER, 1949: BY STATES

[Source: Census of Agriculture. Data in italics are based on reports for only a sample of farms. See text]

State	Value of irrigated farms (land and buildings)									
	Average per farm					Average per acre			Percent of farms reporting value, 1950	Percent of land for which value was reported, 1950
	1950 (dollars)	1940 (dollars)	1930 (dollars)	Percent increase or decrease (-) 1940-1950	Percent increase or decrease (-) 1930-1940	1950 (dollars)	1940 (dollars)	1930 (dollars)		
20 States, total	*34,706*	11,992	17,461	189.4	[1]-31.9	*72.11*	31.32	59.10	*87*	73
Arkansas	*27,989*	11,163	14,601	150.7	-23.5	*64.48*	28.79	44.02	*82*	*78*
Louisiana	*20,951*	6,421	8,142	226.3	-21.1	*104.91*	42.36	50.97	*85*	*83*
Florida	*54,458*	19,720	(*)	176.2	(*)	*150.39*	130.57	(*)	*77*	*74*
17 Western States, total	*34,751*	12,028	17,675	188.9	-31.9	*70.74*	30.69	59.26	*88*	*73*
Arizona	*45,905*	11,153	17,500	311.6	-36.3	*47.75*	21.86	49.99	*84*	*30*
California	*48,062*	18,881	28,424	154.6	-33.6	*223.23*	113.13	202.87	*86*	*82*
Colorado	*24,538*	9,016	12,339	172.2	-26.9	*43.09*	21.43	37.16	*89*	*81*
Idaho	*21,291*	7,915	10,351	169.0	-23.5	*83.71*	41.66	59.64	*91*	*86*
Kansas	*69,624*	14,399	18,001	383.5	-20.0	*73.01*	26.08	39.51	*78*	*81*
Montana	*29,647*	10,859	15,938	173.0	-31.9	*19.86*	10.23	15.80	*91*	*86*
Nebraska	*33,654*	13,431	18,491	150.6	-27.4	*74.59*	25.95	51.63	*92*	*91*
Nevada	*37,752*	14,214	19,781	165.6	-28.1	*23.07*	12.80	19.33	*90*	*65*
New Mexico	*22,900*	5,225	6,125	338.3	-14.7	*37.60*	11.15	17.49	*83*	*44*
North Dakota	*22,274*	9,127	11,541	144.0	-20.9	*36.15*	12.67	23.02	*107*	*89*
Oklahoma	*39,995*	11,822	16,888	238.3	-30.0	*75.04*	17.06	29.14	*84*	*77*
Oregon	*26,569*	9,450	14,133	181.2	-33.1	*45.88*	17.49	25.52	*89*	*83*
South Dakota	*25,546*	10,313	13,788	147.7	-25.2	*16.91*	9.76	27.74	*90*	*93*
Texas	*50,690*	12,712	16,586	298.8	-23.4	*98.61*	21.41	94.85	*83*	*83*
Utah	*19,537*	6,082	8,386	221.2	-27.5	*53.41*	27.74	48.34	*92*	*87*
Washington	*21,819*	6,956	12,251	213.7	-43.2	*119.34*	57.50	101.59	*89*	*83*
Wyoming	*34,455*	12,333	16,449	179.4	-25.0	*16.43*	8.25	12.07	*88*	*84*

State	Irrigated farms by origin of water, 1949									
	Individually operated supply works and—						No individually operated supply works but—			
	No other irrigation enterprise		1 other irrigation enterprise		2 or more other irrigation enterprises		1 other irrigation enterprise		2 or more other irrigation enterprises	
	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated
20 States, total	88,385	9,944,599	20,501	3,011,704	2,378	966,034	170,716	9,928,803	16,069	1,783,729
Arkansas	2,338	373,255	66	9,164	3	651	630	35,978	23	3,059
Louisiana	3,398	267,509	205	37,149	15	3,639	3,629	243,326	191	25,152
Florida	5,466	312,601	58	4,618	13	4,175	509	41,454	29	2,573
17 Western States, total	77,183	8,991,234	20,172	2,960,773	2,347	957,569	165,948	9,608,045	15,826	1,752,945
Arizona	1,606	328,125	413	196,277	45	40,155	5,644	375,514	114	23,489
California	33,058	2,917,313	11,231	1,252,783	786	313,196	42,805	1,788,158	2,875	166,874
Colorado	3,423	537,530	2,727	468,967	545	230,357	17,722	1,236,602	2,704	398,892
Idaho	2,252	241,933	1,091	163,087	124	36,403	23,904	1,484,220	2,042	211,594
Kansas	881	92,215	96	21,289	4	1,633	182	22,356	3	1,193
Montana	3,395	600,903	581	129,896	95	48,126	8,615	811,505	771	126,362
Nebraska	4,748	362,597	627	83,451	47	9,164	4,010	383,708	248	37,339
Nevada	862	385,703	75	37,869	39	54,888	1,729	195,003	114	54,035
New Mexico	2,489	293,060	260	40,197	26	2,587	9,344	297,490	572	21,953
North Dakota	42	2,975	.....	.....	.....	.....	262	32,319	.....	.....
Oklahoma	208	11,479	11	773	.....	.....	245	21,628	2	191
Oregon	6,485	478,694	753	159,930	103	62,063	9,668	499,633	654	106,490
South Dakota	197	16,057	5	382	3	850	573	55,364	29	5,416
Texas	10,786	1,988,787	380	121,051	53	26,740	9,676	885,806	532	109,150
Utah	1,000	88,148	758	74,364	283	45,829	15,178	626,388	3,907	303,266
Washington	4,002	112,861	660	43,532	84	13,330	11,448	358,093	734	61,219
Wyoming	1,749	532,854	504	166,925	110	72,248	4,943	534,258	525	125,482

*Not available.
[1]Based on totals for 19 States; Florida excluded.

Table 12.—20 SPECIFIED STATES: WHOLLY IRRIGATED AND PARTLY IRRIGATED FARMS—NUMBER, LAND IN FARMS, IRRIGATED LAND, AND IRRIGATED CROPLAND HARVESTED, BY STATES: CENSUS OF 1950

[Source: Census of Agriculture]

State	Wholly irrigated farms[1]						
	Number of farms	Land in farms (acres)	Irrigated land			Cropland harvested (all irrigated)	
			Acres	Percent of total land in farms	Average acres per farm	Acres	Percent of total irrigated land
20 States, total	211,334	89,520,327	18,832,839	21.0	89.1	15,676,994	83.2
Arkansas	890	252,404	111,925	44.3	125.8	110,626	98.8
Louisiana	4,280	996,659	412,781	41.4	96.4	411,547	99.7
Florida	3,408	915,542	227,004	24.8	66.6	193,532	85.3
17 Western States, total	202,756	87,355,722	18,081,129	20.7	89.2	14,961,289	82.7
Arizona	6,354	10,825,877	923,296	8.5	145.3	829,922	89.9
California	69,308	10,309,948	4,873,000	47.3	70.3	4,287,453	88.0
Colorado	20,906	10,147,294	2,346,973	23.1	112.3	1,826,908	77.8
Idaho	22,748	4,651,145	1,782,684	38.3	78.4	1,443,918	81.0
Kansas	233	68,907	30,538	44.3	131.1	26,032	85.2
Montana	7,805	8,873,730	1,125,129	12.7	144.2	895,352	79.6
Nebraska	2,733	544,602	307,891	56.5	112.7	291,491	94.7
Nevada	2,431	5,473,831	636,974	11.6	262.0	381,125	59.8
New Mexico	10,616	7,293,423	564,655	7.7	53.2	506,739	89.7
North Dakota	143	25,566	17,530	68.6	122.6	16,096	91.8
Oklahoma	82	44,299	7,454	16.8	90.9	7,237	97.1
Oregon	10,167	5,047,898	918,114	18.2	90.3	646,910	70.5
South Dakota	262	156,266	28,383	18.2	108.3	25,051	88.3
Texas	13,330	5,202,193	1,883,851	36.2	141.3	1,777,230	94.3
Utah	16,423	4,995,942	923,399	18.5	56.2	681,878	73.8
Washington	13,331	1,739,166	496,627	28.6	37.3	391,349	78.8
Wyoming	5,884	11,955,635	1,214,631	10.2	206.4	926,598	76.3

State	Partly irrigated farms[2]							
	Number of farms	Land in farms (acres)	Irrigated land			Total cropland harvested (acres)	Irrigated cropland harvested	
			Acres	Percent of total land	Average acres per farm		Acres	Percent of total irrigated land
20 States, total	86,715	81,814,858	6,802,030	8.3	78.4	12,676,915	5,418,892	79.7
Arkansas	2,170	1,133,694	310,182	27.4	142.9	542,569	308,245	99.4
Louisiana	3,158	532,332	163,994	30.8	51.9	211,447	160,118	97.6
Florida	2,667	1,430,573	138,417	9.7	51.9	231,623	102,794	74.3
17 Western States, total	78,720	78,718,259	189,437	7.9	78.6	11,691,276	4,847,735	78.3
Arizona	1,468	9,911,337	40,264	0.4	27.4	23,281	9,115	22.6
California	21,447	10,252,925	1,565,324	15.3	73.0	2,260,523	1,022,200	65.3
Colorado	6,215	6,935,906	525,375	7.6	84.5	871,485	426,960	81.3
Idaho	6,665	3,329,104	354,553	10.7	53.2	733,294	259,683	73.2
Kansas	933	996,784	108,148	10.8	115.9	438,331	97,938	90.6
Montana	5,652	12,181,542	591,663	4.9	104.7	1,169,294	471,499	79.7
Nebraska	6,947	3,852,356	568,368	14.8	81.8	1,507,090	546,320	96.1
Nevada	388	948,774	90,524	9.5	233.3	38,126	31,804	35.1
New Mexico	2,075	7,266,770	90,632	1.2	43.7	152,099	71,028	78.4
North Dakota	161	198,699	17,764	8.9	110.3	54,105	16,856	94.9
Oklahoma	384	227,448	26,617	11.7	69.3	104,988	25,183	94.6
Oregon	7,496	5,878,026	388,696	6.6	51.9	671,547	246,394	63.4
South Dakota	545	1,019,197	49,686	4.9	91.2	121,449	41,875	84.3
Texas	8,097	5,727,788	1,247,683	21.8	154.1	2,577,617	1,192,569	95.6
Utah	4,703	3,154,612	214,596	6.8	45.6	416,733	165,393	77.1
Washington	3,597	1,556,236	92,408	5.9	25.7	238,269	57,394	62.1
Wyoming	1,947	5,280,755	217,136	4.1	111.5	313,045	165,524	76.2

[1]Farms reporting that all cropland harvested in 1949 was irrigated.
[2]All irrigated farms other than wholly irrigated farms.

Table 13.—20 SPECIFIED STATES: WHOLLY IRRIGATED AND NONIRRIGATED FARMS-NUMBER OF FARMS BY TENURE OF OPERATOR, AVERAGE ACREAGE OF LAND PER FARM IN SPECIFIED USES, AND VALUE OF LAND AND BUILDINGS PER FARM, BY STATES: CENSUS OF 1950

[Source: Census of Agriculture. Data in italics are based on reports for only a sample of farms. See text]

State and item[1]	Number of farms by tenure of operator				Percent of farms operated by—			Average acres per farm						Value of land and buildings per farm (dollars)
	Total	Full owners and managers	Part owners	Tenants	Full owners and managers	Part owners	Tenants	All land in farms	Cropland harvested	Land in fruit orchards, planted nut trees, and vineyards	Vegetables harvested for sale	Small grains including sorghums	All hay	
20 STATES														
Wholly irrigated	211,334	142,646	34,110	34,578	67.5	16.1	16.4	423.6	74.2	6.9	4.1	20.1	24.6	*32,173*
Nonirrigated	1,371,398	694,196	281,384	395,818	50.6	20.5	28.9	410.7	102.9	0.6	0.4	57.8	14.8	*16,802*
Arkansas:														
Wholly irrigated	890	326	195	369	36.6	21.9	41.5	283.6	124.3	(2)	0.1	120.5	0.3	*17,752*
Nonirrigated	179,369	93,060	18,747	67,562	51.9	10.5	37.7	97.5	29.4	0.4	0.3	1.0	5.4	*5,810*
Louisiana:														
Wholly irrigated	4,280	1,854	1,151	1,275	43.3	26.9	29.8	232.9	96.2	(2)	0.2	95.0	0.2	*23,871*
Nonirrigated	116,743	60,014	9,825	46,904	51.4	8.4	40.2	82.9	21.6	0.5	0.2	0.9	2.1	*5,285*
Florida:														
Wholly irrigated	3,408	2,738	341	329	80.3	10.0	9.7	268.6	56.7	29.6	21.5	(2)	0.2	*46,318*
Nonirrigated	50,846	38,996	5,351	6,499	76.7	10.5	12.8	278.9	25.6	4.8	3.0	0.3	0.3	*11,230*
17 WESTERN STATES														
Wholly irrigated	202,756	137,728	32,423	32,605	67.9	16.0	16.1	430.8	73.8	6.7	3.9	18.4	25.6	*32,194*
Nonirrigated	1,024,440	502,126	247,461	274,853	49.0	24.2	26.8	509.5	128.9	0.5	0.4	77.1	18.6	*20,199*
Arizona:														
Wholly irrigated	6,354	4,152	1,340	862	65.3	21.1	13.6	1,703.8	130.6	3.4	11.5	35.8	25.6	*52,713*
Nonirrigated	2,590	1,763	601	226	68.1	23.2	8.7	7,405.1	11.8	0.4	(2)	3.8	1.7	*50,802*
California:														
Wholly irrigated	69,308	52,574	8,347	8,387	75.9	12.0	12.1	148.8	61.9	14.8	6.2	12.6	12.3	*45,241*
Nonirrigated	46,413	36,435	4,641	5,337	78.5	10.0	11.5	345.8	30.4	3.7	0.2	17.8	7.7	*25,917*
Colorado:														
Wholly irrigated	20,906	12,136	3,412	5,358	58.1	16.3	25.6	485.4	87.4	1.1	2.1	20.9	42.6	*22,286*
Nonirrigated	18,457	8,547	6,222	3,688	46.3	33.7	20.0	1,130.7	227.3	0.1	0.1	164.8	11.2	*28,644*
Idaho:														
Wholly irrigated	22,748	14,242	3,216	5,290	62.6	14.1	23.3	204.5	63.5	0.6	0.7	19.0	26.4	*20,926*
Nonirrigated	10,871	7,132	2,397	1,342	65.6	22.0	12.3	482.4	135.3	0.1	0.3	103.0	19.2	*25,787*
Kansas:														
Wholly irrigated	233	119	39	75	51.1	16.7	32.2	295.7	111.7	0.1	1.1	79.5	22.0	*32,727*
Nonirrigated	130,228	50,693	40,601	38,934	38.9	31.2	29.9	365.1	161.5	0.1	0.1	125.3	15.1	*24,401*
Montana:														
Wholly irrigated	7,805	4,604	1,905	1,296	59.0	24.4	16.6	1,136.9	114.7	0.3	0.2	30.1	73.8	*24,831*
Nonirrigated	21,628	9,171	9,411	3,046	42.4	43.5	14.1	1,765.9	254.7	(2)	(2)	212.0	38.0	*26,425*
Nebraska:														
Wholly irrigated	2,733	1,002	377	1,354	36.7	13.8	49.5	199.3	106.7	(2)	0.6	21.1	21.3	*23,380*
Nonirrigated	97,503	35,296	24,654	37,553	36.2	25.3	38.5	441.7	180.6	0.1	(2)	65.7	44.2	*25,153*
Nevada:														
Wholly irrigated	2,431	1,958	302	171	80.5	12.4	7.0	2,251.7	156.8	0.2	0.3	17.0	138.2	*39,249*
Nonirrigated	291	244	14	33	83.8	4.8	11.3	2,202.5	6.7	0.1	.....	1.6	4.6	*14,041*
New Mexico:														
Wholly irrigated	10,616	7,442	1,810	1,364	70.1	17.0	12.8	687.0	47.7	1.2	0.7	5.3	11.3	*23,383*
Nonirrigated	10,908	6,016	3,427	1,465	55.2	31.4	13.4	3,021.8	113.3	0.1	(2)	77.9	3.3	*31,360*
North Dakota:														
Wholly irrigated	143	83	28	32	58.0	19.6	22.4	178.8	112.6	(2)	(2)	59.8	20.2	*20,054*
Nonirrigated	65,097	25,457	25,385	14,255	39.1	39.0	21.9	629.4	311.6	(2)	(2)	239.8	51.9	*17,991*
Oklahoma:														
Wholly irrigated	82	31	20	31	37.8	24.4	37.8	540.2	88.3	0.2	0.4	29.3	15.5	*24,415*
Nonirrigated	141,780	64,028	33,146	44,606	45.2	23.4	31.5	252.0	83.1	0.4	0.3	52.1	8.1	*12,961*
Oregon:														
Wholly irrigated	10,167	7,575	1,448	1,144	74.5	14.2	11.3	486.5	63.6	2.5	1.2	15.8	36.2	*23,489*
Nonirrigated	42,164	33,570	5,179	3,415	79.6	12.3	8.1	223.0	45.1	2.0	1.3	27.2	7.9	*17,228*
South Dakota:														
Wholly irrigated	262	147	53	62	56.1	20.2	23.7	596.4	95.6	0.2	0.4	38.7	34.5	*15,531*
Nonirrigated	65,645	20,554	25,051	20,040	31.3	38.2	30.5	664.3	264.8	(2)	(2)	140.8	65.7	*20,769*
Texas:														
Wholly irrigated	13,330	6,629	3,328	3,373	49.7	25.0	25.3	390.3	133.3	9.2	12.3	55.8	4.1	*41,576*
Nonirrigated	310,140	157,917	57,228	94,995	50.9	18.5	30.6	433.5	76.6	0.5	0.7	29.6	3.6	*18,282*
Utah:														
Wholly irrigated	16,423	11,541	3,626	1,256	70.3	22.1	7.6	304.2	41.5	1.0	1.3	13.0	22.5	*18,422*
Nonirrigated	3,050	2,375	428	247	77.9	14.0	8.1	890.0	59.3	0.3	0.1	50.0	5.0	*16,136*
Washington:														
Wholly irrigated	13,331	10,373	1,556	1,402	77.8	11.7	10.5	130.5	29.4	8.0	2.2	4.4	9.8	*21,374*
Nonirrigated	52,892	40,798	7,100	4,994	77.1	13.4	9.4	266.1	68.2	0.3	0.7	51.8	11.0	*20,398*
Wyoming:														
Wholly irrigated	5,884	3,120	1,616	1,148	53.0	27.5	19.5	2,031.9	157.5	0.1	0.2	25.8	110.8	*32,692*
Nonirrigated	4,783	2,130	1,976	677	44.5	41.3	14.2	3,537.7	138.2	(2)	(2)	79.3	50.5	*31,336*

[1] Wholly irrigated farms are those reporting that all cropland harvested in 1949 was irrigated.
[2] 0.05 or less.

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED; BY STATES: 1949 AND 1939

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939, not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

	State and item	Corn for all purposes				Corn harvested for grain					
		Farms reporting		Acres		Farms reporting		Acres		Quantity harvested (bushels)	
		1949	1939	1949	1939	1949	1939	1949	1939	1949	1939
1	20 States,[1] total	676,948	1,067,220	21,331,440	24,614,752	618,588	939,433	18,826,859	20,180,304	477,175,243	315,580,622
2	irrigated	34,167	57,314	637,475	643,984	22,517	42,711	459,562	455,838	20,647,168	13,613,860
3	nonirrigated	642,781	1,009,906	20,693,965	23,970,768	596,071	896,722	18,367,297	19,724,466	456,528,075	301,966,762
4	Arkansas irrigated	8	31	35	709	7	30	34	694	755	11,104
5	nonirrigated	98,274	174,375	1,117,464	2,236,199	96,559	170,085	1,087,428	2,184,928	21,612,651	33,751,219
6	Louisiana irrigated	327	55	645	847	205	54	460	844	16,180	17,049
7	nonirrigated	71,829	129,584	721,166	1,629,868	70,042	127,944	690,282	1,602,473	13,012,095	22,427,363
8	Florida irrigated	220	(*)	2,684	(*)	184	(*)	2,392	(*)	72,054	(*)
9	nonirrigated	21,892	(*)	516,278	(*)	18,653	(*)	307,622	(*)	3,588,911	(*)
10	17 Western States, total	484,398	763,175	18,973,168	20,747,129	432,938	641,320	16,738,641	16,391,365	438,872,597	259,373,887
11	irrigated	33,612	57,228	634,111	642,428	22,121	42,627	456,676	454,300	20,558,179	13,585,707
12	nonirrigated	450,786	705,947	18,339,057	20,104,701	410,817	598,693	16,281,965	15,937,065	418,314,418	245,788,180
13	Arizona irrigated	825	3,031	13,213	16,473	543	2,423	9,361	10,197	203,268	144,576
14	nonirrigated	171	2,230	10,501	18,437	111	1,950	9,029	14,292	96,925	122,911
15	California irrigated	2,415	3,771	39,644	63,159	899	1,747	16,871	36,302	673,366	1,303,962
16	nonirrigated	1,184	2,543	19,069	25,535	550	1,057	11,156	10,671	452,035	203,816
17	Colorado irrigated	9,800	11,271	189,402	146,282	6,975	7,120	121,904	74,755	6,186,385	2,123,042
18	nonirrigated	6,116	8,856	409,950	569,039	4,643	5,348	342,511	406,761	5,170,920	2,559,810
19	Idaho irrigated	2,651	5,790	24,035	40,752	1,602	4,560	12,302	30,840	676,650	1,343,677
20	nonirrigated	226	761	1,868	4,675	121	440	777	2,436	36,267	48,964
21	Kansas irrigated	55	138	1,551	1,529	48	90	1,439	1,105	69,855	23,316
22	nonirrigated	65,029	83,133	2,365,133	2,737,398	61,943	66,520	2,227,742	2,091,267	61,645,996	31,856,793
23	Montana irrigated	591	2,297	10,012	25,928	225	1,578	2,884	16,146	91,580	468,030
24	nonirrigated	2,313	5,516	115,876	118,456	185	2,045	3,625	32,496	63,799	393,202
25	Nebraska irrigated	3,667	4,739	239,231	160,250	3,493	4,364	229,760	145,065	10,682,142	4,598,560
26	nonirrigated	81,518	98,664	6,777,802	6,144,718	80,394	86,136	6,604,522	4,909,638	199,660,159	67,287,472
27	Nevada irrigated	170	416	1,938	3,877	54	281	300	1,965	12,584	62,284
28	nonirrigated	5	2	19	1	1	1	9	(2)	400	20
29	New Mexico irrigated	4,471	9,755	29,096	56,762	3,815	8,982	23,957	49,298	548,183	1,126,958
30	nonirrigated	3,878	7,581	55,681	119,797	3,337	5,975	44,110	92,398	516,358	840,822
31	North Dakota irrigated	72	126	1,596	1,810	9	41	191	481	7,919	17,941
32	nonirrigated	29,812	42,473	1,170,545	1,072,095	14,129	15,860	509,841	346,119	11,457,758	6,612,403
33	Oklahoma irrigated	9	9	204	210	9	9	204	210	7,246	4,746
34	nonirrigated	56,976	108,804	1,067,677	1,787,634	55,482	104,769	1,035,476	1,718,601	19,183,656	25,336,460
35	Oregon irrigated	738	1,593	6,102	10,818	490	1,252	3,589	8,506	175,819	330,033
36	nonirrigated	2,996	10,081	19,067	57,061	1,422	5,145	7,426	25,009	306,237	731,543
37	South Dakota irrigated	244	416	7,846	7,265	126	162	2,831	2,319	93,187	46,612
38	nonirrigated	50,123	52,337	4,004,541	2,676,901	43,507	40,873	3,257,642	1,962,235	76,008,866	40,708,999
39	Texas irrigated	2,069	4,928	18,721	45,573	1,693	4,466	14,687	40,132	436,370	943,102
40	nonirrigated	148,041	274,768	2,280,469	4,654,902	144,416	260,621	2,220,531	4,282,232	43,589,623	68,706,727
41	Utah irrigated	3,434	4,149	26,116	19,829	666	1,877	3,992	8,085	128,322	213,116
42	nonirrigated	221	295	1,957	2,368	38	153	192	1,126	3,736	18,579
43	Washington irrigated	1,689	3,118	12,943	15,753	1,174	2,427	7,370	11,237	402,276	407,626
44	nonirrigated	1,351	5,657	6,859	21,889	260	826	1,293	3,504	40,017	76,387
45	Wyoming irrigated	712	1,681	12,461	26,158	300	1,248	5,034	17,657	163,027	428,126
46	nonirrigated	826	2,246	32,043	93,795	278	974	6,083	38,280	81,666	283,272

*Not available.
[1]Only 19 States in 1939; Florida not included.
[2]Reported in small fractions.

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED; BY STATES: 1949 AND 1939—Continued

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939, not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

	State and item	Sorghum for all purposes except sirup				Sorghum harvested for grain or for seed					
		Farms reporting		Acres		Farms reporting		Acres		Quantity harvested (bushels)	
		1949	1939	1949	1939	1949	1939	1949	1939	1949	1939
1	20 States,[1] total	266,323	572,044	9,650,717	13,308,832	128,840	190,758	6,032,057	4,595,724	133,827,326	50,500,108
2	irrigated	9,986	15,239	642,361	313,909	7,316	6,518	545,659	144,516	22,848,137	4,279,714
3	nonirrigated	256,337	556,805	9,008,356	12,994,923	121,524	184,240	5,486,398	4,451,208	110,979,189	46,220,394
4	Arkansas irrigated	2	3	85	91	.....	.....	.....	.....	.....	.....
5	nonirrigated	8,985	34,172	41,621	98,131	1,263	1,948	12,041	5,949	207,569	82,998
6	Louisiana irrigated	4	.....	4	.....	.....	.....	.....	.....	.....	.....
7	nonirrigated	1,679	5,820	8,244	12,081	334	529	2,667	1,190	44,650	18,603
8	Florida irrigated	.....	(*)	.....	(*)	.....	(*)	.....	(*)	.....	(*)
9	nonirrigated	84	(*)	2,335	(*)	13	(*)	407	(*)	7,069	(*)
10	17 Western States, total	255,569	532,049	9,598,428	13,198,529	127,230	188,281	6,016,942	4,588,585	133,568,038	50,398,507
11	irrigated	9,980	15,236	642,272	313,818	7,316	6,518	545,659	144,516	22,848,137	4,279,714
12	nonirrigated	245,589	516,813	8,956,156	12,884,711	119,914	181,763	5,471,283	4,444,069	110,719,901	46,118,793
13	Arizona irrigated	1,189	1,309	67,018	21,890	881	818	55,631	13,667	2,493,345	464,857
14	nonirrigated	69	155	1,139	1,793	13	13	375	180	7,062	1,116
15	California irrigated	1,321	3,130	48,457	69,104	1,033	2,673	42,361	62,759	1,696,055	2,173,611
16	nonirrigated	398	343	15,547	12,391	310	269	13,048	11,083	542,300	219,443
17	Colorado irrigated	874	2,164	21,606	35,171	595	788	16,378	14,362	624,138	271,442
18	nonirrigated	7,193	8,085	570,304	468,790	2,459	1,949	278,122	128,312	4,429,138	725,158
19	Idaho irrigated	4	24	26	98	3	4	21	12	567	155
20	nonirrigated	.....	17	.....	180	.....	6	.....	69	.....	440
21	Kansas irrigated	217	877	18,731	29,148	188	512	15,815	15,325	699,463	354,008
22	nonirrigated	61,449	93,469	2,224,634	2,377,733	33,630	38,138	1,326,023	826,126	27,900,225	8,112,018
23	Montana irrigated	11	86	189	838	.....	11	.....	62	.....	756
24	nonirrigated	122	513	2,295	8,323	2	3	32	47	145	554
25	Nebraska irrigated	125	1,156	3,230	18,233	57	275	1,365	4,033	43,979	98,002
26	nonirrigated	14,606	74,645	294,209	1,542,683	4,409	21,162	104,172	351,572	2,445,802	3,507,971
27	Nevada irrigated	7	47	80	268	7	24	80	160	488	3,755
28	nonirrigated	.....	1	.....	2	.....	1	.....	2	.....	50
29	New Mexico irrigated	1,157	1,829	34,874	30,684	497	456	16,928	5,741	545,988	198,639
30	nonirrigated	3,496	5,102	477,524	392,403	2,410	2,242	383,154	170,906	8,327,995	2,301,340
31	North Dakota irrigated	.....	25	.....	227	.....	.....	.....	.....	.....	.....
32	nonirrigated	2,498	10,792	34,133	164,076	19	64	219	848	3,464	10,585
33	Oklahoma irrigated	70	13	2,855	200	57	8	2,493	61	60,661	1,525
34	nonirrigated	42,815	84,998	1,054,483	1,466,674	20,761	37,048	526,879	629,961	7,809,115	5,428,972
35	Oregon irrigated	.....	15	.....	89	.....	6	.....	17	.....	494
36	nonirrigated	.....	27	.....	72	.....	4	.....	7	.....	88
37	South Dakota irrigated	9	149	106	2,608	4	9	57	81	650	729
38	nonirrigated	7,211	38,849	147,253	1,069,287	656	5,633	19,343	150,843	236,043	1,289,098
39	Texas irrigated	4,924	4,148	444,638	103,032	3,989	923	394,461	28,204	16,682,388	710,741
40	nonirrigated	105,562	198,978	4,130,461	5,360,523	55,242	75,217	2,819,814	2,173,903	59,017,412	24,521,377
41	Utah irrigated	62	75	346	249	4	5	19	25	265	805
42	nonirrigated	7	31	30	168	2	.....	27	.....	300	.....
43	Washington irrigated	.....	33	.....	101	.....	6	.....	7	.....	195
44	nonirrigated	.....	17	.....	60	.....	.....	.....	.....	.....	.....
45	Wyoming irrigated	10	156	116	1,878	1	.....	30	.....	150	.....
46	nonirrigated	163	791	4,144	19,553	1	14	75	210	900	583

*Not available.
[1]Only 19 States in 1939; Florida not included.

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939.

	State and item	Grains grown together and threshed as a mixture						Winter wheat threshed or combined					
		Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting		Acres		Quantity harvested (bushels)	
		1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939
1	20 States,[1] total	27,553	24,290	840,059	590,108	16,882,933	9,522,483	267,834	293,857	37,906,142	24,273,012	513,055,542	328,361,973
2	irrigated	8,135	4,221	115,328	51,974	4,868,697	1,773,382	10,686	12,797	469,680	353,846	11,987,502	8,004,133
3	nonirrigated	19,418	20,069	724,731	538,134	12,014,236	7,749,101	257,148	281,060	37,436,462	23,919,166	501,068,040	320,357,840
4	Arkansas irrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	nonirrigated	269	182	4,796	1,484	74,575	15,459	1,264	3,204	21,031	33,612	289,454	353,443
6	Louisiana irrigated	(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....
7	nonirrigated	(***)	29	(***)	65	(***)	952	(***)	8	(***)	34	(***)	601
8	Florida irrigated	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)
9	nonirrigated	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)
10	17 Western States, total	27,284	24,079	835,263	588,559	16,808,358	9,506,072	266,570	290,645	37,885,111	24,239,366	512,766,088	328,007,929
11	irrigated	8,135	4,221	115,328	51,974	4,868,697	1,773,382	10,686	12,797	469,680	353,846	11,987,502	8,004,133
12	nonirrigated	19,149	19,858	719,935	536,585	11,939,661	7,732,690	255,884	277,848	37,415,431	23,885,520	500,778,586	320,003,796
13	Arizona irrigated	(***)	52	(***)	810	(***)	22,671	705	1,034	21,879	19,158	646,017	487,718
14	nonirrigated	(***)	3	(***)	27	(***)	313	109	19	5,313	272	61,455	2,339
15	California irrigated	77	78	3,429	2,111	118,562	43,909	962	709	117,705	63,327	4,091,708	1,792,154
16	nonirrigated	290	131	24,605	9,642	538,729	178,108	3,246	3,294	475,611	428,985	6,564,452	7,004,795
17	Colorado irrigated	649	352	12,509	5,346	428,876	130,751	2,460	3,903	61,783	97,280	1,579,704	2,256,896
18	nonirrigated	731	107	47,093	6,761	822,869	39,890	9,489	5,992	2,199,951	783,555	32,516,132	7,039,808
19	Idaho irrigated	4,594	2,026	54,910	20,692	2,649,311	908,547	736	668	14,043	14,330	408,102	399,807
20	nonirrigated	401	151	14,950	3,180	304,391	79,182	5,818	5,364	903,802	548,266	19,354,032	13,250,976
21	Kansas irrigated	2	2	38	20	650	140	.....	313	.....	17,523	.....	311,909
22	nonirrigated	1,475	3,124	64,582	81,401	817,078	974,773	87,454	99,997	13,305,923	9,194,360	143,883,172	112,091,694
23	Montana irrigated	356	221	8,204	4,441	268,958	144,858	676	638	32,639	19,926	761,499	484,202
24	nonirrigated	449	261	20,609	7,213	283,991	108,916	6,185	6,133	1,189,715	753,455	19,397,767	12,643,084
25	Nebraska irrigated	26	7	461	129	14,008	2,864	344	317	13,704	8,260	232,566	151,158
26	nonirrigated	6,429	2,477	200,855	58,939	3,316,403	617,335	48,686	55,743	3,772,831	3,037,591	50,830,072	33,850,779
27	Nevada irrigated	(***)	20	(***)	243	(***)	6,549	193	272	4,115	4,742	110,943	140,966
28	nonirrigated	(***)	.....	(***)	.....	(***)	.....	9	.....	209	.....	4,067	.....
29	New Mexico irrigated	150	137	1,187	1,075	22,244	10,105	742	1,581	12,814	9,978	236,781	175,613
30	nonirrigated	130	122	5,987	5,983	66,475	55,676	2,037	1,351	453,693	244,058	4,330,401	2,746,149
31	North Dakota irrigated	14	6	294	82	11,159	3,493	.....	.....	.....	.....	.....	.....
32	nonirrigated	568	531	42,754	21,372	518,296	323,825	392	285	24,263	11,586	311,025	119,454
33	Oklahoma irrigated	.....	.....	.....	.....	.....	.....	33	6	2,101	160	23,343	2,560
34	nonirrigated	1,771	4,870	68,351	124,188	810,009	1,499,149	39,797	51,248	6,247,800	4,158,070	78,418,196	58,490,359
35	Oregon irrigated	402	184	6,565	3,308	274,025	90,639	325	296	13,249	5,947	392,764	154,027
36	nonirrigated	2,546	2,980	64,736	73,961	1,714,747	1,786,863	7,047	9,996	721,168	578,048	15,548,746	12,441,448
37	South Dakota irrigated	8	2	268	54	6,215	1,701	17	28	734	337	13,645	3,606
38	nonirrigated	1,146	776	50,293	26,371	811,646	520,348	2,389	1,961	242,421	89,131	3,108,847	941,783
39	Texas irrigated	30	64	1,514	2,158	49,733	46,397	1,391	763	135,241	66,846	2,430,922	1,036,113
40	nonirrigated	2,400	3,693	87,005	105,975	1,368,764	1,262,548	32,048	25,873	5,256,973	2,677,218	69,047,485	27,060,254
41	Utah irrigated	1,426	828	17,343	6,930	734,032	222,520	1,721	1,887	30,023	20,334	822,881	490,049
42	nonirrigated	143	31	7,811	659	116,770	8,831	1,866	1,525	253,092	118,080	4,065,203	1,855,387
43	Washington irrigated	82	67	1,247	755	51,039	28,237	129	177	2,523	1,716	74,476	51,652
44	nonirrigated	517	557	14,257	9,559	352,386	262,310	7,657	8,010	2,115,194	1,179,142	48,459,973	29,687,179
45	Wyoming irrigated	319	175	7,359	3,820	239,885	110,001	252	205	7,127	3,982	162,151	65,703
46	nonirrigated	153	44	6,047	1,354	97,107	14,623	1,655	1,057	247,472	83,703	4,877,561	778,308

*Not available.
***Not available; separate inquiry not on questionnaire for all States.
[1]Only 19 States in 1939; Florida not included.
[2]Estimated on basis of farms reporting different kinds of spring wheat in 1939. See text, chapter VII, Volume II.
[3]Includes 6,909 bushels of oats cleaned out of vetch and peas harvested for sale.
[4]Includes 1,365,071 bushels of oats cleaned out of vetch and peas harvested for sale.
[5]A total of farms reporting durum or macaroni wheat and spring wheat other than durum or macaroni.

FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED, BY STATES: 1949 AND 1939—Continued

not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

Spring wheat threshed or combined						Oats threshed or combined						Oats cut for feeding unthreshed				
Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting		Acres		
1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	
157,824	188,600	18,840,598	12,920,288	199,530,800	146,241,119	295,397	361,156	10,180,846	9,317,257	232,244,545	216,097,051	39,693	73,352	610,157	831,788	1
34,515	46,273	590,080	551,685	19,174,076	15,494,641	29,422	35,676	443,170	454,331	18,309,203	17,410,738	3,175	3,815	35,453	40,163	2
123,309	142,327	18,250,518	12,368,603	180,356,724	130,746,478	265,975	325,480	9,737,676	8,862,926	213,935,342	198,686,313	36,518	69,537	574,704	791,625	3
(***)	.....	(***)	.....	(***)	.....	3	4	237	176	3,170	9,592	1	1	3	20	4
(***)	.....	(***)	.....	(***)	.....	5,696	6,293	161,342	142,774	3,897,027	4,201,551	4,753	12,584	34,258	71,818	5
(***)	.....	(***)	.....	(***)	.....	10	1	277	8	9,181	200	14	2	35	4	6
(***)	.....	(***)	.....	(***)	.....	1,876	1,511	48,390	43,011	1,215,770	1,455,321	1,704	2,696	14,787	16,186	7
(***)	(*)	(***)	(*)	(***)	(*)	.....	(*)	.....	(*)	.....	(*)	3	(*)	55	(*)	8
(***)	(*)	(***)	(*)	(***)	(*)	238	(*)	3,490	(*)	49,144	(*)	859	(*)	10,511	(*)	9
157,824	188,600	18,840,598	12,920,288	199,530,800	146,241,119	287,574	353,347	9,967,110	9,131,288	227,070,253	210,430,387	32,359	58,069	550,508	743,760	10
34,515	46,273	590,080	551,685	19,174,076	15,494,641	29,409	35,671	442,656	454,147	18,296,852	17,400,946	3,157	3,812	35,360	40,139	11
123,309	142,327	18,250,518	12,368,603	180,356,724	130,746,478	258,165	317,676	9,524,454	8,677,141	208,773,401	193,029,441	29,202	54,257	515,148	703,621	12
(***)	293	(***)	4,590	(***)	114,960	168	196	4,379	3,549	233,950	124,922	114	90	2,375	921	13
(***)	42	(***)	552	(***)	5,189	61	52	3,162	1,681	83,450	20,844	33	23	685	430	14
(***)	383	(***)	14,069	(***)	268,718	426	589	15,459	22,908	507,339	955,264	(***)	502	(***)	8,386	15
(***)	723	(***)	82,714	(***)	1,306,133	1,535	1,619	119,043	120,258	2,838,753	3,271,825	(***)	582	(***)	12,657	16
3,304	5,802	46,407	73,033	1,352,350	1,643,652	5,995	6,103	95,023	75,553	3,948,809	2,364,926	634	904	6,889	9,732	17
1,624	1,805	120,149	72,044	1,967,952	432,264	3,473	1,408	97,698	33,020	2,469,867	475,488	1,002	776	20,889	21,893	18
13,063	14,676	234,656	163,176	9,229,148	5,784,163	6,964	8,263	73,183	69,988	3,425,594	3,128,464	457	338	4,103	2,701	19
3,818	4,048	241,661	153,624	4,426,885	2,888,131	3,221	4,018	77,786	106,079	2,628,963	3,483,453	464	334	4,478	3,899	20
(***)	.....	(***)	.....	(***)	.....	20	29	323	337	10,119	5,527	.....	15	.....	172	21
(***)	40	(***)	2,267	(***)	10,054	40,193	55,543	779,735	1,117,391	15,133,777	20,924,180	3,749	6,883	43,537	80,869	22
3,861	5,909	121,227	142,789	2,819,708	3,426,936	3,591	5,610	71,756	98,282	2,968,460	4,044,296	303	304	4,643	3,918	23
13,501	16,917	3,159,451	2,138,706	27,184,318	23,795,468	4,176	8,411	93,695	182,627	2,007,169	3,853,430	1,964	2,196	51,824	39,551	24
36	80	1,339	934	25,274	13,730	678	1,201	13,066	16,337	414,412	475,407	64	108	1,022	1,252	25
1,778	3,160	95,266	97,386	1,199,298	660,492	58,984	52,909	2,080,378	1,218,738	41,790,801	17,750,111	3,451	5,478	60,967	94,963	26
639	583	12,757	7,658	366,227	210,133	266	206	4,781	3,582	174,607	117,255	120	25	2,216	293	27
18	2	269	3	3,957	30	15	.....	360	.....	11,014	.....	13	1	91	7	28
1,285	2,899	8,409	10,522	147,742	145,260	716	972	8,838	10,446	248,657	277,198	425	524	2,645	3,405	29
541	551	9,647	4,070	102,240	25,234	611	549	10,074	9,949	170,697	150,230	321	403	3,345	4,675	30
[2]151	129	8,903	3,343	209,920	82,906	68	63	1,051	1,026	46,015	42,271	4	6	52	22	31
[2]57,631	65,594	10,160,078	6,883,870	104,955,030	69,058,926	40,260	46,357	1,591,311	1,457,546	32,170,679	33,062,183	3,872	4,450	80,095	78,220	32
(***)	.....	(***)	.....	(***)	.....	3	5	33	122	1,450	4,563	1	.....	12	.....	33
(***)	.....	(***)	.....	(***)	.....	17,359	45,040	458,023	1,174,293	8,158,519	21,073,971	4,624	14,131	64,100	143,187	34
2,005	2,135	44,893	30,381	1,323,447	878,011	1,336	1,638	30,791	31,645	[3]1,070,519	1,291,116	195	136	2,269	1,414	35
3,571	3,554	218,291	108,084	4,000,402	1,884,661	8,139	11,034	180,001	223,386	[4]7,523,874	6,876,710	1,135	463	12,068	3,720	36
[5]152	131	5,358	1,593	95,156	18,160	197	124	3,475	1,360	118,641	35,768	17	16	232	311	37
[5]35,370	39,316	3,673,856	2,007,221	27,179,532	16,629,178	47,844	42,353	2,823,333	1,597,042	62,443,526	43,066,132	2,418	1,824	67,922	36,489	38
(***)	.....	(***)	.....	(***)	.....	166	265	4,903	7,099	134,922	189,543	51	155	1,265	1,898	39
(***)	.....	(***)	.....	(***)	.....	23,787	39,164	1,038,257	1,263,642	25,392,215	32,117,245	4,201	15,501	80,391	170,763	40
7,243	8,976	60,421	51,198	2,225,188	1,546,919	4,882	5,650	36,306	30,505	1,658,648	1,154,239	349	318	2,230	1,595	41
699	602	18,130	9,145	365,150	167,354	332	235	2,329	1,324	99,175	38,396	75	23	427	223	42
1,269	1,868	23,406	19,557	802,114	709,919	1,381	1,658	21,921	22,063	1,169,063	1,199,517	201	139	1,513	809	43
3,450	4,886	487,795	763,719	8,125,396	13,580,537	6,632	8,180	118,469	151,005	4,716,754	6,598,919	1,435	972	13,310	6,721	44
1,507	2,409	22,304	28,842	577,802	651,174	2,552	3,099	57,368	59,345	2,165,647	1,990,670	222	232	3,894	3,310	45
1,308	1,087	65,925	45,198	846,564	302,827	1,543	804	50,800	19,160	1,134,168	266,324	445	217	11,019	5,354	46

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939.

	State and item	Barley threshed or combined						Rye threshed or combined						Flaxseed threshed or combined	
		Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting	
		1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939
1	**20 States, [1] total**	156,599	252,229	6,862,915	7,869,949	159,277,155	147,993,949	22,203	66,470	782,390	2,124,545	7,947,384	18,215,904	55,569	22,616
2	irrigated	43,367	45,750	1,429,858	978,270	59,362,368	33,806,551	440	1,139	7,645	17,367	103,465	283,782	1,522	1,147
3	nonirrigated	113,232	206,479	5,433,057	6,891,679	99,914,787	114,187,398	21,763	65,331	774,745	2,107,178	7,843,919	17,932,122	54,047	21,469
4	Arkansas.....irrigated	1	.....	8	.....	400	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....
5	nonirrigated	353	1,018	4,531	9,874	95,196	145,992	(***)	138	(***)	1,317	(***)	15,519	(***)	4
6	Louisana.....irrigated	(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....
7	nonirrigated	(***)	3	(***)	28	(***)	390	(***)	5	(***)	22	(***)	280	(***)	.....
8	Florida.....irrigated	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)
9	nonirrigated	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)
10	**17 Western States, total**	156,245	251,208	6,858,376	7,860,047	159,181,559	147,847,567	22,203	66,327	782,390	2,123,206	7,947,384	18,200,105	55,569	22,612
11	irrigated	43,366	45,750	1,429,850	978,270	59,361,968	33,806,551	440	1,139	7,645	17,367	103,465	283,782	1,522	1,147
12	nonirrigated	112,879	205,458	5,428,526	6,881,777	99,819,591	114,041,016	21,763	65,188	774,745	2,105,839	7,843,919	17,916,323	54,047	21,465
13	Arizona.....irrigated	1,541	759	112,995	25,769	5,896,183	889,450	(***)	5	(***)	76	(***)	1,492	311	107
14	nonirrigated	48	28	705	452	13,590	5,017	(***)	5	(***)	319	(***)	1,436	.....	.....
15	California....irrigated	3,303	3,059	491,330	347,409	21,912,529	11,846,647	(***)	44	(***)	1,503	(***)	23,146	858	402
16	nonirrigated	6,608	7,268	880,998	898,205	24,851,900	20,702,885	(***)	136	(***)	7,146	(***)	57,807	57	40
17	Colorado.....irrigated	10,338	10,329	269,126	202,459	10,731,308	6,384,078	88	261	1,103	3,336	18,195	59,714	(***)	3
18	nonirrigated	6,540	4,111	438,098	199,690	9,036,625	1,437,768	591	957	21,375	34,848	175,041	230,083	(***)	14
19	Idaho.....irrigated	6,047	9,054	96,045	96,746	3,899,017	3,946,995	(***)	100	(***)	912	(***)	17,510	(***)	239
20	nonirrigated	4,174	3,732	188,085	117,261	5,083,341	3,365,391	(***)	170	(***)	2,202	(***)	25,146	(***)	189
21	Kansas.....irrigated	93	150	2,881	3,555	57,512	47,282	4	3	67	33	1,247	191	.....	.....
22	nonirrigated	7,987	24,393	193,234	595,957	3,368,435	6,479,141	1,834	4,207	26,659	62,897	257,756	657,911	1,492	4,100
23	Montana.....irrigated	3,267	3,533	79,321	53,967	2,486,818	1,888,845	11	107	516	1,656	9,944	28,980	314	336
24	nonirrigated	7,584	5,278	367,302	127,167	6,470,071	2,338,312	166	1,429	5,368	44,569	40,755	460,835	811	1,384
25	Nebraska.....irrigated	1,965	1,550	47,583	30,667	1,769,961	944,544	48	130	704	2,431	8,364	33,791	(***)	.....
26	nonirrigated	8,052	40,732	246,516	999,610	3,730,909	12,362,184	5,575	15,809	201,065	377,661	1,450,053	3,492,440	(***)	33
27	Nevada.....irrigated	774	723	20,046	14,707	694,972	496,897	(***)	29	(***)	189	(***)	3,017	(***)	.....
28	nonirrigated	20	1	402	10	11,960	311	(***)	1	(***)	14	(***)	28	(***)	.....
29	New Mexico....irrigated	874	755	9,875	9,340	273,121	224,489	25	53	743	455	11,644	7,462	(***)	1
30	nonirrigated	421	207	10,388	3,310	151,108	37,734	106	107	4,013	4,031	41,893	33,216	(***)	.....
31	North Dakota..irrigated	54	75	850	1,150	23,550	42,205	.....	.....	.....	.....	.....	.....	17	6
32	nonirrigated	31,725	41,272	1,621,636	1,624,523	23,906,302	27,953,056	4,750	17,570	213,591	778,734	2,425,408	6,111,358	33,086	8,706
33	Oklahoma.....irrigated	2	2	97	28	2,450	451	.....	.....	.....	.....	.....	.....	.....	.....
34	nonirrigated	1,957	23,115	39,869	494,263	688,336	7,952,719	885	3,542	15,431	113,058	131,525	1,094,535	84	126
35	Oregon.....irrigated	2,463	2,156	89,758	44,694	3,182,223	1,649,209	100	185	2,881	4,569	31,173	70,363	(***)	34
36	nonirrigated	5,919	5,462	143,279	114,646	4,543,496	2,935,049	459	808	9,376	18,013	101,406	213,899	(***)	253
37	South Dakota..irrigated	230	226	6,842	3,983	172,281	84,838	1	2	100	22	700	216	14	.....
38	nonirrigated	22,801	36,770	1,047,190	1,403,200	12,457,441	22,646,470	6,934	19,301	263,033	623,488	3,071,816	5,233,525	14,668	6,088
39	Texas.....irrigated	350	327	9,932	7,962	227,921	179,941	(***)	10	(***)	209	(***)	1,776	8	14
40	nonirrigated	4,191	8,506	104,487	194,059	1,897,912	2,676,497	(***)	363	(***)	15,391	(***)	105,240	3,849	318
41	Utah.....irrigated	8,490	9,577	104,842	75,507	4,806,238	3,133,408	77	81	686	621	10,725	10,903	(***)	.....
42	nonirrigated	847	770	12,661	8,480	448,333	215,392	119	41	2,953	1,005	30,435	5,326	(***)	.....
43	Washington....irrigated	752	945	12,991	11,240	532,337	460,840	51	78	431	481	6,694	10,101	(***)	4
44	nonirrigated	2,525	3,034	81,370	80,788	2,032,614	2,576,329	198	473	6,552	13,366	63,960	143,668	(***)	212
45	Wyoming.....irrigated	2,823	2,530	75,336	49,087	2,693,547	1,586,432	35	51	414	874	4,779	15,120	(***)	1
46	nonirrigated	1,480	779	52,306	20,156	1,127,218	356,761	146	269	5,329	9,097	53,871	49,870	(***)	2

*Not available.
***Not available; separate inquiry not on questionnaire for all States.
[1]Only 19 States in 1939; Florida not included.
[2]Not including farms reporting dry lima beans only.

FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED; BY STATES: 1949 AND 1939—Continued

not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

Flaxseed threshed or combined—Continued				Rice threshed or combined						Dry field and seed beans other than soybeans harvested for beans						
Acres		Quantity harvested (bushels)		Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting		Acres		Quantity harvested (bushels)		
1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	
3,036,394	749,234	23,433,813	5,922,776	10,927	8,515	1,819,092	848,463	89,431,985	43,763,563	23,598	35,314	1,063,440	944,541	20,238,284	13,232,563	1
190,529	93,170	4,471,342	1,680,969	10,924	8,447	1,819,079	848,292	89,431,513	43,759,515	18,452	19,745	671,408	449,298	17,522,587	10,454,327	2
2,845,865	656,064	18,962,471	4,241,807	3	68	13	171	472	4,048	5,146	15,569	392,032	495,243	2,715,697	2,778,236	3
(***)	.....	(***)	.....	2,940	1,428	411,040	153,095	19,889,614	7,651,231	.....	.....	.....	.....	.....	.....	4
(***)	254	(***)	2,473	.....	.....	.....	.....	.....	.....	8	1,019	25	1,262	237	5,637	5
(***)	.....	(***)	.....	5,675	5,778	562,496	404,036	23,600,671	17,781,727	.....	.....	.....	.....	.....	.....	6
(***)	.....	(***)	.....	3	66	13	165	472	3,713	.....	392	.....	614	.....	2,559	7
(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	.....	(*)	.....	(*)	.....	(*)	8
(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	(***)	(*)	.....	(*)	.....	(*)	.....	(*)	9
3,036,394	748,980	23,433,813	5,920,303	2,309	1,243	845,543	291,167	45,941,228	18,326,892	23,590	33,903	1,063,415	942,665	20,238,047	13,224,367	10
190,529	93,170	4,471,342	1,680,969	2,309	1,241	845,543	291,161	45,941,228	18,326,557	18,452	19,745	671,408	449,298	17,522,587	10,454,327	11
2,845,865	655,810	18,962,471	4,239,334	.....	2	.....	6	.....	335	5,138	14,158	392,007	493,367	2,715,460	2,770,040	12
30,141	4,917	811,448	113,702	(***)	.....	(***)	.....	(***)	.....	281	884	3,701	3,515	52,292	32,338	13
.....	.....	.....	.....	(***)	.....	(***)	.....	(***)	.....	100	732	7,471	11,984	39,531	40,060	14
147,477	75,612	3,525,922	1,433,444	942	431	303,747	104,931	22,021,856	7,929,991	[2]2,239	3,575	235,197	179,313	6,551,538	4,328,768	15
7,513	4,142	82,693	47,633	.....	.....	.....	.....	.....	.....	[2]543	1,536	53,505	107,299	834,551	1,362,697	16
(***)	21	(***)	162	(***)	.....	(***)	.....	(***)	.....	4,226	5,367	100,761	92,302	2,566,548	1,789,247	17
(***)	462	(***)	1,632	(***)	.....	(***)	.....	(***)	.....	1,778	2,412	178,187	148,686	1,017,463	520,401	18
(***)	2,733	(***)	38,262	(***)	.....	(***)	.....	(***)	.....	5,210	3,421	133,296	77,456	3,850,003	2,319,603	19
(***)	7,649	(***)	67,365	(***)	.....	(***)	.....	(***)	.....	202	441	10,182	21,681	89,842	147,431	20
.....	.....	.....	.....	(***)	.....	(***)	.....	(***)	.....	3	1	147	4	1,886	40	21
30,448	95,369	192,270	736,529	(***)	.....	(***)	.....	(***)	.....	11	25	899	57	4,311	198	22
11,708	8,748	124,621	83,981	(***)	.....	(***)	.....	(***)	.....	586	709	16,290	13,769	347,002	310,963	23
46,505	62,411	138,470	227,232	(***)	.....	(***)	.....	(***)	.....	40	25	968	43	20,640	219	24
(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	2,176	1,130	79,692	14,643	1,935,335	376,111	25
(***)	642	(***)	3,484	(***)	.....	(***)	.....	(***)	.....	139	62	3,733	576	72,307	1,901	26
(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	1	2	1	22	5	305	27
(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	.....	.....	.....	.....	.....	.....	28
(***)	4	(***)	80	(***)	.....	(***)	.....	(***)	.....	1,103	2,381	14,450	18,021	203,831	236,075	29
(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	1,952	3,849	121,933	175,670	523,788	581,452	30
290	61	2,270	647	(***)	.....	(***)	.....	(***)	.....	6	13	159	151	1,454	2,540	31
1,775,377	311,991	12,215,878	1,602,200	(***)	.....	(***)	.....	(***)	.....	8	38	106	50	805	420	32
.....	.....	.....	.....	(***)	.....	(***)	.....	(***)	.....	.....	.....	.....	.....	.....	.....	33
2,428	3,661	12,732	31,891	(***)	.....	(***)	.....	(***)	.....	7	580	511	1,456	3,558	5,813	34
(***)	536	(***)	5,146	(***)	.....	(***)	.....	(***)	.....	122	51	2,037	524	40,518	4,882	35
(***)	5,164	(***)	55,243	(***)	.....	(***)	.....	(***)	.....	26	100	135	691	1,375	4,284	36
348	.....	2,650	.....	(***)	.....	(***)	.....	(***)	.....	28	6	789	5	14,136	70	37
675,715	146,863	4,330,940	1,304,809	(***)	.....	(***)	.....	(***)	.....	3	16	62	22	941	130	38
565	365	4,431	5,001	1,367	810	541,796	186,230	23,919,372	10,396,566	7	146	44	1,095	867	7,227	39
307,879	7,001	1,989,488	71,145	.....	2	.....	6	.....	335	100	4,067	514	15,495	2,662	54,909	40
(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	136	309	862	3,565	16,178	50,525	41
(***)	.....	(***)	.....	(***)	.....	(***)	.....	(***)	.....	108	72	12,233	2,878	80,080	11,800	42
(***)	171	(***)	530	(***)	.....	(***)	.....	(***)	.....	279	97	6,139	1,363	131,625	24,670	43
(***)	10,449	(***)	90,111	(***)	.....	(***)	.....	(***)	.....	80	75	429	2,154	7,881	26,300	44
(***)	2	(***)	14	(***)	.....	(***)	.....	(***)	.....	2,049	1,653	77,843	43,550	1,809,367	970,963	45
(***)	6	(***)	60	(***)	.....	(***)	.....	(***)	.....	41	128	1,139	4,625	15,725	12,025	46

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939,

	State and item	Dry field and seed peas other than cowpeas harvested for peas						Hay, excluding sorghum and annual legume (acres)	
		Farms reporting		Acres		Quantity harvested (bushels)			
		1949	1939	1949	1939	1949	1939	1949	1939
1	**20 States,[1] total**	5,231	7,888	344,000	231,260	4,884,867	3,673,645	27,460,130	22,217,148
2	irrigated	2,463	4,265	51,502	76,506	1,191,885	1,174,084	6,169,045	6,437,398
3	nonirrigated	2,768	3,623	292,498	154,754	3,692,982	2,499,561	21,291,085	15,779,750
4	Arkansas irrigated	...	...	...	...	...	...	362	338
5	nonirrigated	...	19	...	61	...	80	1,003,806	894,989
6	Louisiana irrigated	...	...	...	...	...	...	1,041	15
7	nonirrigated	1	4	7	4	50	...	257,457	155,587
8	Florida irrigated	...	(*)	...	(*)	...	(*)	697	(*)
9	nonirrigated	...	(*)	...	(*)	...	(*)	17,036	(*)
10	**17 Western States, total**	5,230	7,865	343,993	231,195	4,884,817	3,673,565	26,179,731	21,166,219
11	irrigated	2,463	4,265	51,502	76,506	1,191,885	1,174,084	6,166,945	6,437,045
12	nonirrigated	2,767	3,600	292,491	154,689	3,692,932	2,499,481	20,012,786	14,729,174
13	Arizona irrigated	6	63	16	63	18	204	164,038	138,711
14	nonirrigated	...	4	...	36	...	29	6,026	10,956
15	California irrigated	179	138	8,667	8,571	213,885	169,287	1,025,371	925,265
16	nonirrigated	94	133	7,351	4,864	59,752	60,800	588,705	615,290
17	Colorado irrigated	556	1,077	14,628	29,290	272,992	232,021	1,050,271	1,074,415
18	nonirrigated	44	76	445	532	5,018	3,032	262,394	201,795
19	Idaho irrigated	1,160	1,232	20,420	19,262	547,392	423,764	697,915	817,039
20	nonirrigated	712	526	67,597	29,908	1,025,162	459,405	276,857	302,496
21	Kansas irrigated	...	...	...	...	...	...	14,898	16,138
22	nonirrigated	4	2	43	6	883	23	1,965,045	1,130,723
23	Montana irrigated	138	571	2,949	13,522	56,032	269,420	751,016	882,126
24	nonirrigated	85	72	2,246	1,857	29,705	35,097	967,190	832,529
25	Nebraska irrigated	...	...	...	...	...	...	107,456	98,354
26	nonirrigated	2	...	31	...	374	...	4,544,936	3,120,920
27	Nevada irrigated	...	...	...	...	...	...	360,026	389,916
28	nonirrigated	...	...	...	...	...	...	3,398	5,068
29	New Mexico irrigated	237	864	872	2,035	7,844	11,500	134,025	145,716
30	nonirrigated	130	450	303	808	1,616	3,232	46,008	53,903
31	North Dakota irrigated	...	...	...	...	...	...	6,969	7,040
32	nonirrigated	107	14	2,890	227	36,710	3,523	3,384,239	2,808,431
33	Oklahoma irrigated	...	...	...	...	...	...	3,450	1,364
34	nonirrigated	...	77	...	1,125	...	3,057	1,156,899	955,648
35	Oregon irrigated	43	81	1,135	1,582	23,127	28,160	467,104	493,846
36	nonirrigated	272	1,034	17,998	30,653	215,213	374,222	417,213	494,538
37	South Dakota irrigated	...	...	...	...	...	...	21,710	23,067
38	nonirrigated	4	1	30	1	298	10	4,336,339	2,419,855
39	Texas irrigated	...	1	...	(2)	...	...	70,812	62,526
40	nonirrigated	2	41	9	106	33	446	1,147,940	824,580
41	Utah irrigated	3	107	5	448	123	5,845	431,267	452,049
42	nonirrigated	1	3	1	8	70	...	44,070	48,254
43	Washington irrigated	73	47	1,589	634	45,499	15,279	145,277	181,806
44	nonirrigated	1,306	1,163	193,463	84,531	2,316,751	1,556,397	593,510	707,833
45	Wyoming irrigated	68	84	1,221	1,099	24,973	18,604	715,340	727,667
46	nonirrigated	4	4	84	27	1,347	208	272,017	196,355

*Not available.
***Not available; separate inquiry not on questionnaire for all States.
[1]Only 19 States in 1939; Florida not included.
[2]Reported in small fractions.

FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED, BY STATES: 1949 AND 1939—Continued

not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

Alfalfa cut for hay (or for dehydrating)						Clover or timothy cut for hay						Lespedeza cut for hay, 1949			
Farms reporting		Acres		Quantity harvested (tons)		Farms reporting		Acres		Quantity harvested (tons)		Farms reporting	Acres	Quantity harvested (tons)	
1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939				
326,231	285,315	7,767,814	5,891,688	18,051,741	12,718,566	58,036	43,499	1,398,626	888,130	1,955,867	1,291,823	79,494	1,026,241	1,199,505	1
110,440	136,096	3,433,603	3,651,859	10,511,000	9,604,740	13,639	13,757	657,476	534,059	947,566	732,034	42	1,242	1,264	2
215,791	149,219	4,334,211	2,239,829	7,540,741	3,113,826	44,397	29,742	741,150	354,071	1,008,301	559,789	79,452	1,024,999	1,198,241	3
1	.....	10	.....	30	.....	1	.....	10	.....	35	.....	10	334	387	4
4,945	8,728	69,068	94,939	149,939	213,593	2,452	2,429	26,087	20,489	31,115	21,869	50,630	638,278	717,261	5
5	.....	17	.....	35	.....	7	.....	69	.....	89	.....	25	585	464	6
774	1,733	20,720	27,914	38,543	67,889	1,189	505	24,143	10,126	30,545	9,490	6,438	86,908	113,630	7
(***)	(*)	(***)	(*)	(***)	(*)	2	(*)	19	(*)	32	(*)	(***)	(***)	(***)	8
(***)	(*)	(***)	(*)	(***)	(*)	410	(*)	5,132	(*)	3,864	(*)	(***)	(***)	(***)	9
320,506	274,854	7,677,999	5,768,835	17,863,194	12,437,084	53,975	40,565	1,343,166	857,515	1,890,187	1,260,464	22,391	300,136	367,763	10
110,434	136,096	3,433,576	3,651,859	10,510,935	9,604,740	13,629	13,757	657,378	534,059	947,410	732,034	7	323	413	11
210,072	138,758	4,244,423	2,116,976	7,352,259	2,832,344	40,346	26,808	685,788	323,456	942,777	528,430	22,384	299,813	367,350	12
2,513	3,504	144,591	122,656	466,546	302,325	32	29	644	278	900	272	(***)	(***)	(***)	13
79	258	855	1,868	1,772	1,849	27	10	354	66	425	47	(***)	(***)	(***)	14
18,264	22,983	817,403	686,656	3,739,793	2,918,248	884	577	39,255	24,274	64,610	39,052	(***)	(***)	(***)	15
1,553	2,102	43,184	45,665	114,853	94,070	556	415	12,527	9,054	22,557	16,116	(***)	(***)	(***)	16
17,249	19,427	533,068	534,255	1,228,500	981,209	1,811	1,777	139,985	126,308	215,690	166,398	(***)	(***)	(***)	17
2,856	1,934	71,528	44,518	128,646	43,182	470	320	16,443	7,176	22,186	5,382	(***)	(***)	(***)	18
20,250	23,263	520,211	613,177	1,606,970	1,608,408	2,818	4,289	71,798	90,610	105,478	120,387	(***)	(***)	(***)	19
5,750	7,577	129,437	160,857	198,986	189,811	2,529	2,265	56,853	34,897	72,903	43,272	(***)	(***)	(***)	20
427	432	13,858	15,415	33,236	24,356	9	.....	128	.....	132	.....	.....	.....	.....	21
56,309	30,937	994,207	360,336	1,973,013	562,926	6,781	1,408	103,481	14,413	127,335	15,037	9,313	119,989	150,090	22
6,621	9,660	276,427	366,609	504,095	713,281	1,861	2,158	138,819	108,267	173,114	146,910	(***)	(***)	(***)	23
6,326	5,707	241,908	167,195	252,038	188,930	1,649	1,322	61,228	41,082	57,577	42,314	(***)	(***)	(***)	24
3,337	2,482	87,031	57,043	229,286	134,051	28	14	532	131	1,074	151	(***)	(***)	(***)	25
58,854	32,770	1,111,107	444,863	2,119,308	510,107	4,045	254	83,112	3,942	88,247	3,532	(***)	(***)	(***)	26
1,820	2,214	98,964	127,044	276,569	289,833	338	155	48,043	19,739	61,760	24,163	(***)	(***)	(***)	27
17	3	654	49	1,810	29	2	1	44	990	60	1,207	(***)	(***)	(***)	28
6,740	9,168	109,549	120,674	308,521	311,874	687	383	8,252	3,701	11,289	4,641	(***)	(***)	(***)	29
672	705	7,397	4,890	12,480	5,819	369	180	5,141	2,883	6,545	2,566	(***)	(***)	(***)	30
169	87	3,991	1,719	10,941	3,438	2	1	26	9	32	14	(***)	(***)	(***)	31
12,749	6,291	281,019	103,702	366,806	105,926	1,098	353	22,894	6,061	25,075	5,867	(***)	(***)	(***)	32
73	44	3,365	1,359	6,884	1,984	.....	.....	.....	.....	.....	.....	3	43	52	33
17,677	13,646	373,752	232,353	756,007	379,508	752	391	11,995	3,725	14,321	3,880	7,423	114,344	138,010	34
5,779	7,987	150,849	203,802	421,670	575,790	2,052	2,040	58,051	43,265	94,066	67,926	(***)	(***)	(***)	35
3,551	7,162	50,510	79,857	96,365	152,527	5,332	4,744	61,671	44,060	107,655	75,328	(***)	(***)	(***)	36
392	484	15,466	13,896	30,401	24,735	15	13	832	374	1,155	475	(***)	(***)	(***)	37
27,811	12,408	553,604	174,651	720,026	179,136	1,251	345	29,581	6,094	28,982	4,555	(***)	(***)	(***)	38
1,856	1,853	59,984	51,730	197,228	151,941	22	7	310	69	527	72	4	280	361	39
5,178	4,235	131,925	62,017	258,961	118,452	2,220	205	47,936	1,888	52,373	2,093	5,648	65,480	79,250	40
14,598	18,229	301,331	352,421	784,301	725,242	1,370	728	33,321	15,469	52,486	23,452	(***)	(***)	(***)	41
994	1,548	23,841	35,259	43,407	37,022	119	27	1,267	445	2,393	570	(***)	(***)	(***)	42
5,979	8,553	98,127	130,346	310,881	412,291	827	911	29,748	25,279	58,883	49,547	(***)	(***)	(***)	43
8,423	10,364	176,396	165,041	251,369	237,659	12,936	14,484	162,689	144,497	304,804	304,852	(***)	(***)	(***)	44
4,367	5,726	199,361	253,057	355,113	425,734	873	675	87,634	76,286	106,214	88,584	(***)	(***)	(***)	45
1,273	1,111	53,099	33,855	56,412	25,391	210	84	8,572	2,183	9,339	1,812	(***)	(***)	(***)	46

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939,

	State and item	Vetch or peas cut for hay, 1949			Oats, wheat, barley, rye, and other small grains cut for hay						Wild hay cut	
		Farms reporting	Acres	Quantity harvested (tons)	Farms reporting		Acres		Quantity harvested (tons)		Farms reporting	
					1949	1939	1949	1939	1949	1939	1949	1939
1	20 States,[1] total	4,843	57,976	89,344	86,185	134,694	2,000,501	2,266,440	2,043,654	2,466,714	198,241	217,199
2	irrigated	138	2,282	4,004	12,420	17,862	218,930	241,831	330,245	355,150	9,493	11,555
3	nonirrigated	4,705	55,694	85,340	73,765	116,832	1,781,571	2,024,609	1,713,409	2,111,564	188,748	205,644
4	Arkansas irrigated	(***)	(***)	(***)	2	.....	6	.....	9	.....	.....	.....
5	nonirrigated	(***)	(***)	(***)	4,896	10,930	38,687	77,721	35,970	63,822	10,490	20,370
6	Louisiana irrigated	(***)	(***)	(***)	3	1	154	5	304	5	(***)	.....
7	nonirrigated	(***)	(***)	(***)	685	359	8,495	2,107	8,790	2,238	(***)	4,615
8	Florida irrigated	(***)	(***)	(***)	.....	(*)	.....	(*)	.....	.....	(***)	(*)
9	nonirrigated	(***)	(***)	(***)	101	(*)	1,073	(*)	801	.....	(***)	(*)
10	17 Western States, total	4,843	57,976	89,344	80,498	123,404	1,952,086	2,186,607	1,997,780	2,400,649	187,751	192,214
11	irrigated	138	2,282	4,004	12,415	17,861	218,770	241,826	329,932	355,145	9,493	11,555
12	nonirrigated	4,705	55,694	85,340	68,083	105,543	1,733,316	1,944,781	1,667,848	2,045,504	178,258	180,659
13	Arizona irrigated	(***)	(***)	(***)	561	656	14,999	10,957	24,531	16,436	43	51
14	nonirrigated	(***)	(***)	(***)	105	251	2,705	3,813	3,199	2,126	39	91
15	California irrigated	(***)	(***)	(***)	3,982	6,041	85,115	97,135	139,754	161,244	437	635
16	nonirrigated	(***)	(***)	(***)	10,461	14,187	434,239	443,534	526,858	575,913	1,131	2,702
17	Colorado irrigated	(***)	(***)	(***)	1,179	2,028	17,011	24,684	23,781	26,906	1,561	1,859
18	nonirrigated	(***)	(***)	(***)	1,356	2,364	31,107	63,850	28,383	29,182	1,976	1,513
19	Idaho irrigated	(***)	(***)	(***)	1,016	1,215	11,186	11,179	17,452	16,433	1,013	1,169
20	nonirrigated	(***)	(***)	(***)	1,960	4,750	31,974	62,603	37,378	78,236	1,040	941
21	Kansas irrigated	(***)	(***)	(***)	3	22	65	348	67	327	5	4
22	nonirrigated	(***)	(***)	(***)	2,411	3,825	30,461	53,092	34,334	34,705	28,633	30,657
23	Montana irrigated	(***)	(***)	(***)	811	1,039	14,593	14,586	18,496	18,962	1,488	2,135
24	nonirrigated	(***)	(***)	(***)	5,418	6,315	199,248	144,137	115,737	128,876	5,533	7,696
25	Nebraska irrigated	(***)	(***)	(***)	66	259	1,530	3,375	1,306	3,139	165	357
26	nonirrigated	(***)	(***)	(***)	2,798	5,567	61,187	119,671	52,879	67,231	30,000	29,938
27	Nevada irrigated	(***)	(***)	(***)	371	289	9,488	8,425	12,985	11,049	598	732
28	nonirrigated	(***)	(***)	(***)	23	8	929	473	833	227	28	20
29	New Mexico irrigated	(***)	(***)	(***)	719	807	7,184	6,990	9,001	8,178	210	249
30	nonirrigated	(***)	(***)	(***)	815	874	11,439	11,098	12,442	9,035	320	466
31	North Dakota irrigated	(***)	(***)	(***)	11	7	161	76	197	120	7	18
32	nonirrigated	(***)	(***)	(***)	10,598	9,501	311,223	168,211	235,332	148,443	40,744	40,660
33	Oklahoma irrigated	(***)	(***)	(***)	.....	.....	.....	.....	.....	.....	1	.....
34	nonirrigated	(***)	(***)	(***)	3,793	5,453	56,791	55,995	55,167	41,996	13,161	14,114
35	Oregon irrigated	138	2,282	4,004	1,373	2,166	28,693	31,147	40,393	47,655	865	1,094
36	nonirrigated	4,705	55,694	85,340	8,140	18,849	141,118	274,914	171,154	385,015	3,101	2,516
37	South Dakota irrigated	(***)	(***)	(***)	31	102	546	1,245	621	1,096	53	99
38	nonirrigated	(***)	(***)	(***)	3,907	5,264	144,547	143,935	90,003	85,450	36,610	32,579
39	Texas irrigated	(***)	(***)	(***)	71	99	2,865	2,391	4,473	2,774	17	13
40	nonirrigated	(***)	(***)	(***)	5,383	3,822	106,013	52,154	94,871	36,233	9,769	12,189
41	Utah irrigated	(***)	(***)	(***)	759	851	6,571	5,073	10,390	6,931	1,559	1,399
42	nonirrigated	(***)	(***)	(***)	232	166	4,772	2,401	4,632	2,017	393	328
43	Washington irrigated	(***)	(***)	(***)	1,046	1,565	9,479	11,764	15,153	18,705	162	114
44	nonirrigated	(***)	(***)	(***)	9,546	22,397	128,740	270,741	173,509	382,676	4,470	2,952
45	Wyoming irrigated	(***)	(***)	(***)	416	715	9,284	12,451	11,332	15,190	1,309	1,627
46	nonirrigated	(***)	(***)	(***)	1,137	1,950	36,823	74,159	31,137	38,141	1,310	1,297

* Not available.
*** Not available; separate inquiry not on questionnaire for all States.
[1] Only 19 States in 1939; Florida not included.

FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED; BY STATES: 1949 AND 1939—Continued

not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

Wild hay cut—Continued				Other hay cut						Alfalfa seed harvested						
Acres		Quantity harvested (tons)		Farms reporting		Acres		Quantity harvested (tons)		Farms reporting		Acres		Quantity harvested (bushels)		
1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	
12,670,177	9,527,544	9,912,057	7,308,561	121,632	(*)	2,538,795	3,643,346	2,585,047	3,932,909	38,938	32,086	883,203	575,134	1,701,744	997,047	1
1,653,751	1,648,149	1,631,586	1,534,457	5,587	(*)	201,761	361,500	266,219	463,034	6,704	8,899	229,215	219,149	710,649	477,137	2
11,016,426	7,879,395	8,280,471	5,774,104	116,045	(*)	2,337,034	3,281,846	2,318,828	3,469,875	32,234	23,187	653,988	355,985	991,095	519,910	3
.....	.....	.....	.....	1	(*)	2	338	4	443	.....	.....	.....	.....	.....	.....	4
114,064	161,946	118,352	173,539	9,437	(*)	117,622	539,894	125,145	559,789	2	20	16	237	8	300	5
(***)	.....	(***)	.....	41	(*)	216	10	138	10	.....	.....	.....	.....	.....	.....	6
(***)	31,072	(***)	42,779	8,537	(*)	117,191	84,368	140,850	104,270	.....	13	.....	761	.....	736	7
(***)	(*)	(***)	(*)	37	(*)	678	(*)	969	(*)	.....	(*)	.....	(*)	.....	(*)	8
(***)	(*)	(***)	(*)	1,067	(*)	10,831	(*)	11,509	(*)	.....	(*)	.....	(*)	.....	(*)	9
12,556,113	9,334,526	9,793,705	7,092,243	102,512	(*)	2,292,255	3,018,736	2,306,432	3,268,397	38,936	32,053	883,187	574,136	1,701,736	996,011	10
1,653,751	1,648,149	1,631,586	1,534,457	5,508	(*)	200,865	361,152	265,108	462,581	6,704	8,899	229,215	219,149	710,649	477,137	11
10,902,362	7,686,377	8,162,119	5,557,786	97,004	(*)	2,091,390	2,657,584	2,041,324	2,805,816	32,232	23,154	653,972	354,987	991,087	518,874	12
1,012	1,089	1,307	1,318	147	(*)	2,792	3,731	4,951	5,228	412	485	41,789	34,221	135,741	95,967	13
1,363	3,576	1,428	2,626	41	(*)	749	1,633	656	1,779	3	1	57	10	201	2	14
58,605	73,239	66,767	93,208	752	(*)	24,993	43,961	39,348	65,918	646	523	49,715	20,375	188,340	62,653	15
50,677	75,670	55,422	77,183	1,365	(*)	48,078	41,367	63,432	56,828	271	179	11,134	4,748	40,694	10,446	16
338,213	309,880	349,956	254,597	658	(*)	21,994	79,288	29,392	96,996	1,084	889	23,580	15,220	42,456	21,350	17
97,452	61,049	93,248	43,955	1,591	(*)	45,864	25,202	41,362	16,774	516	106	9,326	1,891	13,658	1,891	18
83,383	82,138	95,640	91,445	463	(*)	11,337	19,935	17,871	28,432	802	2,068	11,349	41,082	31,916	64,813	19
46,286	27,569	45,231	26,191	637	(*)	12,307	16,570	13,987	18,813	517	754	13,386	17,830	17,802	19,613	20
639	61	667	54	14	(*)	208	314	167	881	141	117	4,706	4,486	11,940	7,178	21
630,958	584,930	722,526	582,639	6,246	(*)	85,949	117,952	107,632	142,943	7,604	8,699	113,266	106,016	146,015	149,681	22
287,618	341,238	255,831	322,593	690	(*)	33,559	51,426	35,116	65,146	688	1,004	20,227	21,001	46,926	61,596	23
361,911	351,219	230,409	270,439	2,568	(*)	102,895	128,896	66,005	128,113	1,463	913	58,408	28,247	100,264	53,669	24
16,985	33,082	16,398	27,127	80	(*)	1,378	4,723	1,697	4,998	156	175	3,360	3,076	5,264	5,537	25
3,089,279	2,399,803	2,270,557	1,549,393	8,337	(*)	200,251	152,641	188,759	143,433	5,444	6,005	99,008	69,215	137,931	76,109	26
196,136	215,188	192,933	209,836	104	(*)	7,395	19,520	8,400	25,137	70	72	716	1,461	1,543	3,375	27
1,547	3,546	1,955	4,184	9	(*)	224	10	203	10	5	.....	97	.....	143	.....	28
6,202	5,309	6,469	5,362	334	(*)	2,838	9,042	3,950	10,549	221	249	6,593	7,991	20,220	15,925	29
13,346	13,330	9,908	6,986	378	(*)	8,685	21,702	7,698	12,214	39	9	980	48	1,357	101	30
2,597	4,007	3,716	5,970	11	(*)	194	1,229	173	1,710	20	11	318	203	554	345	31
2,446,811	1,698,768	1,962,232	1,258,201	11,910	(*)	322,292	831,689	283,680	862,586	3,854	1,065	68,597	14,299	75,258	18,535	32
10	.....	10	.....	2	(*)	32	5	43	6	36	19	1,177	563	2,417	1,295	33
405,124	353,775	472,700	336,637	11,978	(*)	194,893	309,800	210,305	301,931	4,376	3,514	107,442	78,411	216,497	142,616	34
199,147	180,195	209,151	180,842	661	(*)	28,082	35,437	42,556	49,582	194	501	2,789	8,513	7,273	14,320	35
60,092	39,257	67,824	44,360	3,337	(*)	48,128	56,450	67,582	95,356	105	163	2,246	2,818	5,489	2,818	36
4,242	4,817	3,627	4,239	30	(*)	624	2,735	666	3,352	73	104	1,781	1,487	5,135	2,528	37
3,354,542	1,776,519	1,895,404	1,084,636	8,090	(*)	254,065	318,656	179,380	339,077	6,265	711	123,706	8,742	156,103	10,269	38
440	137	419	237	295	(*)	6,933	8,199	9,789	13,091	149	176	4,688	5,896	12,555	15,824	39
177,649	185,113	179,438	175,399	33,927	(*)	618,937	523,408	656,729	526,277	845	250	22,886	3,393	38,274	7,804	40
79,209	62,200	96,058	71,822	504	(*)	10,835	16,886	15,753	21,929	1,254	1,697	37,766	36,765	137,445	67,775	41
11,897	8,548	15,989	9,574	109	(*)	2,293	1,601	3,109	1,962	473	411	10,605	10,609	23,150	11,670	42
4,660	3,733	7,346	5,114	228	(*)	3,263	10,684	5,801	18,162	215	81	5,625	1,162	37,064	2,251	43
60,058	38,449	73,524	44,272	5,224	(*)	65,627	89,105	97,880	144,385	64	98	1,120	1,928	3,090	2,121	44
374,653	331,836	325,291	260,693	535	(*)	44,408	54,037	49,435	51,464	543	728	13,036	15,647	23,860	34,405	45
93,370	65,256	64,324	41,111	1,257	(*)	80,153	20,902	52,925	13,335	388	276	11,708	6,782	15,161	11,529	46

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939.

	State and item	Red clover seed harvested, 1949			Sweetclover seed harvested						Cotton harvested	
		Farms reporting	Acres	Quantity harvested (bushels)	Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting	
					1949	1939	1949	1939	1949	1939	1949	1939
1	20 States,[2] total	10,550	147,258	284,527	12,185	12,326	217,587	184,957	574,375	457,187	371,745	635,162
2	irrigated	3,514	44,925	184,416	1,063	1,143	23,016	19,398	101,851	68,749	22,986	15,538
3	nonirrigated	7,036	102,333	100,111	11,122	11,183	194,571	165,559	472,524	388,438	348,759	619,624
4	Arkansas irrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	31	41
5	nonirrigated	21	170	188	27	5	316	28	384	205	100,171	150,633
6	Louisiana irrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	37	20
7	nonirrigated	5	93	116	6	21	156	225	95	268	64,048	114,271
8	Florida irrigated	.....	.....	.....	.....	(*)	.....	(*)	.....	(*)	1	(*)
9	nonirrigated	.....	.....	.....	3	(*)	98	(*)	111	(*)	5,622	(*)
10	17 Western States, total	10,524	146,995	284,223	12,149	12,300	217,017	184,704	573,785	456,714	201,835	370,197
11	irrigated	3,514	44,925	184,416	1,063	1,143	23,016	19,398	101,851	68,749	22,917	15,477
12	nonirrigated	7,010	102,070	99,807	11,086	11,157	194,001	165,306	471,934	387,965	178,918	354,720
13	Arizona irrigated	.....	.....	.....	2	8	130	236	297	1,138	1,651	2,001
14	nonirrigated	.....	.....	.....	3	.....	44	.....	41	.....	9	1
15	California irrigated	8	80	278	13	12	2,854	276	10,674	849	8,355	5,315
16	nonirrigated	1	5	3	2	2	10	5	31	2	.....	4
17	Colorado irrigated	124	1,274	5,068	402	352	7,042	7,686	32,707	28,935	.....	.....
18	nonirrigated	10	60	172	127	16	2,431	126	7,521	265	.....	.....
19	Idaho irrigated	2,491	30,674	138,870	84	204	2,161	2,586	11,676	10,657	.....	.....
20	nonirrigated	311	4,797	10,487	40	79	753	1,232	2,702	2,710	.....	.....
21	Kansas irrigated	1	16	6	2	.....	25	.....	105	.....	.....	.....
22	nonirrigated	3,633	56,751	44,940	4,159	3,087	63,898	36,070	118,924	105,820	5	21
23	Montana irrigated	149	2,395	6,829	133	113	2,646	1,884	10,969	7,692	.....	.....
24	nonirrigated	35	601	1,010	125	184	2,905	2,819	4,555	7,048	.....	.....
25	Nebraska irrigated	1	15	25	14	35	144	324	254	972	.....	.....
26	nonirrigated	1,513	20,035	12,717	1,799	2,754	25,187	35,550	59,147	55,204	.....	.....
27	Nevada irrigated	.....	.....	.....	1	.....	4	.....	8	.....	4	.....
28	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	New Mexico irrigated	.....	.....	.....	2	10	65	965	397	538	3,066	2,506
30	nonirrigated	.....	.....	.....	13	1	460	5	673	20	308	331
31	North Dakota irrigated	.....	.....	.....	2	3	6	21	14	55	.....	.....
32	nonirrigated	15	275	296	499	2,085	10,277	36,720	26,406	85,267	.....	.....
33	Oklahoma irrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	127	13
34	nonirrigated	17	232	295	775	266	13,901	2,938	22,202	7,037	37,903	86,883
35	Oregon irrigated	575	8,497	26,787	7	40	82	520	85	1,352	.....	.....
36	nonirrigated	1,067	14,234	22,494	9	48	143	1,140	375	1,999	.....	.....
37	South Dakota irrigated	1	4	13	8	18	52	182	177	582	.....	.....
38	nonirrigated	90	1,233	1,158	690	2,485	12,087	46,803	31,196	117,405	.....	.....
39	Texas irrigated	1	75	233	29	3	1,386	424	4,347	594	9,714	5,642
40	nonirrigated	15	416	918	2,770	107	60,608	1,242	195,335	3,968	140,693	267,480
41	Utah irrigated	59	415	1,127	74	81	683	558	3,113	1,769	.....	.....
42	nonirrigated	12	106	300	11	7	84	93	202	112	.....	.....
43	Washington irrigated	82	1,212	4,497	.....	19	.....	276	.....	983	.....	.....
44	nonirrigated	288	3,280	4,979	27	27	640	471	897	942	.....	.....
45	Wyoming irrigated	22	268	683	290	245	5,736	3,460	27,028	12,633	.....	.....
46	nonirrigated	3	45	38	37	9	573	92	1,727	166	.....	.....

*Not available. [1] Does not include acreage for farms with less than 15 bushels harvested. [2] Only 19 States in 1939; Florida not included. [3] Reported in small fractions.

FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED; BY STATES: 1949 AND 1939—Continued

not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

Cotton harvested—Continued				Irish potatoes harvested for home use or for sale						Sweetpotatoes harvested for home use or for sale						
Acres		Quantity harvested (bales)		Farms reporting		Acres		Quantity harvested (bushels)		Farms reporting		Acres		Quantity harvested (bushels)		
1949	1939	1949	1939	1949	1939	1949[1]	1939	1949	1939	1949	1939	1949[1]	1939	1949	1939	
16,121,336	13,512,394	9,847,272	6,048,797	341,406	566,744	624,381	777,177	158,834,171	110,480,633	132,319	203,959	159,624	195,055	14,201,027	13,193,917	1
2,443,252	762,217	2,853,908	883,330	30,167	39,498	418,956	359,737	125,956,354	79,500,030	1,850	1,844	11,851	10,546	1,109,494	1,189,352	2
13,678,084	12,750,177	6,993,364	5,165,467	311,239	527,246	205,425	417,440	32,877,817	30,980,603	130,469	202,115	147,773	184,509	13,091,533	12,004,565	3
774	855	693	573	133	3	7	2	1,756	350	41	4	1	9	397	371	4
2,564,110	2,055,920	1,578,654	1,350,636	75,259	111,652	16,256	39,910	1,758,261	2,978,634	39,380	59,387	8,376	26,125	924,501	1,668,191	5
357	183	272	167	448	20	47	11	5,340	488	295	24	311	21	25,704	1,294	6
915,683	1,088,502	606,800	717,546	25,677	45,921	8,995	39,449	660,373	2,197,990	40,111	70,423	87,285	85,649	7,940,490	6,506,920	7
9	(*)	4	(*)	260	(*)	5,401	(*)	1,205,894	(*)	80	(*)	170	(*)	17,783	(*)	8
43,153	(*)	17,498	(*)	5,148	(*)	14,320	(*)	2,956,628	(*)	7,366	(*)	6,894	(*)	462,307	(*)	9
12,597,250	10,366,934	7,643,351	3,979,875	234,481	409.148	579,355	697,805	152,245,919	105,303,171	45,046	74,121	56,587	83,251	4,829,845	5,017,141	10
2,442,112	761,179	2,852,939	882,590	29,326	39,475	413,501	359,724	124,743,364	79,499,192	1,434	1,816	11,369	10,516	1,065,610	1,187,687	11
10,155,138	9,605,755	4,790,412	3,097,285	205,155	369,673	165,854	338,081	27,502,555	25,803,979	43,612	72,305	45,218	72,735	3,764,235	3,829,454	12
372,282	183,327	530,279	199,150	126	172	3,221	898	995,813	150,126	36	101	548	644	46,530	68,597	13
267	5	327	1	51	130	97	361	2,275	14,404	1	1	1	(3)	100	20	14
861,569	316,267	1,230,532	435,393	2,228	1,691	96,464	55,612	38,172,367	18,282,850	1,030	854	8,904	7,083	720,831	807,088	15
.....	25	.....	4	1,608	1,496	1,584	2,619	323,057	314,280	62	108	8	498	602	34,163	16
.....	.....	.....	.....	3,709	5,013	53,958	66,324	17,677,627	10,798,051	3	64	6	56	550	4,651	17
.....	.....	.....	.....	708	1,204	1,586	4,438	273,450	242,315	1	18	1	4	100	152	18
.....	.....	.....	.....	9,256	10,880	137,584	119,033	34,353,847	26,181,656	4	15	11	39	1,230	4,246	19
.....	.....	.....	.....	2,750	4,435	6,126	6,209	1,008,168	423,454	.....	.....	.....	.....	.....	.....	20
.....	.....	.....	.....	7	86	28	390	4,462	49,452	9	66	15	165	2,164	12,622	21
80	417	15	156	31,872	52,101	4,816	23,284	761,191	1,838,330	2,726	2,165	859	2,831	130,294	230,917	22
.....	.....	.....	.....	2,201	4,232	8,585	7,497	1,877,110	839,133	.....	.....	.....	.....	.....	.....	23
.....	.....	.....	.....	5,265	8,215	2,962	6,162	402,432	327,818	.....	3	.....	1	.....	20	24
.....	.....	.....	.....	1,402	2,471	27,404	38,180	7,105,722	9,060,034	.....	55	.....	136	.....	7,956	25
.....	.....	.....	.....	21,910	44,687	7,895	33,784	937,120	1,510,145	15	534	51	354	4,840	37,992	26
385	.....	499	.....	471	689	1,369	1,977	320,268	306,365	.....	7	.....	10	.....	455	27
.....	.....	.....	.....	49	21	12	17	1,142	864	.....	.....	.....	.....	.....	.....	28
257,496	83,132	249,068	98,167	349	386	917	1,104	154,169	128,163	230	347	1,459	1,609	234,801	200,850	29
18,727	6,569	7,464	1,971	116	410	190	1,179	9,540	32,894	31	9	127	28	26,418	694	30
.....	.....	.....	.....	62	190	774	510	134,276	77,010	.....	.....	.....	.....	.....	.....	31
.....	.....	.....	.....	24,106	43,141	100,703	140,995	18,044,930	11,913,678	.....	.....	.....	.....	.....	.....	32
8,441	347	6,668	271	21	7	438	33	69,197	6,735	9	9	21	37	2,310	5,106	33
1,206,121	1,671,134	551,696	520,320	38,086	72,423	4,264	26,629	557,007	1,922,335	10,276	12,066	3,183	9,940	296,724	472,795	34
.....	.....	.....	.....	2,406	2,578	31,485	20,957	9,937,577	4,826,211	2	5	2	2	112	182	35
.....	.....	.....	.....	7,252	12,348	4,305	11,272	788,450	1,204,977	.....	3	.....	7	.....	105	36
.....	.....	.....	.....	67	278	161	518	19,375	42,580	.....	.....	.....	.....	.....	.....	37
.....	.....	.....	.....	12,069	22,061	10,201	23,959	975,039	1,862,685	.....	7	.....	3	.....	161	38
941,939	178,106	835,893	149,609	337	709	12,151	7,904	1,189,831	738,234	111	282	403	725	57,082	75,255	39
8,929,943	7,927,605	4,230,910	2,574,833	51,045	86,797	12,768	36,378	1,364,200	1,965,027	30,500	57,387	40,988	59,068	3,305,157	3,052,324	40
.....	.....	.....	.....	4,076	5,599	12,942	12,703	3,149,092	2,073,711	.....	10	.....	8	.....	739	41
.....	.....	.....	.....	625	147	634	432	104,262	19,181	.....	.....	.....	.....	.....	.....	42
.....	.....	.....	.....	1,797	2,754	20,282	17,762	8,384,788	4,429,185	.....	1	.....	2	.....	30	43
.....	.....	.....	.....	7,109	19,324	6,590	16,189	1,821,612	2,059,241	.....	3	.....	1	.....	108	44
.....	.....	.....	.....	811	1,740	5,738	8,322	1,197,843	1,509,696	.....	.....	.....	.....	.....	.....	45
.....	.....	.....	.....	534	733	1,121	4,174	128,680	152,351	.....	1	.....	(3)	.....	3	46

Table 14.—20 SPECIFIED STATES: SPECIFIED CROPS HARVESTED ON IRRIGATED AND NONIRRIGATED LANDS—

[Source: Census of Agriculture. Data for a crop on farms where only part of the crop was irrigated included for 1939,

	State and item	Sugar beets harvested for sugar						Hops harvested					
		Farms reporting		Acres		Quantity harvested (tons)		Farms reporting		Acres		Quantity harvested (pounds)	
		1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	1949	1939
1	20 States,[3] total	18,624	29,977	504,102	646,390	8,328,220	8,379,358	778	883	33,812	29,764	42,203,787	32,371,049
2	irrigated	18,182	29,213	482,271	626,190	8,091,906	8,181,580	506	324	28,310	12,896	37,725,410	17,929,070
3	nonirrigated	442	764	21,831	20,200	236,314	197,778	272	559	5,502	16,868	4,478,377	14,441,979
4	Arkansas irrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Louisiana irrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Florida irrigated	.....	(*)	.....	(*)	.....	(*)	.....	(*)	.....	(*)	.....	(*)
9	nonirrigated	.....	(*)	.....	(*)	.....	(*)	.....	(*)	.....	(*)	.....	(*)
10	17 Western States, total	18,624	29,977	504,102	646,390	8,328,220	8,379,358	778	883	33,812	29,764	42,203,787	32,371,049
11	irrigated	18,182	29,213	482,271	626,190	8,091,906	8,181,580	506	324	28,310	12,896	37,725,410	17,929,070
12	nonirrigated	442	764	21,831	20,200	236,314	197,778	272	559	5,502	16,868	4,478,377	14,441,979
13	Arizona irrigated	4	3	514	293	8,290	4,605	.....	.....	.....	.....	.....	.....
14	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	California irrigated	1,423	1,643	127,748	143,376	2,390,861	2,298,848	89	91	7,904	5,643	12,277,403	7,947,322
16	nonirrigated	.....	176	.....	8,337	.....	95,292	8	27	158	711	174,177	820,494
17	Colorado irrigated	4,729	6,872	113,978	138,485	1,853,814	1,529,386	.....	.....	.....	.....	.....	.....
18	nonirrigated	48	37	979	304	15,036	1,462	.....	.....	.....	.....	.....	.....
19	Idaho irrigated	3,889	5,873	57,790	70,627	1,071,501	978,190	10	3	782	96	994,800	108,000
20	nonirrigated	25	25	380	177	5,084	2,211	.....	.....	.....	.....	.....	.....
21	Kansas irrigated	101	252	4,379	6,957	44,510	54,856	.....	.....	.....	.....	.....	.....
22	nonirrigated	.....	1	.....	20	.....	25	.....	.....	.....	.....	.....	.....
23	Montana irrigated	1,495	2,738	48,880	71,527	592,315	882,697	.....	.....	.....	.....	.....	.....
24	nonirrigated	13	6	379	45	4,064	51	.....	.....	.....	.....	.....	.....
25	Nebraska irrigated	1,440	2,486	36,707	65,926	547,934	782,174	.....	.....	.....	.....	.....	.....
26	nonirrigated	49	151	1,138	2,073	14,964	13,785	.....	.....	.....	.....	.....	.....
27	Nevada irrigated	.....	8	.....	1,654	.....	16,468	.....	.....	.....	.....	.....	.....
28	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	New Mexico irrigated	10	24	225	308	2,413	1,844	.....	.....	.....	.....	.....	.....
30	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	North Dakota irrigated	101	139	3,187	3,839	34,783	53,400	.....	.....	.....	.....	.....	.....
32	nonirrigated	267	227	18,348	8,609	186,996	78,148	.....	.....	.....	.....	.....	.....
33	Oklahoma irrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Oregon irrigated	575	382	15,499	6,574	337,990	98,205	107	39	6,359	2,887	6,154,526	3,478,835
36	nonirrigated	6	.....	106	.....	1,102	.....	251	518	5,013	15,762	3,983,603	13,311,015
37	South Dakota irrigated	122	321	3,627	6,903	49,065	60,171	.....	.....	.....	.....	.....	.....
38	nonirrigated	.....	1	.....	17	.....	40	.....	.....	.....	.....	.....	.....
39	Texas irrigated	20	14	1,246	84	16,184	820	.....	.....	.....	.....	.....	.....
40	nonirrigated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
41	Utah irrigated	2,773	6,090	26,621	48,279	453,115	659,835	.....	.....	.....	.....	.....	.....
42	nonirrigated	23	29	212	119	3,187	930	.....	.....	.....	.....	.....	.....
43	Washington irrigated	527	628	13,751	11,883	288,068	205,018	300	191	13,265	4,270	18,298,681	6,394,913
44	nonirrigated	11	104	289	366	5,881	5,395	13	14	331	395	320,597	310,470
45	Wyoming irrigated	973	1,740	28,119	49,475	401,063	555,063	.....	.....	.....	.....	.....	.....
46	nonirrigated	.....	7	.....	133	.....	439	.....	.....	.....	.....	.....	.....

*Not available. [1] For 1950, farms reporting any trees or vines, April 1, or production in 1949; for 1940, farms reporting acres in fruit orchards, vineyards, or planted nut trees, April 1. [2] Does not include acres for farms reporting less than 1/2 acre. [3] Only 19 States in 1939; Florida not included. [4] Less than 500 lb. ear corn.

FARMS REPORTING, ACREAGE, AND QUANTITY HARVESTED, BY STATES: 1949 AND 1939—Continued

not included for 1949. For 1939, farms reporting partly irrigated crop counted as both irrigated and nonirrigated]

Popcorn harvested						Root and grain crops hogged or grazed, other than corn, sorghums, and annual legumes				Vegetables harvested for sale, 1949		Land in bearing and nonbearing fruit orchards, groves, vineyards, and planted nut trees				
Farms reporting		Acres		Quantity harvested (1,000 lb. ear corn)		Farms reporting		Acres		Farms reporting	Value, dollars	Farms reporting[1]		Acres		
1949	1939	1949[2]	1939	1949	1939	1949	1939	1949	1939			1949	1939	1949	1939	
2,787	9,918	21,060	13,022	31,503	13,090	7,458	32,468	135,182	867,516	93,207	368,223,353	622,930	298,108	2,589,301	2,232,128	1
608	618	7,051	2,479	13,891	4,194	868	1,503	23,174	20,162	24,928	242,302,523	119,068	86,576	1,630,258	1,374,458	2
2,179	9,300	14,009	10,543	17,612	8,896	6,590	30,965	112,008	847,354	68,279	125,920,830	503,862	211,532	959,043	857,670	3
1	.....	1	.....	1	.....	.....	.....	.....	.....	7	33,940	99	3	12	10	4
21	411	238	282	446	218	2	443	3	2,154	9,656	3,362,704	54,193	41,214	64,044	108,546	5
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	488	168,475	1,688	8	86	25	6
54	1,115	31	406	24	510	.....	430	.....	1,085	6,924	3,055,164	38,103	12,157	62,352	48,731	7
.....	(*)	.....	(*)	.....	(*)	5	(*)	29	(*)	1,279	20,813,354	2,437	(*)	116,799	(*)	8
.....	(*)	.....	(*)	.....	(*)	1,710	(*)	17,392	(*)	9,636	38,881,418	31,375	(*)	259,872	(*)	9
2,711	8,392	20,790	12,334	31,032	12,362	5,741	31,595	117,758	864,277	65,217	301,908,298	495,035	244,726	2,086,136	2,074,816	10
607	618	7,050	2,479	13,890	4,194	863	1,503	23,145	20,162	23,154	221,286,754	114,844	86,565	1,513,361	1,374,423	11
2,104	7,774	13,740	9,855	17,142	8,168	4,878	30,092	94,613	844,115	42,063	80,621,544	380,191	158,161	572,775	700,393	12
1	1	1	1	1	1	43	185	2,311	2,703	601	30,168,025	3,259	2,118	21,642	22,607	13
.....	1	.....	2	.....	1	6	29	108	903	40	70,128	924	619	1,558	1,051	14
19	29	136	108	161	166	198	325	9,471	6,191	6,769	145,007,549	56,995	49,608	1,156,606	1,084,830	15
7	29	80	2,008	79	1,524	364	648	11,048	24,724	2,192	35,818,874	27,363	19,186	204,102	330,181	16
349	173	4,144	452	8,041	796	227	156	5,744	2,023	3,004	10,207,182	7,832	4,858	24,695	23,442	17
36	56	459	82	492	40	51	151	1,048	7,462	518	1,197,526	4,480	527	1,795	933	18
126	133	1,422	1,077	3,227	2,137	92	136	1,216	917	1,470	2,862,244	8,577	3,235	15,120	16,167	19
5	4	1	4	2	4	69	95	895	1,321	411	483,062	5,527	1,508	1,256	1,791	20
2	10	9	10	19	8	3	22	12	657	13	43,305	71	78	27	372	21
505	2,250	3,428	2,981	4,658	2,424	282	1,495	3,656	57,456	1,562	1,052,729	42,928	8,648	14,557	25,874	22
6	55	15	54	22	82	43	42	536	396	315	285,636	2,599	1,202	2,262	4,017	23
4	78	4	64	8	46	93	83	3,042	2,786	190	132,326	3,656	353	1,135	582	24
56	69	916	249	1,744	343	8	15	36	125	161	109,247	532	210	147	421	25
910	1,444	4,599	1,315	6,094	1,095	168	1,467	1,403	33,567	702	398,609	31,105	5,776	6,199	10,001	26
.....	.....	.....	.....	.....	.....	.....	48	.....	293	122	275,929	1,081	405	568	752	27
.....	.....	.....	.....	.....	.....	.....	2	.....	25	9	2,063	228	16	65	10	28
1	10	1	24	(4)	42	55	119	697	1,993	1,016	2,280,699	5,564	4,372	13,127	13,027	29
1	3	7	6	2	9	63	217	744	7,975	218	327,744	3,647	486	2,001	1,176	30
.....	4	.....	13	.....	10	.....	1	.....	3	4	705	31	15	2	10	31
19	326	17	301	26	217	131	112	1,752	2,111	160	55,290	6,260	226	1,689	164	32
3	.....	9	.....	18	.....	1	2	2	16	7	6,986	19	36	29	134	33
336	225	3,496	447	4,172	461	628	8,089	10,612	198,150	5,214	2,909,022	56,979	18,561	60,242	44,638	34
6	11	36	23	91	56	41	75	571	612	1,040	5,109,823	5,663	3,308	29,076	26,306	35
2	23	2	23	2	34	186	856	2,353	12,182	2,590	11,628,220	33,302	18,119	96,602	101,951	36
.....	18	.....	19	.....	38	4	7	81	24	24	22,173	128	81	69	157	37
73	276	325	558	387	483	436	455	3,698	17,548	266	113,414	12,435	730	2,880	705	38
16	36	269	269	472	224	65	179	1,324	3,213	3,343	14,723,932	5,413	5,090	128,135	72,866	39
203	3,034	1,318	2,044	1,216	1,813	2,255	15,774	52,466	472,986	24,929	17,027,788	115,677	57,292	159,074	149,255	40
2	10	10	8	8	12	.....	101	.....	467	2,799	3,507,470	6,186	3,700	16,853	15,060	41
.....	.....	.....	.....	.....	.....	.....	15	.....	148	961	1,103,367	2,097	113	1,825	273	42
14	40	60	132	74	227	28	81	232	364	2,332	6,551,754	9,419	8,015	104,546	93,805	43
1	13	2	8	3	13	130	551	1,563	2,329	2,053	8,287,942	32,689	25,976	17,645	31,789	44
6	19	22	40	12	52	55	9	912	165	134	124,095	1,475	234	457	450	45
2	12	2	12	1	4	16	53	225	2,442	48	13,440	894	25	147	19	46

Table 15.—20 SPECIFIED STATES: IRRIGATION ENTERPRISES-NUMBER AND SPECIFIED CHARACTERISTICS BY STATES: CENSUSES OF 1950 AND 1940

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals]

State	Irrigation enterprises: Number 1950	Irrigation enterprises: Number 1940	Irrigation enterprises: Percent increase or decrease (-) 1940-50	Irrigation enterprises: Percent distribution 1950	Irrigation enterprises: Percent distribution 1940	Interstate enterprises, 1950 (number)	Complete-system enterprises, 1950: Number	Complete-system enterprises, 1950: Acres irrigated direct[2]	Average number of farms per enterprise, 1950[3]	Average number of farms irrigated direct, 1949[2]	Irrigated land in farms[1]: Acres 1949	Irrigated land in farms[1]: Acres 1939	Irrigated land in farms[1]: Average acres per enterprise, 1949	Irrigated land in farms[1]: Percent distribution, 1949	Area irrigated direct, 1949[2]: Acres	Area irrigated direct, 1949[2]: Average acres per enterprise
20 States, total.....	123,926	95,265	30.1	100.0	100.0	91	113,539	19,268,657	2.4	3.0	26,233,215	21,136,101	212	100.0	27,921,353	225
Arkansas.....	2,382	1,298	83.5	1.9	1.4	.....	2,337	414,862	1.3	1.2	419,101	161,601	176	1.6	419,600	176
Louisiana.....	3,905	2,566	52.2	3.2	2.7	.....	3,771	591,487	1.9	2.1	597,966	447,095	153	2.3	603,487	155
Florida.....	5,699	3,628	57.1	4.6	3.8	.....	5,616	344,927	1.1	1.1	362,938	132,362	64	1.4	367,323	64
17 Western States, total..	111,940	87,773	27.5	90.3	92.1	91	101,815	17,917,381	2.5	3.2	24,853,210	20,395,043	222	94.7	26,530,943	237
Arizona.....	2,361	1,911	23.5	1.9	2.0	4	2,255	649,740	3.3	4.6	979,114	653,263	415	3.7	1,053,574	446
California.....	47,613	39,975	19.1	38.4	42.0	14	45,682	5,562,289	1.9	2.4	6,598,839	5,069,568	139	25.2	7,394,871	155
Colorado.....	9,158	8,713	5.1	7.4	9.1	6	7,143	1,818,883	3.0	4.0	2,943,895	3,220,685	321	11.2	3,331,381	364
Idaho.....	4,621	3,625	27.5	3.7	3.8	12	3,512	818,327	6.4	7.3	2,167,879	2,277,857	469	8.3	2,243,652	486
Kansas.....	962	1,066	-9.8	0.8	1.1	.....	897	116,169	1.2	1.3	140,992	99,980	147	0.5	154,734	161
Montana.....	5,393	5,555	-2.9	4.4	5.8	4	4,497	1,461,455	2.5	3.1	1,808,576	1,711,409	335	6.9	1,874,901	348
Nebraska.....	5,583	2,717	105.5	4.5	2.9	2	5,196	578,606	1.7	2.0	887,239	610,379	159	3.4	913,792	164
Nevada.....	1,178	1,464	-19.5	1.0	1.5	7	1,042	564,245	2.4	2.7	722,896	739,863	614	2.8	731,708	621
New Mexico.....	3,478	2,503	39.0	2.8	2.6	2	3,339	513,886	3.6	5.5	691,476	554,039	199	2.6	711,935	205
North Dakota.....	35	80	-56.2	(4)	0.1	1	34	35,766	8.7	8.8	35,759	21,615	1,022	0.1	35,766	1,022
Oklahoma.....	166	120	38.3	0.1	0.1	1	165	44,209	2.8	2.5	44,209	4,160	266	0.2	44,209	266
Oregon.....	8,235	5,884	40.0	6.6	6.2	9	7,374	954,806	2.1	2.5	1,337,517	1,049,176	162	5.1	1,351,578	164
South Dakota.....	214	274	-21.9	0.2	0.3	1	199	79,553	3.8	3.9	84,356	60,198	394	0.3	84,393	394
Texas.....	11,502	4,040	184.7	9.3	4.2	1	11,029	2,762,339	1.9	2.0	3,150,527	1,045,224	274	12.0	3,177,173	276
Utah.....	3,165	2,401	31.8	2.6	2.5	13	2,615	628,206	6.7	9.3	1,166,972	1,176,116	369	4.4	1,234,938	390
Washington.....	5,263	4,120	27.7	4.2	4.3	1	4,403	235,877	3.2	4.2	618,129	615,013	117	2.4	658,190	125
Wyoming.....	3,104	3,385	-8.3	2.5	3.6	13	2,492	1,093,025	2.5	3.2	1,474,835	1,486,498	475	5.6	1,534,148	494

[1]Acreage irrigated by 2 or more enterprises is counted only once. Acreage is from Census of Irrigation and therefore differs from acreage of irrigated land shown in tables 2 and 3. (See text.)
[2]Farms or acres irrigated by 2 or more enterprises are counted for each enterprise.
[3]Farms irrigated by 2 or more enterprises are counted only once. Number of farms is from Census of Agriculture.
[4]0.05 percent or less.

Table 16.—20 SPECIFIED STATES: IRRIGATION ENTERPRISES-NUMBER AND ACREAGE IRRIGATED DIRECT BY TYPE OF ENTERPRISE, BY STATES: CENSUS OF 1950

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State totals and 17-State totals. For interstate enterprises, acreage irrigated represents acreage within the State. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	Single-farm: Number	Single-farm: Acres irrigated	Mutual: Unincorporated: Number	Mutual: Unincorporated: Acres irrigated	Mutual: Incorporated: Number	Mutual: Incorporated: Acres irrigated	Commercial: Number	Commercial: Acres irrigated	District: Number	District: Acres irrigated	U.S. Bureau of Reclamation[1]: Number	U.S. Bureau of Reclamation[1]: Acres irrigated	U.S. Bureau of Indian Affairs[1]: Number	U.S. Bureau of Indian Affairs[1]: Acres irrigated	State: Number	State: Acres irrigated	City: Number	City: Acres irrigated
20 States, total....	113,358	12,898,830	6,488	2,146,963	2,886	5,639,447	446	964,917	489	4,974,080	37	682,413	141	506,076	31	51,782	50	56,845
Arkansas.....	2,325	397,847	16	5,757	2	(2)	38	13,153	1	(2)	....	.....	....	.....	....	.....	....	.....
Louisiana.....	3,584	342,590	47	15,735	4	1,574	270	243,588	....	.....	....	.....	....	.....	....	.....	....	.....
Florida.....	5,679	341,338	8	11,829	.....	.....	7	3,089	5	11,067	....	.....	....	.....	....	.....	....	.....
17 Western States, total..	101,770	11,817,055	6,417	2,113,642	2,880	5,635,630	131	705,087	483	4,962,413	37	682,413	141	506,076	31	51,782	50	56,845
Arizona.....	2,198	497,616	61	16,503	37	290,663	1	(2)	12	131,373	2	55,671	48	60,758	....	.....	2	(2)
California.....	46,107	4,259,590	709	126,605	561	761,621	80	296,439	114	1,821,295	6	86,637	14	2,755	....	.....	22	39,929
Colorado.....	6,856	931,763	1,579	559,708	686	1,652,636	6	14,873	20	155,216	4	.....	1	8,193	1	(2)	5	8,992
Idaho.....	3,557	347,620	648	220,841	348	1,035,999	3	450	54	567,261	4	39,037	6	32,418	....	.....	1	(2)
Kansas.....	951	108,801	3	2,013	8	43,920	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....
Montana.....	4,159	725,543	994	323,918	158	339,246	3	528	39	236,790	3	38,568	7	158,106	29	51,752	1	(2)
Nebraska.....	5,515	405,631	11	5,873	15	43,289	1	(2)	39	445,138	2	13,231	....	.....	....	.....	....	.....
Nevada.....	1,021	445,409	90	92,964	47	74,197	2	(2)	4	96,547	....	.....	14	17,580	....	.....	....	.....
New Mexico.....	2,858	327,725	485	105,874	80	51,017	1	(2)	7	84,673	3	105,845	42	26,843	....	.....	2	(2)
North Dakota.....	29	1,361	.....	.....	1	(2)	....	.....	4	27,375	....	.....	....	.....	1	(2)	....	.....
Oklahoma.....	164	11,653	1	(2)	.....	.....	....	.....	....	.....	1	32,256	....	.....	....	.....	....	.....
Oregon.....	7,480	612,526	580	218,868	117	117,748	....	.....	47	252,069	5	147,715	3	2,163	....	.....	3	489
South Dakota.....	190	16,854	13	9,628	8	6,689	....	.....	1	150,767	1	.....	1	455	....	.....	....	.....
Texas.....	11,380	2,134,459	34	15,072	11	38,013	27	329,072	45	590,529	2	67,079	....	.....	....	.....	3	2,949
Utah.....	2,107	151,688	406	100,181	634	874,588	2	(2)	5	11,079	1	.....	3	54,452	....	.....	7	2,179
Washington.....	4,822	144,607	273	39,697	82	57,793	3	1,780	74	260,243	3	37,740	2	115,353	....	.....	4	977
Wyoming.....	2,411	694,209	538	275,597	120	241,211	2	(2)	27	232,058	5	58,634	1	27,000	....	.....	....	.....

[1]Data for less than 3 enterprises shown with permission of the enterprises.
[2]Data for less than 3 enterprises not shown separately.

