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SENTENCES OF CONVICTS IN PENITENTIARIES IN 1890.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,

WASHINGTON, D. C., August 11, 1891.

This bulletin, which was compiled under the direction of Rev. FRED. H. WINES, special agent of the Census Office for the collection of statistics relating to pauperism and crime, furnishes some new information as to the sentences imposed by the courts upon prisoners in penitentiaries.

Of 45,233 prisoners in penitentiaries, 53 were not sentenced, 2,486 were serving sentences of less than one year, 39,757 had been sentenced to imprisonment for a definite term of years, 2,688 for life, 12 during their minority, and 62 were under sentence of death and awaiting execution.

Where sentence for a definite term of years is pronounced, the most common sentence is found to be for two years, and then, in the order stated, for five, three, one, ten, four, seven, and six years. Nearly seven-eighths of all penitentiary sentences fall under one of these eight varieties. There are reported 132 sentences of 50 years and over, of which 55 are for 99 years. The number of "fractional" sentences is also shown, which was 4,859; and taking them into the account, the total duration of imprisonment for not less than one year, but less than for life, ordered by the courts, was 228,210 years and 5 months. The average term of sentence, therefore, is 5 years and 270 days.

A tendency to greater severity of sentence is apparent in the south and west.

The average sentence of a native white convict, of native parents, is 5 years and 208 days; of a foreign-born convict, 5 years and 193 days; and of a colored convict, 6 years and 183 days.

The average sentence of a male convict is 5 years and 285 days, and of a female convict 4 years and 215 days.

The differences between the average sentences in different states are a surprise. They range from 2 years and 356 days in Rhode Island to 12 years and 116 days in Mississippi, and seem to be governed by no discoverable law. States which join each other, and in which the conditions are presumably similar, manifest differences in this regard which are unexplained. For instance, the average sentence in New Hampshire is 2 years and 141 days more than in Maine, or about 50 per cent greater. The difference in averages between Indiana and Illinois is 1 year and 240 days; between Wisconsin and Michigan, 1 year and 155 days; between West Virginia and Virginia, 2 years and 66 days; between Louisiana and Mississippi, 7 years and 103 days; and between North and South Dakota, 1 year and 309 days.



Superintendent of Census.

SENTENCES OF CONVICTS IN PENITENTIARIES IN 1890.

BY FREDERICK HOWARD WINES.

In a census bulletin already published, relating to convicts in penitentiaries (Bulletin No. 31), the total number of such convicts has been shown to be 45,233, and they have been classified according to elements of the population. In the present bulletin, the sentences imposed upon them are shown. This bulletin will be followed by others, showing the crimes with which they were charged, and the relation which exists between individual crimes and individual sentences.

Of the 45,233 convicts in penitentiaries, 82 were held for non-payment of fine; 2,486 had been sentenced to imprisonment for a term less than one year, namely, 240 for ten days and less than one month, 294 for one month and less than three months, 841 for three months and less than six months, and 1,111 for six months and less than one year; 39,757 had been sentenced to imprisonment for a definite term of years, namely, 5,175 for one year, 7,684 for two years, 5,333 for three years, 3,080 for four years, 6,990 for five years, 4,180 for six years and less than ten years, 5,658 for ten years and less than twenty years, and 1,657 for twenty years or more; 2,688 were sentenced for life, 12 during minority; 62 were awaiting execution; 51 were held for trial, 2 as witnesses, and 93 were serving sentence, but the duration of the sentence imposed by the court was not stated.

It would be interesting to compare these sentences with those reported ten years ago; but in the Tenth Census, the sentences were stated in the aggregate for all prisoners and not classified by groups of prisons, which renders a comparison at this point impracticable. Generally speaking, short sentences are served in prisons of minor grade other than penitentiaries, and long sentences are served in penitentiaries; but this rule has many exceptions. The county penitentiaries of New York and New Jersey, for instance, receive misdemeanants as well as felons. On the other hand, there are a number of states in which felons may be retained in the county prisons.

It may be said here, however, that in 1880 the total number of prisoners found to have been sentenced to imprisonment for not less than one year was 31,925, of whom nearly all must have been in penitentiaries. An approximate comparison of sentences by duration June 1, 1880, and June 1, 1890, may therefore be made as follows. In this statement both the number of sentences and the percentages at each of the dates named are given.

APPROXIMATE COMPARISON OF SENTENCES: 1880 AND 1890.

SENTENCES AND PERCENTAGES.	Total.	1 year.	2 years.	3 years.	4 years.	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.
1890:										
Number of sentences.....	42,445	5,175	7,684	5,333	3,080	6,990	4,180	5,658	1,657	2,688
Percentages.....	100.00	12.19	18.10	12.57	7.26	16.47	9.85	13.33	3.90	6.33
1880:										
Number of sentences.....	31,925	3,047	6,028	5,026	2,355	5,112	3,171	3,919	1,052	1,015
Percentages.....	100.00	11.42	18.88	15.74	7.38	16.01	9.93	12.28	3.30	5.06
Differences:										
Increase of percentages.....		0.77				0.46		1.05	0.60	1.27
Decrease of percentages.....			0.78	3.17	0.12		0.08			

Table I exhibits the distribution of sentences among all penitentiary convicts in 1890, by states and territories, but not by nativity or race.

Tables II and III show the distribution of sentences for each sex separately.

The summaries, by geographical divisions, of distribution of sentences, are given on the following page.

SUMMARY, BY GROUPS, OF SENTENCES OF PENITENTIARY CONVICTS IN 1890.

GEOGRAPHICAL DIVISIONS.	Aggregate.	SENTENCED.								
		Fines.	10 days.	1 month.	3 months.	6 months.	1 year.	2 years.	3 years.	4 years.
The United States.....	45,233	82	240	294	841	1,111	5,175	7,084	5,333	3,080
North Atlantic.....	14,477	76	239	289	780	859	1,016	2,311	1,677	958
South Atlantic.....	6,468				16	68	585	935	666	498
North Central.....	10,900			2	22	74	1,702	2,212	1,578	680
South Central.....	9,211			1	2	48	751	1,042	100	601
Western.....	4,059	6	1	2	21	62	521	584	503	244

GEOGRAPHICAL DIVISIONS.	SENTENCED—continued.								NOT SENTENCED.		
	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.	Minority.	Execu- tion.	Not stated.	Held for trial.	Witnesses.	Insane.
The United States.....	6,990	4,180	5,658	1,657	2,688	12	62	93	51	2	
North Atlantic.....	2,670	1,023	1,330	228	361	12	6	29	12	1	
South Atlantic.....	940	730	1,257	261	601			9			
North Central.....	1,355	991	1,225	439	617		54	29	1		
South Central.....	1,061	940	1,235	625	896			19	14		
Western.....	464	490	611	203	313		2	7	24	1	

SUMMARY, BY GROUPS, OF SENTENCES OF MALE PENITENTIARY CONVICTS IN 1890.

GEOGRAPHICAL DIVISIONS.	Aggregate.	SENTENCED.								
		Fines.	10 days.	1 month.	3 months.	6 months.	1 year.	2 years.	3 years.	4 years.
The United States.....	43,442	72	209	261	754	1,008	4,820	7,364	5,214	3,027
North Atlantic.....	13,506	66	208	256	694	764	1,405	2,159	1,641	939
South Atlantic.....	6,179				16	65	551	894	640	485
North Central.....	10,755			2	22	74	1,638	2,190	1,555	680
South Central.....	8,983			1	1	47	716	1,575	882	681
Western.....	4,019	6	1	2	21	58	615	676	496	242

GEOGRAPHICAL DIVISIONS.	SENTENCED—continued.								NOT SENTENCED.		
	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.	Minority.	Execu- tion.	Not stated.	Held for trial.	Witnesses.	Insane.
The United States.....	6,685	4,105	5,518	1,628	2,569	9	62	84	51	2	
North Atlantic.....	2,439	1,063	1,317	226	340	9	6	21	12	1	
South Atlantic.....	913	698	1,192	254	462			9			
North Central.....	1,339	983	1,202	432	590		54	28	1		
South Central.....	1,534	933	1,201	513	866			19	14		
Western.....	460	488	606	203	311		2	7	24	1	

SUMMARY, BY GROUPS, OF SENTENCES OF FEMALE PENITENTIARY CONVICTS IN 1890.

GEOGRAPHICAL DIVISIONS.	Aggregate.	SENTENCED.								
		Fines.	10 days.	1 month.	3 months.	6 months.	1 year.	2 years.	3 years.	4 years.
The United States.....	1,791	10	31	33	87	103	355	320	119	53
North Atlantic.....	971	10	31	33	86	95	211	152	36	19
South Atlantic.....	287					3	34	41	26	13
North Central.....	235						69	52	23	9
South Central.....	258				1	1	85	67	27	10
Western.....	40					4	6	8	7	2

GEOGRAPHICAL DIVISIONS.	SENTENCED—continued.								NOT SENTENCED.		
	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.	Minority.	Execu- tion.	Not stated.	Held for trial.	Witnesses.	Insane.
The United States.....	305	76	140	29	110	3		9			
North Atlantic.....	231	20	13	2	21	3		8			
South Atlantic.....	27	32	65	7	39						
North Central.....	16	8	23	7	27			1			
South Central.....	27	13	34	13	30						
Western.....	4	3	6		2						

TABLE I.—PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, BY STATES AND TERRITORIES, SHOWING THE SENTENCES IMPOSED BY THE COURTS IN WHICH THEY WERE CONVICTED.

STATES AND TERRITORIES.	Aggregate.	SENTENCED.								
		Fines.	10 days.	1 month.	3 months.	6 months.	1 year.	2 years.	3 years.	4 years.
The United States	45,233	82	240	204	841	1,111	5,175	7,084	5,333	3,080
North Atlantic division	14,477	70	239	289	780	859	1,610	2,311	1,677	968
Maine	170						7	33	25	20
New Hampshire	110						9	25	18	12
Vermont	91						1	11	18	12
Massachusetts	1,539			1		2	138	317	140	92
Rhode Island	122						43	28	17	6
Connecticut	340				0	8	63	61	31	31
New York	8,190	75	239	213	600	750	695	1,125	655	688
New Jersey	1,537	1		76	157	92	258	270	203	23
Pennsylvania	2,361				5	7	512	432	570	174
South Atlantic division	6,460				16	68	585	935	660	498
Delaware										
Maryland	699						96	119	100	62
District of Columbia										
Virginia	1,167						63	223	121	68
West Virginia	278						34	60	15	19
North Carolina	1,422					4	161	244	177	127
South Carolina	806				7	51	164	162	91	14
Georgia	1,729						42	136	121	182
Florida	374				0	13	35	45	35	26
North Central division	10,990			2	22	74	1,702	2,212	1,578	659
Ohio	1,652						365	265	257	165
Indiana	1,416					1	256	416	171	78
Illinois	2,057						471	334	272	160
Michigan	1,108				16	36	104	141	165	85
Wisconsin	530					6	132	101	69	25
Minnesota	432					5	45	94	41	15
Iowa	623			1	1	18	99	117	98	42
Missouri	1,701						2	541	341	121
North Dakota	65			1		5	11	12	5	6
South Dakota	97					3	19	15	13	8
Nebraska	391				2		80	62	55	32
Kansas	918						121	114	101	66
South Central division	9,241			1	2	48	751	1,042	909	691
Kentucky	1,235						185	281	111	69
Tennessee	1,484					2	180	164	294	99
Alabama	1,085					2	38	214	139	107
Mississippi	429					1	27	42	55	30
Louisiana	855			1	2	41	154	118	39	47
Texas	3,319						6	720	146	285
Indian territory										
Oklahoma										
Arkansas	832					2	161	103	125	54
Western division	4,059	6	1	2	21	62	521	584	503	244
Montana	225						59	30	17	13
Wyoming	10					1	1	2		
Colorado	525				3	1	93	99	101	43
New Mexico	112					11	21	11	19	3
Arizona	144					3	19	11	22	12
Utah	180		1	1	0	25	36	18	13	4
Nevada	96	1				2	12	13	5	
Idaho	192				7	3	6	6	7	6
Alaska										
Washington	251	5		1		8	41	46	35	11
Oregon	362					3	70	70	71	16
California	2,051				2	5	163	269	213	136

TABLE I.—PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, ETC.—CONTINUED.

STATES AND TERRITORIES.	SENTENCED—continued.								NOT SENTENCED.		
	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.	Minority.	Execu- tion.	Not stated.	Held for trial.	Witnesses.	Insane.
The United States.....	6,990	4,180	5,658	1,657	2,688	12	62	93	51	2	
North Atlantic division.....	2,670	1,023	1,330	228	361	12	6	29	12	1	
Maine.....	11	14	17	2	41						
New Hampshire.....	15	10	9	18							
Vermont.....	8	11	17	3	7			2	1		
Massachusetts.....	539	110	167	23	40	12					
Rhode Island.....	5	7	7		9						
Connecticut.....	39	20	34	7	41						
New York.....	1,718	508	746	137	193		6	21	11	1	
New Jersey.....	176	109	143	20	6			6			
Pennsylvania.....	159	228	250	0	15						
South Atlantic division.....	940	730	1,257	261	501			9			
Delaware.....											
Maryland.....	97	100	96	6	6			2			
District of Columbia.....											
Virginia.....	160	199	283	37	8			5			
West Virginia.....	59	29	32	3	20			1			
North Carolina.....	242	114	282	43	38						
South Carolina.....	114	32	107	20	103			1			
Georgia.....	203	228	429	140	248						
Florida.....	65	28	28	12	78						
North Central division.....	1,355	991	1,225	439	617		54	29	1		
Ohio.....	158	198	158	17	117		5	7			
Indiana.....	119	129	99	32	114			1			
Illinois.....	221	179	259	120	94			1			
Michigan.....	173	93	152	53	71			10			
Wisconsin.....	44	35	38	18	71						
Minnesota.....	21	33	25	10	43						
Iowa.....	153	55	76	21	44				1		
Missouri.....	249	91	231	109	15			1			
North Dakota.....	8	9	4		5						
South Dakota.....	8	2	17	5	4						
Nebraska.....	37	42	41	15	24		1				
Kansas.....	164	125	125	39	15		48				
South Central division.....	1,561	946	1,235	526	806			19	14		
Kentucky.....	108	103	143	76	159						
Tennessee.....	198	162	249	73	82			6			
Alabama.....	114	60	169	90	142			2			
Mississippi.....	76	26	50	41	70			11			
Louisiana.....	73	52	107	28	194						
Texas.....	828	464	438	173	259						
Indian territory.....											
Oklahoma.....											
Arkansas.....	169	70	79	45	10				14		
Western division.....	464	490	611	203	313		2	7	24	1	
Montana.....	33	22	32	4	14			1			
Wyoming.....	5										
Colorado.....	53	61	39	10	21		2		1		
New Mexico.....	5	9	11	2	19			1			
Arizona.....	17	12	24	15	9						
Utah.....	12	15	13	3	4			5	20	1	
Nevada.....	5	8	23	11	16						
Idaho.....	14	20	18	7	7				1		
Alaska.....											
Washington.....	26	32	29	12	3				2		
Oregon.....	33	29	28	5	28						
California.....	261	282	394	134	192						

TABLE II.—MALE PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, BY STATES AND TERRITORIES, SHOWING THE SENTENCES IMPOSED BY THE COURTS IN WHICH THEY WERE CONVICTED.

STATES AND TERRITORIES.	Aggregate.	SENTENCED.								
		Fines.	10 days.	1 month.	3 months.	6 months.	1 year.	2 years.	3 years.	4 years.
The United States	43,442	72	209	261	754	1,008	4,820	7,364	5,214	3,027
North Atlantic division	13,506	00	208	256	694	764	1,405	2,159	1,611	939
Maine	165						7	33	25	20
New Hampshire	116						9	25	18	12
Vermont	90						1	11	18	12
Massachusetts	1,313					1	12	242	136	89
Rhode Island	122						43	28	17	6
Connecticut	334				9	8	53	60	31	31
New York	7,661	65	208	192	547	662	556	1,075	635	576
New Jersey	1,470	1		64	134	80	240	265	193	23
Pennsylvania	2,296				4	7	484	420	562	170
South Atlantic division	6,179				16	65	551	894	610	485
Delaware							80	112	102	60
Maryland	659									
District of Columbia										
Virginia	1,082						56	200	113	63
West Virginia	272						33	65	14	19
North Carolina	1,362					4	146	237	167	123
South Carolina	768				7	49	166	160	90	14
Georgia	1,674						38	126	129	181
Florida	392				9	12	33	45	34	25
North Central division	10,755			2	22	74	1,633	2,160	1,555	680
Ohio	1,622						352	261	254	105
Indiana	1,346					1	237	396	161	73
Illinois	2,012						462	329	209	101
Michigan	1,107				16		104	141	105	85
Wisconsin	513					30	6	123	161	50
Minnesota	427					5	44	93	41	15
Iowa	614			1	1	18	92	116	66	42
Missouri	1,665						2	625	339	140
North Dakota	63			1		5	11	12	5	5
South Dakota	96				3	3	18	15	13	8
Nebraska	386				2		70	60	64	32
Kansas	904						119	111	99	66
South Central division	8,983			1	1	47	710	1,575	882	681
Kentucky	1,188						170	207	108	68
Tennessee	1,439					2	174	158	282	96
Alabama	1,021					2	33	194	136	104
Mississippi	412					1	27	40	49	29
Louisiana	828			1	1	40	149	115	30	40
Texas	3,274						6	698	144	294
Indian territory										
Oklahoma										
Arkansas	821					2	157	103	124	54
Western division	4,019	6	1	2	21	58	615	576	490	242
Montana	221						67	30	17	12
Wyoming	10					1	1	2		
Colorado	622				3	1	93	97	100	43
New Mexico	107					7	21	11	18	3
Arizona	143					3	19	11	22	12
Utah	179		1	1	9	25	35	18	13	4
Nevada	95	1				2	12	13	6	
Idaho	102				7	3	6	0	7	6
Alaska										
Washington	250	5		1		8	41	40	35	11
Oregon	360					3	69	78	71	16
California	2,030				2	5	161	264	208	135

TABLE II.—MALE PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, ETC.—CONTINUED.

STATES AND TERRITORIES.	SENTENCED—continued.								NOT SENTENCED.		
	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.	Minority.	Execu- tion.	Not stated.	Held for trial.	Witnesses.	Insane.
The United States.....	6, 685	4, 165	5, 518	1, 628	2, 569	9	62	84	51	2	
North Atlantic division.....	2, 439	1, 063	1, 317	226	340	9	6	21	12	1	
Maine.....	11	13	17	2	37						
New Hampshire.....	14	10	9	18							
Vermont.....	8	11	17	2	7			2	1		
Massachusetts.....	536	109	107	23	49	9					
Rhode Island.....	5	7	7		9						
Connecticut.....	38	25	34	7	138						
New York.....	1, 498	500	737	137	82		6	13	11	1	
New Jersey.....	171	106	142	28	5			6			
Pennsylvania.....	158	222	247	9	13						
South Atlantic division.....	913	698	1, 192	254	462			9			
Delaware.....											
Maryland.....	94	98	90	6	6			2			
District of Columbia.....											
Virginia.....	152	179	261	37	7			5			
West Virginia.....	67	29	31	3	26			1			
North Carolina.....	236	110	270	38	31						
South Carolina.....	110	30	62	20	99			1			
Georgia.....	201	224	421	130	224						
Florida.....	63	28	27	11	75						
North Central division.....	1, 330	983	1, 202	432	590		54	28	1		
Ohio.....	158	196	154	17	114		5	6			
Indiana.....	116	128	99	31	103			1			
Illinois.....	217	176	253	118	93			1			
Michigan.....	173	93	162	53	70			19			
Wisconsin.....	44	35	37	17	65						
Minnesota.....	121	33	25	9	41						
Iowa.....	53	55	74	21	44				1		
Missouri.....	242	91	224	107	15			1			
North Dakota.....	8	8	4		4						
South Dakota.....	8	2	17	5	4						
Nebraska.....	37	42	40	15	24			1			
Kansas.....	162	124	123	39	13			48			
South Central division.....	1, 634	933	1, 201	513	806			19	14		
Kentucky.....	107	160	139	75	154						
Tennessee.....	187	158	244	72	69			6			
Alabama.....	110	69	154	86	131			2			
Mississippi.....	74	25	48	38	70			11			
Louisiana.....	71	52	102	27	185						
Texas.....	818	459	438	171	250						
Indian territory.....											
Oklahoma.....											
Arkansas.....	167	70	76	44	10				14		
Western division.....	460	488	606	203	311		2	7	24	1	
Montana.....	33	22	31	4	14			1			
Wyoming.....	5								1		
Colorado.....	53	41	38	10	21		2				
New Mexico.....	5	9	11	2	19						
Arizona.....	17	12	23	15	9			1			
Utah.....	12	15	13	3	4			5	20	1	
Nevada.....	5	8	22	11	16						
Idaho.....	14	20	18	7	7				1		
Alaska.....											
Washington.....	26	32	29	12	2				2		
Oregon.....	33	29	28	5	28						
California.....	257	280	393	134	191						

TABLE III.—FEMALE PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, BY STATES AND TERRITORIES, SHOWING THE SENTENCES IMPOSED BY THE COURTS IN WHICH THEY WERE CONVICTED.

STATES AND TERRITORIES.	Aggregate.	SENTENCES.								
		Fines.	10 days.	1 month.	3 months.	6 months.	1 year.	2 years.	3 years.	4 years.
The United States	1,791	10	31	33	87	103	355	320	119	53
North Atlantic division	971	10	31	33	86	95	211	152	30	19
Maine	5									
New Hampshire	1									
Vermont	1									
Massachusetts	217			1		1	126	75	4	3
Rhode Island										
Connecticut	6							1		
New York	589	10	31	21	62	88	39	50	20	12
New Jersey	87			11	23	6	18	14	4	
Pennsylvania	65				1		28	12	8	4
South Atlantic division	287					3	34	41	26	13
Delaware							7	7	4	2
Maryland	31									
District of Columbia										
Virginia	85						7	14	8	5
West Virginia	6						1	1	1	
North Carolina	69						5	7	10	4
South Carolina	38					2	8	2	1	
Georgia	55						4	10	1	1
Florida	12					1	2		1	1
North Central division	235						69	52	23	9
Ohio	30						13	4	3	
Indiana	70						19	20	10	6
Illinois	45						19	5	3	2
Michigan	1									
Wisconsin	17						9			
Minnesota	5						1	1		
Iowa	9						4	1	2	
Missouri	36							16	2	2
North Dakota	2									
South Dakota	1						1			
Nebraska	5						1	2	1	
Kansas	14						2	3	2	
South Central division	258				1	1	35	67	27	10
Kentucky	47						15	14	3	1
Tennessee	45						6	6	12	3
Alabama	65						5	20	3	3
Mississippi	17							2	6	1
Louisiana	28				1	1	5	3	1	1
Texas	45							22	2	1
Indian territory										
Oklahoma									1	
Arkansas	11						4			
Western division	40					4	6	8	7	2
Montana	4						2			1
Wyoming										
Colorado	4							2	1	
New Mexico	5					4			1	
Arizona	1									
Utah	1						1			
Nevada	1									
Idaho										
Alaska										
Washington	1									
Oregon	2						1	1		
California	21						2	5	5	1

TABLE III.—FEMALE PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, ETC.—CONTINUED.

STATES AND TERRITORIES.	SENTENCED—continued.								NOT SENTENCED.		
	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.	Minority.	Execution.	Not stated.	Held for trial.	Witnesses.	Insane.
The United States	305	75	140	29	119	3		9			
North Atlantic division	231	20	13	2	21	3		8			
Maine		1			4						
New Hampshire	1										
Vermont				1							
Massachusetts	3	1				3					
Rhode Island											
Connecticut	1	1			3						
New York	220	8	9		11			8			
New Jersey	5	3	1	1	1						
Pennsylvania	1	6	3		2						
South Atlantic division	27	32	65	7	39						
Delaware											
Maryland	3	2	6								
District of Columbia											
Virginia	8	20	22		1						
West Virginia	2		1								
North Carolina	6	4	12	5	7						
South Carolina	4	2	15		4						
Georgia	2	4	8	1	24						
Florida	2		1	1	3						
North Central division	16	8	23	7	27			1			
Ohio		2	4		3						
Indiana	3	1		1	11			1			
Illinois	4	3	6	2	1						
Michigan					1						
Wisconsin			1	1	6						
Minnesota				1	2						
Iowa			2								
Missouri	7		7	2							
North Dakota		1			1						
South Dakota											
Nebraska			1								
Kansas	2	1	2		2						
South Central division	27	13	34	13	30						
Kentucky	1	3	4	1	5						
Tennessee	6	4	5	1	2						
Alabama	4		15	4	11						
Mississippi	2	1	2	3							
Louisiana	2		5	1	9						
Texas	10	5		2	3						
Indian territory											
Oklahoma											
Arkansas	2		3	1							
Western division	4	2	5		2						
Montana			1								
Wyoming											
Colorado			1								
New Mexico											
Arizona			1								
Utah											
Nevada			1								
Idaho											
Alaska											
Washington					1						
Oregon											
California	4	2	1		1						

In order to ascertain the difference in degree of severity of sentences imposed in different sections of the country, the following comparisons should be made. The long sentences should be reduced to percentages, by geographical groups, as follows:

BOTH SEXES.

GEOGRAPHICAL DIVISIONS.	Total.	1 year.	2 years.	3 years.	4 years.	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.
The United States -----	100.00	12.19	18.10	12.67	7.26	16.47	9.85	13.33	3.90	6.33
North Atlantic -----	100.00	13.27	18.98	13.78	7.87	21.93	8.40	10.93	1.87	2.97
South Atlantic -----	100.00	9.18	14.67	10.45	7.81	14.75	11.46	19.72	4.10	7.86
North Central -----	100.00	15.75	20.47	14.60	6.37	12.54	9.17	11.33	4.66	5.71
South Central -----	100.00	8.20	17.93	9.93	7.56	17.05	10.33	13.49	6.74	9.78
Western -----	100.00	13.25	14.85	12.79	6.20	11.80	12.46	15.63	5.16	7.96

MALE CONVICTS.

GEOGRAPHICAL DIVISIONS.	Total.	1 year.	2 years.	3 years.	4 years.	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.
The United States -----	100.00	11.78	17.99	12.74	7.39	16.33	13.03	13.48	3.98	6.28
North Atlantic -----	100.00	12.26	18.82	14.31	8.19	21.27	8.76	11.48	1.97	2.96
South Atlantic -----	100.00	9.05	14.68	10.51	7.97	14.99	11.46	19.58	4.17	7.69
North Central -----	100.00	15.44	20.43	14.71	6.43	12.66	9.30	11.37	4.08	5.68
South Central -----	100.00	8.05	17.70	9.91	7.65	17.23	10.48	13.49	5.70	9.73
Western -----	100.00	13.22	14.78	12.73	6.21	11.80	12.62	15.55	5.21	7.98

FEMALE CONVICTS.

GEOGRAPHICAL DIVISIONS.	Total.	1 year.	2 years.	3 years.	4 years.	5 years.	6 to 9 years.	10 to 19 years.	20 years and over.	Life.
The United States -----	100.00	23.43	21.12	7.86	3.50	20.13	4.95	9.24	1.91	7.86
North Atlantic -----	100.00	29.93	21.56	5.11	2.60	32.77	2.84	1.84	0.28	2.98
South Atlantic -----	100.00	11.97	14.44	9.15	4.58	9.61	11.27	22.89	2.46	13.73
North Central -----	100.00	29.49	22.22	9.83	3.84	6.84	3.42	9.83	2.99	11.54
South Central -----	100.00	13.07	26.17	10.55	3.91	10.55	5.08	13.28	5.08	11.71
Western -----	100.00	16.67	22.22	19.44	5.66	11.11	5.66	13.89	-----	5.65

A critical examination of the foregoing table shows a much more positive tendency to long sentences in the south and west than in the north and east.

Of prisoners sentenced for one year, the largest percentages are found in the North Central, North Atlantic, and Western divisions. The same is true of the three-year prisoners.

Of prisoners sentenced for two years, the largest percentages are found in the North Central, North Atlantic, and South Central divisions.

Of prisoners sentenced for four years, the largest percentages are found in the North Atlantic, South Atlantic, and South Central divisions.

Of prisoners sentenced for five years, the largest percentages are found in the North Atlantic, South Central, and South Atlantic divisions.

Of all sentenced for more than five years, or for life, the largest percentages are found in the South Central, Western, and South Atlantic divisions.

The same fact may be stated in another way. Of the total number of penitentiary convicts serving long sentences, 45.9 per cent are found in the South Atlantic, South Central, and Western divisions; but these three groups report 63.6 per cent of the life prisoners, 59.7 per cent of those sentenced for twenty years and over, 54.8 per cent of those sentenced for ten years and less than twenty, and 51.8 per cent of those sentenced for six years and less than ten.

A larger percentage of women than of men serve comparatively short sentences; that is to say, sentences of one or two years. Of the male convicts, about one-half are sentenced for less than five years; but of the female convicts more than one-half are sentenced for less than four years. It is, however, worthy of remark that the percentage of life prisoners among women is greater than among men, being in the former case 7.86 and in the latter 6.28, a difference of 1.58 per cent. The percentage of women who serve a five-year sentence is also in excess, the difference being 3.80 per cent.

In Tables I, II, and III the individual sentences are not given; the sentences are grouped. In Table IV, which follows, all sentences under one year or for life are omitted, also all prisoners not sentenced, and the individual long sentences are shown, including all fractional sentences. As

TABLE IV.—SHOWING THE KIND AND NUMBER OF LONG SENTENCES, ETC.—CONTINUED

TERM OF SENTENCE IN YEARS.	Aggregate.	Straight sentences.	FRACTIONAL SENTENCES IN MONTHS.											AGGREGATE AMOUNT OF IMPRISONMENT.			
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Years.	Months.		
Fifty.....	52	52														2,000	
Fifty-one.....																	
Fifty-two.....																	
Fifty-three.....																	
Fifty-four.....																	
Fifty-five.....	4	4														220	
Fifty-six.....																	
Fifty-seven.....	1	1														57	
Fifty-eight.....																	
Fifty-nine.....																	
Sixty.....	8	8														480	
Sixty-one.....																	
Sixty-two.....																	
Sixty-three.....																	
Sixty-four.....																	
Sixty-five.....																	
Sixty-six.....																	
Sixty-seven.....																	
Sixty-eight.....																	
Sixty-nine.....																	
Seventy.....	1	1														70	
Seventy-one.....																	
Seventy-two.....																	
Seventy-three.....	1	1														73	
Seventy-four.....																	
Seventy-five.....	8	8														600	
Seventy-six.....																	
Seventy-seven.....																	
Seventy-eight.....																	
Seventy-nine.....																	
Eighty.....	1	1														80	
Eighty-one.....																	
Eighty-two.....																	
Eighty-three.....																	
Eighty-four.....																	
Eighty-five.....																	
Eighty-six.....																	
Eighty-seven.....																	
Eighty-eight.....																	
Eighty-nine.....																	
Ninety.....																	
Ninety-one.....																	
Ninety-two.....																	
Ninety-three.....																	
Ninety-four.....																	
Ninety-five.....	1	1														95	
Ninety-six.....																	
Ninety-seven.....																	
Ninety-eight.....																	
Ninety-nine.....	55	55														5,445	

The student who examines the foregoing table must be impressed with the large number of fractional sentences reported:

More than one year and less than two years.....	1,680
More than two years and less than three years.....	1,389
More than three years and less than four years.....	632
More than four years and less than five years.....	413
More than five years and less than six years.....	172
More than six years and less than seven years.....	150
More than seven years and less than eight years.....	149
More than eight years and less than nine years.....	43
More than nine years and less than ten years.....	75
More than ten years and less than eleven years.....	59
More than eleven years and less than twelve years.....	26
More than twelve years and less than thirteen years.....	39
More than thirteen years and less than fourteen years.....	9
More than fourteen years and less than fifteen years.....	11
More than fifteen years and less than sixteen years.....	17
More than sixteen years and less than seventeen years.....	6
More than seventeen years and less than eighteen years.....	13
More than eighteen years and less than nineteen years.....	8
More than nineteen years and less than twenty years.....	13
More than twenty years and less than twenty-one years.....	3
More than twenty-one years and less than twenty-two years.....	4
More than twenty-two years and less than twenty-three years.....	2
More than twenty-four years and less than twenty-five years.....	2
More than twenty-five years and less than twenty-six years.....	2
More than twenty-nine years and less than thirty years.....	1
Total.....	4,850

This is 12.22 per cent, or very nearly one-eighth of the entire number.

These fractional sentences represent imprisonment to the amount, in the aggregate, of 16,942 years and 5 months, which is 2,361 years and 5 months in excess of that which would have been pronounced, if the extra months had been omitted.

The distribution of fractional sentences among the states, in the order of their comparative frequency, is as follows: New York, 1,936; Pennsylvania, 783; Maryland, 209; New Jersey, 185; Ohio, 149; Illinois, 126; Michigan, 121; California, 115; Iowa, 103; Kansas and Louisiana, each, 88; Minnesota, 87; South Carolina, 72; Massachusetts, 66; Alabama, 63; Indiana, 59; Kentucky, 53; Tennessee, 47; North Carolina, 46; Nebraska, 42; Colorado, 40; Virginia and Wisconsin, each, 37; Arkansas, 33; Texas, 28; Connecticut, 26; Oregon, South Dakota, and Utah, each, 22; Missouri, 20; Rhode Island, 19; North Dakota, 18; Montana and Washington, each, 15; Georgia, 11; Maine and Nevada, each, 10; Idaho and West Virginia, each, 9; Vermont, 5; New Hampshire and New Mexico, each, 4; Mississippi, 3; Arizona and Wyoming, each, 1. The only state or territory in which there is a penitentiary in which no convict has received a fractional sentence is Florida.

Counting these fractional sentences and the non-fractional sentences of the next lower number of years together, it will be observed that the order of sentences in frequency is as follows: Two years, 7,684; five years, 6,990; three years, 5,333; one year, 5,175; ten years, 3,165; four years, 3,080; seven years, 1,553; six years, 1,317; total, 34,297. In other words, nearly seven-eighths of all penitentiary sentences fall under one of the eight varieties here mentioned. The same remark is true, substantially, of the long sentences reported in the Tenth Census. The ratio of sentences of these eight periods was then about six-sevenths, or not quite so large; but the order of the eight sentences ten years ago was precisely the same as now, with a single exception, namely, that then the number of four-year sentences was a trifle in excess of those for ten years.

The last two columns of Table IV show the aggregate amount of imprisonment or duration of sentence for each class of sentences imposed. The largest aggregates are as follows: Five years, 35,038; ten years, 31,673; three years, 16,305; twenty years, 16,261; two years, 16,048; fifteen years, 14,018; four years, 12,533; seven years, 10,943. There is very little difference in the total duration of sentence between prisoners sentenced for one year, for twenty-five years, and for ninety-nine years, though the number of prisoners in each group differs widely from that in the other two.

In Table V, which follows, the aggregate duration of sentence is shown by elements of the population.

TABLE V.—SHOWING THE AGGREGATE DURATION OF SENTENCES, ETC.—CONTINUED.

