

# CENSUS BULLETIN.

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## AGRICULTURE.

### NEW JERSEY.

HON. WILLIAM R. MERRIAM,

*Director of the Census.*

SIR: I have the honor to transmit herewith, for publication in bulletin form, the statistics of agriculture for the state of New Jersey, taken in accordance with the provisions of section 7 of the act of March 3, 1899. This section requires that—

The schedules relating to agriculture shall comprehend the following topics: Name of occupant of each farm, color of occupant, tenure, acreage, value of farm and improvements, acreage of different products, quantity and value of products, and number and value of live stock. All questions as to quantity and value of crops shall relate to the year ending December thirty-first next preceding the enumeration.

A "farm," as defined by the Twelfth Census, includes all the land, under one management, used for raising crops and pasturing live stock, with the wood lots, swamps, meadows, etc., connected therewith. It also includes the house in which the farmer resides, and all other buildings used by him in connection with his farming operations.

The farms of New Jersey, June 1, 1900, numbered 34,650, and had a value of \$162,591,010. Of this amount \$69,230,080, or 42.6 per cent, represents the value of buildings, and \$93,360,930, or 57.4 per cent, the value of land and improvements other than buildings. On the same date the value of farm implements and machinery was \$9,330,030, and of live stock, \$17,612,620. These values, added to that of farms, give the "total value of farm property," \$189,533,660.

The term "value of farm products," as used in this

bulletin, has reference to the value of all crops and animal products, including the value of animals sold or slaughtered on farms. This valuation for 1899 was \$43,657,529, of which amount \$15,740,688, or 36.1 per cent, represents the value of products of the live-stock industry, and \$27,916,841, or 63.9 per cent, the value of crops, including forest products. The value of farm products in 1899 was \$14,660,180 greater than that reported for 1889, showing an increase of 50.6 per cent. A large part of this increase is doubtless due to a more detailed enumeration in 1900 than in 1890.

The value of "net farm products," or the "gross farm income," is obtained by deducting from the total value of farm products the value of the products fed to live stock on the farms of the producers. In 1899 the reported value of products fed was \$8,604,920, leaving \$35,052,609 as the gross farm income. The percentage which this amount is of the "total value of farm property" is referred to in the text of the bulletin as the "percentage of income upon investment." For New Jersey in 1899 it was 18.5 per cent.

As no reports of expenditures for taxes, interest, insurance, feed for stock, and similar items have been obtained by any census, no statement of net farm income can be given.

Very respectfully,

*L. G. Powers.*

*Chief Statistician for Agriculture.*

# AGRICULTURE IN NEW JERSEY.

## GENERAL STATISTICS.

New Jersey comprises the peninsula lying between the Delaware River and Delaware Bay on one side and the Atlantic Ocean on the other. Its greatest length is 170 miles and its greatest width 60 miles. It has a land surface of 7,525 square miles, of which 4,439 square miles, or 59.0 per cent, are included in farms.

North of a line from Trenton to Jersey City, the surface of the state is hilly or mountainous. South of this line, it is a gently undulating plain, sloping south, east, and west to the surrounding waters, which are bordered by extensive marshes. The soil is for the most part a sandy loam, everywhere easily tilled. It grows lighter toward the south, and is most fertile in the river valleys and in the hilly region of the north.

The proximity of the New York and Philadelphia markets renders gardening, dairying, and fruit raising especially remunerative, and these industries will be found to furnish a very large percentage of the farm products.

### NUMBER AND SIZE OF FARMS.

The following table gives, by decades since 1850, the number of farms, the total and average acreage, and the per cent of farm land improved.

TABLE 1.—FARMS AND FARM ACREAGE: 1850 TO 1900.

YEAR.	Number of farms.	NUMBER OF ACRES IN FARMS.				Per cent of farm land improved.
		Total.	Im-proved.	Unim-proved.	Average.	
1900.....	34,650	2,840,966	1,977,042	863,924	82.0	69.6
1890.....	30,828	2,662,009	1,999,117	662,892	86.4	75.1
1880.....	34,307	2,929,773	2,096,297	833,476	85.4	71.6
1870.....	30,652	2,989,511	1,976,474	1,013,037	97.5	66.1
1860.....	27,646	2,983,525	1,944,441	1,039,084	107.9	65.2
1850.....	28,905	2,752,946	1,767,991	984,955	115.2	64.2

Except for the period from 1880 to 1890, the number of farms has steadily increased, and is now 10,745, or 44.9 per cent, greater than in 1850, and 3,822, or 12.4 per cent, greater than in 1890. The total acreage of farm land, however, has increased but 3.2 per cent since 1850. It follows, therefore, that there has been a decrease in the average size of farms, and the table indicates that this decrease has been nearly continuous throughout the period covered.

The area of improved land gradually increased until 1880. The decrease since that date, while less marked than in the New England states treated in this series of

bulletins, is the result of the same general conditions, namely, the development of intensive agriculture and the increased attention given to dairying, truck farming, and fruit growing.

Those lands which are most fertile or most easily tilled have been retained under cultivation and made increasingly productive. As a result the aggregate income derived from cultivated crops is now greater than it was in 1880, although the acreage under cultivation is somewhat smaller. The less fertile lands have been found to afford greater incomes as permanent pasture than as meadow or plow lands, and the two last decades have shown an increasing acreage of such land reported as unimproved.

### FARM PROPERTY AND PRODUCTS.

Table 2 presents a summary of the principal statistics relating to farm property and products for each census year, beginning with 1850.

TABLE 2.—VALUES OF SPECIFIED CLASSES OF FARM PROPERTY, AND FARM PRODUCTS: 1850 TO 1900.

YEAR.	Total value of farm property.	Land, im-provements, and build-ings.	Implements and machinery.	Live stock.	Farm products. <sup>1</sup>
1900.....	\$189,533,660	\$162,591,010	\$9,330,030	\$17,612,620	\$43,657,523
1890.....	182,452,914	159,262,840	7,378,644	15,811,430	28,997,949
1880.....	212,678,330	190,895,833	6,921,085	14,861,412	29,650,756
1870 <sup>2</sup> .....	286,854,830	257,523,376	7,887,991	21,443,463	42,725,198
1860.....	202,131,598	180,250,338	5,746,567	16,134,693	-----
1850.....	185,342,305	120,237,511	4,425,503	10,679,291	-----

<sup>1</sup> For year preceding that designated.

<sup>2</sup> Values of 1870 were reported in depreciated currency. To reduce to specie basis of other figures they must be diminished one-fifth.

<sup>3</sup> Includes betterments and additions to live stock.

Since 1850 the total value of farm property has increased \$54,191,355, and in the last decade, \$7,080,746. Of the latter amount, \$3,328,170, or 47.0 per cent, represents the increase in the value of farms; \$1,951,386, or 27.6 per cent, in that of implements and machinery; and \$1,801,190, or 25.4 per cent, in that of live stock. The value of farm products in 1899 was 50.6 per cent greater than in 1889. A portion of this increase, and of that noted in the case of implements and machinery, is doubtless the result of a more detailed enumeration in 1900 than heretofore.

### COUNTY STATISTICS.

Table 3 gives an exhibit of general agricultural statistics by counties.

TABLE 3.—NUMBER AND ACREAGE OF FARMS, AND VALUES OF SPECIFIED CLASSES OF FARM PROPERTY, JUNE 1, 1900, WITH VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND EXPENDITURES IN 1899 FOR LABOR AND FERTILIZERS, BY COUNTIES.