Table 17.—20 SPECIFIED STATES: SINGLE-FARM IRRIGATION ENTERPRISES-NUMBER AND AREA IRRIGATED BY ORIGIN OF WATER SUPPLY, BY PRIMARY AND SUPPLEMENTAL IRRIGATION, AND BY IRRIGATION OF OTHER FARMS, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	Origin of water[1]						Primary and supplemental irrigation[2]							Other farms irrigated[2]		
	No water from other enterprises		Part of water from other enterprises		All of water from other enterprises		All primary		Part primary, part supplemental			All supplemental				
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Primary acres irrigated	Supplemental acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Number of other farms	Area irrigated in other farms
20 States, total	107,730	11,979,385	2,153	658,019	3,475	261,426	100,187	11,861,271	1,017	129,822	83,855	10,595	823,882	5,502	9,073	341,509
Arkansas	2,317	397,229	5	539	3	79	2,279	396,520	8	918	218	5	191	330	461	23,342
Louisiana	3,532	337,407	17	3,373	35	1,810	3,467	336,747	24	3,536	1,261	19	1,046	538	1,473	65,766
Florida	5,653	335,398	8	308	18	5,632	5,620	336,919	8	184	207	7	4,028	240	425	8,783
17 Western States, total	96,228	10,909,351	2,123	653,799	3,419	253,905	88,821	10,791,085	977	125,184	82,169	10,564	818,617	4,394	6,714	243,618
Arizona	2,151	488,143	20	8,816	27	657	1,944	429,440	37	10,661	12,638	186	44,877	84	118	12,358
California	44,938	3,946,416	647	279,151	522	34,023	37,901	3,677,175	494	73,876	41,098	7,347	467,441	2,711	4,432	105,623
Colorado	6,140	825,909	404	77,489	312	28,365	4,672	723,909	165	11,320	11,582	1,646	184,952	227	296	19,905
Idaho	2,926	302,118	152	19,672	479	25,830	3,282	332,678	33	1,703	2,551	220	10,688	108	135	5,009
Kansas	921	103,146	28	5,376	2	279	876	97,160	4	691	741	41	10,209	17	22	723
Montana	3,608	614,801	247	74,650	304	36,092	3,983	708,527	21	1,392	1,194	113	14,430	87	123	6,484
Nebraska	5,344	393,247	53	6,127	118	6,257	5,090	388,700	11	665	700	221	15,566	99	115	5,578
Nevada	972	421,102	31	20,123	18	4,184	1,013	443,918	1	20	207	5	1,264	10	16	926
New Mexico	2,820	323,817	12	2,686	26	1,222	2,689	319,842	17	585	700	110	6,598	185	272	10,208
North Dakota	29	1,361	.....	.....	.....	.....	27	1,349	1	5	7	.....	.....	2	2	32
Oklahoma	164	11,653	.....	.....	.....	.....	163	11,653	.....	.....	.....	.....	.....	3	6	580
Oregon	6,819	525,053	178	63,238	483	24,235	7,258	601,866	48	3,047	2,223	126	5,390	161	202	10,847
South Dakota	181	15,814	3	365	6	675	188	16,664	1	153	37	.....	.....	5	9	429
Texas	11,122	2,069,243	73	28,914	185	36,302	11,076	2,108,139	46	5,440	3,337	91	17,543	406	563	44,908
Utah	1,929	128,681	73	17,835	105	5,172	1,909	142,220	45	2,230	1,179	129	6,059	81	116	5,031
Washington	4,141	121,920	106	6,691	575	15,996	4,556	134,899	39	1,951	1,224	183	6,533	145	198	4,045
Wyoming	2,053	616,927	101	42,666	257	34,616	2,229	652,946	14	11,445	2,751	146	27,067	63	89	10,932

[1]For interstate enterprises, number of enterprises represent characteristics of the entire enterprise, acreage irrigated represents acreage in the State.
[2]For interstate enterprises, data represent characteristics within the State.

Table 18.—20 SPECIFIED STATES: MULTIPLE-FARM IRRIGATION ENTERPRISES-NUMBER AND AREA IRRIGATED BY ORIGIN OF WATER SUPPLY AND BY PRIMARY AND SUPPLEMENTAL IRRIGATION, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	All multiple-farm enterprises[1]		Origin of water[1]						Primary and supplemental irrigation[2]						
			No water from other enterprises		Part of water from other enterprises		All of water from other enterprises		All primary		Part primary, part supplemental			All supplemental	
	Number	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Primary acres irrigated	Supplemental acres irrigated	Enterprises reporting	Acres irrigated
20 States, total	10,568	15,022,523	8,559	9,392,946	873	3,236,350	1,136	2,393,227	8,107	9,631,162	1,876	4,610 960	657,735	241	122,666
Arkansas	57	21,753	56	20,873	1	880	.....	.....	56	21,583	1	80	90	.....	.....
Louisiana	321	260,897	320	260,447	1	450	.....	.....	305	247,303	15	10,380	3,214	.....	.....
Florida	20	25,985	18	14,031	1	8,887	1	3,067	17	25,835	.....	.....	.....	1	150
17 Western States, total	10,170	14,713,888	8,165	9,097,595	870	3,226,133	1,135	2,390,160	7,729	9,336,441	1,860	4,600,500	654,431	240	122,516
Arizona	163	555,958	152	393,941	5	37,417	6	124,600	137	352,907	21	186,106	16,945	.....	.....
California	1,506	3,135,281	1,321	2,219,344	83	286,251	102	629,686	1,059	1,702,779	372	1,145,009	226,163	27	61,330
Colorado	2,302	2,399,618	1,665	1,262,246	235	694,192	402	443,180	1,563	1,380,382	526	828,284	167,497	80	23,455
Idaho	1,064	1,896,032	698	552,222	130	971,519	236	372,291	839	948,189	184	885,309	60,576	14	1,958
Kansas	11	45,933	10	45,633	1	300	.....	.....	7	13,179	4	29,962	2,792	.....	.....
Montana	1,234	1,149,358	1,092	1,007,621	80	76,328	62	65,409	917	790,742	225	307,915	34,044	46	16,657
Nebraska	68	508,161	49	207,665	15	150,791	4	149,705	41	318,001	25	179,873	10,287	.....	.....
Nevada	157	286,299	78	153,484	28	30,503	51	102,312	133	249,043	17	29,915	7,341	.....	.....
New Mexico	620	384,210	588	344,641	10	34,236	22	5,333	563	329,804	30	41,245	9,722	21	3,439
North Dakota	6	34,405	6	34,405	.....	.....	.....	.....	6	34,405	.....	.....	.....	.....	.....
Oklahoma	2	32,556	2	32,556	.....	.....	.....	.....	2	32,556	.....	.....	.....	.....	.....
Oregon	755	739,052	709	597,483	26	107,948	20	33,621	675	502,974	61	229,630	4,619	4	1,829
South Dakota	24	67,539	23	66,839	1	700	.....	.....	23	67,539	.....	.....	.....	.....	.....
Texas	122	1,042,714	96	891,540	9	98,047	17	53,127	108	959,685	8	77,263	4,966	1	800
Utah	1,058	1,083,250	769	541,335	165	392,271	124	149,644	803	746,719	215	275,803	58,708	9	2,020
Washington	441	513,583	376	144,142	13	170,555	52	198,886	326	296,686	100	184,593	29,177	9	3,127
Wyoming	693	839,939	573	602,498	78	175,075	42	62,366	565	610,851	78	199,593	21,594	29	7,901

[1]For interstate enterprises, number of enterprises represent characteristics of the entire enterprise, acreage irrigated represents acreage in the State.
[2]For interstate enterprises, data represent characteristics within the State.

Table 19.—20 SPECIFIED STATES: MULTIPLE-FARM IRRIGATION ENTERPRISES—ENTERPRISES BY NUMBER OF FARMS IRRIGATED; ENTERPRISES AND AREA IRRIGATED BY METHOD OF DELIVERY OF IRRIGATION WATER, AND NUMBER OF MULTIPLE-PURPOSE ENTERPRISES AND AREA IRRIGATED, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State total. For interstate enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage within the State. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	Number of enterprises by number of farms irrigated									Enterprises by method of delivery of irrigation water							
	Total	No farms	1-3 farms	4-9 farms	10-29 farms	30-99 farms	100-299 farms	300-999 farms	1,000 farms or more	No water delivered (enterprises)	Water delivered direct to farms only		Water delivered to farms and to other enterprises		Water delivered to other enterprises only (enterprises)	Multiple-purpose enterprises	
											Enterprises	Acres irrigated	Enterprises	Acres irrigated		Number	Acres irrigated
20 States, total	10,568	344	3,823	2,978	2,083	941	267	102	30	21	8,447	5,925,340	1,777	9,097,183	323	464	3,156,994
Arkansas	57	.....	36	18	3	.....	.....	.....	.....	.....	54	18,513	3	3,240	.....	1	600
Louisiana	321	1	156	109	37	16	1	1	.....	1	306	179,878	14	81,019	.....	8	6,559
Florida	20	2	7	6	5	.....	.....	.....	.....	2	12	9,881	6	16,104	.....	7	20,304
17 Western States, total	10,170	341	3,624	2,845	2,038	925	266	101	30	18	8,075	5,717,068	1,754	8,996,820	323	448	3,129,531
Arizona	163	4	38	23	41	44	9	3	1	.....	135	230,909	24	325,049	4	11	330,179
California	1,506	45	394	441	351	169	61	32	13	10	1,181	613,548	280	2,521,733	35	206	1,558,517
Colorado	2,302	133	934	663	385	150	28	8	1	3	1,810	1,092,613	359	1,307,005	130	27	53,092
Idaho	1,064	27	365	287	236	102	31	10	6	.....	834	671,684	203	1,224,348	27	18	147,518
Kansas	11	.....	1	3	3	4	.....	.....	.....	.....	4	3,281	7	42,652	.....	.....	.....
Montana	1,234	46	695	312	114	50	9	7	1	4	955	537,709	233	611,649	42	8	96,344
Nebraska	68	2	7	8	17	18	10	5	1	.....	49	218,108	17	290,053	2	4	83,062
Nevada	157	5	64	42	31	12	2	1	.....	.....	132	157,449	20	128,850	5	8	93,645
New Mexico	620	6	97	175	237	89	11	3	2	.....	592	228,411	22	155,799	6	61	173,662
North Dakota	6	.....	.....	2	1	2	.....	1	.....	.....	5	19,220	1	15,185	.....	.....	.....
Oklahoma	2	.....	.....	1	.....	.....	1	.....	.....	.....	2	32,556	.....	.....	.....	1	32,256
Oregon	755	14	324	261	99	29	18	8	2	.....	575	311,871	166	427,181	14	33	109,428
South Dakota	24	1	5	10	6	1	.....	1	.....	1	20	64,439	3	3,100	.....	1	.....
Texas	122	5	23	31	21	21	10	8	3	.....	65	195,727	52	846,987	5	15	210,421
Utah	1,058	28	179	280	341	169	53	8	.....	.....	897	690,275	133	392,975	28	25	39,859
Washington	441	6	137	144	79	47	17	8	3	.....	322	113,849	113	399,734	6	23	71,421
Wyoming	693	19	362	174	94	29	11	3	1	.....	527	535,419	147	304,520	19	13	130,127

Table 20.—20 SPECIFIED STATES: SINGLE-FARM IRRIGATION ENTERPRISES, BY NUMBER OF ACRES IRRIGATED, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics of the entire enterprise]

State	Number of enterprises by number of acres irrigated										Percent of enterprises by number of acres irrigated								
	Total	No acres	1-9 acres	10-29 acres	30-59 acres	60-99 acres	100-199 acres	200-499 acres	500-999 acres	1,000 acres or more	No acres	1-9 acres	10-29 acres	30-59 acres	60-99 acres	100-199 acres	200-499 acres	500-999 acres	1,000 acres or more
20 States, total	113,358	1,559	22,370	24,913	19,646	13,686	15,932	11,100	2,699	1,453	1.4	19.7	22.0	17.3	12.1	14.1	9.8	2.4	1.3
Arkansas	2,325	33	40	147	188	361	845	618	86	7	1.4	1.7	6.3	8.1	15.5	36.3	26.6	3.7	0.3
Louisiana	3,584	74	1,646	323	250	241	429	514	77	30	2.1	45.9	9.0	7.0	6.7	12.0	14.3	2.1	0.8
Florida	5,679	44	2,504	1,523	669	356	268	203	57	55	0.8	44.1	26.8	11.8	6.3	4.7	3.6	1.0	1.0
17 Western States, total	101,770	1,408	18,180	22,920	18,539	12,728	14,390	9,765	2,479	1,361	1.4	17.9	22.5	18.2	12.5	14.1	9.6	2.4	1.3
Arizona	2,198	31	418	370	300	194	264	352	174	95	1.4	19.0	16.8	13.6	8.8	12.0	16.0	7.9	4.3
California	46,107	365	9,689	12,898	9,583	5,137	4,351	2,805	786	493	0.8	21.0	28.0	20.8	11.1	9.4	6.1	1.7	1.1
Colorado	6,856	373	727	1,013	1,093	1,130	1,454	783	182	101	5.4	10.6	14.8	15.9	16.5	21.2	11.4	2.7	1.5
Idaho	3,557	22	571	760	694	520	542	354	61	33	0.6	16.1	21.4	19.5	14.6	15.2	10.0	1.7	0.9
Kansas	951	30	107	153	177	140	195	115	29	5	3.2	11.3	16.1	18.6	14.7	20.5	12.1	3.0	0.5
Montana	4,159	42	409	701	754	639	745	569	183	117	1.0	9.8	16.9	18.1	15.4	17.9	13.7	4.4	2.8
Nebraska	5,515	193	189	812	1,581	1,444	1,030	238	24	4	3.5	3.4	14.7	28.7	26.2	18.7	4.3	0.4	0.1
Nevada	1,021	2	117	109	120	98	154	213	99	109	0.2	11.5	10.7	11.8	9.6	15.1	20.9	9.7	10.7
New Mexico	2,858	42	418	467	469	500	553	313	67	29	1.5	14.6	16.3	16.4	17.5	19.3	11.0	2.3	1.0
North Dakota	29	1	6	8	6	5	2	1	.....	.....	3.4	20.7	27.6	20.7	17.2	6.9	3.4	.....	.....
Oklahoma	164	1	39	34	41	23	13	9	2	2	0.6	23.8	20.7	25.0	14.0	7.9	5.5	1.2	1.2
Oregon	7,480	48	2,481	2,279	1,153	549	449	332	104	85	0.6	33.2	30.5	15.4	7.3	6.0	4.4	1.4	1.1
South Dakota	190	1	23	41	41	32	28	19	4	1	0.5	12.1	21.6	21.6	16.8	14.7	10.0	2.1	0.5
Texas	11,380	167	570	916	966	1,362	3,718	2,977	567	137	1.9	5.0	8.0	8.5	12.0	32.7	26.2	5.0	1.2
Utah	2,107	24	417	566	441	277	215	140	19	8	1.1	19.8	26.9	20.9	13.1	10.2	6.6	0.9	0.4
Washington	4,822	44	1,875	1,534	762	320	200	76	8	3	0.9	38.9	31.8	15.8	6.6	4.1	1.6	0.2	0.1
Wyoming	2,411	22	124	259	358	358	477	479	180	154	0.9	5.1	10.7	14.8	14.8	19.8	19.9	7.5	6.4

Table 21.—20 SPECIFIED STATES: MULTIPLE-FARM IRRIGATION ENTERPRISES, BY NUMBER OF ACRES IRRIGATED, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics of the entire enterprise]

State	Number of enterprises by number of acres irrigated								Percent distribution of enterprises by number of acres irrigated						
	Total	No acres	1-99 acres	100-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres or more	No acres	1-99 acres	100-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres or more
20 States, total	10,568	344	2,471	5,697	1,259	570	149	78	3.3	23.4	53.9	11.9	5.4	1.4	0.7
Arkansas	57	.....	7	45	5	.....	.....	.....	.....	12.3	78.9	8.8	.....	.....	.....
Louisiana	321	1	36	249	13	19	2	1	0.3	11.2	77.6	4.0	5.9	0.6	0.3
Florida	20	2	3	9	2	4	.....	.....	10.0	15.0	45.0	10.0	20.0	.....	.....
17 Western States, total	10,170	341	2,425	5,394	1,239	547	147	77	3.4	23.8	53.0	12.2	5.4	1.4	0.8
Arizona	163	4	35	84	22	7	8	3	2.5	21.5	51.5	13.5	4.3	4.9	1.8
California	1,506	45	606	594	120	87	34	20	3.0	40.2	39.4	8.0	5.8	2.3	1.3
Colorado	2,302	133	404	1,282	337	117	21	8	5.8	17.5	55.7	14.6	5.1	0.9	0.3
Idaho	1,064	27	170	610	159	70	17	11	2.5	16.0	57.3	14.9	6.6	1.6	1.0
Kansas	11	.....	2	1	4	3	1	.....	.....	18.2	9.1	36.4	27.3	9.1	.....
Montana	1,234	46	241	768	117	46	11	5	3.7	19.5	62.2	9.5	3.7	0.9	0.4
Nebraska	68	2	2	17	16	19	8	4	2.9	2.9	25.0	23.5	27.9	11.8	5.9
Nevada	157	5	8	84	39	18	2	1	3.2	5.1	53.5	24.8	11.5	1.3	0.6
New Mexico	620	6	258	311	28	13	2	2	1.0	41.6	50.2	4.5	2.1	0.3	0.3
North Dakota	6	.....	1	1	.....	3	.....	1	.....	16.7	16.7	.....	50.0	.....	16.7
Oklahoma	2	.....	.....	1	.....	.....	.....	1	.....	.....	50.0	.....	.....	.....	50.0
Oregon	755	14	228	394	73	35	6	5	1.9	30.2	52.2	9.7	4.6	0.8	0.7
South Dakota	24	1	1	15	5	1	.....	1	4.2	4.2	62.5	20.8	4.2	.....	4.2
Texas	122	5	16	35	15	21	17	13	4.1	13.1	28.7	12.3	17.2	13.9	10.7
Utah	1,058	28	195	581	180	63	9	2	2.6	18.4	54.9	17.0	6.0	0.9	0.2
Washington	441	6	182	197	30	20	2	4	1.4	41.3	44.7	6.8	4.5	0.5	0.9
Wyoming	693	19	78	434	110	36	12	4	2.7	11.3	62.6	15.9	5.2	1.7	0.6

Table 22.—17 WESTERN STATES: ACREAGE IRRIGATED BY SOURCE OF WATER, IRRIGATED LAND ARTIFICIALLY DRAINED, IRRIGATED LAND IN NEED OF DRAINAGE, AND SPECIFIED IRRIGATION WORKS: 1920 TO 1950

[For comparable data by States see State Table 2 in reports for individual States]

Census year	Acres irrigated by source of water[1]						Irrigated land artificially drained (acres)	Irrigated land in need of drainage (acres)
	Streams (and lakes)[2]	Springs	Flowing wells	Pumped wells	Sewage	Other and not reported[3]		
1950	19,272,564	773,693	410,428	9,349,338	24,847	1,912,426	4,091,541	1,666,723
1940	20,354,239	440,377	138,742	4,167,317	5,260	303,773	3,177,426	819,625
1930	16,073,246	217,246	83,625	3,209,779	3,529	877,459	3,430,176	1,057,861
1920	16,317,451	198,008	182,935	1,342,562	2,578	1,001,047	1,325,365	1,452,748

Census year	Irrigation works										
	Diversion dams (number)	Reservoirs		Reservoir dams (number)	Canals and ditches (miles)	Pipe lines[4] (miles)	Flowing wells (number)	Pumped wells		Number of pumps	Average pumping lift from all sources (feet)
		Number	Total capacity (acre-feet)					Number	Average pumping lift (feet)		
1950	49,349	7,393	42,332,466	7,393	134,112	15,288	5,586	116,063	86	138,620	(*)
1940	34,433	7,610	33,721,191	4,466	125,032	28,506	4,139	65,241	55	74,492	[5]51
1930	21,910	5,027	24,487,339	2,862	124,525	17,347	4,004	54,150	(*)	58,239	[5]51
1920	23,412	7,448	21,238,784	3,851	156,535	8,828	4,597	30,193	(*)	30,742	[5]41

*Not available.
[1] Acreage reported by 2 or more enterprises or for 2 or more sources is counted for each.
[2] Includes "Stored storm water" for 1940.
[3] Includes "Other mixed" for 1940, 1930, and 1920. For 1950, includes 1,912,172 acres irrigated with "drainage" water.
[4] Pipe lines in farm-distribution systems were included in 1940, not included in 1950; whether included in 1930 and 1920 was not specified.
[5] Average for 17 Western States and Arkansas and Louisiana.

Table 23.—20 SPECIFIED STATES: NUMBER OF ENTERPRISES AND ACREAGE IRRIGATED DIRECT BY SOURCE OF SURFACE WATER; IRRIGATED LAND ARTIFICIALLY DRAINED; AND IRRIGATED LAND IN NEED OF DRAINAGE; BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	Source of surface water[1]										Irrigated land artificially drained[2]			Irrigated land in need of drainage[2]		
	Streams (and lakes)		Springs		Flowing wells		Drainage water		Sewage							
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres of irrigated land	Acres drained	Enterprises reporting	Acres of irrigated land	Acres in need of drainage
20 States, total..	41,225	19,725,867	4,380	775,742	3,711	526,199	3,304	2,085,734	140	25,489	9,072	8,481,443	4,565,034	7,207	7,094,550	1,788,729
Arkansas	207	43,214	8	139	11	2,539	66	9,973	1	182	577	104,770	94,467	347	66,116	47,996
Louisiana	758	282,114	6	362	525	9,120	444	65,113	1	290	511	238,622	219,219	230	64,943	39,952
Florida	1,102	127,975	71	1,548	1,348	104,112	322	98,476	10	170	1,651	175,717	159,807	387	48,631	34,058
17 Western States, total	39,158	19,272,564	4,295	773,693	1,827	410,428	2,472	1,912,172	128	24,847	6,333	7,962,334	4,091,541	6,243	6,914,860	1,666,723
Arizona	543	521,721	49	5,058	74	4,896	19	6,503	5	629	23	283,530	193,883	20	98,691	65,943
California	5,662	3,945,008	656	71,415	247	35,069	496	405,899	45	8,951	1,884	1,873,883	1,101,039	975	1,230,221	183,158
Colorado	5,675	3,039,767	374	56,029	238	84,942	443	421,422	7	1,274	573	943,473	319,612	818	846,494	155,380
Idaho	3,560	2,166,030	499	77,228	176	84,195	324	557,314	3	495	335	827,602	292,594	472	681,921	120,390
Kansas	181	62,443	5	329	3	487	2	2,118	1	55	37	2,701	1,899	17	8,139	557
Montana	5,091	1,858,449	344	49,143	46	4,956	131	40,861	8	1,797	377	582,395	189,497	714	730,648	182,614
Nebraska	825	569,151	19	1,040	61	4,534	43	16,119	2	110	319	313,192	103,297	481	300,133	32,284
Nevada	879	690,956	328	158,221	85	17,196	24	10,906	3	1,022	77	209,306	123,059	130	232,669	81,371
New Mexico	1,104	435,158	148	11,599	63	19,120	16	11,997	5	691	218	254,313	192,848	144	241,401	25,917
North Dakota	28	35,642	3	27	.....	.....	2	56	.....	.....	11	34,479	18,960	5	12,376	1,320
Oklahoma	56	35,282	4	98	.....	.....	5	39	.....	.....	7	30,167	2,060	1	30,056	700
Oregon	5,948	1,296,731	569	77,696	77	54,788	333	110,851	11	2,074	1,032	447,570	240,365	1,051	449,430	81,485
South Dakota	181	82,748	9	1,500	10	1,782	9	296	.....	.....	7	57,645	51,632	9	10,308	1,956
Texas	1,432	1,274,715	67	22,795	107	11,553	96	84,983	18	5,298	446	922,967	710,930	321	910,751	522,215
Utah	1,817	1,133,694	689	170,491	533	64,034	230	80,888	7	161	435	384,172	151,965	415	425,428	89,070
Washington	3,404	613,786	379	12,466	54	3,833	242	128,174	10	730	393	355,946	158,705	314	332,036	77,174
Wyoming	2,858	1,511,283	166	58,558	53	19,043	63	33,746	3	1,560	170	438,993	239,196	367	374,158	45,189

[1] For interstate enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage in the State. Data not included for other sources reported by 14 enterprises with 1,852 acres irrigated.

[2] For interstate enterprises, data represent characteristics within the State.

Table 24.—20 SPECIFIED STATES: USE OF SURFACE, GROUND, PUMPED AND STORED WATER— ENTERPRISES REPORTING AND ACREAGE IRRIGATED DIRECT, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage within the State. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	Surface water						Ground water only (pumped from wells)		Surface (gravity or pumped) and ground water		Storage of water					
	Gravity only		Pumped only		Gravity and pumped						None stored		Part stored		All stored	
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
20 States, total..	29,382	13,721,908	13,739	2,460,044	1,405	1,500,554	74,406	7,527,359	4,994	2,711,488	116,486	18,371,622	4,517	7,621,016	2,923	1,928,715
Arkansas	10	836	136	17,342	7	2,995	2,105	367,463	124	30,964	2,324	402,760	42	12,110	16	4,730
Louisiana	416	6,500	974	253,080	22	5,428	2,193	256,337	380	82,142	3,858	578,296	36	22,383	11	2,808
Florida	1,052	65,357	1,126	114,947	115	34,616	2,982	74,116	424	78,287	5,550	357,960	59	7,510	90	1,053
17 Western States, total	27,904	13,649,215	11,503	2,074,675	1,261	1,457,515	67,126	6,829,443	4,146	2,520,095	104,754	17,032,606	4,380	7,579,013	2,806	1,919,324
Arizona	464	65,651	57	3,398	11	7,216	1,695	524,435	134	452,874	2,199	648,968	93	339,779	69	64,827
California	2,508	1,836,361	2,116	555,682	222	275,076	40,944	3,350,260	1,823	1,377,492	46,277	5,664,676	854	985,574	482	744,621
Colorado	5,441	2,959,515	322	18,299	92	28,302	2,905	245,117	398	80,148	7,910	1,845,164	879	1,411,335	369	74,882
Idaho	3,097	1,614,543	727	64,529	165	279,901	460	38,986	172	245,693	3,978	769,104	433	1,402,236	210	72,312
Kansas	23	46,652	91	3,984	1	300	776	92,171	71	11,627	919	132,856	30	20,788	13	1,090
Montana	4,429	1,529,943	719	104,582	133	231,634	55	1,082	57	7,660	4,800	1,293,513	362	372,668	231	208,720
Nebraska	223	508,854	420	20,087	25	22,455	4,661	339,227	254	23,169	5,405	532,571	65	374,959	113	6,262
Nevada	975	654,415	18	8,065	11	6,725	80	2,975	94	59,528	948	413,960	184	282,470	46	35,278
New Mexico	1,081	398,949	74	12,141	8	2,965	2,190	261,867	125	36,013	3,147	426,229	211	113,133	120	172,573
North Dakota	12	8,288	20	12,252	1	15,185	2	41	.....	.....	27	35,341	3	231	5	194
Oklahoma	9	33,187	46	1,604	2	50	101	8,790	8	578	143	9,877	11	1,286	12	33,046
Oregon	2,888	863,684	3,152	134,797	203	247,805	1,617	34,008	375	71,284	7,758	889,487	237	356,530	240	105,561
South Dakota	145	28,693	37	2,048	9	51,622	16	713	7	1,317	154	27,345	28	54,544	32	2,504
Texas	210	175,160	1,229	1,022,202	74	32,414	9,824	1,859,758	165	87,639	11,018	2,464,800	187	485,628	297	226,745
Utah	2,492	1,051,757	168	19,203	91	99,589	331	27,051	83	37,338	2,570	580,874	405	564,072	190	89,992
Washington	1,326	390,075	2,045	73,603	179	144,097	1,362	33,524	351	16,891	4,981	287,971	139	354,922	143	15,297
Wyoming	2,644	1,483,488	266	18,199	45	12,179	110	9,438	39	10,844	2,577	1,009,870	287	458,858	240	65,420

Table 25.—20 SPECIFIED STATES: CAPITAL INVESTMENT IN IRRIGATION ENTERPRISES-TOTAL, 1950 AND 1940; AND NEW CAPITAL INVESTMENT, 1940 TO 1950, BY STATES

[For interstate enterprises, data represent characteristics within the State]

State	Total capital investment					Average capital investment (dollars)					New capital investment Jan. 1, 1940 to Jan. 1, 1950		
	1950 (dollars)	1940 (dollars)	Percent increase or decrease (-) 1940-50	Percent distribution		Per enterprise[1]		Per irrigated farm, 1950	Per acre of irrigated land		Enterprises reporting[1]	Amount (dollars)	Acres irrigated direct[2]
				1950	1940	1950	1940		1950	1940			
20 States, total	1,887,738,707	1,059,105,122	78.2	100.0	100.0	15,233	11,117	6,334	72	50	71,116	828,633,585	17,274,739
Arkansas	14,171,467	5,766,895	145.7	0.8	0.5	5,949	4,443	4,631	34	36	1,583	8,404,572	297,774
Louisiana	21,503,040	11,565,513	85.9	1.1	1.1	5,507	4,507	2,891	36	26	2,545	9,937,527	390,210
Florida	19,549,139	7,055,921	177.1	1.0	0.7	3,430	1,945	3,218	54	53	3,570	12,493,218	244,834
17 Western States, total	1,832,515,061	1,034,716,793	77.1	97.1	97.7	16,371	11,789	6,510	74	51	63,418	797,798,268	16,341,921
Arizona	137,575,193	83,526,608	64.7	7.3	7.9	58,270	43,708	17,588	141	128	1,549	54,048,585	829,086
California	640,474,185	318,889,218	100.8	33.9	30.1	13,452	7,977	7,057	97	63	24,694	321,584,967	4,980,823
Colorado	163,295,813	106,849,343	52.8	8.7	10.1	17,831	12,263	6,021	55	33	4,210	56,446,470	1,430,915
Idaho	129,973,554	102,585,798	26.7	6.9	9.7	28,127	28,300	4,419	60	45	2,091	27,387,756	960,583
Kansas	5,882,265	2,153,886	173.1	0.3	0.2	6,115	2,021	5,045	42	22	619	3,728,379	73,539
Montana	81,256,990	67,352,505	20.6	4.3	6.4	15,067	12,125	6,038	45	39	2,428	13,904,485	995,247
Nebraska	56,463,881	39,056,207	44.6	3.0	3.7	10,114	14,375	5,833	64	64	4,109	17,407,674	506,769
Nevada	20,181,476	16,906,790	19.4	1.1	1.6	17,132	11,548	7,159	28	23	536	3,274,686	400,424
New Mexico	61,137,909	32,735,997	86.8	3.2	3.1	17,578	13,079	4,817	88	59	2,304	28,401,912	514,362
North Dakota	2,957,763	1,755,489	68.5	0.2	0.2	84,508	21,944	9,729	83	81	21	1,202,274	12,592
Oklahoma	13,076,010	272,186	4,704.1	0.7	(3)	78,771	2,268	28,060	296	65	135	12,803,824	40,852
Oregon	74,360,981	50,961,251	45.9	3.9	4.8	9,030	8,661	4,210	56	49	5,095	23,399,730	847,215
South Dakota	6,617,914	5,395,610	22.7	0.4	0.5	30,925	19,692	8,201	78	90	127	1,222,304	62,214
Texas	144,445,313	66,441,376	117.4	7.7	6.3	12,558	16,446	6,741	46	64	9,511	78,003,937	2,715,018
Utah	56,539,436	41,896,532	35.0	3.0	4.0	17,864	17,450	2,676	48	36	1,304	14,642,904	837,917
Washington	178,289,988	56,415,196	216.0	9.4	5.3	33,876	13,693	10,532	288	92	3,169	121,874,792	391,981
Wyoming	59,986,390	41,522,801	44.5	3.2	3.9	19,326	12,267	7,660	41	28	1,551	18,463,589	742,384

[1] Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals.
[2] Acreage irrigated direct by 2 or more enterprises is counted for each.
[3] 0.05 percent or less.

Table 26.—20 SPECIFIED STATES: ENTERPRISES REPORTING AND AMOUNT OF INDEBTEDNESS, BY STATES: 1950 AND 1940

[Indebtedness in 1950 reported only for multiple-farm enterprises, in 1940 only for enterprises serving 5 or more farms. For interstate enterprises, data represent characteristics within the State]

State	Enterprises reporting indebtedness						Amount of indebtedness (dollars)					
	Number[1]		Percent of all enterprises		Acres irrigated direct[2]		Total		Average per acre irrigated by enterprises reporting		Average per acre of all irrigated land	
	1950	1940	1950	1940	1949	1939	1950	1940	1950	1940	1950	1940
20 States, total	1,155	1,419	0.9	1.5	6,975,970	10,611,206	695,724,736	386,640,274	99.73	36.44	26.52	18.41
Arkansas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Louisiana	18	36	0.5	1.4	49,196	145,657	977,400	2,748,768	19.87	18.87	1.63	6.15
Florida	4	.....	0.1	.....	10,524	.....	96,800	.....	9.20	.....	0.27	.....
17 Western States, total	1,133	1,383	1.0	1.6	6,916,250	10,465,549	694,650,536	383,891,506	100.44	36.68	27.95	18.82
Arizona	66	47	2.8	2.5	347,395	478,227	36,193,604	42,592,133	104.19	89.09	36.97	65.20
California	254	357	0.5	0.9	1,713,814	2,062,546	251,310,797	95,694,893	146.64	46.40	38.08	18.88
Colorado	148	207	1.6	2.4	604,540	1,623,313	44,165,521	22,810,607	73.06	14.05	15.00	7.08
Idaho	92	141	2.0	3.9	724,513	1,986,957	42,458,116	26,418,138	58.60	13.30	19.59	11.60
Kansas	1	7	0.1	0.7	1,622	31,579	2,000	43,775	1.23	1.39	0.01	0.44
Montana	97	103	1.8	1.9	579,899	794,572	41,498,918	44,542,281	71.56	56.06	22.95	26.03
Nebraska	31	34	0.6	1.3	414,043	415,382	18,911,386	21,727,368	45.67	52.31	21.31	35.60
Nevada	21	13	1.8	0.9	121,910	154,886	2,973,295	3,934,315	24.39	25.40	4.11	5.32
New Mexico	51	57	1.5	2.3	235,975	259,117	19,979,735	16,715,813	84.67	64.51	28.89	30.17
North Dakota	3	5	8.6	6.3	22,716	18,824	1,416,460	1,337,648	62.36	71.06	39.61	61.89
Oklahoma	1	2	0.6	1.7	32,256	34	2,000,000	15,850	62.00	466.18	45.24	3.81
Oregon	75	73	0.9	1.2	443,369	358,983	38,262,112	14,329,768	86.30	39.92	28.61	13.66
South Dakota	2	3	0.9	1.1	50,767	34,371	3,350,000	4,600,023	65.99	133.83	39.71	76.41
Texas	54	60	0.5	1.5	865,447	679,263	30,832,875	36,041,388	35.63	53.06	9.79	34.48
Utah	144	155	4.5	6.5	276,771	611,178	21,971,745	13,766,417	79.39	22.52	18.83	11.70
Washington	68	95	1.3	2.3	173,215	610,048	114,784,999	22,621,604	662.67	37.08	185.70	36.78
Wyoming	43	40	1.4	1.2	307,998	346,269	24,538,973	16,699,485	79.67	48.23	16.64	11.23

[1] Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals.
[2] Acreage irrigated direct by 2 or more enterprises is counted for each.

Table 27.—20 SPECIFIED STATES: ENTERPRISES REPORTING AND AMOUNT OF ARREARAGE ON INDEBTEDNESS, 1950 AND 1940, AND ARREARAGE IN PAYMENTS BY FARMS, 1950; BY STATES

[1950 data reported only for multiple-farm enterprises, 1940 data only for enterprises serving 5 or more farms. Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics within the State. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	Arrearage on indebtedness								Arrearage in payments by farms, 1950				
	Enterprises reporting					Amount (dollars)			Enterprises reporting			Amount (dollars)	
	Number		Percent of all enterprises		Acres irrigated, 1950	Total		Average per acre irrigated, 1950	Number	Percent of all enterprises	Acres irrigated	Total	Average per acre irrigated
	1950	1940	1950	1940		1950	1940						
20 States, total	133	202	0.1	0.2	621,303	8,429,544	31,080,285	13.57	999	0.8	5,409,197	7,360,774	1.36
Arkansas	.....	.....	.....	.....	.....	.....	.....	.....	1	(1)	190	1,750	9.21
Louisiana	.....	11	.....	0.4	.....	.....	1,137,646	.....	3	0.1	920	1,950	2.12
Florida	.....	.....	.....	.....	.....	.....	.....	.....	2	(1)	9,637	3,700	0.38
17 Western States, total	133	191	0.1	0.2	621,303	8,429,544	29,942,639	13.57	993	0.9	5,398,450	7,353,374	1.36
Arizona	35	4	1.5	0.2	71,511	1,459,124	990,222	20.40	50	2.1	219,093	822,169	3.75
California	17	41	(1)	0.1	76,536	975,285	19,651,711	12.74	211	0.4	1,523,237	609,119	0.40
Colorado	8	20	0.1	0.2	27,756	416,469	1,699,096	15.00	152	1.7	461,865	385,481	0.83
Idaho	4	15	0.1	0.4	1,200	3,240	1,259,945	2.70	136	2.9	797,508	318,779	0.40
Kansas	.....	1	.....	0.1	.....	.....	525	.....	5	0.5	33,032	4,875	0.15
Montana	15	27	0.3	0.5	66,006	1,381,563	1,820,069	20.93	49	0.9	341,683	106,880	0.31
Nebraska	7	11	0.1	0.4	132,849	457,418	178,738	3.44	16	0.3	250,044	213,177	0.85
Nevada	2	.....	0.2	.....	85,014	179,154	.....	2.11	7	0.6	104,319	47,717	0.46
New Mexico	27	6	0.8	0.2	78,861	2,825,348	560,392	35.83	41	1.2	117,967	2,808,990	23.81
North Dakota	2	1	5.7	1.3	15,716	3,153	23,854	0.20	2	5.7	22,185	2,387	0.11
Oklahoma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon	6	13	0.1	0.2	25,957	534,412	1,800,973	20.59	82	1.0	179,200	119,916	0.67
South Dakota	.....	1	.....	0.4	.....	.....	66,992	.....	.....	.....	.....	.....	.....
Texas	1	14	(1)	0.3	7,217	3,752	730,703	0.52	38	0.3	708,794	951,832	1.34
Utah	4	16	0.1	0.7	6,266	62,620	466,221	9.99	73	2.3	177,924	29,790	0.17
Washington	3	17	0.1	0.4	1,403	50,352	605,398	35.89	114	2.2	269,056	298,945	1.11
Wyoming	5	8	0.2	0.2	25,011	77,654	87,800	3.10	30	1.0	192,543	633,317	3.29

[1] 0.05 percent or less.

Table 28.—20 SPECIFIED STATES: ENTERPRISES REPORTING AND NUMBER OF DIVERSION DAMS AND RESERVOIRS, AND NUMBER OF DAMS BY MATERIAL OF WHICH CONSTRUCTED, BY STATES: 1950

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represents characteristics within the State]

State	Diversion dams						Reservoirs									
			Number by material						Reservoirs for which capacity was reported					Number of reservoir dams by material		
											Number by capacity					
	Enterprises reporting	Total number	Concrete or masonry	Timber	Earth and/or rock	Other, mixed, and not reported	Enterprises reporting	Total number	Number	Total capacity (acre-feet)	1-99 acre-feet	100-999 acre-feet	1,000 acre-feet and over	Concrete or masonry	Earth and rock	Other, mixed, and not reported
20 States, total	26,578	50,131	5,888	6,915	32,247	5,081	5,486	7,717	7,002	42,407,489	4,986	1,249	767	655	6,437	625
Arkansas	59	108	7	1	85	15	80	86	74	40,431	33	28	13	3	78	5
Louisiana	135	319	28	95	175	21	47	58	57	31,249	26	26	5	2	51	5
Florida	154	355	63	22	199	71	151	180	168	3,343	162	5	1	2	169	9
17 Western States, total	26,230	49,349	5,790	6,797	31,788	4,974	5,208	7,393	6,703	42,332,466	4,765	1,190	748	648	6,139	606
Arizona	430	552	70	10	351	121	180	269	237	3,625,679	186	23	28	40	222	7
California	2,947	4,708	938	684	2,535	551	1,233	1,684	1,502	8,711,667	1,300	107	95	347	1,159	178
Colorado	4,424	7,709	583	951	5,442	733	770	1,182	1,106	2,028,550	628	310	168	25	1,108	49
Idaho	2,691	5,121	654	562	3,628	277	275	364	313	5,124,966	167	74	72	24	280	60
Kansas	74	127	49	3	34	41	44	48	42	25,505	39	1	2	9	34	5
Montana	4,068	8,139	449	1,674	5,365	651	443	629	577	1,598,898	369	124	84	20	551	58
Nebraska	342	488	92	21	351	24	87	114	96	133,934	70	16	10	3	96	15
Nevada	891	4,065	348	256	2,953	508	139	202	176	687,179	135	24	17	8	174	20
New Mexico	961	1,286	165	121	537	463	312	476	448	3,186,401	378	43	27	8	449	19
North Dakota	10	15	2	.....	10	3	9	11	6	1,101	3	3	.....	2	5	4
Oklahoma	19	20	4	.....	15	1	23	29	27	148,945	26	.....	1	4	24	1
Oregon	3,243	6,231	866	1,061	3,764	540	411	528	471	2,421,138	340	79	52	51	402	75
South Dakota	128	281	13	12	251	5	61	100	94	204,693	77	13	4	.....	96	4
Texas	345	438	106	6	304	22	421	566	508	1,402,883	384	96	28	36	501	29
Utah	1,755	3,080	642	361	1,708	369	323	511	476	2,224,361	288	114	74	30	452	29
Washington	1,483	1,861	293	304	1,120	144	186	222	205	6,436,522	159	18	28	25	177	20
Wyoming	2,466	5,228	516	771	3,420	521	303	458	419	4,370,044	216	145	58	16	409	33

Table 29.—20 SPECIFIED STATES: ENTERPRISES REPORTING AND LENGTH OR NUMBER OF CANALS AND DITCHES, PIPE LINES, TUNNELS, FLOWING WELLS, PUMPS, ELECTRIC MOTORS, AND OTHER MOTORS, BY STATES: 1950

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics within the State.]

State	Canal and ditches		Pipe lines and siphons		Tunnels		Flowing wells		Pumped wells				Irrigation pumps		Electric motors used for pumping		Other motors and engines used for pumping	
	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (feet)	Enterprises reporting	Number	Enterprises reporting	Total number	Pumping lift reported: Number of wells	Pumping lift reported: Average pumping lift (feet)	Enterprises reporting	Number	Enterprises reporting	Number	Enterprises reporting	Number
20 States, total	27,278	138,967	7,566	15,851	297	742,500	3,689	10,634	79,261	130,688	121,022	81	94,165	155,599	63,224	104,761	35,413	49,452
Arkansas	415	683	36	19	8	1,701	11	18	2,228	3,662	3,404	58	2,369	4,142	1,034	1,624	1,643	2,512
Louisiana	1,178	3,477	95	62	.....	.....	525	849	2,487	3,365	2,524	35	3,470	5,221	974	1,188	2,579	3,768
Florida	213	695	580	482	1	40	1,336	4,181	3,422	7,598	6,475	23	4,647	7,616	940	1,497	3,929	5,914
17 Western States, total	25,472	134,112	6,855	15,288	288	740,759	1,817	5,586	71,124	116,063	108,619	86	83,679	138,620	60,276	100,452	27,262	37,258
Arizona	607	4,800	128	316	4	9,915	74	214	1,823	4,361	3,871	134	1,891	4,489	1,224	3,103	870	1,372
California	2,709	21,183	3,216	10,088	63	166,901	243	572	42,637	72,147	67,899	88	44,958	80,387	42,296	73,682	4,601	6,254
Colorado	4,818	18,729	327	251	51	146,022	236	1,371	3,309	4,988	4,685	37	3,706	5,366	2,681	3,911	1,166	1,356
Idaho	2,526	15,159	325	487	13	38,229	172	458	629	888	800	50	1,496	2,151	1,305	1,920	225	253
Kansas	148	542	26	13	.....	.....	3	11	846	1,343	1,196	60	935	1,310	348	465	624	807
Montana	3,591	15,499	219	110	20	17,586	46	79	112	142	128	30	963	1,304	356	473	657	792
Nebraska	519	4,613	109	88	1	6,600	61	89	4,910	7,157	6,790	46	5,322	7,734	1,254	1,791	4,412	5,721
Nevada	721	3,388	75	123	12	23,277	85	290	173	254	225	51	200	289	97	127	99	153
New Mexico	1,269	5,763	92	168	12	42,328	65	106	2,318	3,846	3,538	70	2,399	3,942	1,354	2,216	1,163	1,726
North Dakota	9	193	6	7	1	200	.....	.....	2	4	4	23	23	35	7	14	18	19
Oklahoma	52	354	28	19	.....	.....	.....	.....	109	160	152	63	156	226	30	45	134	179
Oregon	1,880	8,406	602	572	23	77,496	75	138	1,990	2,770	2,508	35	5,327	6,893	3,435	4,348	2,189	2,476
South Dakota	99	964	17	8	1	1,300	10	14	24	27	26	27	67	87	11	14	58	74
Texas	1,682	10,092	465	1,168	5	1,239	107	152	9,977	15,070	14,206	125	11,248	17,815	2,034	3,238	9,769	14,620
Utah	1,837	9,621	203	300	42	59,305	533	1,925	414	560	510	50	605	816	429	594	181	203
Washington	958	4,984	920	1,514	20	103,487	54	69	1,710	2,098	1,839	50	3,938	5,125	3,225	4,223	827	926
Wyoming	2,116	9,822	100	56	20	46,874	53	98	146	248	242	52	456	651	197	288	273	327

Table 30.—20 SPECIFIED STATES: IRRIGATION ENTERPRISES AND AREA IRRIGATED DIRECT BY SEASON OF IRRIGATION AND BY EXTENT OF MEASUREMENT OF WATER TO FARMS, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage within the State. Acreage irrigated direct by 2 or more enterpris-s is counted for each]

State	All enterprises		Water delivered, by season of irrigation: Only before July 1		Before and after July 1		Only after July 1		Measurement of water to farm: No water measured		Part of water measured		All water measured	
	Number	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
20 States, total	123,926	27,921,353	6,198	914,413	102,911	25,798,499	9,707	705,258	6,666	5,012,798	716	2,903,624	2,095	6,174,852
Arkansas	2,382	419,600	6	522	2,205	400,610	61	4,178	17	7,838	23	8,726	7	1,123
Louisiana	3,905	603,487	137	8,689	3,473	579,521	154	5,637	308	256,520	.....	.....	.....	.....
Florida	5,699	367,323	2,339	95,768	3,054	253,111	208	5,154	13	23,654	.....	.....	4	2,144
17 Western States, total	111,940	26,530,943	3,716	809,434	94,179	24,565,257	9,284	690,289	6,328	4,724,786	693	2,894,898	2,084	6,171,585
Arizona	2,361	1,053,574	36	1,572	2,028	1,027,933	156	9,198	109	82,081	14	282,136	40	191,741
California	47,613	7,394,871	1,319	340,878	43,147	6,813,604	1,129	82,254	825	675,100	40	601,538	558	1,773,181
Colorado	9,158	3,331,381	316	45,539	7,817	3,212,190	407	30,136	1,282	644,303	205	369,078	640	1,262,189
Idaho	4,621	2,243,652	147	19,152	4,266	2,205,516	134	8,365	643	311,220	143	584,914	226	939,708
Kansas	962	154,734	19	1,685	604	127,202	264	19,560	7	6,544	1	7,835	2	23,500
Montana	5,393	1,874,901	440	64,300	4,582	1,780,501	219	11,978	838	511,292	114	191,543	192	409,259
Nebraska	5,583	913,792	34	5,108	999	605,953	4,190	292,501	47	123,101	6	40,086	11	265,041
Nevada	1,178	731,708	95	72,993	1,046	646,947	14	3,373	118	103,927	6	10,905	29	163,283
New Mexico	3,478	711,935	117	11,705	3,095	673,014	82	8,729	569	200,456	6	108,216	24	70,250
North Dakota	35	35,766	9	8,188	19	27,360	4	157	4	12,220	1	15,185	1	7,000
Oklahoma	166	44,209	9	197	107	40,098	43	1,923	.....	.....	.....	.....	1	32,256
Oregon	8,235	1,351,578	458	143,785	6,746	1,139,748	833	21,344	598	290,527	28	155,843	114	284,343
South Dakota	214	84,393	57	4,708	119	77,140	32	2,408	15	8,046	6	58,227	.....	.....
Texas	11,502	3,177,173	326	27,281	9,616	2,919,540	1,191	169,186	97	873,719	4	114,185	7	20,449
Utah	3,165	1,234,938	54	14,676	2,923	1,206,037	52	6,540	628	455,601	36	128,408	65	138,544
Washington	5,263	658,190	73	5,822	4,475	634,083	419	11,777	10	1,344	23	18,147	150	406,881
Wyoming	3,104	1,534,148	214	41,845	2,671	1,428,391	118	10,860	560	425,305	72	208,652	42	183,960

[1]Reported only by multiple-farm enterprises.

Table 31.—20 SPECIFIED STATES: ENTERPRISES REPORTING AND QUANTITIES OF IRRIGATION WATER OBTAINED FROM SPECIFIED SOURCES AND LOST IN CONVEYANCE, BY STATES: 1949

[Quantity of water was reported only for multiple-farm enterprises and not for all such enterprises. Interstate enterprises are counted in each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises data represent characteristics of the entire enterprise]

State	Water obtained from—									Water lost in conveyance	
	All sources			Surface sources		Pumped wells		Other enterprises			
	Enterprises reporting		Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet
	Number	Percent of all enterprises									
20 States, total	9,625	8	96,047,040	7,234	72,677,132	1,444	2,639,056	1,938	20,730,852	8,038	18,399,243
Arkansas	54	2	31,080	15	10,304	48	19,976	1	800	13	1,065
Louisiana	312	8	571,543	101	438,813	234	132,230	1	500	309	48,273
Florida	5	(1)	2,926	5	1,874	3	1,052	.....	.....	.....	.....
17 Western States, total	9,254	8	95,441,491	7,113	72,226,141	1,159	2,485,798	1,936	20,729,552	7,716	18,349,905
Arizona	150	6	3,754,337	109	1,777,046	57	1,104,882	10	872,409	144	1,051,214
California	1,301	3	24,361,853	308	18,528,632	974	1,168,621	172	4,664,600	431	4,889,211
Colorado	2,201	24	10,795,335	1,792	9,074,298	7	7,761	630	1,713,276	2,060	1,906,935
Idaho	957	21	22,226,161	709	14,411,794	38	126,704	348	7,687,663	893	3,687,358
Kansas	11	1	98,683	10	97,773	1	810	1	100	10	13,637
Montana	998	19	5,650,173	938	5,184,577	2	1,575	128	464,021	954	1,365,610
Nebraska	65	1	3,879,942	61	2,872,477	1	500	19	1,006,965	65	1,125,438
Nevada	157	13	1,578,171	105	1,190,540	1	26	79	387,605	136	261,314
New Mexico	599	17	2,177,754	573	2,032,115	6	21,072	26	124,567	596	612,425
North Dakota	5	14	288,727	5	288,727	.....	.....	.....	.....	4	120,975
Oklahoma	1	1	27,500	1	27,500	.....	.....	.....	.....	1	9,132
Oregon	616	7	5,227,894	590	3,768,532	9	2,858	46	1,456,504	413	1,243,956
South Dakota	20	10	183,231	20	182,611	.....	.....	1	620	13	75,559
Texas	112	1	4,522,891	75	4,249,663	23	30,053	23	243,175	106	846,298
Utah	1,034	33	5,408,782	892	4,326,325	26	12,396	285	1,070,061	933	890,687
Washington	398	8	5,277,580	333	3,314,919	17	24,864	64	1,937,797	354	656,828
Wyoming	683	22	8,478,688	640	7,288,296	2	1,834	118	1,188,558	656	1,654,100

[1]0.5 percent or less.

Table 32.—20 SPECIFIED STATES: ENTERPRISES REPORTING AND QUANTITIES OF IRRIGATION WATER DELIVERED DIRECT TO FARMS, TO OTHER ENTERPRISES, AND FOR USE OTHER THAN IRRIGATION, 1949; AND CALCULATED AVERAGE QUANTITY OF WATER DELIVERED TO FARMS PER ACRE OF IRRIGATED LAND, 1949 AND 1939: BY STATES

[Quantity of water was reported only for multiple-farm enterprises and not for all such enterprises. Interstate enterprises are counted in each State in which they had irrigation works, but only once in 20-State and 17-State totals]

State	Water delivered, 1949[1]							
	Direct to farms		To other enterprises		For use other than irrigation		Average quantity of water delivered to farms per acre of irrigated land[2] (acre-feet)	
	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	1949	1939
20 States, total	9,342	45,254,753	1,803	23,145,077	852	9,247,967	3.3	3.1
Arkansas	54	28,790	2	1,225	.....	.....	1.5	2.8
Louisiana	312	515,760	13	7,460	1	50	2.0	2.4
Florida	5	2,926	.....	.....	.....	.....	1.1	1.7
17 Western States, total	8,971	44,707,277	1,788	23,136,392	851	9,247,917	3.4	3.1
Arizona	147	2,079,862	27	458,865	11	164,396	4.0	3.7
California	1,277	8,962,033	246	5,663,456	189	4,847,153	3.1	2.8
Colorado	2,075	6,201,791	460	1,945,226	77	741,383	2.9	2.9
Idaho	933	10,046,095	209	8,209,304	76	283,404	5.3	5.7
Kansas	11	72,551	7	12,495	.....	.....	1.7	1.6
Montana	965	3,543,947	196	627,795	27	112,821	3.3	2.3
Nebraska	63	950,477	17	172,182	9	1,631,845	1.9	2.4
Nevada	152	931,394	25	345,466	16	39,997	3.0	3.3
New Mexico	593	1,230,618	26	266,517	44	68,194	2.9	3.0
North Dakota	5	165,952	1	1,800	.....	.....	2.4	1.8
Oklahoma	1	16,106	.....	.....	1	2,262	0.5	1.4
Oregon	608	3,113,333	138	817,108	84	53,497	3.4	3.6
South Dakota	20	106,202	3	1,470	.....	.....	1.6	1.1
Texas	107	2,577,914	48	357,990	22	740,689	2.3	2.5
Utah	1,008	3,084,332	151	1,214,120	235	219,643	3.1	3.2
Washington	392	2,479,273	100	2,012,537	46	128,942	5.2	5.6
Wyoming	668	2,405,796	158	3,972,444	19	446,348	2.6	2.2

[1]For interstate enterprises data represent characteristics of the entire enterprise.
[2]Calculated average quantity of water per acre for total irrigated land, all irrigation enterprises, primary and supplemental irrigation combined.