SENTENCES IN YEARS.	WHITE.												COLORED.					
	AGGREGATE.		Parents native.		Father native.		Mother native.		Parents foreign.		One or both parents unknown.		Foreign born.		Nativity unknown.		Years.	Months.
	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.
Thirty-nine	39																39	
Forty	1,800		440					240									880	
Forty-one	41																41	
Forty-two	84		42														42	
Forty-three	43																43	
Forty-five	90		90															
Forty-seven	94																47	
Forty-eight	240		48					48									48	
Forty-nine	98		98															
Fifty	2,000		600				50	200									1,200	
Fifty-five	220		110														110	
Fifty-seven	57																	
Sixty	480		120														300	
Seventy	70																60	
Seventy-three	73							73									70	
Seventy-five	600		75					75									450	
Eighty	80																80	
Ninety-five	95		95															
Ninety-nine	5,445		495					99									594	
																	4,158	

The foregoing table is for both sexes, but the aggregate duration of sentences for each sex separately is shown in the following statement:

AGGREGATE DURATION OF SENTENCES FOR EACH SEX.

SEX.	AGGREGATE.		PARENTS NATIVE.		FATHER NATIVE.		MOTHER NATIVE.	
	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.
Both sexes.....	228, 210	5	61, 335	2	3, 144	8	4, 636	7
Male.....	221, 808	8	63, 406	7	3, 094	8	4, 661	1
Female.....	6, 401	6	928	7	50		32	6

SEX.	PARENTS FOREIGN.		ONE OR BOTH PARENTS UNKNOWN.		FOREIGN BORN.		NATIVITY UNKNOWN.		COLORED.	
	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.	Years.	Months.
Both sexes.....	27, 547	8	8, 267	9	32, 886	5	632	3	86, 359	11
Male.....	27, 368	2	7, 672	1	32, 168	10	668	9	82, 885	6
Female.....	579	6	595	8	717	7	23	6	3, 474	5

The following statement exhibits the average sentences imposed, by sex and by elements of the population :

AVERAGE SENTENCES IMPOSED, BY SEX AND BY ELEMENTS OF POPULATION.

SEX.	AGGREGATE.		PARENTS NATIVE.		FATHER NATIVE.		MOTHER NATIVE.		PARENTS FOREIGN.		ONE OR BOTH PARENTS UNKNOWN.		FOREIGN BORN.		NATIVITY UNKNOWN.		COLORED.	
	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.
Both sexes.....	5	270	5	208	5	47	4	354	4	286	5	124	5	193	3	290	6	183
Male.....	5	285	5	215	5	84	5	4	4	339	5	175	5	237	3	329	6	191
Female.....	4	215	4	226	2	139	2	117	3	193	4	29	2	310	2	128	5	332

The average sentence, taking all sentences less than for life together and omitting all for less than one year, is 5 years and 270 days, or about five years and three-quarters. The average is higher than it would be, were it not for the fact that a small number of very long sentences may represent a longer duration of imprisonment, in the aggregate, than a much larger number of short sentences.

Table VI exhibits the average sentence of penitentiary convicts, by states. In the calculations on which this table is based, non-sentenced prisoners and prisoners sentenced for life were omitted, but short-term prisoners were included.

Attention is called to the surprising variations in averages for different states, ranging from 2 years and 356 days in Rhode Island to 12 years and 116 days in Mississippi. The order of states, arranged according to the degree of severity of punishment inflicted, is as follows: Mississippi, Nevada, Georgia, Arizona, Alabama, Texas, New Hampshire, Virginia, Idaho, Vermont, Missouri, Tennessee, Kansas, Michigan, Illinois, Washington, South Dakota, North Carolina, Kentucky, Arkansas, Maryland, Iowa, Louisiana, Nebraska, Montana, West Virginia, Maine, California, Connecticut, Florida, Massachusetts, Minnesota, New Mexico, South Carolina, Colorado, Wisconsin, Ohio, New York, Pennsylvania, Indiana, Oregon, North Dakota, Utah, New Jersey, Wyoming, and Rhode Island.

There is no discoverable law of association in the foregoing list, as will be still more apparent, if the reader will take groups of states geographically related to each other. For instance, the average sentence in Maine is 4 years 304 days, but in New Hampshire 7 years 80 days. In Indiana it is 4 years 32 days, but in Illinois 5 years 272 days. In Wisconsin it is 4 years 132 days, but in Michigan 5 years 287 days. In Virginia it is 7 years 13 days, but in West

To complete the present bulletin, Table VII is appended, in which the distribution of sentences by elements of the population is shown.

TABLE VII.—DISTRIBUTION OF SENTENCES OF CONVICTS IN PENITENTIARIES IN 1890, BY ELEMENTS OF THE POPULATION.

SENTENCES.	Aggregate.	WHITE.								COLORED.	
		Total white.	Native.						Foreign born.		Nativity unknown.
			Total.	Parents.	Father.	Mother.	Parents foreign.	One or both parents unknown.			
Aggregate.....	45,233	30,536	23,095	12,842	707	1,040	6,584	1,022	7,267	184	14,687
Male.....	43,442	29,428	22,392	12,582	680	1,022	6,360	1,739	6,863	173	14,014
Female.....	1,791	1,118	703	260	27	18	215	183	404	11	673
Serving fine.....	82	80	41	10			12	19	39		2
Male.....	72	70	35	8			11	16	35		2
Female.....	10	10	6	2			1	3	4		
Ten days to one month.....	240	232	147	6		1	6	134	85		8
Male.....	209	202	131	5		1	5	123	68		7
Female.....	31	30	13	1			1	11	17		1
One to three months.....	294	281	180	38	0	2	69	41	101		13
Male.....	261	252	165	36	5	2	82	40	87		9
Female.....	33	29	15	2	1		11	1	14		4
Three to six months.....	841	786	497	156	26	28	260	27	288	1	65
Male.....	751	705	459	144	21	20	244	21	245	1	49
Female.....	87	81	38	12	2	2	16	6	43		6
Six months to one year.....	1,111	969	618	236	30	20	283	43	351		142
Male.....	1,008	874	579	221	29	26	263	40	295		134
Female.....	103	95	39	15	1		20	3	56		8
One year.....	5,175	3,714	2,828	1,611	87	144	783	293	854	32	1,461
Male.....	4,820	3,459	2,679	1,551	80	138	731	179	752	28	1,361
Female.....	355	255	149	60	7	6	52	21	102	4	100
Two years.....	7,684	5,270	4,073	2,234	131	178	1,212	318	1,148	49	2,414
Male.....	7,364	5,094	3,971	2,194	122	174	1,185	290	1,076	47	2,270
Female.....	320	176	102	40	9	4	27	22	72	2	144
Three years.....	5,333	3,657	2,863	1,612	100	132	808	211	769	25	1,676
Male.....	5,214	3,607	2,837	1,600	99	131	801	206	747	23	1,607
Female.....	119	50	26	12	1	1	7	5	22	2	69
Four years.....	3,080	2,026	1,539	857	40	72	469	101	475	12	1,054
Male.....	3,027	1,999	1,525	848	39	72	467	99	463	11	1,028
Female.....	53	27	14	9	1		2	2	12	1	26
Five years.....	6,030	4,885	3,802	1,957	99	180	1,196	379	1,058	25	2,105
Male.....	5,685	4,650	3,594	1,905	98	177	1,131	283	1,032	21	2,035
Female.....	305	235	208	52	1	3	65	87	26	1	70
Six to nine years.....	4,180	2,703	2,075	1,255	62	93	637	128	620	8	1,377
Male.....	4,105	2,678	2,059	1,250	60	93	631	125	611	8	1,327
Female.....	75	25	16	5	2		6	3	9		50
Ten to nineteen years.....	5,658	3,322	2,492	1,564	70	112	683	157	816	14	2,339
Male.....	5,518	3,291	2,468	1,548	76	112	678	154	809	14	2,227
Female.....	140	31	24	16			5	3	7		109
Twenty years and over.....	1,657	896	687	469	18	22	128	59	208	1	761
Male.....	1,628	887	690	453	18	22	128	59	206	1	741
Female.....	29	9	7	7					2		20
Life.....	2,688	1,542	1,111	774	26	41	380	90	422	9	1,146
Male.....	2,569	1,489	1,075	750	24	39	379	83	406	8	1,080
Female.....	119	53	36	24	2	2	1	7	16	1	66
Minority.....	12	11	11	5	1		4	1			1
Male.....	9	8	8	4	1		3				1
Female.....	3	3	3	1			1	1			



[7-010]

CENSUS BULLETIN.

No. 107.

WASHINGTON, D. C.

August 27, 1891.

AGRICULTURE.—IRRIGATION IN WYOMING.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., August 18, 1891.

This bulletin, the fourth of the series devoted to irrigation in the arid states and territories, has been prepared by Mr. F. H. NEWELL, special agent of the Census Office for the collection of statistics of irrigation, under the direction of Mr. JOHN HYDE, special agent in charge of the Division of Agriculture, and relates to the state of Wyoming, in which there are 1,917 farms that are irrigated out of a total number of 3,246. The total area of land in these 1,917 farms is 1,506,850 acres, upon 229,676 acres of which crops were raised by irrigation in the year 1889. In addition to the irrigated area from which crops were cut or gathered, there were approximately 240,000 acres irrigated for grazing purposes. The average size of the irrigated farms, or, more strictly, of irrigated portions of farms on which crops were raised, is 119 acres. The average first cost of water right is \$3.62 per acre, and the average cost of preparing the soil for cultivation, including the purchase price of the land, is \$9.48 per acre. The average present value of the irrigated land of the state, including buildings, etc., is reported as \$31.40 per acre, showing an apparent profit, less cost of buildings, of \$18.30 per acre. The average annual cost of water is \$0.44 per acre, which, deducted from the average annual value of products per acre, leaves an average annual return of \$7.81 per acre.

The tendency throughout the entire arid region to describe as irrigated all land to which water has been applied within any recent period by artificial means, land to which ditches perhaps so far destitute of water have been constructed, and even land for which water rights merely are claimed, has placed the Census Office under the necessity of absolutely restricting itself in its official bulletins on irrigation to land on which crops were actually raised by the artificial application of water during the year 1889. The farms or stock ranches in Wyoming irrigated merely for grazing purposes have therefore not been taken into account in this bulletin beyond the foregoing statement as to their approximate total area.

Superintendent of Census.

IRRIGATION IN WYOMING.

BY P. H. NEWELL.

In Wyoming crops were raised by irrigation in the census year ending June 30, 1890, on 229,676 acres, or 358.87 square miles, nearly four-tenths of 1 per cent of the entire area of the state. The enumerators' schedules indicate that probably nine-tenths of this crop area was devoted to the raising of various kinds of forage. In addition to the irrigated area from which crops were cut or gathered there were approximately 240,000 acres irrigated for grazing purposes. The exact amount, however, can not be ascertained on account of conflicting statements. In previous bulletins of this series only the irrigated acreage in crop has been given, for the reason that reliable statistics concerning the acreage irrigated, but upon which no crops were produced, are practically unobtainable. In Wyoming and other states where cattle raising is an important industry great areas are watered, with various degrees of thoroughness, for the purpose of raising feed for cattle. Individual ideas vary widely as to the use of the term "irrigated" in this connection, and therefore for accuracy and clearness, as well as for the purpose of making comparisons with the area of crops irrigated in other states and territories, this restricted use of the word "irrigated" has been adopted.

The aggregate number of farms in Wyoming on July 1, 1890, was 3,246, and of these 1,917 or nearly six-tenths contained irrigated areas, the remaining four-tenths being stock ranches upon which no irrigation was practised. The total area of land in these 1,917 farms was 1,506,850 acres, showing that the crops irrigated formed on an average 15.24 per cent of the entire extent of the farms.

The average size of the irrigated farms, or rather of irrigated portions of farms on which crops were raised, was 119 acres. Using the word "farm" to include only those areas upon which crops were raised, the following classification has been made: 49 irrigated farms of 640 acres or upward, 93 of from 320 to 640 acres, and 161 of from 160 to 320 acres. These 303 farms contained an average of 494 acres each, and had a total area of 149,714 acres, or over 65 per cent of the entire amount watered in the state. The remaining 1,614 farms under 160 acres in size comprised nearly 35 per cent of the total irrigated area and averaged 50 acres each.

COUNTIES.	Number of irrigators.	Total irrigated acreage in crop.	Average size of irrigated farms in acres.	Average value of products per acre.
Total	1,917	229,676	119	\$8.25
Albany	135	31,522	276	9.30
Carbon	272	39,869	147	6.83
Converse	72	6,890	96	6.72
Crook	59	3,027	51	10.15
Fremont	217	15,512	71	12.25
Johnson	278	28,106	101	7.97
Laramie	208	33,853	163	12.41
Natrona	43	5,547	129	(c)
Sheridan	204	29,722	101	6.91
Sweetwater	20	1,362	68	(c)
Uinta	324	30,918	95	6.09
Weston	5	348	70	7.59

^a Returns of values of products not complete.

The results shown in the above table were obtained by the compilation of the enumerators' returns of the area of crop and the value of products for each irrigator in the state. The principal industry of Wyoming is the raising of sheep and cattle, and therefore, as might be expected, the crop is mainly for forage, and the average size of irrigated farms is very large as compared with those in the states and territories where fruits and vegetables form a large percentage of the products. As a

general rule the irrigated farms are the smallest in the counties whose altitude is lowest and where agriculture proper gains in relative importance, although the presence of a few large ranches brings up the average and obscures the operation of this rule.

The average value of products given by the enumerators is not unfrequently very low, especially in the cases of great ranches where forage crops are raised for the purpose of feeding stock during the winter. The value of crops, at all times a difficult thing to estimate, is more than ordinarily so in these cases, since it becomes a matter of judgment to discriminate between the value of the forage eaten by the cattle and the increased value of the cattle themselves. As a consequence there is a wide range of values, and the greater the number of individual cases considered the more reliable are the values.

The average first cost for the entire state of bringing water to the land is estimated from the statements of the farmers themselves to have been \$3.62 per acre. This extremely low cost is due to the fact that there have been included many of the so-called "high water" ditches, which were built to a large extent by plow and scraper in the cheapest possible manner, bringing under ditch comparatively large areas of hay land, upon which no further labor for distributing the water was expended. It is also probable that in many instances the expense of laterals for distributing the water was thrown into the cost of preparing the land for cultivation. The averages, by counties, range from \$2.27 per acre to \$6.60 per acre. The average selling value placed by the irrigators upon these water rights is \$8.69 per acre. This is the price which the water rights, if transferable without the land, might be expected to bring per acre.

The average annual expense of maintaining ditches, of repairing breaks in the headworks or main ditch, and of cleaning out sediment, wherever this is deposited, is estimated by the farmers at 44 cents per acre, the averages from the different counties ranging from 26 cents to \$1.07.

The average cost of preparing the land for cultivation, excluding the cost of bringing the water thereto, but including such items as plowing, breaking sage brush, and fencing, as taken from the statements of the irrigators, was \$8.23 per acre. Assuming the government rate, \$1.25 per acre, as the original cost of the land, the cost of preparing the ground as \$8.23 per acre and the cost of bringing the water to the land as \$3.62 per acre, the total cost to the irrigator of the tilled land was \$13.10 per acre. In comparison with this the estimated present value of the land on which crops were raised by irrigation, including buildings, fences, and other improvements, is placed at an average of \$31.40 per acre, showing an apparent profit, less cost of buildings, of \$18.30 per acre.

Deducting the average annual expense for water, 44 cents per acre, from the average annual value of productions, \$8.25 per acre, it appears that the average annual return per acre is \$7.81.

In the following table the more important of the foregoing statements are compared with those for Arizona, the statistics for which were published in Bulletin No. 35, dated February 27, 1891; for New Mexico, contained in Bulletin No. 60, dated April 30, 1891, and for the adjoining territory of Utah, in Bulletin No. 85, dated June 29, 1891.

ITEMS.	Arizona.	New Mexico.	Utah.	Wyoming.
Total irrigated acreage in crop.....	65,821	91,745	263,473	229,676
Total number of irrigators.....	1,075	3,085	9,724	1,917
Average size of irrigated farms, in acres.....	61	30	27	119
Average size of irrigated farms of 160 acres and upward, in acres.....	287	312	312	494
Per cent of acreage of irrigated farms of 160 acres and upward to total acreage irrigated.	34	21	10	65
Average size of irrigated farms under 160 acres, in acres.....	43	24	25	50
Average first cost of water right per acre.....	\$7.07	\$5.58	\$10.55	\$3.62
Average annual cost of water per acre.....	\$1.55	\$1.54	\$0.91	\$0.44
Average first cost per acre of preparation for cultivation.....	\$8.60	\$11.71	\$14.85	\$8.23
Average present value of irrigated land, including buildings, etc., per acre.	\$48.68	\$30.98	\$84.25	\$31.40
Average annual value of products per acre.....	\$13.92	\$12.80	\$18.03	\$8.25

A comparison of the figures in this table brings out clearly the difference in the character of the agricultural operations in Wyoming from those in the territories previously discussed. The greatest

contrast is between Utah and Wyoming, which political divisions, although adjoining each other, occupy almost the extreme positions as regards methods and character of agriculture. The total acreage in crops does not differ so widely, but the greatest contrast is shown in the number of irrigators and in the average size of irrigated farms, the word "farm" in this case being used, as previously stated, to mean the irrigated crop area only. In Utah the land is greatly subdivided, the average size of irrigated farms being 27 acres as against 119 in Wyoming.

Taking out the larger irrigated farms, that is, those over 160 acres in extent, and considering them independently, the divergence is still greater, those in Utah forming only 10 per cent of the total crop area irrigated, while those in Wyoming comprise no less than 65 per cent of the corresponding area in that state. In Wyoming therefore great acreages are the rule, and in Utah the exception. This wide difference arises, of course, from the fact that in the one case hay, which requires little personal attention, is the principal crop, while in the other case all the varied products of the temperate zone are cultivated with the greatest care and with a large outlay of personal toil by the owner of the farm, the difference in results being shown by the average annual value of products, \$8.25 for Wyoming and \$18.03 for Utah.

With the difference in character of agriculture is a corresponding difference in first cost of irrigation, that of Wyoming being about one-third that of Utah, while the annual cost of water per acre is less than one-half that of Utah and less than one-third that of Arizona or New Mexico. The land has also been prepared for cultivation as a rule with less expenditure, the average for Wyoming being \$8.23 per acre against \$14.85 per acre in Utah, and, as might be expected, the value placed upon the irrigated lands of Wyoming is correspondingly less. These comparisons are introduced to show the differences in irrigation that must necessarily arise in adjoining areas where the topography and climate are radically different, and to illustrate the fact that in all legislation, both general and local, these contrasts must be recognized, and that regulations favorable for one section of the arid lands may not be applicable to another. The greatest success under one climate may be achieved by minutely subdividing the land, and in another climate by holding it in larger areas, the agricultural possibilities under the two climates being diametrically opposite.

Wyoming lies principally within the northwesterly portion of the Great Plains. The continental divide crosses the state diagonally, running in a general northwest and southeast direction, the southwestern corner of the state containing the headwaters of streams flowing into the Great Interior Basin or southward to the Colorado river. From the continental divide the land as a whole falls gradually to the north and east toward the Yellowstone and Missouri, the rivers flowing either northward into the Yellowstone or eastward down the slope of the Great Plains.

This gentle slope toward the Missouri is interrupted in several instances by mountain ranges, whose course is in general slightly west of north and east of south, the most conspicuous examples being the Bighorn range in the northern part of the state and the Medicine Bow and Laramie ranges in the southern part. These, with the Wind River and Absaroka ranges, induce most of the precipitation of the state, and to their presence is due the greater part of the agricultural possibilities of Wyoming, for from these mountains come the streams most important to agriculture. The continental divide crossing this state is not in all places well marked; in fact it may be said that the plains sweep over the divide into the headwaters of the Colorado. This lofty plain, where unbroken by mountains, does not receive sufficient water to render agriculture possible on a large scale, even if the climate were sufficiently temperate for the ordinary crops.

The agricultural land of Wyoming as a whole lies at the highest altitude of that of any state in the Union, nearly one-half of the total area being above 6,500 feet, and probably less than one per cent under 4,000. The character of the agriculture and of the products is of course governed by this fact, and, as is well known, the pastoral industries lead in importance, the areas devoted to these practically embracing the greater part of the state. Agriculture proper, the tilling of the soil, is making rapid progress in some portions, especially at the lower altitudes, as, for example, in Johnson and Sheridan counties, along the base of the Bighorn range in the northern part of the state, and also in the more thickly settled parts adjacent to Colorado on the southeast.

In these northern counties, in the valleys of the Powder, Tongue, and Bighorn rivers, where the altitude is from about 3,500 feet upward, and also along the lower portions of the Platte, nearly all kinds of fruit and vegetables of the temperate region reach maturity, and in all parts of the state grass and the hardier grains flourish, many of the higher plains being too cold for corn. Nothing, however, can be grown without irrigation, with the exception perhaps of a scanty crop in some spot occasionally favored with an unusual summer's rain. No dependence, however, can be placed upon non-irrigated crops, and the yield at best hardly repays the trouble.

Land in this state, as in all parts of the arid region, has no value without water, but the area of arable land being almost boundless agricultural development is restrained only by the uncertainty of securing water. It has taken several years for the people to awake to the fact that greater care should be given toward securing the titles to the use of water rather than to the ownership of the land. Coming from a humid region, it has been very hard for the citizens as a whole to grasp the full significance of this, and while ordinary care has been taken to acquire and record titles to the agricultural land those to the water have been left with little thought, the result being that when in the course of settlement the land brought under cultivation by various individuals has exceeded in area that which the unregulated water supply could irrigate innumerable contentions have resulted.

Irrigation in Wyoming is still in its infancy, and there are few works of notable size, the only exceptions perhaps being in the case of canals in Albany and Laramie counties. There are a great number of small ditches leading from the streams out upon the lowest bottom lands, where in most instances a few well-located high-line canals would serve more land with greater economy. Many of the earlier canals were faulty in construction and in alignment, so much so that the cost of repair has been in these cases large, and lack of economy of water, as in the case of the small ditches, has ensued. There is need of systematizing the water diversions from each stream. This fact is now appreciated, and the irrigators have every reason to hope that under the new laws reforms in engineering and construction will be inaugurated.

The water supply of the state as a whole is remarkably good, since there is perhaps a larger proportion of perennial streams of notable size than in any other part of the west. The valleys along the Bighorn river, and also those to the east of the range of that name, receive a large amount of water from the great mountain ranges bordering them. Agricultural development, however, especially in the north, has been retarded by the lack of transportation facilities, the only railroad until of late years being the line crossing the southern part of the state. On the east the tributaries of the Platte have been used nearly to their full capacity for irrigation, the water in the Platte itself being employed to a less extent on account of the expense of headworks and the slight fall of the stream, irrigation from the tributaries being cheaper.

There are many canals, especially along the larger rivers, which receive water only during times of flood. These so-called high-water canals are very cheaply built, the headworks, if any, being of temporary character. Water is by this means turned out upon grazing lands, only one thorough watering during the year being secured. In such cases the use of the term "irrigated land" is open to criticism, especially when used in comparisons of statistics of lands where irrigation for grazing is impracticable. As before stated, for accuracy and clearness in this series of publications, only those areas upon which crops have been cut or gathered have been taken into account. In fact it is impossible to obtain reliable information concerning areas upon which water was used with little care or to no advantage. In each state there were in 1889 areas upon which crops were planted or preparations were made for raising hay, but where from various causes, generally from drought or accident, water was not used to an extent sufficient to produce a crop. In one sense these areas were irrigated, but in another, there being no return, they were not. Statistics concerning such an indefinite state of things must of necessity be unsatisfactory, since, as results have shown, there is no common agreement as to the use of the word. Where, however, irrigation has been successful in producing crops the farmer is able to state the results clearly.

There has been the same complaint in Wyoming as in other states that with increase of population and pushing of settlement up toward the headwaters the water is used to greater and greater extent in the upper valleys, where irrigation is cheaper but where the climate is less favorable for agriculture,

and that by this increased use of the small tributaries the supply of water is diminished in the main stream below to the detriment of prior appropriators.

Although much of the injustice arising from this over-appropriation of certain streams will be done away with in the future, yet it is recognized that scarcity of water will be felt by some irrigators, the loss arising from this being transferred to the later appropriators, so that a better distribution does not wholly obviate the difficulties, but merely shifts them to other shoulders. The available supply must be increased by utilizing all the facilities for conserving water, and at the present time a few steps are being taken in this direction. Some small storage basins are used, but they are insignificant as compared with the untouched facilities. As the matter now stands, the amount of water in the streams depends directly upon the depth of snowfall in the mountains, the rain having comparatively little influence upon the amount available for irrigation. In fact the irrigator cares little about the quantity or distribution of the rain, his chief concern being the amount of snow in the mountains and the distribution of temperature through the spring and summer, an early warm spring causing the snow to disappear rapidly, while comparatively cool weather in the mountains allows the snow to remain later and keep up the discharge of the streams at the critical time.

The average distribution of the water in the streams in and adjoining Wyoming throughout the year is shown by the following percentages of discharge for each month. As given in the results obtained by the United States Geological Survey, in January the discharge was 3.5 per cent of that of the entire year; February, 4.0; March, 5.0; April, 9.0; May, 25.0; June, 23.0; July, 12.0; August, 5.0; September, 3.5; October, 3.4; November, 3.3; December, 3.3; that is to say, in May, taking the averages of a large number of streams, one-fourth of the amount for the entire year was discharged, or five times the amount discharged in August, and over twice that discharged in July. Taking May and June together, nearly one-half the total for the whole year was discharged, or four times that of July, the month in which the crops are in full growth.

It is self-evident that by saving a part of this water, so plentiful in May and June, until July, and especially until August, a far greater acreage can be given a second or third watering. It would be necessary to hold this water, or at least the greater part of it, a very short time, for the culmination of the flood occurs in the latter part of May or the early part of June, while the greatest need is in the latter part of July and in August. The amount of water flowing to waste in winter, although relatively of small significance, would aid in swelling the amount available for storage. These facts are well understood and appreciated by the farmers, and they are only prevented from entering upon many projects of this nature by lack of capital, and perhaps to some extent by want of familiarity with constructions of this nature.

In most of the irrigation districts of the state the farmers have already learned to estimate from the snowfall the probable amount of water available, and thus are able to judge as to the acreage upon which crops can be raised with some degree of certainty. By this means they state that a repetition of some of the disappointments of the past is avoided. They look forward also to the time when the new laws controlling the administration of the water shall be in successful operation, and when the distribution shall be thoroughly systematized.

This new legislation promises a speedy and final solution of many of the troubles besetting the irrigator, and its practical operations are being watched by the people throughout the arid lands, as it seems to promise so much to them. In preparing these laws advantage has been taken of the experience of other states, and much that is best has been incorporated from the laws of other irrigating countries, especially those of the state of Colorado, where certain of the provisions have been put to practical test, great credit, however, being due to the present state engineer and his associates. The law is unique in this, that the state does not necessarily wait for controversies and losses to arise, but of its own motion steps in and ascertains how much water is available for irrigation, who are the claimants to this water, and then, knowing these fundamental facts, gives the use of the water to the proper persons, and employs its own agents to see that the distribution is made. In this state, at least, there will no longer be the almost ludicrous spectacle of learned judges solemnly decreeing the right to from two to five times the amount of water flowing in the stream, or in fact to amounts so great that the

channel of the stream could not possibly carry them, thus practically leaving the questions at stake as unsettled as before.

The success of agriculture and the future development of the state are so inseparably bound up with wise and successful legislation that it is pertinent to give a brief review of the leading provisions of these remarkable laws, approved December 22, 1890. The state is divided into four grand divisions, each in a general way coincident with the drainage areas of the great hydrographic basins of the Platte, the tributaries of the Yellowstone east of the Bighorn range, those west of the Bighorn range, and the streams flowing into the great interior basin or the Colorado river. The state engineer has charge of all the details of water distribution throughout the state, and he, with four superintendents, one from each water division, constitutes a board of control to determine all questions that may arise. Under each superintendent are a number of water commissioners, one for each minor district, whose duties are to enforce the proper distribution and carry out the local regulations.

The state engineer is to make measurements of the amount of water in the stream, to determine the most suitable location of irrigation works and lands to be irrigated, and further to examine reservoir sites and publish estimates of the cost of storage and distributing systems. The superintendent in each division is to make suitable regulations to secure the fair distribution of water, and by the aid of the water commissioners to keep a record of the amount of water needed, available or wasted, and if the water is not justly distributed he must enforce division according to his list of priorities.

The board of control, of which the state engineer is the head, can appoint a date upon which to examine into the rights of all persons using water from any stream and knowing the amount of water available, as determined by the state engineer, as well as the area of land irrigated or susceptible of irrigation, can then make an order determining the rights of each person, giving to no appropriator more water than he can put to beneficial use, the maximum limitation being set at one second-foot for 70 acres. Each person is then given a certificate showing the order of priority, the amount of water to which he is entitled, and the number of acres upon which the water is to be used.

No future appropriation of water can be made until the board of control is satisfied that there is unappropriated water, and that its use will not be detrimental to public interests. The second-foot is made the legal unit, thus avoiding the trouble arising from the use of that indefinite quantity, the miner's inch. Each appropriator must maintain headgates, by which the water can be turned on or off, and also a flume or weir for measuring the water in his ditch. All dams over 5 feet in height for raising and diverting water must be approved by the state engineer, thus insuring an official inspection of such structures.

From the above abstract it is apparent that the state engineer and board of control hold the most important offices in the state so far as agricultural interests are concerned, and by a wise and skillful exercise of the functions intrusted to them can bring about a thorough development of the agricultural resources of the state, for Wyoming, like Colorado, is most fortunately situated as regards water supply. With the exception of a part of the headwaters of the North Platte and Bear, all the streams rise within the state, and are thus under the control of state officers without hindrance from outside parties. Apparently only such water as Wyoming can not use need be discharged across her borders to Nebraska, the Dakotas, Montana, Idaho, and Utah. She holds the key to the storehouse of agricultural wealth.

ALBANY COUNTY is in the southeastern part of Wyoming, extending from Colorado northward over a third of the distance across the state. It embraces nearly all the catchment area of the Laramie river, and on the east, beyond the Laramie range, it includes also the sources of the streams flowing easterly or northeasterly into the North Platte river.

Within this county are the Laramie plains, which are in general character similar to the Great Plains to the east, but separated from these by the long, narrow Laramie range, a prolongation of the front range of the Rocky mountains. These plains lie at an altitude of about 7,000 feet, and the temperature, while favorable to the growth of forage crops and small grains, is too cold for many

fruits and vegetables cultivated further to the east. Nothing grows without irrigation, but with it excellent crops of grass, alfalfa, the hardier cereals, and various vegetables are raised.

The Laramie Plains are well watered on the east by the numerous tributaries which flow from the Medicine Bow mountains or Snowy range, and which either sink into the plains or, flowing nearly across them, unite to form the Laramie river. For a brief period in the spring, during the prevalence of the freshets, there is an ample supply of water, but during the summer there is not enough for all the ditches. Near the foothills on the west side of the plains are many small lakes, some of which are suitable for water storage, and plans have been suggested for constructing suitable regulating works for this purpose, few reservoirs, however, being in actual use. Besides these lakes in Albany county there are many good storage sites on the headwaters of the Laramie river in Colorado, south of the county line.

Stock raising is the principal industry, forage forming 98 per cent of the total area of crops irrigated in 1889. As a general rule vegetables and cereals were raised in quantities sufficient merely for local consumption. Besides the crops irrigated there was an acreage of equal amount reported as irrigated for grazing, the total of these two items amounting to a third of the entire area of the farms of the county. The character of the irrigation for grazing is such that one man can apply water to large tracts whenever this is abundant, and the cost is therefore very small. On the eastern side of the Laramie range, along the narrow valleys on the headwaters of the streams flowing into Laramie county, are large areas of agricultural land. The country is rough and broken, and, as on the Laramie plains, grazing is far more important than tilling the soil. There is complaint among the smaller farmers that the great corporations engaged in cattle raising interfere with the growth of agriculture by fencing enormous areas within which are lands susceptible of irrigation and legally open to settlement.

CARBON COUNTY is in the southern part of Wyoming west of Albany county. The North Platte flows from Colorado northerly through this county into Natrona county, where it turns toward the east. The principal agriculture is in the valley of the North Platte, in the southern part of the county, where the river is bordered on the east by the Snowy range, and on the west by the Sierra Madre. The ranches are located along the small streams which issue from these mountains, the land under cultivation being near the streams, and irrigated by short ditches taken out by the owners of each ranch.

The water in these small streams diminishes rapidly in July, and from then until the middle of August, when the crops are cut, there is often a scarcity of water. There is, however, a large volume flowing in the North Platte at all times, and if the river could be diverted in the southern part of the county by large canals running near the foothills on each side of the valley enormous tracts of fertile land could be utilized. At present the land lying back from the creeks and a little above the level of the bottom lands is of little or no value. The general altitude of the agricultural land is 7,000 feet. It is undulating and broken, being traversed in places by ranges of hills. The principal industry of the county is grazing, although the climate is favorable to the production of many of the grains. The expense of transportation, however, is so great that nearly all the products are raised for home consumption. The ditches are mostly small, one of fifteen feet in width being considered large.

In the southwestern corner of the county is a portion of the headwaters of the Snake river, which flows southwesterly into the state of Colorado, finally emptying into the Green river. There are a number of ranches along this river and its tributaries, the irrigated lands being in the bottoms. The mesa land adjoining these has not as yet been touched on account of the expense of bringing water upon it. Taking the county as a whole, the amount of land taken up is insignificant in comparison with that which remains to be utilized, and there appear to be excellent opportunities for the development of large irrigating systems from the North Platte river and, by storage, from many of its tributaries.

CONVERSE COUNTY is in the center of the eastern side of the state, lying north of Albany and Laramie counties. The average elevation is approximately 5,000 feet, the greater portion of the county consisting of the debatable ground between the Great Plains region on the east and the Rocky Mountain

foothill region on the southwest. The Platte river flows across the southwestern corner of the county, receiving many small tributaries from the Laramie range to the south.

The county line on the north, running east and west, lies approximately in the center of the valley of the South Fork of the Cheyenne river, the divide between the Cheyenne and Platte being through the center of the county. In many places this is apparently so low that the farmers believe that a canal can be taken from the Platte river in Natrona county and brought out upon or cross this divide. Irrigation is still in its infancy in this county; there are few ditches, and the area tilled is insignificant in comparison to that used for stock raising.

It is generally impossible to raise any crop without the application of water, although the rainfall is in many seasons almost sufficient to insure success. In the bottom lands along some of the streams, where the land is probably wet by seepage, potatoes and other vegetables have been produced, and in a few localities corn, oats, wheat, and millet have been raised without irrigation, the crops being, however, only about one-half or one-third of that on the irrigated land. Large areas are now under irrigation for grazing, with the intention of bringing the land into condition for raising hay, two or more years of irrigation and grazing being usually considered necessary before a forage crop can be cut.

Along the North Platte river several water wheels, carrying upon their rims buckets by which water is raised, are reported to be in use, but the results are not always satisfactory. The lower lands along this river are of enormous extent, and with large and comprehensive canal systems, taking water from this river, extensive tracts of fertile land can be reclaimed, there being apparently an abundant supply of water. The creeks coming into the North Platte from the south flow in general through narrow valleys, or have cut ravines, rendering it a matter of difficulty to take the waters out upon the higher and better lands. Many of these carry a considerable amount of water throughout the year, but in most instances there is an extent of land far greater than can be brought under irrigation by these streams without storage.