COUNTIES.	NUMBER OF FARMS.		ACRES IN FARMS.		VALUE OF FARM PROPERTY.				Value of products not fed to live stock.	EXPENDITURES.	
	Total.	With build-ings.	Total.	Im-proved.	Land and im-prove-ments (except build-ings).	Buildings.	Imple-ments and ma-chinery.	Live stock.		Labor.	Fertilizers.
The State -----	34,650	34,027	2,840,966	1,977,042	\$93,860,930	\$69,230,080	\$9,330,030	\$17,612,620	\$35,052,609	\$9,720,030	\$2,165,320
Atlantic -----	1,295	1,259	64,419	32,954	1,611,560	1,124,220	144,270	211,215	767,869	119,800	58,570
Bergen -----	1,716	1,683	75,760	46,776	8,243,180	4,838,960	524,380	682,267	1,665,810	378,720	113,990
Burlington -----	2,549	2,505	343,096	190,871	6,474,010	5,845,790	899,120	1,863,961	3,836,901	858,430	257,250
Camden -----	1,133	1,109	76,535	55,370	3,873,320	2,258,700	332,920	513,482	1,487,394	274,370	130,170
Cape May -----	601	596	54,366	24,387	784,450	631,520	92,300	183,087	438,702	57,000	30,310
Cumberland -----	2,223	2,197	143,994	101,830	3,864,940	2,798,520	381,280	745,304	1,699,454	238,360	120,770
Essex -----	1,003	981	31,169	18,975	6,978,660	2,678,460	288,150	501,304	1,550,976	319,440	48,190
Gloucester -----	2,225	2,185	148,590	117,554	4,429,030	3,449,850	565,360	901,566	2,329,114	440,050	278,300
Hudson -----	358	335	2,820	1,928	2,901,700	915,250	175,550	158,783	1,018,170	291,230	23,440
Hunterdon -----	2,930	2,894	248,733	208,986	4,313,850	4,908,570	757,990	1,749,002	2,438,376	365,080	127,350
Mercer -----	1,573	1,581	132,726	108,747	4,518,210	3,641,700	582,070	1,044,667	1,775,184	379,430	152,680
Middlesex -----	1,750	1,719	129,317	96,782	4,631,230	3,519,430	511,910	750,229	1,385,804	264,520	124,490
Monmouth -----	2,772	2,720	197,481	155,716	8,508,590	6,101,810	851,050	1,449,793	3,013,361	629,630	221,730
Morris -----	2,305	2,281	206,759	118,212	7,477,170	6,483,320	631,020	987,558	1,974,241	461,680	82,000
Ocean -----	984	951	84,856	40,141	1,501,760	1,189,380	139,880	268,382	420,661	76,700	23,670
Passaic -----	916	892	69,820	28,721	2,976,860	1,908,610	180,160	361,578	817,903	148,350	33,290
Salem -----	2,072	2,022	175,202	135,727	4,636,570	3,509,700	501,780	1,216,613	2,401,474	356,290	164,570
Somerset -----	1,953	1,906	167,663	140,436	5,108,230	5,073,840	644,880	1,259,860	1,490,448	355,430	98,000
Sussex -----	1,792	1,784	256,896	178,431	3,661,480	3,172,640	398,010	1,406,100	1,984,744	264,700	14,940
Union -----	700	693	29,076	20,483	3,179,870	266,880	312,932	993,978	206,500	22,860	
Warren -----	1,795	1,781	201,688	154,015	3,686,210	3,273,860	466,570	1,046,957	1,562,045	231,320	34,760

The only counties in which the number of farms is less than in 1890 are Somerset, Morris, and Hunterdon, which show decreases of 3.5 per cent, 4.4 per cent, and 5.8 per cent, respectively. The largest relative increases are in Hudson, Atlantic, Cumberland, Essex, and Ocean counties, in the order named.

The total area of farm land in the state is 6.7 per cent greater than in 1890. The counties showing the largest percentages of increase are: Hudson, 119.5 per cent; Ocean, 55.0 per cent; Cumberland, 34.3 per cent; Camden, 24.0 per cent; and Passaic, 21.0 per cent. The farm acreage has decreased slightly in Monmouth, Hunterdon, Morris, Somerset, and Bergen counties.

The percentage of farm land improved is less than it was in 1890 in all counties except those in which there are marked increases in total farm acreage.

The total value of land and buildings has decreased in all counties along the western boundary, except Camden and Cumberland, where small gains, due to large increases in total acreage, are reported. The value per acre of land and buildings has increased in Atlantic, Bergen, Essex, Morris, Passaic, Somerset, and Union counties. Of these counties all but Atlantic are in the northeastern part of the state, and the increased values are doubtless due to the rapid development in special branches of agriculture, stimulated by the proximity of New York city markets. The other counties, in each of which the value of farms has decreased since 1890, also showed decreases for the decade 1880-1890. The farms of these counties, as a rule, are better adapted to general agriculture than to the growing of fruits or vegetables, and are less intensively cultivated than the farms of those counties in which values are increasing.

The value of implements and machinery has increased

since 1890 in every county, the largest relative gains being in the counties where dairying and market gardening are the leading branches of agriculture.

The total value of live stock has increased 11.4 per cent, Morris being the only county in which a decrease is reported. Hudson, Essex, and Union counties show the largest relative gains.

The average expenditure per farm for labor was \$194 for the state, and ranged from \$78 in Ocean county to \$822 in Hudson county. In the latter county, \$104 was expended for labor for every acre of farm land.

For fertilizers the average expenditure per farm in 1899 varied from \$8 in Sussex county to \$125 in Gloucester county, while the average for the state was \$62. In 1889 the state average was \$60 per farm, and the county averages ranged from \$2 in Sussex to \$175 in Hudson.

#### FARM TENURE.

Table 4 gives a comparative exhibit of farm tenure for 1880, 1890, and 1900. In Table 5 the tenure of farms in 1900 is given by race of farmer, and "farms operated by owners" are subdivided into groups, designated as "owners," "part owners," "owners and tenants," and "managers." These terms denote, respectively: (1) Farms operated by individuals who own all the land they cultivate; (2) farms operated by individuals who own a part of the land and rent the remainder from others; (3) farms operated under the joint direction and by the united labor of two or more individuals, one owning the farm or a part of it, and the other, or others, owning no part, but receiving for supervision or labor a share of the products; and (4) farms operated by individuals who receive for their supervision and other services a fixed salary from the owners.

TABLE 4.—NUMBER AND PER CENT OF FARMS OF SPECIFIED TENURES: 1880 TO 1900.

YEAR.	Total number of farms.	NUMBER OF FARMS OPERATED BY—			PER CENT OF FARMS OPERATED BY—		
		Owners. <sup>1</sup>	Cash tenants.	Share tenants.	Own-ers. <sup>1</sup>	Cash ten-ants.	Share ten-ants.
1900.....	84,650	24,205	5,299	5,056	70.1	15.3	14.6
1890.....	80,828	22,442	3,449	4,937	72.8	11.2	16.0
1880.....	84,307	25,869	3,608	4,830	75.4	10.5	14.1

<sup>1</sup> Including "part owners," "owners and tenants," and "managers."

TABLE 5.—FARMS OF SPECIFIED TENURES, CLASSIFIED BY RACE OF FARMER, JUNE 1, 1900, WITH PERCENT. AGES.