Table 33.—20 SPECIFIED STATES: IRRIGATION ENTERPRISES REPORTING AND TOTAL COST OF IRRIGATION WATER TO FARMS, AND OPERATION AND MAINTENANCE COST, 1949 AND 1939: AND COST OTHER THAN FOR OPERATION AND MAINTENANCE, 1949: BY STATES

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics within the State]

State	Number of enterprises reporting cost of water, 1949[1]	Total cost of water to farms (dollars): Total amount[3]		Cost per acre of irrigated land		Cost per acre-foot of water[4]		Operation and maintenance cost (dollars): Total amount[5]		Cost per acre of irrigated land		Cost other than for operation and maintenance, 1949[2]: Enterprises reporting		Amount (dollars)	
		1949	1939	1949	1939	1949	1939	1949	1939	1949	1939	Number	Acres irrigated direct[6]	Total	Average per acre irrigated
20 States, total	122,023	143,764,674	54,223,244	5.48	2.57	1.66	0.83	128,408,087	46,370,960	4.89	2.19	2,031	7,941,144	15,356,587	1.93
Arkansas	2,349	2,827,245	845,029	6.75	5.23	4.50	1.87	2,827,245	837,092	6.75	5.18	.....	.....	.....	.....
Louisiana	3,830	5,340,707	1,861,510	8.93	4.16	4.46	1.73	4,035,091	1,592,690	6.75	3.56	296	197,660	1,305,616	6.61
Florida	5,653	1,997,952	370,340	5.50	2.80	5.00	1.65	1,997,639	370,340	5.50	2.80	1	250	313	1.25
17 Western States, total	110,191	133,598,770	51,146,365	5.38	2.51	1.58	0.81	119,548,112	43,570,838	4.81	2.14	1,734	7,743,234	14,050,658	1.81
Arizona	2,325	14,470,293	3,663,984	14.78	5.61	3.70	1.52	13,517,980	3,152,182	13.81	4.83	29	402,131	952,313	2.37
California	47,200	65,002,185	25,667,039	9.85	5.06	3.18	1.81	59,844,824	22,849,903	9.07	4.51	281	1,912,277	5,157,361	2.70
Colorado	8,652	5,224,777	3,370,525	1.77	1.05	0.61	0.36	4,390,776	2,534,120	1.49	0.79	376	883,152	834,001	0.94
Idaho	4,572	6,127,513	2,788,337	2.83	1.22	0.53	0.21	4,719,877	2,459,488	2.18	1.08	196	925,655	1,407,636	1.52
Kansas	932	370,231	266,355	2.63	2.66	1.55	1.66	370,231	256,765	2.63	2.57	.....	.....	.....	.....
Montana	5,305	2,514,679	1,478,545	1.39	0.86	0.42	0.37	1,973,111	1,201,097	1.09	0.70	126	432,547	541,568	1.25
Nebraska	5,388	3,012,244	1,138,786	3.40	1.87	1.79	0.78	2,523,138	959,452	2.84	1.57	14	312,045	489,106	1.57
Nevada	1,169	629,599	550,346	0.87	0.74	0.29	0.22	471,689	332,564	0.65	0.45	76	228,691	157,910	0.69
New Mexico	3,430	3,687,962	1,366,106	5.33	2.47	1.84	0.82	3,289,798	1,092,910	4.76	1.97	54	214,301	398,164	1.86
North Dakota	34	112,235	26,794	3.14	1.24	1.31	0.69	69,943	30,072	1.96	1.39	2	15,716	42,292	2.69
Oklahoma	165	132,402	12,973	2.99	3.12	5.98	2.23	132,402	12,973	2.99	3.12	.....	.....	.....	.....
Oregon	8,172	3,308,245	1,351,031	2.47	1.29	0.73	0.36	2,944,004	1,228,067	2.20	1.17	101	263,960	364,241	1.38
South Dakota	212	145,929	146,849	1.73	2.44	1.08	2.22	109,429	71,986	1.30	1.20	1	50,767	36,500	0.72
Texas	11,330	20,792,425	5,038,184	6.60	4.82	2.87	1.93	18,718,795	3,897,890	5.94	3.73	53	862,227	2,073,630	2.40
Utah	3,110	2,266,375	1,321,171	1.94	1.12	0.63	0.35	1,774,583	966,795	1.52	0.82	298	608,889	491,792	0.81
Washington	5,213	4,105,744	2,006,848	6.64	3.26	1.28	0.58	3,418,309	1,685,306	5.53	2.74	70	327,837	687,435	2.10
Wyoming	3,061	1,695,932	952,492	1.15	0.64	0.44	0.29	1,279,223	839,268	0.87	0.56	74	303,039	416,709	1.38

[1] All enterprises that delivered water direct to farms, including those with reported cost $0.
[2] Reported for multiple-farm enterprises only.
[3] For 1939, cost of operation and maintenance for enterprises serving 1 to 4 farms plus total annual charges collected for other enterprises.
[4] Average cost per acre of irrigated land divided by calculated average quantity of water per acre (table 32).
[5] For 1949, total cost minus cost other than for operation and maintenance.
[6] Acreage irrigated direct by 2 or more enterprises is counted for each.

Table 34.—20 SPECIFIED STATES: NUMBER OF IRRIGATION ENTERPRISES AND ACREAGE IRRIGATED DIRECT, BY COST OF IRRIGATION WATER TO FARMS PER ACRE, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics within the State. Acreage irrigated direct by 2 or more enterprises is counted for each]

State	Number of enterprises reporting cost of water to farms	Enterprises reporting cost of water per acre of—					Percent of enterprises reporting cost of water per acre of—					Acres irrigated direct for enterprises reporting cost of water per acre—				
		Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over	Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over	Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over
20 States, total	122,023	28,314	7,989	23,626	26,462	35,632	23.2	6.5	19.4	21.7	29.2	7,554,199	3,385,802	7,457,786	5,457,518	4,066,048
Arkansas	2,349	156	65	508	1,104	516	6.6	2.8	21.6	47.0	22.0	27,231	12,286	111,499	200,678	67,906
Louisiana	3,830	528	256	993	1,070	983	13.8	6.7	25.9	27.9	25.7	29,761	37,588	134,789	129,948	271,401
Florida	5,653	1,346	206	699	940	2,462	23.8	3.6	12.4	16.6	43.6	119,734	40,986	92,981	58,116	55,506
17 Western States, total	110,191	26,284	7,462	21,426	23,348	31,671	23.9	6.8	19.4	21.2	28.7	7,377,473	3,294,942	7,118,517	5,068,776	3,671,235
Arizona	2,325	413	113	222	356	1,221	17.8	4.9	9.5	15.3	52.5	59,322	29,023	134,448	127,892	702,889
California	47,200	3,892	1,176	7,058	13,217	21,857	8.2	2.5	15.0	28.0	46.3	807,768	552,291	1,684,785	2,294,930	2,055,097
Colorado	8,652	4,506	1,030	1,741	785	590	52.1	11.9	20.1	9.1	6.8	1,810,021	535,622	847,448	115,924	22,366
Idaho	4,572	2,543	454	698	495	382	55.6	9.9	15.3	10.8	8.4	604,660	352,861	851,563	408,123	26,445
Kansas	932	151	205	305	155	116	16.2	22.0	32.7	16.6	12.4	40,479	68,258	33,363	9,469	3,165
Montana	5,305	3,735	474	585	298	213	70.4	8.9	11.0	5.6	4.0	1,039,806	303,749	470,103	51,771	9,472
Nebraska	5,388	712	1,069	2,482	827	298	13.2	19.8	46.1	15.3	5.5	95,840	134,043	555,778	115,424	12,707
Nevada	1,169	878	72	98	40	81	75.1	6.2	8.4	3.4	6.9	491,233	155,838	74,298	8,275	2,064
New Mexico	3,430	618	372	917	763	760	18.0	10.8	26.7	22.2	22.2	97,374	77,490	249,156	220,091	67,824
North Dakota	34	14	2	9	5	4	41.2	5.9	26.5	14.7	11.8	8,348	130	26,911	362	15
Oklahoma	165	18	13	49	41	44	10.9	7.9	29.7	24.8	26.7	3,006	673	36,844	2,925	761
Oregon	8,172	2,663	490	1,378	1,685	1,956	32.6	6.0	16.9	20.6	23.9	665,319	105,423	367,432	175,107	38,297
South Dakota	212	140	22	27	12	11	66.0	10.4	12.7	5.7	5.2	19,569	10,706	53,226	714	178
Texas	11,330	770	1,044	4,285	3,150	2,081	6.8	9.2	37.8	27.8	18.4	153,858	260,399	992,998	1,177,348	592,570
Utah	3,110	1,796	395	470	271	178	57.7	12.7	15.1	8.7	5.7	415,806	435,366	305,646	67,076	11,044
Washington	5,213	1,260	262	847	1,069	1,775	24.2	5.0	16.2	20.5	34.0	88,040	23,153	196,498	228,215	122,284
Wyoming	3,061	2,214	283	273	185	106	72.3	9.2	8.9	6.0	3.5	977,024	249,917	238,020	65,130	4,057

Table 35.—20 SPECIFIED STATES: COST OF IRRIGATION WATER TO FARMS FOR PRIMARY AND FOR SUPPLEMENTAL IRRIGATION, BY STATES: 1949

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics within the State]

State	Primary irrigation				Supplemental irrigation			
	Enterprises reporting	Acres supplied primary irrigation	Cost of water (dollars)		Enterprises reporting	Acres supplied supplemental irrigation[1]	Cost of water (dollars)	
			Total	Average per acre supplied			Total	Average per acre supplied
20 States, total	111,187	26,233,215	135,984,129	5.18	13,729	1,688,138	7,780,545	4.61
Arkansas	2,344	419,101	2,824,099	6.74	14	499	3,146	6.30
Louisiana	3,811	597,966	5,284,483	8.84	58	5,521	56,224	10.18
Florida	5,645	362,938	1,981,425	5.46	16	4,385	16,527	3.77
17 Western States, total	99,387	24,853,210	125,894,122	5.07	13,641	1,677,733	7,704,648	4.59
Arizona	2,139	979,114	13,657,779	13.95	244	74,460	812,514	10.91
California	39,826	6,598,839	59,776,671	9.06	8,240	796,032	5,225,514	6.56
Colorado	6,926	2,943,895	4,566,249	1.55	2,417	387,486	658,528	1.70
Idaho	4,338	2,167,879	5,960,033	2.75	451	75,773	167,480	2.21
Kansas	891	140,992	355,832	2.52	49	13,742	14,399	1.05
Montana	5,146	1,808,576	2,450,143	1.35	405	66,325	64,536	0.97
Nebraska	5,167	887,239	2,943,605	3.32	257	26,553	68,639	2.58
Nevada	1,164	722,896	616,250	0.85	23	8,812	13,349	1.51
New Mexico	3,299	691,476	3,603,459	5.21	178	20,459	84,503	4.13
North Dakota	34	35,759	112,235	3.14	1	7	0	0.00
Oklahoma	165	44,209	132,402	2.99	.....	.....	.....	.....
Oregon	8,042	1,337,517	3,275,401	2.45	239	14,061	32,844	2.34
South Dakota	212	84,356	145,871	1.73	1	37	58	1.57
Texas	11,238	3,150,527	20,631,163	6.55	146	26,646	161,262	6.05
Utah	2,972	1,166,972	2,124,211	1.82	398	67,966	142,164	2.09
Washington	5,021	618,129	3,893,883	6.30	331	40,061	211,861	5.29
Wyoming	2,886	1,474,835	1,648,935	1.12	267	59,313	46,997	0.79

[1]Acreage supplied supplemental irrigation by 2 or more enterprises is counted for each.

Table 36.—20 SPECIFIED STATES: IRRIGATION ENTERPRISES REPORTING QUANTITY OF WATER SUPPLIED FOR PRIMARY IRRIGATION—NUMBER OF ENTERPRISES, ACRES SUPPLIED, QUANTITY OF WATER, AND COST OF WATER TO FARMS FOR PRIMARY IRRIGATION, BY STATES: 1949 AND 1939

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics within the State]

State	Enterprises reporting quantity of water for primary irrigation				Quantity of water reported for primary irrigation (acre-feet)				Cost of water reported for primary irrigation (dollars)		
	Number		Acres supplied primary irrigation		Total		Average per acre supplied		Total, 1949	Average per acre-foot	
	1949	1939	1949	1939	1949	1939	1949	1939		1949	1939
20 States, total	9,102	[1]75,527	13,772,853	19,488,439	43,374,633	53,177,294	3.1	2.7	61,910,362	1.43	0.95
Arkansas	54	1,259	19,351	158,767	28,699	441,289	1.5	2.8	122,737	4.28	1.95
Louisiana	312	2,419	254,094	367,081	509,034	884,020	2.0	2.4	3,339,801	6.56	1.77
Florida	5	2,878	2,658	111,375	2,926	194,519	1.1	1.7	41,400	14.15	1.88
17 Western States, total	8,731	[1]68,971	13,496,750	18,851,216	42,833,974	51,657,466	3.2	2.7	58,406,424	1.36	0.93
Arizona	146	1,303	536,836	622,469	1,969,948	2,056,290	3.7	3.3	6,298,704	3.20	1.76
California	1,252	[1]29,322	2,720,156	4,840,760	7,992,560	12,657,820	2.9	2.6	20,009,191	2.50	1.94
Colorado	1,988	6,315	2,170,718	3,039,354	5,745,754	7,258,191	2.6	2.4	3,570,199	0.62	0.39
Idaho	918	2,892	1,781,557	2,034,989	9,144,629	8,356,961	5.1	4.1	5,366,627	0.59	0.28
Kansas	11	902	43,141	93,008	68,820	134,041	1.6	1.4	58,740	0.85	1.67
Montana	927	4,945	1,036,244	1,524,390	3,222,986	3,214,146	3.1	2.1	1,929,164	0.60	0.40
Nebraska	63	2,222	492,153	573,110	898,262	1,105,696	1.8	1.9	1,676,836	1.87	0.90
Nevada	150	1,116	278,958	627,502	835,180	1,871,256	3.0	3.0	458,554	0.55	0.25
New Mexico	570	1,960	346,687	474,184	965,011	1,438,686	2.8	3.0	1,545,622	1.60	0.92
North Dakota	5	74	34,375	21,302	83,877	39,309	2.4	1.8	108,876	1.30	0.69
Oklahoma	1	105	32,256	3,974	16,106	5,671	0.5	1.4	81,734	5.07	2.34
Oregon	604	5,354	652,319	925,920	2,234,891	3,020,606	3.4	3.3	2,162,587	0.97	0.41
South Dakota	20	170	66,273	52,345	105,230	58,797	1.6	1.1	128,234	1.22	2.42
Texas	106	3,610	1,020,709	1,017,411	2,306,678	2,404,098	2.3	2.4	8,899,158	3.86	2.05
Utah	992	1,874	1,003,015	1,049,365	2,875,853	2,654,225	2.9	2.5	1,804,301	0.63	0.41
Washington	384	3,851	473,094	590,627	2,331,272	2,548,581	4.9	4.3	2,971,585	1.27	0.78
Wyoming	637	3,006	808,259	1,360,506	2,036,917	2,833,092	2.5	2.1	1,336,312	0.66	0.32

[1]Revised.

Table 37.—20 SPECIFIED STATES: IRRIGATION ENTERPRISES REPORTING QUANTITY OF WATER SUPPLIED FOR SUPPLEMENTAL IRRIGATION—NUMBER OF ENTERPRISES, ACRES SUPPLIED, QUANTITY OF WATER, AND COST OF WATER TO FARMS FOR SUPPLEMENTAL IRRIGATION, BY STATES: 1949 AND 1939

[Interstate enterprises are counted for each State in which they had irrigation works, but only once in 20-State and 17-State totals. For interstate enterprises, data represent characteristics within the State]

State	Enterprises reporting quantity of water for supplemental irrigation				Quantity of water reported for supplemental irrigation (acre-feet)				Cost of water reported for supplemental irrigation (dollars)		
	Number		Acres supplied supplemental irrigation[1]		Total		Average per acre supplied		Total, 1949	Average per acre-foot	
	1949	1939	1949	1939	1949	1939	1949	1939		1949	1939
20 States, total	1,936	10,092	747,264	2,986,061	1,880,120	4,206,532	2.5	1.4	2,637,623	1.40	0.80
Arkansas	1	2	90	231	91	556	1.0	2.4	450	4.95	2.16
Louisiana	15	15	3,214	2,579	6,726	2,116	2.1	0.8	46,096	6.85	2.29
Florida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17 Western States, total	1,920	10,075	743,960	2,983,251	1,873,303	4,203,860	2.5	1.4	2,591,077	1.38	0.80
Arizona	19	118	15,955	71,901	65,858	80.044	4.1	1.1	262,746	3.99	2.59
California	371	7,507	281,321	414,972	428,412	761,982	1.5	1.8	1,528,250	3.57	2.18
Colorado	576	1,522	179,962	588,300	424,755	500,267	2.4	0.9	196,003	0.46	1.11
Idaho	183	147	60,459	896,000	321,998	1,042,271	5.3	1.2	126,953	0.39	0.18
Kansas	4	70	2,792	13,268	3,731	26,464	1.3	2.0	4,850	1.30	1.08
Montana	203	45	43,185	123,469	178,534	155,543	4.1	1.3	41,939	0.23	0.56
Nebraska	24	208	10,254	171,519	22,066	89,845	2.2	0.5	27,099	1.23	1.39
Nevada	17	9	7,341	84,622	17,893	291,980	2.4	3.5	10,518	0.59	0.30
New Mexico	49	51	12,816	5,097	23,453	7,732	1.8	1.5	34,077	1.45	1.32
North Dakota	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oklahoma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon	54	73	3,844	80,969	13,570	176,182	3.5	2.2	5,995	0.44	0.43
South Dakota	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Texas	9	17	5,766	22,807	11,036	32,212	1.9	1.4	35,302	3.20	0.98
Utah	217	135	60,475	258,047	154,904	278,665	2.6	1.1	120,106	0.78	0.46
Washington	99	131	31,021	184,534	132,251	704,152	4.3	3.8	163,180	1.23	0.20
Wyoming	101	55	28,769	67,746	74,842	56,521	2.6	0.8	34,059	0.46	0.58

[1]Acreage supplied supplemental irrigation by 2 or more enterprises is counted for each.

Table 38.—20 SPECIFIED STATES: ACREAGE IRRIGATED DIRECT, BY DRAINAGE

	Item and drainage basin	20 States, total	Arkansas	Louisiana	Florida	17 Western States, total	Arizona	California	Colorado
1	Irrigated land, 1949 ... acres..	26,233,215	419,101	597,966	362,938	24,853,210	979,114	6,598,839	2,943,895
	Area irrigated direct, by drainage basin origin of water, 1949:[1]								
2	All basins, total ... acres..	29,056,927	419,600	603,837	367,323	27,666,167	1,272,502	7,596,004	3,514,030
3	North Pacific Coast, total ... acres..	4,193,900	...	...	...	4,193,900	...	1,906	...
4	North Pacific Coast excluding Columbia River (I-A) ... acres..	121,541	...	...	...	121,541	...	1,906	...
5	Columbia River, total ... acres..	4,072,359	...	...	...	4,072,359	...	...	...
6	Below Snake River (I-B) ... acres..	402,025	...	...	...	402,025	...	...	...
7	Above Snake River excluding Yakima River (I-C) ... acres..	490,421	...	...	...	490,421	...	...	...
8	Yakima River (I-D) ... acres..	457,438	...	...	...	457,438	...	...	...
9	Snake River, total ... acres..	2,722,475	...	...	...	2,722,475	...	...	...
10	Below Weiser, Idaho (I-E) ... acres..	352,680	...	...	...	352,680	...	...	...
11	Weiser, Idaho, to King Hill, Idaho (I-F) ... acres..	885,199	...	...	...	885,199	...	...	...
12	King Hill, Idaho, to American Falls, Idaho (I-G) ... acres..	707,492	...	...	...	707,492	...	...	...
13	Above American Falls, Idaho (I-H) ... acres..	777,104	...	...	...	777,104	...	...	...
14	South Pacific Coast, total ... acres..	7,111,983	...	...	...	7,111,983	...	6,840,325	...
15	Klamath River (II-A) ... acres..	392,580	...	...	...	392,580	...	146,307	...
16	Klamath River to Santa Maria River excluding Central Valley (II-B) ... acres..	392,512	...	...	...	392,512	...	392,512	...
17	Central Valley, total ... acres..	5,619,985	...	...	...	5,619,985	...	5,594,600	...
18	Sacramento-San Joaquin Delta area (II-C) ... acres..	529,370	...	...	...	529,370	...	529,370	...
19	Sacramento River (II-D) ... acres..	1,012,932	...	...	...	1,012,932	...	987,547	...
20	San Joaquin River (II-E) ... acres..	1,464,265	...	...	...	1,464,265	...	1,464,265	...
21	San Joaquin Valley above San Joaquin River (II-F) ... acres..	2,613,418	...	...	...	2,613,418	...	2,613,418	...
22	Santa Maria River and basins south (II-G) ... acres..	706,906	...	...	...	706,906	...	706,906	...
23	Great Basin, total ... acres..	2,438,869	...	...	...	2,438,869	...	219,051	...
24	Northwest Great Basin (III-A) ... acres..	308,213	...	...	...	308,213	...	38,164	...
25	Humboldt River (III-B) ... acres..	248,886	...	...	...	248,886	...	...	...
26	South Central Great Basin (III-C) ... acres..	626,217	...	...	...	626,217	...	180,887	...
27	Bonneville Basin excluding Bear River (III-D) ... acres..	849,716	...	...	...	849,716	...	...	...
28	Bear River (III-E) ... acres..	405,837	...	...	...	405,837	...	...	...
29	Gulf of California, total ... acres..	3,513,311	...	...	...	3,513,311	1,272,502	534,722	944,167
30	Excluding Colorado River (IV-A) ... acres..	11,005	...	...	...	11,005	11,005	...	...
31	Colorado River, total ... acres..	3,502,306	...	...	...	3,502,306	1,261,497	534,722	944,167
32	Colorado River below Lees Ferry, Arizona, total ... acres..	1,865,630	...	...	...	1,865,630	1,255,111	534,722	...
33	Excluding Gila River (IV-B) ... acres..	698,596	...	...	...	698,596	106,239	534,722	...
34	Gila River (IV-C) ... acres..	1,167,034	...	...	...	1,167,034	1,148,872	...	...
35	Colorado River above Lees Ferry, Arizona, total ... acres..	1,636,676	...	...	...	1,636,676	6,386	...	944,167
36	Excluding Green and Gunnison Rivers (IV-D) ... acres..	649,333	...	...	...	649,333	6,386	...	555,591
37	Green River (IV-E) ... acres..	693,004	...	...	...	693,004	...	...	94,237
38	Gunnison River (IV-F) ... acres..	294,339	...	...	...	294,339	...	...	294,339
39	Gulf of Mexico excluding Mississippi River, total ... acres..	4,802,539	...	595,867	122,170	4,084,502	...	...	703,003
40	Excluding Rio Grande (V-A) ... acres..	2,302,601	...	227,023	122,170	1,953,408	...	...	...
41	Rio Grande, total ... acres..	2,499,938	...	368,844	...	2,131,094	...	...	703,003
42	Rio Grande below Fort Quitman, Texas (V-B) ... acres..	1,011,954	...	...	...	1,011,954	...	...	...
43	Rio Grande above Fort Quitman, Texas (V-C) ... acres..	1,119,140	...	...	...	1,119,140	...	...	703,003
44	Mermentau River (V-D) ... acres..	368,844	...	368,844	...	...	...	...	...
45	Mississippi River, total ... acres..	6,743,229	419,600	7,970	...	6,315,659	...	...	1,866,860
46	Excluding Arkansas and Missouri Rivers (VI-A) ... acres..	793,182	312,177	7,970	...	473,035	...	...	...
47	Arkansas River (VI-B) ... acres..	844,265	107,423	...	...	736,842	...	...	499,715
48	Missouri River, total ... acres..	5,105,782	...	...	...	5,105,782	...	...	1,367,145
49	Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C) ... acres..	798,155	...	...	...	798,155	...	...	6,552
50	Platte River, total ... acres..	2,738,174	...	...	...	2,738,174	...	...	1,360,593
51	Excluding South Platte River (VI-D) ... acres..	1,495,279	...	...	...	1,495,279	...	...	179,688
52	South Platte River (VI-E) ... acres..	1,242,895	...	...	...	1,242,895	...	...	1,180,905
53	Yellowstone River, total ... acres..	1,059,698	...	...	...	1,059,698	...	...	...
54	Excluding Big Horn River (VI-F) ... acres..	568,825	...	...	...	568,825	...	...	...
55	Big Horn River (VI-G) ... acres..	490,873	...	...	...	490,873	...	...	...
56	Missouri River headwaters above Three Forks, Montana (VI-H) ... acres..	509,755	...	...	...	509,755	...	...	...
57	Hudson Bay (Red River of the North) (VII) ... acres..	7,943	...	...	...	7,943	...	...	...
58	Atlantic Coast (VIII) ... acres..	245,153	...	...	245,153	...	...	...	...

[1]Acreage irrigated direct by 2 or more irrigation enterprises is counted for each enterprise; acreage supplied a mixture of water from 2 or more basins by a given enterprise is counted for each basin; consequently, the sum of the acreages for a State or a drainage basin may exceed the total acreage irrigated direct shown in tables 15 and 39.

BASIN ORIGIN OF WATER AND BY STATE IN WHICH ACREAGE WAS LOCATED: 1949

Idaho	Kansas	Montana	Nebraska	Nevada	New Mexico	North Dakota	Oklahoma	Oregon	South Dakota	Texas	Utah	Washington	Wyoming	
2,167,879	140,992	1,808,576	887,239	722,896	691,476	35,759	44,209	1,337,517	84,356	3,150,527	1,166,972	618,129	1,474,835	1
2,327,539	154,734	1,928,984	913,792	813,759	763,847	35,766	44,209	1,374,708	84,393	3,197,806	1,433,801	659,140	1,551,153	2
2,174,030	.....	368,570	.....	40,904	.....	.....	.....	866,457	.....	.....	6,320	659,140	76,573	3
.....	.....	.....	.....	.....	.....	.....	.....	86,729	.....	.....	.....	32,906	.....	4
2,174,030	.....	368,570	.....	40,904	.....	.....	.....	779,728	.....	.....	6,320	626,234	76,573	5
.....	.....	.....	.....	.....	.....	.....	.....	357,228	.....	.....	.....	44,797	.....	6
5,047	.....	368,570	.....	.....	.....	.....	.....	.....	.....	.....	.....	116,804	.....	7
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	457,438	.....	8
2,168,983	.....	.....	.....	40,904	.....	.....	.....	422,500	.....	.....	6,320	7,195	76,573	9
132,042	.....	.....	.....	.....	.....	.....	.....	213,443	.....	.....	.....	7,195	.....	10
642,349	.....	.....	.....	33,793	.....	.....	.....	209,057	.....	.....	.....	.....	.....	11
694,061	.....	.....	.....	7,111	.....	.....	.....	.....	.....	.....	6,320	.....	.....	12
700,531	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76,573	13
.....	.....	.....	.....	.....	.....	.....	.....	271,658	.....	.....	.....	.....	.....	14
.....	.....	.....	.....	.....	.....	.....	.....	246,273	.....	.....	.....	.....	.....	15
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
.....	.....	.....	.....	.....	.....	.....	.....	25,385	.....	.....	.....	.....	.....	17
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18
.....	.....	.....	.....	.....	.....	.....	.....	25,385	.....	.....	.....	.....	.....	19
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
153,509	.....	.....	.....	739,748	.....	.....	.....	236,593	.....	.....	1,028,819	.....	61,149	23
.....	.....	.....	.....	33,456	.....	.....	.....	236,593	.....	.....	.....	.....	.....	24
.....	.....	.....	.....	248,886	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
.....	.....	.....	.....	445,330	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
2,466	.....	.....	.....	12,076	.....	.....	.....	.....	.....	.....	835,174	.....	.....	27
151,043	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	193,645	.....	61,149	28
.....	.....	.....	.....	33,107	60,564	.....	.....	.....	.....	.....	398,662	.....	269,587	29
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30
.....	.....	.....	.....	33,107	60,564	.....	.....	.....	.....	.....	398,662	.....	269,587	31
.....	.....	.....	.....	33,107	21,489	.....	.....	.....	.....	.....	21,201	.....	.....	32
.....	.....	.....	.....	33,107	3,327	.....	.....	.....	.....	.....	21,201	.....	.....	33
.....	.....	.....	.....	.....	18,162	.....	.....	.....	.....	.....	.....	.....	.....	34
.....	.....	.....	.....	.....	39,075	.....	.....	.....	.....	.....	377,461	.....	269,587	35
.....	.....	.....	.....	.....	39,075	.....	.....	.....	.....	.....	48,281	.....	.....	36
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	329,180	.....	269,587	37
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38
.....	.....	.....	.....	.....	631,407	.....	.....	.....	.....	2,750,092	.....	.....	.....	39
.....	.....	.....	.....	.....	98,865	.....	.....	.....	.....	1,854,543	.....	.....	.....	40
.....	.....	.....	.....	.....	532,542	.....	.....	.....	.....	895,549	.....	.....	.....	41
.....	.....	.....	.....	.....	203,237	.....	.....	.....	.....	808,717	.....	.....	.....	42
.....	.....	.....	.....	.....	329,305	.....	.....	.....	.....	86,832	.....	.....	.....	43
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	44
.....	154,734	1,560,414	913,792	.....	71,876	27,823	44,209	.....	84,393	447,714	.....	.....	1,143,844	45
.....	.....	.....	.....	.....	.....	.....	36,996	.....	.....	436,039	.....	.....	.....	46
.....	146,363	.....	.....	.....	71,876	.....	7,213	.....	.....	11,675	.....	.....	.....	47
.....	8,371	1,560,414	913,792	.....	.....	27,823	.....	.....	84,393	.....	.....	.....	1,143,844	48
.....	8,371	548,736	126,070	.....	.....	11,864	.....	.....	84,393	.....	.....	.....	12,169	49
.....	.....	.....	787,722	.....	.....	.....	.....	.....	.....	.....	.....	.....	589,859	50
.....	.....	.....	744,184	.....	.....	.....	.....	.....	.....	.....	.....	.....	571,407	51
.....	.....	.....	43,538	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,452	52
.....	.....	501,923	.....	.....	.....	15,959	.....	.....	.....	.....	.....	.....	541,816	53
.....	.....	435,107	.....	.....	.....	15,959	.....	.....	.....	.....	.....	.....	117,759	54
.....	.....	66,816	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	424,057	55
.....	.....	509,755	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	56
.....	.....	.....	.....	.....	.....	7,943	.....	.....	.....	.....	.....	.....	.....	57
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58

235115 O - 53 - 6

Table 39.—17 WESTERN STATES: IRRIGATION ENTERPRISES—NUMBER AND SPECIFIED CHARACTERISTICS BY DRAINAGE BASINS: CENSUSES OF 1950 AND 1940

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total]

Drainage basins	Irrigation enterprises: Number 1950	Irrigation enterprises: Number 1940	Irrigation enterprises: Percent increase or decrease (-) 1940-1950	Irrigation enterprises: Percent distribution 1950	Irrigation enterprises: Percent distribution 1940	Interbasin enterprises, 1950 (number)	Complete-system enterprises, 1950: Number	Complete-system enterprises, 1950: Acres irrigated direct[2]	Average number of farms irrigated direct, 1949[2]	Irrigated land in farms[1]: Acres 1949	Irrigated land in farms[1]: Acres 1939	Irrigated land in farms[1]: Average acres per enterprise, 1949	Irrigated land in farms[1]: Percent distribution, 1949	Acres irrigated direct, 1949[2]: Acres	Acres irrigated direct, 1949[2]: Average acres per enterprise
17 Western States, total	111,940	87,773	27.5	100.0	100.0	153	101,815	17,917,381	3.2	24,853,210	20,395,043	222	100.0	26,530,943	237
DRAINAGE BASINS															
North Pacific Coast, total	19,065	14,915	27.8	17.0	17.0	40	16,171	2,003,929	4.1	3,974,363	3,914,119	208	16.0	4,108,821	216
North Pacific Coast excluding Columbia River (I-A)	2,879	1,761	63.5	2.6	2.0	3	2,700	108,948	2.1	119,319	94,381	41	0.5	121,529	42
Columbia River, total	16,186	13,154	23.1	14.5	15.0	37	13,471	1,894,981	4.4	3,855,044	3,819,738	238	15.5	3,987,292	246
Below Snake River (I-B)	5,431	3,399	59.8	4.9	3.9	6	4,853	335,204	1.9	398,005	298,739	73	1.6	405,853	75
Above Snake River excluding Yakima River (I-C)	3,845	3,689	4.2	3.4	4.2	3	3,305	412,798	3.3	469,856	478,839	122	1.9	495,135	129
Yakima River (I-D)	983	752	30.7	0.9	0.9	3	627	79,149	11.5	422,622	416,805	430	1.7	447,623	455
Snake River, total	5,932	5,314	11.6	5.3	6.1	30	4,686	1,067,830	6.3	2,564,561	2,625,355	432	10.3	2,638,681	445
Below Weiser, Idaho (I-E)	1,827	(*)	(*)	1.6	(*)	10	1,626	284,455	2.5	354,169	333,946	194	1.4	359,773	197
Weiser, Idaho, to King Hill, Idaho (I-F)	1,974	(*)	(*)	1.8	(*)	12	1,520	300,862	7.1	797,343	776,915	404	3.2	814,187	412
King Hill, Idaho, to American Falls, Idaho (I-G)	802	(*)	(*)	0.7	(*)	11	592	152,658	10.5	691,829	725,158	863	2.8	702,350	876
Above American Falls, Idaho (I-H)	1,343	(*)	(*)	1.2	(*)	9	948	329,855	7.5	721,220	789,336	537	2.9	762,371	568
South Pacific Coast, total	46,074	38,632	19.3	41.2	44.0	64	44,116	5,397,312	2.4	6,100,040	4,602,833	132	24.5	6,894,267	150
Klamath River (II-A)	758	929	-18.4	0.7	1.1	8	606	162,016	3.4	364,468	271,038	481	1.5	369,785	488
Klamath River to Santa Maria River excluding Central Valley (II-B)	6,158	5,721	7.6	5.5	6.5	20	5,964	384,495	1.4	386,613	303,602	63	1.6	393,860	64
Central Valley, total	31,946	25,406	25.7	28.5	28.9	52	30,750	4,268,519	2.0	4,694,280	3,393,882	147	18.9	5,432,174	170
Sacramento-San Joaquin Delta area (II-C)	4,712	(*)	(*)	4.2	(*)	19	4,564	503,050	1.4	547,330	412,858	116	2.2	554,323	118
Sacramento River (II-D)	6,480	(*)	(*)	5.8	(*)	11	6,119	756,082	2.2	984,738	759,647	152	4.0	1,008,041	156
San Joaquin River (II-E)	4,146	(*)	(*)	3.7	(*)	18	3,864	1,063,598	4.0	1,198,468	886,240	289	4.8	1,370,359	331
San Joaquin Valley above San Joaquin River (II-F)	16,631	(*)	(*)	14.9	(*)	25	16,203	1,945,789	1.7	1,963,744	1,335,137	118	7.9	2,499,451	150
Santa Maria River and basins south (II-G)	7,237	6,576	10.1	6.5	7.5	15	6,796	582,282	4.9	654,679	634,311	90	2.6	698,448	97
Great Basin, total	5,534	4,831	14.6	4.9	5.5	45	4,770	1,485,262	5.8	2,142,927	2,073,727	387	8.6	2,238,030	404
Northwest Great Basin (III-A)	473	595	-20.5	0.4	0.7	12	436	263,043	1.4	307,329	235,918	650	1.2	308,213	652
Humboldt River (III-B)	300	366	-18.0	0.3	0.4	7	282	217,411	1.6	248,840	286,099	829	1.0	248,886	830
South Central Great Basin (III-C)	1,677	1,584	5.9	1.5	1.8	11	1,539	388,343	2.2	526,917	486,472	314	2.1	538,099	321
Bonneville Basin excluding Bear River (III-D)	2,297	1,667	37.8	2.1	1.9	6	1,900	375,722	9.0	684,068	679,633	298	2.8	739,656	322
Bear River (III-E)	796	619	28.6	0.7	0.7	16	613	240,743	8.7	375,773	403,605	472	1.5	403,176	507
Gulf of California, total	7,182	7,633	-5.9	6.4	8.7	23	6,324	1,751,301	5.0	2,973,557	2,646,618	414	12.0	3,124,040	435
Excluding Colorado River (IV-A)	194	283	-31.4	0.2	0.3	1	189	11,005	1.8	10,966	8,498	57	(3)	11,005	57
Colorado River, total	6,989	7,350	-4.9	6.2	8.4	23	6,135	1,740,296	5.1	2,962,591	2,638,120	424	11.9	3,113,035	445
Colorado River below Lees Ferry, Arizona, total	3,179	2,695	18.0	2.8	3.1	7	3,025	787,481	4.7	1,567,138	1,173,849	493	6.3	1,645,138	518
Excluding Gila River (IV-B)	1,131	1,108	2.1	1.0	1.3	6	1,072	179,522	6.2	692,085	600,029	612	2.8	697,032	616
Gila River (IV-C)	2,048	1,587	29.0	1.8	1.8	3	1,953	607,959	3.9	875,053	573,820	427	3.5	948,106	463
Colorado River above Lees Ferry, Arizona, total	3,812	4,655	-18.1	3.4	5.3	17	3,110	952,815	5.4	1,395,453	1,464,271	366	5.6	1,467,897	385
Excluding Green and Gunnison Rivers (IV-D)	1,699	2,133	-20.3	1.5	2.4	7	1,372	344,404	6.6	539,174	531,182	317	2.2	571,027	336
Green River (IV-E)	1,185	1,606	-26.2	1.1	1.8	6	1,055	388,788	4.3	586,882	636,977	495	2.4	606,761	512
Gunnison River (IV-F)	931	916	1.6	0.8	1.0	6	683	219,623	4.6	269,397	296,112	289	1.1	290,109	312
Gulf of Mexico excluding Mississippi River, total	13,602	6,314	115.4	12.2	7.2	19	12,569	3,089,976	2.9	3,858,135	1,987,475	284	15.5	4,006,500	295
Excluding Rio Grande (V-A)	9,117	2,921	212.1	8.1	3.3	15	8,898	1,845,654	1.2	1,926,960	465,897	211	7.8	1,933,213	212
Rio Grande, total	4,486	3,393	32.2	4.0	3.9	7	3,671	1,244,322	6.3	1,931,175	1,521,578	430	7.8	2,073,287	462
Rio Grande below Fort Quitman, Texas (V-B)	2,295	(*)	(*)	2.1	(*)	4	2,018	740,368	5.4	984,366	544,977	429	4.0	1,011,516	441
Rio Grande above Fort Quitman, Texas (V-C)	2,191	(*)	(*)	2.0	(*)	4	1,653	503,954	7.3	946,809	976,601	432	3.8	1,061,771	485
Mississippi River, total	20,537	15,606	31.6	18.3	17.8	7	17,970	4,181,658	2.8	5,796,252	5,165,778	282	23.3	6,151,342	300
Excluding Arkansas and Missouri Rivers (VI-A)	2,071	790	62.2	1.9	0.9	13	2,044	473,035	1.3	472,565	128,648	228	1.9	473,035	228
Arkansas River (VI-B)	2,771	2,690	3.0	2.5	3.1	5	2,438	433,490	3.2	683,109	634,018	247	2.7	733,034	265
Missouri River, total	15,695	12,126	29.4	14.0	13.8	14	13,488	3,275,133	3.0	4,640,578	4,403,112	296	18.7	4,945,273	315
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	3,116	2,658	17.2	2.8	3.0	4	2,860	612,979	2.1	755,130	626,940	242	3.0	766,861	246
Platte River, total	9,208	6,075	51.6	8.2	6.9	9	7,948	1,525,099	2.9	2,401,591	2,360,615	261	9.7	2,641,421	287
Excluding South Platte River (VI-D)	5,419	3,235	67.5	4.8	3.7	5	4,877	998,182	2.3	1,417,707	1,199,861	262	5.7	1,469,742	271
South Platte River (VI-E)	3,789	2,840	33.4	3.4	3.2	5	3,071	526,917	3.8	983,884	1,160,754	260	4.0	1,171,679	309
Yellowstone River, total	2,285	2,255	1.3	2.0	2.6	4	1,789	742,582	4.7	1,011,822	984,530	443	4.1	1,039,486	455
Excluding Big Horn River (VI-F)	1,576	1,518	3.8	1.4	1.7	4	1,233	424,810	3.8	552,550	535,632	351	2.2	566,252	359
Big Horn River (VI-G)	709	737	-3.8	0.6	0.8	1	556	317,772	6.5	459,272	448,898	648	1.8	473,234	667
Missouri River headwaters above Three Forks, Montana (VI-H)	1,094	1,138	-3.9	1.0	1.3	2	891	394,473	2.2	472,035	431,027	431	1.9	497,505	455
Hudson Bay (Red River of the North) (VII)	11	13	-15.4	(3)	(3)	.....	11	7,943	3.6	7,936	4,493	721	(3)	7,943	722

*Not available.
[1]Acreage irrigated by 2 or more enterprises is counted only once. Acreage for 1939 is estimated acreage within revised drainage basin boundaries.
[2]Farms or acres irrigated by 2 or more enterprises are counted for each enterprise.
[3]0.05 percent or less.

Table 40.—17 WESTERN STATES: IRRIGATION ENTERPRISES—NUMBER AND ACREAGE IRRIGATED DIRECT BY TYPE OF ENTERPRISE, BY DRAINAGE BASINS: CENSUS OF 1950

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17- State total. For interbasin enterprises, acreage irrigated represents acreage within the basin. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	Single-farm		Mutual				Commercial		District		U.S. Bureau of Reclamation[1]		U.S. Bureau of Indian Affairs[1]		State		City	
			Unincorporated		Incorporated													
	Number	Acres irrigated	Number	Acres irrigated	Number	Acres irrigated	Number	Acres irrigated	Number	Acres irrigated	Number	Acres irrigated	Number	Acres irrigated	Number	Acres irrigated	Number	Acres irrigated
17 Western States, total	101,770	11,817,055	6,417	2,113,642	2,880	5,635,630	131	705,087	483	4,962,413	37	682,413	141	506,076	31	51,782	50	56,845
DRAINAGE BASINS																		
North Pacific Coast, total	16,570	991,932	1,770	483,391	499	1,130,354	7	2,303	182	1,066,434	11	173,157	10	242,101	7	17,207	9	1,942
North Pacific Coast excluding Columbia River (I-A)	2,732	60,843	109	14,691	22	7,936	....	.....	12	37,707	....	.....	....	.....	....	.....	4	352
Columbia River, total	13,838	931,089	1,661	468,700	477	1,122,418	7	2,303	170	1,028,727	11	173,157	10	242,101	7	17,207	5	1,590
Below Snake River (I-B)	5,120	190,607	225	34,950	52	38,257	....	.....	30	105,070	2	36,433	1	154	....	.....	1	(2)
Above Snake River excluding Yakima River (I-C)	3,268	188,816	443	84,211	52	27,468	4	340	65	83,781	2	2,462	2	90,374	7	17,207	2	(2)
Yakima River (I-D)	826	39,037	97	18,338	37	38,589	....	.....	19	200,898	2	35,478	1	1,114,476	....	.....	1	(2)
Snake River, total	4,627	512,549	896	331,201	337	1,018,104	3	1,963	57	638,978	5	98,784	6	37,095	....	.....	1	(2)
Below Weiser, Idaho (I-E)	1,385	138,800	373	150,260	56	52,311	1	(2)	9	16,693	1	.....	1	7	....	.....	1	(2)
Weiser, Idaho, to King Hill, Idaho (I-F)	1,678	178,330	168	50,433	90	125,681	1	(2)	31	352,922	5	98,387	1	8,387	....	.....	....	.....
King Hill, Idaho, to American Falls, Idaho (I-G)	694	83,848	75	27,744	25	455,152	....	.....	7	135,209	1	397	....	.....	....	.....	....	.....
Above American Falls, Idaho (I-H)	877	111,571	280	102,764	167	384,960	1	(2)	12	134,154	2	.....	4	28,701	....	.....	....	.....
South Pacific Coast, total	44,573	4,158,370	723	142,991	550	752,833	78	296,232	116	1,375,264	3	129,484	10	3,524	....	.....	21	35,569
Klamath River (II-A)	698	164,666	34	20,084	7	12,904	....	.....	15	60,458	1	109,613	3	2,060	....	.....	....	.....
Klamath River to Santa Maria River excluding Central Valley (II-B)	6,104	373,991	26	2,389	9	7,912	9	3,763	5	3,322	1	1,722	....	.....	....	.....	4	761
Central Valley, total	31,509	3,270,433	196	81,257	132	497,858	29	270,408	73	1,292,444	2	18,149	2	1,047	....	.....	3	578
Sacramento- San Joaquin Delta area (II-C)	4,672	426,867	14	7,565	6	9,825	1	(2)	17	109,589	1	236	....	.....	....	.....	1	(2)
Sacramento River (II-D)	6,371	564,633	45	32,347	21	99,988	13	82,888	27	209,272	2	17,913	1	1,000	....	.....	....	.....
San Joaquin River (II-E)	4,091	525,425	20	8,944	11	171,646	5	143,141	17	521,203	2	.....	....	.....	....	.....	....	.....
San Joaquin Valley above San Joaquin River (II-F)	16,386	1,753,508	117	32,401	94	216,399	10	44,288	20	452,380	1	.....	1	47	....	.....	2	(2)
Santa Maria River and basins south (II-G)	6,286	349,280	467	39,261	402	234,159	40	22,061	23	19,040	....	.....	5	417	....	.....	14	34,230
Great Basin, total	4,269	908,220	582	280,265	644	876,750	3	45,782	13	106,977	1	.....	16	13,565	....	.....	6	6,471
Northwest Great Basin (III-A)	437	244,161	32	57,277	1	(2)	....	.....	1	(2)	....	.....	2	3,162	....	.....	....	.....
Humboldt River (III-B)	268	203,758	25	29,394	4	12,809	....	.....	1	(2)	....	.....	2	2,925	....	.....	....	.....
South Central Great Basin (III-C)	1,552	287,214	65	65,114	39	70,675	2	(2)	6	98,247	....	.....	12	7,478	....	.....	1	(2)
Bonneville Basin excluding Bear River (III-D)	1,562	101,649	285	62,919	440	565,402	1	(2)	3	3,799	1	.....	....	.....	....	.....	5	2,111
Bear River (III-E)	457	71,438	175	65,561	161	225,884	1	(2)	2	(2)	....	.....	....	.....	....	.....	....	.....
Gulf of California, total	5,637	1,006,853	1,065	340,609	356	904,929	6	4,170	28	666,350	7	64,359	79	136,327	....	.....	4	443
Excluding Colorado River (IV-A)	191	8 904	2	(2)	.....	.....	....	.....	....	.....	....	.....	1	2,031	....	.....	....	.....
Colorado River, total	5,446	997,949	1,063	340,539	356	904,929	6	4,170	28	666,350	7	64,359	79	134,296	....	.....	4	443
Colorado River below Lees Ferry, Arizona, total	2,924	558,017	108	25,396	89	317,339	3	822	16	623,023	4	64,359	31	55,739	....	.....	4	443
Excluding Gila River (IV-B)	997	74,186	35	2,793	62	36,496	2	(2)	7	500,590	4	64,359	22	18,333	....	.....	2	(2)
Gila River (IV-C)	1,927	483,831	73	22,603	27	280,843	1	(2)	9	122,433	....	.....	9	37,406	....	.....	2	(2)
Colorado River above Lees Ferry, Arizona, total	2,523	439,932	956	315,143	267	587,590	3	3,348	12	43,327	3	.....	48	78,557	....	.....	....	.....
Excluding Green and Gunnison Rivers (IV-D)	1,102	134,987	432	146,381	108	247,259	2	(2)	5	18,099	3	.....	47	24,301	....	.....	....	.....
Green River (IV-E)	936	236,581	172	90,623	69	196,725	1	(2)	6	25,228	....	.....	1	54,256	....	.....	....	.....
Gunnison River (IV-F)	486	68,364	352	78,139	92	143,606	....	.....	1	(2)	....	.....	....	.....	....	.....	....	.....
Gulf of Mexico excluding Mississippi River, total	12,728	2,192,763	607	197,471	157	393,677	29	352,461	54	699,928	4	152,275	18	14,497	....	.....	5	3,428
Excluding Rio Grande (V-A)	9,050	1,571,124	28	11,227	8	34,925	24	304,500	5	8,488	....	.....	....	.....	....	.....	2	(2)
Rio Grande, total	3,679	621,639	579	186,244	149	358,752	5	47,961	49	691,440	4	152,275	18	14,497	....	.....	3	479
Rio Grande below Fort Quitman, Texas (V-B)	2,172	372,446	61	12,519	14	13,846	4	34,051	40	578,240	2	.....	1	414	....	.....	1	(2)
Rio Grande above Fort Quitman, Texas (V-C)	1,507	249,193	518	173,725	135	344,906	1	(2)	9	113,200	2	152,275	17	14,083	....	.....	2	(2)
Mississippi River, total	18,032	2,558,604	1,671	668,915	687	1,577,087	9	4,139	90	1,039,860	12	163,138	8	96,062	23	34,545	5	8,992
Excluding Arkansas and Missouri Rivers (VI-A)	2,069	427,746	.....	.....	.....	.....	....	.....	1	(2)	1	32,256	....	.....	....	.....	....	.....
Arkansas River (VI-B)	2,249	245,540	387	99,857	130	345,017	1	(2)	2	(2)	1	20,649	....	.....	1	(2)	....	.....
Missouri River, total	13,714	1,885,318	1,284	569,058	557	1,232,070	8	4,139	87	1,004,856	10	110,233	8	96,062	22	34,545	5	8,992
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	2,905	332,059	142	50,738	31	86,116	2	(2)	14	187,675	5	51,599	5	39,356	12	18,278	....	.....
Platte River, total	8,458	1,054,970	343	218,278	346	764,113	5	963	47	589,238	3	4,867	....	.....	....	.....	6	8,992
Excluding South Platte River (VI-D)	5,125	708,140	217	173,419	32	80,499	2	(2)	40	502,817	2	4,867	....	.....	....	.....	1	(2)
South Platte River (VI-E)	3,333	346,830	126	44,859	314	683,614	3	963	7	86,421	1	.....	....	.....	....	.....	5	8,992
Yellowstone River, total	1,609	208,300	488	163,910	147	317,662	2	(2)	27	227,943	2	53,767	4	56,706	6	9,062	....	.....
Excluding Big Horn River (VI-F)	1,130	136,532	321	109,761	104	203,215	2	(2)	11	104,840	....	.....	2	706	6	9,062	....	.....
Big Horn River (VI-G)	479	71,768	167	54,149	43	114,447	....	.....	16	123,103	2	53,767	2	56,000	....	.....	....	.....
Missouri River headwaters above Three Forks, Montana (VI-H)	744	289,989	313	136,132	33	64,179	....	.....	....	.....	....	.....	....	.....	4	7,205	....	.....
Hudson Bay (Red River of the North) (VII)	9	313	.....	.....	.....	.....	....	.....	1	(2)	....	.....	....	.....	1	(2)	....	.....

[1]Data for less than 3 enterprises shown with permission of the enterprises.
[2]Data for less than 3 enterprises not shown separately.

Table 41.—17 WESTERN STATES: SINGLE-FARM IRRIGATION ENTERPRISES-NUMBER AND AREA IRRIGATED BY ORIGIN OF WATER SUPPLY, BY PRIMARY AND SUPPLEMENTAL IRRIGATION, AND BY IRRIGATION OF OTHER FARMS, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation as, but only once in 17-State total. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	Origin of water[1]: No water from other enterprises		Part of water from other enterprises		All of water from other enterprises		Primary and supplemental irrigation[2]: All primary		Part primary, part supplemental			All supplemental		Other farms irrigated[2]		
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Primary acres irrigated	Supplemental acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Number of other farms	Area irrigated in other farms
17 Western States, total	96,228	10,909,351	2,123	653,799	3,419	253,905	88,821	10,791,085	977	125,184	82,169	10,564	818,617	4,394	6,714	243,618
DRAINAGE BASINS																
North Pacific Coast, total	14,550	866,777	494	63,401	1,526	61,754	15,761	957,769	114	5,960	5,364	571	22,839	426	562	19,307
North Pacific Coast excluding Columbia River (I-A)	2,586	54,399	21	1,246	125	4,198	2,694	60,205	2	73	58	16	507	43	56	3,239
Columbia River, total	11,964	811,378	473	62,155	1,401	57,556	13,067	897,564	112	5,887	5,306	555	22,332	383	506	16,068
Below Snake River (I-B)	4,648	168,958	123	11,780	349	9,949	4,984	188,185	25	605	591	84	1,306	120	150	2,922
Above Snake River excluding Yakima River (I-C)	2,881	159,751	125	20,995	262	8,070	3,078	183,307	23	928	388	131	4,193	103	148	2,895
Yakima River (I-D)	535	28,095	29	2,827	262	8,115	697	32,116	22	1,452	911	93	4,558	27	36	1,239
Snake River, total	3,902	454,574	197	26,553	528	31,422	4,311	493,956	42	2,902	3,416	247	12,275	133	172	9,012
Below Weiser, Idaho (I-E)	1,283	123,650	68	10,522	34	4,628	1,359	137,004	5	366	299	16	1,131	35	47	3,099
Weiser, Idaho, to King Hill, Idaho (I-F)	1,383	164,054	49	6,055	246	8,221	1,500	170,128	24	1,586	1,350	143	5,266	49	68	2,413
King Hill, Idaho, to American Falls, Idaho (I-G)	521	68,540	53	6,848	120	8,460	619	79,521	5	502	240	64	3,585	14	21	1,104
Above American Falls, Idaho (I-H)	722	98,330	27	3,128	128	10,113	840	107,303	8	448	1,527	24	2,293	35	36	2,390
South Pacific Coast, total	43,323	3,833,813	648	286,833	602	37,724	36,379	3,573,378	502	74,826	41,796	7,335	468,370	2,675	4,383	105,259
Klamath River (II-A)	573	131,890	30	26,568	95	6,208	659	159,149	13	1,130	871	21	3,516	27	27	1,470
Klamath River to Santa Maria River excluding Central Valley (II-B)	5,995	370,336	31	2,457	78	1,198	5,890	363,144	83	6,087	1,921	78	2,839	782	1,609	21,151
Central Valley, total	30,700	2,993,414	503	250,736	306	26,283	23,944	2,719,430	338	62,081	37,082	7,011	451,840	1,224	1,484	64,778
Sacramento-San Joaquin Delta area (II-C)	4,564	400,871	35	14,687	73	11,309	4,596	422,053	19	2,117	765	34	1,932	155	178	8,226
Sacramento River (II-D)	6,105	498,137	133	56,556	133	9,940	6,204	549,654	38	3,898	2,054	74	9,027	278	348	12,260
San Joaquin River (II-E)	3,894	482,507	131	40,123	66	2,795	2,799	379,496	52	2,864	8,950	1,183	134,115	158	210	9,425
San Joaquin Valley above San Joaquin River (II-F)	16,146	1,611,899	206	139,370	34	2,239	10,354	1,368,227	229	53,202	25,313	5,722	306,766	633	748	34,867
Santa Maria River and basins south (II-G)	6,079	338,173	84	7,072	123	4,035	5,910	331,655	68	5,528	1,922	225	10,175	643	1,263	17,860
Great Basin, total	3,989	805,226	127	82,305	153	20,689	4,057	886,598	44	10,614	2,167	137	8,841	88	129	7,634
Northwest Great Basin (III-A)	413	211,146	11	27,219	13	5,796	431	243,527	1	205	45	3	384	5	8	1,889
Humboldt River (III-B)	262	201,397	2	841	4	1,520	267	203,758	.....	.....	.....	.....	.....	3	4	355
South Central Great Basin (III-C)	1,507	254,882	28	28,424	17	3,908	1,534	285,147	3	153	280	7	1,634	13	23	849
Bonneville Basin excluding Bear River (III-D)	1,431	90,903	60	7,656	71	3,090	1,404	95,810	35	1,141	983	103	3,715	48	61	1,526
Bear River (III-E)	381	46,898	28	18,165	48	6,375	428	58,356	5	9,115	859	24	3,108	19	33	3,015
Gulf of California, total	5,289	947,029	187	46,605	161	13,219	5,150	914,047	72	13,649	15,434	362	63,723	196	253	20,957
Excluding Colorado River (IV-A)	191	8,904	.....	.....	.....	.....	177	8,865	.....	.....	.....	9	39	2	2	194
Colorado River, total	5,098	938,125	187	46,605	161	13,219	4,973	905,182	72	13,649	15,434	353	63,684	194	251	20,763
Colorado River below Lees Ferry, Arizona, total	2,849	547,102	33	9,387	42	1,528	2,641	488,409	40	10,708	12,738	210	46,162	127	168	13,074
Excluding Gila River (IV-B)	966	72,336	15	960	16	890	952	72,506	6	112	143	31	1,425	46	54	835
Gila River (IV-C)	1,883	474,766	18	8,427	26	638	1,689	415,903	34	10,596	12,595	179	44,737	81	114	12,239
Colorado River above Lees Ferry, Arizona, total	2,250	391,023	154	37,218	119	11,691	2,333	416,773	32	2,941	2,696	143	17,522	67	83	7,689
Excluding Green and Gunnison Rivers (IV-D)	954	119,720	75	11,025	73	4,242	1,020	124,568	13	1,064	760	63	8,595	30	34	1,788
Green River (IV-E)	871	211,568	37	19,473	28	5,540	880	226,580	11	1,561	1,309	42	7,131	27	37	4,812
Gunnison River (IV-F)	426	59,735	42	6,720	18	1,909	434	65,625	8	316	627	38	1,796	10	12	1,089
Gulf of Mexico excluding Mississippi River, total	12,343	2,085,805	144	65,324	241	41,634	11,826	2,110,111	86	8,456	6,485	401	67,711	535	772	51,984
Excluding Rio Grande (V-A)	8,974	1,548,195	26	13,419	50	9,510	8,875	1,563,324	35	3,605	1,896	9	2,299	334	434	34,874
Rio Grande, total	3,370	537,610	118	51,905	191	32,124	2,951	546,787	51	4,851	4,589	393	65,412	201	338	17,110
Rio Grande below Fort Quitman, Texas (V-B)	1,973	328,873	49	15,964	150	27,609	1,993	349,629	20	1,934	1,846	128	19,037	178	298	14,104
Rio Grande above Fort Quitman, Texas (V-C)	1,397	208,737	69	35,941	41	4,515	958	197,158	31	2,917	2,743	265	46,375	23	40	3,006
Mississippi River, total	16,769	2,370,388	527	109,331	736	78,885	15,688	2,348,881	158	11,674	10,916	1,758	187,133	473	614	38,470
Excluding Arkansas and Missouri Rivers (VI-A)	2,069	427,746	.....	.....	.....	.....	2,036	426,806	5	470	250	1	220	59	63	3,939
Arkansas River (VI-B)	2,136	229,972	50	9,595	63	5,973	1,867	214,167	30	2,096	2,503	287	26,774	61	82	5,011
Missouri River, total	12,564	1,712,670	477	99,736	673	72,912	11,785	1,707,908	123	9,108	8,163	1,470	160,139	353	469	29,520
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	2,748	306,569	54	10,736	103	14,754	2,844	328,138	7	819	809	18	2,293	69	82	4,256
Platte River, total	7,824	986,277	266	35,319	368	33,374	6,692	894,569	107	7,795	6,763	1,387	145,843	220	302	20,017
Excluding South Platte River (VI-D)	4,835	672,097	55	14,251	235	21,792	4,670	674,423	16	2,808	1,689	263	29,220	80	106	7,431
South Platte River (VI-E)	2,989	314,180	211	21,068	133	11,582	2,022	220,146	91	4,987	5,074	1,124	116,623	140	196	12,586
Yellowstone River, total	1,352	173,861	75	13,776	182	20,663	1,529	201,551	6	254	361	53	6,134	50	63	4,120
Excluding Big Horn River (VI-F)	954	113,915	48	6,926	128	15,691	1,078	131,932	5	219	296	32	4,085	38	49	3,281
Big Horn River (VI-G)	398	59,946	27	6,850	54	4,972	451	69,619	1	35	65	21	2,049	12	14	839
Missouri River headwaters above Three Forks, Montana (VI-H)	641	245,963	83	39,905	20	4,121	722	283,650	3	240	230	12	5,869	14	22	1,127
Hudson Bay (Red River of the North) (VII)	9	313	.....	.....	.....	.....	8	301	1	5	7	.....	.....	1	1	7

[1]For interbasin enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage in the basin.
[2]For interbasin enterprises, data represent characteristics within the basin.