CROOK COUNTY is in the northeastern corner of the state, adjoining Montana on the north and South Dakota on the east. In altitude it is, as a whole, as low as that of any county in the state, the northeastern corner being under 4,000 feet in elevation, while the average for the county is under 5,000. In the eastern part it contains the Bear Lodge range, the northwestern prolongation of the Black Hill region. The summits of this range are 6,000 feet or more in altitude, Warren's peak rising to over 6,820 feet.

The principal stream of this county is the Belle Fourche or North Fork of the Cheyenne river. This stream rises in Weston county, flows northeasterly along the western foot of the Bear Lodge range, and shortly before reaching the state line turns abruptly to the southeast, passing around the Black Hills. West of this stream, and separated by a comparatively low divide, are the headwaters of the Little Missouri, and beyond this are those of the Little Powder river, the county continuing to the westward and embracing some of the tributaries of the Powder river.

The principal settlements of the county are in the Bear Lodge mountains, where there are good ranges for stock, and where agriculture without irrigation is occasionally successful. The streams flowing in all directions from this range and finally uniting in the Belle Fourche furnish opportunities for irrigation on a small scale, and a number of ditches, owned by individuals, have been built, but as a general rule, although there is an ample supply of water at the time of the melting of the snow, yet later in the season, at the time when the waters are needed for maturing the crops, the streams become nearly or quite dry. For this reason the farmers believe that flood storage will be necessary in order to insure permanence of supply.

The principal tributary of the Belle Fourche in this county is the Inyan Kara, which flows in a general northwesterly direction south of Sundance. The banks of this stream, like those of most of the streams of this country, are high, and ditches are taken out with difficulty. There is an ample supply of water in the early spring, but the stream has been known to become nearly or quite dry in the fall. The valley of the Belle Fourche itself is narrow and is bounded by high bluffs, the river crossing from side to side rendering the construction of a comprehensive canal system difficult if not impossible.

The Little Missouri often contains a fair amount of water, but in 1889 and 1890 it was dry in many places, the extraordinary drought of the last two years having its effect upon all these streams, as well as upon the crops. The farmers in general state that although they can occasionally raise corn, wheat, oats, and vegetables without irrigation; yet at best the yield is small, about one-half that on irrigated land, and they can not be sure of a crop two years in succession.

FREMONT COUNTY, in the western part of Wyoming, comprised at the time the census was taken a large area extending from the Montana line southward two-thirds across the state, but provision has since been made for changing the boundaries and creating a new county, called Bighorn, at the northern end. The statistics that have been given refer to the whole area of Fremont county as it was in 1889, thus including the greater part of Bighorn county. Fremont county as now constituted is west of the center of the state, including the Wind river and other headwaters of the Bighorn, and extending southward over the continental divide, including New Fork and various small tributaries of the Green river. On the southeast are the headwaters of the Sweetwater, the county thus including portions of three large drainage basins.

The Wind River range, which crosses the county diagonally, lying in a general northwesterly and southeasterly direction, and the southern extension of the Absaroka range on the north are of such a height as to give rise to innumerable streams, so that as a whole the county is well watered, although perhaps not having such an ample supply as Bighorn county. The greater part of the population is in the vicinity of Lander and neighboring towns in the center of the county. Mining is an important industry, although perhaps not so much so as stock raising. The Wind River Indian reservation, north of Lander, occupies a large part of the county, but south of it agriculture has developed along the Popo Agie river and its tributaries, where the water supply in general is remarkably good. In the east of the county, on the Bad Water creek, irrigation is less successful, but on the Sweetwater to the south the water supply is reported to be plentiful for the land under irrigation.

There are no large canals in the county, but many small ditches, each taking water to the lands of one or two owners. Owing to lack of transportation facilities there is little or no market for agricultural produce, with the exception of that at the mines. Much of the agricultural land is rough, requiring considerable expenditure to prepare the surface for thorough irrigation. An occasional crop of barley or oats is reported to be successful without the application of water, but this is exceptional.

In the southwestern corner of the county, south of the headwaters of the Green river and east of New Fork, is a vast plain lying at an altitude of about 7,000 feet. The elevation of the plain above the channels of the streams is so great, however, that it is doubtful if water can be brought out upon it. The water supply of that region is good, but compared to the vast area of land suitable for forage crops at least is wholly inadequate. Settlement has been confined to the foothills, where water can be had in abundance.

BIGHORN COUNTY, lying north of Fremont county, is probably the best watered part of the state, for it contains in its western half a part of the Absaroka range, the peaks of which rise to altitudes of from 9,000 to 11,000 feet. Settlement is progressing rapidly on the principal streams which flow from these mountains, and there appears to be no immediate possibility of the water supply being exhausted, at least on the Grey Bull and rivers to the north. On Owl creek, in the southern end of the county north of the Wind River Indian reservation, some difficulties are reported on account of diversions of water by settlers toward the headwaters.

In the valley of the Bighorn river is a large amount of good agricultural land and plenty of water, but the banks of the river are high and the fall is so gentle that the expense of taking out canals appears to be large, too great, at least, for the present settlers to attempt. The lack of a railroad retards development, and the agricultural resources are little known by those outside the county. There are a number of high-water ditches, which in times of flood water some of the lower lands in this valley.

JOHNSON COUNTY is in the northern part of Wyoming, being separated from Montana only by the comparatively narrow strip of land embraced in Sheridan county. It extends from the summits of the Bighorn mountains eastward toward the Great Plains region, and covers thus a region most favorable

for the development of irrigation, the high mountains on the west contributing a perennial supply of water for the open valleys toward the east. The tilled lands lie in the valleys along the base of the mountain range at altitudes of from 4,000 to 6,000 feet.

The streams coming from the Bighorn mountains unite in creeks which flow in a general northeasterly or northerly direction and finally, after crossing through the foothill and high plain region, empty into the Powder river, the waters of which, flowing northward into Montana, join those of the Yellowstone. The irrigation streams coming from the high mountains, as in most parts of the country, fluctuate to a certain extent during the day owing to changes of temperature, the amount of water following a hot summer day being noticeably greater in amount. Within the past few years agriculture has developed to a wonderful extent along the base of the Bighorn range, and there has been brought under cultivation an area of land so extensive that it can not be completely watered by the streams, although their flow is comparatively large and persistent, and the farmers report many acres of crops ruined in 1889 and 1890 on account of this deficiency of water. In this county, as in many others, the small amount of snow during the winters preceding 1889 and 1890 has had its effect upon the streams in the reduction in their volume.

No crops can be raised with certainty without irrigation, although a few acres of potatoes and vegetables have been reported as successful without the application of water. Some native hay also is thus raised, especially in seasons of unusual rainfall, and many farmers consider this hay better in quality than that raised by irrigation, but the quantity per acre is far less. One cutting of alfalfa is occasionally obtained without the use of water.

The ditch system, or rather lack of system, of this county, like that of many other parts of the west, has grown up in a haphazard fashion without definite plan. In most instances the ditches have been built to convey water to a single ranch, and are, to a large extent, owned by individuals or cattle companies. Consequently the majority of them are small and imperfectly constructed, and the losses that have occasionally resulted have arisen from defects in the ditch rather than from lack of water in the stream, although the water is not, in general, sufficient for all demands.

In seasons like those of 1889 and 1890 the scarcity in many cases brought about a temporary agreement between various persons claiming water from the same stream, according to which the whole amount of water available was distributed alternately to the different ranches, resulting in economy, and consequently covering a larger area than before. The over-appropriation, however, on Clear creek and on several branches of Crazy Woman creek has led to vexatious disputes. In many cases where the water can not be had during the crop season it has been found of advantage to apply water later in the season, and in fact late irrigation in general has proved a great benefit. Water storage has been undertaken to a very small extent. One man in particular reports the successful use of a small reservoir, in which spring water is held.

LARAMIE COUNTY is in the southeastern corner of Wyoming, east of Albany county, thus including the lands east of the foot of the Laramie range and south of the divide between the North Platte and Cheyenne rivers. The state capital, Cheyenne, is in this county, near its southern boundary. Irrigation is highly developed, especially along the Laramie river, where is found the largest and finest single tract of land under irrigation in the state.

This county is on the western border of the Great Plains region, and thus in topography and climate is in many respects similar to that part of Colorado lying east of and adjacent to the foothills of the Rocky mountains. The western side of the county is well watered by the many small streams which, rising in the Laramie range, in Albany county, flow eastward to join the North Platte river. This river enters the northwestern corner of the county and flows toward the southeast into Nebraska. Its waters, however, are not diverted, except in a small way, upon the bottom lands from the fact that for a great portion of its course through the county the narrow river valley is bounded by bluffs, rendering the expense of canal construction too great for private means.

The eastern side of the county has an altitude of about 5,000 feet, and is in no way different from the Great Plains region of western Nebraska and Kansas. Stock raising is the principal industry, and there are many ranches embracing thousands or even tens of thousands of acres. Dry farming has been attempted, as in all parts of the Great Plains, but it is only occasionally that a crop can be

raised. Many settlers came into the county during or shortly after 1884, a year of unusual rainfall, expecting that, according to the prevalent ideas, the rainfall would continue to increase. In this they have been bitterly disappointed, and year after year of repeated failures has led them to believe that without irrigation agriculture can not succeed.

On the western side of the county, where the elevation is 6,000 feet and upward, no attempts at dry farming have been made, but the soil wherever tilled is irrigated, except in a few instances among the hills at the southern end, where potatoes, rye, wheat, and oats sometimes do well without irrigation. The waters of the many small creeks have all been appropriated, and as a usual thing the rights to the waters largely exceed the amount available except in times of unusual floods. In the summer there is scarcity and losses of crops are reported. There are many storage sites on the heads of these streams, especially in Albany county, and in a few instances small reservoirs have been made and are in successful operation. Nearly all the small tracts along these streams are owned by individuals, but there still remain great areas higher and more remote, to which water can be brought only after a great expenditure for canals and storage works.

The Laramie river, flowing through the range of the same name, joins the North Platte in the northern part of the county, Fort Laramie being placed at the junction of these streams. On the bottom lands along the North Platte river are ditches which take water whenever the river is high, and thus serve thoroughly to saturate these bottoms during the flood season. At other times of the year, however, these ditches are too high to obtain any water from the streams. These bottom lands are usually sandy and require more water than do the bluff lands, which are reported to be superior for agricultural purposes if only the water could be brought upon them.

The streams which flow into the North Platte from the northern end of the county drain a low catchment area, and therefore have very little water in comparison to the extent of country drained. Advantage is taken of the spring floods to soak the lands, and all the water that can be taken from the streams is thus used, in the hope that by the fortunate occurrence of rains the crops may reach maturity. The soil along these creeks, however, is usually too sandy, and the results are not always successful.

South of the North Platte river, out on the plains forming the divide between Horse creek, a tributary of the North Platte, and Lodge Pole creek, which flows into the South Platte, as well as along these creeks, are many ranches, most of the farming being done, however, on the high lands. Occasionally crops of potatoes, millet, oats, corn fodder, sorghum, and vegetables are raised, and in a few instances windmills are used to pump water for apple trees and various kinds of fruit. Corn is reported as usually unsuccessful owing to the early frosts. In the lower bottoms, where some water is received by seepage, potatoes and vegetables are more certain of success.

NATRONA COUNTY is east of the center of the state and north of Carbon county, of which it formerly was a part. The North Platte flows across the southeastern corner of the county, and the Sweetwater extends along the southern border to the point where it flows into the North Platte. Neither of these rivers, however, although carrying a large amount of water, is used to any extent for irrigation on account of the difficulty of building canals from them. The agricultural land at present cultivated is along the creeks flowing into these streams from the Laramie or the Rattlesnake range, the water being diverted by various private ditches. Hay is the principal crop, the altitude of the hay lands being about 6,000 feet.

Although the tilled land is confined to the valleys along the smaller streams, this is not due to lack of arable land, for on the higher lands back from the creeks are immense tracts as good as or better than that now tilled. There is need of careful examination to determine where, if possible, canals can be taken from the large streams to cover this valuable land. At present the waters of the smaller streams are in several instances used to their full amount, and more water is needed, the irrigators stating that water storage would be desirable.

SHERIDAN COUNTY is in the center of the northern side of Wyoming, and extends from the summits of the Bighorn mountains easterly to the valley of the Powder river, embracing in its eastern end a portion of the deeply eroded plains region sometimes designated as "bad lands". The

Bighorn range rises to elevations of from 8,000 to 12,000 feet, and from it issue innumerable streams, fed by the snow on these lofty slopes. The streams which rise among the high mountains furnish a perennial supply of water, but those whose origin is among the foothills further to the east are more unstable in their character. The comparatively low altitude of the agricultural lands of this county more than compensates for their high latitude. Around Sheridan the elevation is reported to be only 3,500 feet, the valley of the Tongue river being perhaps the lowest land in the state.

The towns and settlements are along or among the foothills, and depend for their existence upon the stock raising and agriculture carried on along the streams. Great enterprise and energy have been shown in developing the agricultural resources of this county; large areas of land have been taken up and a portion of these brought under cultivation. The area tilled is already in excess of that which can be covered by water during the latter part of the crop season, and many controversies are reported regarding priority of right. The state laws, however, now provide better methods of adjusting these conflicting claims, and the state engineer, who, as already stated, is constituted the authority in questions concerning the distribution of water, has already entered upon their adjudication.

It is evident, however, that there is not enough water to irrigate even a small fraction of the land filed upon, not taking into consideration the vast areas still open for settlement, and the irrigators demand some method of water storage. There are many favorable reservoir sites in the Bighorn mountains, and several have been mentioned in the vicinity of Cloud Peak. One or two small reservoirs have already been built and are operated successfully. Irrigation construction, however, has been done in a small way, each individual usually taking out his own ditch. One ditch, however, is worthy of note, from the fact that it takes water from the north branch of Piney creek, a tributary of the Powder river, and crossing the divide through a tunnel carries water to Prairie Dog valley, the creek of which was formerly dry during most of the year.

The banks of the streams, especially of those eastward from the foothill region, are steep and high, so that canal construction is expensive. In the progress of irrigation the water is used first on the low bottoms, and in but a few instances is carried back upon the bench land. Owing to the unregulated flow of the streams the cereals can not be raised as successfully as the forage crops, from the fact that the water becomes scarce at the time of the filling of the grain. Without irrigation crops are raised one year in five, but even then the yield is not as large as on irrigated land.

The tributaries of the Tongue river, such as Goose creek, Wolf creek, Hughes creek, and other streams heading in the mountains, are well adapted for irrigation purposes, but those of the Powder river in this county, as, for instance, Clear creek, being further from the mountains, are less favorable on account of the slight fall, the high banks, and the irregularity of flow. Almost every ranchman along Clear creek, however, has his own ditch. The Powder river itself offers many difficulties to canal construction, and during the critical periods of summer may be nearly dry.

SWEETWATER COUNTY is in the southern part of the state, west of Carbon county, including a great part of the Plains region, which here is in the course of the continental divide. This region is not a plain in the strict sense of the word, the surface being in many places undulating and rough, but, on the other hand, it is not marked by decided ranges of hills. The elevation is approximately 7,000 feet, and the country is extremely arid. The little irrigation in the county is principally along the tributaries of the Green river south of Green River City, there being a small amount on the Big Sandy at the northern end of the county.

In the northern part of this county and extending into Fremont county is an extensive plain, bounded by the Green river on the west. There are projects for taking water out upon a portion of this level country, but the difficulties to be overcome are great on account of the low relative elevation of the water to the bluffs which border the plain. South of Sandy creek and between it and Bitter creek is another tract of great extent, and it is probable that attempts will be made to bring water upon a part of it at least. South of the railroad the country is more rolling or broken, but farming is carried on along the small streams, the products being mainly for home consumption. Near Green River City the attempt has been made to irrigate by means of water raised by a steam pump, but satisfactory results have not as yet been reported.

UINTA COUNTY occupies the western end of the state, being a long, narrow strip extending from the Yellowstone National Park to the Utah line. It thus includes on its western edge a portion of the Bear river valley, and on the east a large part of the headwaters of the Green river. In the northern end of the county are several lakes at the head of Snake river, which flows southwestly into Idaho, and descending rapidly crosses the great lava fields of the southern part of that state. These lava plains, lying at an elevation of from 4,500 to 4,700 feet, are of great fertility, and when the waters of the Snake are taken out upon them will be of incalculable value. For this reason the lakes and reservoir sites in the northern part of Uinta county have a great prospective value to the state of Idaho, since in all probability some of them will be essential to the complete development of her resources.

The greater part of the arable land is at an altitude of about 7,000 feet. The country in the southern part at least is rolling and the hills do not rise sufficiently high or steep to add to the water resources of the county. The Bear river, rising to the south among the lofty summits of the Uinta mountains, flows northerly through the southwestern corner of the county, then turns to the west into Utah, again turns to the east and flows along the western border of the county, finally passing out into Idaho, where its waters in time of flood enter Bear lake and at other times, continuing through the corner of Idaho, turn southerly into Utah again, finally being lost in the Great Salt Lake. Along the valleys of the Bear river in Wyoming are great hay ranches, comprising thousands of acres, and the water is used to a large extent. There are many excellent reservoir sites on the headwaters in Utah, and the utilization of these is a matter of importance to many communities in Wyoming, Idaho, and to Utah itself.

On the eastern side of the county are many small streams which flow easterly from the high plateau or hilly country into the Green river, on the further side of which is the great plain of southern Fremont county. The waters of these streams are used on the hay ranches in the narrow valleys, but the altitude is too great for the success of most agricultural products. It is stated that frosts occur nearly every month, for example, that in the past ten years there have been only four months without frost. Some oats are raised and small crops of potatoes and alfalfa have been tried, but without success. As a general thing there is plenty of water for all claimants, conflicts regarding rights being reported only in a few cases.

In the high rolling country the principal dependence of the irrigators must be upon the winter snow and the local storms. There are many good storage sites, and some of them will undoubtedly be used. The situation of this county with regard to storage systems is somewhat peculiar from the fact that, as before stated, it contains the best location for storage works for Idaho, and, on the other hand, the reservoir sites on the Bear river are in Utah. Besides stock raising, the important industry of the county is coal mining, and the southern end of the county is comparatively well provided with transportation facilities, two railroads crossing and occupying the most important valleys.

WESTON COUNTY is in the eastern part of Wyoming, lying south of Crook county, from which it was formed. It is behind or west of the Black Hills, and contains a portion of the headwaters of the streams which, flowing northerly or southerly, pass around the Black Hills and unite to form the Big Cheyenne river. The altitude of the county is about 5,000 feet, the greater part of the area being of the Great Plains type.

Agriculture without irrigation is rarely successful, although crops of small grains, potatoes, and vegetables have been raised in years of unusual rainfall. Irrigation as yet is comparatively new and imperfectly carried on, the ditches being small and depending upon the unregulated flow of the streams. Water storage has not as yet been attempted, although the creeks fluctuate greatly and are dry during the latter part of the crop season. The tilled areas are principally at the eastern end of the county along Beaver creek and its tributaries, being thus in the vicinity of the mining regions in the Black Hills.

CENSUS BULLETIN.

No. 108.

WASHINGTON, D. C.

August 31, 1891.

POPULATION OF INDIANA

BY MINOR CIVIL DIVISIONS.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., August 21, 1891.

This bulletin gives the population of the state of Indiana in detail by counties, townships, cities, wards of cities, and towns, according to the official count of the returns made under the Eleventh Census, taken as of June 1, 1890. The figures for the same divisions according to the census of 1880 are also given for purposes of comparison.

The population of the state has increased 214,103, or 10.82 per cent, during the decade. In 1880 the population of the state was 1,978,301; as returned in 1890 it was 2,192,404.

Of the ninety-two counties in the state twenty-five show decreases. In only four counties are decreases shown of more than 10 per cent. In most of the counties showing a decrease the decrease is slight.

The following summary shows the population of each county according to the censuses of 1890 and 1880, also the increase in number and per cent during the decade:

SUMMARY BY COUNTIES.

COUNTIES.	POPULATION.		INCREASE.		COUNTIES.	POPULATION.		INCREASE.	
	1800.	1880.	Number.	Per cent.		1800.	1880.	Number.	Per cent.
The State.....	2,192,404	1,978,301	214,103	10.82	Fountain.....	19,558	20,228	a670	a3.81
Adams.....	20,181	15,385	4,796	81.17	Franklin.....	18,360	20,092	a1,726	a8.59
Allen.....	66,689	64,763	11,926	21.78	Fulton.....	16,746	14,301	2,445	17.10
Bartholomew.....	23,887	22,777	1,090	4.70	Gibson.....	24,920	22,742	2,178	9.58
Benton.....	11,908	11,108	705	7.16	Grant.....	31,493	28,618	7,875	33.34
Blackford.....	10,461	8,020	2,441	30.44	Greene.....	24,370	22,096	1,383	6.01
Boone.....	26,572	25,922	650	2.51	Hamilton.....	26,123	24,801	1,322	5.33
Brown.....	10,308	10,264	44	0.43	Hancock.....	17,829	17,123	706	4.12
Carroll.....	20,021	18,346	1,676	9.14	Harrison.....	20,786	21,326	a540	a2.53
Cass.....	31,152	27,611	3,541	12.82	Hendricks.....	21,498	22,981	a1,483	a6.45
Clark.....	30,259	28,610	1,649	5.76	Henry.....	23,879	24,016	a137	a0.57
Clay.....	30,536	25,854	4,682	18.11	Howard.....	20,186	19,584	6,002	33.71
Clinton.....	27,370	23,472	3,898	16.61	Huntington.....	27,644	21,805	5,839	26.78
Crawford.....	13,941	12,350	1,595	12.88	Jackson.....	24,139	23,050	1,089	4.72
Davless.....	26,227	21,552	4,675	21.60	Jasper.....	11,185	9,464	1,721	18.18
Dearborn.....	23,364	26,671	a3,307	a12.40	Jay.....	23,478	19,282	4,196	21.76
Decatur.....	19,277	19,779	a502	a2.54	Jefferson.....	24,507	25,977	a1,470	a5.96
DeKalb.....	24,307	20,225	4,082	20.18	Jennings.....	14,008	16,453	a1,845	a11.21
Delaware.....	30,181	22,926	7,205	31.43	Johnson.....	19,561	19,537	24	0.12
Dubois.....	20,253	15,992	4,261	26.64	Knox.....	28,044	26,324	1,720	6.53
Elkhart.....	39,201	33,454	5,747	17.18	Kosciusko.....	28,645	26,494	2,151	8.12
Fayette.....	12,630	11,364	1,266	10.85	Lagrange.....	15,615	15,630	a15	a0.10
Floyd.....	29,458	24,590	4,868	19.80	Lake.....	23,886	15,091	8,795	58.28
					Laporte.....	34,445	30,985	3,460	11.17

a Decrease.

SUMMARY BY COUNTIES—CONTINUED.

COUNTIES.	POPULATION.		INCREASE.		COUNTIES.	POPULATION.		INCREASE.	
	1890.	1880.	Number.	Per cent.		1890.	1880.	Number.	Per cent.
Lawrence	10,792	18,543	1,249	6.74	Rush	19,034	19,238	a204	a1.06
Madison	36,487	27,527	8,960	32.55	Saint Joseph	42,457	33,178	9,279	27.97
Marion	141,156	102,782	38,374	37.34	Scott	7,833	8,343	a510	a6.11
Marshall	23,818	23,414	404	1.73	Shelby	25,454	25,257	197	0.78
Martin	13,673	13,475	498	3.70	Spencer	22,060	22,122	a62	a0.28
Miami	25,823	24,083	1,740	7.23	Starke	7,339	5,105	2,234	43.76
Monroe	17,678	15,875	1,798	11.38	Steuben	14,478	14,645	a167	a1.14
Montgomery	28,025	27,316	709	2.60	Sullivan	21,877	20,336	1,541	7.58
Morgan	18,643	18,900	a257	a1.36	Switzerland	12,514	13,336	a822	a6.16
Newton	8,803	8,167	636	7.79	Tippecanoe	35,078	35,966	a888	a2.47
Noble	23,359	22,956	403	1.76	Tipton	18,157	14,407	3,750	26.03
Ohio	4,955	5,563	a608	a10.93	Union	7,006	7,673	a667	a8.69
Orange	14,678	14,363	315	2.19	Vanderburg	59,809	42,193	17,616	41.75
Owen	15,010	15,901	a891	a5.41	Vermilion	13,154	12,025	1,129	9.39
Parke	20,206	19,460	836	4.30	Vigo	50,195	45,658	4,537	9.94
Perry	18,240	16,997	1,243	7.31	Wabash	27,126	25,241	1,885	7.47
Pike	18,544	16,383	2,161	13.19	Warren	10,955	11,497	a542	a4.71
Porter	18,052	17,227	825	4.79	Warrick	21,161	20,162	999	4.95
Posey	21,529	20,857	672	3.22	Washington	18,619	18,955	a336	a1.77
Pulaski	11,233	9,851	1,382	14.03	Wayne	37,628	38,613	a985	a2.55
Putnam	22,335	22,501	a166	a0.74	Wells	21,514	18,442	3,072	16.66
Randolph	23,085	26,435	1,650	6.21	White	15,071	13,795	1,276	13.60
Ripley	19,330	21,627	a2,277	a10.53	Whitley	17,763	16,941	822	4.88

a Decrease.

In 1880 there were twenty-seven cities in the state having a population of 4,000 or more, the aggregate population of which was 327,248. In 1890 the number of cities having that population was thirty-seven, with an aggregate population of 507,133. This shows an increase in population in cities of this size of 179,885, or 54.97 per cent. The most considerable increases in urban population in number are found in Indianapolis and Evansville. Indianapolis shows an increase of 30,380, or 40.48 per cent, while Evansville shows an increase of 21,476, or 73.35 per cent. Fort Wayne and South Bend also show large proportionate increases. The largest percentages of increase are found in Hammond, Marion, Anderson, Muncie, Frankfort, and Kokomo. In only two cities are decreases shown.

The population of the thirty-seven cities having 4,000 or more inhabitants, in the order of their rank, is as follows:

CITIES.	COUNTIES.	POPULATION.		INCREASE.		CITIES.	COUNTIES.	POPULATION.		INCREASE.	
		1890.	1880.	Number.	Per cent.			1890.	1880.	Number.	Per cent.
Indianapolis	Marion	105,436	75,056	30,380	40.48	Laporte	Laporte	7,126	6,195	931	15.03
Evansville	Vanderburg	50,756	29,280	21,476	73.35	Peru	Miami	7,028	5,280	1,748	33.11
Fort Wayne	Allen	35,393	26,880	8,513	31.67	Columbus	Bartholomew	6,719	4,818	1,906	39.60
Terre Haute	Vigo	30,217	26,042	4,175	16.03	Crawfordsville	Montgomery	6,080	5,251	828	15.96
South Bend	Saint Joseph	21,819	13,280	8,539	64.30	Washington	Daviess	6,064	4,323	1,741	40.27
New Albany	Floyd	21,050	16,423	4,626	28.23	Goshen	Elkhart	6,093	4,123	1,970	46.33
Richmond	Wayne	16,098	12,742	3,356	30.31	Frankfort	Clinton	5,919	2,803	3,116	111.17
Lafayette	Tippecanoe	16,243	14,860	1,383	9.31	Brazil	Clay	5,905	3,441	2,464	71.61
Logansport	Cass	13,328	11,103	2,225	19.02	Shelbyville	Shelby	5,451	3,745	1,706	45.55
Elkhart	Elkhart	11,360	6,953	4,407	63.38	Hammond	Lake	5,428	699	4,729	676.54
Muncie	Delaware	11,345	5,219	6,126	117.38	Seymour	Jackson	5,337	4,250	1,087	25.58
Michigan City	Laporte	10,776	7,360	3,416	46.29	Wabash	Wabash	5,105	3,800	1,305	34.34
Anderson	Madison	10,741	4,126	6,615	160.32	Valparaiso	Porter	5,060	4,461	629	14.10
Jeffersonville	Clark	10,666	9,357	1,309	13.99	Mount Vernon	Posey	4,705	3,730	975	26.14
Madison	Jefferson	8,936	8,945	a9	a0.10	Connersville	Fayette	4,548	3,228	1,320	40.89
Vincennes	Knox	8,858	7,680	1,178	15.27	Greencastle	Putnam	4,390	3,644	746	20.47
Marion	Grant	8,769	3,182	5,587	175.58	Lawrenceburg	Dearborn	4,284	4,068	a216	a5.33
Kokomo	Howard	8,261	4,012	4,249	104.88	Bloomington	Monroe	4,018	2,756	1,262	45.79
Huntington	Huntington	7,328	8,863	3,465	89.70						

a Decrease.

The following table shows the population of each county in detail by minor civil divisions. The population of all incorporated places, and all unincorporated places having a population of 500 or more, is shown, so far as it has been possible to make the separation from the returns of the enumerators.

POPULATION BY MINOR CIVIL DIVISIONS.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
ADAMS COUNTY.....			BARTHOLOMEW COUNTY—Continued.		
	20,181	15,385	Sand Creek township, including Elizabeth town.	1,324	1,501
Blue Creek township.....	1,212	931	Elizabeth town.....	430	391
French township.....	1,095	1,032	Union township.....	737	828
Hartford township.....	1,276	1,103	Wayne township, including Jonesville town (c)	1,981	1,943
Jefferson township.....	1,092	684	BENTON COUNTY.....		
Kirkland township.....	1,094	793		11,903	11,108
Monroe township, including Berne town.....	2,685	1,534	Bolivar township.....	1,037	995
Berne town.....	544		Center township, including Fowler town.....	2,219	1,878
Preble township.....	1,122	997	Fowler town.....	1,285	967
Root township.....	1,394	1,270	Gilboa township.....	851	921
Saint Mary township.....	1,066	979	Grant township, including Boswell town.....	1,331	1,175
Union township.....	991	912	Boswell town.....	558	330
Wabash township, including Geneva town.....	2,420	1,991	Illekey Grove township, including Ambia town.....	962	807
Geneva town.....	748	467	Ambia town.....	293	253
Washington township, including Decatur city.....	4,725	3,169	Oak Grove township, including Oxford town.....	1,495	1,434
Decatur city.....	3,142	1,995	Oxford town.....	808	713
ALLEN COUNTY.....			Parish Grove township.....	648	603
	66,680	64,763	Pine township.....	579	556
Aboite township.....	970	918	Richland township.....	1,124	1,151
Adams township, exclusive of part of Fort Wayne city and including New Haven town.	3,272	2,538	Union township.....	982	871
New Haven town.....	1,079	858	York township.....	625	717
Cedar Creek township.....	1,629	1,584	BLACKFORD COUNTY.....		
El River township.....	1,253	1,287		10,461	8,020
Fort Wayne city (d), in Adams, Washington, and Wayne townships (b).	35,303	29,380	Harrison township, including Montpelier town.....	2,708	2,163
Ward 1.....	2,923		Montpelier town.....	808	618
Ward 2.....	2,842		Jackson township.....	2,075	1,756
Ward 3.....	2,767		Jellico township, including Hartford City town.	3,955	2,828
Ward 4.....	3,386		Hartford City town.....	2,287	1,470
Ward 5.....	4,795		Washington township.....	1,723	1,273
Ward 6.....	4,147		BOONE COUNTY.....		
Ward 7.....	2,710			26,572	25,022
Ward 8.....	5,131		Center township, including Lebanon city.....	6,945	5,481
Ward 9.....	3,420		Lebanon city.....	3,682	2,625
Ward 10.....	3,266		Ward 1.....	1,366	
Jackson township.....	904	205	Ward 2.....	911	
Jefferson township.....	1,551	1,582	Ward 3.....	1,495	
Lafayette township.....	1,388	1,425	Clinton township.....	1,428	1,487
Lake township.....	1,183	1,398	Eagle township, including Zionsville town.....	1,082	2,204
Madison township.....	1,519	1,477	Zionsville town.....	825	855
Marion township.....	1,220	1,375	Harrison township.....	1,328	1,401
Maumee township.....	614	437	Jackson township, including Jamestown town.....	2,834	2,919
Milan township.....	1,587	1,451	Jamestown town.....	616	606
Monroe township, including Monroeville town.....	1,838	1,612	Jefferson township.....	1,894	1,998
Monroeville town.....	673	578	Marion township.....	2,618	2,307
Perry township.....	1,276	1,254	Perry township.....	1,117	1,241
Pleasant township.....	1,377	1,611	Sugar Creek township, including Thorntown town.	2,738	3,015
Saint Joseph township.....	1,546	1,521	Thorntown town.....	1,539	1,515
Scipio township.....	605	614	Union township.....	1,068	1,092
Springfield township.....	1,861	1,899	Washington township.....	1,464	1,352
Washington township, exclusive of part of Fort Wayne city.	1,991	1,615	Worth township.....	1,166	1,425
Wayne township, exclusive of part of Fort Wayne city and including South Wayne town.	3,812	2,100	BROWN COUNTY.....		
South Wayne town.....	1,107			10,308	10,264
BARTHOLOMEW COUNTY.....			Hamblen township.....	1,959	2,063
	23,867	22,777	Jackson township.....	2,012	2,143
Clay township.....	791	794	Johnson township.....	1,065	926
Clifty township.....	998	1,067	Van Buren township.....	2,297	2,266
Columbus township, including Columbus city.....	8,723	6,592	Washington township, including Nashville town.	2,975	2,880
Columbus city.....	6,719	4,813	Nashville town.....	395	348
Ward 1.....	1,541		CARROLL COUNTY.....		
Ward 2.....	1,618			20,021	18,345
Ward 3.....	1,390		Adams township.....	942	1,000
Ward 4.....	2,170		Hurlington township.....	1,683	1,364
Flat Rock township, including Clifford town.....	1,507	1,540	Carrollton township.....	1,247	1,199
Clifford town.....	175	134	Clay township.....	1,102	1,001
German township.....	1,029	1,255	Deer Creek township, including Delphi city and South Delphi town.	3,028	3,695
Harrison township.....	930	1,162	Delphi city.....	1,923	2,040
Haw Creek township, including Hartsville and Hope towns.	2,724	2,020	Ward 1.....	589	
Hartsville town.....	474	486	Ward 2.....	796	
Hope town.....	1,009	835	Ward 3.....	538	
Jackson township.....	661	776	South Delphi town.....	168	
Nineveh township.....	697	720	Not separately returned.		
Ohio township.....	735	880			
Rock Creek township.....	1,080	1,099			

a In 1880 in Washington and Wayne townships only.
b Parts of townships not indicated.