PART 1.—NUMBER OF FARMS OF SPECIFIED TENURES.

RACE.	Total number of farms.	Own-ers.	Part own-ers.	Owners and tenants.	Man-agers.	Cash tenants.	Share tenants.
The State.....	84,650	22,231	996	207	861	5,299	5,056
White.....	84,180	21,986	961	207	842	5,282	4,952
Colored <sup>1</sup> .....	470	245	35		19	67	104

PART 2.—PER CENT OF FARMS OF SPECIFIED TENURES.

RACE.	Total number of farms.	Own-ers.	Part own-ers.	Owners and tenants.	Man-agers.	Cash tenants.	Share tenants.
The State.....	100.0	64.1	2.9	0.6	2.5	15.3	14.6
White.....	100.0	64.3	2.8	0.6	2.5	15.3	14.5
Colored <sup>1</sup> .....	100.0	52.1	7.5		4.0	14.3	22.1

<sup>1</sup> Including 1 Chinese owner.

Between 1890 and 1900 the number of farms operated by owners increased 1,853, or 8.3 per cent. Cash-tenant farms increased 1,850, or 53.6 per cent, and share-tenant farms, 119, or 2.4 per cent. In 1890, 58.9 per cent of all tenants were share tenants, and in 1900, but 48.8 per cent. This change indicates a growing sentiment on the part of both landlord and tenant in favor of the cash-payment system, and greater independence and financial responsibility on the part of the tenant class as a whole. The greatest relative numbers of share tenants are found in the counties having the least intensively cultivated farms. In Warren and Hunterdon counties 70.5 per cent and 72.0 per cent, respectively, of all tenants are share tenants, while in Essex and Hudson counties the corresponding percentages are but 2.8 and 5.9. Table 5 shows that there are relatively more share tenants among colored farmers than among white farmers.

No previous census has reported the number of farms operated by "part owners," "owners and tenants," or "managers," but it is believed that the number of farms conducted by the last-named class is constantly increasing.

OWNERSHIP OF RENTED FARMS.

The ownership of 9,708 of the 10,355 rented farms was ascertained by the enumerators. That of 647 was not reported. Titles to the 9,708 farms are vested in 8,680

owners, an average of approximately 112 farms to every 100 owners. Of these 8,680 owners or landlords, 7,974 possess 1 farm each. The remaining 706 hold titles to from 2 to 13 farms each, as follows: 542, 2; 93, 3; 28, 4; 23, 5; 11, 6; 4, 7; 2, 8; 1, 10; 1, 11; and 1, 13.

There are 205 landlords who possess rented farms with a total value per owner of \$25,000 or over. They have, in the aggregate, 419 farms, worth \$8,675,108, an average valuation per owner of \$42,318. Of these landlords, 136 own but 1 rented farm each, while the remaining 69 possess 283 rented farms, or an average of approximately 4 farms each.

There are 1,003 landlords who possess rented farms with a total value per owner of between \$10,000 and \$25,000. They have 1,397 farms, worth \$13,230,985, an average valuation per owner of \$13,191. Of these landlords, 742 have but 1 rented farm each, while the remaining 261 possess 655 rented farms, or an average of 2.5 farms each.

The landlords owning rented farms with a valuation of \$25,000 or over, constitute 1 in every 164 farm owners in the state, while those whose rented farms have a valuation of between \$10,000 and \$25,000 per owner constitute 1 in every 33 farm owners. The latter ratio indicates the relative number of farm owners whose incomes from rented farms are sufficient to support them in comfort, while the former ratio shows the relative number who receive comparatively large incomes from the same source.

Of the 8,680 owners of rented farms, 7,587 reside in New Jersey. They own 8,606 farms, of which 7,191 are located in the same county in which the owner resides. Of the nonresident owners, 1,020 live in the North Atlantic states, 30 in the South Atlantic states, 20 in the North Central states, 15 in the Western states, 4 in the South Central states, and 4 in foreign countries.

FARMS CLASSIFIED BY RACE OF FARMER AND BY TENURE.

Tables 6 and 7 present the principal statistics for farms classified by race of farmer and by tenure.

TABLE 6.—NUMBER AND ACREAGE OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY RACE OF FARMER AND BY TENURE, WITH PERCENTAGES.

RACE OF FARMER, AND TENURE.	Number of farms.	NUMBER OF ACRES IN FARMS.			VALUE OF FARM PROPERTY.	
		Average.	Total.	Per cent.	Total.	Per cent.
The State.....	84,650	82.0	2,840,966	100.0	\$189,533,660	100.0
White farmers.....	84,180	82.6	2,821,755	99.8	188,485,172	99.4
Colored farmers <sup>1</sup> .....	470	40.9	19,211	0.7	1,048,488	0.6
Owners <sup>1</sup> .....	22,231	68.7	1,526,789	53.7	106,929,788	56.4
Part owners.....	996	78.5	78,210	2.8	6,967,553	3.7
Owners and tenants.....	207	85.7	19,817	0.7	1,435,195	0.7
Managers.....	861	290.7	250,292	8.8	13,381,347	7.1
Cash tenants.....	5,299	77.7	411,815	14.5	30,757,756	16.2
Share tenants.....	5,056	109.6	554,093	19.5	30,062,071	15.9

<sup>1</sup> Including 1 Chinese.

TABLE 7.—AVERAGE VALUES OF SPECIFIED CLASSES OF FARM PROPERTY, AND AVERAGE GROSS INCOME PER FARM, WITH PER CENT OF GROSS INCOME ON TOTAL INVESTMENT IN FARM PROPERTY, CLASSIFIED BY RACE OF FARMER AND BY TENURE.

RACE OF FARMER, AND TENURE.	AVERAGE VALUES PER FARM OF—					Per cent of gross income on total investment in farm property.
	Farm property, June 1, 1900.				Gross income (products of 1899 not fed to live stock).	
	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.		
The State.....	\$2,695	\$1,998	\$269	\$508	\$1,012	18.5
White farmers.....	2,716	2,015	271	512	1,020	18.5
Colored farmers <sup>1</sup> .....	1,123	788	114	206	424	19.0
Owners <sup>1</sup> .....	2,207	1,901	250	452	911	19.0
Part owners.....	4,045	2,082	331	588	1,502	21.5
Owners and tenants.....	3,600	2,438	841	594	1,289	18.6
Managers.....	7,949	6,162	586	844	1,571	10.1
Cash tenants.....	3,372	1,657	251	524	1,023	17.6
Share tenants.....	2,930	2,050	303	668	1,236	20.8

<sup>1</sup> Including 1 Chinese.

The value of the farms owned by colored farmers, including implements, machinery, and live stock, together with the value of the implements, machinery, and live stock upon the farms which other colored farmers operate as tenants, is \$452,895. This amount is doubtless somewhat in excess of the actual wealth of the colored farmers of New Jersey, as it is improbable that the colored tenants own all of the machinery and live stock on the farms which they operate.

Of the 73 farms containing 1,000 acres each or over, 26 are operated by "owners," 2 by "part owners," 24 by "managers," 13 by "cash tenants," 7 by "share tenants," and 1 by an "owner and tenant."

Farms conducted by owners have the smallest average area, 68.7 acres, and those conducted by managers the largest, 290.7 acres. Many of the farms operated by managers are adjuncts of public institutions, while others are conducted for wealthy individuals in connection with their summer homes. These farms are, as a rule, favorably located and highly improved, and the average values of their several forms of farm property, shown in Table 7, are much larger than for any other class of farms grouped by tenure. The ratio which the gross income of these farms bears to the total value of farm property is, however, smaller than for the other groups. This is due to the high average valuation of the farm property, and to the fact that many of these farms are not cultivated for profit.