Table 42.—17 WESTERN STATES: MULTIPLE-FARM IRRIGATION ENTERPRISES—NUMBER AND AREA IRRIGATED BY ORIGIN OF WATER SUPPLY AND BY PRIMARY AND SUPPLEMENTAL IRRIGATION, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	All multiple-farm enterprises[1]		By origin of water[1]						By primary and supplemental irrigation[2]						
			No water from other enterprises		Part of water from other enterprises		All of water from other enterprises		All primary		Part primary, part supplemental			All supplemental	
	Number	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Primary acres irrigated	Supplemental acres irrigated	Enterprises reporting	Acres irrigated
17 Western States, total	10,170	14,713,888	8,165	9,097,595	870	3,226,133	1,135	2,390,160	7,729	9,336,441	1,860	4,600,500	654,431	240	122,516
DRAINAGE BASINS															
North Pacific Coast, total	2,495	3,116,889	2,033	1,331,600	176	1,215,066	286	570,223	1,948	1,680,720	425	1,329,914	91,750	62	14,505
North Pacific Coast excluding Columbia River (I-A)	147	60,686	146	60,505	1	181	.....	.....	134	47,239	10	11,802	1,098	2	547
Columbia River, total	2,348	3,056,203	1,887	1,271,095	175	1,214,885	286	570,223	1,815	1,633,481	415	1,318,112	90,652	60	13,958
Below Snake River (I-B)	311	215,166	299	199,204	4	10,818	8	5,144	268	147,186	36	62,029	5,951	.....	.....
Above Snake River excluding Yakima River (I-C)	577	306,319	526	284,401	15	8,197	36	13,721	384	147,402	155	138,219	16,584	22	4,114
Yakima River (I-D)	157	408,586	124	53,856	9	165,989	24	188,741	112	246,166	36	142,888	17,040	5	2,492
Snake River, total	1,305	2,126,132	940	733,634	147	1,029,881	218	362,617	1,051	1,092,727	188	974,976	51,077	33	7,352
Below Weiser, Idaho, (I-E)	442	220,973	410	182,601	22	33,651	10	4,721	391	184,945	40	31,854	4,037	3	137
Weiser, Idaho, to King Hill, Idaho (I-F)	296	635,857	174	234,195	43	337,908	79	63,754	249	415,034	34	210,595	8,548	1	1,680
King Hill, Idaho, to American Falls, Idaho (I-G)	108	618,502	91	100,685	7	363,161	10	154,656	78	101,697	24	510,109	6,696	.....	.....
Above American Falls, Idaho (I-H)	466	650,800	269	216,153	77	295,161	120	139,486	334	391,051	90	222,418	31,796	29	5,535
South Pacific Coast, total	1,501	2,735,897	1,315	2,216,945	86	326,041	100	192,911	1,072	1,344,378	360	1,107,458	222,731	27	61,330
Klamath River (II-A)	60	205,119	50	154,808	4	39,990	6	10,321	55	162,077	3	42,112	930	.....	.....
Klamath River to Santa Maria River excluding Central Valley (II-B)	54	19,869	49	18,501	3	1,255	2	113	39	13,710	11	3,672	2,487	.....	.....
Central Valley, total	437	2,161,741	351	1,753,796	30	241,552	56	166,393	297	1,027,471	107	885,298	190,011	18	58,961
Sacramento-San Joaquin Delta area (II-C)	40	127,456	39	126,621	1	835	.....	.....	31	73,940	7	49,220	4,296	.....	.....
Sacramento River (II-D)	109	443,408	93	394,315	9	42,139	7	6,954	86	342,509	17	88,677	11,975	1	247
San Joaquin River (II-E)	55	844,934	38	680,660	8	119,804	9	44,470	36	418,062	14	398,046	28,772	1	54
San Joaquin Valley above San Joaquin River (II-F)	245	745,943	192	552,200	13	78,774	40	114,969	148	192,960	71	349,355	144,968	16	58,660
Santa Maria River and basins south (II-G)	951	349,168	866	289,840	49	43,244	36	16,084	683	141,120	239	176,376	29,303	9	2,369
Great Basin, total	1,265	1,329,810	898	762,942	175	294,514	192	272,354	932	918,701	280	327,014	80,824	15	3,271
Northwest Great Basin (III-A)	36	64,052	36	64,052	.....	.....	.....	.....	34	62,202	2	1,395	455	.....	.....
Humboldt River (III-B)	32	45,128	23	17,814	.....	.....	9	27,314	30	43,098	1	1,984	46	.....	.....
South Central Great Basin (III-C)	125	250,885	50	144,250	29	30,703	46	75,932	93	193,519	23	48,098	9,268	.....	.....
Bonneville Basin excluding Bear River (III-D)	735	638,007	526	314,587	136	213,844	73	109,576	527	390,590	177	196,527	48,920	8	1,970
Bear River (III-E)	339	331,738	265	222,239	10	49,967	64	59,532	249	229,292	77	79,010	22,135	7	1,301
Gulf of California, total	1,545	2,117,187	1,301	1,193,991	172	308,098	72	615,098	1,149	1,579,630	266	466,231	64,128	31	7,198
Excluding Colorado River (IV-A)	3	2,101	3	2,101	.....	.....	.....	.....	3	2,101	.....	.....	.....	.....	.....
Colorado River, total	1,543	2,115,086	1,299	1,191,890	172	308,098	72	615,098	1,147	1,577,529	266	466,231	64,128	31	7,198
Colorado River below Lees Ferry, Arizona, total	255	1,087,121	237	477,757	6	37,767	12	571,597	217	824,880	30	243,141	19,024	2	76
Excluding Gila River (IV-B)	134	622,846	124	119,978	2	490	8	502,378	120	555,703	12	63,764	3,379	.....	.....
Gila River (IV-C)	121	464,275	113	357,779	4	37,277	4	69,219	97	269,177	18	179,377	15,645	2	76
Colorado River above Lees Ferry, Arizona, total	1,289	1,027,965	1,063	714,133	166	270,331	60	43,501	931	752,649	236	223,090	45,104	29	7,122
Excluding Green and Gunnison Rivers (IV-D)	597	436,040	496	305,293	77	110,463	24	20,284	469	308,263	102	105,279	19,946	9	2,552
Green River (IV-E)	249	370,180	217	228,664	21	131,880	11	9,636	208	279,227	32	79,514	10,869	4	570
Gunnison River (IV-F)	445	221,745	352	180,176	68	27,988	25	13,581	255	165,159	102	38,297	14,289	16	4,000
Gulf of Mexico excluding Mississippi River, total	874	1,813,737	718	1,378,348	40	313,635	116	121,754	702	1,390,137	113	349,431	65,366	36	8,803
Excluding Rio Grande (V-A)	67	362,089	65	333,171	1	24,302	1	4,616	61	358,772	3	1,259	1,258	1	800
Rio Grande, total	807	1,451,648	653	1,045,177	39	289,333	115	117,138	641	1,031,365	110	348,172	64,108	35	8,003
Rio Grande below Fort Quitman, Texas (V-B)	123	639,070	97	511,882	8	78,386	18	48,802	106	530,928	10	101,875	6,267	.....	.....
Rio Grande above Fort Quitman, Texas (V-C)	684	812,578	556	533,295	31	210,947	97	68,336	535	500,437	100	246,297	57,841	35	8,003
Mississippi River, total	2,505	3,592,738	1,912	2,206,139	222	768,779	371	617,820	1,933	2,415,245	416	1,020,452	129,632	69	27,409
Excluding Arkansas and Missouri Rivers (VI-A)	2	45,289	2	45,289	.....	.....	.....	.....	2	45,289	.....	.....	.....	.....	.....
Arkansas River (VI-B)	522	487,494	404	282,802	10	102,383	108	102,309	394	352,592	104	114,254	17,269	18	3,379
Missouri River, total	1,981	3,059,955	1,506	1,878,048	212	666,396	263	515,511	1,537	2,017,364	312	906,198	112,363	51	24,030
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	211	434,802	183	372,697	20	31,047	8	31,058	182	312,688	16	113,485	6,741	4	1,888
Platte River, total	750	1,586,451	472	685,114	82	476,134	196	425,203	522	928,180	174	571,047	78,910	17	8,314
Excluding South Platte River (VI-D)	294	761,602	243	375,868	24	205,128	27	180,606	236	540,814	41	199,662	15,228	6	5,898
South Platte River (VI-E)	456	824,849	229	309,246	58	271,006	169	244,597	286	387,366	133	371,385	63,682	11	2,416
Yellowstone River, total	676	831,186	548	646,651	96	141,173	32	43,362	551	633,047	91	176,970	17,280	13	3,889
Excluding Big Horn River (VI-F)	446	429,720	357	363,191	69	50,224	20	16,305	352	368,573	68	51,826	6,794	8	2,527
Big Horn River (VI-G)	230	401,466	191	283,460	27	90,949	12	27,057	199	264,474	23	125,144	10,486	5	1,362
Missouri River headwaters above Three Forks, Montana (VI-H)	350	207,516	309	173,586	14	18,042	27	15,888	286	143,449	31	44,696	9,432	17	9,939
Hudson Bay (Red River of the North) (VII)	2	7,630	2	7,630	.....	.....	.....	.....	2	7,630	.....	.....	.....	.....	.....

[1]For interbasin enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage in the basin.
[2]For interbasin enterprises, data represent characteristics within the basin.

Table 43.—17 WESTERN STATES: MULTIPLE-FARM IRRIGATION ENTERPRISES—ENTERPRISES BY NUMBER OF FARMS IRRIGATED; ENTERPRISES AND AREA IRRIGATED BY METHOD OF DELIVERY OF IRRIGATION WATER; AND NUMBER OF MULTIPLE-PURPOSE ENTERPRISES AND AREA IRRIGATED; BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage within the basin. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	Number of enterprises by number of farms irrigated									Enterprises by method of delivery of irrigation water						Multiple-purpose enterprises	
	Total	No farms	1-3 farms	4-9 farms	10-29 farms	30-99 farms	100-299 farms	300-999 farms	1,000 farms or more	No water delivered (enterprises reporting)	Water delivered direct to farms only		Water delivered to farms and to other enterprises		Water delivered to other enterprises only (enterprises re-	Number	Acres irrigated
											Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated			
17 Western States, total...	10,170	341	3,624	2,845	2,038	925	266	101	30	18	8,075	5,717,068	1,754	8,996,820	323	448	3,129,531
DRAINAGE BASINS																	
North Pacific Coast, total.....	2,495	58	1,031	746	398	165	62	25	10	1	1,935	1,059,546	502	2,057,343	57	72	338,030
North Pacific Coast excluding Columbia River (I-A).....	147	.....	64	46	24	8	2	3	.....	.....	124	18,911	23	41,775	.....	6	10,187
Columbia River, total.....	2,348	58	967	700	374	157	60	22	10	1	1,811	1,040,635	479	2,015,568	57	66	327,843
Below Snake River (I-B).....	311	7	123	110	45	12	13	1	.....	.....	214	102,297	90	112,869	7	18	17,359
Above Snake River excluding Yakima River (I-C).....	577	15	304	157	49	35	13	3	1	1	462	108,176	100	198,143	14	19	101,264
Yakima River (I-D).....	157	3	47	40	34	18	6	6	3	.....	118	71,755	36	336,831	3	5	57,802
Snake River, total.....	1,305	33	493	393	246	93	28	13	6	.....	1,017	758,407	255	1,367,725	33	24	151,418
Below Weiser, Idaho (I-E).....	442	7	220	153	49	9	2	2	.....	.....	353	163,119	82	57,854	7	9	3,723
Weiser, Idaho, to King Hill, Idaho (I-F).....	296	11	85	73	78	26	13	6	4	.....	229	155,195	56	480,662	11	11	96,925
King Hill, Idaho, to American Falls, Idaho (I-G).....	108	5	41	29	19	4	5	2	3	.....	80	134,084	23	484,418	5	2	43,319
Above American Falls, Idaho (I-H).....	446	10	147	140	101	54	10	4	.....	.....	355	306,009	101	344,791	10	5	7,451
South Pacific Coast, total.....	1,501	40	399	443	345	172	59	31	12	10	1,177	624,003	284	2,111,894	30	200	1,195,471
Klamath River (II-A).....	60	1	26	12	8	10	.....	3	.....	.....	34	25,406	25	179,713	1	8	143,134
Klamath River to Santa Maria River excluding Central Valley (II-B)....	54	4	12	17	14	6	1	.....	.....	2	35	8,177	15	11,692	2	8	2,977
Central Valley, total.....	437	15	126	110	86	51	29	10	10	6	270	391,854	152	1,769,887	9	49	936,602
Sacramento-San Joaquin Delta area (II-C).....	40	2	11	8	6	5	6	.....	2	.....	21	25,932	17	101,524	2	12	68,851
Sacramento River (II-D).....	109	2	16	30	22	17	15	7	.....	.....	64	103,903	43	339,505	2	19	146,392
San Joaquin River (II-E).....	55	1	15	6	13	5	7	1	7	.....	28	153,664	26	691,270	1	13	564,724
San Joaquin Valley above San Joaquin River (II-F).....	245	10	84	66	45	27	7	2	4	6	158	108,355	77	637,588	4	14	156,635
Santa Maria River and basins south (II-G).....	951	20	235	304	237	105	30	18	2	2	838	198,566	93	150,602	18	136	112,758
Great Basin, total.....	1,265	36	287	348	361	174	52	7	.....	.....	1,056	859,057	173	470,753	36	37	133,190
Northwest Great Basin (III-A).....	36	.....	18	14	3	1	.....	.....	.....	.....	22	42,949	14	21,103	.....	....	.....
Humboldt River (III-B).....	32	1	18	8	4	1	.....	.....	.....	.....	28	36,728	3	8,400	1	....	.....
South Central Great Basin (III-C)...	125	8	42	35	26	10	3	1	.....	.....	97	107,407	20	143,478	8	13	91,663
Bonneville Basin excluding Bear River (III-D).....	735	21	130	198	220	118	42	6	.....	.....	623	459,784	91	178,223	21	21	34,550
Bear River (III-E).....	339	6	79	93	109	44	7	1	.....	.....	286	212,189	47	119,549	6	3	6,977
Gulf of California, total.....	1,545	99	627	395	263	122	22	14	3	.....	1,222	809,406	224	1,307,781	99	57	854,755
Excluding Colorado River (IV-A).....	3	.....	1	.....	1	.....	1	.....	.....	.....	3	2,101	.....	.....	.....	1	2,031
Colorado River, total.....	1,543	99	626	395	262	122	22	14	3	.....	1,220	807,305	224	1,307,781	99	57	852,724
Colorado River below Lees Ferry, Arizona, total.....	255	6	70	49	71	47	5	5	2	.....	210	263,060	39	824,061	6	21	777,037
Excluding Gila River (IV-B)..	134	2	30	24	46	27	1	3	1	.....	114	102,363	18	520,483	2	14	514,712
Gila River (IV-C).....	121	4	40	25	25	20	4	2	1	.....	96	160,697	21	303,578	4	7	262,325
Colorado River above Lees Ferry, Arizona, total.....	1,289	93	556	347	191	75	17	9	1	.....	1,011	544,245	185	483,720	93	36	75,687
Excluding Green and Gunnison Rivers (IV-D).....	597	17	235	180	100	48	10	7	.....	.....	483	250,153	97	185,887	17	31	59,082
Green River (IV-E).....	249	5	113	63	46	14	6	2	.....	.....	198	178,820	46	191,360	5	2	16,605
Gunnison River (IV-F).....	445	72	208	105	45	13	1	.....	1	.....	330	115,272	43	106,473	72	3	.....
Gulf of Mexico excluding Mississippi River, total.....	874	23	204	268	240	108	18	9	4	2	738	500,156	113	1,313,581	21	52	362,326
Excluding Rio Grande (V-A).....	67	2	21	23	9	9	3	.....	.....	.....	45	125,524	20	236,565	2	5	52,064
Rio Grande, total.....	807	21	183	245	231	99	15	9	4	2	693	374,632	93	1,077,016	19	47	310,262
Rio Grande below Fort Quitman, Texas (V-B).....	123	7	11	32	38	17	8	8	2	.....	77	88,557	39	550,513	7	12	77,087
Rio Grande above Fort Quitman, Texas (V-C).....	684	14	172	213	193	82	7	1	2	2	616	286,075	54	526,503	12	35	233,175
Mississippi River, total.....	2,505	87	1,076	647	435	190	53	16	1	5	1,953	1,857,270	465	1,735,468	82	32	245,759
Excluding Arkansas and Missouri Rivers (VI-A).....	2	.....	.....	.....	.....	.....	2	.....	.....	.....	2	45,289	.....	.....	.....	1	32,256
Arkansas River (VI-B).....	522	6	200	171	104	33	7	1	.....	.....	458	238,074	58	249,420	6	5	2,184
Missouri River, total.....	1,981	81	876	476	331	157	44	15	1	5	1,493	1,573,907	407	1,486,048	76	26	211,319
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C).....	211	9	108	47	24	16	3	4	.....	2	153	218,049	49	216,753	7	2	6,050
Platte River, total.....	750	37	228	161	191	99	27	6	1	1	559	707,485	154	878,966	36	18	150,755
Excluding South Platte River (VI-D).....	294	11	172	46	28	21	10	5	1	.....	241	383,255	42	378,347	11	10	138,573
South Platte River (VI-E).....	456	26	56	115	163	78	17	1	.....	1	318	324,230	112	500,619	25	8	12,182
Yellowstone River, total.....	676	21	314	198	86	36	14	7	.....	2	526	508,636	129	322,550	19	4	53,944
Excluding Big Horn River (VI-F).....	446	18	199	135	62	26	3	3	.....	2	345	246,299	83	183,421	16	2	177
Big Horn River (VI-G).....	230	3	115	63	24	10	11	4	.....	.....	181	262,337	46	139,129	3	2	53,767
Missouri River headwaters above Three Forks, Montana (VI-H).....	350	16	226	70	32	6	.....	.....	.....	.....	257	139,737	77	67,779	16	2	570
Hudson Bay (Red River of the North) (VII).....	2	.....	.....	1	1	.....	.....	.....	.....	.....	2	7,630	.....	.....	.....	....	.....

Table 44.—17 WESTERN STATES: SINGLE-FARM IRRIGATION ENTERPRISES, BY NUMBER OF ACRES IRRIGATED, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics of the entire enterprise]

Drainage basins	Number of enterprises by number of acres irrigated										Percent of enterprises by number of acres irrigated								
	Total	No acres	1-9 acres	10-29 acres	30-59 acres	60-99 acres	100-199 acres	200-499 acres	500-999 acres	1,000 acres or more	No acres	1-9 acres	10-29 acres	30-59 acres	60-99 acres	100-199 acres	200-499 acres	500-999 acres	1,000 acres or more
17 Western States, total	101,770	1,408	18,180	22,920	18,539	12,728	14,390	9,765	2,479	1,361	1.4	17.9	22.5	18.2	12.5	14.1	9.6	2.4	1.3
DRAINAGE BASINS																			
North Pacific Coast, total	16,570	124	5,110	4,723	2,739	1,524	1,292	804	156	98	0.7	30.8	28.5	16.5	9.2	7.8	4.9	0.9	0.6
North Pacific Coast excluding Columbia River (I-A)	2,732	20	1,221	858	418	126	68	18	2	1	0.7	44.7	31.4	15.3	4.6	2.5	0.7	0.1	(1)
Columbia River, total	13,838	104	3,889	3,865	2,321	1,398	1,224	786	154	97	0.8	28.1	27.9	16.8	10.1	8.8	5.7	1.1	0.7
Below Snake River (I-B)	5,120	27	1,892	1,755	757	316	231	104	23	15	0.5	37.0	34.3	14.8	6.2	4.5	2.0	0.4	0.3
Above Snake River excluding Yakima River (I-C)	3,268	36	1,048	905	514	323	234	158	33	17	1.1	32.1	27.7	15.7	9.9	7.2	4.8	1.0	0.5
Yakima River (I-D)	826	14	212	229	177	92	69	29	3	1	1.7	25.7	27.7	21.4	11.1	8.4	3.5	0.4	0.1
Snake River, total	4,627	27	737	976	873	667	690	496	96	65	0.6	15.9	21.1	18.9	14.4	14.9	10.7	2.1	1.4
Below Weiser, Idaho (I-E)	1,385	5	273	308	246	184	196	125	32	16	0.4	19.7	22.2	17.8	13.3	14.2	9.0	2.3	1.2
Weiser, Idaho, to King Hill, Idaho (I-F)	1,678	11	323	409	306	229	178	159	37	26	0.7	19.2	24.4	18.2	13.6	10.6	9.5	2.2	1.5
King Hill, Idaho, to American Falls, Idaho (I-G)	694	6	66	118	136	119	132	94	13	10	0.9	9.5	17.0	19.6	17.1	19.0	13.5	1.9	1.4
Above American Falls, Idaho (I-H)	877	5	75	141	185	135	184	120	16	16	0.6	8.6	16.1	21.1	15.4	21.0	13.7	1.8	1.8
South Pacific Coast, total	44,573	357	9,411	12,548	9,249	4,890	4,173	2,701	768	476	0.8	21.1	28.2	20.8	11.0	9.4	6.1	1.7	1.1
Klamath River (II-A)	698	5	96	126	130	94	95	99	26	27	0.7	13.8	18.1	18.6	13.5	13.6	14.2	3.7	3.9
Klamath River to Santa Maria River excluding Central Valley (II-B)	6,104	53	1,624	1,802	1,153	604	497	274	67	30	0.9	26.6	29.5	18.9	9.9	8.1	4.5	1.1	0.5
Central Valley, total	31,509	216	5,528	9,031	6,960	3,648	3,086	2,022	608	410	0.7	17.5	28.7	22.1	11.6	9.8	6.4	1.9	1.3
Sacramento-San Joaquin Delta area (II-C)	4,672	23	1,014	1,373	889	489	437	289	101	57	0.5	21.7	29.4	19.0	10.5	9.4	6.2	2.2	1.2
Sacramento River (II-D)	6,371	55	1,612	1,682	1,119	645	610	457	126	65	0.9	25.3	26.4	17.6	10.1	9.6	7.2	2.0	1.0
San Joaquin River (II-E)	4,091	57	486	1,015	969	610	477	302	103	72	1.4	11.9	24.8	23.7	14.9	11.7	7.4	2.5	1.8
San Joaquin Valley above San Joaquin River (II-F)	16,386	81	2,416	4,961	3,983	1,904	1,562	976	282	221	0.5	14.7	30.3	24.3	11.6	9.5	6.0	1.7	1.3
Santa Maria River and basins south (II-G)	6,286	83	2,163	1,589	1,006	544	495	312	73	21	1.3	34.4	25.3	16.0	8.7	7.9	5.0	1.2	0.3
Great Basin, total	4,269	31	701	823	748	552	546	505	185	178	0.7	16.4	19.3	17.5	12.9	12.8	11.8	4.3	4.2
Northwest Great Basin (III-A)	437	2	21	26	46	40	91	100	49	62	0.5	4.8	5.9	10.5	9.2	20.8	22.9	11.2	14.2
Humboldt River (III-B)	268	1	19	16	17	18	29	81	38	49	0.4	7.1	6.0	6.3	6.7	10.8	30.2	14.2	18.3
South Central Great Basin (III-C)	1,552	8	242	230	297	237	220	186	74	58	0.5	15.6	14.8	19.1	15.3	14.2	12.0	4.8	3.7
Bonneville Basin excluding Bear River (III-D)	1,562	20	366	429	300	200	143	89	9	6	1.3	23.4	27.5	19.2	12.8	9.2	5.7	0.6	0.4
Bear River (III-E)	457	.....	53	122	88	57	63	49	18	7	.....	11.6	26.7	19.3	12.5	13.8	10.7	3.9	1.5
Gulf of California, total	5,637	53	787	1,021	967	702	823	810	304	170	0.9	14.0	18.1	17.2	12.5	14.6	14.4	5.4	3.0
Excluding Colorado River (IV-A)	191	5	35	51	49	26	21	4	.....	.....	2.6	18.3	26.7	25.7	13.6	11.0	2.1	.....	.....
Colorado River, total	5,446	48	752	970	918	676	802	806	304	170	0.9	13.8	17.8	16.9	12.4	14.7	14.8	5.6	3.1
Colorado River below Lees Ferry, Arizona, total	2,924	33	561	593	455	273	327	397	182	103	1.1	19.2	20.3	15.6	9.3	11.2	13.6	6.2	3.5
Excluding Gila River (IV-B)	997	8	204	287	220	121	85	55	10	7	0.8	20.5	28.8	22.1	12.1	8.5	5.5	1.0	0.7
Gila River (IV-C)	1,927	25	357	306	235	152	242	342	172	96	1.3	18.5	15.9	12.2	7.9	12.6	17.7	8.9	5.0
Colorado River above Lees Ferry, Arizona, total	2,523	15	191	377	463	403	475	409	122	68	0.6	7.6	14.9	16.4	16.0	16.8	16.2	4.8	2.7
Excluding Green and Gunnison Rivers (IV-D)	1,102	6	109	204	218	174	204	145	28	14	0.5	9.9	18.5	19.8	15.8	18.5	13.2	2.5	1.3
Green River (IV-E)	936	3	29	96	160	154	183	193	70	48	0.3	3.1	10.3	17.1	16.5	19.6	20.6	7.5	5.1
Gunnison River (IV-F)	486	6	53	77	85	75	88	71	24	7	1.2	10.9	15.8	17.5	15.4	18.1	14.6	4.9	1.4
Gulf of Mexico excluding Mississippi River, total	12,728	415	938	1,316	1,371	1,664	3,585	2,720	540	179	3.3	7.4	10.3	10.8	13.1	28.2	21.4	4.2	1.4
Excluding Rio Grande (V-A)	9,050	131	518	734	831	1,209	2,955	2,208	372	92	1.4	5.7	8.1	9.2	13.4	32.7	24.4	4.1	1.0
Rio Grande, total	3,679	284	420	582	540	455	630	512	169	87	7.7	11.4	15.8	14.7	12.4	17.1	13.9	4.6	2.4
Rio Grande below Fort Quitman, Texas (V-B)	2,172	31	212	386	344	273	395	358	125	48	1.4	9.8	17.8	15.8	12.6	18.2	16.5	5.8	2.2
Rio Grande above Fort Quitman, Texas (V-C)	1,507	253	208	196	196	182	235	154	44	39	16.8	13.8	13.0	13.0	12.1	15.6	10.2	2.9	2.6
Mississippi River, total	18,032	428	1,230	2,486	3,464	3,396	3,969	2,236	541	282	2.4	6.8	13.8	19.2	18.8	22.0	12.4	3.0	1.6
Excluding Arkansas and Missouri Rivers (VI-A)	2,069	27	36	84	128	242	751	652	130	19	1.3	1.7	4.1	6.2	11.7	36.3	31.5	6.3	0.9
Arkansas River (VI-B)	2,249	65	315	409	400	337	383	260	57	23	2.9	14.0	18.2	17.8	15.0	17.0	11.6	2.5	1.0
Missouri River, total	13,714	336	879	1,993	2,936	2,817	2,835	1,324	354	240	2.5	6.4	14.5	21.4	20.5	20.7	9.7	2.6	1.8
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	2,905	36	182	493	642	678	490	288	64	32	1.2	6.3	17.0	22.1	23.3	16.9	9.9	2.2	1.1
Platte River, total	8,458	272	568	1,196	1,883	1,746	1,820	690	159	124	3.2	6.7	14.1	22.3	20.6	21.5	8.2	1.9	1.5
Excluding South Platte River (VI-D)	5,125	176	193	763	1,379	1,109	908	365	123	109	3.4	3.8	14.9	26.9	21.6	17.7	7.1	2.4	2.1
South Platte River (VI-E)	3,333	96	375	433	504	637	912	325	36	15	2.9	11.3	13.0	15.1	19.1	27.4	9.8	1.1	0.5
Yellowstone River, total	1,609	21	98	226	319	299	381	193	57	15	1.3	6.1	14.0	19.8	18.6	23.7	12.0	3.5	0.9
Excluding Big Horn River (VI-F)	1,130	15	70	162	228	209	276	123	40	7	1.3	6.2	14.3	20.2	18.5	24.4	10.9	3.5	0.6
Big Horn River (VI-G)	479	6	28	64	91	90	105	70	17	8	1.3	5.8	13.4	19.0	18.8	21.9	14.6	3.5	1.7
Missouri River headwaters above Three Forks, Montana (VI-H)	744	7	31	78	92	94	144	153	75	70	0.9	4.2	10.5	12.4	12.6	19.4	20.6	10.1	9.4
Hudson Bay (Red River of the North) (VII)	9	.....	3	3	1	.....	2	.....	.....	.....	.....	33.3	33.3	11.1	.....	22.2	.....	.....	.....

[1] 0.05 percent or less.

Table 45.—17 WESTERN STATES: MULTIPLE-FARM IRRIGATION ENTERPRISES, BY NUMBER OF ACRES IRRIGATED, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics of the entire enterprise]

Drainage basins	Number of enterprises by number of acres irrigated								Percent distribution of enterprises by number of acres irrigated						
	Total	No acres	1-99 acres	100-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres or more	No acres	1-99 acres	100-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres or more
17 Western States, total	10,170	341	2,425	5,394	1,239	547	147	77	3.4	23.8	53.0	12.2	5.4	1.4	0.8
DRAINAGE BASINS															
North Pacific Coast, total	2,495	58	681	1,364	241	111	22	18	2.3	27.3	54.7	9.7	4.4	0.9	0.7
North Pacific Coast excluding Columbia River (I-A)	147	.....	64	75	3	5	.....	.....	.....	43.5	51.0	2.0	3.4	.....	.....
Columbia River, total	2,348	58	617	1,289	238	106	22	18	2.5	26.3	54.9	10.1	4.5	0.9	0.8
Below Snake River (I-B)	311	7	129	151	9	13	.....	2	2.3	41.5	48.6	2.9	4.2	.....	0.6
Above Snake River excluding Yakima River (I-C)	577	15	210	309	30	10	2	1	2.6	36.4	53.6	5.2	1.7	0.3	0.2
Yakima River (I-D)	157	3	43	78	16	11	2	4	1.9	27.4	49.7	10.2	7.0	1.3	2.5
Snake River, total	1,305	33	235	751	183	74	18	11	2.5	18.0	57.5	14.0	5.7	1.4	0.8
Below Weiser, Idaho (I-E)	442	7	105	268	53	8	1	.....	1.6	23.8	60.6	12.0	1.8	0.2	.....
Weiser, Idaho, to King Hill, (I-F)	296	11	50	164	40	19	7	5	3.7	16.9	55.4	13.5	6.4	2.4	1.7
King Hill, Idaho, to American Falls, Idaho (I-G)	108	5	22	53	10	9	4	5	4.6	20.4	49.1	9.3	8.3	3.7	4.6
Above American Falls, Idaho (I-H)	466	10	58	269	80	40	7	2	2.1	12.4	57.7	17.2	8.6	1.5	0.4
South Pacific Coast, total	1,501	40	597	597	126	90	35	16	2.7	39.8	39.8	8.4	6.0	2.3	1.1
Klamath River (II-A)	60	1	14	19	16	7	2	1	1.7	23.3	31.7	26.7	11.7	3.3	1.7
Klamath River to Santa Maria River Excluding Central Valley (II-B)	54	4	22	24	1	3	.....	.....	7.4	40.7	44.4	1.9	5.6	.....	.....
Central Valley, total	437	15	106	147	65	59	31	14	3.4	24.3	33.6	14.9	13.5	7.1	3.2
Sacramento-San Joaquin Delta area (II-C)	40	2	4	12	9	6	5	2	5.0	10.0	30.0	22.5	15.0	12.5	5.0
Sacramento River (II-D)	109	2	13	43	17	21	11	2	1.8	11.9	39.4	15.6	19.3	10.1	1.8
San Joaquin River (II-E)	55	1	12	9	7	9	7	10	1.8	21.8	16.4	12.7	16.4	12.7	18.2
San Joaquin Valley above San Joaquin River (II-F)	245	10	77	83	36	27	9	3	4.1	31.4	33.9	14.7	11.0	3.7	1.2
Santa Maria River and basins south (II-G)	951	20	455	407	45	21	2	1	2.1	47.8	42.8	4.7	2.2	0.2	0.1
Great Basin, total	1,265	36	195	703	236	83	10	2	2.8	15.4	55.6	18.7	6.6	0.8	0.2
Northwest Great Basin (III-A)	36	.....	3	16	12	4	1	.....	.....	8.3	44.4	33.3	11.1	2.8	.....
Humboldt River (III-B)	32	1	.....	18	10	3	.....	.....	3.1	.....	56.3	31.3	9.4	.....	.....
South Central Great Basin (III-C)	125	8	8	63	26	17	2	1	6.4	6.4	50.4	20.8	13.6	1.6	0.8
Bonneville Basin excluding Bear River (III-D)	735	21	144	402	123	39	5	1	2.9	19.6	54.7	16.7	5.3	0.7	0.1
Bear River (III-E)	339	6	40	204	66	20	2	1	1.8	11.8	60.2	19.5	5.9	0.6	0.3
Gulf of California, total	1,545	99	312	891	172	47	15	9	6.4	20.2	57.7	11.1	3.0	1.0	0.6
Excluding Colorado River (IV-A)	3	.....	2	.....	1	.....	.....	.....	.....	66.7	.....	33.3	.....	.....	.....
Colorado River, total	1,543	99	310	891	172	47	15	9	6.4	20.1	57.7	11.1	3.0	1.0	0.6
Colorado River below Lees Ferry, Arizona, total	255	6	74	123	31	8	8	5	2.4	29.0	48.2	12.2	3.1	3.1	2.0
Excluding Gila River (IV-B)	134	2	47	64	14	3	1	3	1.5	35.1	47.8	10.4	2.2	0.7	2.2
Gila River (IV-C)	121	4	27	59	17	5	7	2	3.3	22.3	48.8	14.0	4.1	5.8	1.7
Colorado River above Lees Ferry, Arizona, total	1,289	93	237	768	141	39	7	4	7.2	18.4	59.6	10.9	3.0	0.5	0.2
Excluding Green and Gunnison Rivers (IV-D)	597	17	105	386	69	16	2	2	2.8	17.6	64.7	11.6	2.7	0.3	0.3
Green River (IV-E)	249	5	29	142	49	18	5	1	2.0	11.6	57.0	19.7	7.2	2.0	0.4
Gunnison River (IV-F)	445	72	103	241	23	5	.....	1	16.2	23.1	54.2	5.2	1.1	.....	0.2
Gulf of Mexico excluding Mississippi River, total	874	23	248	437	83	46	20	17	2.6	28.4	50.0	9.5	5.3	2.3	1.9
Excluding Rio Grande (V-A)	67	2	15	22	8	9	7	4	3.0	22.4	32.8	11.9	13.4	10.4	6.0
Rio Grande, total	807	21	233	415	75	37	13	13	2.6	28.9	51.4	9.3	4.6	1.6	1.6
Rio Grande below Fort Quitman, Texas (V-B)	123	7	30	44	10	15	9	8	5.7	24.4	35.8	8.1	12.2	7.3	6.5
Rio Grande above Fort Quitman, Texas (V-C)	684	14	203	371	65	22	4	5	2.0	29.7	54.2	9.5	3.2	0.6	0.7
Mississippi River, total	2,505	87	391	1,407	388	172	45	15	3.5	15.6	56.2	15.5	6.9	1.8	0.6
Excluding Arkansas and Missouri Rivers (VI-A)	2	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	50.0	50.0
Arkansas River (VI-B)	522	6	149	277	53	30	6	1	1.1	28.5	53.1	10.2	5.7	1.1	0.2
Missouri River, total	1,981	81	242	1,130	335	142	38	13	4.1	12.2	57.0	16.9	7.2	1.9	0.7
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	211	9	31	122	20	21	3	5	4.3	14.7	57.8	9.5	10.0	1.4	2.4
Platte River, total	750	37	68	341	196	82	20	6	4.9	9.1	45.5	26.1	10.9	2.7	0.8
Excluding South Platte River (VI-D)	294	11	11	164	66	29	8	5	3.7	3.7	55.8	22.4	9.9	2.7	1.7
South Platte River (VI-E)	456	26	57	177	130	53	12	1	5.7	12.5	38.8	28.5	11.6	2.6	0.2
Yellowstone River, total	676	21	100	428	81	27	16	3	3.1	14.8	63.3	12.0	4.0	2.4	0.4
Excluding Big Horn River (VI-F)	446	18	66	279	59	18	5	1	4.0	14.8	62.6	13.2	4.0	1.1	0.2
Big Horn River (VI-G)	230	3	34	149	22	9	11	2	1.3	14.8	64.8	9.6	3.9	4.8	0.9
Missouri River headwaters above Three Forks, Montana (VI-H)	350	16	43	239	40	12	.....	.....	4.6	12.3	68.3	11.4	3.4	.....	.....
Hudson Bay (Red River of the North) (VII)	2	.....	1	.....	.....	1	.....	.....	.....	50.0	.....	.....	50.0	.....	.....

Table 46.—17 WESTERN STATES: NUMBER OF ENTERPRISES AND ACREAGE IRRIGATED DIRECT BY SOURCE OF SURFACE WATER; IRRIGATED LAND ARTIFICIALLY DRAINED; AND IRRIGATED LAND IN NEED OF DRAINAGE; BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	Source of surface water[1]										Irrigated land artificially drained[2]			Irrigated land in need of drainage[2]		
	Streams (and lakes)		Springs		Flowing wells		Drainage water		Sewage							
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres of irrigated land	Acres drained	Enterprises reporting	Acres of irrigated land	Acres in need of drainage
17 Western States, total	39,158	19,272,564	4,295	773,693	1,827	410,428	2,472	1,912,172	128	24,847	6,333	7,962,334	4,091,541	6,243	6,914,860	1,666,723
DRAINAGE BASINS																
North Pacific Coast, total	13,870	3,938,146	1,463	127,739	298	100,092	928	754,068	29	4,809	1,796	1,551,449	622,596	2,000	1,414,860	317,927
North Pacific Coast excluding Columbia River (I-A)	2,022	111,016	192	2,419	20	265	208	4,047	4	13	373	38,943	10,725	279	37,023	9,419
Columbia River, total	11,848	3,827,130	1,271	125,320	278	99,827	720	750,021	25	4,796	1,421	1,512,506	611,871	1,721	1,377,837	308,508
Below Snake River (I-B)	3,399	359,489	343	10,533	44	2,727	194	13,864	12	1,283	736	87,950	31,424	668	74,405	17,820
Above Snake River excluding Yakima River (I-C)	2,931	469,051	293	12,415	42	3,552	78	31,812	6	1,558	199	134,402	85,208	372	182,403	90,696
Yakima River (I-D)	777	440,257	74	5,477	12	1,688	68	122,683	2	10	89	322,778	146,539	98	300,923	70,308
Snake River, total	4,746	2,558,333	561	96,895	180	91,860	380	581,662	5	1,945	398	967,376	348,700	583	820,106	129,684
Below Weiser, Idaho (I-E)	1,655	355,018	169	14,636	20	4,162	36	9,587	1	1,050	79	39,401	7,260	200	78,449	14,813
Weiser, Idaho, to King Hill, Idaho (I-F)	1,490	796,150	70	19,275	104	60,888	227	190,177	2	403	234	531,319	285,682	231	366,348	87,129
King Hill, Idaho, to American Falls, Idaho (I-G)	547	674,805	176	32,313	24	5,325	92	376,078	2	492	25	283,425	40,803	66	244,743	3,329
Above American Falls, Idaho (I-H)	1,068	732,360	150	30,671	32	21,485	26	5,820	.....	.....	61	113,231	14,955	87	130,566	24,413
South Pacific Coast, total	5,536	3,542,720	617	75,653	228	49,852	502	473,043	45	8,894	1,937	1,505,475	1,121,103	1,001	815,550	153,663
Klamath River (II-A)	628	353,185	92	35,841	14	22,666	31	131,585	1	48	92	215,946	192,721	104	172,856	27,471
Klamath River to Santa Maria River excluding Central Valley (II-B)	874	48,234	77	1,776	36	1,428	32	3,873	9	619	198	26,080	17,259	168	17,193	6,968
Central Valley, total	3,569	2,940,561	284	30,187	112	14,424	386	331,339	16	3,509	1,438	1,203,364	878,707	603	576,804	110,063
Sacramento-San Joaquin Delta area (II-C)	947	385,435	39	290	14	1,180	80	41,477	4	311	513	262,007	220,573	232	66,187	41,052
Sacramento River (II-D)	1,438	693,017	188	26,024	39	8,058	237	91,285	5	1,271	723	335,373	289,514	251	90,046	34,291
San Joaquin River (II-E)	506	918,254	37	3,103	27	2,442	57	189,912	1	50	134	537,261	333,004	76	362,633	20,812
San Joaquin Valley above San Joaquin River (II-F)	694	943,855	20	770	32	2,744	15	8,665	6	1,877	75	68,723	35,616	49	58,028	13,908
Santa Maria River and basins south (II-G)	472	200,740	167	7,849	66	11,334	53	6,246	19	4,718	215	60,085	32,416	129	48,607	9,161
Great Basin, total	3,011	2,031,587	1,037	352,635	654	114,131	242	82,601	6	298	554	609,843	293,700	594	646,949	162,678
Northwest Great Basin (III-A)	428	302,937	57	49,019	35	34,948	12	5,090	.....	.....	15	30,080	21,121	52	70,180	18,493
Humboldt River (III-B)	269	247,455	79	56,890	7	565	1	415	.....	.....	15	44,170	26,927	44	75,533	9,140
South Central Great Basin (III-C)	620	444,459	212	69,525	55	12,320	23	11,034	1	105	61	177,050	100,342	67	158,966	68,680
Bonneville Basin excluding Bear River (III-D)	1,149	654,284	493	132,019	496	56,689	163	45,524	4	93	348	216,533	109,310	262	146,225	29,200
Bear River (III-E)	554	382,452	198	45,182	61	9,609	43	20,538	1	100	116	142,010	36,000	170	196,045	37,165
Gulf of California, total	4,372	2,521,723	429	75,400	134	8,563	195	154,107	11	1,719	235	1,103,576	394,423	535	1,102,459	192,523
Excluding Colorado River (IV-A)	36	2,590	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Colorado River, total	4,337	2,519,133	429	75,400	134	8,563	195	154,107	11	1,719	235	1,103,576	394,423	535	1,102,459	192,523
Colorado River below Lees Ferry, Arizona, total	780	1,065,444	161	29,284	106	6,609	25	6,764	10	1,679	39	787,461	295,220	66	611,190	114,894
Excluding Gila River (IV-B)	328	637,616	135	28,501	34	2,958	5	211	5	1,050	22	571,525	161,320	54	584,084	110,293
Gila River (IV-C)	452	427,828	26	783	72	3,651	20	6,553	5	629	17	215,936	133,900	12	27,106	4,601
Colorado River above Lees Ferry, Arizona, total	3,559	1,453,689	268	46,116	28	1,954	170	147,343	1	40	196	316,115	99,203	469	491,269	77,629
Excluding Green and Gunnison Rivers (IV-D)	1,597	566,522	121	16,525	14	553	35	34,964	1	40	68	131,911	54,349	169	172,578	19,655
Green River (IV-E)	1,099	600,510	96	22,041	9	1,026	61	28,937	.....	.....	47	87,402	14,062	167	203,724	45,266
Gunnison River (IV-F)	866	286,657	51	7,550	5	375	74	83,442	.....	.....	81	96,802	30,792	133	114,967	12,708
Gulf of Mexico excluding Mississippi River, total	2,771	2,221,737	204	48,256	354	104,692	197	259,515	23	6,679	724	1,339,643	1,006,785	498	1,181,366	609,936
Excluding Rio Grande (V-A)	610	475,691	50	1,544	95	7,506	32	6,156	18	5,710	261	276,561	257,143	146	289,542	234,552
Rio Grande, total	2,162	1,746,046	154	46,712	259	97,186	165	253,359	5	969	463	1,063,082	749,642	352	891,824	375,384
Rio Grande below Fort Quitman, Texas (V-B)	1,046	778,529	45	24,122	55	22,734	70	72,857	2	133	336	626,399	411,418	198	573,720	285,865
Rio Grande above Fort Quitman, Texas (V-C)	1,116	967,517	109	22,590	204	74,452	95	180,502	3	836	127	436,683	338,224	154	318,104	89,519
Mississippi River, total	9,635	5,008,741	548	93,983	162	33,098	411	188,832	14	2,448	1,086	1,844,580	647,719	1,614	1,745,940	229,126
Excluding Arkansas and Missouri Rivers (VI-A)	26	46,448	3	13	1	130	1	10	1	60	9	43,923	6,690	27	50,394	9,775
Arkansas River (VI-B)	1,394	600,729	133	12,148	21	7,071	76	54,649	1	43	166	266,351	84,730	183	247,613	32,878
Missouri River, total	8,215	4,361,564	412	81,822	140	25,897	334	134,173	12	2,345	911	1,534,306	556,299	1,404	1,447,933	186,473
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	1,921	674,543	98	15,136	58	5,116	67	5,037	4	383	159	274,482	94,639	215	259,010	41,672
Platte River, total	3,033	2,155,926	150	36,374	60	17,201	225	109,358	7	1,941	531	693,892	197,215	774	713,957	66,475
Excluding South Platte River (VI-D)	1,741	1,215,678	58	27,586	39	13,966	56	23,471	1	60	321	417,889	152,272	545	458,961	49,637
South Platte (VI-E)	1,292	940,248	92	8,788	21	3,235	169	85,887	6	1,881	210	276,003	44,943	229	254,996	16,838
Yellowstone River, total	2,208	1,035,725	84	10,841	20	3,460	34	16,663	1	21	159	496,464	258,830	267	362,201	63,058
Excluding Big Horn River (VI-F)	1,525	563,873	61	7,215	7	1,178	23	4,001	1	21	94	204,099	66,272	183	210,068	28,495
Big Horn River (VI-G)	683	471,852	23	3,626	13	2,282	11	12,662	.....	.....	65	292,365	192,558	84	152,133	34,563
Missouri River headwaters above Three Forks, Montana (VI-H)	1,061	495,370	80	19,471	2	120	8	3,115	.....	.....	62	69,468	5,615	148	112,765	15,268
Hudson Bay (Red River of the North) (VII)	7	7,910	3	27	.....	.....	1	6	.....	.....	4	7,768	5,215	2	7,736	870

[1]For interbasin enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage in the basin. Data not included for other sources reported by 14 enterprises with 1,852 acres irrigated.

[2]For interbasin enterprises, data represent characteristics within the basin.

Table 47.—17 WESTERN STATES: USE OF SURFACE, GROUND, PUMPED AND STORED WATER—ENTERPRISES REPORTING AND ACREAGE IRRIGATED DIRECT, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage within the basin. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	Surface water						Ground water only (pumped from wells)		Surface (gravity or pumped) and ground water		Storage of water					
	Gravity only		Pumped only		Gravity and pumped						None stored		Part stored		All stored	
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
17 Western States, total	27,904	13,649,215	11,503	2,074,675	1,261	1,457,515	67,126	6,829,443	4,146	2,520,095	104,754	17,032,606	4,380	7,579,013	2,806	1,919,324
DRAINAGE BASINS																
North Pacific Coast, total	8,259	2,818,415	5,950	225,411	547	671,915	3,417	100,935	892	292,145	17,645	1,796,663	840	2,205,542	580	106,616
North Pacific Coast excluding Columbia River (I-A)	584	65,960	1,543	35,741	69	9,496	525	7,272	158	3,060	2,652	96,140	69	22,965	158	2,424
Columbia River, total	7,675	2,752,455	4,407	189,670	478	662,419	2,892	93,663	734	289,085	14,993	1,700,523	771	2,182,577	422	104,192
Below Snake River (I-B)	1,139	231,955	2,269	58,590	126	59,600	1,574	32,699	323	23,009	5,252	275,987	84	123,447	95	6,419
Above Snake River excluding Yakima River (I-C)	2,039	315,674	899	38,638	106	114,719	649	18,301	152	7,803	3,607	321,591	153	165,679	85	7,865
Yakima River (I-D)	438	301,161	329	19,982	46	118,145	117	4,248	53	4,087	896	102,712	64	333,241	23	11,670
Snake River, total	4,062	1,903,665	911	72,460	201	369,955	552	38,415	206	254,186	5,242	1,000,233	471	1,560,210	219	78,238
Below Weiser, Idaho (I-E)	1,530	333,026	140	6,719	48	10,779	70	1,593	39	7,656	1,712	296,522	82	57,479	33	5,772
Weiser, Idaho, to King Hill, Idaho (I-F)	1,051	361,594	509	26,274	99	255,435	237	7,104	78	163,780	1,675	238,087	211	558,701	88	17,399
King Hill, Idaho, to American Falls, Idaho (I-G)	483	547,475	125	17,780	24	65,775	104	12,932	66	58,388	704	128,374	47	521,792	51	52,184
Above American Falls, Idaho (I-H)	1,003	661,570	138	21,687	34	37,966	141	16,786	27	24,362	1,156	337,250	140	422,238	47	2,883
South Pacific Coast, total	2,280	1,320,948	2,223	607,957	232	342,754	39,569	3,253,609	1,770	1,368,999	44,772	5,599,181	819	977,517	483	317,569
Klamath River (II-A)	452	123,049	166	66,665	37	139,530	67	4,647	36	35,894	668	206,724	62	27,436	28	135,625
Kamath River to Santa Maria River excluding Central Valley (II-B)	153	8,638	542	16,179	34	6,577	5,161	339,551	268	22,915	5,903	373,899	141	14,915	114	5,046
Central Valley, total	1,489	1,135,600	1,377	522,342	144	193,571	27,823	2,424,942	1,113	1,155,719	31,423	4,471,401	304	829,422	219	131,351
Sacramento-San Joaquin Delta area (II-C)	253	107,958	551	171,566	35	32,558	3,673	161,527	200	80,714	4,626	519,748	45	31,058	41	3,517
Sacramento River (II-D)	857	340,695	566	235,565	76	66,625	4,716	271,300	265	93,856	6,244	788,065	130	136,537	106	83,439
San Joaquin River (II-E)	137	251,616	199	112,063	20	7,368	3,557	443,550	233	555,762	4,032	830,869	60	496,119	54	43,371
San Joaquin Valley Above San Joaquin River (II-F)	244	435,331	63	3,148	17	87,020	15,884	1,548,565	423	425,387	16,535	2,332,719	78	165,708	18	1,024
Santa Maria River and basins south (II-G)	186	53,661	138	2,771	18	3,076	6,536	484,469	359	154,471	6,801	547,157	314	105,744	122	45,547
Great Basin, total	3,792	1,850,131	165	27,491	105	127,188	1,267	99,467	205	133,753	4,703	1,355,386	587	746,554	244	136,090
Northwest Great Basin (III-A)	440	274,360	2	1,003	4	5,230	11	328	16	27,292	424	281,024	36	19,159	13	8,030
Humboldt River (III-B)	277	217,385	2	5,301	.....	.....	11	36	10	26,164	263	199,549	25	21,184	12	28,153
South Central Great Basin (III-C)	654	418,410	17	3,422	11	6,967	898	69,384	97	39,916	1,489	272,752	154	254,887	34	10,460
Bonneville Basin excluding Bear River (III-D)	1,774	613,944	93	9,859	37	56,278	326	26,679	67	32,896	1,863	344,673	289	313,113	145	81,870
Bear River (III-E)	656	326,032	51	7,906	53	58,713	21	3,040	15	7,485	671	257,388	85	138,211	40	7,577
Gulf of California, total	4,336	2,037,389	258	16,581	56	22,807	2,331	566,650	201	480,613	6,320	1,668,589	552	854,203	310	601,248
Excluding Colorado River (IV-A)	36	2,590	.....	.....	.....	.....	158	8,415	.....	.....	188	10,307	2	480	4	218
Colorado River, total	4,301	2,034,799	258	16,581	56	22,807	2,173	558,235	201	480,613	6,133	1,658,282	550	853,723	306	601,030
Colorado River below Lees Ferry, Arizona, total	738	599,366	85	4,956	15	11,649	2,156	557,939	185	471,228	2,951	720,349	133	354,011	95	570,778
Excluding Gila River (IV-B)	364	572,675	39	3,420	7	11,530	667	43,427	54	65,980	1,029	109,119	51	19,960	51	567,953
Gila River (IV-C)	374	26,691	46	1,536	8	119	1,489	514,512	131	405,248	1,922	611,230	82	334,051	44	2,825
Colorado River above Lees Ferry, Arizona, total	3,564	1,435,433	173	11,625	42	11,158	17	296	16	9,385	3,183	937,933	417	499,712	212	30,252
Excluding Green and Gunnison Rivers (IV-D)	1,578	550,885	88	5,727	18	5,791	9	175	6	8,449	1,440	372,683	198	186,433	61	11,911
Green River (IV-E)	1,094	598,167	68	5,029	16	2,758	.....	.....	7	807	1,036	412,712	101	178,061	48	15,988
Gunnison River (IV-F)	895	286,381	17	869	8	2,609	8	121	3	129	707	152,538	120	135,218	104	2,353
Gulf of Mexico excluding Mississippi River, total	1,603	1,078,687	1,290	1,033,886	91	37,258	10,257	1,702,473	361	154,196	12,765	2,825,496	441	826,376	396	354,628
Excluding Rio Grande (V-A)	134	22,511	523	427,752	25	2,689	8,333	1,438,535	102	41,726	8,828	1,795,803	126	116,764	163	20,646
Rio Grande, total	1,469	1,056,176	767	606,134	66	34,569	1,924	263,938	260	112,470	3,938	1,029,693	315	709,612	233	333,982
Rio Grande below Fort Quitman, Texas (V-B)	274	119,252	729	604,839	50	30,486	1,111	198,728	131	58,211	1,968	472,762	161	382,580	166	156,174
Rio Grande above Fort Quitman, Texas (V-C)	1,195	936,924	38	1,295	16	4,083	813	65,210	129	54,259	1,970	556,931	154	327,032	67	177,808
Mississippi River, total	7,665	4,535,976	1,612	163,075	232	255,593	10,307	1,106,309	721	90,389	18,599	3,779,526	1,146	1,968,685	792	403,131
Excluding Arkansas and Missouri Rivers (VI-A)	7	45,561	19	705	2	25	2,039	426,374	4	370	2,062	427,553	5	38	4	45,444
Arkansas River (VI-B)	1,250	568,516	106	4,677	20	1,782	1,249	126,599	146	31,460	2,490	400,254	194	271,758	87	61,022
Missouri River, total	6,408	3,921,899	1,487	157,693	210	253,786	7,019	553,336	571	58,559	14,047	2,951,719	947	1,696,889	701	296,665
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	1,273	480,309	602	68,372	75	116,049	1,057	81,364	109	11,767	2,718	403,060	173	166,482	225	197,319
Platte River, total	2,154	2,049,377	597	32,250	69	45,258	5,943	471,373	445	43,163	8,303	1,399,867	514	1,157,679	391	83,875
Excluding South Platte River (VI-D)	1,153	1,148,673	451	25,027	37	29,677	3,603	248,422	175	17,943	5,003	865,012	177	554,866	239	49,864
South Platte River (VI-E)	1,001	900,704	146	7,223	32	15,581	2,340	222,951	270	25,220	3,300	534,855	337	602,813	152	34,011
Yellowstone River, total	1,922	896,564	277	55,892	58	84,947	15	279	13	1,804	2,032	692,524	184	339,469	69	7,493
Excluding Big Horn River (VI-F)	1,301	433,333	212	50,243	46	81,505	10	159	7	1,012	1,419	453,335	111	106,888	46	6,029
Big Horn River (VI-G)	621	463,231	65	5,649	12	3,442	5	120	6	792	613	239,189	73	232,581	23	1,464
Missouri River headwaters above Three Forks, Montana (VI-H)	1,065	486,649	11	1,179	9	7,532	4	320	5	1,825	999	456,268	78	33,259	17	7,978
Hudson Bay (Red River of the North) (VII)	6	7,669	5	274	.....	.....	.....	.....	.....	.....	8	7,765	1	136	2	42