c Not separately returned.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1800.	1880.	MINOR CIVIL DIVISIONS.	1800.	1880.
CARROLL COUNTY—Continued.			CLAY COUNTY—Continued.		
Democrat township.....	1,362	1,808	Van Buren township, including Carbon, Har-	5,318	5,161
Jackson township.....	1,516	1,440	mony, and Knightsville towns.		
Jefferson township.....	1,333	1,118	Carbon town.....	521	600
Madison township.....	985	785	Harmony town.....	1,020	838
Monroe township, including Flora town.....	2,078	1,600	Knightsville town.....	1,148	958
Flora town.....	639	224	Washington township, including Bowling	1,524	1,796
Rock Creek township.....	1,409	1,432	Green town.		
Tippecanoe township, including Pittsburg town.	1,046	1,174	Bowling Green town.....	467	572
Pittsburg town.....	327	400			
Washington township.....	1,860	1,194			
			CLINTON COUNTY.....	27,370	23,472
CASS COUNTY.....			31,152	27,611	
Adams township.....	962	886	Center township (a), including Frankfort city..	6,922	4,598
Bethlehem township.....	1,118	1,163	Frankfort city.....	5,929	2,803
Boone township, including Royal Center town.	1,680	1,440	Ward 1.....	1,758	
Royal Center town.....	527	399	Ward 2.....	2,077	
Clay township.....	898	833	Ward 3.....	2,084	
Clinton township.....	1,415	991	Forest township (b).....	1,608	
Deer Creek township.....	1,672	1,007	Jackson township.....	1,551	1,545
Deer township, including Logansport city.....	14,052	11,410	Johnson township.....	1,588	2,278
Logansport city.....	13,328	11,198	Kirklin township, including Kirklin town.....	2,210	1,713
Ward 1.....	3,182		Kirklin town.....	550	252
Ward 2.....	2,048		Madison township, including Mulberry town.....	1,442	1,313
Ward 3.....	1,803		Mulberry town.....	529	229
Ward 4.....	2,375		Michigan township, including Michigan town.....	2,177	2,214
Ward 5.....	3,920		Michigan town.....	298	342
Harrison township.....	1,189	1,157	Owen township (a).....	1,170	1,540
Jackson township.....	1,655	1,606	Perry township, including Colfax town.....	1,999	1,920
Jefferson township.....	1,127	1,135	Colfax town.....	730	638
Miami township.....	938	895	Ross township, including Rossville town.....	1,856	1,870
Noble township.....	916	953	Rossville town.....	594	471
Tipton township, including Walton town.....	2,015	1,982	Sugar Creek township.....	1,545	1,410
Walton town.....	469	453	Union township (c).....	854	
Washington township.....	1,580	1,644	Warren township.....	1,252	1,843
			Washington township.....	1,187	1,228
CLARK COUNTY.....			30,250	28,010	
Bethlehem township.....	758	798	CRAWFORD COUNTY.....		
Chur township.....	905	1,126	Boone township, including Alton town.....	746	600
Charlestown township, including Charlestown	2,778	3,069	Alton town.....	277	259
town.			Jennings township, including Leavenworth	2,224	2,364
Charlestown town.....	888	1,103	town.		
Jeffersonville township, including Clarksville	15,009	13,177	Leavenworth town.....	792	716
and Port Fulton towns and Jeffersonville city.			Johnson township.....	1,143	923
Clarksville town.....	1,692	1,037	Liberty township, including Marengo town.....	1,379	882
Port Fulton town.....	1,104	907	Marengo town.....	669	
Jeffersonville city.....	10,666	9,357	Ohio township.....	1,190	1,079
Ward 1.....	3,519		Patoka township.....	1,815	1,018
Ward 2.....	1,397		Sterling township, including English town.....	2,200	1,902
Ward 3.....	1,616		English town.....	423	
Ward 4.....	2,055		Union township.....	1,726	1,511
Ward 5.....	2,079		Whiskey Run township.....	1,509	1,288
Monroe township.....	2,071	1,887	DAVIES COUNTY.....		
Oregon township.....	1,149	1,315	Bar township, including Cannelburg and Mont-	3,551	3,129
Owen township.....	700	815	gomery towns.		
Silver Creek township, including Sellersburg	1,896	1,186	Cannelburg town.....	276	159
village.			Montgomery town.....	415	155
Sellersburg village.....	508	169	Bogard township.....	1,693	1,303
Union township.....	918	1,010	Elmore township.....	1,968	1,073
Utica township.....	1,580	1,608	Harrison township.....	1,300	1,289
Washington township.....	1,215	1,379	Madison township, including Odon town.....	2,352	1,743
Wood township.....	1,285	1,210	Odon town.....	192	
			Reeve township.....	1,074	1,082
CLAY COUNTY.....			80,536	25,854	
Brazil township, including Brazil city.....	6,939	4,340	Steele township.....	1,599	1,415
Brazil city.....	5,905	3,447	Van Buren township.....	1,205	1,334
Ward 1.....	1,020		Venic township.....	1,083	1,089
Ward 2.....	2,153		Washington township, including Washington	9,712	7,405
Ward 3.....	1,832		city.		
Cass township.....	515	551	Washington city.....	6,064	4,323
Dick Johnson township.....	1,495	1,075	Ward 1.....	1,362	
Harrison township, including Clay City village.	3,607	3,043	Ward 2.....	1,266	
Clay City village.....	1,004	459	Ward 3.....	1,408	
Jackson township.....	2,443	2,542	Ward 4.....	898	
Lewis township.....	1,970	1,494	Ward 5.....	1,130	
Perry township.....	1,885	1,886	DEARBORN COUNTY.....		
Posey township, including Staunton town.....	2,511	2,477	23,364	20,671	
Staunton town.....	549	581	Caesar Creek township.....	425	503
Sugar Ridge township, including Center Point	2,269	1,533	Center township, including Aurora and Cochran	5,371	6,106
town.			cities.		
Center Point town.....	577	295	Aurora city.....	3,929	4,435
			Ward 1.....	1,660	
			Ward 2.....	989	
			Ward 3.....	1,280	
			Cochran city.....	790	1,024

a Part taken to form Union township since 1880.

b Organized since 1880.

c Organized since 1880 from parts of Center and Owen townships.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
DEARBORN COUNTY—Continued.			DELAWARE COUNTY—Continued.		
Clay township, including Dillsboro town.....	1,418	1,470	Liberty township.....	1,015	1,050
Dillsboro town.....	439	432	Monroe township.....	1,432	1,433
Harrison township, including West Harrison town.	1,047	1,000	Mount Pleasant township.....	1,925	1,994
West Harrison town (c).....	320	290	Niles township.....	1,001	1,151
Total for West Harrison town, Dearborn county, Indiana, and Harrison town, Hamilton county, Ohio.....	2,070	1,850	Perry township.....	1,215	1,200
Hogan township.....	731	912	Salem township.....	1,593	1,592
Jackson township.....	1,203	1,361	Union township.....	1,095	1,400
Kelso township, including Saint Leon town.....	1,441	1,875	Washington township.....	1,863	1,402
Saint Leon town.....	368	254			
Lawrenceburg township, including Greendale town and Lawrenceburg city.	5,517	5,850	DUBOIS COUNTY.....		
Greendale town.....	435	286		20,253	15,092
Lawrenceburg city.....	4,284	4,664	Bainbridge township, including Jasper town.....	2,385	2,030
Ward 1.....	1,338	1,281	Jasper town.....	1,281	1,040
Ward 2.....	813	1,256	Boone township.....	1,256	1,138
Ward 3.....	921	1,436	Cass township.....	1,436	1,448
Ward 4.....	494	1,230	Columbia township.....	1,230	855
Ward 5.....	718	1,748	Ferdinand township, including Ferdinand village.	1,787	1,748
Logan township.....	772	838	Ferdinand village.....	627	500
Manchester township.....	1,776	2,213	Hall township.....	1,406	1,306
Miller township.....	938	1,130	Harrison township.....	1,010	1,023
Sparta township, including Moore Hill town.....	1,484	1,763	Jackson township.....	1,297	1,085
Moore Hill town.....	469	333	Jefferson township, including Birdseye town.....	2,113	1,262
Washington township.....	432	490	Birdseye town.....	410	.....
York township.....	814	1,043	Madison township.....	1,105	1,171
			Marion township.....	930	920
			Patoka township, including Huntingburg city.....	4,210	1,907
			Huntingburg city.....	3,167	781
DECATUR COUNTY.....	10,277	10,770	ELKHART COUNTY.....	30,201	33,451
Adams township.....	1,942	2,215	Baugo township.....	636	708
Clay township, including Milford town.....	1,681	1,973	Benton township, including part of Millersburg town.	1,372	1,557
Milford town.....	231	205	Millersburg town (part of).....	83	51
Clinton township.....	690	708	Total for Millersburg town, in Benton and Clinton townships.....	394	449
Fugitt township.....	1,695	1,740	Cleveland township.....	511	557
Jackson township, including Forest Hill town.....	1,562	1,811	Clinton township, including part of Millersburg town.	1,903	2,003
Forest Hill town.....	724	709	Millersburg town (part of).....	311	398
Marion township, including Millhousen town.....	2,038	2,424	Concord township, exclusive of part of Elkhart city.	1,610	1,111
Millhousen town.....	224	331	Elkhart city, in Concord and Osolo townships (c).	11,360	6,053
Salt Creek township.....	1,733	1,565	Ward 1.....	2,086	.....
Sand Creek township, including Westport town.....	2,490	2,161	Ward 2.....	1,083	.....
Westport town.....	452	272	Ward 3.....	1,374	.....
Washington township, including Greensburg city.	5,518	5,182	Ward 4.....	2,432	.....
Greensburg city.....	3,596	3,138	Ward 5.....	2,140	.....
Ward 1.....	690	.....	Ward 6.....	1,630	.....
Ward 2.....	885	.....	Elkhart township, including Goshen city.....	7,686	5,713
Ward 3.....	1,066	.....	Goshen city.....	0,033	4,123
Ward 4.....	955	.....	Ward 1.....	2,428	.....
			Ward 2.....	1,705	.....
			Ward 3.....	1,900	.....
DEKALB COUNTY.....	24,307	20,225	Harrison township.....	1,015	1,888
Butler township.....	831	833	Jackson township.....	1,430	1,591
Concord township.....	1,012	1,030	Jefferson township.....	1,059	1,205
Fairfield township.....	1,361	1,518	Locke township, exclusive of part of Nappanee town.	080	1,305
Franklin township.....	1,246	1,311	Middlebury township, including Middlebury town.	1,728	1,907
Grant township (b), including Waterloo town.....	2,068	.....	Middlebury town.....	542	502
Waterloo town.....	1,473	1,376	Nappanee town, in Locke and Union townships (c).	1,403	547
Jackson township.....	1,412	1,842	Olive township.....	1,375	1,307
Keyser township, including Garrett town.....	4,083	2,258	Osolo township, exclusive of part of Elkhart city.	620	11,031
Garrett town.....	2,767	1,268	Union township, exclusive of part of Nappanee town.	1,548	1,866
Newville township.....	1,427	1,350	Washington township, including Bristol town.....	1,135	1,403
Richard township.....	1,270	1,423	Bristol town.....	535	661
Smithfield township.....	476	600	York township.....	770	1,000
Stafford township.....	607	606			
Troy township.....	3,050	4,121			
Union township (c), including Auburn town.....	2,415	1,542			
Auburn town.....	3,868	2,880			
Wilmington township, including Butler town.....	2,521	1,056			
Butler town.....	.....	.....	
DELAWARE COUNTY.....	30,131	22,920	FAYETTE COUNTY.....	12,630	11,394
Center township, including Muncie city.....	12,879	6,681	Columbia township.....	658	808
Muncie city.....	11,345	5,219	Connersville township, including Connersville city, East Connersville town, and part of Maplewood town.	6,524	4,660
Ward 1.....	2,581	.....	Connersville city.....	4,548	3,228
Ward 2.....	1,186	.....	East Connersville town.....	458	193
Ward 3.....	1,249	.....	Maplewood town (part of).....	326	44
Ward 4.....	1,596	.....	Total for Maplewood town (g), in Connersville and Harrison townships.....	659	44
Ward 5.....	2,745	.....		
Ward 6.....	1,988	.....		
Delaware township, including Albany town.....	1,570	1,351			
Albany town.....	571	249			
Hamilton township.....	1,340	1,217			
Harrison township.....	2,041	1,786			

a Formerly Harrison.

b Organized since 1880 from part of Union township.

c Part taken to form Grant township since 1880.

d Includes part of Elkhart city.

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e Parts of townships not indicated.

f Includes part of Nappanee town.

g In 1880 in Connersville township only.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.		
FAYETTE COUNTY—Continued.			GIBSON COUNTY.....				
Fairview township.....	598	639	Barton township.....	2,007	1,956		
Harrison township, including part of Maplewood town.	1,119	999	Center township.....	1,608	1,672		
Maplewood town (part of).....	333	.....	Columbia township, including Oakland city.....	3,014	2,104	
Jackson township.....	841	982	Oakland city.....	1,524	731		
Jennings township.....	731	816	Johnson township, including Fort Branch village.	3,131	3,211		
Orange township.....	751	812	Fort Branch village.....	748	778		
Posey township.....	861	981	Montgomery township, including Owensville town.	3,537	3,180		
Waterloo township.....	517	672	Owensville town.....	759	685		
FLOYD COUNTY.....			29,458	24,590	Patoka township, including Princeton city.....	6,530	6,017
Franklin township.....	771	797	Princeton city.....	3,076	2,566		
Georgetown township, including Georgetown town.	1,076	1,562	Wabash township.....	802	560		
Georgetown town.....	256	278	Washington township.....	1,576	1,406		
Greenville township, including Greenville town.	1,415	1,589	White River township, including Hazleton village and Patoka town.	2,092	2,636		
Greenville town.....	313	394	Hazleton village.....	608	618		
Lafayette township.....	1,440	1,060	Patoka town.....	729	775		
New Albany township, including New Albany city and Silver Grove town (a).	21,156	18,982	GRANT COUNTY.....				
New Albany city.....	21,059	16,423	31,493				
Ward 1.....	7,797	.....	Center township, including Marion city.....	10,310	4,418	
Ward 2.....	2,594	.....	Marion city.....	8,769	3,182	
Ward 3.....	2,334	.....	Ward 1.....	2,332	.....	
Ward 4.....	2,709	.....	Ward 2.....	1,739	.....	
Ward 5.....	3,939	.....	Ward 3.....	1,689	.....	
Ward 6.....	2,586	.....	Ward 4.....	3,009	.....	
FOUNTAIN COUNTY.....			10,558	20,228	Fairmount township, including Fairmount town.	2,839	1,802
Cain township.....	1,509	1,765	Fairmount town.....	1,462	563		
Davis township.....	670	708	Franklin township.....	1,706	1,791		
Fulton township.....	1,255	1,145	Green township.....	1,524	1,539		
Jackson township.....	1,407	1,409	Jefferson township.....	1,881	1,521		
Logan township, including Attica city.	2,825	2,687	Liberty township.....	2,139	2,524		
Attica city.....	2,320	2,150	Mill township, including Harrisburg and Jonesboro towns.	1,809	1,878		
Ward 1.....	700	.....	Harrisburg town.....	145	145	
Ward 2.....	626	.....	Jonesboro town.....	687	729	
Ward 3.....	994	.....	Monroe township.....	1,303	1,287	
Mill Creek township.....	1,974	1,918	Pleasant township.....	1,675	1,643		
Richland township.....	1,981	1,913	Richland township.....	923	1,028		
Shawnee township.....	1,178	1,096	Sims township.....	1,826	1,185		
Troy township, including Covington city.....	2,968	3,061	Van Buren township.....	1,921	1,651		
Covington city.....	1,891	1,920	Washington township.....	1,637	1,351		
Van Buren township, including Veedersburg town.	2,492	2,123	GREENIE COUNTY.....				
Veedersburg town.....	930	536	24,379				
Wabash township.....	1,293	2,283	Beech Creek township.....	1,591	2,068		
FRANKLIN COUNTY.....			18,366	20,092	Cass township.....	847	818
Bath township.....	658	751	Center township.....	1,758	1,977		
Blooming Grove township.....	661	762	Eel River township (b).....	336	336		
Brookville township, including Brookville town.	4,270	4,315	Fairplay township.....	839	830		
Brookville town.....	2,028	1,813	Grant township.....	1,008	782		
Butler township.....	1,243	1,402	Highland township.....	1,143	1,219		
Fairfield township.....	671	817	Jackson township.....	2,185	2,515		
Highland township.....	1,599	1,826	Jefferson township (b), including Worthington town.	2,318	1,907		
Laurel township, including Laurel town (a).....	1,760	1,805	Worthington town.....	1,443	1,185		
Metamora township.....	928	1,040	Richland township, including Bloomfield town	2,859	2,563		
Posey township.....	882	1,039	Bloomfield town.....	921	988		
Ray township, including Oldenburg town.....	2,214	2,141	Smith township.....	1,229	861		
Oldenburg town.....	690	673	Stafford township.....	1,301	1,141		
Salt Creek township.....	1,073	1,239	Stockton township, including Linton town.....	2,751	1,372		
Springfield township, including Mount Carmel town.	1,224	1,376	Linton town.....	958	.....	
Mount Carmel town.....	142	182	Taylor township.....	1,553	1,589		
Whitewater township.....	1,237	1,519	Washington township.....	1,804	1,481		
FULTON COUNTY.....			16,746	14,801	Wright township.....	1,500	1,534
Aubbeemublee township.....	1,210	871	HAMILTON COUNTY.....				
Henry township.....	2,374	1,889	26,123				
Liberty township.....	1,989	1,928	Adams township, including Sheridan town.....	3,603	2,968		
Newcastle township.....	1,346	1,421	Sheridan town.....	1,134	308		
Richland township.....	1,426	1,329	Clay township, including part of Carmel town.....	1,382	1,533		
Rochester township, including Rochester town.	5,003	4,448	Carmel town (part of).....	262	92		
Rochester town.....	2,467	2,866	Total for Carmel town (c), in Clay and Delaware townships.	471	92		
Union township, including Kewanee town.....	1,919	1,438	Delaware township, including part of Carmel town.	1,753	1,810		
Kewanee town.....	647	288	Carmel town (part of).....	209	.....	
Wayne township.....	1,419	1,282	Fall Creek township.....	1,029	1,773		
			c In 1880 in Clay township only.				
			2,255				
			4,255				
			Arcadia town.....				
			670				
			Cicero town.....				
			631				
			433				
			715				

a Not separately returned.

b Eel River township annexed to Jefferson township since 1880.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1800.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
HAMILTON COUNTY—Continued.			HENRY COUNTY—Continued.		
Noblesville township, including Noblesville city.	5,274	4,550	Greensboro township, including Greensboro town.	1,612	1,445
Noblesville city.....	3,054	2,221	Greensboro town.....	378	223
Ward 1.....	852		Harrison township, including Cadiz town.....	1,674	1,914
Ward 2.....	1,285		Cadiz town.....	307	504
Ward 3.....	917		Henry township, including New Castle town.....	4,000	3,656
Washington township, including Westfield town	4,274	4,058	New Castle town.....	2,097	2,209
Westfield town.....	815	350	Jefferson township, including Sulphur Springs town.	1,132	1,298
Wayne township.....	1,811	1,630	Sulphur Springs town.....	251	256
White River township.....	2,139	2,112	Liberty township.....	1,538	1,839
			Prairie township, including Mount Summit town.	1,663	1,708
HANCOCK COUNTY.....	17,820	17,123	Mount Summit town.....	231	200
Blue River township.....	993	1,258	Spiceland township, including Dunreith and Spiceland towns.	1,823	2,039
Brandywine township.....	1,054	1,216	Dunreith town.....	168	149
Brown township.....	1,726	1,466	Spiceland town.....	637	527
Buck Creek township.....	1,572	1,466	Stoney Creek township.....	1,018	947
Center township, including Greenfield city.....	5,388	4,281	Wayne township, including Knightstown town.	3,333	3,251
Greenfield city.....	3,100	2,013	Knightstown town.....	1,867	1,670
Ward 1.....	1,414				
Ward 2.....	705		HOWARD COUNTY.....	26,186	19,581
Ward 3.....	987		Center township, including Kokomo city.....	10,388	5,519
Green township.....	1,169	1,166	Kokomo city.....	8,261	4,942
Jackson township.....	1,769	1,928	Ward 1.....	1,547	
Sugar Creek township, including New Palestine town.	1,905	2,000	Ward 2.....	2,024	
New Palestine town.....	404	391	Ward 3.....	1,940	
Vernon township, including Fortville town.....	2,230	2,305	Ward 4.....	1,919	
Fortville town.....	685	634	Ward 5.....	131	
			Clay township.....	1,460	1,340
HARRISON COUNTY.....	20,780	21,326	Ervin township.....	2,160	2,160
Blue River township.....	1,106	1,245	Harrison township.....	1,110	1,086
Boone township, including Laconia town.....	1,961	2,097	Honey Creek township, including Russiaville town.	1,210	1,110
Laconia town.....	133	112	Russiaville town.....	603	419
Franklin township, including Lanesville town.....	1,602	1,664	Howard township.....	1,324	1,328
Lanesville town.....	277	280	Jackson township.....	1,370	1,618
Harrison township, including Corydon town.....	3,537	3,562	Liberty township, including Greentown town.....	2,432	1,580
Corydon town.....	880	763	Greentown town.....	721	246
Ireth township, including Mauckport town.....	1,775	1,720	Monroe township.....	1,135	1,159
Mauckport town.....	272	278	Taylor township.....	2,030	1,480
Jackson township.....	1,527	1,497	Union township.....	1,492	1,805
Morgan township.....	1,333	1,391			
Posey township, including Elizabeth town.....	2,038	1,978	HUNTINGTON COUNTY.....	27,644	21,805
Elizabeth town.....	267	282	Clear Creek township.....	1,403	1,314
Scott township.....	976	1,034	Dallas township, including Andrews town.....	2,250	1,433
Spencer township.....	1,272	1,320	Andrews town (a).....	1,390	454
Taylor township.....	1,231	1,316	Huntington township, including Huntington city.	9,319	5,475
Washington township, including New Amsterdam town.	1,087	1,282	Huntington city.....	7,328	3,863
New Amsterdam town.....	172	186	Ward 1.....	1,982	
Webster township, including New Middletown town.	1,251	1,211	Ward 2.....	3,123	
New Middletown town.....	212	171	Ward 3.....	2,223	
			Jackson township, including Roanoke town.....	1,948	2,055
HENDRICKS COUNTY.....	21,498	22,981	Roanoke town.....	512	597
Brown township.....	1,003	1,322	Jefferson township, including part of Mount Etan town.	1,610	1,404
Center township, including Danville city.....	3,221	3,255	Mount Etan town (part of).....	43	
Danville city.....	1,569	1,598	Lancaster township, including part of Mount Etan town (b).	1,811	1,782
Clay township.....	1,763	1,965	Mount Etan town (part of).....	134	182
Eel River township, including North Salem village.	1,005	1,098	Polk township, including part of Mount Etan town.	1,010	1,167
North Salem village.....	505	358	Mount Etan town (part of).....	26	
Franklin township.....	1,190	1,363	Rock Creek township, including Marke town.....	2,081	1,894
Gulford township, including Plainfield town ..	2,009	2,091	Marke town.....	670	220
Plainfield town.....	509	50	Salomonie township, including Warren town.....	2,316	1,864
Liberty township.....	2,578	2,604	Warren town.....	1,120	593
Lincoln township, including Brownsburg town.....	1,452	1,610	Union township.....	1,552	1,260
Brownsburg town.....	623	667	Warren township.....	1,207	1,164
Marion township.....	1,097	1,298	Wayne township, including part of Mount Etan town (c).	1,047	963
Middle township.....	1,897	1,828			
Union township.....	1,362	1,515	JACKSON COUNTY.....	24,139	23,050
Washington township.....	1,382	1,502	Brownstown township, including Brownstown town.	3,306	3,165
			Brownstown town.....	1,422	849
HENRY COUNTY.....	23,870	24,016	Carl township.....	1,651	1,783
Blue River township.....	1,032	805	Driftwood township.....	1,006	982
Dudley township, including New Lisbon and Stranghn towns.	1,305	1,544	Grassy Fork township.....	1,147	1,045
New Lisbon town.....	183	187	Hamilton township.....	1,858	1,924
Stranghn town.....	200	143			
Fall Creek township, including Middletown town.	2,320	2,054			
Middletown town.....	851	666			
Franklin township, including Lewisville town.....	1,330	1,516			
Lewisville town.....	420	446			

a Formerly Antloch.

b In 1880 in Lancaster township only.

c Not separately returned.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1800.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
KOSCIUSKO COUNTY—Continued.			LAPORTE COUNTY—Continued.		
Turkey Creek township, including Syracuse town.....	1,601	1,610	Scipio township.....	757	745
Syracuse town.....	518	491	Springfield township.....	472	1,070
Van Buren township, including Milford town.....	1,731	1,674	Union township.....	1,154	1,205
Milford town.....	677	492	Wills township.....	887	855
Washington township, including Pierceton town.....	2,210	2,482	LAWRENCE COUNTY.....		
Pierceton town.....	897	1,084	19,702 18,543		
Wayne township, including Warsaw city.....	5,250	4,777	Bono township.....	1,021	1,024
Warsaw city.....	3,574	3,123	Flinn township.....	781	927
Ward 1.....	1,213		Guthrie township.....	1,088	1,224
Ward 2.....	1,004		Indian Creek township.....	1,891	1,648
Ward 3.....	1,357		Marion township, including Mitchell town.....	3,663	3,980
LAGRANGE COUNTY.....			Mitchell town.....	1,583	1,439
15,615 15,630			Marshall township.....	1,468	1,472
Bloomfield township, including Lagrange town.....	2,966	2,597	Perry township.....	692	900
Lagrange town.....	1,784	1,367	Pleasant Run township.....	1,840	1,768
Clay township.....	1,306	1,408	Shawsveik township, including Bedford city.....	5,506	3,966
Clear Springs township.....	1,509	1,367	Bedford city.....	3,351	2,798
Eden township.....	1,138	1,111	Spice Valley township.....	1,848	2,121
Greenfield township.....	1,018	1,181	MADISON COUNTY.....		
Johnson township.....	1,468	1,594	86,487 27,527		
Lima township, including Lima village.....	1,914	1,396	Adams township.....	1,063	1,063
Lima village.....	578	560	Anderson township, including Anderson city.....	12,517	6,137
Milford township.....	1,132	1,311	Anderson city.....	10,741	4,126
Newbury township.....	1,608	1,392	Ward 1.....	5,358	
Springfield township.....	1,051	1,017	Ward 2.....	3,692	
Van Buren township.....	1,105	1,376	Ward 3.....	1,191	
LAKE COUNTY.....			Boone township.....	1,330	1,308
23,886 15,001			Duck Creek township.....	1,325	1,110
Calumet township (a).....	944		Fall Creek township, including Pendleton town.....	2,544	2,479
Cedar Creek township, including Lowell town.....	1,001	1,457	Pendleton town.....	996	614
Lowell town.....	761	458	Greene township.....	1,098	1,090
Center township, including Crown Point town.....	2,894	2,854	Jackson township.....	1,200	1,423
Crown Point town.....	1,997	1,708	Lafayette township.....	1,614	1,620
Eagle Creek township.....	647	721	Monroe township, including Alexandria town.....	3,014	2,648
Hanover township.....	985	1,009	Alexandria town.....	715	488
Hobart township, including Hobart town.....	2,197	1,650	Pipe Creek township, including Elwood and Frankton towns.....	4,660	2,958
Hobart town.....	1,010	600	Elwood town.....	2,284	751
North township (b), including East Chicago town, Hammond city, and Whiting town.....	9,031	2,540	Frankton town.....	520	301
East Chicago town.....	1,255		Richland town.....	891	985
Hammond city.....	5,428	699	Stoney Creek township.....	1,740	1,483
Ward 1.....	2,048		Union township.....	897	917
Ward 2.....	1,242		Van Buren township, including Summitville town.....	1,979	1,691
Ward 3.....	2,138		Summitville town.....	752	400
Whiting town.....	1,408	115	MARION COUNTY.....		
Ross township.....	1,427	1,584	141,156 102,782		
Saint John township.....	1,686	1,513	Center township, including Brightwood town, part of Haughville town, Indianapolis city, part of Irvington town, and North Indianapolis, West Indianapolis, and Woodruff Place towns.....	117,928	80,648
West Creek township.....	1,201	1,219	Brightwood town.....	1,387	679
Winfield township.....	588	544	Haughville town (part of).....	35	
LAPORTE COUNTY.....			Total for Haughville town (c), in Center and Wayne townships.....	2,144	70
84,445 30,985			Indianapolis city.....	105,436	75,056
Cass township.....	1,442	1,398	Ward 1.....	8,000	
Center township, including Laporte city.....	8,561	7,599	Ward 2.....	6,810	
Laporte city.....	7,126	6,195	Ward 3.....	5,161	
Ward 1.....	1,362		Ward 4.....	3,259	
Ward 2.....	1,191		Ward 5.....	3,424	
Ward 3.....	1,824		Ward 6.....	3,505	
Ward 4.....	1,356		Ward 7.....	4,834	
Ward 5.....	1,393		Ward 8.....	4,661	
Clinton township.....	760	820	Ward 9.....	3,141	
Cool Spring township.....	1,012	1,549	Ward 10.....	2,862	
Dewey township.....	307	298	Ward 11.....	2,391	
Galena township.....	833	910	Ward 12.....	3,334	
Hanna township.....	717	595	Ward 13.....	3,067	
Hudson township.....	497	519	Ward 14.....	4,060	
Johnson township.....	212	218	Ward 15.....	4,568	
Kankakee township.....	1,166	1,163	Ward 16.....	2,996	
Lincoln township.....	545	521	Ward 17.....	1,680	
Michigan township, including Michigan City.....	11,186	7,772	Ward 18.....	2,398	
Michigan City.....	10,776	7,366	Ward 19.....	4,421	
Ward 1.....	2,436		Ward 20.....	3,643	
Ward 2.....	1,869		Ward 21.....	6,268	
Ward 3.....	2,585		Ward 22.....	5,135	
Ward 4.....	2,111		Ward 23.....	5,173	
Ward 5.....	1,775		Ward 24.....	3,705	
New Durham township, including Westville town.....	1,682	2,011	Ward 25.....	6,322	
Westville town.....	522	627	Irvington town (part of).....	103	89
Noble township.....	1,043	1,154	Total for Irvington town, in Center and Warren townships.....	650	652
Pleasant township.....	712	674			

a Organized since 1880 from North township.

b Part taken to form Calumet township since 1880.

c In 1880 in Wayne township only.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
MARION COUNTY—Continued.			MONROE COUNTY—Continued.		
Center township—continued.			Bloomington city, in Bloomington and Perry townships (a).	4,018	2,756
North Indianapolis town.....	1,479		Ward 1.....	1,440	
West Indianapolis town.....	3,527		Ward 2.....	1,139	
Woodruff Place town.....	161	20	Ward 3.....	1,439	
Deatur township.....	1,555	1,617	Bloomington township, exclusive of part of Bloomington city.....	996	991
Franklin township.....	2,259	2,609	Clear Creek township.....	1,526	1,434
Lawrence township.....	2,307	2,579	Indian Creek township.....	1,036	1,131
Perry township, including Southport town.....	2,448	2,598	Marion township.....	521	493
Southport town.....	324	388	Perry township, exclusive of part of Bloomington city.....	1,288	1,220
Pike township.....	1,969	2,423	Polk township.....	1,080	1,013
Warren township, including part of Irvington town.....	2,854	3,107	Rieland township, including Ellettsville town.....	1,608	1,610
Irvington town (part of).....	547	553	Ellettsville town.....	712	585
Washington township.....	2,900	2,399	Salt Creek township.....		851
Wayne township, including part of Haughville town and Mount Jackson town.....	7,949	4,772	Van Buren township.....	1,025	1,087
Haughville town (part of).....	2,109	70	Washington township.....	1,112	1,081
Mount Jackson town.....	373	110			
MARSHALL COUNTY.....	23,818	23,414	MONTGOMERY COUNTY.....	28,025	27,316
Bourbon township, including Bourbon town.....	2,946	3,199	Brown township, including Waveland town.....	2,300	2,338
Bourbon town.....	1,064	1,056	Waveland town.....	663	592
Center township, including Plymouth city.....	5,001	5,133	Clark township, including Ladoga town.....	2,273	2,401
Plymouth city.....	2,723	2,570	Ladoga town.....	827	828
Ward 1.....	738		Coal Creek township.....	2,159	1,836
Ward 2.....	963		Franklin township, including Darlington town.....	1,935	1,920
Ward 3.....	1,022		Darlington town.....	464	468
German township, including Bremen town.....	3,077	3,348	Madison township.....	1,142	1,142
Bremen town.....	1,076	1,028	Ripley township, including Alamo town.....	1,402	1,349
Green township.....	1,172	1,249	Alamo town.....	273	229
North township.....	1,956	1,727	Scott township.....	1,220	1,289
Polk township.....	1,949	1,980	Sugar Creek township.....	1,086	1,251
Tippecanoe township.....	1,465	1,431	Union township, including Crawfordville city and Englewood, Highland, and Longview towns.....	11,103	10,168
Union township.....	1,958	1,849	Crawfordville city.....	6,089	5,251
Walnut township, including Argos town.....	2,611	2,188	Englewood town.....	66	
Argos town.....	1,201	622	Highland town.....	48	
West township.....	1,683	1,770	Longview town.....	110	78
MARTIN COUNTY.....	13,973	13,475	Walnut township, including New Ross town.....	1,677	1,910
Baker township.....	1,094	1,002	New Ross town.....	270	317
Brown township.....	1,226	1,231	Wayne township, including Waynetown town.....	1,638	1,709
Center township.....	1,519	1,332	Waynetown town.....	576	569
Columbia township.....	809	1,032			
Hallert township, including Shoals town.....	1,881	1,913	MORGAN COUNTY.....	18,643	18,000
Shoals town.....	738	706	Adams township.....	1,200	1,252
Lost River township.....	1,448	1,323	Ashland township.....	1,122	1,071
McCammeron township.....	1,361	1,208	Baker township.....	590	456
Mitchelltree township.....	1,267	1,159	Brown township, including Mooresville town.....	1,586	1,051
Perry township, including Loogootee town.....	2,060	1,867	Mooresville town.....	891	864
Loogootee town.....	988	885	Clay township.....	1,409	1,363
Rutherford township.....	1,218	1,315	Greene township.....	1,008	1,231
MIAMI COUNTY.....	25,823	24,083	Gregg township.....	961	1,181
Allen township, including Macy town.....	1,173	1,225	Harrison township.....	345	445
Macy town.....	316	290	Jackson township.....	1,586	1,853
Butler township.....	1,344	1,420	Jefferson township.....	1,024	1,026
Clay township.....	1,136	1,098	Madison township.....	773	865
Deer Creek township.....	1,281	1,222	Monroe township.....	1,438	1,538
Erie township.....	678	724	Roy township.....	1,032	969
Harrison township.....	1,248	1,249	Washington township, including Martinsville city.....	4,590	3,996
Jackson township, including Amboy and Xenia towns.....	2,313	1,864	Martinsville city.....	2,680	1,943
Amboy town.....	402	208	Ward 1.....	351	
Xenia town.....	921	732	Ward 2.....	706	
Jefferson township.....	1,057	1,616	Ward 3.....	459	
Perry township.....	1,480	1,547	Ward 4.....	502	
Peru township, including Peru city.....	7,958	6,220	Ward 5.....	662	
Peru city.....	7,028	5,280	NEWTON COUNTY.....	8,803	8,167
Pipe Creek township, including Bunker Hill town.....	1,506	1,619	Beaver township, including Morocco town.....	1,052	898
Bunker Hill town.....	538	596	Morocco town.....	397	174
Rieland township.....	1,343	1,672	Colfax township.....	128	150
Union township.....	960	1,152	Grant township, including Goodland town.....	1,624	1,508
Washington township, including South Peru town.....	1,443	1,455	Goodland town.....	889	628
South Peru town.....	253	254	Iroquois township.....	1,003	818
MONROE COUNTY.....	17,673	15,875	Jackson township.....	947	795
Bean Blossom township.....	1,694	1,317	Jefferson township, including Kentland town.....	1,875	1,964
Benton township.....	1,013	925	Kentland town.....	918	982
			Lake township.....	462	593
			Lincoln township.....	181	181
			McClellan township.....	178	155
			Washington township.....	1,016	1,105