#### FARMS CLASSIFIED BY AREA.

Tables 8 and 9 give, for farms classified by area, facts corresponding to those shown in Tables 6 and 7 for farms classified by race of farmer and by tenure.

TABLE 8.—NUMBER AND ACREAGE OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY AREA, WITH PERCENTAGES.

AREA.	Number of farms.	NUMBER OF ACRES IN FARMS.			VALUE OF FARM PROPERTY.	
		Average.	Total.	Per cent.	Total.	Per cent.
The State.....	34,650	82.0	2,840,966	100.0	\$189,533,660	100.0
Under 3 acres.....	771	1.7	1,338	(1)	3,223,861	1.7
3 to 9 acres.....	2,770	6.0	16,700	0.6	8,195,574	4.8
10 to 19 acres.....	4,044	13.9	56,294	2.0	11,704,753	6.2
20 to 49 acres.....	7,632	32.6	249,077	8.8	29,756,249	15.7
50 to 99 acres.....	8,882	71.9	638,281	22.5	46,018,404	24.3
100 to 174 acres.....	7,855	126.3	991,720	34.9	56,257,337	29.7
175 to 259 acres.....	1,862	203.6	379,022	13.3	18,717,282	9.9
260 to 499 acres.....	651	324.8	211,431	7.4	9,383,989	4.9
500 to 999 acres.....	110	617.8	67,963	2.4	3,716,581	2.0
1,000 acres and over.....	73	3,138.9	229,140	8.1	2,549,630	1.3

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 9.—AVERAGE VALUES OF SPECIFIED CLASSES OF FARM PROPERTY, AND AVERAGE GROSS INCOME PER FARM, WITH PER CENT OF GROSS INCOME ON TOTAL INVESTMENT IN FARM PROPERTY, CLASSIFIED BY AREA.

AREA.	AVERAGE VALUES PER FARM OF—					Per cent of gross income on total investment in farm property.
	Farm property, June 1, 1900.				Gross income (products of 1899 not fed to live stock).	
	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.		
The State.....	\$2,695	\$1,998	\$269	\$508	\$1,012	18.5
Under 3 acres.....	1,708	2,145	156	172	1,389	82.0
3 to 9 acres.....	1,358	1,806	132	163	587	18.2
10 to 19 acres.....	1,467	1,124	124	179	481	16.6
20 to 49 acres.....	2,020	1,492	179	268	688	17.7
50 to 99 acres.....	2,584	1,333	275	489	984	19.0
100 to 174 acres.....	3,371	2,586	384	821	1,411	19.7
175 to 259 acres.....	5,045	3,378	464	1,165	1,871	13.6
260 to 499 acres.....	7,410	4,973	590	1,467	2,146	14.9
500 to 999 acres.....	15,486	14,370	1,581	1,850	3,594	11.5
1,000 acres and over.....	21,660	10,028	1,227	2,011	2,795	8.0

The group of medium-sized farms, containing from 100 to 174 acres each, comprises the largest percentage of the total farm acreage, and also the largest percentage of the total value of farm property.

For the groups of farms containing between 10 and 1,000 acres, the average values given in Table 9 rise in unbroken series as the farms increase in size. For the 2 groups of farms of less than 10 acres each, the average values are relatively high, as these groups include 419 of the 494 florists' establishments of the state, and a large number of city dairies. It should be borne in mind that the incomes from these industries are determined, not so much by the acreage of land used, as by the amount of capital invested in buildings and implements, and the amounts expended for labor and fertilizers.

The average gross incomes per acre for the various groups classified by area are as follows: Farms under 3 acres, \$772; 3 to 9 acres, \$89; 10 to 19 acres, \$35; 20 to 49 acres, \$21; 50 to 99 acres, \$14; 100 to 174 acres, \$11; 175 to 259 acres, \$9; 260 to 499 acres, \$7; 500 to 999 acres, \$6; 1,000 acres and over, \$0.89.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Tables 10 and 11 present the leading features of the statistics relating to farms classified by principal source of income. If for any farm 40 per cent of the products not fed to live stock consists of hay and grain, the farm is designated a hay and grain farm. Should 40 per cent of the products consist of vegetables, the farm is designated a vegetable farm. The farms of the other groups are classified in accordance with the same general principle. "Miscellaneous" farms are those whose operators do not derive their principal income from any one class of farm products. Farms with no income in 1899 are classified according to the agricultural operations upon other farms in the same locality.

TABLE 10.—NUMBER AND ACREAGE OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY PRINCIPAL SOURCE OF INCOME, WITH PERCENTAGES.

PRINCIPAL SOURCE OF INCOME.	Number of farms.	NUMBER OF ACRES IN FARMS.			VALUE OF FARM PROPERTY.	
		Average.	Total.	Per cent.	Total.	Per cent.
The State.....	34,650	82.0	2,840,966	100.0	\$189,533,600	100.0
Hay and grain.....	2,717	111.2	302,247	10.6	17,401,673	9.2
Vegetables.....	7,019	57.4	408,156	14.2	37,464,056	19.8
Fruit.....	2,715	71.4	193,870	6.8	11,180,577	5.9
Live stock.....	9,581	68.9	656,673	23.1	38,643,499	20.4
Dairy produce.....	5,959	102.7	611,933	21.6	45,790,712	24.2
Flowers and plants.....	494	6.2	3,061	0.1	4,825,446	2.5
Nursery products.....	54	54.3	2,932	0.1	6,685,221	3.5
Miscellaneous <sup>1</sup> .....	6,161	108.3	667,094	23.5	32,452,476	17.6

<sup>1</sup> Including 1 tobacco farm.

TABLE 11.—AVERAGE VALUES OF SPECIFIED CLASSES OF FARM PROPERTY, AND AVERAGE GROSS INCOME PER FARM, WITH PER CENT OF GROSS INCOME ON TOTAL INVESTMENT IN FARM PROPERTY, CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

PRINCIPAL SOURCE OF INCOME.	AVERAGE VALUES PER FARM OF—					Gross income (products of 1899 not fed to live stock).	Per cent of gross income on total investment in farm property.
	Farm property, June 1, 1900.						
	Land and improvements (except buildings).	Buildings.	Implementments and machinery.	Live stock.			
The State.....	\$2,695	\$1,998	\$269	\$508	\$1,012	18.5	
Hay and grain.....	3,454	2,239	288	477	812	12.6	
Vegetables.....	2,981	1,725	273	359	1,136	21.3	
Fruit.....	2,058	1,573	206	276	990	24.0	
Live stock.....	1,689	1,665	219	482	621	15.3	
Dairy produce.....	3,825	2,623	355	881	1,412	18.4	
Flowers and plants.....	4,402	4,976	317	73	3,969	40.6	
Nursery products.....	8,167	3,805	447	270	6,395	50.4	
Miscellaneous <sup>1</sup> .....	2,539	2,044	283	514	899	16.6	

<sup>1</sup> Including 1 tobacco farm.

The large number of live-stock farms reported is due to

the fact that numerous small farms which derive their principal income from poultry are included in this class. This explains the comparatively low average value of live stock for such farms.