Table 48.—17 WESTERN STATES: CAPITAL INVESTMENT IN IRRIGATION ENTERPRISES–TOTAL, 1950 AND 1940; AND NEW CAPITAL INVESTMENT, 1940 TO 1950; BY DRAINAGE BASINS

[For interbasin enterprises, data represent characteristics within the basin]

Drainage basins	Total capital investment					Average capital investment (dollars)				New capital investment, Jan. 1, 1940, to Jan. 1, 1950		
	1950 (dollars)	1940 (dollars)	Percent increase or decrease (-) 1940-50	Percent distribution		Per enterprise[1]		Per acre of irrigated land		Enterprises reporting[1]	Amount (dollars)	Acres irrigated direct[2]
				1950	1940	1950	1940	1950	1940			
17 Western States, total	1,832,515,061	1,034,716,793	77.1	100.0	100.0	16,371	11,789	74	51	63,418	797,798,268	16,341,921
DRAINAGE BASINS												
North Pacific Coast, total	386,371,143	212,872,435	81.5	21.1	20.6	20,266	14,272	97	54	10,654	173,498,708	2,084,676
North Pacific Coast excluding Columbia River (I-A)	9,931,225	6,349,133	56.4	0.5	0.6	3,450	3,605	83	67	2,039	3,582,092	82,146
Columbia River, total	376,439,918	206,523,302	82.3	20.5	20.0	23,257	15,700	98	54	8,615	169,916,616	2,002,530
Below Snake River (I-B)	32,373,327	13,723,603	135.9	1.8	1.3	5,961	4,038	81	46	3,703	18,649,724	240,007
Above Snake River excluding Yakima River (I-C)	138,647,073	28,445,872	387.4	7.6	2.7	36,059	7,711	295	59	1,818	110,201,201	309,920
Yakima River (I-D)	51,730,160	39,033,395	32.5	2.8	3.8	52,625	51,906	124	94	496	12,696,765	261,330
Snake River, total	153,689,358	125,320,432	22.6	8.4	12.1	25,909	23,583	59	48	2,602	28,368,926	1,191,273
Below Weiser, Idaho (I-E)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	586	2,278,807	166,936
Weiser, Idaho, to King Hill, Idaho (I-F)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1,041	20,707,866	513,028
King Hill, Idaho, to American Falls, Idaho (I-G)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	392	3,427,488	113,485
Above American Falls, Idaho (I-H)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	589	1,954,765	397,824
South Pacific Coast, total	580,233,136	295,405,297	96.4	31.7	28.5	12,594	7,647	95	64	23,962	284,827,839	4,535,190
Klamath River (II-A)	17,630,944	10,430,941	69.0	1.0	1.0	23,260	11,228	48	38	285	7,200,003	255,943
Klamath River to Santa Maria River excluding Central Valley (II-B)	37,203,283	20,520,299	81.3	2.0	2.0	6,041	3,587	96	68	3,525	16,682,984	239,967
Central Valley, total	399,293,920	171,004,939	133.5	21.8	16.5	12,499	6,731	85	50	16,402	228,288,981	3,633,161
Sacramento-San Joaquin Delta area (II-C)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2,439	16,102,246	328,177
Sacramento River (II-D)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3,251	71,118,560	651,976
San Joaquin River (II-E)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2,127	34,240,722	1,044,085
San Joaquin Valley above San Joaquin River (II-F)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8,601	106,827,453	1,608,923
Santa Maria River and basins south (II-G)	126,104,989	93,449,118	34.9	6.9	9.0	17,425	14,211	193	147	3,767	32,655,871	406,119
Great Basin, total	81,034,792	59,698,865	35.7	4.4	5.8	14,643	12,357	38	29	2,284	21,335,927	1,289,641
Northwest Great Basin (III-A)	2,179,391	1,733,612	25.7	0.1	0.2	4,608	2,914	7	7	197	445,779	180,353
Humboldt River (III-B)	3,374,575	2,974,199	13.5	0.2	0.3	11,249	8,126	14	10	159	400,376	124,089
South Central Great Basin (III-C)	24,759,549	17,589,284	40.8	1.4	1.7	14,764	11,104	47	36	778	7,170,265	308,780
Bonneville Basin excluding Bear River (III-D)	37,969,312	27,333,295	38.9	2.1	2.6	16,530	16,397	56	40	834	10,636,017	429,995
Bear River (III-E)	12,751,965	10,068,475	26.7	0.7	1.0	16,020	16,266	34	25	318	2,683,490	246,424
Gulf of California, total	274,209,408	156,027,509	75.7	15.0	15.1	38,180	20,441	92	59	3,999	118,181,899	2,361,080
Excluding Colorado River (IV-A)	896,739	226,627	295.7	0.1	(3)	4,622	801	82	27	138	670,112	9,484
Colorado River, total	273,312,669	155,800,882	75.4	14.9	15.1	39,622	21,197	92	59	3,862	117,511,787	2,351,596
Colorado River below Lees Ferry, Arizona, total	196,115,925	109,352,130	79.3	10.7	10.6	61,691	40,576	125	93	1,977	86,763,795	1,379,114
Excluding Gila River (IV-B)	89,561,880	39,991,927	123.9	4.9	3.9	79,188	36,094	129	67	621	49,569,953	599,993
Gila River (IV-C)	106,554,045	69,360,203	53.6	5.8	6.7	52,028	43,705	122	121	1,356	37,193,842	779,121
Colorado River above Lees Ferry, Arizona, total	77,196,744	46,448,752	66.2	4.2	4.5	20,251	9,978	55	32	1,886	30,747,992	972,482
Excluding Green and Gunnison Rivers (IV-D)	47,055,204	21,062,395	123.4	2.6	2.0	27,696	9,875	87	40	842	25,992,809	383,029
Green River (IV-E)	15,117,761	12,160,991	24.3	0.8	1.2	12,758	7,572	26	19	540	2,956,770	381,579
Gunnison River (IV-F)	15,023,779	13,225,366	13.6	0.8	1.3	16,137	14,438	56	45	505	1,798,413	207,874
Gulf of Mexico excluding Mississippi River, total	181,375,505	99,664,965	82.0	9.9	9.6	13,334	15,785	47	50	10,305	81,710,540	2,915,110
Excluding Rio Grande (V-A)	73,932,167	19,100,967	287.1	4.0	1.8	8,109	6,539	38	41	7,770	54,831,200	1,639,503
Rio Grande, total	107,443,338	80,563,998	33.4	5.9	7.8	23,951	23,744	56	53	2,535	26,879,340	1,275,607
Rio Grande below Fort Quitman, Texas (V-B)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1,462	20,238,430	855,908
Rio Grande above Fort Quitman, Texas (V-C)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1,073	6,640,910	419,699
Mississippi River, total	329,128,643	210,917,156	56.0	18.0	20.4	16,026	13,515	57	41	12,252	118,211,487	3,155,907
Excluding Arkansas and Missouri Rivers (VI-A)	29,398,485	6,635,081	343.1	1.6	0.6	14,195	8,399	62	52	1,765	22,763,404	406,436
Arkansas River (VI-B)	45,885,616	24,531,837	87.0	2.5	2.4	16,559	9,120	67	39	1,404	21,353,779	323,972
Missouri River, total	253,844,542	179,750,238	41.2	13.9	17.4	16,174	14,824	55	41	9,083	74,094,304	2,425,499
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	54,544,092	39,262,453	38.9	3.0	3.8	17,505	14,771	72	63	2,003	15,281,639	445,897
Platte River, total	133,414,907	95,210,869	40.1	7.3	9.2	14,489	15,673	56	40	5,504	38,204,038	1,190,729
Excluding South Platte River (VI-D)	65,380,388	52,966,321	23.4	3.6	5.1	12,065	16,373	46	44	3,689	12,414,067	738,356
South Platte River (VI-E)	68,034,519	42,244,548	61.0	3.7	4.1	17,956	14,875	69	36	1,815	25,789,971	452,373
Yellowstone River, total	60,236,186	40,767,196	47.8	3.3	3.9	26,362	18,079	60	41	1,143	19,468,990	544,189
Excluding Big Horn River (VI-F)	23,360,203	18,464,164	26.5	1.3	1.8	14,822	12,163	42	34	821	4,896,039	299,252
Big Horn River (VI-G)	36,875,983	22,303,032	65.3	2.0	2.2	52,011	30,262	80	50	322	14,572,951	244,937
Missouri River headwaters above Three Forks, Montana (VI-H)	5,649,357	4,509,720	25.3	0.3	0.4	5,164	3,963	12	10	435	1,139,637	244,684
Hudson Bay (Red River of the North) (VII)	162,434	130,566	24.4	(3)	(3)	14,767	13,057	20	29	6	31,868	317

*Not available.
[1]Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total.
[2]Acreage irrigated direct by 2 or more enterprises is counted for each.
[3]0.05 percent or less.

Table 49.–17 WESTERN STATES: IRRIGATION ENTERPRISES REPORTING AND AMOUNT OF INDEBTEDNESS, ARREARAGE OF INDEBTEDNESS, AND ARREARAGE IN PAYMENTS BY FARMS, BY DRAINAGE BASINS: 1950

[Data reported only for multiple-farm enterprises. Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	Enterprises reporting indebtedness			Amount of indebtedness (dollars)			Arrearage on indebtedness					Arrearage in payments by farms				
							Enterprises reporting			Amount (dollars)		Enterprises reporting			Amount (dollars)	
	Number	Percent of all enterprises	Acres irrigated direct	Total	Average per acre irrigated, 1950	Average per acre of all irrigated land, 1950	Number	Percent of all enterprises	Acres irrigated	Total	Average per acre irrigated	Number	Percent of all enterprises	Acres irrigated	Total	Average per acre irrigated
17 Western States, total	1,133	1.0	6,916,250	694,650,536	100.44	27.95	133	0.1	621,303	8,429,544	13.57	993	0.9	5,398,450	7,353,374	1.36
DRAINAGE BASINS																
North Pacific Coast, total	225	1.2	1,343,220	204,235,778	152.05	51.39	14	0.1	34,877	941,104	26.98	317	1.7	1,218,265	726,843	0.60
North Pacific Coast excluding Columbia River (I-A)	12	0.4	36,470	1,591,882	43.65	13.34	1	(1)	516	47,700	92.44	22	0.8	19,329	37,521	1.94
Columbia River, total	213	1.3	1,306,750	202,643,896	155.07	52.57	13	0.1	34,361	893,404	26.00	295	1.8	1,198,936	689,322	0.57
Below Snake River (I-B)	35	0.6	142,358	14,067,702	98.82	35.35	3	0.1	20,454	504,214	24.65	44	0.8	66,218	71,766	1.08
Above Snake River excluding Yakima River (I-C)	55	1.4	187,892	101,640,344	540.95	216.32	4	0.1	8,375	385,200	45.99	69	1.8	81,338	151,066	1.86
Yakima River (I-D)	29	3.0	123,655	25,134,080	203.26	59.47	2	0.2	887	2,652	2.99	42	4.3	195,919	132,433	0.68
Snake River, total	96	1.6	852,845	61,801,770	72.47	24.10	4	0.1	4,645	1,338	0.29	140	2.4	855,461	334,057	0.39
Below Weiser, Idaho (I-E)	18	1.0	31,421	1,972,832	62.79	5.57	2	0.1	3,870	198	0.05	27	1.5	38,961	11,690	0.30
Weiser, Idaho, to King Hill, Idaho (I-F)	39	2.0	457,716	48,658,396	106.31	61.03	1	0.1	400	140	0.35	42	2.1	247,921	108,668	0.44
King Hill, Idaho, to American Falls, Idaho (I-G)	10	1.2	209,108	8,741,755	41.80	12.64	....	.....	.....	.....	.....	8	1.0	285,919	144,138	0.50
Above American Falls, Idaho (I-H)	30	2.2	154,600	2,428,787	15.71	3.37	1	0.1	375	1,000	2.67	63	4.7	282,660	69,561	0.25
South Pacific Coast, total	258	0.6	1,317,888	185,666,189	140.88	30.44	16	(1)	67,848	973,894	14.35	205	0.4	1,455,251	595,828	0.41
Klamath River (II-A)	15	2.0	171,047	7,019,873	41.04	19.26	....	.....	.....	.....	.....	7	0.9	41,778	12,385	0.30
Klamath River to Santa Maria River excluding Central Valley (II-B)	11	0.2	7,439	8,039,800	1,080.76	20.80	....	.....	.....	.....	.....	7	0.1	4,924	4,080	0.83
Central Valley, total	89	0.3	1,013,690	158,395,919	156.26	33.74	9	(1)	66,215	963,696	14.55	103	0.3	1,354,228	526,040	0.39
Sacramento-San Joaquin Delta area (II-C)	16	0.3	101,241	10,193,128	100.68	18.62	1	(1)	16,515	924	0.06	15	0.3	92,183	31,674	0.34
Sacramento River (II-D)	34	0.5	234,259	68,275,153	291.45	69.33	5	0.1	35,248	960,780	27.26	38	0.6	258,141	225,485	0.87
San Joaquin River (II-E)	16	0.4	512,882	28,173,355	54.93	23.51	1	(1)	1,734	500	0.29	21	0.5	518,769	114,340	0.22
San Joaquin Valley above San Joaquin River (II-F)	30	0.2	165,308	51,754,283	313.08	26.35	2	(1)	12,718	1,492	0.12	34	0.2	485,135	154,541	0.32
Santa Maria River and basins south (II-G)	143	2.0	125,712	12,210,597	97.13	18.65	7	0.1	1,633	10,198	6.24	88	1.2	54,321	53,323	0.98
Great Basin, total	137	2.5	297,500	24,328,949	81.78	11.35	9	0.2	93,338	273,874	2.93	91	1.6	270,681	86,891	0.32
Northwest Great Basin (III-A)	3	0.6	4,795	767,979	160.16	2.50	1	0.2	1,633	30,000	18.37	1	0.2	1,633	2,520	1.54
Humboldt River (III-B)	2	0.7	999	956,429	957.39	3.84	....	.....	.....	.....	.....	....	.....	.....	.....	.....
South Central Great Basin (III-C)	16	1.0	119,319	3,053,931	25.59	5.80	2	0.1	85,014	179,154	2.11	10	0.6	122,677	47,892	0.39
Bonneville Basin excluding Bear River (III-D)	93	4.0	132,851	17,638,110	132.77	25.78	3	0.1	6,266	31,712	5.06	54	2.4	96,220	24,264	0.25
Bear River (III-E)	23	2.9	39,536	1,912,500	48.37	5.09	3	0.4	425	33,008	77.67	26	3.3	50,151	12,215	0.24
Gulf of California, total	220	3.1	1,306,699	120,938,394	92.55	40.67	64	0.9	105,689	3,136,938	29.68	165	2.3	626,940	1,583,910	2.53
Excluding Colorado River (IV-A)	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	....	.....	.....	.....	.....
Colorado River, total	220	2.3	1,306,699	120,938,394	92.55	40.82	64	0.9	105,689	3,136,938	29.68	165	2.4	626,940	1,583,910	2.53
Colorado River below Lees Ferry, Arizona, total	70	2.2	856,900	101,671,705	118.65	64.88	17	0.5	74,282	473,560	6.38	40	1.3	281,686	718,538	2.55
Excluding Gila River (IV-B)	40	3.5	587,015	68,469,017	116.64	98.93	13	1.1	67,968	448,197	6.59	30	2.7	146,860	396,680	2.70
Gila River (IV-C)	30	1.5	269,885	33,202,688	123.03	37.94	4	0.2	6,314	25,363	4.02	10	0.5	134,826	321,858	2.39
Colorado River above Lees Ferry, Arizona, total	150	3.9	449,799	19,266,689	42.83	13.81	47	1.2	31,407	2,663,378	84.80	125	3.3	345,254	865,372	2.51
Excluding Green and Gunnison Rivers (IV-D)	96	5.7	210,402	8,966,736	42.62	16.63	45	2.6	29,330	2,638,859	89.97	85	5.0	147,738	811,414	5.49
Green River (IV-E)	30	2.5	138,133	3,191,753	23.11	5.44	1	0.1	1,141	1,519	1.33	16	1.4	102,361	20,736	0.20
Gunnison River (IV-F)	25	2.7	101,264	7,108,200	70.19	26.39	1	0.1	936	23,000	24.57	25	2.7	95,155	33,222	0.35
Gulf of Mexico excluding Mississippi River, total	79	0.6	1,120,673	43,680,190	38.98	11.32	5	(1)	81,944	1,364,222	16.65	62	0.5	831,174	3,062,878	3.69
Excluding Rio Grande (V-A)	15	0.2	204,830	7,727,112	37.72	4.01	1	(1)	7,217	3,752	0.52	12	0.1	192,640	240,043	1.25
Rio Grande, total	64	1.4	915,843	35,953,078	39.26	18.62	4	0.1	74,727	1,360,470	18.21	50	1.1	638,534	2,822,835	4.42
Rio Grande below Fort Quitman, Texas (V-B)	44	1.9	605,277	22,061,673	36.45	22.41	1	(1)	9,479	8,000	0.84	30	1.3	539,246	696,962	1.29
Rio Grande above Fort Quitman, Texas (V-C)	20	0.9	310,566	13,891,405	44.73	14.67	3	0.1	65,248	1,352,470	20.73	20	0.9	99,288	2,125,873	21.41
Mississippi River, total	220	1.1	1,530,270	115,801,036	75.67	19.98	25	0.1	237,607	1,739,512	7.32	153	0.7	996,139	1,297,024	1.30
Excluding Arkansas and Missouri Rivers (VI-A)	2	0.1	45,289	3,500,000	77.28	7.41	....	.....	.....	.....	.....	1	(1)	13,033	37,000	2.84
Arkansas River (VI-B)	29	1.0	106,360	7,840,787	73.72	11.48	1	(1)	6,400	10,000	1.56	32	1.2	149,028	104,798	0.70
Missouri River, total	189	1.2	1,378,621	104,460,249	75.77	22.51	24	0.2	231,207	1,729,512	7.48	120	0.8	834,078	1,155,226	1.39
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	33	1.1	288,845	25,967,813	89.90	34.39	6	0.2	25,285	377,135	14.92	12	0.4	168,737	64,621	0.38
Platte River, total	80	0.9	658,039	51,746,099	78.64	21.55	10	0.1	148,984	729,593	4.90	71	0.8	410,724	490,589	1.19
Excluding South Platte River (VI-D)	35	0.6	484,160	24,983,457	51.60	17.62	9	0.2	148,984	534,669	3.59	21	0.4	319,853	276,704	0.87
South Platte River (VI-E)	45	1.2	173,879	26,762,642	153.92	27.20	1	(1)	.....	194,924	.....	50	1.3	90,871	213,885	2.35
Yellowstone River, total	69	3.0	422,762	25,592,816	60.54	25.29	7	0.3	56,938	423,889	7.44	27	1.2	228,348	593,649	2.60
Excluding Big Horn River (VI-F)	46	2.9	207,195	8,181,790	39.49	14.81	5	0.3	48,062	423,486	8.81	18	1.1	108,378	11,700	0.11
Big Horn River (VI-G)	23	3.2	215,567	17,411,026	80.77	37.91	2	0.3	8,876	403	0.05	9	1.3	119,970	581,949	4.85
Missouri River headwaters above Three Forks, Montana (VI-H)	9	0.8	8,975	1,153,521	128.53	2.44	2	0.2	.....	198,895	.....	12	1.1	26,269	6,367	0.24
Hudson Bay (Red River of the North (VII)	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	....	.....	.....	.....	.....

[1] 0.05 percent or less.

Table 50.—17 WESTERN STATES: ENTERPRISES REPORTING AND NUMBER OF DIVERSION DAMS AND RESERVOIRS, AND NUMBER OF DAMS BY MATERIAL OF WHICH CONSTRUCTED, BY DRAINAGE BASINS: 1950

[Interstate enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin]

Drainage basins	Diversion dams						Reservoirs									
	Enterprises reporting	Total number	Number by material				Enterprises reporting	Total number	Reservoirs for which capacity was reported					Number of reservoir dams by material		
			Concrete or masonry	Timber	Earth and/or rock	Other, mixed, and not reported			Number	Total capacity acre-feet	Number by capacity			Concrete or masonry	Earth and/or rock	Other, mixed, and not reported
											1 to 99 acre-feet	100 to 999 acre-feet	1,000 acre-feet and over			
17 Western States, total	26,230	49,349	5,790	6,797	31,788	4,974	5,208	7,393	6,703	42,332,466	4,765	1,190	748	648	6,139	606
DRAINAGE BASINS																
North Pacific Coast, total	8,311	14,776	1,800	2,525	9,429	1,022	860	1,103	985	14,375,186	659	169	157	96	842	165
North Pacific Coast excluding Columbia River (I-A)	724	824	126	132	467	99	205	229	209	39,305	197	7	5	17	177	35
Columbia River, total	7,587	13,952	1,674	2,393	8,962	923	655	874	776	14,335,881	462	162	152	79	665	130
Below Snake River (I-B)	1,536	2,743	446	388	1,689	220	155	186	159	453,642	128	23	8	20	135	31
Above Snake River excluding Yakima River (I-C)	1,961	3,336	211	917	1,986	222	159	216	203	5,668,685	113	42	48	24	162	30
Yakima River (I-D)	422	598	116	123	317	42	17	24	21	1,065,094	14	.....	7	1	22	1
Snake River, total	3,671	7,275	901	965	4,970	439	324	448	393	7,148,460	207	97	89	34	346	68
Below Weiser, Idaho (I-E)	1,466	2,724	268	430	1,865	161	81	115	101	298,363	61	27	13	10	82	23
Weiser, Idaho, to King Hill, Idaho (I-F)	944	2,135	190	174	1,622	149	149	206	185	2,892,961	84	50	51	16	158	32
King Hill, Idaho, to American Falls, Idaho (I-G)	444	888	156	119	580	33	51	71	60	647,888	37	12	11	5	57	9
Above American Falls, Idaho (I-H)	823	1,528	287	242	903	96	47	56	47	3,309,248	25	8	14	3	49	4
South Pacific Coast, total	2,728	4,407	840	681	2,316	570	1,172	1,605	1,440	8,591,567	1,247	100	93	334	1,109	162
Klamath River (II-A)	452	806	71	97	552	86	80	124	113	1,193,729	81	21	11	11	104	9
Klamath River to Santa Maria River excluding Central Valley (II-B)	349	401	68	21	284	28	260	319	281	53,547	263	9	9	67	210	42
Central Valley, total	1,642	2,825	601	556	1,251	417	417	621	548	6,991,506	436	49	63	58	525	38
Sacramento-San Joaquin Delta area (II-C)	287	550	65	42	160	283	76	102	98	91,604	87	7	4	11	90	1
Sacramento River (II-D)	863	1,612	329	392	788	103	187	282	232	5,351,407	167	25	40	29	230	23
San Joaquin River (II-E)	172	220	46	17	143	14	64	86	76	1,295,779	63	3	10	12	68	6
San Joaquin Valley above San Joaquin River (II-F)	321	443	161	105	160	17	93	151	142	252,716	119	14	9	6	137	8
Santa Maria River and basins south (II-G)	285	375	100	7	229	39	416	541	498	352,785	467	21	10	198	270	73
Great Basin, total	2,965	7,667	1,185	857	4,805	820	524	754	670	3,312,809	444	141	85	62	622	70
Northwest Great Basin (III-A)	416	1,263	126	232	810	95	51	64	51	47,689	23	15	13	4	51	9
Humboldt River (III-B)	263	1,368	113	93	996	166	28	36	31	239,825	23	4	4	2	28	6
South Central Great Basin (III-C)	604	1,937	262	143	1,353	179	138	218	192	1,234,527	148	29	15	26	167	25
Bonneville Basin excluding Bear River (III-D)	1,163	2,100	474	279	1,067	280	231	333	304	1,711,527	206	57	41	27	286	20
Bear River (III-E)	525	999	210	110	579	100	77	103	92	79,241	44	36	12	3	90	10
Gulf of California, total	3,855	6,619	477	734	4,605	803	692	1,061	966	4,657,623	579	276	111	47	967	47
Excluding Colorado River (IV-A)	35	44	.....	.....	14	30	5	6	6	22,025	5	.....	1	.....	6	.....
Colorado River, total	3,821	6,575	477	734	4,591	773	687	1,055	960	4,635,598	574	276	110	47	961	47
Colorado River below Lees Ferry, Arizona, total	679	1,133	118	57	761	197	243	372	336	3,618,040	266	39	31	43	321	8
Excluding Gila River (IV-B)	318	672	84	49	442	97	102	158	144	104,886	95	30	19	17	138	3
Gila River (IV-C)	361	461	34	8	319	100	141	214	192	3,513,154	171	9	12	26	183	5
Colorado River above Lees Ferry, Arizona, total	3,142	5,442	359	677	3,830	576	445	683	624	1,017,558	308	237	79	4	640	39
Excluding Green and Gunnison Rivers (IV-D)	1,391	2,343	164	250	1,785	144	184	286	252	298,342	123	98	31	2	266	18
Green River (IV-E)	989	1,824	137	255	1,154	278	114	190	168	556,954	71	61	36	.....	173	17
Gunnison River (IV-F)	764	1,275	58	172	891	154	148	207	204	162,262	114	78	12	2	201	4
Gulf of Mexico excluding Mississippi River, total	1,475	2,105	253	263	1,103	486	688	964	883	4,059,962	723	114	46	42	877	45
Excluding Rio Grande (V-A)	214	260	90	4	155	11	289	385	352	333,900	286	56	10	25	339	21
Rio Grande, total	1,261	1 845	163	259	948	475	399	579	531	3,726,062	437	58	36	17	538	24
Rio Grande below Fort Quitman, Texas (V-B)	302	424	60	69	197	98	266	390	356	619,316	296	40	20	12	369	9
Rio Grande above Fort Quitman, Texas (V-C)	959	1,421	103	190	751	377	133	189	175	3,106,746	141	18	16	5	169	15
Mississippi River, total	6,920	13,770	1,234	1,737	9,526	1,273	1,277	1,901	1,757	7,334,599	1,113	388	256	65	1,721	115
Excluding Arkansas and Missouri Rivers (VI-A)	18	28	3	.....	25	.....	10	23	21	820,320	18	.....	3	2	20	1
Arkansas River (VI-B)	1,081	1,884	178	209	1,251	246	194	289	270	678,464	194	36	40	17	255	17
Missouri River, total	5,821	11,858	1,053	1,528	8,250	1,027	1,073	1,589	1,466	5,835,815	901	352	213	46	1,446	97
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	1,286	2,654	170	218	2,050	216	388	562	514	1,194,015	353	113	48	12	522	28
Platte River, total	1,804	4,324	589	421	2,960	354	487	752	697	3,485,459	391	181	125	32	685	35
Excluding South Platte River (VI-D)	1,130	2,999	326	299	2,154	220	181	268	239	2,708,739	138	69	32	14	238	16
South Platte River (VI-E)	674	1,325	263	122	806	134	306	484	458	776,720	253	112	93	18	447	19
Yellowstone River, total	1,721	2,709	218	494	1,686	311	147	210	201	949,250	125	49	27	2	193	15
Excluding Big Horn River (VI-F)	1,132	1,837	164	355	1,118	200	96	140	131	184,479	97	21	13	1	128	11
Big Horn River (VI-G)	589	872	54	139	568	111	51	70	70	764,771	28	28	14	1	65	4
Missouri River headwaters above Three Forks, Montana (VI-H)	1,010	2,171	76	395	1,554	146	51	65	54	207,091	32	9	13	.....	46	19
Hudson Bay (Red River of the North) (VII)	4	5	1	.....	4	.....	3	5	2	720	.....	2	.....	2	1	2

Table 51.—17 WESTERN STATES: ENTERPRISES REPORTING AND LENGTH OR NUMBER OF CANALS AND DITCHES, PIPE LINES, TUNNELS, FLOWING WELLS, PUMPS, ELECTRIC MOTORS, AND OTHER MOTORS, BY DRAINAGE BASINS: 1950

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin]

Drainage basins	Canals and ditches		Pipe lines and siphons		Tunnels		Flowing wells		Pumped wells				Irrigation pumps		Electric motors used for pumping		Other motors and engines used for pumping	
											Pumping lift reported							
	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (feet)	Enterprises reporting	Number	Enterprises reporting	Total number	Number of wells	Average pumping lift (feet)	Enterprises reporting	Number	Enterprises reporting	Number	Enterprises reporting	Number
17 Western States, total	25,472	134,112	6,855	15,288	288	740,759	1,817	5,586	71,124	116,063	108,619	86	83,679	138,620	60,276	100,452	27,262	37,258
DRAINAGE BASINS																		
North Pacific Coast, total	6,169	30,572	1,929	2,627	56	210,906	294	579	4,303	5,727	5,121	42	10,765	14,050	7,894	10,328	3,298	3,703
North Pacific Coast excluding Columbia River (I-A)	423	1,519	398	301	3	442	20	30	688	833	688	29	2,290	2,650	1,363	1,517	992	1,085
Columbia River, total	5,746	29,053	1,531	2,326	53	210,464	274	549	3,615	4,894	4,433	44	8,475	11,400	6,531	8,811	2,306	2,618
Below Snake River (I-B)	830	3,162	437	482	9	11,455	44	56	1,893	2,675	2,429	36	4,281	5,578	2,833	3,626	1,706	1,922
Above Snake River excluding Yakima River (I-C)	1,453	4,716	587	766	16	26,890	42	72	796	939	861	62	1,802	2,398	1,595	2,147	244	278
Yakima River (I-D)	357	3,444	124	497	10	80,267	12	15	169	232	197	58	546	800	504	720	67	95
Snake River, total	3,108	17,731	385	581	18	91,852	176	406	757	1,048	946	48	1,847	2,624	1,600	2,318	289	323
Below Weiser, Idaho (I-E)	1,088	2,601	121	169	5	1,531	20	31	110	131	114	42	291	390	222	307	80	88
Weiser, Idaho, to King Hill, Idaho (I-F)	775	6,024	148	210	5	84,714	102	249	314	390	354	39	908	1,192	820	1,080	93	97
King Hill, Idaho, to American Falls, Idaho (I-G)	380	4,722	68	95	6	4,269	24	59	169	293	252	73	313	542	283	506	39	45
Above American Falls, Idaho (I-H)	874	4,384	50	107	2	1,338	30	67	164	234	226	36	337	500	277	425	77	93
South Pacific Coast, total	2,590	19,334	3,080	9,511	61	165,277	224	516	41,212	69,828	65,768	87	43,656	78,211	41,060	71,695	4,531	6,152
Klamath River (II-A)	370	1,815	66	45	3	10,876	13	32	102	140	127	49	308	525	215	374	120	143
Klamath River to Santa Maria River excluding Central Valley (II-B)	169	250	469	435	1	400	35	51	5,421	8,662	8,097	106	5,995	9,759	5,572	9,007	677	778
Central Valley, total	1,754	16,724	1,038	2,478	24	84,858	112	281	28,899	50,307	47,694	77	30,391	56,081	28,970	51,830	2,658	3,706
Sacramento-San Joaquin Delta area (II-C)	236	1,420	264	297	3	2,440	14	70	3,861	5,982	5,549	56	4,449	7,707	4,237	7,000	424	656
Sacramento River (II-D)	681	5,040	263	542	10	35,400	39	87	4,981	7,902	7,334	49	5,610	9,438	5,270	8,661	527	665
San Joaquin River (II-E)	231	5,347	137	913	8	44,284	27	41	3,786	7,097	6,670	81	4,002	8,004	3,734	7,483	381	490
San Joaquin Valley above San Joaquin River (II-F)	618	4,917	378	726	5	2,734	32	83	16,282	29,326	28,141	87	16,346	30,932	15,745	28,686	1,326	1,895
Santa Maria River and basins south (II-G)	300	545	1,508	6,553	33	69,143	64	152	6,813	10,719	9,850	124	6,986	11,846	6,328	10,484	1,082	1,525
Great Basin, total	2,635	11,504	352	685	44	74,469	651	2,380	1,467	2,219	2,065	103	1,666	2,592	1,331	2,020	361	464
Northwest Great Basin (III-A)	211	657	6	10	.....	.....	33	162	28	38	33	44	31	45	3	5	26	36
Humboldt River (III-B)	198	841	10	20	.....	.....	7	23	20	25	24	52	21	28	16	17	10	15
South Central Great Basin (III-C)	471	2,225	160	364	13	28,077	54	177	991	1,585	1,481	123	1,019	1,712	868	1,378	166	237
Bonneville Basin excluding Bear River (III-D)	1,161	5,338	129	265	24	35,555	496	1,814	393	535	492	50	493	676	368	515	133	149
Bear River (III-E)	602	2,443	47	26	7	10,837	61	204	35	36	35	86	102	131	76	105	26	27
Gulf of California, total	3,883	19,904	392	745	61	144,452	133	299	2,525	5,488	4,862	124	2,835	5,935	1,915	4,180	1,116	1,706
Excluding Colorado River (IV-A)	34	8	2	2	1	100	.....	.....	158	226	218	83	158	222	140	184	30	41
Colorado River, total	3,849	19,896	390	743	60	144,352	133	299	2,367	5,262	4,644	126	2,677	5,713	1,775	3,996	1,086	1,665
Colorado River below Lees Ferry, Arizona, total	875	7,911	206	644	15	18,868	107	258	2,334	5,219	4,609	127	2,434	5,404	1,687	3,887	941	1,492
Excluding Gila River (IV-B)	342	3,922	89	348	12	18,113	35	52	722	1,166	1,034	79	766	1,247	662	1,092	116	144
Gila River (IV-C)	533	3,989	117	296	3	755	72	206	1,612	4,053	3,575	140	1,668	4,157	1,025	2,795	825	1,348
Colorado River above Lees Ferry, Arizona, total	2,974	11,985	184	99	45	125,484	26	41	33	43	35	38	244	309	88	109	146	173
Excluding Green and Gunnison Rivers (IV-D)	1,385	5,495	131	58	30	65,715	15	23	15	21	19	38	119	153	61	79	62	74
Green River (IV-E)	913	4,106	24	9	8	15,005	6	11	7	11	6	55	91	118	13	15	68	81
Gunnison River (IV-F)	668	2,384	29	32	8	44,764	5	7	11	11	10	26	34	38	14	15	16	18
Gulf of Mexico excluding Mississippi River, total	3,064	16,171	524	1,321	10	6,601	352	1,554	10,616	16,389	15,295	108	11,960	19,219	3,070	5,086	9,433	14,093
Excluding Rio Grande (V-A)	1,214	5,318	213	136	4	1,169	95	131	8,424	12,421	11,719	120	8,965	13,512	1,725	2,494	7,630	11,073
Rio Grande, total	1,850	10,853	311	1,185	6	5,432	257	1,423	2,193	3,968	3,576	67	2,996	5,707	1,346	2,592	1,804	3,020
Rio Grande below Fort Quitman, Texas (V-B)	593	5,035	267	1,138	5	3,830	56	96	1,247	2,394	2,190	72	2,002	4,080	807	1,678	1,294	2,333
Rio Grande above Fort Quitman, Texas (V-C)	1,257	5,818	44	47	1	1,602	201	1,327	946	1,574	1,386	58	994	1,627	539	914	510	687
Mississippi River, total	7,163	36,615	574	393	60	138,854	164	258	11,022	16,412	15,508	62	12,815	18,602	5,010	7,139	8,537	11,134
Excluding Arkansas and Missouri Rivers (VI-A)	243	1,173	10	6	.....	.....	1	2	2,041	3,149	2,989	127	2,062	3,156	526	747	1,696	2,462
Arkansas River (VI-B)	1,240	4,587	114	143	10	43,333	23	36	1,389	2,231	2,019	53	1,511	2,195	759	1,075	822	1,066
Missouri River, total	5,680	30,855	450	244	50	95,521	140	220	7,592	11,032	10,500	45	9,242	13,251	3,725	5,317	6,019	7,606
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	1,069	6,408	132	97	2	6,300	58	80	1,159	1,369	1,282	81	1,833	2,309	276	360	1,602	1,883
Platte River, total	2,044	12,717	184	90	22	67,659	60	98	6,396	9,618	9,180	40	7,020	10,411	3,320	4,776	4,153	5,401
Excluding South Platte River (VI-D)	1,092	7,932	81	39	7	53,131	39	68	3,781	5,769	5,470	38	4,237	6,380	1,158	1,654	3,398	4,527
South Platte River (VI-E)	952	4,785	103	51	15	14,528	21	30	2,615	3,849	3,710	42	2,783	4,031	2,162	3,122	755	874
Yellowstone River, total	1,708	8,985	124	55	24	19,462	20	40	27	30	24	47	359	493	115	163	247	303
Excluding Big Horn River (VI-F)	1,163	4,901	76	20	13	6,621	7	10	16	18	14	20	271	390	79	119	201	252
Big Horn River (VI-G)	545	4,084	48	35	11	12,841	13	30	11	12	10	85	88	103	36	44	46	51
Missouri River headwaters above Three Forks, Montana (VI-H)	866	2,745	10	2	3	2,100	2	2	10	15	14	22	30	38	14	18	17	19
Hudson Bay (Red River of the North) (VII)	3	8	4	6	1	200	.....	.....	.....	.....	.....	.....	6	11	2	4	5	6

Table 52.—17 WESTERN STATES: IRRIGATION ENTERPRISES AND AREA IRRIGATED DIRECT BY SEASON OF IRRIGATION AND BY EXTENT OF MEASUREMENT OF WATER TO FARMS, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, number of enterprises represents characteristics of the entire enterprise, acreage irrigated represents acreage within the basin. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	All enterprises		Water delivered, by season of irrigation						Measurement of water to farms[1]					
			Only before July 1		Before and after July 1		Only after July 1		No water measured		Part of water measured		All water measured	
	Number	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
17 Western States, total....	111,940	26,530,943	3,716	809,434	94,179	24,565,257	9,284	690,289	6,328	4,724,786	693	2,894,898	2,084	6,171,585
DRAINAGE BASINS														
North Pacific Coast, total.....	19,065	4,108,821	600	102,416	16,414	3,930,500	1,449	40,969	1,428	563,201	220	755,494	503	1,641,244
North Pacific Coast excluding Columbia River (I-A).....	2,879	121,529	37	894	2,267	111,851	445	6,750	116	30,326	7	13,378	14	13,778
Columbia River, total.....	16,186	3,987,292	563	101,522	14,147	3,818,649	1,004	34,219	1,312	532,875	213	742,116	489	1,627,466
Below Snake River (I-B).....	5,431	405,853	149	17,456	4,477	362,853	655	19,237	149	47,474	9	47,919	95	96,645
Above Snake River excluding Yakima River (I-C).....	3,845	495,135	55	4,458	3,485	479,061	169	4,712	297	78,580	44	22,349	125	175,389
Yakima River (I-D).....	983	447,623	24	3,874	844	439,884	28	791	5	616	5	12,655	33	349,932
Snake River, total.....	5,932	2,638,681	335	75,734	5,345	2,536,851	153	9,479	861	406,205	155	659,193	237	1,005,500
Below Weiser, Idaho (I-E).....	1,827	359,773	141	31,965	1,618	324,610	46	2,918	350	153,992	29	17,269	51	47,606
Weiser, Idaho, to King Hill, Idaho (I-F).....	1,974	814,187	137	32,912	1,755	771,589	45	2,022	185	92,739	38	206,927	62	331,306
King Hill, Idaho, to American Falls, Idaho (I-G).....	802	702,350	25	6,961	743	691,383	22	1,913	57	21,522	5	134,318	38	452,947
Above American Falls, Idaho (I-H).....	1,343	762,371	32	3,896	1,243	749,269	40	2,626	271	137,952	85	300,679	88	173,641
South Pacific Coast, total.....	46,074	6,894,267	1,250	333,067	41,823	6,324,645	1,123	82,831	837	638,966	40	605,229	547	1,407,973
Klamath River (II-A).....	758	369,785	28	5,760	653	342,493	27	1,904	41	41,706	4	3,646	13	159,380
Klamath River to Santa Maria River excluding Central Valley (II-B).....	6,158	393,860	310	9,983	5,388	372,930	198	3,608	23	2,901	1	3,141	28	13,144
Central Valley, total.....	31,946	5,432,174	769	302,633	29,310	4,946,828	814	74,914	240	523,593	27	593,497	134	968,017
Sacramento-San Joaquin Delta area (II-C).....	4,712	554,323	135	6,893	4,287	509,743	144	27,062	29	62,470	2	19,899	7	44,800
Sacramento River (II-D).....	6,480	1,008,041	118	27,995	5,926	939,204	163	5,038	55	190,738	10	72,269	28	157,159
San Joaquin River (II-E).....	4,146	1,370,359	46	15,930	3,773	1,322,009	125	9,576	19	18,334	7	274,212	26	549,310
San Joaquin Valley above San Joaquin River (II-F).....	16,631	2,499,451	470	251,815	15,346	2,175,872	382	33,238	139	252,051	10	227,117	81	216,748
Santa Maria River and basins south (II-G).....	7,237	698,448	143	14,691	6,494	662,394	84	2,405	533	70,766	8	4,945	373	267,432
Great Basin, total.....	5,534	2,238,030	314	159,191	4,883	2,015,467	84	11,654	848	650,284	36	104,256	114	340,412
Northwest Great Basin (III-A).....	473	308,213	163	93,570	269	185,714	1	18	35	62,449	.....	.....	.....	.....
Humboldt River (III-B).....	300	248,886	51	39,600	246	208,820	2	6	22	17,814	.....	.....	10	27,314
South Central Great Basin (III-C)....	1,677	538,099	47	11,522	1,514	510,498	22	1,574	87	74,199	9	11,170	24	157,202
Bonneville Basin excluding Bear River (III-D).....	2,297	739,656	36	12,251	2,120	714,128	43	8,900	433	296,859	24	44,363	48	116,676
Bear River (III-E).....	796	403,176	18	2,248	741	396,307	16	1,156	271	198,963	4	48,723	36	39,220
Gulf of California, total.....	7,182	3,124,040	188	27,736	6,404	3,037,148	243	18,458	896	545,949	85	404,690	384	990,978
Excluding Colorado River (IV-A).....	194	11,005	1	4	152	10,171	32	603	3	2,101	.....	.....	.....	.....
Colorado River, total.....	6,989	3,113,035	187	27,732	6,253	3,026,977	211	17,855	894	543,848	85	404,690	384	990,978
Colorado River below Lees Ferry, Arizona, total.....	3,179	1,645,138	45	2,171	2,805	1,612,620	140	9,802	175	158,773	14	290,824	50	634,194
Excluding Gila River (IV-B)....	1,131	697,032	12	973	1,030	689,260	19	918	101	105,838	4	66,479	15	447,260
Gila River (IV-C).....	2,048	948,106	33	1,198	1,775	923,360	121	8,884	74	52,935	10	224,345	35	186,934
Colorado River above Lees Ferry, Arizona, total.....	3,812	1,467,897	142	25,561	3,450	1,414,357	71	8,053	727	385,075	73	113,866	334	356,784
Excluding Green and Gunnison Rivers (IV-D).....	1,699	571,027	83	11,240	1,554	548,260	22	3,550	372	164,826	16	32,139	137	203,187
Green River (IV-E).....	1,185	606,761	38	10,784	1,049	581,247	11	3,661	171	170,582	20	50,382	14	21,981
Gunnison River (IV-F).....	931	290,109	21	3,537	850	284,850	38	842	184	49,667	37	31,345	184	131,616
Gulf of Mexico excluding Mississippi River, total.....	13,602	4,006,500	446	47,780	11,497	3,766,004	934	115,210	744	1,231,326	39	227,642	40	255,425
Excluding Rio Grande (V-A).....	9,117	1,933,213	192	14,221	7,828	1,765,246	771	100,936	56	326,432	1	7,000	1	1,282
Rio Grande, total.....	4,486	2,073,287	254	33,559	3,670	2,000,758	163	14,274	688	904,894	38	220,642	39	254,143
Rio Grande below Fort Quitman, Texas (V-B).....	2,295	1,011,516	146	11,444	2,032	983,121	40	5,867	106	537,441	2	40,106	9	54,537
Rio Grande above Fort Quitman, Texas (V-C).....	2,191	1,061,771	108	22,115	1,638	1,017,637	123	8,407	582	367,453	36	180,536	30	199,606
Mississippi River, total.....	20,537	6,151,342	920	131,599	13,214	5,491,238	5,451	421,125	1,578	1,087,430	275	797,587	499	1,535,553
Excluding Arkansas and Missouri Rivers (VI-A).....	2,071	473,035	30	4,250	1,550	396,797	439	66,576	1	13,033	.....	.....	1	32,256
Arkansas River (VI-B).....	2,771	733,034	137	13,674	2,203	682,571	266	23,387	345	122,209	21	59,456	118	285,029
Missouri River, total.....	15,695	4,945,273	753	113,675	9,461	4,411,870	4,746	331,162	1,232	952,188	254	738,131	380	1,218,268
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C).....	3,116	766,861	404	55,750	1,556	624,935	1,026	74,218	131	153,847	21	123,460	44	149,198
Platte River, total.....	9,208	2,641,421	170	34,125	4,898	2,326,501	3,628	249,668	382	305,695	119	348,267	205	825,747
Excluding South Platte River (VI-D).....	5,419	1,469,742	122	28,761	1,605	1,196,622	3,368	230,835	222	230,200	33	112,390	28	334,393
South Platte River (VI-E).....	3,789	1,171,679	48	5,364	3,293	1,129,879	260	18,833	160	75,495	86	235,877	177	491,354
Yellowstone River, total.....	2,285	1,039,486	161	17,401	1,984	974,407	71	5,277	494	390,039	84	213,549	72	205,188
Excluding Big Horn River (VI-F)	1,576	566,252	126	13,421	1,336	543,921	64	5,021	313	206,099	47	89,917	63	121,451
Big Horn River (VI-G).....	709	473,234	35	3,980	648	430,486	7	256	181	183,940	37	123,632	9	83,737
Missouri River headwaters above Three Forks, Montana (VI-H).....	1,094	497,505	18	6,399	1,030	486,027	23	1,999	229	102,607	31	52,855	60	38,135
Hudson Bay (Red River of the North) (VII).....	11	7,943	3	7,645	5	255	2	42	2	7,630	.....	.....	.....	.....

[1]Reported only by multiple-farm enterprises.

Table 53.—17 WESTERN STATES: ENTERPRISES REPORTING AND QUANTITIES OF IRRIGATION WATER OBTAINED FROM SPECIFIED SOURCES AND LOST IN CONVEYANCE, BY DRAINAGE BASINS: 1949

[Quantity of water was reported only for multiple-farm enterprises and not for all such enterprises. Interbasin enterprises are counted in each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises data represent characteristics of the entire enterprise]

Drainage basins	Water obtained from—									Water lost in conveyance	
	All sources			Surface sources		Pumped wells		Other enterprises			
	Enterprises reporting		Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet
	Number	Percent of all enterprises									
17 Western States, total	9,254	8.3	95,441,491	7,113	72,226,141	1,159	2,485,798	1,936	20,729,552	7,716	18,349,905
DRAINAGE BASINS											
North Pacific Coast, total	2,163	11.3	30,842,124	1,856	20,797,583	48	146,113	445	9,898,428	1,841	5,158,780
North Pacific Coast excluding Columbia River (I-A)	123	4.3	273,723	123	270,503	1	2,520	1	700	122	68,497
Columbia River, total	2,040	12.6	30,568,401	1,733	20,527,080	47	143,593	444	9,897,728	1,719	5,090,283
Below Snake River (I-B)	234	4.3	1,454,508	218	1,370,188	10	2,404	11	81,916	187	387,277
Above Snake River excluding Yakima River (I-C)	456	11.9	1,883,615	412	1,710,194	11	21,371	47	152,050	430	454,388
Yakima River (I-D)	151	15.4	4,398,810	126	2,586,071	1	381	33	1,812,358	133	468,348
Snake River, total	1,201	20.2	22,944,471	979	14,973,630	25	119,437	353	7,851,404	971	3,812,491
Below Weiser, Idaho (I-E)	430	23.5	1,478,897	419	1,340,842	2	285	32	137,770	258	235,843
Weiser, Idaho, to King Hill, Idaho (I-F)	280	14.2	7,213,848	202	4,272,275	6	33,635	119	2,907,938	252	1,262,862
King Hill, Idaho, to American Falls, Idaho (I-G)	108	13.5	8,903,582	96	5,321,140	6	23,656	17	3,558,786	100	1,616,988
Above American Falls, Idaho (I-H)	390	29.0	12,599,301	268	10,179,640	13	64,529	188	2,355,132	368	2,039,015
South Pacific Coast, total	1,290	2.8	15,988,193	314	13,866,733	953	1,140,225	172	981,235	443	3,097,163
Klamath River (II-A)	39	5.1	927,257	33	809,625	1	8,400	10	109,232	36	358,079
Klamath River to Santa Maria River excluding Central Valley (II-B)	36	0.6	5,400,241	11	5,381,766	25	17,810	4	665	9	538,186
Central Valley, total	352	1.1	14,002,566	191	12,668,151	132	581,826	77	752,589	244	2,664,447
Sacramento-San Joaquin Delta area (II-C)	27	0.6	6,402,822	26	6,368,693	3	33,529	1	600	23	790,956
Sacramento River (II-D)	56	0.9	7,977,565	49	7,838,367	6	18,534	10	120,664	53	1,175,194
San Joaquin River (II-E)	47	1.1	14,666,161	30	13,906,083	18	397,620	16	362,458	37	2,098,683
San Joaquin Valley above San Joaquin River (II-F)	234	1.4	7,266,714	98	6,795,874	107	164,257	51	306,583	143	1,016,994
Santa Maria River and basins south (II-G)	864	11.9	1,014,575	80	363,637	795	532,189	81	118,749	155	70,451
Great Basin, total	1,200	21.7	6,381,073	981	4,893,724	43	22,250	358	1,465,099	1,068	944,435
Northwest Great Basin (III-A)	5	1.1	16,124	5	16,124	.....	.....	.....	.....	4	2,882
Humboldt River (III-B)	32	10.7	276,590	23	181,605	.....	.....	9	94,985	22	34,390
South Central Great Basin (III-C)	123	7.3	1,273,933	75	974,442	4	2,947	75	296,544	104	175,295
Bonneville Basin excluding Bear River (III-D)	719	31.3	3,582,165	629	2,730,988	22	11,306	207	839,871	640	557,034
Bear River (III-E)	323	40.6	1,423,819	251	1,182,123	17	7,997	67	233,699	300	200,290
Gulf of California, total	1,452	20.2	17,393,978	1,328	11,553,154	77	1,121,963	239	4,718,861	1,358	3,668,436
Excluding Colorado River (IV-A)	3	1.5	11,830	2	10,030	1	1,800	.....	.....	3	705
Colorado River, total	1,450	20.7	17,392,148	1,327	11,553,124	76	1,120,163	239	4,718,861	1,356	3,668,231
Colorado River below Lees Ferry, Arizona, total	237	7.5	11,414,486	177	6,097,501	75	1,115,051	17	4,201,934	211	2,722,083
Excluding Gila River (IV-B)	126	11.1	8,555,478	103	4,683,333	22	27,610	9	3,844,535	105	1,909,555
Gila River (IV-C)	111	5.4	2,859,008	74	1,414,168	53	1,087,441	8	357,399	106	812,528
Colorado River above Lees Ferry, Arizona, total	1,214	31.8	5,978,462	1,151	5,456,423	1	5,112	222	516,927	1,146	946,348
Excluding Green and Gunnison Rivers (IV-D)	556	32.7	2,959,098	530	2,664,926	1	5,112	99	289,060	541	450,031
Green River (IV-E)	241	20.3	1,732,474	230	1,602,743	.....	.....	31	129,731	233	284,504
Gunnison River (IV-F)	419	45.0	1,294,180	392	1,196,044	.....	.....	92	98,136	373	212,363
Gulf of Mexico excluding Mississippi River, total	828	6.1	6,680,926	688	6,116,136	28	49,713	147	515,077	800	1,272,821
Excluding Rio Grande (V-A)	61	0.7	1,224,616	40	1,188,535	21	22,233	1	13,848	58	126,296
Rio Grande, total	767	17.1	5,456,310	648	4,927,601	7	27,480	146	501,229	742	1,146,525
Rio Grande below Fort Quitman, Texas (V-B)	118	5.1	2,485,074	96	2,265,006	6	27,180	24	192,888	113	414,913
Rio Grande above Fort Quitman, Texas (V-C)	649	29.6	2,971,236	552	2,662,595	1	300	122	308,341	629	731,612
Mississippi River, total	2,334	11.4	18,552,111	1,959	15,366,295	10	5,534	576	3,180,282	2,220	4,209,210
Excluding Arkansas and Missouri Rivers (VI-A)	2	0.1	49,171	2	49,171	.....	.....	.....	.....	1	9,132
Arkansas River (VI-B)	511	18.4	2,047,979	400	1,694,531	6	2,979	116	350,469	485	330,660
Missouri River, total	1,821	11.6	16,454,961	1,557	13,622,593	4	2,555	460	2,829,813	1,734	3,869,418
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	172	5.5	1,846,359	169	1,669,838	.....	.....	20	176,521	158	592,346
Platte River, total	739	8.0	9,291,769	542	7,222,732	2	980	276	2,068,057	693	2,146,987
Excluding South Platte River (VI-D)	287	5.3	6,086,797	260	4,840,296	1	500	51	1,246,001	270	1,403,524
South Platte River (VI-E)	452	11.9	3,204,972	282	2,382,436	1	480	225	822,056	423	743,463
Yellowstone River, total	599	26.2	4,488,114	567	4,014,157	.....	.....	124	473,957	583	1,046,018
Excluding Big Horn River (VI-F)	372	23.6	2,103,374	352	1,993,827	.....	.....	86	109,547	365	500,237
Big Horn River (VI-G)	227	32.0	2,384,740	215	2,020,330	.....	.....	38	364,410	218	545,781
Missouri River headwaters above Three Forks, Montana (VI-H)	317	29.0	1,242,674	289	1,129,821	2	1,575	40	111,278	305	234,686
Hudson Bay (Red River of the North) (VII)	1	9.1	10,000	1	10,000	.....	.....	.....	.....	.....	.....