a Parts of townships not indicated.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1800.	1880.	MINOR CIVIL DIVISIONS.	1800.	1880.
NORLE COUNTY	23,350	22,056	PARKE COUNTY—Continued.		
Albion township, including Albion town.....	1,208	1,008	Jackson township.....	1,500	1,474
Albion town.....	1,220	926	Liberty township.....	1,874	1,772
Allen township, exclusive of part of Kendallville city and including Avilla town.	1,962	2,036	Penn township, including Bloomingdale town.....	1,200	1,552
Avilla town.....	576	446	Bloomingdale town.....	431	355
Elkhart township.....	1,531	1,658	Raccoon township.....	1,702	1,904
Green township.....	1,436	1,444	Reserve township, including Montezuma town.....	1,346	1,550
Jefferson township.....	1,179	1,226	Montezuma town.....	658	781
Kendallville city, in Allen and Wayne townships (b).	2,960	2,373	Sugar Creek township.....	789	606
Ward 1.....	1,135		Union township.....	1,211	1,401
Ward 2.....	862		Wabash township.....	787	753
Ward 3.....	963		Washington township.....	1,641	1,504
Noble township.....	1,443	1,315	PERRY COUNTY	18,240	16,907
Orange township.....	1,943	2,037	Anderson township.....	1,900	1,908
Perry township, including Ligonier town.....	3,500	3,517	Clark township.....	2,432	2,006
Ligonier town.....	2,195	2,090	Leopold township.....	800	890
Sparta township.....	1,401	1,631	Oil township.....	1,902	1,806
Swan township.....	1,707	1,630	Tobin township.....	2,315	2,241
Washington township.....	769	773	Troy township, including Cannalton and Tell City cities and Troy town.	6,906	6,495
Wayne township, exclusive of part of Kendallville city.	1,191	2,526	Cannalton city.....	1,991	1,834
York township.....	1,039	1,155	Tell City.....	2,112	2,112
OHIO COUNTY	4,955	5,563	Troy town.....	554	495
Cass township.....	701	775	Union township.....	1,610	1,498
Pike township.....	605	852	PIKE COUNTY	18,544	16,383
Randolph township, including Rising Sun city.....	3,056	3,377	Clay township.....	1,178	946
Rising Sun city.....	1,689	1,866	Jefferson township.....	2,474	2,505
Union township.....	533	650	Lockhart township.....	2,220	2,400
ORANGE COUNTY	14,678	14,363	Logan township.....	1,223	1,007
French Lick township.....	1,869	1,701	Madison township.....	825	746
Greenfield township.....	1,444	1,518	Marion township.....	1,729	1,505
Jackson township.....	1,372	1,351	Monroe township.....	2,240	2,115
Northeast township.....	898	907	Patoka township.....	3,005	2,030
Northwest township.....	972	1,076	Washington township, including Petersburg town.	3,557	2,070
Orangeville township.....	740	815	Petersburg town.....	1,494	1,193
Orleans township, including Orleans town.....	1,865	1,380	POWELL COUNTY	18,052	17,227
Orleans town.....	857	812	Boone township, including Hebron town.....	1,357	1,470
Paoli township, including Paoli town.....	2,710	2,510	Hebron town.....	689	715
Paoli town.....	207	606	Center township, including Valparaiso city.....	6,062	6,071
Southeast township.....	1,780	1,644	Valparaiso city.....	5,090	4,461
Stamper Creek township.....	1,001	921	Ward 1.....	2,706	
OWEN COUNTY	15,010	15,001	Ward 2.....	869	
Clay township.....	1,159	1,219	Ward 3.....	1,425	
Franklin township, including Freedom town.....	1,383	1,407	Essex township (c).....		167
Freedom town.....	285	237	Jackson township.....	1,009	1,020
Harrison township.....	471	522	Liberty township.....	805	902
Jackson township.....	505	728	Morgan township (c).....	830	708
Jefferson township.....	1,943	1,900	Pine township.....	596	607
Jennings township.....	490	681	Pleasant township.....	984	802
Lafayette township.....	736	955	Portage township.....	954	808
Marion township.....	1,770	1,058	Porter township.....	1,121	980
Montgomery township.....	573	668	Union township.....	985	1,054
Morgan township.....	790	918	Washington township.....	670	756
Taylor township.....	796	807	Westchester township, including Chesterton and Hageman villages.	2,029	1,884
Washington township, including Spencer city.....	3,124	3,138	Chesterton village.....	931	488
Spencer city.....	1,868	1,055	Hageman village.....	641	
Ward 1.....	467		POSEY COUNTY	21,520	20,857
Ward 2.....	939		Bethel township.....	768	572
Ward 3.....	462		Black township, including Mount Vernon city.....	7,907	7,028
Wayne township, including Gosport town.....	1,201	1,288	Mount Vernon city.....	4,795	3,730
Gosport town.....	720	740	Ward 1.....	1,391	
PARKE COUNTY	20,296	19,460	Ward 2.....	2,151	
Adams township, including Rockville city.....	3,278	3,637	Ward 3.....	1,763	
Rockville city.....	1,620	1,684	Center township.....	1,011	1,006
Florida township, including Coxville and Rosedale towns.	3,170	1,944	Harmony township, including New Harmony town.	2,301	2,598
Coxville town.....	601		New Harmony town.....	1,197	1,095
Rosedale town.....	873	207	Lynn township.....	1,471	1,826
Greene township.....	1,126	1,119	Marr township.....	2,066	2,050
Howard township.....	666	554	Point township.....	1,086	1,161
			Robt township, including Poseyville town.....	2,072	1,778
			Poseyville town.....	571	
			Robinson township.....	1,638	1,733
			Smith township.....	1,173	1,105

a Includes part of Kendallville city.

b Parts of townships not indicated.

c Essex township annexed to Morgan township since 1880.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
PULASKI COUNTY.....	11,233	9,851	RIPLEY COUNTY—Continued.		
Beaver township.....	818	660	Laughery township, including Batesville town.....	2,101	1,930
Cass township.....	504	595	Batesville town.....	1,169	.....
Franklin township.....	492	324	Otter Creek township.....	1,605	1,696
Harrison township.....	812	810	Shelby township.....	2,365	2,902
Indian Creek township.....	1,027	948	Washington township.....	925	1,112
Jefferson township.....	475	864			
Montroe township, including Winamac town.....	2,332	1,774	RUSH COUNTY.....	10,034	19,238
Winamac town.....	1,215	825			
Rich Grove township.....	521	493	Anderson township.....	1,579	1,465
Salem township, including Francesville town.....	1,000	936	Center township.....	1,071	1,435
Francesville town.....	403	368	Jackson township.....	789	858
Tippecanoe township, including Monterey town.....	981	944	Noble township.....	1,034	1,136
Monterey town.....	226	144	Orange township.....	1,050	1,301
Van Buren township.....	1,259	1,138	Posey township.....	1,708	1,816
White Post township.....	922	862	Richland township.....	862	941
			Ripley township, including Carthage town.....	2,174	1,986
PUTNAM COUNTY.....	22,335	22,501	Carthage town.....	482	530
Clinton township.....	900	1,016	Rushville township, including Rushville city.....	5,101	4,306
Cloverdale township, including Cloverdale town.....	1,827	2,043	Rushville city.....	3,475	2,515
Cloverdale town.....	437	477	Ward 1.....	1,160	.....
Floyd township.....	1,014	1,152	Ward 2.....	1,207	.....
Franklin township, including Carpenterville and Rosedale towns.....	1,815	1,468	Ward 3.....	1,108	.....
Carpenterville town.....	175	218	Union township.....	1,200	1,393
Rosedale town.....	428	86	Walker township.....	1,334	1,202
Greencastle township, including Greencastle city.....	6,137	5,525	Washington township.....	1,033	1,189
Greencastle city.....	4,390	3,644			
Ward 1.....	1,691	.....	SAINT JOSEPH COUNTY.....	32,487	33,178
Ward 2.....	1,326	.....	Center township.....	735	708
Ward 3.....	1,373	.....	Clay township, including Notre Dame town.....	1,133	1,460
Jackson township, including New Maysville town.....	1,376	1,487	Notre Dame town.....	596	.....
New Maysville town.....	102	114	German township.....	513	678
Jefferson township.....	1,029	1,108	Greene township.....	845	901
Madison township.....	1,082	1,000	Harris township.....	486	450
Marion township.....	1,254	1,430	Liberty township.....	1,733	1,939
Mill Creek township.....	458	511	Lincoln township, including Walkerton town.....	1,648	1,390
Monroe township, including Bainbridge town.....	1,414	1,477	Walkerton town.....	885	754
Bainbridge town.....	473	420	Madison township.....	2,055	1,007
Russell township, including Russellville town.....	1,327	1,204	Olive township, including New Carlisle town.....	2,111	1,901
Russellville town.....	327	157	New Carlisle town.....	607	530
Warren township, including Putnamville town.....	974	1,075	Penn township, including Mishawaka town.....	5,678	4,658
Putnamville town.....	204	204	Mishawaka town.....	3,371	2,640
Washington township.....	1,698	1,835	Portage township, including Myler town and South Bend city.....	22,858	14,050
			Myler town.....	174	.....
RANDOLPH COUNTY.....	28,085	26,485	South Bend city.....	21,819	13,280
Franklin township, including Ridgeville town.....	1,745	1,640	Ward 1.....	3,733	.....
Ridgeville town.....	922	775	Ward 2.....	3,657	.....
Greene township.....	1,070	1,140	Ward 3.....	7,130	.....
Green Fork township.....	2,109	2,126	Ward 4.....	3,318	.....
Jackson township.....	1,431	1,380	Ward 5.....	3,981	.....
Monroe township, including Farmland town.....	2,106	1,875	Union township.....	1,768	2,015
Farmland town.....	770	661	Warren township.....	894	771
Nettle Creek township.....	1,641	1,468			
Stony Creek township.....	1,295	1,337	SCOTT COUNTY.....	7,833	8,343
Ward township.....	1,902	1,863	Finley township.....	1,226	1,248
Washington township, including Lynn town.....	2,490	2,339	Jennings township.....	1,142	1,340
Lynn town.....	518	239	Johnson township.....	1,127	1,361
Wayne township, including Union city.....	4,606	4,370	Lexington township.....	2,195	2,466
Union city.....	2,681	2,478	Vienna township, including Scottsburg town.....	2,143	1,922
Ward 1.....	918	.....	Scottsburg town.....	618	454
Ward 2.....	1,130	.....		
Ward 3.....	633	.....	SHELBY COUNTY.....	25,454	25,257
West River township, including Huntsville town.....	1,746	1,651	Addison township (a), including Shelbyville city.....	6,909	6,769
Huntsville town.....	157	153	Shelbyville city.....	5,451	3,745
White River township, including Winchester town.....	5,014	5,237	Brandywine township, including Fairland town.....	1,436	1,400
Winchester town.....	3,014	1,958	Fairland town.....	513	367
			Hanover township, including Morristown town.....	1,858	1,687
RIPLEY COUNTY.....	19,350	21,627	Morristown town.....	561	375
Adams township.....	2,328	2,608	Hendricks township.....	1,790	1,820
Brown township.....	1,850	2,067	Jackson township.....	1,313	1,576
Center township, including Osgood town.....	1,948	1,940	Liberty township.....	1,345	1,577
Osgood town.....	841	758	Marion township.....	943	1,125
Delaware township.....	1,214	1,523	Moral township.....	1,626	1,814
Franklin township, including Milan town.....	1,755	1,872	Noble township.....	1,650	1,845
Milan town.....	218	106	Shelby township (b).....	1,339	.....
Jackson township.....	1,318	1,482	Sugar Creek township.....	961	1,181
Johnson township, including Versailles town.....	2,011	2,495	Union township.....	1,109	1,233
Versailles town.....	421	455	Van Buren township.....	1,371	1,524
			Washington township.....	1,744	1,707

^a Part taken to form Shelby township since 1880.

^b Organized since 1880 from part of Addison township.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
SPENCER COUNTY	22,060	22,122	TIPPECANOE COUNTY	35,078	35,066
Carter township, including Dale village.....	2,125	1,910	Fairfield township, including Lafayette city.....	17,766	17,314
Dale village.....	659	378	Lafayette city.....	16,243	14,860
Clay township.....	1,644	1,855	Ward 1.....	4,006	
Grass township.....	2,167	2,106	Ward 2.....	439	
Hammond township, including Grandview town.....	2,629	2,800	Ward 3.....	1,235	
Grandview town.....	694	686	Ward 4.....	5,816	
Harrison township, including Saint Meinrad town.....	2,167	2,279	Ward 5.....	1,856	
Saint Meinrad town.....	483		Ward 6.....	1,783	
Huff township.....	1,692	1,652	Ward 7.....	1,108	
Jackson township.....	1,158	968	Jackson township.....	1,048	1,133
Luce township.....	2,907	2,527	Lauramie township, including Clark Hill town (a).....	2,194	2,381
Ohio township, including Rockport town.....	5,571	5,845	Perry township.....	1,468	1,631
Rockport town.....	2,314	2,382	Randolph township.....	786	840
STARKE COUNTY	7,330	5,105	Sheffield township.....	1,375	1,041
California township.....	521	838	Shelby township.....	1,453	1,487
Center township, including Knox town.....	1,480	764	Tiptecanoe township, including Battle Ground town.....	2,232	2,182
Knox town.....	790	316	Battle Ground town.....	456	
Davis township.....	430	322	Union township.....	678	754
Jackson township.....	225	129	Wabash township, including West Lafayette town.....	2,563	2,632
North Bend township.....	884	594	West Lafayette town (b).....	1,242	717
Oregon township.....	773	706	Washington township.....	1,325	1,526
Railroad township.....	875	730	Wayne township.....	1,208	1,323
Washington township.....	846	730	Wea township.....	1,047	1,119
Wayne township, including North Judson town.....	1,305	797	TIPTON COUNTY	18,157	14,407
North Judson town.....	572	165	Cicero township, including Tipton city.....	6,010	4,078
STUBEN COUNTY	14,478	14,645	Tipton city.....	2,697	1,250
Clear Lake township.....	406	433	Jefferson township.....	2,605	2,246
Fremont township, including Fremont town.....	1,372	1,344	Liberty township, including Sharpville town.....	2,205	2,115
Fremont town.....	692	632	Sharpville town.....	377	280
Jackson township.....	1,029	1,167	Madison township.....	2,703	2,074
Jamestown township.....	661	715	Prairie township.....	2,101	1,922
Mill Grove township.....	684	1,031	Wildcat township, including Windfall city.....	2,383	1,972
Otsago township.....	1,260	1,347	Windfall city.....	561	570
Pleasant township, including Angola town.....	2,971	2,483	UNION COUNTY	7,006	7,073
Angola town.....	1,840	1,260	Brownsville township, including Brownsville town.....	902	1,107
Richland township.....	717	742	Brownsville town.....	258	308
Salem township.....	1,438	1,051	Center township, including Liberty town.....	2,544	2,518
Scott township.....	1,100	1,154	Liberty town.....	1,374	1,096
Stauben township, including Pleasant Lake village.....	1,596	1,567	Harmony township.....	811	749
Pleasant Lake village.....	520	451	Harrison township.....	741	816
York township.....	964	1,021	Liberty township.....	707	939
SULLIVAN COUNTY	21,877	20,336	Union township, including West College Corner town.....	1,321	1,454
Cass township.....	2,356	1,499	West College Corner town.....	290	
Curry township, including Farmersburg and Shelburn towns.....	2,443	2,270	VANDERBURG COUNTY	59,809	42,193
Farmersburg town.....	301	237	Armstrong township.....	1,238	1,364
Shelburn town.....	378	377	Center township (c).....	1,286	1,027
Fairbanks township.....	1,258	1,331	Evansville city (d).....	50,756	20,280
Gill township, including Merom town.....	2,272	2,200	Ward 1.....	9,111	
Merom town.....	412	497	Ward 2.....	5,778	
Haddon township, including Carlisle town.....	3,005	2,725	Ward 3.....	6,519	
Carlisle town.....	593	489	Ward 4.....	0,237	
Hamilton township, including Sullivan town.....	4,241	4,485	Ward 5.....	7,973	
Sullivan town.....	2,222	2,161	Ward 6.....	12,118	
Jackson township.....	2,589	1,984	German township.....	1,507	1,541
Jefferson township.....	1,837	1,797	Knight township (e).....	1,504	1,002
Turman township.....	1,876	2,045	Perry township (e).....	995	2,034
SWITZERLAND COUNTY	12,514	13,336	Pigeon township (e).....		30,554
Cotton township.....	1,401	1,609	Scott township.....	1,564	1,076
Craig township.....	1,980	1,980	Union township.....	890	1,195
Jefferson township, including Vevay city.....	3,401	3,935	VERMILION COUNTY	13,154	12,025
Vevay city.....	1,663	1,884	Clinton township, including Clinton town.....	3,000	3,000
Ward 1.....	645		Clinton town.....	1,365	965
Ward 2.....	562		Eugene township.....	1,064	1,341
Ward 3.....	456		Holt township, including Dana town.....	3,474	3,027
Pleasant township, including Moorefield town.....	1,784	2,024	Dana town.....	495	183
Moorefield town.....	115		Highland township, including Perrysville town.....	2,232	2,438
Posey township, including Patriot town.....	2,253	2,105	Perrysville town.....	597	645
Patriot town.....	434	467	Vermilion township, including Newport town.....	2,175	2,215
York township.....	1,605	1,633	Newport town.....	551	591

a Not separately returned.

b Formerly Chauncey.

c Part given to Evansville city since 1880.

d Parts of Center, Knight, and Perry townships annexed since 1880; also that part of Pigeon township outside of city in 1880.

e In 1880 Pigeon township included Evansville city (population 20,280); since then that part of the township outside (population 1,274) has been absorbed by the city. Pigeon township now has no corporate existence.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
VIGO COUNTY	50,195	45,658	WASHINGTON COUNTY—Continued.		
Fayette township.....	1,792	1,935	Franklin township.....	1,813	1,872
Harrison township, including Terre Haute city..	31,277	27,910	Gibson township.....	1,680	1,680
Terre Haute city.....	39,217	26,042	Howard township.....	1,168	1,250
Ward 1.....	5,901		Jackson township, including Martinsburg town.	766	828
Ward 2.....	4,281		Martinsburg town.....	85	126
Ward 3.....	4,151		Jefferson township.....	1,448	1,556
Ward 4.....	4,008		Madison township, including Livonia town.....	949	902
Ward 5.....	5,499		Livonia town.....	194	211
Ward 6.....	4,681		Monroe township.....	1,041	1,075
Not in wards.....	1,696		Pierce township.....	1,048	1,098
Honey Creek township.....	1,425	1,455	Polk township.....	919	1,057
Linton township.....	1,505	1,618	Posey township, including Fredericksburg and	1,324	1,411
Lost Creek township.....	1,738	1,835	Hardinsburg towns.		
Nevins township, including Fontanet village.....	3,050	1,579	Fredericksburg town.....	211	255
Fontanet village.....	521		Hardinsburg town.....	138	133
Otter Creek township (a).....	1,470	1,387	Yernon township.....	1,013	1,014
Pierson township.....	1,517	1,707	Washington township, including Salem town..	4,528	4,249
Prairie Creek township.....	1,546	1,382	Salem town.....	1,975	1,615
Prairieton township.....	962	1,020			
Riley township.....	1,053	1,032	WAYNE COUNTY	37,628	38,613
Sugar Creek township.....	2,260	2,218	Abington township.....	759	837
WABASH COUNTY	27,126	25,241	Boston township, including Boston town.....	832	936
Chester township, including North Manchester	5,438	4,460	Boston town.....	146	137
North Manchester town.....	2,384	1,585	Center township, including Centerville town.....	2,050	2,307
La Gro township, including La Gro town.....	4,024	4,248	Centerville town.....	864	875
La Gro town.....	549	600	Clay township, including Washington town (b)..	891	1,063
Liberty township.....	1,828	2,013	Dalton township.....	582	748
Noble township, including South Wabash vil-	8,766	7,600	Franklin township, including White Water	1,193	1,428
lage and Wabash city.			town.		
South Wabash village.....	507	198	White Water town.....	123	181
Wabash city.....	5,105	3,800	Green township.....	1,052	1,180
Ward 1.....	2,419		Harrison township.....	503	588
Ward 2.....	1,080		Jackson township, including Cambridge city	4,021	5,294
Ward 3.....	1,606		and Dublin, East Germantown, and Mount		
Paw Paw township, including Roann town.....	2,294	2,130	Auburn towns.		
Roann town.....	582		Cambridge city.....	1,782	2,379
Pleasant township, including Laketon village..	2,474	2,184	Dublin town.....	806	1,079
Laketon village.....	528	206	East Germantown town.....	338	451
Waltz township.....	2,312	2,591	Mount Auburn town.....	144	171
			Jefferson township, including Hagerstown town.	1,784	2,007
			Hagerstown town.....	873	893
			New Garden township, including Fountain City	1,261	1,443
			town.		
			Fountain City town.....	492	471
WARREN COUNTY	10,955	11,497	Perry township.....	740	890
Jordan township.....	577	610	Washington township, including Milton town..	1,740	2,015
J. Q. Adams township.....	792	690	Milton town.....	742	855
Kent township, including State Line city.....	629	728	Wayne township, including Richmond city and	19,643	17,113
State Line city.....	201	268	Spring Grove town.		
Liberty township.....	1,239	1,830	Richmond city (c).....	16,608	12,742
Madina township, including Green Hill town ..	700	699	Ward 1.....	2,931	
Green Hill town.....	164	194	Ward 2.....	2,472	
Mound township.....	515	484	Ward 3.....	2,241	
Pike township, including West Lebanon town..	1,043	1,100	Ward 4.....	3,124	
West Lebanon town.....	644	665	Ward 5.....	3,395	
Phie township.....	876	972	Ward 6.....	1,479	
Prairie township.....	763	938	Ward 7.....	1,056	
Steuben township.....	1,027	1,315	Spring Grove town.....	99	
Warren township.....	1,312	1,273	Webster township.....	601	755
Washington township, including Williamsport	1,482	1,308			
city.			WELLS COUNTY	21,514	18,442
Williamsport city.....	1,027	913	Chester township.....	1,937	1,068
			Harrison township, including Bluffton city and	5,764	4,389
			Vera Cruz town.		
WARRICK COUNTY	21,161	20,162	Bluffton city.....	3,589	2,354
Anderson township.....	990	912	Ward 1.....	1,017	
Boon township, including Boonville town.....	5,462	4,668	Ward 2.....	1,324	
Boonville town.....	1,881	1,182	Ward 3.....	1,248	
Campbell township.....	1,421	1,586	Vera Cruz town.....	233	260
Great township.....	1,208	1,214	Jackson township.....	1,731	1,496
Hart township.....	2,073	2,166	Jefferson township.....	2,476	2,262
Lane township.....	1,242	1,165	Lancaster township.....	2,030	1,806
Ohio township, including Newburg town.....	3,311	3,413	Liberty township.....	2,037	1,762
Newburg town.....	1,046	1,282	Nottingham township.....	2,284	2,057
Owen township.....	1,475	1,517	Rock Creek township.....	1,600	1,412
Pigeon township.....	1,878	1,927	Union township.....	1,646	1,600
Skelton township.....	2,111	1,644			
			WHITE COUNTY	15,671	13,795
WASHINGTON COUNTY	18,619	18,955	Big Creek township.....	955	787
Brown township, including Campbellsburg	1,422	1,463	Cass township.....	893	624
town.			Honey Creek township, including Reynolds	1,018	604
Campbellsburg town.....	418	386	town.		
			Reynolds town.....	348	370

a Formerly Otter.

b Not separately returned.

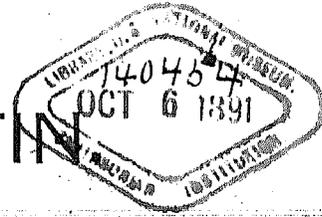
c Lindenhill town annexed since 1880.

POPULATION BY MINOR CIVIL DIVISIONS—CONTINUED.

MINOR CIVIL DIVISIONS.	1890.	1880.	MINOR CIVIL DIVISIONS.	1890.	1880.
WHITE COUNTY—Continued.			WHITLEY COUNTY.....	17,768	16,941
Jackson township, including Burnettsville town.....	1,958	1,724	Cleveland township, including South Whitley village.....	2,516	2,295
Burnettsville town.....	479	296	South Whitley village.....	720	468
Liberty township.....	1,221	1,149	Columbia township, including Columbia city.....	4,396	3,583
Monon township, including Monon town.....	1,960	1,215	Columbia city.....	3,627	2,344
Monon town.....	1,064	288	Columbia city.....	580	577
Prairie township, including Brookston town.....	1,885	2,140	Etna township.....	1,577	1,523
Brookston town.....	447	561	Jefferson township.....	1,683	1,917
Princeton township, including Wolcott town.....	1,465	1,395	Richland township.....	2,060	1,892
Wolcott town.....	246	239	Smith township, including Churubasco town.....	869	720
Round Grove township.....	779	804	Churubasco town.....	1,322	1,488
Union township, including Monticello town.....	2,632	2,217	Thorn Creek township.....	945	924
Monticello town.....	1,518	1,193	Troy township.....	1,169	1,263
West Point township.....	905	886	Union township.....	1,520	1,470
			Washington township.....		

ROBERT P. PORTER,
Superintendent of Census.

CENSUS BULLETIN



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HORTICULTURE.—NURSERIES.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,

WASHINGTON, D. C., August 20, 1891.

Herewith is presented a preliminary report, prepared by Mr. J. H. HALE, special agent, under the direction of Mr. MORTIMER WHITEHEAD, special agent in charge of horticulture, upon the nursery industry of the United States, which has for the first time been made a subject of census investigation. The material from which these statistics are compiled was obtained direct from the nurserymen, upon schedules specially prepared for that purpose, and by personal visits of special agents to nursery establishments in all parts of the country. These figures are subject to revision before publication in the final report.

From the tabulations in this bulletin it appears that there are in the United States 4,510 nurseries, valued at \$41,978,835.80 and occupying 172,806 acres of land, with an invested capital of \$52,425,669.51, and giving employment to 45,657 men, 2,279 women, and 14,200 animals, using in the propagation and cultivation of trees and plants \$990,606.04 worth of implements. Of the acreage in nurseries 95,025.42 were found to be used in growing trees, plants, shrubs, and vines of all ages; and the figures, based upon the best estimate of the nurserymen, make the grand total of plants and trees 3,386,855,778, of which 518,016,612 are fruit trees, 685,603,396 grapevines and small fruits, and the balance nut, deciduous, and evergreen trees, hardy shrubs, and roses. The largest acreage is devoted to the production of apple trees, viz: 20,232.75 acres, numbering 240,570,666 young trees, giving an average of 11,890 per acre, while the plum, pear, and peach have, respectively, 7,826.5, 6,854.25, and 3,357 acres, producing 88,494,367, 77,223,402, and 49,887,894 young trees, or an average of 11,307, 11,266, and 14,861 trees to the acre.

The table showing the date of establishment and the columns in the various tables of production indicating the per cent of increase clearly prove the steady growth of this industry, while the great increase in the planting of large orchards and the constantly developing taste and demand for fruit and ornamental trees, vines, shrubs, and plants for home adornment assures the continued growth and prosperity of this industry.

Superintendent of Census.

NURSERIES.

BY J. H. HALE.

Horticulture, that higher art of agriculture, has been making wondrous strides in this country during the last quarter of a century, and as the foundation of nearly all this great work lies in the little nursery row of seedlings, dormant buds, root grafts, or cuttings, it seemed fitting that the Eleventh Census of the United States should, for the first time, take account of stock in this particular direction; hence this report upon nurseries, which, though somewhat crude in its way, at least will show, in connection with other special horticultural investigation, the tendency of the people in the way of a more refined agriculture, in the production, not only for home adornment and consumption, but for commercial purposes also, of fruits, flowers, trees, and shrubbery, all so refining and purifying in their influences as to ennoble all who come in daily contact with them.

While most of the first trees and plants were of necessity brought from the mother country by the early settlers, their production from seeds and by budding, grafting, and layering was begun here early in the seventeenth century, as shown by many of the early colonial records, points of especial interest upon this subject having been gathered by the Massachusetts Horticultural Society and published in the introduction of the history of the society as "a sketch of the history of Horticulture in the United States up to the year 1829", the date of organization of that society. A memorandum in the records of the Massachusetts Company, March 16, 1629, says:

To provide to send for New England Vyne Plauters, Stones of all sorts of fruites, as peaches, pears, plums, filberts, cherries, pear, apple, quince kernells, pomegranats; also wheat, rye, barley, ontos, woad, saffron, liquorice seed and madder rootes, potatoes, hop rootes, currant plants.

George Fenwick, of Saybrook, Connecticut, wrote on May 6, 1641, to Governor Winthrop, of Massachusetts:

I have receaved the trees yow sent me, for which I hartily thanke yow. If I had anything heere that could pleasure yow, yow should frely command it. I am prettie well storred with cherrie & peach trees, & did hope I had had a good nurserie of aples, of the aples yow sent me last yeare, but the wormes haue in a manner destroyed them all as they came up. I pray informe me if yow know any way to preuent like mischiefe for the future.

March 5, 1665, John Mason, of Saybrook, Connecticut, wrote to Mrs. Elizabeth Winthrop:

Haue sent ten apple trees by Goodman Stolyon to yourselfe. I suppose they will most of them be planted in the north end of your orchard. I would haue sent more if I had thought there were a place to receive them. I haue alsoe sent Thomas Bayley thirty grafted trees as hee desired mee. They are in Goodman Stolyon's boate. I would entreat you to acquaint him with it. Hee told mee hee would put it to Mr. Winthrop's account. They come to thirty shillings.

Prince's nursery and botanic garden was established at Flushing, Long Island, about the middle of the last century, by William Prince, and for more than one hundred years was continued by his descendants.

John Watson established a nursery near Charleston, South Carolina, about 1760, and a botanic garden was established there in 1786.

In 1768 the Society for Promotion of Arts at New York awarded a premium of £10 to Thomas Young, of Oyster Bay, for the largest number of apple trees, the number being 27,123.

In 1796 George Heusler, on the farm of Elias H. Derby, in the town of Danvers, Massachusetts, was offering trees for sale.

In 1796 two brothers by the name of Vaughn established a nursery at Hallowell, Maine, and by importing and testing all the leading varieties of Europe did much to advance the horticulture of Maine. Ephriam Goodale also started a nursery at Orrington, Maine, about 1800.

This being the first time that the nurseries have ever been made the subject of special census inquiry, there was found but little recorded data to guide in the work; in fact, nothing to build upon except the notes just given and the shaky foundation of a so-called "nursery directory", representing many dead firms, as well as others who were only dealers and not growers of nursery stock. However, these were finally all weeded out, and with the friendly assistance of the active nurserymen in each state, coupled with the official work of the census enumerators, a live list was secured, representing every producer of nursery stock in the United States. These were all furnished with special blanks for a full detailed report of their productions, and while all have not reported, a very large majority have, thus supplementing the figures given the census enumerators, which form the basis of the tables of acreage and value. Many of the nurserymen reported, keeping no record as to cost of production, labor, etc., had to estimate this expense; but, however, as in nearly every instance these estimates are very nearly the same as the figures furnished by others in the same states who did keep a record, they are doubtless approximately correct, as are the other figures here given, which show that there are in the United States 4,510 nurseries, valued at \$41,978,835.80 and occupying 172,806 acres of land. In this business there is a total capital of \$52,425,669.51 invested, which employs 45,657 men, 2,279 women, and 14,200 animals, propagating and cultivating trees and plants, with the aid of \$990,606.04 worth of implements.

There were found growing in the United States 95,025.42 acres of trees, plants, shrubs, and vines of all ages, and figures based upon the best estimates of the nurserymen make the grand total of plants and trees 3,386,855,778 (not including miscellaneous fruit trees and plants grown on 1,477 acres), of which 518,016,612 are fruit trees, 685,603,396 grapevines and small fruits, and the balance evergreen and deciduous trees, hardy shrubs, and roses.

The following table shows the number grown of each class of trees and plants, together with the number of acres and the average number grown per acre:

TREES OR PLANTS.	Number of acres.	Average number grown per acre.	Total number grown.	TREES OR PLANTS.	Number of acres.	Average number grown per acre.	Total number grown.
Apple.....	20,232 $\frac{1}{4}$	11,890	240,570,666	Quince.....	518	11,675	6,047,680
Apricot.....	269	11,680	3,144,466	Nut.....	1,370 $\frac{1}{2}$	10,072	13,803,000
Cherry.....	3,690	10,362	38,236,254	Deciduous.....	12,342	105,121	1,297,408,257
Fig.....	63 $\frac{1}{4}$	11,734	742,200	Evergreen.....	8,644 $\frac{1}{2}$	95,094	822,038,324
Lemon.....	79	6,998	552,841	Hardy shrubs.....	2,881 $\frac{1}{2}$	15,989	46,072,630
Lime.....	6	10,688	64,125	Rose.....	346 $\frac{1}{2}$	11,295	3,913,653
Nectarine.....	50	13,054	652,679	Grapevines.....	5,673	28,052	159,139,248
Olive.....	26	12,616	328,016	Strawberry.....	4,433	61,167	271,108,253
Orange.....	607 $\frac{1}{2}$	7,191	4,368,322	Raspberry.....	5,756 $\frac{1}{4}$	15,025	86,487,401
Peach.....	3,357	14,861	49,887,894	Blackberry.....	4,889 $\frac{1}{3}$	21,539	105,310,810
Pear.....	6,854 $\frac{1}{4}$	11,200	77,223,402	Currant.....	2,021	24,432	49,376,805
Plum.....	7,826 $\frac{1}{2}$	11,307	88,494,367	Gooseberry.....	1,000 $\frac{1}{2}$	14,047	14,180,789
Pomelo.....	14	5,764	80,700	Miscellaneous fruit trees and plants.....	1,477		
Prune.....	588	12,964	7,623,000				

The total value of these products in the nursery is upward of \$100,000,000 if sold at market rates; but the fluctuation in demand for the various varieties is such that there is often a considerable surplus of stock on hand of some varieties of too great age or inferior grade, which has to be sold at whatever price is offered or else thrown on the brush heap to be burned, so that nearly 20 per cent of all stock produced annually remains unsold.

As nearly all trees and many plants are seldom sold till two and three years old, the stock in nurseries, as above enumerated, really represents a two years' supply.

The following tables present interesting statistics concerning the nurseries of the United States at the taking of the Eleventh Census :

NURSERIES AND CAPITAL INVESTED.