For the several classes of farms the average values per acre of products not fed to live stock are: Flowers and plants, \$641; nursery products, \$118; vegetables, \$20; fruit, \$14; dairy produce, \$14; live stock, \$9; hay and grain, \$7; and miscellaneous, \$8.

The wide variations shown in the averages and percentages of gross income are largely due to the fact that in computing gross incomes no deductions are made for expenditures. For florists' establishments, nurseries, and market gardens the average expenditure for such items as labor and fertilizers represents a far larger percentage of the gross income than in the case of "hay and grain," "live stock," or "miscellaneous" farms. Were it possible to present the average net incomes, the variations shown would be comparatively slight.

FARMS CLASSIFIED BY REPORTED VALUE OF PRODUCTS NOT FED TO LIVE STOCK.

Tables 12 and 13 present data relating to farms classified by the reported value of products not fed to live stock.

TABLE 12.—NUMBER AND ACREAGE OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY REPORTED VALUE OF PRODUCTS NOT FED TO LIVE STOCK, WITH PERCENTAGES.

VALUE OF PRODUCTS NOT FED TO LIVE STOCK.	Number of farms.	NUMBER OF ACRES IN FARMS.			VALUE OF FARM PROPERTY.	
		Average.	Total.	Per cent.	Total.	Per cent.
The State.....	34,650	82.0	2,840,966	100.0	\$189,533,600	100.0
\$0.....	259	44.9	11,625	0.4	824,960	0.4
\$1 to \$49.....	630	29.8	18,748	0.7	1,768,940	0.9
\$50 to \$99.....	1,192	29.5	85,165	1.3	2,750,540	1.5
\$100 to \$249.....	4,953	34.9	172,890	6.1	12,915,220	6.8
\$250 to \$499.....	7,120	54.4	387,171	13.6	24,372,280	12.9
\$500 to \$999.....	8,865	80.1	710,398	25.0	42,467,010	22.4
\$1,000 to \$2,499.....	9,009	114.0	1,026,632	36.1	65,351,520	34.5
\$2,500 and over.....	2,622	182.4	478,342	16.8	39,083,190	20.6

TABLE 13.—AVERAGE VALUES OF SPECIFIED CLASSES OF FARM PROPERTY, AND AVERAGE GROSS INCOME PER FARM, WITH PER CENT OF GROSS INCOME ON TOTAL INVESTMENT IN FARM PROPERTY, CLASSIFIED BY REPORTED VALUE OF PRODUCTS NOT FED TO LIVE STOCK.

VALUE OF PRODUCTS NOT FED TO LIVE STOCK.	AVERAGE VALUES PER FARM OF—					Gross income (products of 1899 not fed to live stock).	Per cent of gross income on total investment in farm property.
	Farm property, June 1, 1900.						
	Land and improvements (except buildings).	Buildings.	Implementments and machinery.	Live stock.			
The State.....	\$2,695	\$1,998	\$269	\$508	\$1,012	18.5	
\$0.....	1,726	1,215	38	161			
\$1 to \$49.....	1,451	1,009	84	264		1.3	
\$50 to \$99.....	1,138	938	70	112		3.2	
\$100 to \$249.....	1,286	1,068	99	155		6.8	
\$250 to \$499.....	1,676	1,347	148	252		10.8	
\$500 to \$999.....	2,296	1,802	241	451		15.1	
\$1,000 to \$2,499.....	3,502	2,572	395	755		21.2	
\$2,500 and over.....	7,769	5,011	733	1,333		28.5	

There are 259 farms, ranging in area from 3 to 1,000 acres, which report no income. The comparatively high average value of the land and buildings of these farms indicates that many of them are summer homes or country estates held for pleasure and not for the profit to be derived from operation. A considerable number of the farms with reported incomes of less than \$50 doubtless belong to the same class. Some, however, are farms that were partially abandoned in 1899, while others had changed owners or tenants, and the persons in charge, June 1, 1900, were unable to give definite information concerning the products of the preceding year. To this extent the reports fall short of giving a complete exhibit of farm income in 1899.

## LIVE STOCK.

At the request of the various live-stock associations of the country, a new classification of domestic animals was adopted for the Twelfth Census. The age grouping for neat cattle was determined in accordance with their present and prospective relations to the dairy industry and the supply of meat products. Horses and mules are classified by age, and neat cattle and sheep by age and sex. The new classification permits a very close comparison with the figures published in previous census reports.

Table 14 presents a summary of live-stock statistics.

TABLE 14.—NUMBER OF DOMESTIC ANIMALS, FOWLS, AND BEES ON FARMS, JUNE 1, 1900, WITH TOTAL AND AVERAGE VALUES, AND NUMBER OF DOMESTIC ANIMALS NOT ON FARMS.

LIVE STOCK.	Age in years.	ON FARMS.			Not on farms. Number.
		Number.	Value.	Average value.	
Calves	Under 1	39,685	\$349,937	\$8.82	1,238
Steers	1 and under 2	1,519	25,951	17.08	172
Steers	2 and under 3	928	27,329	29.45	173
Steers	3 and over	588	23,818	40.51	3,938
Bulls	1 and over	8,271	225,177	27.35	386
Heifers	1 and under 2	23,609	470,484	19.93	742
Cows kept for milk	2 and over	157,407	5,840,228	37.10	10,392
Cows not kept for milk	2 and over	7,877	235,183	29.48	414
Colts	Under 1	1,826	153,251	83.98	107
Horses	1 and under 2	3,054	240,330	78.71	155
Horses	2 and over	89,144	7,188,643	80.64	82,929
Mule colts	Under 1	67	2,844	42.45	1
Mules	1 and under 2	322	20,823	64.67	11
Mules	2 and over	4,499	390,370	73.43	1,111
Asses and burros	All ages	48	2,455	57.09	73
Lambs	Under 1	21,867	83,506	3.81	129
Sheep (ewes)	1 and over	24,744	109,540	4.43	9,408
Sheep (rams and wethers).	1 and over	1,619	9,384	5.80	764
Swine	All ages	175,387	926,179	5.28	25,954
Goats	All ages	999	3,006	4.30	1,750
Fowls: <sup>1</sup>					
Chickens <sup>2</sup>		1,998,594			
Turkeys		32,378			
Geese		10,518	1,300,853		
Ducks		40,024			
Bees (swarms of)		14,118	39,219	2.78	
Unclassified			3,000		
Value of all live stock.			17,612,620		

<sup>1</sup> The number reported is of fowls over 3 months old. The value is of all, old and young.

<sup>2</sup> Including Guinea fowls.

The total value of all live stock on farms, June 1, 1900, was \$17,612,620. Of this amount the value of horses constituted 43.0 per cent; dairy cows, 33.2 per cent; other neat cattle, 7.7 per cent; poultry, 7.4 per cent; swine, 5.3 per cent; sheep, 1.1 per cent; and all other live stock, 2.3 per cent.

Colts under 1 year have a higher average value than horses over 2. This is due to the fact that New Jersey contains several very extensive stock farms devoted exclusively to the breeding and training of horses for track purposes. This also explains the comparatively high value of "horses 1 and under 2."

No report was secured of the value of live stock not on farms, but it is probable that such animals have higher average values than those on farms. Allowing the same averages, the total value of all live stock in the state, exclusive of poultry and bees not on farms, is approximately \$25,199,000.

## CHANGES IN LIVE STOCK KEPT ON FARMS.

The following table shows the changes since 1850 in the number of the most important domestic animals.