Table 54.—17 WESTERN STATES: ENTERPRISES REPORTING AND QUANTITIES OF IRRIGATION WATER DELIVERED DIRECT TO FARMS, TO OTHER ENTERPRISES, AND FOR USE OTHER THAN IRRIGATION; AND CALCULATED AVERAGE QUANTITY OF WATER DELIVERED TO FARMS PER ACRE OF IRRIGATED LAND; BY DRAINAGE BASINS: 1949

[Quantity of water was reported only for multiple-farm enterprises and not for all such enterprises. Interbasin enterprises are counted in each basin in which they had irrigation works, but only once in 17-State total]

Drainage basins	Water delivered[1]— Direct to farms: Enterprises reporting	Direct to farms: Acre-feet	To other enterprises: Enterprises reporting	To other enterprises: Acre-feet	For use other than irrigation: Enterprises reporting	For use other than irrigation: Acre-feet	Average quantity of water delivered to farms per acre of irrigated land[2] (acre-feet)
17 Western States, total...	8,971	44,707,277	1,788	23,136,392	851	9,247,917	3.4
DRAINAGE BASINS							
North Pacific Coast, total.....	2,114	14,721,935	476	10,482,040	204	479,369	5.0
North Pacific Coast excluding Columbia River (I-A).....	123	163,457	19	24,833	55	16,936	2.9
Columbia River, total.....	1,991	14,558,478	457	10,457,207	149	462,433	5.0
Below Snake River (I-B).....	231	914,965	73	130,215	16	22,051	4.6
Above Snake River excluding Yakima River (I-C).....	443	1,110,899	84	254,713	28	63,615	4.0
Yakima River (I-D).....	148	2,008,805	34	1,845,520	6	76,137	5.1
Snake River, total.....	1,171	10,594,731	268	8,226,999	100	310,250	5.2
Below Weiser, Idaho (I-E).....	423	966,055	85	236,008	31	40,991	3.9
Weiser, Idaho, to King Hill, Idaho (I-F).....	271	3,840,484	60	2,016,288	45	94,214	5.1
King Hill, Idaho, to American Falls, Idaho (I-G).....	103	2,912,013	28	4,247,777	6	126,804	4.7
Above American Falls, Idaho (I-H).....	381	3,799,313	101	6,470,114	22	290,859	6.1
South Pacific Coast, total.....	1,271	6,571,636	250	1,600,443	186	4,718,951	2.9
Klamath River (II-A).....	39	412,876	20	151,692	6	4,610	2.0
Klamath River to Santa Maria River excluding Central Valley (II-B)....	35	37,252	10	440,116	5	4,384,687	2.1
Central Valley, total.....	347	5,461,296	122	1,290,925	35	4,585,898	3.0
Sacramento-San Joaquin Delta area (II-C).....	26	640,678	13	536,844	3	4,434,344	3.3
Sacramento River (II-D).....	56	1,677,839	25	627,998	18	4,496,534	4.8
San Joaquin River (II-E).....	47	2,734,058	24	1,035,029	6	8,798,391	3.2
San Joaquin Valley above San Joaquin River (II-F).....	230	1,079,288	71	789,322	13	4,381,110	1.8
Santa Maria River and basins south (II-G).....	851	672,212	99	148,777	141	123,135	2.1
Great Basin, total.....	1,169	3,531,813	188	1,673,342	217	231,483	2.9
Northwest Great Basin (III-A).....	5	12,452	2	790	.....	.....	2.2
Humboldt River (III-B).....	31	135,312	4	100,888	1	6,000	3.0
South Central Great Basin (III-C)...	116	734,630	27	333,506	11	30,502	2.9
Bonneville Basin excluding Bear River (III-D).....	700	1,903,494	105	956,420	168	165,217	3.1
Bear River (III-E).....	318	884,813	52	308,952	37	29,764	2.9
Gulf of California, total.....	1,354	7,706,394	299	5,107,245	95	911,903	3.9
Excluding Colorado River (IV-A).....	3	11,125	.....	.....	.....	.....	4.0
Colorado River, total.....	1,352	7,704,769	299	5,107,245	95	911,903	3.9
Colorado River below Lees Ferry, Arizona, total.....	232	4,230,353	41	4,257,475	35	204,575	4.1
Excluding Gila River (IV-B)...	124	2,630,115	18	3,867,311	27	148,497	4.3
Gila River (IV-C).....	108	1,600,238	23	390,164	8	56,078	3.7
Colorado River above Lees Ferry, Arizona, total.....	1,121	3,475,016	258	849,770	60	707,328	3.7
Excluding Green and Gunnison Rivers (IV-D).....	539	1,498,585	100	446,483	30	563,999	3.8
Green River (IV-E).....	236	1,127,884	51	292,653	23	27,433	3.2
Gunnison River (IV-F).....	347	851,047	109	114,874	7	115,896	4.3
Gulf of Mexico excluding Mississippi River, total.....	808	3,982,762	122	677,082	52	748,261	2.4
Excluding Rio Grande (V-A).....	59	1,041,861	16	54,014	5	2,445	2.9
Rio Grande, total.....	749	2,940,901	106	623,068	47	745,816	2.2
Rio Grande below Fort Quitman, Texas (V-B).....	111	1,117,830	43	263,967	16	688,364	1.9
Rio Grande above Fort Quitman, Texas (V-C).....	638	1,823,071	63	359,101	31	57,452	2.5
Mississippi River, total.....	2,267	8,573,904	472	3,596,816	100	2,172,181	2.6
Excluding Arkansas and Missouri Rivers (VI-A).....	2	32,106	.....	.....	2	7,933	0.7
Arkansas River (VI-B).....	507	1,259,928	59	382,085	27	75,306	2.8
Missouri River, total.....	1,758	7,281,870	414	3,214,731	71	2,088,942	2.6
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C).....	167	916,538	43	259,935	16	77,540	1.9
Platte River, total.....	707	3,067,945	182	2,222,999	39	1,853,838	2.1
Excluding South Platte River (VI-D).....	279	1,517,653	48	1,346,645	10	1,818,975	2.1
South Platte River (VI-E).....	428	1,550,292	134	876,354	29	34,863	2.2
Yellowstone River, total.....	583	2,712,658	129	576,644	12	152,794	3.2
Excluding Big Horn River (VI-F).....	358	1,404,934	80	179,509	7	18,694	3.1
Big Horn River (VI-G).....	225	1,307,724	49	397,135	5	134,100	3.4
Missouri River headwaters above Three Forks, Montana (VI-H).....	305	836,215	63	167,003	4	4,770	4.6
Hudson Bay (Red River of the North) (VII).....	1	10,000	.....	.....	.....	.....	1.3

[1] For interbasin enterprises data represent characteristics of the entire enterprise.
[2] Calculated average quantity of water per acre for total irrigated land, all irrigation enterprises, primary and supplemental irrigation combined.

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Table 55.—17 WESTERN STATES: IRRIGATION ENTERPRISES REPORTING AND TOTAL COST OF IRRIGATION WATER TO FARMS, 1949; OPERATION AND MAINTENANCE COST, 1949 AND 1939; AND COST OTHER THAN FOR OPERATION AND MAINTENANCE, 1949; BY DRAINAGE BASINS

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin]

Drainage basins	Number of enterprises reporting cost of water, 1949[1]	Total cost of water to farms, 1949 (dollars)			Operation and maintenance cost (dollars)				Cost other than for operation and maintenance, 1949[2]			
		Total amount	Cost per acre of irrigated land	Cost per acre-foot of water[3]	Total amount[4]		Cost per acre of irrigated land		Enterprises reporting		Amount (dollars)	
					1949	1939	1949	1939	Number	Acres irrigated[5]	Total	Average per acre irrigated
17 Western States, total...	110,191	133,598,770	5.38	1.58	119,548,112	43,570,838	4.81	2.14	1,734	7,743,234	14,050,658	1.81
DRAINAGE BASINS												
North Pacific Coast, total.....	18,879	13,348,423	3.36	0.67	10,945,993	5,295,887	2.75	1.35	368	1,476,803	2,402,430	1.63
North Pacific Coast excluding Columbia River (I-A).....	2,858	677,109	5.67	1.96	616,810	287,230	5.17	3.04	12	37,016	60,299	1.63
Columbia River, total.....	16,021	12,671,314	3.29	0.66	10,329,183	5,008,657	2.68	1.31	356	1,439,787	2,342,131	1.63
Below Snake River (I-B).....	5,396	1,556,549	3.91	0.85	1,461,090	466,759	3.67	1.56	34	65,421	95,459	1.46
Above Snake River excluding Yakima River (I-C).....	3,793	1,898,119	4.04	1.01	1,610,664	965,692	3.43	2.02	70	89,888	287,455	3.20
Yakima River (I-D).....	965	2,420,944	5.73	1.12	1,944,972	791,400	4.60	1.90	25	275,310	475,972	1.73
Snake River, total.....	5,870	6,795,702	2.65	0.51	5,312,457	2,784,806	2.07	1.06	228	1,009,168	1,483,245	1.47
Below Weiser, Idaho (I-E).....	1,814	337,250	0.95	0.24	279,933	(*)	0.79	(*)	55	57,897	57,317	0.99
Weiser, Idaho, to King Hill, Idaho (I-F).....	1,951	3,060,458	3.84	0.75	2,192,890	(*)	2.75	(*)	72	428,750	867,568	2.02
King Hill, Idaho, to American Falls, Idaho (I-G).....	790	2,132,660	3.08	0.66	1,784,048	(*)	2.58	(*)	11	204,376	348,612	1.71
Above American Falls, Idaho (I-H).....	1,325	1,265,334	1.75	0.29	1,055,586	(*)	1.46	(*)	92	318,145	209,748	0.66
South Pacific Coast, total.....	45,675	59,259,292	9.71	3.35	55,841,199	20,854,252	9.15	4.53	281	1,457,899	3,418,093	2.34
Klamath River (II-A).....	751	772,190	2.12	1.06	704,591	317,702	1.93	1.17	11	55,963	67,599	1.21
Klamath River to Santa Maria River excluding Central Valley (II-B)....	6,101	5,037,157	13.03	6.20	4,664,283	2,113,398	12.06	6.96	13	7,511	372,874	49.64
Central Valley, total.....	31,714	41,397,918	8.82	2.94	39,570,953	13,000,135	8.43	3.83	82	1,276,094	1,826,965	1.43
Sacramento-San Joaquin Delta area (II-C).....	4,687	3,257,895	5.95	1.80	3,006,935	(*)	5.49	(*)	11	71,282	250,960	3.52
Sacramento River (II-D).....	6,420	5,955,805	6.05	1.26	5,697,159	(*)	5.79	(*)	29	178,735	258,646	1.45
San Joaquin River (II-E).....	4,085	8,938,501	7.46	2.33	7,999,607	(*)	6.67	(*)	19	753,766	938,894	1.25
San Joaquin Valley above San Joaquin River (II-F).....	16,540	23,245,717	11.84	6.58	22,867,252	(*)	11.64	(*)	28	272,311	378,465	1.39
Santa Maria River and basins south (II-G).....	7,134	12,052,027	18.41	8.77	10,901,372	5,423,017	16.65	8.55	175	118,331	1,150,655	9.72
Great Basin, total.....	5,465	4,338,909	2.02	0.70	3,780,561	1,718,662	1.76	0.83	350	744,889	558,348	0.75
Northwest Great Basin (III-A).....	471	44,707	0.15	0.07	44,707	59,014	0.15	0.25	.....	.....	.....	.....
Humboldt River (III-B).....	298	117,046	0.47	0.16	86,463	74,007	0.35	0.26	14	31,499	30,583	0.97
South Central Great Basin (III-C)...	1,660	2,147,746	4.08	1.41	2,008,527	737,289	3.81	1.52	61	199,064	139,219	0.70
Bonneville Basin excluding Bear River (III-D).....	2,254	1,458,372	2.13	0.69	1,227,763	606,419	1.79	0.89	176	306,510	230,609	0.75
Bear River (III-E).....	790	571,038	1.52	0.52	413,101	241,933	1.10	0.60	100	207,816	157,937	0.76
Gulf of California, total.....	7,026	21,070,936	7.09	1.82	17,856,905	5,965,780	6.01	2.25	311	1,371,693	3,214,031	2.34
Excluding Colorado River (IV-A).....	189	126,589	11.54	2.88	126,589	20,082	11.54	2.36	.....	.....	.....	.....
Colorado River, total.....	6,838	20,944,347	7.07	1.81	17,730,316	5,945,698	5.98	2.25	311	1,371,693	3,214,031	2.34
Colorado River below Lees Ferry, Arizona, total.....	3,138	19,137,829	12.21	2.98	16,372,684	4,863,103	10.45	4.14	54	913,035	2,765,145	3.03
Excluding Gila River (IV-B)...	1,119	6,031,913	8.72	2.03	4,019,674	1,922,109	5.81	3.20	30	579,946	2,012,239	3.47
Gila River (IV-C).....	2,019	13,105,916	14.98	4.05	12,353,010	2,940,994	14.12	5.13	24	333,089	752,906	2.26
Colorado River above Lees Ferry, Arizona, total.....	3,701	1,806,518	1.29	0.35	1,357,632	1,082,595	0.97	0.74	257	458,658	448,886	0.98
Excluding Green and Gunnison Rivers (IV-D).....	1,675	806,518	1.50	0.39	615,690	511,363	1.14	0.96	124	154,970	190,828	1.23
Green River (IV-E).....	1,174	517,013	0.88	0.28	354,956	333,563	0.60	0.52	40	172,801	162,057	0.94
Gunnison River (IV-F).....	853	482,987	1.79	0.42	386,986	237,669	1.44	0.80	93	130,887	96,001	0.73
Gulf of Mexico excluding Mississippi River, total.....	13,162	22,561,842	5.85	2.44	20,139,657	4,801,203	5.22	2.42	100	1,105,381	2,422,185	2.19
Excluding Rio Grande (V-A).....	8,984	12,161,878	6.31	2.18	11,510,991	2,009,875	5.97	4.31	16	209,787	650,887	3.10
Rio Grande, total.....	4,179	10,399,964	5.39	2.45	8,628,666	2,791,328	4.47	1.83	84	895,594	1,771,298	1.98
Rio Grande below Fort Quitman, Texas (V-B).....	2,257	7,698,578	7.82	4.12	6,321,951	(*)	6.42	(*)	43	597,388	1,376,627	2.30
Rio Grande above Fort Quitman, Texas (V-C).....	1,922	2,701,386	2.85	1.14	2,306,715	(*)	2.44	(*)	41	298,206	394,671	1.32
Mississippi River, total.....	20,022	13,015,403	2.25	0.87	10,979,832	4,929,142	1.89	0.95	326	1,586,569	2,035,571	1.28
Excluding Arkansas and Missouri Rivers (VI-A).....	2,044	2,060,071	4.36	6.23	2,038,400	304,908	4.31	2.37	1	13,033	21,671	1.66
Arkansas River (VI-B).....	2,700	1,720,735	2.52	0.90	1,570,798	647,506	2.30	1.02	27	132,909	149,937	1.13
Missouri River, total.....	15,278	9,234,597	1.99	0.77	7,370,634	3,976,728	1.59	0.90	298	1,440,627	1,863,963	1.29
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C).....	3,071	1,375,715	1.82	0.96	1,111,671	663,305	1.47	1.06	29	240,462	264,044	1.10
Platte River, total.....	8,899	5,551,961	2.31	1.10	4,527,888	2,338,826	1.89	0.99	164	811,765	1,024,073	1.26
Excluding South Platte River (VI-D).....	5,232	3,028,078	2.14	1.02	2,448,475	1,119,268	1.73	0.93	24	384,784	579,603	1.51
South Platte River (VI-E).....	3,667	2,523,883	2.57	1.17	2,079,413	1,219,558	2.11	1.05	140	426,981	444,470	1.04
Yellowstone River, total.....	2,243	2,096,255	2.07	0.65	1,540,587	837,750	1.52	0.85	91	362,267	555,668	1.53
Excluding Big Horn River (VI-F).....	1,543	1,051,571	1.90	0.61	783,611	356,459	1.42	0.67	57	178,695	267,960	1.50
Big Horn River (VI-G).....	700	1,044,684	2.27	0.67	756,976	481,291	1.65	1.07	34	183,572	287,708	1.57
Missouri River headwaters above Three Forks, Montana (VI-H).....	1,071	210,666	0.45	0.10	190,488	136,847	0.40	0.32	15	26,133	20,178	0.77
Hudson Bay (Red River of the North) (VII).....	11	3,965	0.50	0.38	3,965	5,912	0.50	1.32	.....	.....	.....	.....

*Not available. [1]All enterprises that delivered water direct to farms, including those with reported cost $0. [2]Reported for multiple-farm enterprises. [3]Average cost per acre of irrigated land divided by calculated average quantity of water per acre (table 54). [4]For 1949, total cost minus cost other than for operation and maintenance. [5]Acreage irrigated direct by 2 or more enterprises is counted for each.

Table 56.—17 WESTERN STATES: NUMBER OF IRRIGATION ENTERPRISES AND ACREAGE IRRIGATED DIRECT, BY COST OF IRRIGATION WATER TO FARMS PER ACRE, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin. Acreage irrigated direct by 2 or more enterprises is counted for each]

Drainage basins	Number of enterprises reporting cost of water to farms	Enterprises reporting cost of water per acre of—					Percent of enterprises reporting cost of water per acre of—					Total acres irrigated direct	Acres irrigated direct for enterprises reporting cost of water per acre of—				
		Less than $1.00	$1.00-$1.99	$2.00-$4.99	$5.00-$9.99	$10.00 and over	Less than $1.00	$1.00-$1.99	$2.00-$4.99	$5.00-$9.99	$10.00 and over		Less than $1.00	$1.00-$1.99	$2.00-$4.99	$5.00-$9.99	$10.00 and over
17 Western States, total	110,191	26,284	7,462	21,426	23,348	31,671	23.9	6.8	19.4	21.2	28.7	26,530,943	7,377,473	3,294,942	7,118,517	5,068,776	3,671,235
DRAINAGE BASINS																	
North Pacific Coast, total	18,879	7,261	1,239	2,950	3,266	4,163	38.5	6.6	15.6	17.3	22.1	4,108,821	1,236,325	488,875	1,413,421	784,899	185,301
North Pacific Coast excluding Columbia River (I-A)	2,858	619	219	548	622	850	21.7	7.7	19.2	21.8	29.7	121,529	28,909	11,356	27,415	39,166	14,683
Columbia River, total	16,021	6,642	1,020	2,402	2,644	3,313	41.5	6.4	15.0	16.5	20.7	3,987,292	1,207,416	477,519	1,386,006	745,733	170,618
Below Snake River (I-B)	5,396	1,078	290	1,065	1,375	1,588	20.0	5.4	19.7	25.5	29.4	405,853	105,383	42,586	171,012	63,824	23,048
Above Snake River excluding Yakima River (I-C)	3,793	1,734	184	366	526	983	45.7	4.9	9.6	13.9	25.9	495,135	202,627	48,686	147,897	32,058	63,867
Yakima River (I-D)	965	350	45	142	170	258	36.3	4.7	14.7	17.6	26.7	447,623	47,251	6,390	153,605	187,543	52,834
Snake River, total	5,870	3,481	501	830	574	484	59.3	8.5	14.1	9.8	8.2	2,638,681	852,155	379,857	913,492	462,308	30,869
Below Weiser, Idaho (I-E)	1,814	1,337	120	153	85	119	73.7	6.6	8.4	4.7	6.6	359,773	265,846	51,448	33,023	3,393	6,063
Weiser, Idaho, to King Hill, Idaho (I-F)	1,951	919	163	350	275	244	47.1	8.4	17.9	14.1	12.5	814,187	214,303	78,918	189,500	321,696	9,770
King Hill, Idaho, to American Falls, Idaho (I-G)	790	420	56	135	118	61	53.2	7.1	17.1	14.9	7.7	702,350	89,093	38,932	439,831	122,748	11,746
Above American Falls, Idaho (I-H)	1,325	811	162	195	97	60	61.2	12.2	14.7	7.3	4.5	762,371	282,913	210,559	251,138	14,471	3,290
South Pacific Coast, total	45,675	3,578	1,187	7,067	13,163	20,680	7.8	2.6	15.5	28.8	45.3	6,894,267	787,195	550,872	1,779,393	1,812,454	1,964,353
Klamath River (II-A)	751	442	62	108	76	63	58.9	8.3	14.4	10.1	8.4	369,785	153,410	19,003	167,281	24,921	5,170
Klamath River to Santa Maria River excluding Central Valley (II-B)	6,101	333	123	732	1,508	3,405	5.5	2.0	12.0	24.7	55.8	393,860	20,244	10,720	65,092	136,691	161,113
Central Valley, total	31,714	2,262	895	5,694	10,357	12,506	7.1	2.8	18.0	32.7	39.4	5,432,174	583,857	504,993	1,470,594	1,489,232	1,383,498
Sacramento-San Joaquin Delta area (II-C)	4,687	451	146	755	1,597	1,738	9.6	3.1	16.1	34.1	37.1	554,323	132,326	42,561	111,253	160,970	107,213
Sacramento River (II-D)	6,420	879	245	1,185	1,935	2,176	13.7	3.8	18.5	30.1	33.9	1,008,041	195,331	46,462	195,501	388,681	182,066
San Joaquin River (II-E)	4,085	289	149	884	1,374	1,389	7.1	3.6	21.6	33.6	34.0	1,370,359	47,730	86,132	665,908	257,859	312,730
San Joaquin Valley above San Joaquin River (II-F)	16,540	645	355	2,873	5,456	7,211	3.9	2.1	17.4	33.0	43.6	2,499,451	208,470	329,838	497,932	681,722	781,489
Santa Maria River and basins south (II-G)	7,134	542	108	539	1,231	4,714	7.6	1.5	7.6	17.3	66.1	698,448	29,684	16,156	76,426	161,610	414,572
Great Basin, total	5,465	3,134	471	541	323	996	57.3	8.6	9.9	5.9	18.2	2,238,030	1,246,765	484,758	354,423	77,416	74,668
Northwest Great Basin (III-A)	471	432	14	10	12	3	91.7	3.0	2.1	2.5	0.6	308,213	296,837	5,439	4,947	936	54
Humboldt River (III-B)	298	261	6	17	2	12	87.6	2.0	5.7	0.7	4.0	248,886	212,616	5,535	30,475	14	246
South Central Great Basin (III-C)	1,660	615	77	95	54	819	37.0	4.6	5.7	3.3	49.3	538,099	263,869	158,912	45,808	5,692	63,818
Bonneville Basin excluding Bear River (III-D)	2,254	1,314	236	336	219	149	58.3	10.5	14.9	9.7	6.6	739,656	270,499	193,847	216,053	49,719	9,538
Bear River (III-E)	790	518	139	84	36	13	65.6	17.6	10.6	4.6	1.6	403,176	202,944	121,025	57,140	21,055	1,012
Gulf of California, total	7,026	3,418	543	648	589	1,828	48.6	7.7	9.2	8.4	26.0	3,124,040	900,074	363,482	437,622	676,086	746,776
Excluding Colorado River (IV-A)	189	33	1	10	33	112	17.5	0.5	5.3	17.5	59.3	11,005	2,599	77	836	2,400	5,093
Colorado River, total	6,838	3,386	542	638	556	1,716	49.5	7.9	9.3	8.1	25.1	3,113,035	897,475	363,405	436,786	673,686	741,683
Colorado River below Lees Ferry, Arizona, total	3,138	670	121	295	438	1,614	21.4	3.9	9.4	14.0	51.4	1,645,138	90,393	28,446	150,782	637,760	737,757
Excluding Gila River (IV-B)	1,119	309	45	97	141	527	27.6	4.0	8.7	12.6	47.1	697,032	35,406	8,403	42,143	519,894	91,186
Gila River (IV-C)	2,019	361	76	198	297	1,087	17.9	3.8	9.8	14.7	53.8	948,106	54,987	20,043	108,639	117,866	646,571
Colorado River above Lees Ferry, Arizona, total	3,701	2,717	421	343	118	102	73.4	11.4	9.3	3.2	2.8	1,467,897	807,082	334,959	286,004	35,926	3,926
Excluding Green and Gunnison Rivers (IV-D)	1,675	1,204	206	149	52	64	71.9	12.3	8.9	3.1	3.8	571,027	300,706	131,018	112,766	24,104	2,433
Green River (IV-E)	1,174	924	109	95	26	20	78.7	9.3	8.1	2.2	1.7	606,761	368,123	173,151	61,007	3,719	761
Gunnison River (IV-F)	853	589	106	100	40	18	69.1	12.4	11.7	4.7	2.1	290,109	138,253	30,790	112,231	8,103	732
Gulf of Mexico excluding Mississippi River, total	13,162	1,732	1,153	4,294	3,387	2,596	13.2	8.8	32.6	25.7	19.7	4,006,500	814,404	283,164	1,002,525	1,273,211	633,196
Excluding Rio Grande (V-A)	8,984	555	788	3,515	2,570	1,556	6.2	8.8	39.1	28.6	17.3	1,933,213	98,708	184,682	700,431	558,878	390,514
Rio Grande, total	4,179	1,177	365	780	817	1,040	28.2	8.7	18.7	19.6	24.9	2,073,287	715,696	98,482	302,094	714,333	242,682
Rio Grande below Fort Quitman, Texas (V-B)	2,257	314	148	480	577	738	13.9	6.6	21.3	25.6	32.7	1,011,516	58,784	33,306	189,538	513,617	216,271
Rio Grande above Fort Quitman, Texas (V-C)	1,922	863	217	300	240	302	44.9	11.3	15.6	12.5	15.7	1,061,771	656,912	65,176	112,556	200,716	26,411
Mississippi River, total	20,022	7,174	2,870	5,936	2,629	1,413	35.8	14.3	29.6	13.1	7.1	6,151,342	2,385,041	1,123,661	2,131,127	444,574	66,939
Excluding Arkansas and Missouri Rivers (VI-A)	2,044	105	294	927	507	211	5.1	14.4	45.4	24.8	10.3	473,035	23,763	73,232	238,244	114,896	22,900
Arkansas River (VI-B)	2,700	1,052	386	629	358	275	39.0	14.3	23.3	13.3	10.2	733,034	221,016	136,318	328,607	35,829	11,264
Missouri River, total	15,278	6,017	2,190	4,380	1,764	927	39.4	14.3	28.7	11.5	6.1	4,945,273	2,140,262	914,111	1,564,276	293,849	32,775
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C)	3,071	1,332	391	785	376	187	43.4	12.7	25.6	12.2	6.1	766,861	285,213	169,270	260,063	45,870	6,445
Platte River, total	8,899	2,348	1,418	3,247	1,229	657	26.4	15.9	36.5	13.8	7.4	2,641,421	1,047,165	459,832	940,075	172,624	21,725
Excluding South Platte River (VI-D)	5,232	1,386	886	2,021	672	267	26.5	16.9	38.6	12.8	5.1	1,469,742	622,159	167,033	569,553	100,508	10,489
South Platte River (VI-E)	3,667	962	532	1,226	557	390	26.2	14.5	33.4	15.2	10.6	1,171,679	425,006	292,799	370,522	72,116	11,236
Yellowstone River, total	2,243	1,427	302	290	147	77	63.6	13.5	12.9	6.6	3.4	1,039,486	368,184	252,034	341,203	73,642	4,423
Excluding Big Horn River (VI-F)	1,543	994	195	211	90	53	64.4	12.6	13.7	5.8	3.4	566,252	266,917	98,015	178,979	18,526	3,815
Big Horn River (VI-G)	700	433	107	79	57	24	61.9	15.3	11.3	8.1	3.4	473,234	101,267	154,019	162,224	55,116	608
Missouri River headwaters above Three Forks, Montana (VI-H)	1,071	913	80	60	12	6	85.2	7.5	5.6	1.1	0.6	497,505	439,700	32,975	22,935	1,713	182
Hudson Bay (Red River of the North) (VII)	11	6	2	1	1	1	54.5	18.2	9.1	9.1	9.1	7,943	7,669	130	6	136	2

Table 57.—17 WESTERN STATES: COST OF IRRIGATION WATER TO FARMS FOR PRIMARY AND FOR SUPPLEMENTAL IRRIGATION, BY DRAINAGE BASINS: 1949

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin]

Drainage basins	Primary irrigation				Supplemental irrigation			
	Enterprises reporting	Acres supplied primary irrigation	Cost of water (dollars)		Enterprises reporting	Acres supplied supplemental irrigation[1]	Cost of water (dollars)	
			Total	Average per acre supplied			Total	Average per acre supplied
17 Western States, total...	99,387	24,853,210	125,894,122	5.07	13,641	1,677,733	7,704,648	4.59
DRAINAGE BASINS								
North Pacific Coast, total.....	18,248	3,974,363	12,953,793	3.26	1,172	134,458	394,630	2.93
North Pacific Coast excluding Columbia River (I-A).....	2,840	119,319	671,677	5.63	30	2,210	5,432	2.46
Columbia River, total.....	15,408	3,855,044	12,282,116	3.19	1,142	132,248	389,198	2.94
Below Snake River (I-B).....	5,313	398,005	1,539,908	3.87	145	7,848	16,641	2.12
Above Snake River excluding Yakima River (I-C).....	3,640	469,856	1,790,503	3.81	331	25,279	107,616	4.26
Yakima River (I-D).....	867	422,622	2,301,590	5.45	156	25,001	119,354	4.77
Snake River, total.....	5,591	2,564,561	6,650,115	2.59	510	74,120	145,587	1.96
Below Weiser, Idaho (I-E).....	1,795	354,169	331,818	0.94	64	5,604	5,432	0.97
Weiser, Idaho, to King Hill, Idaho (I-F).....	1,807	797,343	3,018,889	3.79	202	16,844	41,569	2.47
King Hill, Idaho, to American Falls, Idaho (I-G).....	726	691,829	2,089,176	3.02	93	10,521	43,484	4.13
Above American Falls, Idaho (I-H).....	1,272	721,220	1,210,232	1.68	151	41,151	55,102	1.34
South Pacific Coast, total.....	38,313	6,100,040	54,077,514	8.87	8,224	794,227	5,181,778	6.52
Klamath River (II-A).....	730	364,468	757,728	2.08	37	5,317	14,462	2.72
Klamath River to Santa Maria River excluding Central Valley (II-B)....	6,023	386,613	4,969,544	12.85	172	7,247	67,613	9.33
Central Valley, total.....	24,685	4,694,280	37,007,845	7.88	7,474	737,894	4,390,073	5.95
Sacramento-San Joaquin Delta area (II-C).....	4,653	547,330	3,210,835	5.87	60	6,993	47,060	6.73
Sacramento River (II-D).....	6,345	984,738	5,859,234	5.95	130	23,303	96,571	4.14
San Joaquin River (II-E).....	2,901	1,198,468	7,912,673	6.60	1,250	171,891	1,025,828	5.97
San Joaquin Valley above San Joaquin River (II-F).....	10,802	1,963,744	20,025,103	10.20	6,038	535,707	3,220,614	6.01
Santa Maria River and basins south (II-G).....	6,900	654,679	11,342,397	17.33	541	43,769	709,630	16.21
Great Basin, total.....	5,313	2,142,927	4,137,486	1.93	476	95,103	201,423	2.12
Northwest Great Basin (III-A).....	468	307,329	44,663	0.15	6	884	44	0.05
Humboldt River (III-B).....	298	248,840	116,912	0.47	1	46	134	2.91
South Central Great Basin (III-C)...	1,653	526,917	2,115,495	4.01	33	11,182	32,251	2.88
Bonneville Basin excluding Bear River (III-D).....	2,143	684,068	1,331,548	1.95	323	55,588	126,824	2.28
Bear River (III-E).....	759	375,773	528,868	1.41	113	27,403	42,170	1.54
Gulf of California, total.....	6,637	2,973,557	20,128,063	6.77	731	150,483	942,873	6.27
Excluding Colorado River (IV-A).....	180	10,966	126,589	11.54	9	39	.....	.....
Colorado River, total.....	6,458	2,962,591	20,001,474	6.75	722	150,444	942,873	6.27
Colorado River below Lees Ferry, Arizona, total.....	2,926	1,567,138	18,286,479	11.67	282	78,000	851,350	10.91
Excluding Gila River (IV-B)...	1,088	692,085	5,980,425	8.64	49	4,947	51,488	10.41
Gila River (IV-C).....	1,838	875,053	12,306,054	14.06	233	73,053	799,862	10.95
Colorado River above Lees Ferry, Arizona, total.....	3,533	1,395,453	1,714,995	1.23	440	72,444	91,523	1.26
Excluding Green and Gunnison Rivers (IV-D).....	1,605	539,174	770,919	1.43	187	31,853	35,599	1.12
Green River (IV-E).....	1,130	586,882	503,370	0.86	89	19,879	13,643	0.69
Gunnison River (IV-F).....	799	269,397	440,706	1.64	164	20,712	42,281	2.04
Gulf of Mexico excluding Mississippi River, total.....	12,725	3,858,135	22,231,250	5.76	636	148,365	330,592	2.23
Excluding Rio Grande (V-A).....	8,974	1,926,960	12,123,319	6.29	48	6,253	38,559	6.17
Rio Grande, total.....	3,751	1,931,175	10,107,931	5.23	589	142,112	292,033	2.05
Rio Grande below Fort Quitman, Texas (V-B).....	2,129	984,366	7,544,757	7.66	158	27,150	153,821	5.67
Rio Grande above Fort Quitman, Texas (V-C).....	1,622	946,809	2,563,174	2.71	431	114,962	138,212	1.20
Mississippi River, total.....	18,195	5,796,252	12,362,051	2.13	2,401	355,090	653,352	1.84
Excluding Arkansas and Missouri Rivers (VI-A).....	2,043	472,565	2,057,185	4.35	6	470	2,886	6.14
Arkansas River (VI-B).....	2,395	683,109	1,634,183	2.39	439	49,925	86,552	1.73
Missouri River, total.....	13,759	4,640,578	8,670,683	1.87	1,956	304,695	563,914	1.85
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C).....	3,049	755,130	1,361,035	1.80	45	11,731	14,680	1.25
Platte River, total.....	7,495	2,401,591	5,055,404	2.11	1,685	239,830	496,557	2.07
Excluding South Platte River (VI-D).....	4,963	1,417,707	2,964,175	2.09	326	52,035	63,903	1.23
South Platte River (VI-E).....	2,532	983,884	2,091,229	2.13	1,359	187,795	432,654	2.30
Yellowstone River, total.....	2,177	1,011,822	2,056,267	2.03	163	27,664	39,988	1.45
Excluding Big Horn River (VI-F).....	1,503	552,550	1,040,996	1.88	113	13,702	10,575	0.77
Big Horn River (VI-G).....	674	459,272	1,015,271	2.21	50	13,962	29,413	2.11
Missouri River headwaters above Three Forks, Montana (VI-H).....	1,042	472,035	197,977	0.42	63	25,470	12,689	0.50
Hudson Bay (Red River of the North) (VII).....	11	7,936	3,965	0.50	1	7	.....	.....

[1] Acreage supplied supplemental irrigation by 2 or more enterprises is counted for each.

Table 58.—17 WESTERN STATES: IRRIGATION ENTERPRISES REPORTING QUANTITY OF WATER SUPPLIED FOR PRIMARY IRRIGATION—NUMBER OF ENTERPRISES, ACRES SUPPLIED, QUANTITY OF WATER, AND COST OF WATER TO FARMS FOR PRIMARY IRRIGATION, BY DRAINAGE BASINS: 1949 AND 1939

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin]

Drainage basins	Enterprises reporting quantity of water for primary irrigation				Quantity of water reported for primary irrigation (acre-feet)				Cost of water reported for primary irrigation (dollars)		
	Number		Acres supplied primary irrigation		Total		Average per acre supplied		Total, 1949	Average per acre-foot	
	1949	1939	1949	1939	1949	1939	1949	1939		1949	1939
17 Western States, total...	8,731	68,971	13,496,750	18,851,216	42,833,974	51,657,466	3.2	2.7	58,406,424	1.36	0.93
DRAINAGE BASINS											
North Pacific Coast, total.....	2,056	13,280	2,925,891	3,543,047	13,958,515	14,127,578	4.8	4.0	10,318,638	0.74	0.39
North Pacific Coast excluding Columbia River (I-A).....	121	1,604	56,078	86,192	155,345	259,621	2.8	3.0	341,349	2.20	1.35
Columbia River, total.....	1,935	11,676	2,869,813	3,456,855	13,803,170	13,867,957	4.8	4.0	9,977,289	0.72	0.38
Below Snake River (I-B).....	230	3,093	193,733	284,983	870,669	1,053,170	4.5	3.7	694,287	0.80	0.57
Above Snake River excluding Yakima River (I-C).....	424	3,535	270,114	443,226	1,018,992	1,353,517	3.8	3.1	1,214,872	1.19	0.86
Yakima River (I-D).....	143	629	385,563	419,442	1,871,492	1,884,813	4.9	4.5	2,144,005	1.15	0.48
Snake River, total.....	1,138	4,419	2,020,403	2,309,204	10,042,017	9,576,457	5.0	4.1	5,924,125	0.59	0.26
Below Weiser, Idaho (I-E).....	419	(*)	214,028	(*)	808,311	(*)	3.8	(*)	213,476	0.26	(*)
Weiser, Idaho, to King Hill, Idaho (I-F).....	270	(*)	616,361	(*)	3,064,288	(*)	5.0	(*)	2,777,650	0.91	(*)
King Hill, Idaho, to American Falls, Idaho (I-G).....	101	(*)	604,414	(*)	2,795,365	(*)	4.6	(*)	1,873,091	0.67	(*)
Above American Falls, Idaho (I-H).....	351	(*)	585,600	(*)	3,374,053	(*)	5.8	(*)	1,059,908	0.31	(*)
South Pacific Coast, total.....	1,248	28,222	2,323,509	4,362,604	6,158,053	11,119,278	2.7	2.5	16,485,527	2.68	1.97
Klamath River (II-A).....	38	537	196,174	234,352	399,253	648,131	2.0	2.8	608,714	1.52	0.53
Klamath River to Santa Maria River excluding Central Valley (II-B)....	35	5,502	15,522	299,519	32,782	576,530	2.1	1.9	169,829	5.18	3.76
Central Valley, total.....	330	16,169	1,802,659	3,202,911	5,108,937	8,756,250	2.8	2.7	9,427,505	1.85	1.47
Sacramento-San Joaquin Delta area (II-C).....	26	(*)	110,554	(*)	368,253	(*)	3.3	(*)	1,049,250	2.85	(*)
Sacramento River (II-D).....	53	(*)	339,741	(*)	1,580,062	(*)	4.7	(*)	2,504,253	1.58	(*)
San Joaquin River (II-E).....	43	(*)	811,511	(*)	2,354,704	(*)	2.9	(*)	4,065,103	1.73	(*)
San Joaquin Valley above San Joaquin River (II-F).....	215	(*)	540,853	(*)	805,918	(*)	1.5	(*)	1,808,899	2.24	(*)
Santa Maria River and basins south (II-G).....	846	6,014	309,154	625,822	617,081	1,138,367	2.0	1.8	6,279,479	10.18	5.73
Great Basin, total.....	1,146	3,933	1,170,428	1,821,964	3,315,353	4,644,167	2.8	2.5	2,039,988	0.62	0.44
Northwest Great Basin (III-A).....	5	513	5,655	190,079	12,452	421,395	2.2	2.2	4,899	0.39	0.13
Humboldt River (III-B).....	31	302	45,082	244,895	135,161	601,313	3.0	2.5	77,955	0.58	0.11
South Central Great Basin (III-C)...	115	1,357	241,558	430,678	697,227	1,291,885	2.9	3.0	396,146	0.57	0.74
Bonneville Basin excluding Bear River (III-D).....	687	1,267	580,164	599,129	1,662,634	1,514,624	2.9	2.5	1,081,537	0.65	0.45
Bear River (III-E).....	309	494	297,969	357,183	807,879	814,950	2.7	2.3	479,451	0.59	0.35
Gulf of California, total.....	1,317	6,108	2,010,677	2,499,015	7,436,187	8,601,262	3.7	3.4	11,758,828	1.58	0.79
Excluding Colorado River (IV-A).....	3	133	2,101	2,555	8,465	5,686	4.0	2.2	.....	.....	3.37
Colorado River, total.....	1,315	5,975	2,008,576	2,496,460	7,427,722	8,595,576	3.7	3.4	11,758,828	1.58	0.79
Colorado River below Lees Ferry, Arizona, total.....	229	2,053	1,062,988	1,135,171	4,141,544	3,800,140	3.9	3.3	10,306,166	2.49	1.51
Excluding Gila River (IV-B)...	122	908	615,971	582,298	2,602,656	2,022,056	4.2	3.5	5,224,846	2.01	1.16
Gila River (IV-C).....	107	1,145	447,017	552,873	1,538,888	1,778,084	3.4	3.2	5,081,320	3.30	1.90
Colorado River above Lees Ferry, Arizona, total.....	1,087	3,922	945,588	1,361,289	3,286,178	4,795,436	3.5	3.5	1,452,662	0.44	0.22
Excluding Green and Gunnison Rivers (IV-D).....	525	1,671	397,910	473,505	1,415,163	1,933,821	3.6	4.1	677,265	0.48	0.23
Green River (IV-E).....	231	1,480	350,277	608,656	1,079,528	1,544,353	3.1	2.5	416,068	0.39	0.22
Gunnison River (IV-F).....	331	771	197,401	279,128	791,487	1,317,262	4.0	4.7	359,329	0.45	0.20
Gulf of Mexico excluding Mississippi River, total.....	768	5,178	1,702,319	1,871,113	3,840,154	4,380,024	2.3	2.3	10,459,715	2.72	1.41
Excluding Rio Grande (V-A).....	58	2,654	356,612	459,067	1,037,105	1,345,067	2.9	2.9	3,814,644	3.68	1.97
Rio Grande, total.....	710	2,524	1,345,707	1,412,046	2,803,049	3,034,957	2.1	2.1	6,645,071	2.37	1.16
Rio Grande below Fort Quitman, Texas (V-B).....	110	(*)	618,649	(*)	1,105,339	(*)	1.8	(*)	4,669,998	4.22	(*)
Rio Grande above Fort Quitman, Texas (V-C).....	600	(*)	727,058	(*)	1,697,710	(*)	2.3	(*)	1,975,073	1.16	(*)
Mississippi River, total.....	2,198	12,238	3,356,326	4,748,993	8,115,712	8,778,629	2.4	1.8	7,340,791	0.90	0.61
Excluding Arkansas and Missouri Rivers (VI-A).....	2	731	45,289	126,652	32,106	143,864	0.7	1.1	159,734	4.98	2.16
Arkansas River (VI-B).....	488	2,136	457,078	591,292	1,204,824	1,087,395	2.6	1.8	1,084,483	0.90	0.78
Missouri River, total.....	1,708	9,371	2,853,959	4,031,049	6,878,782	7,547,370	2.4	1.9	6,096,574	0.89	0.55
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C).....	164	2,305	410,831	585,492	778,293	827,658	1.9	1.4	811,705	1.04	0.94
Platte River, total.....	686	4,179	1,483,291	2,208,815	2,879,889	3,823,863	1.9	1.7	3,339,276	1.16	0.63
Excluding South Platte River (VI-D).....	272	2,629	730,164	1,096,620	1,457,039	2,128,312	2.0	1.9	1,924,518	1.32	0.55
South Platte River (VI-E).....	414	1,550	753,127	1,112,195	1,422,850	1,695,551	1.9	1.5	1,414,758	0.99	0.72
Yellowstone River, total.....	573	1,920	787,509	859,275	2,465,920	1,954,675	3.1	2.3	1,829,523	0.74	0.44
Excluding Big Horn River (VI-F).....	353	1,258	399,817	471,347	1,199,889	935,606	3.0	2.0	879,579	0.73	0.44
Big Horn River (VI-G).....	220	662	387,692	387,928	1,266,031	1,019,069	3.3	2.6	949,944	0.75	0.44
Missouri River headwaters above Three Forks, Montana (VI-H).....	289	967	172,328	377,467	754,680	941,174	4.4	2.5	116,070	0.15	0.14
Hudson Bay (Red River of the North) (VII).....	1	12	7,600	4,480	10,000	6,528	1.3	1.5	2,937	0.29	0.85

*Not available.

Table 59.—17 WESTERN STATES: IRRIGATION ENTERPRISES REPORTING QUANTITY OF WATER SUPPLIED FOR SUPPLEMENTAL IRRIGATION–NUMBER OF ENTERPRISES, ACRES SUPPLIED, QUANTITY OF WATER, AND COST OF WATER TO FARMS FOR SUPPLEMENTAL IRRIGATION, BY DRAINAGE BASINS: 1949 AND 1939

[Interbasin enterprises are counted for each basin in which they had irrigation works, but only once in 17-State total. For interbasin enterprises, data represent characteristics within the basin]

Drainage basins	Enterprises reporting quantity of water for supplemental irrigation				Quantity of water reported for supplemental irrigation (acre-feet)				Cost of water reported for supplemental irrigation (dollars)		
	Number		Acres supplied supplemental irrigation[1]		Total		Average per acre supplied		Total, 1949	Average per acre-foot	
	1949	1939	1949	1939	1949	1939	1949	1939		1949	1939
17 Western States, total...	1,920	10,075	743,960	2,983,251	1,873,303	4,203,860	2.5	1.4	2,591,077	1.38	0.80
DRAINAGE BASINS											
North Pacific Coast, total.....	420	334	100,051	1,144,315	497,962	1,867,322	5.0	1.6	281,047	0.56	0.17
North Pacific Coast excluding Columbia River (I-A).....	11	2	1,585	55	8,082	25	5.1	0.5	2,935	0.36	1.00
Columbia River, total.....	409	332	98,466	1,144,260	489,880	1,867,297	5.0	1.6	278,112	0.57	0.16
Below Snake River (I-B).....	29	59	5,553	17,593	26,516	57,128	4.8	3.2	6,792	0.26	0.47
Above Snake River excluding Yakima River (I-C).....	137	23	18,650	22,847	88,523	42,051	4.7	1.8	81,566	0.92	3.60
Yakima River (I-D).....	36	108	18,622	172,040	69,512	675,275	3.7	3.9	90,712	1.30	0.12
Snake River, total.....	207	142	55,641	931,780	305,329	1,092,843	5.5	1.2	99,042	0.32	0.19
Below Weiser, Idaho (I-E).....	42	(*)	3,934	(*)	14,129	(*)	3.6	(*)	1,121	0.08	(*)
Weiser, Idaho, to King Hill, Idaho (I-F).....	31	(*)	8,160	(*)	41,513	(*)	5.1	(*)	27,819	0.67	(*)
King Hill, Idaho, to American Falls, Idaho (I-G).....	22	(*)	6,621	(*)	37,541	(*)	5.7	(*)	21,496	0.57	(*)
Above American Falls, Idaho (I-H).....	112	(*)	36,926	(*)	212,146	(*)	5.7	(*)	48,606	0.23	(*)
South Pacific Coast, total.....	360	7,504	277,918	454,084	413,071	840,344	1.5	1.9	1,493,828	3.62	2.02
Klamath River (II-A).....	2	9	730	41,417	1,941	82,739	2.7	2.0	2,624	1.35	0.52
Klamath River to Santa Maria River excluding Central Valley (II-B)....	7	32	2,285	2,896	4,230	5,855	1.9	2.0	11,154	2.64	3.46
Central Valley, total.....	115	7,313	247,102	377,491	351,966	693,453	1.4	1.8	940,818	2.67	2.03
Sacramento-San Joaquin Delta area (II-C).....	6	(*)	4,171	(*)	15,705	(*)	3.8	(*)	37,947	2.42	(*)
Sacramento River (II-D).....	14	(*)	11,820	(*)	48,965	(*)	4.1	(*)	63,925	1.31	(*)
San Joaquin River (II-E).....	13	(*)	27,926	(*)	64,836	(*)	2.3	(*)	160,088	2.47	(*)
San Joaquin Valley above San Joaquin River (II-F).....	84	(*)	203,185	(*)	222,460	(*)	1.1	(*)	678,858	3.05	(*)
Santa Maria River and basins south (II-G).....	236	150	27,801	32,280	54,934	58,297	2.0	1.8	539,232	9.82	3.94
Great Basin, total.....	280	155	81,791	296,139	212,745	513,971	2.6	1.7	175,912	0.83	0.38
Northwest Great Basin (III-A).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Humboldt River (III-B).....	1	3	46	17,079	151	78,502	3.3	4.6	134	0.89	0.37
South Central Great Basin (III-C)...	22	11	9,239	67,846	22,403	213,695	2.4	3.1	27,804	1.24	0.29
Bonneville Basin excluding Bear River (III-D).....	179	105	50,745	199,735	126,791	203,823	2.5	1.0	107,143	0.85	0.49
Bear River (III-E).....	78	36	21,761	11,479	63,400	17,951	2.9	1.6	40,831	0.64	0.31
Gulf of California, total.....	278	275	68,108	166,796	242,916	237,167	3.6	1.4	350,161	1.44	[2]1.21
Excluding Colorado River (IV-A).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Colorado River, total.....	278	275	68,108	166,796	242,916	237,167	3.6	1.4	350,161	1.44	[2]1.21
Colorado River below Lees Ferry, Arizona, total.....	29	126	18,065	72,536	78,869	80,680	4.4	1.1	281,986	3.58	2.61
Excluding Gila River (IV-B)...	12	1	3,379	30	24,359	150	7.2	5.0	32,270	1.32	0.58
Gila River (IV-C).....	17	125	14,686	72,506	54,510	80,530	3.7	1.1	249,716	4.58	2.62
Colorado River above Lees Ferry, Arizona, total.....	249	149	50,043	94,260	164,047	156,487	3.3	1.7	68,175	0.42	0.49
Excluding Green and Gunnison Rivers (IV-D).....	101	47	21,450	19,246	66,748	59,131	3.1	3.1	27,438	0.41	0.61
Green River (IV-E).....	35	35	11,331	55,298	38,124	68,067	3.4	1.2	10,659	0.28	0.38
Gunnison River (IV-F).....	113	67	17,262	19,716	59,175	29,289	3.4	1.5	30,078	0.51	0.49
Gulf of Mexico excluding Mississippi River, total.....	137	276	66,305	160,106	129,411	99,195	2.0	0.6	85,823	0.66	1.15
Excluding Rio Grande (V-A).....	4	4	2,058	9,148	4,756	19,571	2.3	2.1	18,836	3.96	0.81
Rio Grande, total.....	133	272	64,247	150,958	124,655	79,624	1.9	0.5	66,987	0.54	1.24
Rio Grande below Fort Quitman, Texas (V-B).....	10	(*)	6,267	(*)	11,366	(*)	1.8	(*)	26,152	2.30	(*)
Rio Grande above Fort Quitman, Texas (V-C).....	123	(*)	57,980	(*)	113,289	(*)	2.0	(*)	40,835	0.36	(*)
Mississippi River, total.....	445	1,531	149,787	761,811	377,198	645,861	2.5	0.8	204,306	0.54	1.06
Excluding Arkansas and Missouri Rivers (VI-A).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arkansas River (VI-B).....	122	202	20,648	34,831	55,067	46,016	2.7	1.3	26,136	0.47	1.56
Missouri River, total.....	323	1,329	129,139	726,980	322,131	599,845	2.5	0.8	178,170	0.55	1.02
Below Three Forks, Montana, excluding Platte and Yellowstone Rivers (VI-C).....	19	7	7,889	7,419	16,720	7,849	2.1	1.3	11,770	0.70	0.97
Platte River, total.....	185	1,270	85,816	582,240	164,547	428,522	1.9	0.7	128,832	0.78	1.23
Excluding South Platte River (VI-D).....	45	209	21,069	187,183	51,644	97,355	2.5	0.5	28,229	0.55	1.34
South Platte River (VI-E).....	140	1,061	64,747	395,057	112,903	331,167	1.7	0.8	100,603	0.89	1.20
Yellowstone River, total.....	74	36	18,126	54,349	59,329	51,167	3.3	0.9	32,392	0.55	1.01
Excluding Big Horn River (VI-F).....	49	25	6,627	43,819	22,242	44,307	3.4	1.0	6,160	0.28	0.80
Big Horn River (VI-G).....	25	11	11,499	10,530	37,087	6,860	3.2	0.7	26,232	0.71	2.35
Missouri River headwaters above Three Forks, Montana (VI-H).....	45	16	17,308	82,972	81,535	112,307	4.7	1.4	5,176	0.06	0.19
Hudson Bay (Red River of the North) (VII).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Not available.
[1]Acreage supplied supplemental irrigation by 2 or more enterprises is counted for each.
[2]Revised.

Table 60.—17 WESTERN STATES: NUMBER OF IRRIGATION ENTERPRISES, 1930 TO 1950, AND ACREAGE IRRIGATED 1920 TO 1950, BY TYPE OF ENTERPRISE

Type of enterprise	Number of irrigation enterprises			Acres irrigated[1]						
				Total				Average per enterprise		
	1950	1940	1930	1950	1940	1930	1920	1950	1940	1930
All types	111,940	87,773	72,122	26,530,943	23,679,333	18,944,856	18,592,888	237	270	263
Single-farm	101,770	82,239	67,866	11,817,055	7,499,989	6,038,835	6,448,663	116	91	89
Mutual:										
Unincorporated	6,417	1,664	3,320	2,113,642	1,004,458	6,271,334	6,569,690	329	604	1,889
Incorporated	2,880	2,670		5,635,630	6,467,587			1,957	2,422	
Commercial	131	245	304	705,087	983,595	999,838	1,635,027	5,382	4,015	3,289
District	483	441	363	4,962,413	3,807,967	3,452,275	1,822,887	10,274	8,635	9,510
U.S. Bureau of Reclamation[2]	37	97	30	682,413	3,284,474	1,485,028	1,254,569	18,444	33,861	49,501
U.S. Bureau of Indian Affairs	141	188	110	506,076	515,765	331,840	284,551	3,589	2,743	3,017
State	31	142	39	51,782	18,995	11,472	5,620	1,670	134	294
City	50	62	45	56,845	91,187	121,218	40,146	1,137	1,471	2,694
Other	.....	25	[3]45	.....	5,316	[3]233,016	531,735	.....	213	5,178

[1]For 1950, acreage irrigated direct by 2 or more enterprises is included for each; for 1940, acreage reported for both "primary" and "supplemental" enterprises is included for each type of enterprise. [2]For 1950, does not include Bureau of Reclamation projects operated by water users, which are classified under other types of enterprises. [3]Includes 13 Carey Act enterprises.