STATES AND TERRITORIES.	Number of nurseries.	Acres of land.	Value per acre. (a)	Total value of nurseries. (b)	Value of imple-ments.	Total capital invested.
The United States	4,510	172,806		\$11,978,835.80	\$990,006.04	\$52,425,669.51
North Atlantic division :						
Maine	41	226	\$126.67	180,912.51	10,303.75	298,177.50
New Hampshire	5	23	275.00	8,166.65	400.00	14,500.00
Vermont	17	75	341.67	35,000.00	1,601.00	46,500.00
Massachusetts	120	1,801	404.71	1,333,666.80	37,240.20	1,773,500.00
Rhode Island	9	45	125.00	36,000.00	1,200.00	58,500.00
Connecticut	20	328	170.78	146,509.00	7,630.00	194,071.57
New York	530	24,840	272.50	10,609,868.30	172,048.60	12,202,844.50
New Jersey	145	5,465	266.13	1,712,484.75	53,195.35	1,970,503.90
Pennsylvania	311	6,598	357.29	3,134,780.63	106,865.82	4,210,805.50
Total	1,198	39,491		17,257,366.64	389,053.72	20,679,492.97
South Atlantic division :						
Delaware	35	725	132.50	111,805.40	4,480.00	155,361.15
Maryland	50	1,443	70.00	305,000.00	10,111.00	519,400.00
District of Columbia	1	120	500.00	120,000.00	600.00	125,000.00
Virginia	54	1,890	114.55	832,336.02	8,017.00	922,172.58
West Virginia	22	673	120.83	115,500.00	1,205.00	126,080.40
North Carolina	32	900	26.39	111,200.00	11,840.00	231,840.00
South Carolina	3	70	25.00	2,700.00	75.00	4,000.00
Georgia	16	812	105.67	180,070.00	1,600.00	277,060.00
Florida	137	1,374	228.34	419,766.40	10,751.86	450,221.93
Total	350	8,027		2,198,377.91	48,739.86	2,818,045.00
North Central division :						
Ohio	393	10,790	140.44	3,159,358.44	114,610.50	4,778,518.10
Indiana	223	5,464	90.75	791,848.47	20,200.10	1,050,611.31
Illinois	434	17,812	150.09	3,595,850.58	54,362.84	4,778,083.94
Michigan	155	3,015	116.40	502,293.65	25,002.50	809,491.10
Wisconsin	117	1,651	133.50	456,797.25	32,031.00	492,277.50
Minnesota	60	1,720	125.00	504,045.00	0,487.50	652,433.61
Iowa	183	12,049	93.40	1,276,979.49	20,648.48	1,591,700.73
Missouri	220	15,190	232.59	2,604,746.15	47,432.77	2,932,473.24
North Dakota	13	26	100.00	2,600.00	975.00	45,500.00
South Dakota	27	680	54.78	88,425.00	4,146.39	126,740.88
Nebraska	177	15,641	67.44	1,364,905.61	43,807.50	1,479,953.61
Kansas	339	11,492	83.39	1,261,798.34	45,005.67	1,425,792.81
Total	2,359	101,442		15,633,141.98	435,180.42	19,629,676.58
South Central division :						
Kentucky	49	621	102.88	240,610.58	8,483.37	504,303.75
Tennessee	54	1,642	86.36	604,200.00	15,390.00	1,015,071.00
Alabama	15	975	26.37	272,152.50	6,067.50	455,040.00
Mississippi	15	505	47.90	55,032.50	2,025.00	70,284.35
Louisiana	24	280	205.00	159,000.00	1,200.00	170,400.00
Texas	97	4,665	108.75	738,882.95	14,020.38	1,211,930.61
Arkansas	68	707	38.00	80,410.00	7,572.48	110,800.36
Total	322	9,455		2,151,318.53	54,768.73	3,550,820.83
Western division :						
Colorado	23	637	144.00	106,250.00	7,084.00	162,916.59
New Mexico	1	70	200.00	15,000.00	100.00	15,200.00
Arizona	3	82	50.00	6,175.00	100.00	8,500.00
Utah	17	199	168.75	61,880.00	708.39	83,816.00
Idaho	8	248	230.67	124,000.00	1,500.00	172,000.00
Washington	27	435	138.89	100,980.00	3,972.78	100,620.00
Oregon	36	1,576	91.79	165,494.16	4,287.24	236,658.00
California	166	11,144	290.08	4,158,851.58	44,180.90	4,871,029.48
Total	281	14,301		4,738,630.74	61,973.31	5,711,634.07

a The value of nursery land in many instances is regulated more by its proximity to cities and towns than by its productive value for nursery purposes.

b It is evident from the figures furnished by the nurserymen as to the total value of nurseries that in most cases growing stock is not estimated at much more than one-fourth its market value when sold. No doubt this is just and fair, as perishable products of this sort are of value only as they can be sold, and their sale depends largely upon advertising and the solicitation of catalogues and traveling salesmen, and if not disposed of when they arrive at proper size and age they soon become valueless.

DATE OF ESTABLISHMENT OF NURSERIES.

STATES AND TERRITORIES.	Total number of nurseries.	Date of establishment unknown or unreported.	Previous to 1800. (a)	1800 to 1810.	1810 to 1820.	1820 to 1830.	1830 to 1840.	1840 to 1850.	1850 to 1860.	1860 to 1870.	1870 to 1880.	1880 to 1890.
The United States.....	4,510	1,317	2			2	8	32	192	424	776	1,757
North Atlantic division :												
Maine.....	41	20							1	2	2	16
New Hampshire.....	6							1		1	1	2
Vermont.....	17	4							1	2	6	4
Massachusetts.....	120	68				1	1	6	6	4	10	24
Rhode Island.....	9	8										1
Connecticut.....	20	3	1					1	1	1	8	5
New York.....	530	226	1				3	6	6	57	90	141
New Jersey.....	145	19					2	2	4	26	38	54
Pennsylvania.....	311	161						6	15	18	54	57
Total.....	1,198	509	2			1	6	22	34	111	209	304
South Atlantic division :												
Delaware.....	35	6				1				6	10	12
Maryland.....	60	23							1	8	6	12
District of Columbia.....	1								1			
Virginia.....	64	18							3	3	6	24
West Virginia.....	22									4	6	12
North Carolina.....	32	12								6	8	6
South Carolina.....	3	3										
Georgia.....	10	3								3	2	8
Florida.....	137	8							1	4	8	116
Total.....	350	73				1			6	34	46	190
North Central division :												
Ohio.....	303	127					1	1	42	33	87	102
Indiana.....	223	6					1		27	27	45	117
Illinois.....	434	77						9	30	69	81	138
Michigan.....	155	83							9	3	27	33
Wisconsin.....	117	40							6	12	15	44
Minnesota.....	60	33								3	15	18
Iowa.....	183	69							8	13	26	67
Missouri.....	229	19							15	42	30	114
North Dakota.....	13	4										9
South Dakota.....	27	2										24
Nebraska.....	177	27							3	9	15	123
Kansas.....	339	90							3	15	78	153
Total.....	2,350	577					2	10	143	256	429	942
South Central division :												
Kentucky.....	40	10							3	3	9	24
Tennessee.....	51	15							3	3	15	18
Alabama.....	15	2									3	10
Mississippi.....	15	3							1	1	2	8
Louisiana.....	24	14								2	2	6
Texas.....	97	16									16	66
Arkansas.....	68	20								8	4	36
Total.....	322	79							7	17	61	168
Western division :												
Colorado.....	23	9									4	10
New Mexico.....	1											1
Arizona.....	3	2										1
Utah.....	17	7									4	6
Idaho.....	8	2									2	4
Washington.....	27	3									4	20
Oregon.....	36	3								2	4	27
California.....	100	63							2	4	23	84
Total.....	281	79							2	6	41	153

a As previously noted, there was a considerable number of nurseries in existence prior to 1800; however, of the nurseries now in the country it is impossible to trace but 2 that date their establishment in the eighteenth century, the earlier ones having been abandoned.

LABOR AND WAGES.

STATES AND TERRITORIES.	Number of men employed.	Number of women employed. (a)	Wages paid men per day.	Wages paid women per day.	Number of horses and other animals employed.
The United States.....	25,408	2,270			14,200
North Atlantic division:					
Maine.....	92	1	\$1.36	\$0.50	58
New Hampshire.....	15		1.38		10
Vermont.....	45		1.25		25
Massachusetts.....	540	22	1.63	1.00	270
Rhode Island.....	23		1.50		19
Connecticut.....	80	4	1.47	0.85	59
New York.....	3,970	160	1.27	0.70	1,810
New Jersey.....	765	42	1.21	0.68	437
Pennsylvania.....	1,555	34	1.15	0.81	834
Total.....	7,085	263			3,521
South Atlantic division:					
Delaware.....	175	5	1.00	0.56	90
Maryland.....	327	16	1.00	0.60	108
District of Columbia.....	25		1.25		6
Virginia.....	490	216	0.78	0.38	101
West Virginia.....	78	14	1.00	0.50	47
North Carolina.....	266	48	0.60 ^{1/2}	0.32 ^{1/2}	112
South Carolina.....	12	2	0.60	0.50	7
Georgia.....	80	12	0.77 ^{1/2}	0.50	38
Florida.....	434	18	1.10	0.50	233
Total.....	1,887	331			922
North Central division:					
Ohio.....	2,751	80	1.13	0.61	1,423
Indiana.....	948	64	1.14	0.68	612
Illinois.....	2,321	134	1.15	0.74	1,464
Michigan.....	878	109	1.08	0.63	436
Wisconsin.....	619	103	1.07	0.76	319
Minnesota.....	234	38	1.10	0.62 ^{1/2}	201
Iowa.....	1,107	86	1.06	0.72 ^{1/2}	765
Missouri.....	1,317	197	1.00	0.63	763
North Dakota.....	26		1.50		26
South Dakota.....	81	7	1.20	0.65	105
Nebraska.....	1,371	124	1.14	0.56	747
Kansas.....	1,361	149	1.08	0.50	974
Total.....	13,017	1,142			7,775
South Central division:					
Kentucky.....	236	49	0.89	0.53	118
Tennessee.....	867	296	0.80	0.53	323
Alabama.....	265	35	0.62	0.44	67
Mississippi.....	100	10	0.67 ^{1/2}	0.46	81
Louisiana.....	114	12	0.89	0.50	135
Texas.....	485	87	1.06	0.54	318
Arkansas.....	162	2	0.80	0.47 ^{1/2}	132
Total.....	2,220	491			1,076
Western division:					
Colorado.....	76	13	1.68	0.75	60
New Mexico.....	3		1.00		2
Arizona.....	5		1.25		5
Utah.....	20	2	1.55	0.50	29
Idaho.....	22		1.87 ^{1/2}		72
Washington.....	105	10	1.36 ^{1/2}	1.00	90
Oregon.....	146	2	1.41	1.00	90
California.....	804	25	1.57	1.09	558
Total.....	1,100	52			906

^a Women in all states except the south, where a considerable number work as field hands, are mostly employed in nursery offices or about the nursery boarding houses.

TOTAL ACREAGE OF EACH VARIETY OF NURSERY TREES AND PLANTS OF ALL AGES, BY STATES
AND TERRITORIES.

STATES AND TERRITORIES.	Total.	Apple.	Apricot.	Cherry.	Fig.	Lemon.	Lime.	Nectar- inc.	Olive.	Orange.	Peach.	Pear.	Plum.	Pomelo.
The United States.....	95,025 $\frac{1}{2}$	20,232 $\frac{3}{4}$	269	3,690	63 $\frac{1}{4}$	79	6	50	26	607 $\frac{1}{2}$	3,357	6,854 $\frac{1}{4}$	7,826 $\frac{1}{2}$	14
North Atlantic division:														
Maine.....	102 $\frac{1}{2}$	53										1	7	
New Hampshire.....	6	6												
Vermont.....	31 $\frac{1}{2}$	53 $\frac{1}{4}$		1								3 $\frac{3}{4}$	41 $\frac{1}{2}$	
Massachusetts.....	655	54									6	3	3	
Rhode Island.....	13													
Connecticut.....	207	17									8	4	2	
New York.....	12,356 $\frac{1}{2}$	2,000	8	493				1			490	1,587	1,331	
New Jersey.....	2,709	206	1	34							208	142	60	
Pennsylvania.....	4,171	330	5	178				1			220	275	288	
Total.....	20,251 $\frac{1}{2}$	2,671 $\frac{3}{4}$	14	706				2			932	2,015 $\frac{1}{4}$	1,695 $\frac{1}{2}$	
South Atlantic division:														
Delaware.....	562	53									140	50	5	
Maryland.....	801	140	1	5							221	26	52	
District of Columbia.....														
Virginia.....	1,028	288	1	23							114	63	82	
West Virginia.....	314	50	2					1			14	21	31	
North Carolina.....	428 $\frac{1}{2}$	63	9	16	1			2			80	33	30	
South Carolina.....														
Georgia.....	707	51	2	3	14						81	193	63	
Florida (a).....	1,165	7			13	53	3			208	19	447	127	11
Total.....	5,005 $\frac{1}{2}$	652	15	47	28	53	3	3		208	669	863	390	11
North Central division:														
Ohio.....	11,695	2,756	2	606							337	945	1,078	
Indiana.....	4,167	1,025	1	79							79	271	293	
Illinois.....	12,307	3,016	2	508				1			155	981	1,514	
Michigan.....	1,754	363	1	40							129	105	48	
Wisconsin.....	1,211	199		33									13	
Minnesota.....	809	185											25	
Iowa.....	7,917 $\frac{1}{2}$	1,741	3	506							37	258	562	
Missouri.....	5,646	1,880	7	198	1						176	497	708	
North Dakota.....								5						
South Dakota.....	349 $\frac{1}{2}$	46		10									10	
Nebraska.....	5,794	1,248	5	389				9			116	138	329	
Kansas.....	7,243	2,400	10	261				6			155	147	300	
Total.....	58,803	14,949	31	2,630	1			20			1,184	3,342	4,880	
South Central division:														
Kentucky.....	576	117	2	20							31	17	6	
Tennessee.....	872	458	1	26							51	18	55	
Alabama.....	204 $\frac{1}{4}$	116			$\frac{1}{4}$						24	30	28	
Mississippi.....	163	28									16	14	18	
Louisiana.....	702 $\frac{1}{2}$	6									0	13 $\frac{1}{2}$	4	
Texas.....	2,382 $\frac{1}{2}$	213	3	27	0	1		4		4	178	160	118	1
Arkansas.....	421	84	1	21				1		2 $\frac{1}{2}$	22	35	32	
Total.....	4,689 $\frac{1}{2}$	1,022	7	94	9 $\frac{1}{4}$	1		5		6 $\frac{1}{2}$	328	281 $\frac{1}{3}$	261	1
Western division:														
Colorado.....	249	64		6								6	8	
New Mexico.....	6	5									1			
Arizona.....														
Utah.....	105	42	7	6							15	5	6	
Idaho.....	82	12	1	13							3	24	8	
Washington.....	269	59	2	40				1			7	20	45	
Oregon.....	743	180	18	40				6			48	49	92	
California (a).....	4,732	578	174	168	25	25	3	13	26	303	170	242	441	2
Total.....	6,186	938	202	213	25	25	3	20	26	303	244	352	609	2

a In both California and Florida a very great number of small nurseries produce only orange trees on a small scale in connection with an orange grove planted for the fruit.

TOTAL ACREAGE OF EACH VARIETY OF NURSERY TREES AND PLANTS OF ALL AGES, BY STATES
AND TERRITORIES—CONTINUED.

STATES AND TERRITORIES.	Prune.	Quince.	Nut.	Deciduous.	Evergreen.	Hardy shrubs.	Rose.	Grapevines.	Strawberry.	Raspberry.	Blackberry.	Currant.	Gooseberry.	Miscellaneous fruit trees and plants. (a)
The United States.....	588	518	1,370 $\frac{1}{2}$	12,342	8,644 $\frac{1}{2}$	2,881 $\frac{1}{2}$	346 $\frac{1}{2}$	5,673	4,433	5,756 $\frac{1}{2}$	4,880 $\frac{1}{2}$	2,021	1,009 $\frac{1}{2}$	1,477
North Atlantic division:														
Maine.....									11		6 $\frac{1}{2}$	2	23	
New Hampshire.....														
Vermont.....	1								3 $\frac{1}{2}$	3	3	3		
Massachusetts.....				152	99	189	2	1	91	31	18	3		
Rhode Island.....	1								6	3				3
Connecticut.....	3 $\frac{1}{2}$			2	4	4			81	53	10	17 $\frac{1}{2}$		
New York.....	189 $\frac{1}{2}$		41 $\frac{1}{2}$	962	980	402	17	1,527	448	1,018	429	405	20	8
New Jersey.....	29		40	199	326	39	13	45	287	394	392	212	36	146
Pennsylvania.....	43		12	1,260	516	115	29	227	147	119	347	54	5	
Total.....		266 $\frac{1}{2}$	93 $\frac{1}{2}$	2,575	1,925	749	61	1,800	1,077 $\frac{1}{2}$	1,621	1,204 $\frac{1}{2}$	696 $\frac{1}{2}$	88	157
South Atlantic division:														
Delaware.....				52	50				44	44	118			
Maryland.....				103	74				62	35	55		5	
District of Columbia.....														
Virginia.....				116	50	16		29	150	30	17	19	9	
West Virginia.....	4		10	76	50	15	4	9	8	4	4	6	5	
North Carolina.....	2 $\frac{1}{2}$		13	18	34	1 $\frac{1}{2}$	4	84	35	1	2	1	0 $\frac{1}{2}$	
South Carolina.....														
Georgia.....	1		34	14	10	10	8	26						197
Florida (b).....			17	13	7		15	52	63	2				18
Total.....		5 $\frac{1}{2}$	74	392	281	42 $\frac{1}{2}$	31	206	362	126	196	23	19 $\frac{1}{2}$	215
North Central division:														
Ohio.....	47		25	1,088	948	430	45	364	360	1,268	746	454	131	68
Indiana.....	23		5	401	513	32	48	78	230	390	390	133	155	21
Illinois.....	34		24	1,206	1,400	594	12	694	460	730	635	383	126	12
Michigan.....	21		14	181	345	55	4	9	87	150	82	28	10	82
Wisconsin.....			8	249	286	29	5	20	101	94	73	12	27	62
Minnesota.....				200	80	29	7	6	29	70	123	16	57	
Iowa.....	6		25	1,681	1,057	398	13 $\frac{1}{2}$	427	298	475	392	92	60	30
Missouri.....	32		67	157	431	196	22	433	176	189	95	131	110	75
North Dakota.....														
South Dakota.....				183	29	7	2	18	12 $\frac{1}{2}$	15	31 $\frac{1}{2}$	8 $\frac{1}{2}$	5	
Nebraska.....	9		28	1,900	355	301	20	225	135	150	229	82	110	10
Kansas.....	27		23	1,483	387	100	22	210	425	255	673	47	92	231
Total.....		100	219	8,729	5,831	1,982	200 $\frac{1}{2}$	2,454	2,304 $\frac{1}{2}$	3,786	3,311 $\frac{1}{2}$	1,583 $\frac{1}{2}$	879	677
South Central division:														
Kentucky.....	4		6	124	43	6	3	6	105	50	5	1	5	25
Tennessee.....	4				2			12	142	87	13		3	
Alabama.....					2			2	2					
Mississippi.....					2			3	21	26	1			31
Louisiana.....			42			1		2	1	1 $\frac{1}{2}$				
Texas.....	7		278	317	231 $\frac{1}{2}$	35	21	395	221	27 $\frac{1}{2}$	90 $\frac{1}{2}$	2	1	29
Arkansas.....	3							34	128	19	13	4	2	22
Total.....		18	326	441	280 $\frac{1}{2}$	42	20	472	625	184 $\frac{1}{2}$	127 $\frac{1}{2}$	7	11	110
Western division:														
Colorado.....				41	47	47	2	6	12	7			3	
New Mexico.....														
Arizona.....														
Utah.....				10					3	3	2			3
Idaho.....														
Washington.....	36	2		13	10	3		8	7	3	1	1	2	4
Oregon.....	174	7	10	19	16	3		10	9	5	5	5	4	43
California (b).....	378	20	648	122	254	13	23	714	333	21	42	5	3	348
Total.....	588	29	658	205	327	66	25	741	64	30	50	11	12	418

a Persimmons, gnavas, mulberries, dewberries, etc., as well as many small mixed plots of standard fruits, are here enumerated.

b In both California and Florida a very great number of small nurseries produce only orange trees on a small scale in connection with an orange grove planted for the fruit.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES.

APPLES.

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100. (c)	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100. (c)
The United States.....	7,341 ⁴							6,848		
North Atlantic division:										
Maine.....	27	14,000	\$3.00	\$15.00	35	35	30	22	\$5.50	\$17.00
New Hampshire.....	3	10,000	3.50	15.00	33	34	33	3	6.00	25.00
Vermont.....	11 ⁴	10,000	3.00	11.50	50	30	20	2	3.50	15.00
Massachusetts.....	13 ⁴	12,000	3.50	11.50	50	25	25	30	4.50	15.00
Rhode Island.....										
Connecticut.....	10	12,000	3.50	8.00	52	30	18	7	4.00	12.00
New York.....	807	13,037	2.57	6.00	55	27	18	728	3.71	7.83
New Jersey.....	73	11,000	4.13	6.44	56	30	14	62	5.92	7.50
Pennsylvania.....	118	11,079	4.12	6.37	63	22	15	104	5.43	7.34
Total.....	1,052 ⁴							958		
South Atlantic division:										
Delaware.....	22	10,500	3.50	7.00	50	25	25	16	4.50	10.00
Maryland.....	34	11,600	4.25	7.33	80	15	5	28	4.50	9.00
District of Columbia.....										
Virginia.....	110	13,500	3.33	6.55	65	21	14	105	4.12	9.40
West Virginia.....	6	11,500	2.18	6.50	60	20	20	18	3.00	8.00
North Carolina.....	29	16,600	2.83	6.06	50	38	12	19	3.25	8.75
South Carolina.....										
Georgia.....	22	10,600	2.83	5.50	50	37	13	16	3.25	8.00
Florida.....	4	10,400	2.33	5.75	40	35	25	3	3.00	8.00
Total.....	227							205		
North Central division:										
Ohio.....	1,048	10,127	2.95	6.17	61	26	13	990	3.34	7.39
Indiana.....	220	10,577	2.70	5.81	62	28	10	235	3.63	7.47
Illinois.....	1,071	12,500	2.25	4.50	60	26	14	864	3.66	7.49
Michigan.....	125	12,000	2.50	6.00	62	24	14	128		7.50
Wisconsin.....	73	11,800	2.25	6.25	52	28	20	67	3.21	7.56
Minnesota.....	60	11,000	2.50	6.35	48	29	23	72	4.25	8.13
Iowa.....	615	11,395	2.70	3.67	66	23	11	612	3.87	6.93
Missouri.....	744	12,389	1.61	4.81	58	26	16	688	2.74	6.49
North Dakota.....										
South Dakota.....	28	12,000	2.58	3.75	52	28	20	10	4.80	7.90
Nebraska.....	540	11,129	2.25	3.79	62	27	11	408	2.53	5.62
Kansas.....	705	12,522	2.00	3.93	61	27	12	935	2.93	6.71
Total.....	6,229							5,000		
South Central division:										
Kentucky.....	44	13,000	2.74	5.50	57	31	12	32	2.70	7.80
Tennessee.....	137	13,330	2.00	5.08	47	25	28	170	2.90	6.00
Alabama.....	54	12,000	2.25	6.00	50	30	20	42	3.00	7.50
Mississippi.....	14	12,000	2.50	6.67	40	40	20	7	3.00	7.00
Louisiana.....	2	11,000	2.50	6.50	40	45	15	3	3.25	8.00
Texas.....	94	12,866	2.70	6.28	71	26	3	59	3.10	9.00
Arkansas.....	19	11,000	2.05	5.22	62	25	13	51	3.25	6.00
Total.....	364							364		
Western division:										
Colorado.....	29	8,333	2.17	5.33	55	28	17	23	4.50	9.00
New Mexico.....	3	12,000	2.50	6.00	75	25		2	3.50	10.00
Arizona.....										
Utah.....	34	9,000	3.00	8.00	50	30	20	8	5.00	13.75
Idaho.....	10	12,000	3.00	5.00	90	10		2	5.00	8.00
Washington.....	35	13,750	4.50	6.50	68	22	10	15	5.33	9.50
Oregon.....	50	13,686	4.20	6.21	60	33	7	77	5.91	9.56
California.....	261	12,276	5.20	10.14	84	14		185	7.90	12.83
Total.....	462							312		

^a The selling prices here given are the wholesale prices for large lots at the nursery, and not the retail prices for small quantities shipped to planters or delivered through agents, where cost of digging, packing, delivering, etc., is far greater than the cost of production. Very few one-year old fruit trees, except peach and apricot, are disposed of, a few only being sold to other nurserymen or experienced orchardists, who know the value of a young and vigorous tree with all of its roots.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

APPLE—CONTINUED.

STATES AND TERRITORIES.	Per cent of No. 1 grade two-year trees or plants.	Per cent of No. 2 grade two-year trees or plants.	Per cent of No. 3 grade two-year trees or plants.	Number of acres three-year trees or over.	Per cent of No. 1 grade three-year trees or over.	Per cent of No. 2 grade three-year trees or over.	Per cent of No. 3 grade three-year trees or over.	Per cent of increased production since 1885.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
The United States.....				6,650 $\frac{1}{2}$						
North Atlantic division :										
Maine.....	45	40	15	4	65	30	5	50		20
New Hampshire.....	50	30	20							
Vermont.....	60	30	10	2 $\frac{1}{2}$	70	20	10			25
Massachusetts.....	60	30	10	11 $\frac{1}{2}$	65	25	10			20
Rhode Island.....										
Connecticut.....										
New York.....	67	30	13	465	40	32	19	332		
New Jersey.....	65	28	7	71	53	25	22	25		25
Pennsylvania.....	60	30	20	108	61	24	12	75		16
Total.....				661 $\frac{1}{2}$						
South Atlantic division :										
Delaware.....				15						
Maryland.....	50	25	25	78	50	25	25	20		20
District of Columbia.....										
Virginia.....	67	24	9	73	62	26	12	62		5
West Virginia.....	63	20	17	26	60	30	10	80		10
North Carolina.....	50	38	12	15	50	25	25	25	30	
South Carolina.....										
Georgia.....	75	25		13	75	20	5	50		15
Florida.....	75	25								
Total.....				220						
North Central division :										
Ohio.....	49	33	18	718	62	24	14	27		20
Indiana.....	76	14	10	670	64	28	18	32		37
Illinois.....	63	24	13	1,081	60	22	18	175		20
Michigan.....				110						
Wisconsin.....	62	18	20	59	68	24	18	183		25
Minnesota.....	25	61	12	53	75	15	10	50		
Iowa.....	66	21	13	514	63	21	16	75		20
Missouri.....	54	28	18	448	62	22	16	200		30
North Dakota.....				8						
South Dakota.....	48	32	20	8	50	30	20	68		28
Nebraska.....	62	30	8	300	65	25	10	114		40
Kansas.....	57	27	16	850	60	24	16	100		27
Total.....				4,711						
South Central division :										
Kentucky.....	53	32	15	41	50	20	30	147		18
Tennessee.....	52	24	24	151	65	23	12	61		20
Alabama.....	55	30	15	20	61	29	10			25
Mississippi.....	75	15	10	7	62	28	10			30
Louisiana.....				1	60	30	10			25
Texas.....	75	15	10	60	64	25	10	58 $\frac{1}{2}$		27
Arkansas.....	50	25	25	14	62	28	10	100		35
Total.....				294						
Western division :										
Colorado.....	70	20	10	12						
New Mexico.....	75	25								
Arizona.....										
Utah.....	50	30	20							
Idaho.....	60	20	20							
Washington.....	70	30								
Oregon.....	80	20		13						50
California.....	80	20		130				38		5
Total.....				164						

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES.

CHERRY.

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100. (a)	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.
The United States.....	1,281							1,006		
North Atlantic division:										
Maine.....										
New Hampshire.....										
Vermont.....	1	10,800	\$8.00	\$25.00						
Massachusetts.....										
Rhode Island.....										
Connecticut.....										
New York.....	162	12,000	2.57	8.59	53	37	10	150	\$5.50	\$9.00
New Jersey.....	12	11,500	2.35	10.33	75	10	15	16	6.00	11.50
Pennsylvania.....	77	12,000	3.00	11.50	62	19	19	81	5.75	12.00
Total.....	252							256		
South Atlantic division:										
Delaware.....										
Maryland.....	3	12,000	3.75	12.00	65	25	10	2	6.50	14.50
District of Columbia.....										
Virginia.....	17	11,000	4.00	15.00	76	15	10	6	7.00	15.00
West Virginia.....										
North Carolina.....	7	14,000	4.00	10.00	50	25	25	0	8.00	14.00
South Carolina.....										
Georgia.....	2	12,000	3.00	12.00	50	40	10	1	7.00	15.00
Florida.....										
Total.....	29							18		
North Central division:										
Ohio.....	186	9,082	3.58	8.90	64	25	11	237	5.75	9.80
Indiana.....	32	8,811	3.78	8.00	68	22	10	30	6.00	9.80
Illinois.....	125	10,525	3.00	7.12	57	28	15	193	5.28	10.17
Michigan.....	14	12,000	3.75	8.00	60	30	10	6	6.00	10.00
Wisconsin.....	13	10,000	3.58	8.13	60	40		15	6.25	10.00
Minnesota.....										
Iowa.....	171	9,181	3.50	9.40	55	26	18	274	5.92	10.23
Missouri.....	29	10,720	4.10	7.88	58	20	22	95	6.04	9.85
North Dakota.....										
South Dakota.....	7	11,000	3.00	8.00	40	40	20	3	5.75	11.00
Nebraska.....	150	10,091	3.89	9.10	74	16	10	197	5.86	11.11
Kansas.....	98	9,438	3.92	9.03	61	29	10	160	6.72	10.45
Total.....	825							1,200		
South Central division:										
Kentucky.....	12	12,500	5.00	8.00	60	30	10	8	6.00	12.00
Tennessee.....	17	12,300	5.50	8.24	80	20		9	5.00	12.00
Alabama.....										
Mississippi.....										
Louisiana.....										
Texas.....	17	10,000	3.33	9.17	72	18	10	10	5.50	11.66
Arkansas.....	9	10,000	3.50	8.00	75	25		12	5.25	10.00
Total.....	55							30		
Western division:										
Colorado.....	4	8,000	5.00	12.50	33	27	40	2	7.00	16.00
New Mexico.....										
Arizona.....										
Utah.....	4	8,000	5.00	15.00	50	30	20	2	7.00	20.00
Idaho.....	6	10,000	5.00	8.00	85	5	10	7	7.00	11.00
Washington.....	28	13,107	6.00	10.00	75	10	15	12	8.00	15.00
Oregon.....	13	10,363	6.00	11.14	62	30	8	27	7.75	14.15
California.....	65	12,270	8.58	16.45	77	18		43	10.00	20.00
Total.....	120							93		

a The selling prices here given are the wholesale prices for large lots at the nursery, and not the retail prices for small quantities shipped to planters or delivered through agents, where cost of digging, packing, delivering, etc., is far greater than the cost of production. Very few one-year-old fruit trees, except peach and apricot, are disposed of, a few only being sold to other nurserymen or experienced orchardists, who know the value of a young and vigorous tree with all of its roots.

STATISTICS OF ONE- AND TWO-YEAR TREES.

NECTARINE.

STATES AND TERRITORIES.	Number of acres of one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.
The United States.....	50						
New York.....	1	15,000	\$4.75	\$10.00	70	30	
Pennsylvania.....	1	12,000	5.00	10.00	65	35	
West Virginia.....	1	15,000	3.00	8.00	70	30	
North Carolina.....	2	16,000	5.00	8.00	75	25	
Illinois.....	1	15,000	4.00	10.00	65	25	10
Missouri.....	5	15,000	4.25	10.00	70	30	
Nebraska.....	9	15,000	4.00	10.00	65	25	10
Kansas.....	5	14,000	3.50	9.00	75	25	
Texas.....	4	10,000	4.00	9.00	60	30	10
Arkansas.....	1	12,000	4.50	10.00	60	25	15
Idaho.....	1	12,000	5.00	10.00	95	5	
Oregon.....	6	10,000	3.50	10.00	60	40	
California.....	13	12,283	5.00	10.00	78	22	

FIG.

STATES AND TERRITORIES.	Number of acres of one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.
The United States.....	45¼						
North Carolina.....	1	12,000	5.00	10.00	50	50	10
Georgia.....	14	12,000	2.00	10.00	50	40	10
Florida.....	9	9,375	2.00	11.00	50	40	10
Missouri.....	1	10,000					
Alabama.....	0¼	12,000	2.50	8.00	50	40	10
Texas.....	5	11,760	2.00	8.00	70	11	10
California.....	15	12,863	2.78	11.90	80	14	6

STATES AND TERRITORIES.	Number of acres of two-year old trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade two-year trees or plants.	Per cent of No. 2 grade two-year trees or plants.	Per cent of increased production since 1885.	Per cent of decreased price on each since 1885.
The United States.....	18						
North Carolina.....							
Georgia.....							
Florida.....	4	\$4.00	\$15.50	75	25		
Missouri.....							
Alabama.....							
Texas.....	4	3.50	12.00			37	27
California.....	10	3.00	15.00			43	5

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—SEMITROPICAL FRUITS.

LEMON.

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.
The United States.....	46							20		
Florida.....	33	6,572	\$18.21	\$25.30	63	37		12		
Texas.....	1	10,000								\$15.00
California.....	12	7,781	22.50	63.12	75	18	7	8	\$3,000.00	75.00

LIME.

The United States.....	6									
Florida.....	3	6,375	12.50	25.00						
California.....	3	15,000	20.00	75.00						

OLIVE.

The United States.....	14							12		
California.....	14	12,616	6.87	12.00	82	18		12	9.00	17.25

ORANGE.

The United States.....	209							149 $\frac{1}{2}$		
Florida.....	123	5,855	16.31	28.88	56	27	17	77	22.87	32.30
Louisiana.....	4	10,000	15.00	30.00						
Texas.....	2	10,000	15.00	25.00						35.00
California.....	170	8,444	20.77	65.83	62	22	16	72 $\frac{1}{2}$	29.77	65.00

POMELO.

The United States.....	9							3		
Florida.....	6	4,700	13.00	27.55	50	50		3	14.00	34.00
Texas.....	1	6,000	15.00	30.00						
California.....	2	11,500	5.00	18.50						

PRUNE.

The United States.....	311							277		
Washington.....	20	12,000	5.25	9.50	75	25		16	6.00	15.00
Oregon.....	88	12,000	5.33	9.25	77	21		86	6.00	15.00
California.....	203	13,500	6.33	17.50	73	24	3	175	7.25	20.00

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—SEMITROPICAL FRUITS—CONTINUED.

LEMON—CONTINUED.

STATES AND TERRITORIES.	Per cent of No. 1 grade two-year trees or plants.	Per cent of No. 2 grade two-year trees or plants.	Per cent of No. 3 grade two-year trees or plants.	Number of acres three-year trees or over.	Per cent of No. 1 grade three-year trees or over.	Per cent of No. 2 grade three-year trees or over.	Per cent of No. 3 grade three-year trees or over.	Per cent of increased production since 1885.	Per cent of decreased price since 1885.
The United States				13					
Florida	100			8	33	33	34		25
Texas								50	
California	80	15	5	5	70	25	5	25	40

LIME—CONTINUED.