TABLE 15.—NUMBER OF SPECIFIED DOMESTIC ANIMALS ON FARMS: 1850 TO 1900.

YEAR.	Dairy cows.	Other neat cattle.	Horses.	Mules and asses.	Sheep. <sup>1</sup>	Swine.
1900	157,407	82,577	94,024	4,931	26,363	175,387
1890	161,576	50,486	86,925	3,227	55,409	224,388
1880	162,078	71,303	86,940	9,267	117,020	219,069
1870	133,331	64,157	79,708	8,853	120,067	142,563
1860	138,818	99,976	79,707	6,362	135,228	236,089
1850	118,736	92,525	63,955	4,089	160,488	250,370

<sup>1</sup> Lambs not included.

The number of dairy cows is 4,169 less than that reported in 1890. The number reported in 1900, however, is exclusive of 7,977 "cows not kept for milk" (see Table 14), many of which were doubtless milch cows dry at the time of enumeration. The 39,685 calves reported in 1900 are included, in the above table, with "other neat cattle." It is uncertain whether calves were included under this head in the reports for previous census years. If not, they should be deducted from the total given for 1900 in making comparisons with previous reports. A nearly continuous decrease since 1860 would then be shown in the number of "other neat cattle."

The present census shows 47.0 per cent more horses than were reported in 1850. The increase has been nearly continuous, but especially marked in the last decade, when it amounted to 8.2 per cent. Mules and asses increased steadily in number from 1850 until 1880, when a decline began. The report for 1900 shows 40.1 per cent fewer mules and asses than were reported ten years before. The number of sheep has decreased steadily since 1850, and in the last twenty years at a very rapid rate, the present number being less than one-half the number reported in 1890. No regular movement is shown in the number of swine reported at the various decennial periods, but the general tendency since 1850 has been downward. There was a decrease of 21.8 per cent in the last decade.

In comparing the poultry report for 1900 (see Table 14) with that for 1890, it should be borne in mind that in 1900 the enumerators were instructed not to report fowls less than 3 months old, while in 1890 no such limitation was made. This fact explains, to a great extent, the decrease shown in the number of fowls of all kinds. Com-

pared with the figures for 1890, the present census shows decreases in the number of fowls as follows: Chickens, 33.3 per cent; geese, 48.4 per cent; ducks, 64.8 per cent; and turkeys, 80.0 per cent.

#### ANIMAL PRODUCTS.

Table 16 is a summarized exhibit of the animal products of agriculture.

TABLE 16.—QUANTITIES AND VALUES OF SPECIFIED ANIMAL PRODUCTS, AND VALUES OF POULTRY RAISED, ANIMALS SOLD, AND ANIMALS SLAUGHTERED ON FARMS, IN 1899.

PRODUCTS.	Unit of measure.	Quantity.	Value.
Wool.....	Pounds.....	146,628	\$31,266
Milk.....	Gallons.....	177,714,055	
Butter.....	Pounds.....	5,894,363	8,436,869
Cheese.....	Pounds.....	24,377	
Eggs.....	Dozens.....	11,942,550	1,938,304
Poultry.....			2,265,816
Honey.....	Pounds.....	174,250	23,478
Wax.....	Pounds.....	7,640	
Animals sold.....			1,638,767
Animals slaughtered.....			1,406,187
Total.....			15,740,688

<sup>1</sup> Includes all milk produced.

The value of animal products in 1899 was \$15,740,688, or 36.1 per cent of the value of all farm products and 44.9 per cent of the gross farm income. Of the above amount, 53.6 per cent represents the value of dairy products; 19.3 per cent, that of animals sold and slaughtered on farms; 26.7 per cent, that of poultry and eggs; and 0.4 per cent, that of wool, honey, and wax.

#### DAIRY PRODUCE.

The steady growth of city population and the increasing popularity of Atlantic coast resorts have largely increased the demand for dairy produce in New Jersey. The present importance of the industry is shown by the fact that in 1899 the proprietors of 5,959 farms, or 17.2 per cent of the farms of the state, derived their principal income from dairy produce, the total value of which constituted over one-half that of all animal products, and 24.1 per cent of the gross farm income. The production of milk in 1899 was 13,710,102 gallons greater than in 1889, a gain of 21.4 per cent. The quantity of milk sold was 50,726,011 gallons. The milk sold in 1889 was not separately reported, but since 1879 there has been a gain of 35,253,228 gallons, or 227.8 per cent, the quantity having more than doubled in every county except Atlantic, Middlesex, and Union.

Of the \$8,436,869 given in Table 16 as the value of all dairy products in 1899, \$1,265,980, or 15.0 per cent, represents the value of such products consumed on farms, and \$7,170,889, or 85.0 per cent, the amount realized from sales. Of the latter sum, \$6,318,568 was derived from the sale of 50,726,011 gallons of milk; \$818,624, from 3,748,489 pounds of butter; \$31,508, from 35,986 gallons of cream; and \$2,189, from 20,909 pounds of cheese.

In 1879, 9,513,835 pounds of butter were made on farms; in 1889, 8,367,218 pounds; and in 1899, but 5,894,363

pounds. This decrease is due principally to the transfer of butter making from the farm to the creamery, and to the increase in the quantity of milk and cream consumed in cities.

#### POULTRY AND EGGS.

Of the \$4,204,120 given as the total value of the products of the poultry industry, 46.1 per cent represents the value of eggs, and 53.9 per cent that of poultry raised. The total number of dozens of eggs produced in 1879 was 6,686,142; in 1889, 8,081,571; and in 1899, 11,942,550. The increase in the last decade, amounting to 48.7 per cent, tends to confirm the statement, made elsewhere, that the reported decrease in the number of chickens is more apparent than real.

#### WOOL.

The raising of sheep is confined almost entirely to the northwestern part of the state, the 5 counties of Warren, Hunterdon, Morris, Sussex, and Somerset having reported more than three-fourths of the total production of wool in 1899. The clip has decreased almost constantly for more than fifty years, and in 1899 was 60.9 per cent less than in 1849.

#### HONEY AND WAX.

In 1889, 160,310 pounds of honey and 3,381 pounds of wax were reported, while in 1899 the production of honey was 174,250 pounds, and of wax, 7,640. In both years the greater portion of the product was reported from Hunterdon, Morris, Sussex, and Warren counties.

#### HORSES AND DAIRY COWS ON SPECIFIED CLASSES OF FARMS.

Table 17 presents, for the leading groups of farms, the number of farms reporting horses and dairy cows, the total number of these animals and the average number per farm. In computing the averages presented, only those farms which report the kind of stock under consideration are included.

TABLE 17.—HORSES AND DAIRY COWS ON SPECIFIED CLASSES OF FARMS, JUNE 1, 1900.