Table 61.—17 WESTERN STATES: NUMBER OF ENTERPRISES AND AREA IRRIGATED FOR ALL IRRIGATION ENTERPRISES, MULTIPLE-PURPOSE ENTERPRISES, AND COMPLETE-SYSTEM ENTERPRISES, BY TYPE OF ENTERPRISE: CENSUS OF 1950

[Farms and acreage irrigated direct by 2 or more enterprises are counted for each]

Type of enterprise	All enterprises						Multiple-purpose enterprises			Complete-system enterprises		
	Number	Percent distribution	Acres irrigated direct: Total	Acres irrigated direct: Average per enterprise	Acres irrigated direct: Percent distribution	Average number of farms irrigated direct per enterprise	Number	Percent of all enterprises	Acres irrigated direct	Number	Percent of all enterprises	Acres irrigated direct
All types	111,940	100.0	26,530,943	237	100.0	3.2	448	0.4	3,129,531	101,815	91.0	17,917,381
Single-farm	101,770	90.9	11,817,055	116	44.5	1.1	.....	.....	.....	94,733	93.1	10,880,559
Mutual:												
Unincorporated	6,417	5.7	2,113,642	329	8.0	5.2	139	2.2	38,761	5,026	78.3	1,523,411
Incorporated	2,880	2.6	5,635,630	1,957	21.2	34.6	145	5.0	449,780	1,559	54.1	2,278,446
District	483	0.4	4,962,413	10,274	18.7	166.4	90	18.6	1,839,341	235	48.7	2,349,914
U.S. Bureau of Reclamation:												
Operated by Bureau	37	([1])	682,413	18,444	2.6	225.5	21	56.8	460,712	10	27.0	172,102
Operated by water users[2]	79	0.1	1,539,737	19,490	5.8	305.2	13	16.5	483,679	24	30.4	458,827
All or part of water from U.S.B.R. projects[2 3]	247	0.2	2,161,601	8,751	8.1	115.4	41	16.6	777,283	18	7.3	61,550
Commercial, Indian, State, City, and other	353	0.3	1,319,790	3,739	5.0	70.9	53	15.0	340,937	252	71.4	712,949

[1]0.05 percent or less. [2]These enterprises also included under "District" or other types of enterprises as the case may be. [3]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 62.—17 WESTERN STATES: ENTERPRISES AND ACREAGE IRRIGATED DIRECT BY ORIGIN OF WATER SUPPLY AND BY PRIMARY AND SUPPLEMENTAL IRRIGATION, BY TYPE OF ENTERPRISE: 1949

[Acreage irrigated direct by 2 or more enterprises is counted for each enterprise]

Type of enterprise	Origin of water						Primary and supplemental irrigation						
	No water from other enterprises		Part of water from other enterprises		All of water from other enterprises		All primary		Part primary, part supplemental			All supplemental	
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Primary acres irrigated	Supplemental acres irrigated	Enterprises reporting	Acres irrigated
All types	104,393	20,006,946	2,993	3,879,932	4,554	2,644,065	96,550	20,127,526	2,837	4,725,684	736,600	10,804	941,133
Single-farm	96,228	10,909,351	2,123	653,799	3,419	253,905	88,821	10,791,085	977	125,184	82,169	10,564	818,617
Mutual:													
Unincorporated	5,570	1,661,707	333	169,792	514	282,143	5,203	1,677,219	870	255,046	126,373	203	55,004
Incorporated	1,939	3,073,574	418	1,587,694	523	974,362	1,918	2,965,257	804	2,280,003	354,760	30	35,610
District	317	2,788,967	89	1,189,386	77	984,060	310	3,160,384	132	1,624,412	146,560	5	31,057
U.S. Bureau of Reclamation:													
Operated by Bureau	33	588,323	.....	.....	4	94,090	16	489,942	7	188,155	4,316	.....	.....
Operated by water users[1]	39	526,910	16	437,536	24	575,291	44	727,949	24	789,803	21,895	.....	.....
All or part of water from U.S.B.R. projects[1 2]	.....	.....	167	1,350,756	80	810,845	144	1,050,634	101	1,051,140	59,827	.....	.....
Commercial, Indian, State, City, and other	306	985,024	30	279,261	17	55,505	282	1,043,639	47	252,884	22,422	2	845

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 63.—17 WESTERN STATES: IRRIGATION ENTERPRISES AND AREA IRRIGATED BY METHOD OF DELIVERY OF IRRIGATION WATER, AND ENTERPRISES BY NUMBER OF FARMS IRRIGATED, BY TYPE OF ENTERPRISE: 1949

[Acreage irrigated direct by 2 or more enterprises is counted for each enterprise]

Type of enterprise	Total number of enterprises	Delivery of irrigation water: No water delivered (enterprises reporting)	Water delivered direct to farms only: Enterprises reporting	Water delivered direct to farms only: Acres irrigated	Water delivered to farms and to other enterprises: Enterprises reporting	Water delivered to farms and to other enterprises: Acres irrigated	Water delivered to other enterprises only (enterprises reporting)	Number of enterprises by number of farms irrigated: No farms	1-3 farms	4-9 farms	10-29 farms	30-99 farms	100-299 farms	300-999 farms	1,000 farms or more
All types	111,940	1,426	108,343	17,503,494	1,848	9,027,449	323	1,749	103,470	3,329	2,070	925	266	101	30
Single-farm	101,770	1,408	100,268	11,786,426	94	30,629	.....	1,408	99,846	484	32	.....	.....	.....	.....
Mutual:															
Unincorporated	6,417	3	5,606	1,817,293	670	296,349	138	141	3,392	2,113	678	93	.....	.....	.....
Incorporated	2,880	9	1,999	2,441,117	753	3,194,513	119	128	169	635	1,157	612	141	32	6
District	483	2	216	941,145	231	4,021,268	34	36	18	32	105	134	93	47	18
U.S. Bureau of Reclamation:															
Operated by Bureau	37	2	9	157,301	14	525,112	12	14	1	3	.....	4	6	7	2
Operated by water users[1]	79	.....	32	412,852	36	1,126,885	11	11	.....	2	2	18	25	15	6
All or part of water from U.S.B.R. projects[1 2]	247	.....	127	411,821	118	1,749,780	2	2	18	31	55	84	37	15	5
Commercial, Indian, State, City, and other	353	2	245	360,212	86	959,578	20	22	44	62	98	82	26	15	4

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 64.—17 WESTERN STATES: IRRIGATION ENTERPRISES BY NUMBER OF ACRES IRRIGATED DIRECT, BY TYPE OF ENTERPRISE: 1949

Type of enterprise	Number of enterprises reporting acreage irrigated as—: Total	No acres	1-29 acres	30-99 acres	100-499 acres	500-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres and over	Percent of enterprises reporting acreage irrigated as—: No acres	1-29 acres	30-99 acres	100-499 acres	500-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres and over
All types	111,940	1,749	41,663	33,124	28,179	3,849	2,375	741	175	80	1.6	37.2	29.6	25.2	3.4	2.1	0.7	0.2	0.1
Single-farm	101,770	1,408	41,100	31,267	24,155	2,479	1,136	194	28	3	1.4	40.4	30.7	23.7	2.4	1.1	0.2	([1])	([1])
Mutual:																			
Unincorporated	6,417	141	509	1,593	3,033	733	363	41	3	1	2.2	7.9	24.8	47.3	11.4	5.7	0.6	([1])	([1])
Incorporated	2,880	128	34	207	812	537	748	344	54	16	4.4	1.2	7.2	28.2	18.6	26.0	11.9	1.9	0.6
District	483	36	1	8	62	60	80	131	64	41	7.5	0.2	1.7	12.8	12.4	16.6	27.1	13.3	8.5
U.S. Bureau of Reclamation:																			
Operated by Bureau	37	14	.....	.....	2	1	4	3	4	9	37.8	.....	.....	5.4	2.7	10.8	8.1	10.8	24.3
Operated by water users[2]	79	11	.....	.....	1	3	9	27	12	16	13.9	.....	.....	1.3	3.8	11.4	34.2	15.2	20.3
All or part of water from U.S.B.R. projects[2 3]	247	2	3	5	25	22	81	76	20	13	0.8	1.2	2.0	10.1	8.9	32.8	30.8	8.1	5.3
Commercial, Indian, State, City, and other	353	22	24	49	115	39	44	28	22	10	6.2	6.8	13.9	32.6	11.0	12.5	7.9	6.2	2.8

[1]0.05 percent or less. [2]These enterprises also included under "District" or other types of enterprises as the case may be. [3]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 65.—17 WESTERN STATES: ENTERPRISES AND ACREAGE IRRIGATED DIRECT BY SOURCE OF SURFACE WATER, IRRIGATED LAND ARTIFICIALLY DRAINED; AND IRRIGATED LAND IN NEED OF DRAINAGE; BY TYPE OF ENTERPRISE: 1949

Type of enterprise	Source of surface water[1]: Streams (and lakes): Enterprises reporting	Streams (and lakes): Acres irrigated	Springs: Enterprises reporting	Springs: Acres irrigated	Flowing wells: Enterprises reporting	Flowing wells: Acres irrigated	Drainage water: Enterprises reporting	Drainage water: Acres irrigated	Sewage: Enterprises reporting	Sewage: Acres irrigated	Irrigated land artificially drained: Enterprises reporting	Acres of irrigated land	Acres drained	Irrigated land in need of drainage: Enterprises reporting	Acres of irrigated land	Acres needing drainage
All types	39,158	19,272,564	4,295	773,693	1,827	410,428	2,472	1,912,172	128	24,847	6,333	7,962,334	4,091,541	6,243	6,914,860	1,666,723
Single-farm	30,430	4,943,894	3,850	511,938	1,730	261,733	2,128	367,699	116	16,589	5,086	1,035,680	664,418	4,756	1,033,766	273,996
Mutual:																
Unincorporated	5,546	2,015,504	261	59,656	50	8,705	160	52,095	1	430	470	294,608	111,242	725	372,892	85,939
Incorporated	2,412	5,439,778	159	159,826	39	77,297	145	691,363	3	3,729	537	2,112,116	861,195	552	1,632,208	322,302
District	460	4,896,118	7	27,593	3	52,324	35	566,410	1	699	178	3,372,418	1,641,936	152	2,672,074	568,132
U.S. Bureau of Reclamation:																
Operated by Bureau	37	682,413	1	.....	.....	.....	1	109,613	.....	.....	10	575,730	389,631	12	542,758	79,968
Operated by water users[2]	79	1,539,737	2	11,396	1	6,597	10	356,479	.....	.....	38	1,341,868	613,997	41	950,365	158,760
All or part of water from U.S.B.R. projects[2 3]	246	2,159,834	8	32,228	4	61,860	24	373,818	.....	.....	76	1,275,556	439,096	74	1,251,668	137,897
Commercial, Indian, State, City, and other	273	1,294,857	17	14,680	5	10,369	3	124,992	7	3,400	52	571,782	423,119	46	661,162	336,386

[1]Acreage irrigated by more than 1 enterprise or from more than 1 source is counted for each. Sources other than those shown were reported for 14 enterprises with 1,852 acres irrigated. [2]These enterprises also included under "District" or other types of enterprises as the case may be. [3]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 66.—17 WESTERN STATES: USE OF SURFACE, GROUND, PUMPED AND STORED WATER-ENTERPRISES REPORTING AND ACREAGE IRRIGATED DIRECT, BY TYPE OF ENTERPRISE: 1949

[Acreage irrigated direct by 2 or more enterprises is counted for each enterprise]

Type of enterprise	Surface water						Ground water only (pumped from wells)		Surface (gravity or pumped) and ground water		Storage of water					
	Gravity only		Pumped only		Gravity and pumped						None stored		Part stored		All stored	
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
All types	27,904	13,649,215	11,503	2,074,675	1,261	1,457,515	67,126	6,829,443	4,146	2,520,095	104,754	17,032,606	4,386	7,579,013	2,806	1,919,324
Single-farm	19,549	3,529,739	11,212	732,163	1,068	146,603	66,020	6,541,583	3,921	866,967	96,722	10,855,930	2,737	763,031	2,311	198,094
Mutual:																
Unincorporated	5,585	1,949,971	98	49,558	57	31,604	642	63,620	35	18,889	5,650	1,721,012	595	308,556	172	84,074
Incorporated	2,229	4,582,166	70	213,957	75	170,209	386	150,945	120	518,353	1,910	2,495,023	700	2,855,880	180	284,727
District	299	2,626,855	87	742,660	37	563,979	18	54,436	42	974,483	237	1,317,676	169	2,810,990	77	833,747
U.S. Bureau of Reclamation:																
Operated by Bureau	27	367,069	2	3,389	6	254,073	.....	.....	2	57,882	8	13,194	14	254,833	15	414,386
Operated by water users[1]	44	678,733	14	58,305	17	425,051	.....	.....	4	377,648	18	138,734	36	1,264,337	25	136,666
All or part of water from U.S.B.R. projects[1 2]	202	1,680,213	20	107,894	15	249,855	.....	.....	10	123,639	40	159,763	191	1,482,571	16	519,267
Commercial, Indian, State, City, and other	215	593,415	34	332,948	18	291,047	60	18,859	26	83,521	227	629,771	75	585,723	51	104,296

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 67.—17 WESTERN STATES: CAPITAL INVESTMENT IN IRRIGATION ENTERPRISES, BY TYPE OF ENTERPRISE: 1920 TO 1950

Type of enterprise	Total capital investment (dollars)				Percent increase or decrease (-)			Average per irrigation enterprise (dollars)			Average per acre irrigated (dollars)			
	1950[1]	1940	1930	1920	1940-1950	1930-1940	1920-1930	1950	1940	1930	1950	1940	1930	1920
All types	1,832,515,061	1,034,716,793	870,174,399	676,410,825	77.1	18.9	28.6	16,371	11,789	12,065	69	44	46	36
Single-farm	456,716,858	175,871,707	174,171,440	139,617,620	148.9	1.0	24.7	4,439	2,139	2,566	34	23	29	22
Mutual:														
Unincorporated	23,572,671	17,126,453	179,329,962	182,819,829		24.6	-1.9		10,292	54,015		17	29	28
Incorporated	238,838,189	206,241,326							77,244			32		
Commercial	69,565,639	61,198,135	53,469,563	79,727,187	60.7	14.5	-32.9	360,305	249,788	175,887	107	62	53	49
District	311,615,100	268,151,550	210,733,476	88,573,514		27.2	137.9		608,053	580,533		70	61	49
U.S. Bureau of Reclamation[2]	660,757,992	250,245,359	193,989,576	129,509,819		29.0	49.8		2,579,849	6,466,319		76	131	103
U.S. Bureau of Indian Affairs	62,192,958	48,420,058	31,576,920	14,851,236		53.3	112.6		257,554	287,063		94	95	52
State	2,317,484	1,647,672	1,043,054	344,174		58.0	203.1		11,603	26,745		87	91	61
City	6,728,825	5,631,467	15,511,463	2,936,678		-63.7	428.2		90,830	344,699		62	128	73
Other	209,345	183,066	10,348,945	38,030,768		-98.2	-72.8		7,323	229,977		34	44	72

[1]Data for 1950 not comparable with data for previous censuses. See text.
[2]For 1950, capital investment reported for Bureau of Reclamation enterprises in 1940 plus new capital investment 1940 to 1950 reported for enterprises operated by Bureau of Reclamation in 1950.

Table 68.—17 WESTERN STATES: NEW CAPITAL INVESTMENT, 1940 TO 1950, AND INDEBTEDNESS OF IRRIGATION ENTERPRISES, 1950 AND 1940, BY TYPE OF ENTERPRISE

[Acreage irrigated direct by 2 or more enterprises is counted for each enterprise]

Type of enterprise	New capital investment, Jan. 1, 1940, to Jan. 1, 1950			Indebtedness[1]									
				Enterprises reporting					Amount (dollars)				
				Number		Percent of all enterprises		Acres irrigated, 1949	Total		Average per acre irrigated by enterprises reporting, 1950	Average per acre of acreage irrigated direct	
	Enterprises reporting	Amount (dollars)	Acres irrigated direct	1950	1940	1950	1940		1950	1940		1950	1940
All types	63,418	797,798,268	16,341,921	1,133	1,383	1.0	1.6	6,916,250	694,650,536	383,891,506	100.44	26.18	16.21
Single-farm	58,734	280,845,151	7,589,278	([1])	([1])	([1])	([1])	([1])	([1])	([1])	([1])	([1])	([1])
Mutual:													
Unincorporated	2,762	5,841,936	1,006,207	81	66	1.3	4.0	71,016	401,212	4,356,578	5.65	0.19	4.34
Incorporated	1,414	33,048,579	2,823,791	564	746	19.6	27.9	2,021,940	71,074,171	22,763,363	35.15	12.61	3.52
District	282	43,463,550	3,344,365	326	337	67.5	76.4	3,595,454	239,488,202	154,052,218	66.61	48.26	40.46
U.S. Bureau of Reclamation:													
Operated by Bureau	34	410,512,633	586,978	27	76	73.0	78.4	681,704	350,232,657	148,142,068	513.76	513.23	45.10
Operated by water users[2]	51	18,095,816	1,001,956	76	(*)	96.2	(*)	1,506,584	158,573,397	(*)	105.25	102.99	(*)
All or part of water from U.S.B.R. projects[2 3]	154	8,432,118	1,300,491	72	(*)	29.1	(*)	1,058,299	52,366,861	(*)	49.48	24.23	(*)
Commercial, Indian, State, City and other	192	24,086,419	991,302	135	158	38.2	23.9	546,136	33,454,294	54,577,279	61.26	25.35	33.80

*Not available.
[1]Reported by multiple-farm enterprises for 1950; by enterprises serving 5 or more farms for 1940.
[2]These enterprises also included under "District" or other types of enterprises as the case may be.
[3]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 69.—17 WESTERN STATES: ARREARAGE ON INDEBTEDNESS, 1950 AND 1940, AND ARREARAGE IN PAYMENTS BY FARMS, 1950, BY TYPE OF ENTERPRISE

[Data reported by multiple-farm enterprises for 1950, by enterprises serving 5 or more farms for 1940. Acreage irrigated direct by 2 or more enterprises is counted for each]

Type of enterprise	Arrearage on indebtedness								Arrearage in payments by farms, 1950				
	Enterprises reporting					Amount (dollars)			Enterprises reporting			Amount (dollars)	
	Number		Percent of all enterprises		Acres irrigated, 1950	Total		Average per acre irrigated, 1950	Number	Percent of all enterprises	Acres irrigated	Total	Average per acre irrigated
	1950	1940	1950	1940		1950	1940						
All types	133	191	0.1	0.2	621,303	8,429,544	29,942,639	13.57	993	0.9	5,398,450	7,353,374	1.36
Mutual:													
Unincorporated	17	7	0.3	0.4	17,845	41,446	1,146,574	2.32	139	2.2	103,178	59,466	0.58
Incorporated	25	57	0.9	2.1	51,152	369,446	1,404,100	7.22	528	18.3	1,648,941	822,275	0.50
District	24	81	5.0	18.4	388,018	3,348,264	25,349,606	8.63	227	47.0	2,972,981	4,351,777	1.46
U.S. Bureau of Reclamation:													
Operated by Bureau	4	30	10.8	30.9	82,272	108,204	1,276,528	1.32	4	10.8	147,446	50,327	0.34
Operated by water users[1]	11	(*)	13.9	(*)	274,960	548,140	(*)	1.99	38	48.1	1,002,162	852,770	0.85
All or part of water from U.S.B.R. projects[1 2]	5	(*)	2.0	(*)	26,552	38,937	(*)	1.47	86	34.8	838,123	175,538	0.21
Commercial, Indian, State, City, and other	63	16	17.8	2.4	82,016	4,562,184	765,831	55.63	95	26.9	525,904	2,069,529	3.94

*Not available.
[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 70.—17 WESTERN STATES: ENTERPRISES REPORTING AND TOTAL NUMBER OF DIVERSION DAMS AND RESERVOIRS, AND NUMBER OF DAMS BY MATERIAL OF WHICH CONSTRUCTED, BY TYPE OF ENTERPRISE: 1950

Type of enterprise	Diversion dams						Reservoirs									
	Enterprises reporting	Total number	Number by material				Enterprises reporting	Total number	With capacity reported					Reservoir dams by material		
			Concrete or masonry	Timber	Earth and/or rock	Other, mixed, and not reported			Number	Total capacity (acre-feet)	Number by capacity			Concrete or masonry	Earth and/or rock	Other, mixed, and not reported
											1 to 99 acre-feet	100 to 999 acre-feet	1,000 acre-feet and over			
All types	26,230	49,349	5,790	6,797	31,788	4,974	5,208	7,393	6,703	42,332,466	4,765	1,190	748	648	6,139	606
Single-farm	19,635	40,271	3,492	5,068	27,845	3,866	4,372	5,880	5,235	666,767	4,381	709	145	508	4,886	486
Mutual:																
Unincorporated	4,724	6,052	871	1,324	3,113	744	258	339	311	1,443,853	167	110	34	17	296	26
Incorporated	1,466	2,129	953	296	632	248	341	708	699	6,401,536	125	279	295	51	599	58
District	213	426	246	54	81	45	126	254	254	6,730,606	57	45	152	39	195	20
U.S. Bureau of Reclamation:																
Operated by Bureau	16	27	22	2	1	2	21	49	49	24,400,080	.....	1	48	20	29	.....
Operated by water users[1]	39	77	48	9	12	8	31	60	60	4,960,866	.....	12	48	11	44	5
All or part of water from U.S.B.R. projects[1 2]	154	220	111	21	55	33	15	39	38	216,946	17	11	10	.....	37	2
Commercial, Indian, State, City, and other	176	444	206	53	116	69	90	163	155	2,689,624	35	46	74	13	134	16

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 71.—17 WESTERN STATES: ENTERPRISES REPORTING AND LENGTH OR NUMBER OF CANALS AND DITCHES, PIPE LINES, TUNNELS, FLOWING WELLS, PUMPS, ELECTRIC MOTORS, AND OTHER MOTORS, BY TYPE OF ENTERPRISE: 1950

Type of enterprise	Canals and ditches		Pipe lines and siphons		Tunnels		Flowing wells		Pumped wells				Irrigation pumps		Electric motors used for pumping		Other motors and engines used for pumping	
	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (feet)	Enterprises reporting	Number	Enterprises reporting	Total number	Pumping lift reported		Enterprises reporting	Number	Enterprises reporting	Number	Enterprises reporting	Number
											Number of wells	Average pumping lift (feet)						
All types	25,472	134,112	6,855	15,288	288	740,759	1,817	5,586	71,124	116,063	108,619	86	83,679	138,620	60,276	100,452	27,262	37,258
Single-farm	16,050	34,963	5,052	4,501	.....	.....	1,723	5,235	69,832	112,400	105,420	84	81,980	132,398	58,807	95,133	26,940	36,385
Mutual:																		
Unincorporated	5,577	16,506	691	715	72	35,531	51	151	669	813	765	123	794	1,033	703	912	109	136
Incorporated	2,355	31,660	723	4,273	137	260,578	35	153	480	1,648	1,376	188	587	2,511	500	2,138	129	326
District	401	34,245	242	3,972	49	227,205	3	40	56	896	857	113	177	1,963	155	1,718	47	251
U.S. Bureau of Reclamation:																		
Operated by Bureau	26	5,444	15	283	12	171,181	.....	.....	2	9	8	50	11	140	10	135	2	3
Operated by water users[1]	70	12,084	40	738	24	156,475	1	16	5	253	247	153	32	364	24	343	10	22
All or part of water from U.S.B.R. projects[1 2]	240	12,769	26	265	17	43,457	4	28	10	210	210	100	41	452	39	425	5	30
Commercial, Indian, State, City, and other	263	11,293	132	1,543	18	46,264	5	7	85	297	193	135	130	575	101	416	35	157

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 72.—17 WESTERN STATES: NUMBER OF ENTERPRISES AND AREA IRRIGATED DIRECT BY SEASON OF IRRIGATION AND BY EXTENT OF MEASUREMENT OF WATER TO FARMS, BY TYPE OF ENTERPRISE: 1949

[Acreage irrigated direct by 2 or more enterprises is counted for each enterprise]

Type of enterprise	All irrigation enterprises		Water delivered, by season of irrigation						Measurement of water to farms[1]					
			Only before July 1		Before and after July 1		Only after July 1		No water measured		Part of water measured		All water measured	
	Number	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
All types	111,940	26,530,943	3,716	809,434	94,179	24,565,257	9,284	690,289	6,328	4,724,786	693	2,894,898	2,084	6,171,585
Single-farm	101,770	11,817,055	3,297	439,517	84,704	10,365,377	9,166	655,614	(1)	(1)	(1)	(1)	(1)	(1)
Mutual:														
Unincorporated	6,417	2,113,642	347	99,597	5,935	1,976,827	59	6,816	4,552	1,435,296	308	161,165	900	332,767
Incorporated	2,880	5,635,630	59	119,681	2,735	5,458,902	44	21,348	1,363	1,558,006	298	1,283,449	895	2,361,424
District	483	4,962,413	8	132,592	448	4,783,809	7	5,453	192	1,230,739	55	924,853	193	2,592,116
U.S. Bureau of Reclamation:														
Operated by Bureau	37	682,413	.....	.....	29	682,413	2	.....	7	2,731	9	375,882	13	303,800
Operated by water users[2]	79	1,539,737	.....	.....	76	1,539,186	2	551	18	114,653	11	435,369	39	989,715
All or part of water from U.S.B.R. projects[2 3]	247	2,161,601	1	105	243	2,156,195	2	4,585	78	349,304	56	540,396	112	1,271,901
Commercial, Indian, State, City, and other	353	1,319,790	5	18,047	328	1,297,929	6	1,058	214	498,014	23	149,549	83	581,478

[1]Not reported by single-farm enterprises.
[2]These enterprises also included under "District" or other types of enterprises as the case may be.
[3]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 73.—17 WESTERN STATES: ENTERPRISES REPORTING AND QUANTITIES OF IRRIGATION WATER OBTAINED FROM SPECIFIED SOURCES, BY TYPE OF ENTERPRISE: 1949

[Quantity of water not reported for single-farm enterprises]

Type of enterprise	All sources			Surface sources		Pumped wells		Other enterprises	
	Enterprises reporting		Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet
	Number	Percent of all enterprises							
All types	9,254	8.3	95,441,491	7,113	72,226,141	1,159	2,485,798	1,936	20,729,552
Mutual:									
Unincorporated	5,697	88.8	9,385,912	4,632	8,027,596	579	182,589	806	1,175,727
Incorporated	2,746	95.3	30,349,649	1,856	20,533,332	448	1,119,516	927	8,696,801
District	461	95.4	28,179,231	357	17,949,778	54	938,304	161	9,291,149
U.S. Bureau of Reclamation:									
Operated by Bureau	35	94.6	20,878,701	31	19,920,647	2	15,485	4	942,569
Operated by water users[1]	78	98.7	10,727,576	51	5,029,360	4	374,159	39	5,324,057
All or part of water from U.S.B.R. projects[1 2]	247	100.0	17,080,120	164	7,660,931	10	175,531	246	9,243,658
Commercial, Indian, State, City, and other	315	89.2	6,697,998	237	5,844,788	76	229,904	38	623,306

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 74.—17 WESTERN STATES: ENTERPRISES REPORTING AND QUANTITIES OF WATER LOST IN CONVEYANCE AND DELIVERED DIRECT TO FARMS, TO OTHER ENTERPRISES, AND FOR USE OTHER THAN IRRIGATION, BY TYPE OF ENTERPRISE: 1949

[Quantity of water not reported by single-farm enterprises]

Type of enterprise	Water lost in conveyance		Water delivered—					
			Direct to farms		To other enterprises		For use other than irrigation	
	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet	Enterprises reporting	Acre-feet
All types	7,716	18,349,905	8,971	44,707,277	1,788	23,136,392	851	9,247,917
Mutual:								
Unincorporated	4,738	1,324,050	5,582	6,290,403	644	1,695,374	250	76,085
Incorporated	2,269	5,356,761	2,638	17,459,174	782	6,384,546	440	1,149,168
District	431	7,362,003	431	14,760,454	247	3,260,575	99	2,796,199
U.S. Bureau of Reclamation:								
Operated by Bureau	29	2,929,630	23	1,976,409	25	10,976,841	11	4,995,821
Operated by water users[1]	75	2,821,205	67	5,204,210	47	1,834,634	22	867,527
All or part of water from U.S.B.R. projects[1 2]	233	3,542,616	244	9,567,262	101	3,842,811	36	127,431
Commercial, Indian, State, City, and other	249	1,377,461	297	4,220,837	90	869,056	51	230,644

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 75.—17 WESTERN STATES: TOTAL COST OF IRRIGATION WATER TO FARMS, 1949; COST FOR OPERATION AND MAINTENANCE, 1949 AND 1939; AND COST OTHER THAN FOR OPERATION AND MAINTENANCE, 1949; BY TYPE OF ENTERPRISE

[Acreage irrigated direct by 2 or more enterprises is counted for each enterprise]

Type of enterprise	Cost of water to farms, 1949				Operation and maintenance cost[1]				Cost other than for operation and maintenance, 1949			
	Enterprises reporting		Amount (dollars)		Total cost (dollars)		Average cost per acre irrigated (dollars)		Enterprise reporting		Amount (dollars)	
	Number	Acres irrigated direct	Total	Average per acre	1949	1939	1949	1939	Number	Acres irrigated direct	Total	Average per acre irrigated
All types	110,191	26,530,943	133,598,770	5.04	119,548,112	43,570,838	4.51	1.84	1,734	7,743,234	14,050,658	1.81
Single-farm	100,362	11,817,055	70,876,069	6.00	70,876,069	18,325,570	6.00	2.44	.....	.....	.....	.....
Mutual:												
Unincorporated	6,276	2,113,642	2,638,200	1.25	2,248,556	606,182	1.06	0.60	521	302,861	389,644	1.29
Incorporated	2,752	5,635,630	19,894,258	3.53	16,696,782	7,464,825	2.96	1.15	879	2,456,654	3,197,476	1.30
District	447	4,962,413	28,361,031	5.72	19,561,312	8,813,547	3.94	2.31	277	3,997,304	8,799,719	2.20
U.S. Bureau of Reclamation:												
Operated by Bureau	23	682,413	4,386,946	6.43	3,649,756	4,290,870	5.35	1.31	8	380,185	737,190	1.94
Operated by water users[2]	68	1,539,737	8,647,560	5.62	6,377,602	(*)	4.14	(*)	53	1,403,368	2,269,958	1.62
All or part of water from U.S.B.R. projects[2] [3]	245	2,161,601	9,386,911	4.34	6,279,546	(*)	2.91	(*)	143	1,403,981	3,107,365	2.21
Commercial, Indian, State, City, and other	331	1,319,790	7,442,266	5.64	6,515,637	4,069,844	4.94	2.52	49	606,230	926,629	1.53

*Not available.
[1]For 1949, total cost minus cost other than for operation and maintenance.
[2]These enterprises also included under "District" or other types of enterprises as the case may be.
[3]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 76.—17 WESTERN STATES: NUMBER OF IRRIGATION ENTERPRISES AND ACREAGE IRRIGATED DIRECT BY COST OF IRRIGATION WATER TO FARMS PER ACRE, BY TYPE OF ENTERPRISE: 1949

Type of enterprise	Number of enterprises reporting cost of water to farms	Enterprises reporting cost of water per acre as—					Percent of enterprises reporting cost of water per acre as—					Acres irrigated direct by irrigation enterprises reporting cost of water per acre as—				
		Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over	Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over	Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over
All types	110,191	26,284	7,462	21,426	23,348	31,671	23.9	6.8	19.4	21.2	28.7	7,377,473	3,294,942	7,118,517	5,068,776	3,671,235
Single-farm	100,362	21,334	5,900	19,880	22,601	30,647	21.3	5.9	19.8	22.5	30.5	4,003,849	875,938	2,412,990	2,303,182	2,221,096
Mutual:																
Unincorporated	6,276	3,968	832	712	357	407	63.2	13.3	11.3	5.7	6.5	1,484,093	310,556	218,531	49,046	51,416
Incorporated	2,752	870	601	626	232	423	31.6	21.8	22.7	8.4	15.4	1,606,058	1,291,913	1,825,140	395,078	517,441
District	447	34	42	142	117	112	7.6	9.4	31.8	26.2	25.1	166,652	593,204	1,841,992	1,872,864	487,701
U.S.Bureau of Reclamation:																
Operated by Bureau	23	.....	3	11	6	3	.....	13.0	47.8	26.1	13.0	.....	14,343	299,061	269,172	99,837
Operated by water users[1]	68	2	2	31	26	7	2.9	2.9	45.6	38.2	10.3	21,255	154,566	629,963	517,043	216,910
All or part of water from U.S.B.R. projects[1] [2]	245	43	79	88	25	10	17.6	32.2	35.9	10.2	4.1	122,169	400,120	894,637	654,974	89,701
Commercial, Indian, State, City, and other	331	78	84	55	35	79	23.6	25.4	16.6	10.6	23.9	116,821	208,988	520,803	179,434	293,744

[1]These enterprises also included under "District" or other types of enterprises as the case may be.
[2]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 77.—17 WESTERN STATES: COST OF WATER TO FARMS FOR PRIMARY AND FOR SUPPLEMENTAL IRRIGATION, BY TYPE OF ENTERPRISE: 1949

Type of enterprise	Primary irrigation				Supplemental irrigation[1]			
	Enterprises reporting	Acres supplied primary irrigation	Cost of water (dollars)		Enterprises reporting	Acres supplied supplemental irrigation[1]	Cost of water (dollars)	
			Total	Average per acre supplied			Total	Average per acre supplied
All types	99,387	24,853,210	125,894,122	5.07	13,641	1,677,733	7,704,648	4.59
Single-farm	89,798	10,916,269	65,813,069	6.03	11,541	900,786	5,063,000	5.62
Mutual:								
Unincorporated	6,073	1,932,265	2,416,881	1.25	1,073	181,377	221,319	1.22
Incorporated	2,722	5,245,260	18,814,310	3.59	834	390,370	1,079,948	2.77
District	442	4,784,796	27,193,864	5.68	137	177,617	1,167,167	6.57
U.S. Bureau of Reclamation:								
Operated by Bureau	23	678,097	4,360,478	6.43	7	4,316	26,468	6.13
Operated by water users[2]	68	1,517,842	8,529,661	5.62	24	21,895	117,899	5.38
All or part of water from U.S.B.R. projects[2] [3]	245	2,101,774	9,039,263	4.30	101	59,827	347,648	5.81
Commercial, Indian, State, City, and other	329	1,296,523	7,295,520	5.63	49	23,267	146,746	6.31

[1]Acreage supplied supplemental irrigation by 2 or more enterprises is counted for each.
[2]These enterprises also included under "District" or other types of enterprises as the case may be.
[3]Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 78.—17 WESTERN STATES: IRRIGATION ENTERPRISES REPORTING QUANTITY OF WATER—QUANTITY AND COST OF WATER FOR PRIMARY AND FOR SUPPLEMENTAL IRRIGATION, BY TYPE OF ENTERPRISE: 1949

Type of enterprise	Primary irrigation						Supplemental irrigation					
	Enterprises reporting quantity of water		Quantity of water (acre-feet)		Cost of water (dollars)		Enterprises reporting quantity of water		Quantity of water (acre-feet)		Cost of water (dollars)	
	Number	Acres supplied primary irrigation	Total	Average per acre supplied	Total	Average per acre-foot	Number	Acres supplied supplemental irrigation[1]	Total	Average per acre supplied	Total	Average per acre-foot
All types	8,731	13,496,750	42,833,974	3.2	58,406,424	1.36	1,920	743,960	1,873,303	2.5	2,591,077	1.38
Mutual:												
Unincorporated	5,384	1,705,340	5,808,016	3.4	2,205,264	0.38	934	155,992	482,387	3.1	185,684	0.38
Incorporated	2,605	5,145,093	16,527,426	3.2	18,476,189	1.12	800	384,347	931,748	2.4	1,070,219	1.15
District	426	4,691,907	14,378,488	3.1	26,149,844	1.82	134	176,398	381,966	2.2	1,163,344	3.05
U. S. Bureau of Reclamation:												
Operated by Bureau	22	678,097	1,958,268	2.9	4,358,542	2.23	7	4,316	18,141	4.2	26,468	1.46
Operated by water users[2]	67	1,507,721	5,129,268	3.4	8,493,229	1.66	24	21,895	74,942	3.4	117,899	1.57
All or part of water from U.S.B.R. projects[2] [3]	244	2,101,669	9,340,890	4.4	9,038,263	0.97	101	59,827	226,372	3.8	347,648	1.54
Commercial, Indian, State, City, and other	294	1,276,313	4,161,776	3.3	7,216,585	1.73	45	22,907	59,061	2.6	145,362	2.46

[1] Acreage supplied supplemental irrigation by 2 or more enterprises is counted for each.
[2] These enterprises also included under "District" or other types of enterprises as the case may be.
[3] Single-farm enterprises receiving water from Bureau of Reclamation not included.

Table 79.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—NUMBER AND SPECIFIED CHARACTERISTICS BY TYPE OF WATER AND BY ACRES IRRIGATED: CENSUS OF 1950

[Farms and acreage irrigated direct by 2 or more enterprises are counted for each]

Type of water and acres irrigated	Complete-system enterprises		Average number of farms irrigated direct per enterprise	Acres irrigated direct			Multiple-purpose enterprises			Primary and supplemental irrigation						
										All primary		Part primary, part supplemental			All supplemental	
	Number	Percent distribution		Total	Average per enterprise	Percent distribution	Number	Percent of total enterprises	Acres irrigated direct	Enterprises reporting	Acres irrigated direct	Enterprises reporting	Acres primary irrigation	Acres supplemental irrigation	Enterprises reporting	Acres irrigated direct
All complete-system enterprises	101,815	100.0	2.3	17,917,381	176	100.0	298	0.3	1,281,461	89,183	14,528,751	2,133	2,178,148	367,367	10,499	843,115
TYPE OF WATER																
Surface:																
All gravity	23,408	23.0	4.1	7,757,043	331	43.3	135	0.6	439,257	21,437	6,191,450	1,082	1,201,126	227,630	889	136,837
All pumped	8,835	8.7	2.1	1,436,408	163	8.0	15	0.2	127,160	8,483	1,287,273	71	117,720	12,487	281	18,928
Ground (pumped wells)	65,814	64.6	1.3	6,760,351	103	37.7	115	0.2	32,348	55,896	5,915,902	879	128,073	66,849	9,039	649,527
Mixed	3,758	3.7	8.9	1,963,579	523	11.0	33	0.9	682,696	3,367	1,134,126	101	731,229	60,401	290	37,823
ACRES IRRIGATED																
1-99 acres	70,463	69.2	1.1	2,204,951	31	12.3	92	0.1	4,346	61,145	1,893,731	816	21,696	17,281	8,502	272,243
100-999 acres	29,107	28.6	2.2	7,431,469	255	41.5	128	0.4	42,883	26,171	6,680,514	1,009	220,276	114,472	1,927	416,207
1,000-9,999 acres	2,116	2.1	20.3	4,779,307	2,259	26.7	55	2.6	165,056	1,778	3,812,343	269	670,486	151,813	69	144,665
10,000 acres and over	129	0.1	321.4	3,501,654	27,145	19.5	23	17.8	1,069,176	89	2,142,163	39	1,265,690	83,801	1	10,000

Table 80.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES BY NUMBER OF FARMS IRRIGATED DIRECT, AND ENTERPRISES AND ACRES IRRIGATED DIRECT BY USE OF STORED WATER, BY TYPE OF WATER AND BY ACRES IRRIGATED: CENSUS OF 1950

[Acreage irrigated direct by 2 or more enterprises is counted for each]

Type of water and acres irrigated	Total number of enterprises	Number of enterprises reporting number of farms irrigated as—							Storage of water					
									None stored		Part stored		All stored	
		1-3 farms	4-9 farms	10-29 farms	30-99 farms	100-299 farms	300-999 farms	1,000 farms and over	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
All complete-system enterprises	101,815	97,213	2,606	1,300	505	131	46	14	97,434	14,421,046	2,498	2,779,952	1,883	716,383
TYPE OF WATER														
Surface:														
All gravity	23,408	20,191	1,756	978	380	78	20	5	21,147	5,667,299	1,296	1,514,119	965	575,625
All pumped	8,835	8,673	75	42	28	10	5	2	8,222	1,035,908	184	298,957	429	101,543
Ground (pumped wells)	65,814	64,776	731	231	53	18	5	.....	64,900	6,634,445	585	98,065	329	27,841
Mixed	3,758	3,573	44	49	44	25	16	7	3,165	1,083,394	433	868,811	160	11,374
ACRES IRRIGATED														
1-99 acres	70,463	69,369	942	150	2	.....	.....	.....	68,026	2,129,820	1,076	38,091	1,361	37,040
100-999 acres	29,107	26,562	1,499	822	206	17	1	.....	27,549	6,980,782	1,111	346,613	447	104,074
1,000-9,999 acres	2,116	1,258	164	322	278	75	19	.....	1,791	3,869,996	263	742,862	62	166,449
10,000 acres and over	129	24	1	6	19	39	26	14	68	1,440,448	48	1,652,386	13	408,820

Table 81.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—NUMBER AND ACREAGE IRRIGATED DIRECT BY SOURCE OF SURFACE WATER; IRRIGATED LAND ARTIFICIALLY DRAINED; AND IRRIGATED LAND IN NEED OF DRAINAGE, BY TYPE OF WATER AND BY ACRES IRRIGATED: 1949

Type of water and acres irrigated	Source of surface water[1]										Irrigated land artificially drained			Irrigated land in need of drainage		
	Streams (and lakes)		Springs		Flowing wells		Drainage water		Sewage							
	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres of irrigated land	Acres drained	Enterprises reporting	Acres of irrigated land	Acres drained
All complete-system enterprises	30,684	10,763,093	3,983	658,272	1,654	252,204	2,033	658,081	99	19,520	5,231	3,635,701	1,864,806	5,174	2,970,740	1,056,451
TYPE OF WATER																
Surface:																
All gravity	20,005	7,514,364	3,115	564,800	1,121	145,501	917	386,610	34	9,098	1,583	1,657,436	583,378	2,650	1,575,406	410,039
All pumped	7,818	1,380,448	451	15,167	46	2,580	708	106,125	30	3,609	1,270	775,292	593,411	817	674,082	445,913
Ground (pumped wells)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,982	284,102	218,145	1,419	176,577	65,616
Mixed	2,861	1,868,281	417	78,305	487	104,123	408	165,346	35	6,813	396	918,871	469,872	288	544,675	134,883
ACRES IRRIGATED																
1-99 acres	18,314	595,070	2,948	68,205	1,227	30,876	1,414	38,046	62	1,893	2,916	92,848	66,184	2,545	93,834	38,005
100-999 acres	10,698	3,162,097	905	258,568	379	91,532	550	150,503	32	9,556	1,906	590,312	344,386	2,184	647,111	175,606
1,000-9,999 acres	1,553	3,677,267	128	303,490	47	119,796	57	131,893	5	8,071	348	928,956	389,611	389	805,467	203,857
10,000 acres and over	119	3,328,659	2	28,009	1	10,000	12	337,639	.....	.....	61	2,023,585	1,064,625	56	1,424,328	638,983

[1]Acreage irrigated by more than 1 enterprise or from more than 1 source is counted for each.

Table 82.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES BY NUMBER OF ACRES IRRIGATED DIRECT, BY TYPE OF WATER: 1949

Type of water	Total number of enterprises	Number of enterprises reporting acres irrigated as—								Percent of enterprises reporting acres irrigated as—							
		1-29 acres	30-99 acres	100-499 acres	500-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres and over	1-29 acres	30-99 acres	100-499 acres	500-999 acres	1,000-2,999 acres	3,000-9,999 acres	10,000-29,999 acres	30,000 acres and over
All complete-system enterprises	101,815	39,356	31,107	25,948	3,159	1,689	427	92	37	38.7	30.6	25.5	3.1	1.7	0.4	0.1	([1])
Surface:																	
All gravity	23,408	6,625	6,281	7,584	1,523	1,041	289	50	15	28.3	26.8	32.4	6.5	4.4	1.2	0.2	0.1
All pumped	8,835	5,049	2,384	1,132	142	78	26	15	9	57.1	27.0	12.8	1.6	0.9	0.3	0.2	0.1
Ground (pumped wells)	65,814	26,396	21,357	16,230	1,305	443	73	7	3	40.1	32.5	24.7	2.0	0.7	0.1	([1])	([1])
Mixed	3,758	1,286	1,085	1,002	189	127	39	20	10	34.2	28.9	26.7	5.0	3.4	1.0	0.5	0.3

[1]0.05 percent or less.

Table 83.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—NEW CAPITAL INVESTMENT 1940-1950, INDEBTEDNESS, ARREARAGE ON INDEBTEDNESS, AND ARREARAGE IN PAYMENTS BY FARMS, BY TYPE OF WATER AND BY ACRES IRRIGATED: CENSUS OF 1950

Type of water and acres irrigated	New capital investment, Jan. 1, 1940, to Jan. 1, 1950			Indebtedness[1]			Arrearage on indebtedness[1]			Arrearage in payments by farms[1]		
	Enterprises reporting		Dollars	Enterprises reporting		Dollars	Enterprises reporting		Dollars	Enterprises reporting		Dollars
	Number	Acres irrigated		Number	Acres irrigated		Number	Acres irrigated		Number	Acres irrigated	
All complete-system enterprises	57,990	11,545,186	487,320,992	646	2,934,432	221,324,175	96	314,333	5,238,940	542	2,518,766	3,225,797
TYPE OF WATER												
Surface:												
All gravity	8,243	3,838,067	86,762,631	398	1,262,147	72,047,632	73	180,853	3,912,904	351	1,017,617	2,349,444
All pumped	6,061	1,125,851	130,885,124	53	627,244	105,679,725	2	7,748	5,752	45	633,492	534,556
Ground (pumped wells)	41,055	5,010,270	232,894,972	113	109,944	4,813,893	13	16,490	946,958	94	45,488	45,424
Mixed	2,631	1,570,998	36,778,265	82	935,097	38,782,925	8	109,242	373,326	52	822,169	296,373
ACRES IRRIGATED												
1-99 acres	37,846	1,233,634	87,346,288	50	2,434	293,216	16	757	134,339	63	3,418	32,257
100-999 acres	18,769	4,834,642	148,018,433	253	111,436	5,325,955	48	17,562	1,098,988	237	98,363	386,692
1,000-9,999 acres	1,280	2,812,156	164,168,322	272	686,765	115,371,316	26	96,841	3,547,393	176	556,935	1,021,345
10,000 acres and over	95	2,664,754	87,787,949	71	2,133,797	100,333,688	6	199,173	458,220	66	1,860,050	1,785,503

[1]Not reported by single-farm enterprises.

Table 84.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—DIVERSION DAMS AND RESERVOIRS, BY TYPE OF WATER AND BY ACRES IRRIGATED: CENSUS OF 1950

Type of water and acres irrigated	Diversion dams						Reservoirs									
	Enterprises reporting	Total number	Number by material of which constructed				Enterprises reporting	Total number	With capacity reported					Number of reservoir dams by material of which constructed		
			Concrete or masonry	Timber	Earth and/or rock	Other, mixed, and not reported			Number	Total capacity (acre-feet)	Number by capacity: 1-99 acre-feet	100-999 acre-feet	1,000 acre-feet and over	Concrete or masonry	Earth and/or rock	Other, mixed, and not reported
All complete-system enterprises	22,963	43,526	4,442	5,625	28,999	4,460	4,375	6,000	5,390	18,083,722	4,163	826	401	531	4,972	497
TYPE OF WATER																
Surface:																
All gravity	19,985	38,790	3,610	5,175	26,113	3,892	2,167	3,058	2,716	6,849,341	1,766	628	322	167	2,632	259
All pumped	1,199	1,521	219	145	959	198	592	737	656	5,344,428	557	82	17	72	590	75
Ground (pumped wells)	204	285	70	29	157	29	1,017	1,293	1,184	18,459	1,151	29	4	186	1,013	94
Mixed	1,575	2,930	543	276	1,770	341	599	912	834	5,871,494	689	87	58	106	737	69
ACRES IRRIGATED																
1-99 acres	12,816	18,415	1,504	2,124	13,039	1,748	2,515	3,103	2,748	131,949	2,565	163	20	357	2,466	280
100-999 acres	8,840	19,768	2,050	2,776	12,937	2,005	1,536	2,249	2,018	490,717	1,436	471	111	123	1,957	169
1,000-9,999 acres	1,246	5,003	783	683	2,847	690	286	537	513	12,220,261	154	168	191	31	463	43
10,000 acres and over	61	340	105	42	176	17	38	111	111	5,240,795	8	24	79	20	86	5

Table 85.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—CANALS AND DITCHES, PIPE LINES, TUNNELS, FLOWING WELLS, PUMPS, ELECTRIC MOTORS AND OTHER MOTORS, BY TYPE OF WATER AND BY ACRES IRRIGATED: CENSUS OF 1950

Type of water and acres irrigated	Canals and ditches		Pipe lines and siphons		Tunnels		Flowing wells		Pumped wells				Irrigation pumps		Electric motors used for pumping		Other motors and engines used for pumping	
	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (miles)	Enterprises reporting	Total length (feet)	Enterprises reporting	Number	Enterprises reporting	Total number	Pumping lift reported: Number of wells	Average pumping lift (feet)	Enterprises reporting	Number	Enterprises reporting	Number	Enterprises reporting	Number
All complete-system enterprises	20,360	79,800	5,571	10,608	164	286,112	1,652	3,867	68,764	111,001	104,319	86	78,208	127,955	56,603	92,782	25,162	34,379
TYPE OF WATER																		
Surface:																		
All gravity	15,201	56,317	1,209	1,812	122	205,175	1,120	2,640	12	22	.....	.....	60	69	32	41	63	69
All pumped	1,116	6,012	1,317	1,494	3	1,044	46	111	5	5	.....	.....	8,748	11,831	4,651	6,228	4,455	5,477
Ground (pumped wells)	2,954	5,771	2,441	4,001	5	3,800	.....	.....	65,772	104,923	98,766	87	65,675	107,140	49,460	80,250	18,991	26,403
Mixed	1,089	11,699	604	3,301	34	76,093	486	1,116	2,975	6,051	5,553	75	3,725	8,915	2,460	6,263	1,653	2,430
ACRES IRRIGATED																		
1-99 acres	9,821	11,803	3,946	3,017	22	9,455	1,220	1,909	50,799	62,969	58,801	68	57,418	74,338	44,306	56,490	14,714	16,836
100-999 acres	9,107	27,932	1,351	2,758	60	23,369	386	1,469	17,343	41,464	39,449	103	19,956	45,556	11,640	29,683	10,077	15,993
1,000-9,999 acres	1,319	18,693	221	2,376	61	99,590	45	429	596	5,609	5,167	147	774	6,551	606	5,195	351	1,444
10,000 acres and over	113	21,372	53	2,454	21	153,698	1	60	26	959	902	194	60	1,510	51	1,414	20	106

Table 86.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—NUMBER AND AREA IRRIGATED DIRECT BY SEASON OF IRRIGATION AND BY EXTENT OF MEASUREMENT OF WATER TO FARMS, BY TYPE OF WATER AND BY ACRES IRRIGATED: 1949

[Acreage irrigated direct by 2 or more enterprises is counted for each]

Type of water and acres irrigated	All complete-system enterprises		Season of irrigation (reported): Water delivered—						Measurement of water to farms (reported)[1]					
			Only before July 1		Before and after July 1		Only after July 1		No water measured		Part of water measured		All water measured	
	Number	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated	Enterprises reporting	Acres irrigated
All complete-system enterprises	101,815	17,917,381	3,453	671,877	86,249	16,193,425	8,877	655,145	4,837	3,069,732	339	1,140,856	1,156	2,323,491
TYPE OF WATER														
Surface:														
All gravity	23,408	7,757,043	1,742	561,656	20,179	6,953,185	605	56,267	4,008	2,160,194	303	479,049	724	1,506,568
All pumped	8,835	1,436,408	330	17,389	6,971	1,347,292	1,253	43,561	112	666,800	5	8,008	35	149,147
Ground (pumped wells)	65,814	6,760,351	1,279	77,255	55,873	5,988,931	6,679	528,638	634	79,277	7	4,362	327	150,905
Mixed	3,758	1,963,579	102	15,577	3,226	1,904,017	340	26,679	83	163,461	24	649,437	70	516,871
ACRES IRRIGATED														
1-99 acres	70,463	2,204,951	2,367	72,839	58,734	1,818,766	6,860	246,726	1,542	79,948	42	2,268	269	14,220
100-999 acres	29,107	7,431,469	998	268,166	25,443	6,627,880	1,995	363,563	2,748	906,327	189	74,688	602	213,529
1,000-9,999 acres	2,116	4,779,307	83	182,147	1,949	4,408,842	22	44,856	512	1,171,092	92	327,883	234	713,746
10,000 acres and over	129	3,501,654	5	148,725	123	3,337,937	.....	.....	35	912,365	16	736,017	51	1,381,996

[1]Not reported by single-farm enterprises.

Table 87.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—QUANTITIES OF IRRIGATION WATER OBTAINED FROM ALL SOURCES, SURFACE SOURCES, PUMPED WELLS, AND OTHER ENTERPRISES, BY TYPE OF WATER AND BY ACRES IRRIGATED: 1949

[Quantity of water not reported by single-farm enterprises]

Type of water and acres irrigated	Water obtained from— All sources: Enterprises reporting: Number	All sources: Enterprises reporting: Percent of all enterprises	All sources: Acre-feet	Surface sources: Enterprises reporting	Surface sources: Acre-feet	Pumped wells: Enterprises reporting	Pumped wells: Acre-feet	Other enterprises: Enterprises reporting	Other enterprises: Acre-feet
All complete-system enterprises	6,376	6.3	28,607,950	5,429	27,065,222	1,027	1,493,734	144	48,994
TYPE OF WATER									
Surface:									
All gravity	5,122	21.9	19,648,819	5,120	19,607,727	.....	.....	129	41,092
All pumped	146	1.7	2,606,679	144	2,601,304	.....	.....	4	5,375
Ground (pumped wells)	935	1.4	753,553	.....	.....	935	753,474	3	79
Mixed	173	4.6	5,598,899	165	4,856,191	92	740,260	8	2,448
ACRES IRRIGATED									
1-99 acres	1,818	2.6	481,012	1,303	395,508	520	85,183	13	321
100-999 acres	3,588	12.3	5,410,640	3,189	5,112,358	430	285,705	83	12,577
1,000-9,999 acres	868	41.0	9,502,621	837	9,131,476	61	348,432	41	22,713
10,000 acres and over	102	79.1	13,213,677	100	12,425,880	16	774,414	7	13,383

Table 88.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—QUANTITIES OF WATER LOST IN CONVEYANCE, AND DELIVERED DIRECT TO FARMS, TO OTHER ENTERPRISES, AND FOR USE OTHER THAN FOR IRRIGATION, BY TYPE OF WATER AND BY ACRES IRRIGATED: 1949

[Quantity of water not reported by single-farm enterprises]

Type of water and acres irrigated	Water lost in conveyance: Enterprises reporting	Water lost in conveyance: Acre-feet	Water delivered— Direct to farms: Enterprises reporting	Direct to farms: Acre-feet	To other enterprises: Enterprises reporting	To other enterprises: Acre-feet	For use other than irrigation: Enterprises reporting	For use other than irrigation: Acre-feet
All complete-system enterprises	5,160	6,140,920	6,376	20,572,576	269	278,736	546	1,615,718
TYPE OF WATER								
Surface:								
All gravity	4,706	4,102,383	5,122	14,045,987	198	118,093	368	1,382,356
All pumped	126	499,102	146	2,023,321	19	39,562	13	44,694
Ground (pumped wells)	182	62,623	935	646,468	13	5,063	124	39,399
Mixed	146	1,476,812	173	3,856,800	39	116,018	41	149,269
ACRES IRRIGATED								
1-99 acres	1,238	69,686	1,818	372,554	7	170	167	38,602
100-999 acres	3,016	851,845	3,588	4,372,286	74	10,535	242	175,974
1,000-9,999 acres	808	2,068,937	868	7,145,785	116	65,685	116	222,214
10,000 acres and over	98	3,150,452	102	8,681,951	72	202,346	21	1,178,928

Table 89.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—TOTAL COST OF WATER TO FARMS AND NUMBER AND ACRES IRRIGATED DIRECT BY COST PER ACRE, BY TYPE OF WATER AND ACRES IRRIGATED: 1949

[Acreage irrigated direct by 2 or more enterprises is counted for each]

Type of water and acres irrigated	Cost of water to farms: Enterprises reporting: Number	Enterprises reporting: Acres irrigated	Cost (dollars): Total	Cost (dollars): Average per acre irrigated	Number of enterprises by cost per acre: Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over	Acres irrigated direct by cost per acre: Less than $1.00	$1.00-1.99	$2.00-4.99	$5.00-9.99	$10.00 and over
All complete-system enterprises	101,815	17,917,381	93,895,812	5.24	24,058	6,504	19,769	21,874	29,610	5,750,592	1,927,939	4,336,168	3,077,112	2,825,570
TYPE OF WATER														
Surface:														
All gravity	23,408	7,757,043	9,884,340	1.27	19,163	1,759	1,538	546	402	5,036,570	1,178,064	1,135,427	262,326	144,656
All pumped	8,835	1,436,408	10,330,212	7.19	889	807	2,334	2,229	2,576	116,019	113,708	248,948	580,692	377,041
Ground (pumped wells)	65,814	6,760,351	63,401,002	9.38	3,449	3,580	14,970	18,272	25,543	397,227	525,914	1,844,059	1,903,844	2,089,307
Mixed	3,758	1,963,579	10,280,258	5.24	557	358	927	827	1,089	200,776	110,253	1,107,734	330,250	214,566
ACRES IRRIGATED														
1-99 acres	70,463	2,204,951	18,824,397	8.54	13,755	3,478	12,183	16,108	24,939	459,021	155,338	492,685	546,901	551,006
100-999 acres	29,107	7,431,469	37,937,974	5.11	9,221	2,754	7,246	5,514	4,372	2,677,452	699,887	1,661,332	1,278,078	1,114,720
1,000-9,999 acres	2,116	4,775,447	18,489,407	3.87	1,060	257	300	226	273	2,236,133	659,825	765,081	514,200	600,208
10,000 acres and over	129	3,505,514	18,644,034	5.32	22	15	40	26	26	377,986	412,889	1,417,070	737,933	559,636

Table 90.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES—COST OF WATER TO FARMS FOR PRIMARY AND FOR SUPPLEMENTAL IRRIGATION, AND COSTS OTHER THAN FOR OPERATION AND MAINTENANCE, BY TYPE OF WATER AND BY ACRES IRRIGATED: 1949

Type of water and acres irrigated	Cost for primary irrigation				Cost for supplemental irrigation				Cost for purposes other than operation and maintenance			
	Enterprises reporting	Acres supplied primary irrigation	Dollars		Enterprises reporting	Acres supplied supplemental irrigation[1]	Dollars		Enterprises reporting	Acres irrigated direct[1]	Dollars	
			Total	Average per acre supplied			Total	Average per acre supplied			Total	Average per acre supplied
All complete-system enterprises	91,316	16,706,899	87,922,373	5.26	12,632	1,210,482	5,973,439	4.93	841	3,156,307	5,338,985	1.69
TYPE OF WATER												
Surface:												
All gravity	22,519	7,392,576	9,516,155	1.29	1,971	364,467	368,185	1.01	587	1,485,707	1,772,938	1.19
All pumped	8,554	1,404,993	10,171,500	7.24	352	31,415	158,712	5.05	46	589,737	1,353,798	2.30
Ground (pumped wells)	56,775	6,043,975	58,555,508	9.69	9,918	716,376	4,845,494	6.76	136	90,493	529,168	5.85
Mixed	3,468	1,865,355	9,679,210	5.19	391	98,224	601,048	6.12	72	990,370	1,683,081	1.70
ACRES IRRIGATED												
1-99 acres	61,961	1,915,427	16,805,890	8.77	9,318	289,524	2,018,507	6.97	98	5,968	39,229	6.57
100-999 acres	27,180	6,900,790	35,557,366	5.15	2,936	530,679	2,380,608	4.49	400	177,536	548,412	3.09
1,000-9,999 acres	2,047	4,482,829	17,333,670	3.87	338	296,478	1,155,737	3.90	282	881,324	1,416,109	1.61
10,000 acres and over	128	3,407,853	18,225,447	5.35	40	93,801	418,587	4.46	61	2,091,479	3,335,235	1.59

[1]Acreage irrigated direct by 2 or more enterprises is counted for each.

Table 91.—17 WESTERN STATES: COMPLETE-SYSTEM IRRIGATION ENTERPRISES REPORTING QUANTITY OF WATER—QUANTITY AND COST OF WATER FOR PRIMARY AND FOR SUPPLEMENTAL IRRIGATION, BY TYPE OF WATER AND BY ACRES IRRIGATED: 1949

Type of water and acres irrigated	Primary irrigation						Supplemental irrigation					
	Enterprises reporting quantity of water		Quantity of water (acre-feet)		Cost of water (dollars)		Enterprises reporting quantity of water		Quantity of water (acre-feet)		Cost of water (dollars)	
	Number	Acres supplied primary irrigation	Total	Average per acre supplied	Total	Average per acre-foot	Number	Acres supplied supplemental irrigation[1]	Total	Average per acre supplied	Total	Average per acre-foot
All complete-system enterprises	6,194	6,405,795	19,657,298	3.1	26,373,340	1.34	1,293	337,167	915,278	2.7	1,106,784	1.21
TYPE OF WATER												
Surface:												
All gravity	4,968	4,080,478	13,331,740	3.3	8,391,721	0.63	997	253,042	714,247	2.8	321,333	0.45
All pumped	144	827,864	1,999,975	2.4	7,395,990	3.70	19	8,726	23,346	2.7	62,555	2.68
Ground (pumped wells)	913	210,465	591,791	2.8	3,797,323	6.42	219	22,184	54,677	2.5	345,147	6.31
Mixed	169	1,286,988	3,733,792	2.9	6,788,306	1.82	58	53,215	123,008	2.3	377,749	3.07
ACRES IRRIGATED												
1-99 acres	1,763	86,164	338,372	3.9	446,861	1.32	260	8,005	34,182	4.3	35,379	1.04
100-999 acres	3,477	1,110,284	4,017,217	3.6	2,825,851	0.70	750	107,608	355,069	3.3	290,257	0.82
1,000-9,999 acres	853	2,171,727	6,802,521	3.1	7,116,980	1.05	245	141,789	343,264	2.4	381,761	1.11
10,000 acres and over	101	3,037,620	8,499,188	2.8	15,983,648	1.88	38	79,765	182,763	2.3	399,387	2.19

[1]Acreage supplied supplemental irrigation by 2 or more enterprises is counted for each.

235115 O - 53 - 8