The United States									
Florida									
California									

OLIVE—CONTINUED.

The United States									
California								60	6

ORANGE—CONTINUED.

The United States				150					
Florida	68	25	7	98	56	28	16		57
Louisiana									
Texas									
California	73	15	12	61	70	23	10	100	37

POMELO—CONTINUED.

The United States				2					
Florida	50	50		2					25
Texas									
California									

PRUNE—CONTINUED.

The United States									
Washington	80	15	5					300	50
Oregon	80	20						150	50
California	70	20	10					200	50

STATISTICS OF ONE-YEAR TREES.

PEACH. (a)

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Per cent of increased production since 1885.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
The United States.....	3,357									
North Atlantic division:										
Maine.....										
New Hampshire.....										
Vermont.....										
Massachusetts.....	6	15,000	\$4.00	\$5.00	60	30	10			
Rhode Island.....										
Connecticut.....	8	15,000	4.00	5.00	66	20	14	50		10
New York.....	490	14,077	2.14	5.13	65	25	10	100		
New Jersey.....	208	21,816	1.61	3.42	61	22	17	10		3
Pennsylvania.....	220	12,940	3.13	4.00	62	21	17	72		15
Total.....	932									
South Atlantic division:										
Delaware.....	140	22,000	1.17	3.38	42	29	29	25		
Maryland.....	221	19,728	1.70	4.42	70	10	11			10 ² / ₁₁
District of Columbia.....										
Virginia.....	114	16,400	2.70	5.00	75	18	7			
West Virginia.....	14	16,000	2.16	5.33	50	25	25			
North Carolina.....	80	15,000	3.00	7.50	55	35	10	50		25
South Carolina.....										
Georgia.....	81	10,000	3.00	7.25	63	32	5	50		50
Florida.....	19	12,200	6.50	13.75	83	37	30			
Total.....	669									
North Central division:										
Ohio.....	337	12,105	3.39	6.39	72	18	10	160		
Indiana.....	79	13,709	3.15	5.50	76	12	12	75		15
Illinois.....	155	12,000	3.11	5.09	72	19	9			
Michigan.....	129	13,200	3.50	5.17	62	25	13	300		20
Wisconsin.....										
Minnesota.....										
Iowa.....	37	15,000	3.00	5.50	70	25	5			
Missouri.....	176	15,000	2.88	5.80	68	18	14	400		30
North Dakota.....										
South Dakota.....										
Nebraska.....	116	13,000	3.00	5.50	60	30	10			
Kansas.....	155	12,519	3.02	5.30	73	22	5	80		40
Total.....	1,184									
South Central division:										
Kentucky.....	31	15,000	2.50	5.25	69	22	9			25
Tennessee.....	51	17,000	2.40	5.30	77	23		100		
Alabama.....	24	15,000	2.50	5.00	90	10				
Mississippi.....	16	15,000	2.60	5.00	75	15	10			
Louisiana.....	6	10,333	2.00	6.00	75	25		75		
Texas.....	178	15,000	3.08	5.25	76	18	6	62		20
Arkansas.....	22	13,000	3.16	5.37	75	19	6	200		
Total.....	328									
Western division:										
Colorado.....										
New Mexico.....	1	10,000	3.00	12.50	75	25				
Arizona.....										
Utah.....	15	12,000	2.50	13.50	50	50				
Idaho.....	3	15,000	5.00	10.00	95	5				
Washington.....	7	12,000	5.00	7.00	75	10	15			
Oregon.....	48	10,667	4.12	9.50	62	38		80		60
California.....	170	11,594	5.92	10.00	82	14	4	60		40
Total.....	244									

a Peaches budded on yearling seedling stocks are always sold when one year old from the bud, being considered of little value when older; hence, there were found no older trees to report.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES.

PEAR.

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100, (c)	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.
The United States.....	2,787 $\frac{3}{4}$							2,227 $\frac{1}{4}$		
North Atlantic division:										
Maine.....	1	12,000								
New Hampshire.....										
Vermont.....	1 $\frac{1}{2}$	10,800	\$5.00	\$16.50	45	35	20	1 $\frac{1}{4}$	\$7.00	\$20.00
Massachusetts.....	3	10,000								
Rhode Island.....										
Connecticut.....	1	10,000	6.00	15.00	40	40	20	3	7.00	20.00
New York.....	723	11,833	4.58	12.92	56	32	12	689	6.85	13.50
New Jersey.....	14	11,500	5.00	12.00	50	30	20	55	7.00	12.00
Pennsylvania.....	104	10,285	6.00	13.00	40	42	18	70	7.65	15.00
Total.....	910 $\frac{1}{4}$							818 $\frac{1}{4}$		
South Atlantic division:										
Delaware.....	15	10,000	5.00	12.00	60	30	10	35	7.00	16.00
Maryland.....	14	10,000	5.00	12.00	58	30	12	12	7.50	16.00
District of Columbia.....										
Virginia.....	62	11,000	4.00	15.00	75	15	10	27	8.00	18.00
West Virginia.....	9	8,500	5.33	16.66	67	30	3	12	7.00	18.00
North Carolina.....	15	12,000	5.50	12.50	50	25	25	18	7.00	17.00
South Carolina.....										
Georgia.....	85	10,000	5.75	14.00	40	32	28	30	7.00	15.00
Florida.....	75	11,416	4.62	9.20	37	35	28	37	7.00	15.00
Total.....	265							231		
North Central division:										
Ohio.....	206	10,275	6.42	13.45	60	23	17	264	8.00	13.80
Indiana.....	115	10,571	6.33	15.15	63	26	11	101	8.16	16.28
Illinois.....	341	12,440	7.09	15.71	62	24	24	270	9.35	15.50
Michigan.....	54	12,000	7.00	15.00	54	22	24	30	9.00	15.00
Wisconsin.....										
Minnesota.....										
Iowa.....	37	10,000	6.00	13.33	54	31	15	26	7.75	15.00
Missouri.....	240	10,341	6.72	12.52	46	28	26	185	7.62	13.50
North Dakota.....										
South Dakota.....										
Nebraska.....	78	10,643	6.00	11.00	59	35	6	47	7.83	15.67
Kansas.....	70	10,961	7.12	11.45	44	38	18	35	8.50	15.50
Total.....	1,190							958		
South Central division:										
Kentucky.....	11	12,000	6.25	15.00	45	33	22	6	9.00	16.00
Tennessee.....	14	14,000	7.00	16.00	50	30	10	4	9.50	16.00
Alabama.....	24	11,000	5.75	15.00	50	30	20	6	9.25	15.00
Mississippi.....	6	11,000	6.00	15.00	55	25	20	8	9.00	15.50
Louisiana.....	1 $\frac{1}{2}$	8,000	6.00	12.50	50	30	20	1	8.75	15.00
Texas.....	115 $\frac{1}{2}$	11,857	5.11	14.72	67	23	10	51	8.00	14.50
Arkansas.....	25	10,000	6.25	13.50	50	25	25	10	8.00	16.50
Total.....	195 $\frac{1}{2}$							80		
Western division:										
Colorado.....	4	10,000	5.00	15.00	50	28	22	2	9.00	18.00
New Mexico.....										
Arizona.....										
Utah.....	4	10,500	5.00	17.50	50	30	20	1	9.00	20.00
Idaho.....	12	10,000	5.00	8.00	95	5	12	7.00	11.00	
Washington.....	14	10,000	6.00	10.00	75	10	15	12	8.50	13.50
Oregon.....	22	9,780	6.00	10.58	57	33	10	27	8.00	12.00
California.....	102	13,514	5.50	12.75	80	15	5	30	9.00	15.50
Total.....	218							134		

a The selling prices here given are the wholesale prices for large lots at the nursery, and not the retail prices for small quantities shipped to planters or delivered through agents, where cost of digging, packing, delivering, etc., is far greater than the cost of production. Very few one-year old fruit trees, except peach and apricot, are disposed of, a few only being sold to other nurserymen or experienced orchardists, who know the value of a young and vigorous tree with all of its roots.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

PLUM.

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100	Average wholesale price per 100. (a)	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres (two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.
The United States.....	3,224½							2,689½		
North Atlantic division :										
Maine.....	5	12,000	\$5.00	\$16.00	40	45	15	2	\$6.50	\$20.00
New Hampshire.....	1½	10,800	5.00	16.00	45	35	20	1½	6.50	18.00
Vermont.....	3	11,000								
Massachusetts.....										
Rhode Island.....										
Connecticut.....	2	11,000								
New York.....	587	11,805	4.92	12.96	53	30	17	588	5.90	15.33
New Jersey.....	24	11,000	6.00	15.00				18	8.00	16.00
Pennsylvania.....	165	10,800	6.00	15.00	75	18	7	81	8.00	16.00
Total.....	787½							690½		
South Atlantic division :										
Delaware.....	2	12,500						3		
Maryland.....	26	12,500	6.00	12.00	60	25	15	26	8.00	14.00
District of Columbia.....										
Virginia.....	52	12,000	5.75		62	23	15	30		
West Virginia.....	18	11,500	4.66	11.00	60	30	10	13	6.00	15.00
North Carolina.....	20	12,000	5.00	10.00	50	25	25	10	6.00	15.50
South Carolina.....										
Georgia.....	54	10,700	3.50	10.00	50	33	17	9	5.00	12.00
Florida.....	120	10,000	3.25	15.00	50	40	10	7		20.00
Total.....	202							98		
North Central division :										
Ohio.....	288	10,518	6.43	13.00	60	27	13	483	7.75	14.20
Indiana.....	107	10,807	6.07	13.42	65	29	6	128	7.25	14.30
Illinois.....	445	10,289	6.33	12.00	60	20	20	273	7.83	15.50
Michigan.....	48	12,000	6.50	12.00						
Wisconsin.....	6	11,000								
Minnesota.....	10	15,000	6.50	12.00				7	8.00	17.00
Iowa.....	192	11,142	6.65	12.87	63	25	12	175	8.80	13.50
Missouri.....	163	13,000	5.25	12.00	60	22	18	263	7.50	13.50
North Dakota.....										
South Dakota.....	4	10,207	5.83	10.77	47	35	18	6	7.25	10.67
Nebraska.....	154	10,750	5.94	11.00	59	28	13	108	6.60	14.83
Kansas.....	147	10,115	5.90	10.15	66	24	10	133	7.00	14.70
Total.....	1,564							1,621		
South Central division :										
Kentucky.....	4	13,000	5.00	12.00	70	20	10	2	6.00	16.50
Tennessee.....	32	13,000	5.00	12.00	65	35		23	6.50	16.00
Alabama.....	16	12,000	5.00	11.00	65	35		12	6.50	15.00
Mississippi.....	12	12,000	5.25	11.50	63	22	15	6	6.40	15.00
Louisiana.....	3	11,500	5.50	11.75	65	20	15	1	6.40	15.50
Texas.....	118	13,222	5.65	10.50	70	20	10		6.75	16.00
Arkansas.....	32	10,600	5.16	11.12	63	25	12		6.80	13.00
Total.....	217							44		
Western division :										
Colorado.....	6	10,000	5.00	15.00	33	27	40	2	8.00	18.00
New Mexico.....										
Arizona.....										
Utah.....	4	10,500	5.00	17.50	50	30	20	2	6.00	20.00
Idaho.....	6	11,000	5.00	11.00	60	30	10	2	7.00	11.00
Washington.....	25	12,000	5.25	12.00	62	30	8	20	6.00	15.00
Oregon.....	62	12,000	5.33	12.33	63	32	5	30	6.10	15.00
California.....	201	13,391	6.33	14.30	75	18	7	180	10.00	16.00
Total.....	364							236		

a The selling prices here given are the wholesale prices for large lots at the nursery, and not the retail prices for small quantities shipped to planters or delivered through agents, where cost of digging, packing, delivering, etc., is far greater than the cost of production. Very few one-year-old fruit trees, except peach and apricot, are disposed of, a few only being sold to other nurserymen or experienced orchardists, who know the value of a young and vigorous tree with all of its roots.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

QUINCE.

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100. ^(a)	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.
The United States.....	234							223		
North Atlantic division :										
Maine.....										
New Hampshire.....										
Vermont.....	1	10,000								
Massachusetts.....										
Rhode Island.....	1	12,000	\$4.00	\$10.00	60	30	10			
Connecticut.....	2½	12,000	4.00	10.00	62	28	10	1	\$5.00	\$12.00
New York.....	47	12,500	4.00	9.18	61	22	17	86	4.75	11.19
New Jersey.....	11	10,000	4.50	10.00	50	25	25	13	5.00	12.50
Pennsylvania.....	23	10,000	4.50	11.00	50	25	25	20	5.00	13.00
Total.....	85½							120		
South Atlantic division :										
Delaware.....										
Maryland.....										
District of Columbia.....										
Virginia.....										
West Virginia.....	4	10,000	3.66	10.33	67	33				
North Carolina.....	½	12,000	5.00	10.00	65	35				
South Carolina.....										
Georgia.....	1	10,000	5.00	9.06	40	40	20			
Florida.....										
Total.....	5½									
North Central division :										
Ohio.....	24	11,000	4.00	10.00	58	27	15	23	5.50	12.00
Indiana.....	13	10,750	4.00	10.00	62	38		10	5.50	12.00
Illinois.....	22	10,225	4.18	10.50	55	30	15	12	5.68	13.00
Michigan.....	11	11,000	4.25	10.00	60	30	20	10	5.00	13.00
Wisconsin.....										
Minnesota.....										
Iowa.....	2	12,000	4.25	10.00	50	30	20	4	5.00	12.00
Missouri.....	19	13,200	3.58	10.80	43	25	32	13	4.87	11.50
North Dakota.....										
South Dakota.....										
Nebraska.....	5	12,000	3.75	10.25	75	25		4	4.75	12.00
Kansas.....	11	12,800	4.00	10.16	75	25		16	5.00	12.00
Total.....	107							92		
South Central division :										
Kentucky.....	2	10,000	4.00	10.00	75	15	10	2	8.00	13.50
Tennessee.....	4	11,000	4.50	10.50	65	30	5			
Alabama.....										
Mississippi.....										
Louisiana.....										
Texas.....	7	10,000	4.50	8.33	77	13	10			
Arkansas.....	3	11,000	3.50	8.00	60	40				
Total.....	16							2		
Western division :										
Colorado.....										
New Mexico.....										
Arizona.....										
Utah.....										
Idaho.....										
Washington.....	1	11,000	4.00	12.50				1		
Oregon.....	5	11,000	4.00	13.50	50	50		2		
California.....	14	13,333	5.40	15.68	87	13		6		
Total.....	20							9		

^a The selling prices here given are the wholesale prices for large lots at the nursery, and not the retail prices for small quantities shipped to planters or delivered through agents, where cost of digging, packing, delivering, etc., is far greater than the cost of production. Very few one-year old fruit trees, except peach and apricot, are disposed of, a few only being sold to other nurserymen or experienced orchardists, who know the value of a young and vigorous tree with all its roots.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

NUT.

STATES AND TERRITORIES	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100. (a)	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.
The United States	815							421	
North Atlantic division:									
Maine									
New Hampshire									
Vermont									
Massachusetts									
Rhode Island									
Connecticut									
New York	19	10,000	\$5.00	\$12.00	63	30	7	20	\$6.00
New Jersey	10	10,000	5.00	12.00	60	30	10	12	6.00
Pennsylvania	12	10,000							
Total	41							32	
South Atlantic division:									
Delaware									
Maryland									
District of Columbia									
Virginia									
West Virginia	6	6,000	5.00	10.00	50	40	10	4	7.00
North Carolina	2	12,000	7.00	10.00	50	40	10	2	8.00
South Carolina									
Georgia	18	10,000	3.00	8.00	40	40	20	16	4.50
Florida	9	4,000	3.00	10.00	50	30	20	8	4.50
Total	35							30	
North Central division:									
Ohio	12	10,800	4.00	10.00	30	40	30	13	6.00
Indiana	2	10,000	0.50	1.00	40	40	20	3	1.00
Illinois	14	10,000	0.50	1.00	50	40	10	10	1.00
Michigan	11	10,500	0.50	1.00	50	40	10		
Wisconsin	8	10,000	0.50	1.00	60	25	15		
Minnesota									
Iowa	10	11,166	0.55	1.00	40	50	10	15	1.00
Missouri	9	12,000	0.50	1.00	50	25	25	68	1.00
North Dakota									
South Dakota									
Nebraska	16	10,000	0.50	1.00	50	40	10	12	1.00
Kansas	10	10,000	0.50	1.00	50	40	10	13	1.00
Total	95							124	
South Central division:									
Kentucky	4	15,000	10.00	12.00	75	20	5	2	12.00
Tennessee									
Alabama									
Mississippi									
Louisiana	24	18,000	4.00	10.00	50	50		18	
Texas	136	10,000	2.50	8.75	45	27	28	40	3.00
Arkansas									
Total	164							60	
Western division:									
Colorado									
New Mexico									
Arizona									
Utah									
Idaho									
Washington									
Oregon	7	10,000	5.00	15.00	70	20	10	3	6.00
California	473	9,472	4.81	13.00	71	24	5	175	5.00
Total	480							178	

a The selling prices here given are the wholesale prices for large lots at the nursery, and not the retail prices for small quantities shipped to planters or delivered through agents, where cost of digging, packing, delivering, etc., is far greater than the cost of production. Very few one-year old fruit trees, except peach and apricot, are disposed of, a few only being sold to other nurserymen or experienced orchardists, who know the value of a young and vigorous tree with all its roots.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

DECIDUOUS. (a)

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.
The United States.....	4,622							4,930		
North Atlantic division :										
Maine.....										
New Hampshire.....										
Vermont.....										
Massachusetts.....	58	13,000	\$2.25	\$3.75	34	33	33	63	\$0.00	\$12.00
Rhode Island.....										
Connecticut.....	2	11,500								
New York.....	439	11,000	2.55	3.50	65	24	11	463	5.00	10.50
New Jersey.....	56	10,000	2.00	3.75	75	15	10	119	5.50	12.00
Pennsylvania.....	395	10,000	3.50	3.60	70	30		840	5.60	12.00
Total.....	950							1,485		
South Atlantic division :										
Delaware.....	8	12,000	3.50	5.00	60	30	10	9	6.00	15.00
Maryland.....	51	10,000	3.00	4.50	40	30	10	26	7.00	17.50
District of Columbia.....										
Virginia.....	56	10,000	3.00	4.75	60	30	20	60	8.00	15.00
West Virginia.....	18	10,500	3.00	4.50	50	40	10	38	7.00	15.00
North Carolina.....	3	10,000	3.50	5.00	50	50		6	7.25	16.00
South Carolina.....										
Georgia.....	1	10,000	5.00	7.00	50	50	20	5	7.00	12.00
Florida.....	3	12,000	2.25	14.00	30	60	10	1	5.00	10.00
Total.....	143							148		
North Central division :										
Ohio.....	282	2,383	2.00	6.00	55	23	22	363	3.00	8.00
Indiana.....	758	25,000	2.00	5.50	95	5		178	3.00	8.00
Illinois.....	455	37,625	2.50	5.08	67	20	13	308	3.33	7.16
Michigan.....	115	1,000,000	0.02 ^a	0.30				40		
Wisconsin.....	187	1,650,000	0.02 ^a	0.10	75	25		62	0.03 ^b	0.15
Minnesota.....	40	65,000	1.00	1.75	50	25	25	40	2.00	3.00
Iowa.....	459	57,016	0.78	1.44	63	27	10	442	1.13	3.45
Missouri.....	165	60,333	0.01	1.50	62	23	15	52	2.00	5.00
North Dakota.....	98	383,333	0.06 ^a	0.10 ^a	58	42		85	0.12 ^a	0.16
South Dakota.....	730	171,000	0.24	0.53	52	30	9	855	0.48	1.68
Nebraska.....	620	38,700	0.70	1.34	81	17	2	547	0.67	2.25
Total.....	3,258							3,102		
South Central division :										
Kentucky.....	37	16,000	2.00	5.00	60	25	15	37	12.50	15.00
Tennessee.....										
Alabama.....										
Mississippi.....										
Louisiana.....										
Texas.....	120	11,661	4.75	8.00	55	32	13	80	5.00	8.66
Arkansas.....										
Total.....	157							126		
Western division :										
Colorado.....	26	10,000	1.50	5.00	34	33	33	15		
New Mexico.....										
Arizona.....	8	14,000	5.00	10.00	45	40	15	2		
Utah.....										
Idaho.....	7	10,000	2.00	5.00	40	60		0		
Washington.....	0	10,000	2.00	5.00	40	60		10		
Oregon.....	61	12,666	5.00	14.16	95	5		42		
California.....										
Total.....	114							75		

^a Among the deciduous trees are enumerated forest tree seedlings, which are grown quite largely in most of the states of the North Central division for planting of timber claims and for replanting by other nurserymen, some growers producing as many as 500,000 little seedling trees per acre, at a cost not to exceed 2 cents per 100, and selling at 5 cents, while others in the same state grow of other trees for ornamental planting not more than 3,000 per acre, at a cost of \$5 or \$6 per 100, and sell at \$8 to \$12, and the grouping of all of these together gives only a general idea of average production, cost, and selling price.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

DECIDUOUS—CONTINUED.

STATES AND TERRITORIES.	Per cent of No. 1 grade two-year trees or plants.	Per cent of No. 2 grade two-year trees or plants.	Per cent of No. 3 grade two-year trees or plants.	Number of acres three-year trees or over.	Per cent of No. 1 grade three-year trees or over.	Per cent of No. 2 grade three-year trees or over.	Per cent of No. 3 grade three-year trees or over.	Per cent of increased production since 1885.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
The United States.....				2,784						
North Atlantic division :										
Maine.....										
New Hampshire.....										
Vermont.....										
Massachusetts.....	40	40	20	31	50	30	20			
Rhode Island.....										
Connecticut.....	68	20	12	60	75	15	10			
New York.....	70	25	5	24	68	20	12			
New Jersey.....	65	30	5	25	66	22	12			25
Pennsylvania.....										
Total.....				140						
South Atlantic division :										
Delaware.....				35						
Maryland.....				26						
District of Columbia.....										
Virginia.....										
West Virginia.....				20						
North Carolina.....				9						
South Carolina.....										
Georgia.....				5						
Florida.....				6						
Total.....				101						
North Central division :										
Ohio.....	55	28	17	403	60	30	10			
Indiana.....				65	60	30	10	60		
Illinois.....	67	20	13	353	60	22	18	50		30
Michigan.....				26				300		30
Wisconsin.....								50		25
Minnesota.....				120						
Iowa.....	61	29	10	780	64	30	6	48		20
Missouri.....	50	22	28					300		30
North Dakota.....										
South Dakota.....	68	42								
Nebraska.....	55	35	10	315	46	35	20	147		67
Kansas.....	80	20		307	90	10		70		56
Total.....				2,300						
South Central division :										
Kentucky.....	60	25	15	50				75		10
Tennessee.....										
Alabama.....										
Mississippi.....										
Louisiana.....										
Texas.....	85	10	5	108				47		15
Arkansas.....										
Total.....				158						
Western division :										
Colorado.....										
New Mexico.....										
Arizona.....										
Utah.....										
Idaho.....										
Washington.....										
Oregon.....										
California.....				16						
Total.....				16						

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

EVERGREEN. (a)

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.
The United States.....	2,874½							2,529	
North Atlantic division :									
Maine.....									
New Hampshire.....									
Vermont.....									
Massachusetts.....	43	13,000	\$2.50	\$4.00	33	34	33	40	\$3.00
Rhode Island.....									
Connecticut.....	2	12,500						2	
New York.....	436	14,944	2.20	6.10	75	16	9	437	3.00
New Jersey.....	84	14,750	2.50	3.50	62	18	20	30	3.00
Pennsylvania.....	245	15,750	2.50	5.60	64	16	20	102	3.50
Total.....	810							611	
South Atlantic division :									
Delaware.....	11	12,000	2.90	5.75	58	26	16	10	4.00
Maryland.....	10	13,000	3.00	6.00	60	30	10	12	4.00
District of Columbia.....									
Virginia.....	30	15,000	3.00	6.50	62	28	10	20	4.25
West Virginia.....	30	12,500	3.00	6.00	61	20	19	20	4.00
North Carolina.....	25	12,000	2.50	6.00	60	25	15	9	4.50
South Carolina.....									
Georgia.....	4	10,000	2.00	7.00	30	50	20	6	4.00
Florida.....	1	12,000	1.75	7.50	35	35	30	0	3.00
Total.....	111							83	
North Central division :									
Ohio.....	215	148,781	2.50	6.00	77	17	6	223	3.75
Indiana.....	160	44,833	2.50	6.00	64	36		115	4.00
Illinois.....	341	50,000	2.83	6.25	77	15	8	348	3.08
Michigan.....	31	83,250	2.50	7.20	70	30		273	3.00
Wisconsin.....	65	1,317,500	0.61	1.25	55	40	5	151	0.55
Minnesota.....	30	17,500	5.00	9.00	60	20	20	10	5.50
Iowa.....	452	107,727	0.91	2.70	67	20	7	232	1.18
Missouri.....	90	5,672	3.00	7.00	66	20	14	141	4.00
North Dakota.....									
South Dakota.....	15	32,500	2.00	6.00	60	30	10	1	3.00
Nebraska.....	168	5,429	3.17	6.67	68	22	10	112	4.87
Kansas.....	170	55,110	3.32	6.71	60	30	10	57	4.33
Total.....	1,737							1,663	
South Central division :									
Kentucky.....	6	7,000	5.00	9.00	80	10	10	12	8.00
Tennessee.....	2	12,000	4.50	8.00					
Alabama.....	2	12,000	5.00	7.50					
Mississippi.....	2	12,000	4.75	8.25					
Louisiana.....	1/2	10,000	5.50	8.00					
Texas.....	54	6,571	6.70	10.00	50	28	22	50	8.16
Arkansas.....									
Total.....	60½							62	
Western division :									
Colorado.....	12	45,000	3.00	5.00				12	
New Mexico.....									
Arizona.....									
Utah.....									
Idaho.....									
Washington.....	4	12,000						5	
Oregon.....	6	12,500						7	
California.....	128	13,250	0.90	2.54	95	5		86	
Total.....	150							110	

a A very large share of all the evergreens grown in the country are started by specialists in a few states of the North Central division, who grow from 300,000 to 1,000,000 per acre, at a very low cost, and sell them out to other nurserymen, who replant them 5,000 to 12,000 to the acre; hence the very great difference in the average number grown to the acre and the cost and the selling price in the various states, some producing at one-fourth the average here given and others selling at two and three times the price quoted.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR TREES—CONTINUED.

EVERGREEN—CONTINUED.

STATES AND TERRITORIES.	Average wholesale price per 100.	Per cent of No. 1 grade two-year trees or plants.	Per cent of No. 2 grade two-year trees or plants.	Per cent of No. 3 grade two-year trees or plants.	Number of acres three-year trees or over.	Per cent of No. 1 grade three-year trees or over.	Per cent of No. 2 grade three-year trees or over.	Per cent of No. 3 grade three-year trees or over.	Per cent of increased production since 1885.	Per cent of decreased price on each since 1885.
The United States.....					3,241					
North Atlantic division:										
Maine.....										
New Hampshire.....										
Vermont.....										
Massachusetts.....	\$11.00	70	20	10	16	75	20	5		
Rhode Island.....										
Connecticut.....										
New York.....	7.00	68	20	12	107	68	23	9		15
New Jersey.....	7.00	68	22	10	212	65	25	10		20
Pennsylvania.....	8.00	66	24	10	169	83	17		75	25
Total.....					504					
South Atlantic division:										
Delaware.....	7.50				35					
Maryland.....	7.25				52					
District of Columbia.....										
Virginia.....	8.00									
West Virginia.....	8.50									
North Carolina.....	9.00									
South Carolina.....										
Georgia.....	9.00									
Florida.....	8.00									
Total.....					87					
North Central division:										
Ohio.....	9.58	58	36	6	510	75	18	7		10
Indiana.....	10.00	75	20	5	238				20	
Illinois.....	8.00	74	17	9	711	68	19	13	150	50
Michigan.....	8.00				41				500	30
Wisconsin.....	1.92	75	15	10	70	75	20	5	50	25
Minnesota.....	10.00				40					
Iowa.....	4.04	68	30	12	373	73	24	3	62	
Missouri.....	10.00	42	35	23	200	68	28	4	515	38
North Dakota.....										
South Dakota.....	7.00	40	60		13	60	20	20	100	
Nebraska.....	8.00	57	30	13	75	63	25	12	67	44
Kansas.....	9.83	75	25		160				300	46
Total.....					2,431					
South Central division:										
Kentucky.....	17.50	80	10	10	25				25	5
Tennessee.....										
Alabama.....										
Mississippi.....										
Louisiana.....										
Texas.....	12.33	95	5		127				52	30
Arkansas.....										
Total.....					152					
Western division:										
Colorado.....					23					
New Mexico.....										
Arizona.....										
Utah.....										
Idaho.....										
Washington.....					1					
Oregon.....					3					
California.....					40					
Total.....					67					

STATISTICS OF ONE-, TWO-, AND THREE-YEAR HARDY SHRUBS.

STATES AND TERRITORIES.	Number of acres one-year trees or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres two-year trees or plants.	Approximate cost of production per 100.	Average wholesale price per 100.
The United States.....	1,193½							1,218½		
North Atlantic division :										
Maine.....										
New Hampshire.....										
Vermont.....										
Massachusetts.....	110	26,750	\$2.00	\$4.00	33	34	33	63	\$2.00	\$5.00
Rhode Island.....										
Connecticut.....	2	25,000						2		
New York.....	180	17,500	3.75	7.00	78	18	4	170	5.00	9.00
New Jersey.....	13	17,000	4.00	7.50	60	30	10	13	5.25	9.00
Pennsylvania.....	30	19,250	4.00	7.50	75	12½	12½	70	5.00	9.00
Total.....	335							324		
South Atlantic division :										
Delaware.....										
Maryland.....										
District of Columbia.....										
Virginia.....	10	15,000	3.50	7.00	60	30	10	6	5.00	9.00
West Virginia.....	7	16,000	3.00	8.00	45	40	15	8	5.25	8.75
North Carolina.....	1	10,000	5.00	7.50	40	40	20	0½	6.00	9.00
South Carolina.....										
Georgia.....	6	10,000	5.00	8.00	30	50	20	4	5.00	10.00
Florida.....										
Total.....	24							18½		
North Central division :										
Ohio.....	226	16,333	4.00	7.00	65	25	10	168	5.00	9.00
Indiana.....	3	16,000	4.00	7.50	76	24		20	5.00	9.00
Illinois.....	109	17,000	3.50	6.00	70	18	12	225	4.12	8.75
Michigan.....	20	13,000	3.75	6.50	70	20	10	15	5.00	8.50
Wisconsin.....	21	15,000	4.00	6.00	72	20	8	8	5.00	8.75
Minnesota.....	10	10,000						10		
Iowa.....	123	13,730	3.02	6.52	55	34	11	112	5.75	9.25
Missouri.....	29	10,875	3.08	6.33	60	23	27	87	5.00	10.00
North Dakota.....										
South Dakota.....		7,500	3.25	7.50				31½	5.30	8.00
Nebraska.....	122	12,000	4.50	7.50	75	25		162	5.50	9.50
Kansas.....	42	15,750	4.50	7.50	70	30		40	6.00	9.00
Total.....	705							840½		
South Central division :										
Kentucky.....	6	11,000	4.00	8.00	80	10	10		9.00	13.50
Tennessee.....										
Alabama.....										
Mississippi.....										
Louisiana.....	0½	15,000	3.50	7.50	70	20	10	0½	7.00	12.00
Texas.....	10	21,500	3.16	8.33	70	15	15	25	6.50	11.00
Arkansas.....										
Total.....	16½							25½		
Western division :										
Colorado.....	12	8,000						23		
New Mexico.....										
Arizona.....										
Utah.....										
Idaho.....										
Washington.....	2	7,000						1		
Oregon.....	2	7,500						1		
California.....	7	8,000						6		
Total.....	23							31		

STATISTICS OF ONE-, TWO-, AND THREE-YEAR HARDY SHRUBS—CONTINUED.

STATES AND TERRITORIES.	Per cent of No. 1 grade two-year trees or plants.	Per cent of No. 2 grade two-year trees or plants.	Per cent of No. 3 grade two-year trees or plants.	Number of acres three-year trees or over.	Per cent of No. 1 grade three-year trees or over.	Per cent of No. 2 grade three-year trees or over.	Per cent of No. 3 grade three-year trees or over.	Per cent of increased production since 1885.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
The United States.....				439½						
North Atlantic division :										
Maine.....										
New Hampshire.....										
Vermont.....										
Massachusetts.....	50	36	20	16	50	50				
Rhode Island.....										
Connecticut.....										
New York.....	73	25	5	46	70	20	10	50		25
New Jersey.....	65	20	15	13	50	50		15		15
Pennsylvania.....	60	25	15	15	65	45		20		10
Total.....				90						
South Atlantic division :										
Delaware.....										
Maryland.....										
District of Columbia.....										
Virginia.....										
West Virginia.....										
North Carolina.....										
South Carolina.....										
Georgia.....										
Florida.....										
Total.....										
North Central division :										
Ohio.....	60	25	15	36	75	18	7			18
Indiana.....										
Illinois.....	82	10	8	80	90	5	5	30		15
Michigan.....				20						
Wisconsin.....										
Minnesota.....										
Iowa.....	58	30	12	73	73	24	3	62		
Missouri.....	47	25	25	80	68	28	4			35
North Dakota.....										
South Dakota.....	30	50	20	31½	60	20	20			
Nebraska.....	80	15	5	27	88	12		158		33½
Kansas.....				18				150		50
Total.....				337½						
South Central division :										
Kentucky.....	80	10	10					100		5
Tennessee.....										
Alabama.....										
Mississippi.....										
Louisiana.....	70	30								
Texas.....	72	23	5					62		27
Arkansas.....										
Total.....										
Western division :										
Colorado.....				12						
New Mexico.....										
Arizona.....										
Utah.....										
Idaho.....										
Washington.....										
Oregon.....										
California.....										
Total.....				12						

STATISTICS OF ONE- AND TWO-YEAR ROSE PLANTS.