CLASSES.	HORSES.			DAIRY COWS.		
	Farms reporting.	Number.	Average per farm.	Farms reporting.	Number.	Average per farm.
Total.....	80,838	94,024	3.0	27,177	157,407	5.8
White farmers.....	80,441	93,218	3.1	26,960	156,784	5.8
Colored farmers.....	397	806	2.0	217	623	2.9
Owners <sup>1</sup> .....	20,621	58,500	2.8	18,123	92,408	5.1
Managers.....	728	3,501	4.8	644	5,886	8.4
Cash tenants.....	4,693	18,729	2.9	3,832	25,689	6.6
Share tenants.....	4,796	18,294	3.8	4,528	33,924	7.5
Under 20 acres.....	5,657	8,797	1.6	8,787	9,270	2.5
20 to 99 acres.....	15,112	39,048	2.6	13,658	52,906	3.9
100 to 174 acres.....	7,520	31,687	4.2	7,854	62,207	8.6
175 to 259 acres.....	1,789	9,139	5.1	1,707	21,569	12.6
260 acres and over.....	760	5,353	7.0	726	11,465	15.8
Hay and grain.....	2,115	8,175	3.9	1,815	8,975	4.9
Vegetable.....	6,448	17,439	2.7	4,858	14,494	3.0
Fruit.....	2,260	5,544	2.4	1,546	4,876	2.8
Live stock.....	8,589	24,411	2.8	7,533	31,103	4.1
Dairy.....	5,597	20,243	3.6	5,959	72,241	12.1
Miscellaneous <sup>2</sup> .....	5,829	18,412	3.2	5,466	26,218	4.8

<sup>1</sup> Including "part owners" and "owners and tenants."

<sup>2</sup> Including florists' establishments, nurseries, and 1 tobacco farm.

## CROPS.

The following table gives the acreages, quantities, and values of the crops of 1899.

TABLE 18.—ACREAGES, QUANTITIES, AND VALUES OF THE PRINCIPAL FARM CROPS IN 1899.

CROPS.	Acres.	Unit of measure.	Quantity.	Value.
Corn.....	295,258	Bushels.....	10,978,800	\$4,539,473
Wheat.....	132,571	Bushels.....	1,902,590	1,347,650
Oats.....	75,959	Bushels.....	1,601,610	492,841
Barley.....	836	Bushels.....	4,790	2,301
Rye.....	68,967	Bushels.....	831,410	442,446
Buckwheat.....	15,762	Bushels.....	234,275	120,479
Kafir corn.....	4	Bushels.....	100	60
Clover seed.....		Bushels.....	181	977
Grass seed.....		Bushels.....	5,006	1,813
Hay and forage.....	444,610	Tons.....	542,796	5,544,970
Miscellaneous.....				88,595
Tobacco.....	2	Pounds.....	720	83
Dry beans.....	201	Bushels.....	2,888	5,886
Dry peas.....	45	Bushels.....	806	868
Potatoes.....	52,896	Bushels.....	4,542,816	2,192,456
Sweet potatoes.....	20,588	Bushels.....	2,418,641	1,213,010
Onions.....	882	Bushels.....	168,728	105,327
Miscellaneous vegetables.....	76,897			4,914,803
Sorghum cane.....	6	Tons.....	11	3
Sorghum sirup.....		Gallons.....	450	160
Small fruits.....	25,371			1,406,049
Grapes.....	# 2,400	Centals.....	42,350	# 81,758
Orchard fruits.....	# 80,684	Bushels.....	6,168,480	42,594,981
Flowers and plants.....	614			1,953,290
Seeds.....	112			48,191
Nursery products.....	1,782			339,928
Broom corn.....	11	Pounds.....	4,810	266
Hops.....	1	Pounds.....	75	9
Peanuts.....	(*)	Bushels.....	7	10
Nuts.....				20,660
Forest products.....				409,005
Total.....	1,295,909			27,916,841

<sup>1</sup> Sold as cane.

<sup>2</sup> Estimated from number of trees or vines.

<sup>3</sup> Including value of raisins, wine, etc.

<sup>4</sup> Including value of cider, vinegar, etc.

<sup>5</sup> Less than 1 acre.

Vegetables, including potatoes, sweet potatoes, and onions contributed 30.2 per cent of the total value of crops; cereals, 24.8 per cent; hay and forage, 19.9 per cent; fruits, 14.6 per cent; flowers, plants, nursery products, and seeds, 8.4 per cent; and all others, 2.1 per cent.

The average yield per acre of hay and forage was 1.2 tons, and the average values \$10.22 per ton and \$12.47 per acre. The acreage devoted to hay and forage was 34.3 per cent of the total acreage in crops, but yielded only 19.9 per cent of the total receipts. The average values per acre of other crops were as follows: Flowers and plants, \$3,181.25; nursery products, \$190.76; miscellaneous vegetables, \$63.91; sweet potatoes, \$58.92; small fruits, \$55.42; potatoes, \$41.45; orchard fruits, \$32.18; and cereals, \$11.78. The crops yielding the highest average returns per acre were grown on land in a very high state of improvement. Their production requires a relatively large amount of labor, and, in addition, large expenditures for fertilizers.

## CEREALS.

The following table is an exhibit of the changes in cereal production since 1849.

TABLE 19.—ACREAGE AND PRODUCTION OF CEREALS: 1849 TO 1899.

## PART 1.—ACREAGE.

YEAR. <sup>1</sup>	Barley.	Buckwheat.	Corn.	Oats.	Rye.	Wheat.
1899.....	336	15,762	295,258	75,959	68,967	132,571
1889.....	47	13,520	267,643	121,327	77,245	121,570
1879.....	240	35,373	344,555	187,422	106,025	149,760

## PART 2.—BUSHELS PRODUCED.

YEAR.....	Barley.	Buckwheat.	Corn.	Oats.	Rye.	Wheat.
1899.....	4,790	234,275	10,978,800	1,601,610	881,410	1,902,590
1889.....	1,043	114,626	8,637,011	2,837,293	874,049	1,823,382
1879.....	4,091	466,414	11,150,705	3,710,573	949,064	1,601,739
1869.....	8,288	853,983	8,745,384	4,009,830	566,775	2,301,433
1859.....	24,915	877,386	9,723,336	4,589,132	1,439,497	1,763,218
1849.....	6,492	878,934	8,759,704	3,378,063	1,255,578	1,001,190

<sup>1</sup> No statistics of acreage were secured prior to 1879.

The total area devoted to cereals in 1899 was 588,853 acres; in 1889, 601,357 acres; and in 1879, 773,375 acres. For the period 1879 to 1899 the percentages of decrease in acreage for the principal grains are as follows: Buckwheat, 55.4; oats, 44.7; rye, 35.0; corn, 14.3; and wheat, 11.5. The decrease in the last decade is confined to oats and rye, the other grains having larger acreages in 1899 than in 1889. With the exception of corn, which is a staple crop throughout the state, and wheat, which is grown in all the western counties, cereal production is at present confined almost entirely to the northwestern counties.

The 295,258 acres, given in Table 19 as the area devoted to corn in 1899, is exclusive of 24,628 acres of corn, non-saccharine sorghum, and similar crops grown for forage or ensilage.

New Jersey is one of the few Eastern states in which the production of cereals is not rapidly decreasing. While the production of oats, rye, barley, and buckwheat is less than in 1849, this loss has been nearly offset by the increased production of corn and wheat, so that the net decrease in total cereal production has been only 326,486 bushels, or 2.1 per cent. The recent increase in the acreage devoted to corn is believed to be closely related to the growth of dairying noted under Table 16.

## ORCHARD FRUITS.

The changes in orchard fruits since 1890 are shown in the following table.

TABLE 20.—ORCHARD TREES AND FRUITS: 1890 AND 1900.

FRUITS.	NUMBER OF TREES.		BUSHELS OF FRUIT.	
	1900	1890	1899	1890
Apples.....	1,810,793	1,810,705	4,640,896	603,890
Apricots.....	363	533	201	2
Cherries.....	88,906	35,452	82,005	6,762
Peaches.....	2,746,607	4,413,568	620,928	776,078
Pears.....	926,117	274,015	790,818	80,664
Plums and prunes.....	73,820	7,946	24,685	617

Of the farmers of the state 23,998, or 69.3 per cent, reported orchard fruits in 1899. The value of orchard products was not reported by the census of 1890, but in 1879 the total value of such products was \$860,090. For 1899 the corresponding value is \$2,594,981, a gain in twenty years of 201.7 per cent.

The most noteworthy changes between 1890 and 1900 are an increase of 38.2 per cent in the number of apple trees and a decrease of 37.8 per cent in the number of peach trees. In 1890, 21.7 per cent of all fruit trees in the state were apple trees and 73.0 per cent were peach trees, while in 1900 the corresponding percentages are 32.1 and 48.6, respectively. The number of apple trees increased in every county except Cumberland, the largest relative increases being in Ocean, Union, and Salem counties.

The peach-growing industry is largely confined to the 5 northwestern counties of Hunterdon, Sussex, Morris, Somerset, and Warren, which reported, in 1899, 74.4 per cent of all the peach trees in the state. The marked decrease in the number of trees in Hunterdon, Somerset, and Cumberland counties during the last decade is due largely to the ravages of the yellows. In the aggregate these 3 counties sustained a loss of 1,549,806 peach trees, or 93.0 per cent of the total loss of 1,666,961 trees reported for the state. Hunterdon county alone lost 1,026,941 trees. The counties in the extreme northern part of the state and along the southeastern coast report more trees than in 1890.

There has been a large increase in the number of pear trees in almost every county of the state. The gain in most cases is the result of the extensive introduction of Kieffer pears. Burlington, Camden, Cumberland, Gloucester, Monmouth, and Sussex are the leading pear-growing counties, and report the largest gains for the decade.

The number of cherry trees increased 150.8 per cent, Monmouth being the only county to report a decrease. An increase of 829.0 per cent in the number of plum and prune trees was distributed among all the counties.

In addition to the trees shown in Table 20, unclassified orchard trees to the number of 17,829 are reported, with a yield of 8,947 bushels of fruit. The value of orchard products given in Table 18 includes the value of 28,902 barrels of cider, 6,276 barrels of vinegar, and 14,860 pounds of dried and evaporated fruits.

The quantity of fruit produced in any year is determined largely by the nature of the season. Comparisons between the crop of 1889 and that of 1899 have little significance, because in the former year there was an almost complete failure of all fruits except peaches.

#### GRAPES.

Grapes were grown by 3,604 farmers, who obtained, in 1899, 42,350 centials of fruit from 1,199,859 vines. The total value of the grapes grown, including the value of 123,454 gallons of wine made on farms, was \$81,758. Atlantic and Cumberland are the leading counties in the cultivation of grapes, reporting in 1900 more than one-half of the vines of the state. In these 2 counties there has been a marked increase since 1890 in the number of vines.

#### VEGETABLES AND SMALL FRUITS.

The value of the vegetables grown in 1899, including potatoes, sweet potatoes, and onions, was \$8,425,596, of which amount 26.0 per cent represents the value of potatoes and 14.4 per cent the value of sweet potatoes. Aside from the land devoted to potatoes, sweet potatoes, and onions, 76,897 acres were used in the growing of miscellaneous vegetables. Of this area, 15,426 acres were included in family gardens or farms, the vegetable products of which were not reported in detail. Of the 61,471 acres concerning which detailed reports were received, 25,332 were devoted to tomatoes; 11,646, to sweet corn; 6,548, to muskmelons, citrons, etc.; 5,121, to cabbages; 4,040, to watermelons; 2,089, to asparagus; 1,822, to green pease; 1,460, to green beans; 1,314, to cucumbers; and 2,099, to other vegetables.

The total area used in the cultivation of small fruits in 1899 was 25,371 acres, distributed among 10,342 farms. The value of the fruits grown was \$1,406,049, an average of \$136 per farm. Of the total area, 8,746 acres, or 34.5 per cent, were devoted to strawberries. The total production for the state was 13,274,120 quarts, of which about one-third was reported by Cumberland county. Next in importance are cranberries, of which 8,356 acres were reported, or 32.9 per cent of the total area used for small fruits. The raising of cranberries is confined almost entirely to the southern counties, Burlington reporting the largest crop. The total production for the state was 240,221 bushels.

The acreage and production of other berries were as follows: Blackberries and dewberries, 5,254 acres and 3,918,320 quarts; currants, 161 acres and 264,740 quarts; raspberries and Logan berries, 2,240 acres and 2,506,730 quarts; gooseberries, 104 acres and 124,160 quarts; and other berries, 510 acres and 564,160 quarts.

#### FLORICULTURE.

In the raising of flowers and foliage plants New Jersey is surpassed by few states. In 1899 the proprietors of 630 establishments reported flowers and foliage plants grown for the market, valued at \$1,953,290. Of these proprietors, 494 made commercial floriculture their principal business, growing, in 1899, flowers and plants worth \$1,893,839 and other products worth \$66,719. They used 3,061 acres of land, valued at \$2,174,865. The value of their buildings, including greenhouses, was \$2,458,240, and in addition they had \$156,429 invested in implements and \$35,912 in live stock, making a total investment of \$4,825,446. Their expenditures for labor in 1899 were \$400,382, and for fertilizers, \$48,334.

The comparatively large area of land under glass, 11,190,251 square feet, is due to the fact that many truck farmers use glass in growing early vegetables for the New York and Philadelphia markets. The 494 commercial florists report 6,195,903 square feet of glass surface, equivalent to 4,646,927 square feet of land under glass. In addition, there are 1,651 farmers who report a total area under glass of 6,543,324 square feet.

## NURSERIES.

Nursery products of a total value of \$339,926 were grown upon 142 farms. The proprietors of 54 of these farms made the growing of nursery products for market their sole or principal business, and derived therefrom in 1899 a total gross income of \$292,153. They also sold or consumed \$53,175 worth of other products.

## LABOR AND FERTILIZERS.

The total expenditure for labor on farms in 1899, including the value of board furnished, was \$6,720,030, an average of \$194 per farm. The average was highest on the most intensively cultivated farms, having been \$1,405 for nurseries, \$810 for florists' establishments, \$264 for dairy farms, \$219 for market gardens, \$200 for fruit farms, \$162 for hay and grain farms, and \$112 for live-stock farms. "Managers" expended on an average, \$641; "owners," \$170; "cash tenants," \$186; and "share ten-

ants," \$201 per farm. White farmers expended \$196 per farm, and colored farmers \$56.

Fertilizers purchased in 1899 cost \$2,165,320, an average of \$62 per farm, and an increase since 1890 of 17.8 per cent. The average expenditure was greatest for nurseries and least for live-stock farms, the amounts being \$182 and \$33, respectively. For vegetable farms the average was \$124; for florists' establishments, \$98; for fruit farms, \$57; for dairy farms, \$43; and for hay and grain farms, \$50.

## IRRIGATION.

Irrigation was reported on 8 farms in 1899. Of the 73 acres irrigated, 69 acres were devoted to crops, as follows: Hay, 26 acres; vegetables, 20 acres; corn, 13 acres; celery, 6 acres; seeds, 4 acres. The total value of the crops produced was \$8,720, an average of \$126 per acre.

The average value per acre of irrigated land was \$155. The total capital invested in irrigation plants was \$2,831, and the average cost of irrigating was \$36 per acre.