STATES AND TERRITORIES.	Number of acres one-year plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling plants.	Per cent of No. 2 grade yearling plants.
The United States.....	922					
North Atlantic division :						
Maine.....						
New Hampshire.....						
Vermont.....						
Massachusetts.....	2	15,000				
Rhode Island.....						
Connecticut.....						
New York.....	9	14,444	\$4.83	\$10.71	62	34
New Jersey.....	7	16,000	4.75	10.00	60	30
Pennsylvania.....	9	14,000	4.80	10.00	75	12½
Total.....	27					
South Atlantic division :						
Delaware.....						
Maryland.....						
District of Columbia.....						
Virginia.....						
West Virginia.....	4	16,000	3.00	10.00	62	28
North Carolina.....	4	20,000	4.00	12.00	60	30
South Carolina.....						
Georgia.....	8	10,000	5.00	10.00	53	37
Florida.....	15	8,333	5.83	10.75	42	50
Total.....	31					
North Central division :						
Ohio.....	35	12,000	4.50	10.67	70	9
Indiana.....	30	12,300	4.50	10.75	77	21
Illinois.....	8	12,250	4.80	10.00	60	30
Michigan.....	4	10,000	4.75	10.00		
Wisconsin.....	5	5,000	5.00	10.00		
Minnesota.....	2	16,000	5.00	10.50		
Iowa.....	10	8,800	5.00	10.00	50	28
Missouri.....	8	10,000	4.80	12.50	40	43
North Dakota.....						
South Dakota.....	1	12,000	6.25	12.00		
Nebraska.....	10	8,500	5.67	12.00	67	20
Kansas.....	12	6,755	6.00	12.50		
Total.....	134					
South Central division :						
Kentucky.....	2	10,000	5.50	10.00		
Tennessee.....						
Alabama.....						
Mississippi.....	1	12,000	5.00	12.00		
Louisiana.....	1	10,000	5.10	11.00		
Texas.....	6	14,000	3.12	12.00	72	18
Arkansas.....						
Total.....	10					
Western division :						
Colorado.....	2	16,000				
New Mexico.....						
Arizona.....						
Utah.....						
Idaho.....						
Washington.....						
Oregon.....						
California.....	18	6,100	6.50	10.00	75	25
Total.....	20					

STATISTICS OF ONE- AND TWO-YEAR ROSE PLANTS—CONTINUED.

STATES AND TERRITORIES.	Per cent of No. 3 grade yearling plants.	Number of acres two-year plants.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of increased production since 1886.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
The United States.....		124½					
North Atlantic division :							
Maine.....							
New Hampshire.....							
Vermont.....							
Massachusetts.....							
Rhode Island.....							
Connecticut.....							
New York.....	5	8	\$6.50	\$12.00	50		40
New Jersey.....	10	6	6.00	12.00			
Pennsylvania.....	12½	20	3.50	12.00	60		50
Total.....		34					
South Atlantic division :							
Delaware.....							
Maryland.....							
District of Columbia.....							
Virginia.....							
West Virginia.....	10						
North Carolina.....	10						
South Carolina.....							
Georgia.....	10						
Florida.....	8						
Total.....							
North Central division :							
Ohio.....	21	10	6.00	12.00			
Indiana.....	2	9	6.25	12.00			
Illinois.....	10	4	6.25	12.00			
Michigan.....							
Wisconsin.....							
Minnesota.....		5	6.50	12.50	90		
Iowa.....	22	3½	6.40	12.50			
Missouri.....	17	14	6.25	12.50	300		30
North Dakota.....		1	6.50	12.00			
South Dakota.....		10	6.00	12.00	200		
Nebraska.....	13	10	6.00	12.00	150		50
Kansas.....							
Total.....		66½					
South Central division :							
Kentucky.....		1	6.50	12.00			
Tennessee.....							
Alabama.....							
Mississippi.....		2	7.00	15.00			
Louisiana.....		1	7.00	15.00			
Texas.....	10	15	5.17	13.50			
Arkansas.....							
Total.....		10					
Western division :							
Colorado.....					50	10	
New Mexico.....							
Arizona.....							
Utah.....							
Idaho.....							
Washington.....							
Oregon.....							
California.....		5					
Total.....		5					

STATISTICS OF ONE-, TWO-, AND THREE-YEAR GRAPEVINES.

STATES AND TERRITORIES.	Number of acres one-year vines or plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling vines or plants.	Per cent of No. 2 grade yearling vines or plants.	Per cent of No. 3 grade yearling vines or plants.	Number of acres two-year vines or plants.
The United States.....	3,726							1,700
North Atlantic division:								
Maine.....								
New Hampshire.....								
Vermont.....								
Massachusetts.....	1	15,000						
Rhode Island.....								
Connecticut.....								
New York.....	986	20,529	\$1.19	\$2.40	57	34	9	511
New Jersey.....	25	12,533	1.15	2.45	55	35	10	15
Pennsylvania.....	135	20,125	1.00	2.50	45	42	13	82
Total.....	1,147							608
South Atlantic division:								
Delaware.....								
Maryland.....	4	17,500	2.00	3.00	57	23	20	2
District of Columbia.....								
Virginia.....	24	18,000	2.00	3.00	60	31	10	5
West Virginia.....	7	15,000	2.00	3.50	55	35	10	2
North Carolina.....	55	18,330	1.75	3.00	55	30	15	29
South Carolina.....								
Georgia.....	18	17,333	2.33	3.83	52	41	7	8
Florida.....	52	20,625	2.87	3.50	43	36	21	
Total.....	160							46
North Central division:								
Ohio.....	252	20,313	1.92	2.75	50	30	20	112
Indiana.....	58	19,571	1.42	2.78	62	34	4	20
Illinois.....	336	20,616	1.31	2.63	53	32	15	268
Michigan.....	6	22,200	1.50	2.75	50	25	25	3
Wisconsin.....	12	10,000	1.50	2.33	55	35	10	8
Minnesota.....	4	20,000	1.50	3.00	50	50		2
Iowa.....	305	20,000	2.16	2.81	55	30	15	122
Missouri.....	352	22,785	2.31	3.05	40	43	17	141
North Dakota.....								
South Dakota.....	15	18,000	2.50	2.50	40	40	20	3
Nebraska.....	160	21,714	1.25	2.58	60	26	14	65
Nebraska.....	147	20,453	1.12	2.80	63	27	10	93
Total.....	1,617							837
South Central division:								
Kentucky.....	4	25,000	1.25	3.00	63	20	17	2
Tennessee.....	9	25,000	1.45	3.25	50	50		9
Alabama.....	2	20,000	2.50	3.10	55	45		
Mississippi.....	8	20,000	2.40	3.00	60	40		3
Louisiana.....	1	20,000	2.25	3.15	65	35		1
Texas.....	181	14,200	2.64	3.33	78	12	10	109
Arkansas.....	28	15,571	2.63	4.07	60	30	10	6
Total.....	236							124
Western division:								
Colorado.....	6	20,000	2.50	6.00	50	50		
New Mexico.....								
Arizona.....								
Utah.....	3	20,000	3.00	7.00	60	40		
Idaho.....								
Washington.....	6	30,000	2.00	4.50	80	20		2
Oregon.....	7	30,000	2.00	4.50	80	20		3
California.....	544	83,571	0.50	1.30	92	6	2	170
Total.....	566							175

STATISTICS OF ONE-YEAR PLANTS.

STRAWBERRY.

STATES AND TERRITORIES.	Number of acres one-year plants. (a)	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling plants.	Per cent of No. 2 grade yearling plants.	Per cent of No. 3 grade yearling plants.	Per cent of increased production since 1885.	Per cent of decreased prices on each since 1885.
The United States	4,433								
North Atlantic division:									
Maine	11	30,000	\$0.15	\$0.30					
New Hampshire									
Vermont	3 $\frac{1}{2}$	29,000	0.16	0.30				25	
Massachusetts	94	29,000	0.20	0.40					
Rhode Island	6	40,000	0.20	0.30					
Connecticut	31	150,000	0.20	0.30				50	25
New York	448	50,222	0.20	0.30				50	25
New Jersey	287	120,000	0.15	0.30					
Pennsylvania	147	88,600	0.15	0.30				60	50
Total	1,077 $\frac{1}{2}$								
South Atlantic division:									
Delaware	44	100,000	0.12 $\frac{1}{2}$	0.20					
Maryland	62	43,750	0.12 $\frac{1}{2}$	0.20					
District of Columbia									
Virginia	150	40,000	0.15	0.20					
West Virginia	8	62,500	0.15	0.30					
North Carolina	35	25,000	0.20	0.25					
South Carolina									
Georgia									
Florida	63	100,000	0.12 $\frac{1}{2}$	0.30					
Total	362								
North Central division:									
Ohio	360	77,725	0.14	0.27	90	10		50	23
Indiana	230	36,000	0.18	0.26	90	1		30	
Illinois	460	30,181	0.17	0.29	90	10			10
Michigan	87	30,000	0.17	0.30	92	8			
Wisconsin	101	62,750	0.15	0.28	70	20	10		
Minnesota	29	35,000	0.15	0.30	90	10		50	
Iowa	268	94,217	0.18	0.30	81	18	1	75	41
Missouri	176	37,428	0.18	0.31	60	34	6	200	22
North Dakota									
South Dakota	12 $\frac{1}{2}$	100,000	0.20	0.30	60	40		600	37
Nebraska	136	87,000	0.13	0.25	92	8			
Kansas	425	71,000	0.13	0.25	93	7		100	32
Total	2,304 $\frac{1}{2}$								
South Central division:									
Kentucky	105	39,800	0.15	0.33				50	5
Tennessee	142	30,000	0.15	0.25					
Alabama	2	30,000	0.15	0.28					
Mississippi	26	28,000	0.16	0.27					
Louisiana	1	40,000	0.16	0.28					
Texas	221	43,333	0.17	0.30				50	62
Arkansas	128	44,000	0.20	0.28					
Total	626								
Western division:									
Colorado	12	27,000	0.25	0.35					
New Mexico									
Arizona									
Utah	3	25,000	0.25	0.40					
Idaho									
Washington	7	25,000	0.20	0.32 $\frac{1}{2}$					
Oregon	9	25,000	0.20	0.33 $\frac{1}{2}$				100	60
California	33	77,000	0.15	0.25					
Total	64								

a A very considerable acreage of strawberries here reported is grown for the double purpose of producing both plants and fruit, plants to supply the demand of the nursery trade being dug from the middle of the rows, which are finally left for fruiting, wide or narrow, as the demands for the plants will admit. Often one-half of the plants may be taken up and then leave the field in better condition for fruiting.

STATISTICS OF ONE- AND TWO-YEAR PLANTS.

RASPBERRY. (a)

STATES AND TERRITORIES.	Number of acres one-year plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling plants.	Per cent of No. 2 grade yearling plants.	Per cent of No. 3 grade yearling plants.	Number of acres two-year plants.	Per cent of increased production since 1885.	Per cent of decreased price on each since 1885.
The United States	4,305 $\frac{1}{2}$							1,451		
North Atlantic division:										
Maine										
New Hampshire										
Vermont	3	20,000	\$0.40	\$0.60	70	30				25
Massachusetts	31	20,000	0.45	0.80	75	25				
Rhode Island	3	25,000	0.45	0.80	70	30				
Connecticut	53	20,000	0.50	0.80	70	30				
New York	1,018	15,000	0.46	0.70	75	25			48	25
New Jersey	304	15,000	0.40	0.60	75	25				
Pennsylvania	119	19,125	0.40	0.60	75	25			50	50
Total	1,621									
South Atlantic division:										
Delaware	44	20,000	0.50	0.65						
Maryland	45	17,000	0.37 $\frac{1}{2}$	0.60						
District of Columbia										
Virginia	30	18,000	0.38	0.60						
West Virginia	4	17,500	0.40	0.80						
North Carolina	1	10,000	0.40	0.60						
South Carolina										
Georgia										
Florida	2	20,000	0.45	0.70						
Total	126									
North Central division:										
Ohio	721	15,900	0.48	0.76	78	20	2	547	44	37
Indiana	232	11,166	0.46	0.75	96	4		168	50	
Illinois	530	13,355	0.52	0.77	90	10		400	5	
Michigan	150	13,000	0.45	0.70	90	10				
Wisconsin	94	10,840	0.43	0.71						
Minnesota	65	25,000	0.48	0.68	90	10		5	75	
Iowa	221	15,000	0.53	0.75	80	16		264	50	32
Missouri	130	15,151	0.47	0.77	60	37	3	60	135	32
North Dakota										
South Dakota	12	17,000	0.55	0.93	65	35		3		
Nebraska	160	13,263	0.43	0.80	72	28			400	75
Kansas	255	13,000	0.45	0.76	100				75	50
Total	2,360							1,420		
South Central division:										
Kentucky	25	18,600	0.33	0.55	70	15	15	25	5	10
Tennessee	87	20,000	0.35	0.50	80	20				
Alabama										
Mississippi	1	21,000	0.38	0.50	85	15				
Louisiana	0 $\frac{1}{2}$	20,000	0.37	0.55	82	18				
Texas	27	15,000	0.36	0.60	85	15			25	50
Arkansas	19	20,000	0.35	0.60	90	10				
Total	159 $\frac{1}{2}$							25		
Western division:										
Colorado	7	20,000	0.30	0.80	75	25				
New Mexico										
Arizona										
Utah	3	20,000	0.30	0.85	70	30				
Idaho										
Washington	3	21,370	0.30	0.90						
Oregon	5	20,000	0.30	0.90						
California	21	25,000	0.30	2.04						
Total	39									

a Much of the acreage of raspberries reported is cultivated for the double purpose of plant and fruit production combined, and it is a question whether a part of the cost of production should not be charged to the fruit crop.

STATISTICS OF ONE- AND TWO-YEAR PLANTS—CONTINUED.

BLACKBERRY. (a)

STATES AND TERRITORIES.	Number of acres one-year plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling plants.	Per cent of No. 2 grade yearling plants.	Per cent of No. 3 grade yearling plants.	Number of acres two-year plants.	Per cent of increased production since 1885.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
The United States	3,695 $\frac{1}{4}$							1,294			
North Atlantic division:											
Maine	5 $\frac{1}{2}$	21,000	\$0.80	\$1.25							25
New Hampshire											
Vermont	3	20,500	0.80	1.25							25
Massachusetts	18	20,000	0.50	1.00							
Rhode Island											
Connecticut	10	30,000	0.40	1.00					100		25
New York	429	21,185	0.35	0.65					75		25
New Jersey	392	21,500	0.35	0.50							
Pennsylvania	347	21,000	0.36	0.50					50		50
Total	1,204 $\frac{1}{4}$										
South Atlantic division:											
Delaware	118	30,000	0.50	0.60							
Maryland	66	20,667	0.40	0.75							
District of Columbia											
Virginia	17	20,000	0.37 $\frac{1}{2}$	0.65							
West Virginia	4	20,000	0.40	0.65							
North Carolina	2	21,000	0.40	0.75							
South Carolina											
Georgia											
Florida											
Total	196										
North Central division:											
Ohio	374	18,480	0.30	0.75	75	20	5	372	64		32
Indiana	270	19,220	0.38	0.70	91	9	9	120			
Illinois	285	20,000	0.30	0.85	90	10		350	22		20
Michigan	82	20,000	0.40	0.85	90	10					
Wisconsin	73	18,000	0.40	0.60	90	10					
Minnesota	73	22,500	0.45	0.60	90	10		50	75		41
Iowa	175	22,134	0.45	1.00	86	14		187	50		
Missouri	95	20,416	0.36	0.60	83	17		200			33 $\frac{1}{2}$
North Dakota											
South Dakota	31 $\frac{3}{4}$	18,600	0.40	1.00	90	10					
Nebraska	205	20,140	0.38	0.87	93	7		24	348		25
Kansas	382	21,350	0.37	0.87	95	5		191	150		65
Total	2,017 $\frac{1}{2}$							1,294			
South Central division:											
Kentucky	5	19,000	0.50	1.00	90	10			90		5
Tennessee	13	18,000	0.45	0.85	85	15					
Alabama											
Mississippi											
Louisiana	61 $\frac{3}{4}$	20,000	0.45	0.80	90	10					
Texas	96	17,500	0.40	1.16	80	10	10		75		50
Arkansas	13	20,000	0.45	0.85	90	10					
Total	127 $\frac{1}{4}$										
Western division:											
Colorado											
New Mexico											
Arizona											
Utah	2	12,000	0.30	0.60	90	10					
Idaho											
Washington	1	11,325	0.30	0.60	92	8					
Oregon	5	15,000	0.30	0.60	90	10					
California	42	125,000	0.26	1.08	98	2					
Total	50										

a Much of the acreage of blackberries reported is cultivated for the double purpose of plant and fruit production combined, and it is a question whether a part of the cost of production should not have been charged to the fruit crop.

STATISTICS OF ONE- AND TWO-YEAR PLANTS—CONTINUED.

CURRENT.

STATES AND TERRITORIES.	Number of acres one-year plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling plants.	Per cent of No. 2 grade yearling plants.	Per cent of No. 3 grade yearling plants.	Number of acres two-year plants.
The United States	1,316½							70½
North Atlantic division :								
Maine	1	25,000	\$1.00	\$1.80	80	10	10	1
New Hampshire								
Vermont	2	20,800	1.00	2.25	80	15	5	1
Massachusetts	2	25,000	1.00	1.75	80	20		1
Rhode Island								
Connecticut	15	30,000	1.00	1.80	85	15		2½
New York	236	27,533	1.10	1.80	64	28	8	169
New Jersey	76	27,000	1.25	1.70	55	45		36
Pennsylvania	42	25,000	1.10	1.80	50	25	25	12
Total	374							222½
South Atlantic division :								
Delaware								
Maryland	6	20,000	1.00	1.60				
District of Columbia								
Virginia	10	18,000	1.00	1.60				
West Virginia	6	17,000	1.00	1.75				
North Carolina	1	17,000	1.25	1.50				
South Carolina								
Georgia								
Florida								
Total	23							
North Central division :								
Ohio	312	25,000	1.17	2.00	65	28	7	139
Indiana	84	25,166	1.16	1.90	63	35	2	49
Illinois	273	20,450	1.10	2.10	60	20	20	110
Michigan	18	10,000	1.00	2.00	50	25	25	10
Wisconsin	8	10,333	1.10	1.85				4
Minnesota	6	20,000	1.00	2.00	75	25		10
Minnesota	39	24,458	1.15	2.10	63	24	13	54
Iowa	72	25,500	1.15	2.15	60	23	17	59
Missouri								
North Dakota	5½	23,667	1.25	2.25	63	37		3
South Dakota	60	24,000	1.09	2.25	84	16		22
Nebraska	26	21,941	1.10	2.25	80	20		21
Kansas								
Total	603½							480
South Central division :								
Kentucky	1	24,333	1.50	2.00	75	15	10	
Tennessee								
Alabama								
Mississippi								
Louisiana								
Texas	2	20,000	0.50	1.80	40	30	30	
Arkansas	4	20,000	1.25	1.80	50	40	10	
Total	7							
Western division :								
Colorado								
New Mexico								
Arizona								
Utah								
Idaho								
Washington	1	21,750	1.00	3.00	70	30		
Oregon	4	20,000	1.00	3.00	68	32		1
California	4	25,000	1.18	6.50	95	5		1
Total	9							2

STATISTICS OF ONE- AND TWO-YEAR PLANTS—CONTINUED.

CURRENT—CONTINUED.

STATES AND TERRITORIES.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade two-year plants.	Per cent of No. 2 grade two-year plants.	Per cent of No. 3 grade two-year plants.	Per cent of increased production since 1885.	Per cent of decreased price on each since 1885.
The United States							
North Atlantic division:							
Maine	\$1.50	\$3.00	80	20			
New Hampshire							
Vermont	1.50	3.10	80	20			30
Massachusetts	1.50	3.00	75	25			18
Rhode Island							
Connecticut	1.60	3.25	82	18			25
New York	2.00	2.75	78	22			20
New Jersey	2.00	2.80	72	20	8		25
Pennsylvania	1.80	3.00	80	20			25
Total							
South Atlantic division:							
Delaware							
Maryland							
District of Columbia							
Virginia							
West Virginia							
North Carolina							
South Carolina							
Georgia							
Florida							
Total							
North Central division:							
Ohio	1.60	2.83	60	32	8		18
Indiana	1.80	2.87	60	30	10	50	
Illinois	1.40	2.75	60	30	10	60	50
Michigan	1.40	2.50	60	25	15		20
Wisconsin	1.45	2.50	60	30	10		
Minnesota	1.50	2.50	60	25	15		
Iowa	1.50	2.60	77	15	8	175	18
Missouri	1.50	2.60	70	15	15	616	20
North Dakota							
South Dakota	1.55	2.40	60	40		500	20
Nebraska	1.55	2.50	60	30	10	83	20
Kansas	1.50	2.50	62	28	10	300	45
Total							
South Central division:							
Kentucky	2.00	3.50					5
Tennessee							
Alabama							
Mississippi							
Louisiana							
Texas	0.90	2.10				10	50
Arkansas	1.50	2.60					
Total							
Western division:							
Colorado							
New Mexico							
Arizona							
Utah							
Idaho							
Washington						100	40
Oregon							5
California							
Total							

STATISTICS OF ONE-, TWO-, AND THREE-YEAR PLANTS.

GOOSEBERRY. (a)

STATES AND TERRITORIES.	Number of acres one-year plants.	Number grown per acre.	Approximate cost of production per 100.	Average wholesale price per 100.	Per cent of No. 1 grade yearling plants.	Per cent of No. 2 grade yearling plants.	Per cent of No. 3 grade yearling plants.	Number of acres two-year plants.
The United States.....	540 $\frac{1}{2}$							447
North Atlantic division:								
Maine.....	1	11,200	\$2.50	\$4.00	60	30	10	1
New Hampshire.....								
Vermont.....	2	10,000	2.50	4.00	65	30	5	1
Massachusetts.....								
Rhode Island.....								
Connecticut.....	1	20,000						
New York.....	15	22,000	1.25	2.90	64	28	8	4
New Jersey.....	18	17,000	1.25	3.00	60	20	20	18
Pennsylvania.....	2	20,000	1.30	3.00	65	25	10	3
Total.....	30							27
South Atlantic division:								
Delaware.....								
Maryland.....								
District of Columbia.....	5	20,000	1.25	3.00				
Virginia.....	9	20,000	1.35	3.00				
West Virginia.....	5	17,000	1.50	4.00				
North Carolina.....	0 $\frac{1}{2}$	20,000	1.50	2.50				
South Carolina.....								
Georgia.....								
Florida.....								
Total.....	10 $\frac{1}{2}$							
North Central division:								
Ohio.....	85	13,166	1.17	2.50	75	23	2	46
Indiana.....	80	15,000	1.38	2.50	83	15	3	75
Illinois.....	36	15,733	1.25	2.70	75	15	10	90
Michigan.....	6	16,000	1.25	2.75				4
Wisconsin.....	21	11,500	1.33	3.00				6
Minnesota.....	17	14,000	1.25	3.00	75	25		30
Iowa.....	21	15,773	1.81	3.00	63	23	14	35
Missouri.....	50	11,375	1.66	2.70	43	45	12	60
North Dakota.....								
South Dakota.....	3	17,000	1.47	2.90	55	45		2
Nebraska.....	90	10,027	1.71	2.08	83	17		20
Kansas.....	50	11,711	1.40	3.07	80	20		42
Total.....	450							420
South Central division:								
Kentucky.....	5	24,333	1.30	2.00	75	15	10	
Tennessee.....	3	20,000	1.25	2.10				
Alabama.....								
Mississippi.....								
Louisiana.....								
Texas.....	1	10,000	0.80	1.00	40	30	30	
Arkansas.....	2	15,000	1.35	2.10				
Total.....	11							
Western division:								
Colorado.....	3	20,000	3.00	8.00	75	25		
New Mexico.....								
Arizona.....								
Utah.....								
Idaho.....								
Washington.....	2	20,000	1.75	4.00	75	25		
Oregon.....	4	15,000	1.75	4.00	70	30		
California.....	3	55,000	1.32	6.50	80	20		
Total.....	12							

^aMuch of the acreage of gooseberries reported is cultivated for the double purpose of plant and fruit production, and it is a question whether a part of the cost of production should not have been charged to the fruit crop.

STATISTICS OF ONE-, TWO-, AND THREE-YEAR PLANTS—CONTINUED.

GOOSEBERRY—CONTINUED.

STATES AND TERRITORIES.	Approximate cost of production per 100.	Average wholesale price per 100.	Number of acres three-year plants or over.	Per cent of No. 1 grade three-year plants or over.	Per cent of No. 2 grade three-year plants or over.	Per cent of No. 3 grade three-year plants or over.	Per cent of increased production since 1885.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
The United States.....			22						
North Atlantic division:									
Maine.....	\$5.00	\$6.00	21	50	35	15		15	
New Hampshire.....									
Vermont.....	3.00	5.00							50
Massachusetts.....									
Rhode Island.....									
Connecticut.....									
New York.....	2.00	4.65	1				25		25
New Jersey.....	2.25	4.50							
Pennsylvania.....	2.25	4.60					12½		33
Total.....			22						
South Atlantic division:									
Delaware.....									
Maryland.....									
District of Columbia.....									
Virginia.....									
West Virginia.....									
North Carolina.....									
South Carolina.....									
Georgia.....									
Florida.....									
Total.....									
North Central division:									
Ohio.....	1.58	4.56					12		25
Indiana.....	1.70	4.50							
Illinois.....	1.62	4.25					5		
Michigan.....	1.65	4.00							
Wisconsin.....	1.60	4.00							
Minnesota.....	1.50	4.00							
Iowa.....	1.80	4.31					50		20
Missouri.....	1.75	3.90					320		32
North Dakota.....									
South Dakota.....	1.80	4.00					200		
Nebraska.....	1.75	4.00					15		25
Kansas.....	1.82	4.15					350		55
Total.....									
South Central division:									
Kentucky.....	2.00	4.00					5		5
Tennessee.....									
Alabama.....									
Mississippi.....									
Louisiana.....									
Texas.....	1.25	3.00					10		50
Arkansas.....									
Total.....									
Western division:									
Colorado.....									
New Mexico.....									
Arizona.....									
Utah.....									
Idaho.....									
Washington.....									
Oregon.....							100		40
California.....									5
Total.....									

Of the 4,510 nurseries in the United States fully two-thirds are small concerns, from 2 to 25 acres in extent, and produce a full variety of all trees and plants for local demands, much of the stock sold being taken direct from the nursery by the planters and local agents, so that there is but little call for advertising, catalogues, or traveling salesmen. Another class of nurserymen, propagating largely a general line of nursery stock or making specialties of a few lines only, such as grapes or small fruits, cater to a direct retail trade with customers all over the country, and advertise extensively in the newspapers and mail hundreds of thousands of catalogues, and in return receive their orders by mail, when stock is shipped direct to planters by mail, freight, or express. There are other and still larger nurseries that produce stock by the hundreds of acres and cater to the wholesale trade by issuing trade catalogues only to other nurserymen, extensive planters, and to nursery agents and dealers, who are their best customers. Some of

these nurseries are upward of 1,000 acres in extent, and their products are shipped in car-load lots, and in the busy season almost by train loads. Still another class of nurserymen produce a general assortment of stock and sell direct to planters through the solicitation of traveling salesmen, who canvass from house to house and from farm to farm and succeed in selling millions of trees and plants, mostly to persons who would not take the trouble to visit a nursery or send for a catalogue and order direct from the nursery. Thousands of trees are now growing in what would otherwise have been waste places had it not been for these missionaries of horticulture.

The following table shows the total number of salesmen employed, average wages per month, number of wholesale and retail catalogues issued, and amounts paid annually for newspaper advertising and postage:

NURSERY SALESMEN AND PUBLICATIONS.

STATES AND TERRITORIES.	Number of salesmen employed. (a)	Monthly wages paid salesmen.	Number of wholesale catalogues issued.	Number of retail catalogues issued.	Amount paid for newspaper advertising.	Amount paid for postage.
The United States.....	20,249		3,290,805	9,556,980	\$512,054.61	\$304,163.76
North Atlantic division:						
Maine.....	122	\$42.50	20,500	25,000	2,460.00	5,186.91
New Hampshire.....	7	45.00		10,000		150.00
Vermont.....	17	40.00		25,000	1,020.00	3,000.00
Massachusetts.....	60	42.50	25,000	140,000	11,175.00	8,828.40
Rhode Island.....	3	45.00		5,000	900.00	125.00
Connecticut.....	25	45.00	10,000	150,000	6,998.27	3,600.00
New York.....	4,240	30.80	265,000	750,000	113,950.00	75,593.90
New Jersey.....	190	45.00	58,000	335,000	23,472.10	20,179.65
Pennsylvania.....	612	37.08	161,000	442,499	29,078.50	21,858.50
Total.....	5,276		542,500	1,882,499	189,054.47	138,522.36
South Atlantic division:						
Delaware.....	115	42.50	35,000	52,000	1,318.45	1,225.00
Maryland.....	116	40.00	16,655	116,750	5,632.00	5,062.50
District of Columbia.....			10,000	50,000	2,000.00	1,000.00
Virginia.....	124	35.00	43,200	176,040	3,844.00	6,551.82
West Virginia.....	76	35.00	16,500	37,000	916.74	743.60
North Carolina.....	88	44.33	10,000	96,000	24,320.00	10,730.56
South Carolina.....					16.00	5.00
Georgia.....	154	40.00	5,200	24,000	1,912.00	806.00
Florida.....	274	47.40	22,605	147,559	18,122.36	5,764.00
Total.....	940		159,160	609,340	58,071.55	31,968.48
North Central division:						
Ohio.....	3,716	45.00	390,000	763,206	56,446.59	27,380.31
Indiana.....	630	35.80	215,195	364,695	13,739.03	14,447.02
Illinois.....	1,047	42.50	159,500	1,609,150	43,300.18	35,453.46
Michigan.....	310	42.50	51,615	243,500	11,184.80	15,150.00
Wisconsin.....	151	40.00	117,000	255,938	24,347.70	23,109.60
Minnesota.....	256	42.50	48,300	82,800	5,749.77	4,800.00
Iowa.....	1,213	45.42	183,000	482,937	13,545.66	10,134.54
Missouri.....	1,309	45.45	357,313	755,097	14,143.04	21,033.65
North Dakota.....			1,200	26,000	325.00	650.00
South Dakota.....	63	50.00	20,250	40,500	2,000.61	976.59
Nebraska.....	1,534	47.50	177,000	446,040	22,069.29	18,915.99
Kansas.....	1,404	46.62	339,000	621,217	13,644.75	11,241.67
Total.....	12,623		2,059,373	5,710,990	222,296.42	189,411.23
South Central division:						
Kentucky.....	94	35.00	50,000	110,250	3,593.17	1,617.00
Tennessee.....	363	35.00	25,000	162,000	810.00	4,588.92
Alabama.....	70	35.00	35,000	10,000	750.00	1,113.15
Mississippi.....	30	30.00		150,000	2,307.00	1,470.00
Louisiana.....	34	27.50	25,000	60,000	1,080.00	3,150.00
Texas.....	142	46.25	97,000	208,935	5,927.67	9,074.48
Arkansas.....	57	37.50		38,352	673.20	344.70
Total.....	790		232,000	739,537	15,741.04	21,357.81
Western division:						
Colorado.....	69	62.50	28,750	44,850	2,204.09	977.50
New Mexico.....						
Arizona.....						
Utah.....	42	40.00		8,500	1,700.00	170.00
Idaho.....	10	100.00	10,000	20,000	2,500.00	1,500.00
Washington.....	81	60.00	2,700	35,991	2,700.00	1,356.94
Oregon.....	44	60.00	36,000	102,852	2,768.04	1,532.16
California.....	368	60.83	229,412	312,412	15,019.00	7,368.78
Total.....	614		306,862	624,605	26,891.13	12,904.38

a Some of the large nurseries, making a specialty of selling stock through traveling salesmen direct to planters, employ 200 and 300 agents each.

NURSERY EXPENDITURES FOR FREIGHT, ETC.

STATES AND TERRITORIES.	Amount paid for freight bills.	Amount paid for express bills.	Estimated amount paid for freight and express on outgoing shipments. (c)	STATES AND TERRITORIES.	Amount paid for freight bills.	Amount paid for express bills.	Estimated amount paid for freight and express on outgoing shipments. (c)
The United States.....	\$785,387.91	\$412,994.67	\$2,173,663.48	North Central division—Cont'd.			
North Atlantic division:				Wisconsin.....	\$18,954.00	\$17,784.00	\$205,140.00
Maine.....	2,304.20	1,083.47	1,207.00	Minnesota.....	8,280.00	5,589.00	14,352.00
New Hampshire.....	125.00	75.00		Iowa.....	39,330.36	9,614.82	65,488.38
Vermont.....	425.00	340.00	170.00	Missouri.....	71,090.74	30,767.60	163,325.00
Massachusetts.....	20,895.60	8,533.20	34,500.00	North Dakota.....	975.00	1,625.00	
Rhode Island.....	140.00	115.00	160.00	South Dakota.....	6,174.09	747.00	4,725.00
Connecticut.....	1,124.04	1,805.00	4,500.00	Nebraska.....	51,469.83	25,691.50	179,702.00
New York.....	64,417.70	37,847.30	380,147.80	Kansas.....	54,077.28	17,787.33	114,243.00
New Jersey.....	9,612.50	12,807.85	42,050.00	Total.....	415,078.18	179,844.61	1,192,313.54
Pennsylvania.....	65,726.74	16,912.18	35,198.98	South Central division:			
Total.....	164,670.78	79,529.00	497,993.78	Kentucky.....	8,625.00	3,225.00	18,522.00
South Atlantic division:				Tennessee.....	28,890.00	5,562.00	22,086.00
Delaware.....	840.00	1,300.00	2,800.00	Alabama.....	22,267.50	2,002.50	975.00
Maryland.....	8,683.50	1,875.00	14,375.00	Mississippi.....	1,875.00	2,550.00	3,439.95
District of Columbia.....	1,000.00	500.00	1,500.00	Louisiana.....	3,761.28	2,583.50	9,600.00
Virginia.....	14,276.25	3,465.18	10,422.00	Texas.....	16,199.00	128,622.00	121,029.81
West Virginia.....	767.80	418.00	1,058.00	Arkansas.....	3,696.72	2,295.00	5,676.00
North Carolina.....	6,560.00	3,360.00	64,400.00	Total.....	86,224.50	146,840.10	181,288.76
South Carolina.....	75.00			Western division:			
Georgia.....	7,920.00	1,385.72	6,640.00	Colorado.....	6,785.00	1,495.00	2,798.41
Florida.....	27,119.15	9,320.11	95,185.68	Utah.....	859.00		850.00
Total.....	67,141.70	21,624.01	196,378.08	Idaho.....	7,000.00	1,000.00	7,000.00
North Central division:				Washington.....	2,091.15	1,350.00	10,844.01
Ohio.....	67,655.95	21,697.53	194,766.36	Oregon.....	9,029.52	4,284.00	8,070.12
Indiana.....	25,259.29	11,636.79	47,133.28	California.....	27,529.08	7,167.92	76,066.18
Illinois.....	53,972.24	28,665.88	104,388.44	Total.....	59,272.75	15,286.92	105,628.72
Michigan.....	17,248.40	7,406.00	48,050.00				

a Nursery products being of a perishable nature, direct orders are largely sent by express, often at a great expense to the consignee; hence these large figures.

The table showing the date of establishment and the columns in the various tables of production indicating the per cent of increase clearly prove the steady growth of the nursery industry. While a few eastern states show a slight falling off in the production of some kinds of nursery stock, Vermont is the only state to show a falling off in all lines of production. Maine also shows a considerable decrease in several lines. Florida shows a decrease in orange-tree production, brought about by the discouragement of planters by the hard freeze of 1886; but with these few exceptions the increased production is from 15 to 300 per cent, being greatest in the states of the North Central division and on the Pacific coast. With this greatly increased production has come about a considerable decrease in the selling price, so that while the nurserymen appear to be prosperous financially, greater knowledge in the art of production and better methods of culture enable them to produce better stock at less cost, conditions all favorable to the planter and not in the least discouraging to the nurseryman who understands his business.

At first thought it would seem that the annual production of all these millions of trees and plants would soon overstock the country, but it is a sad fact to contemplate that damage in transit and climatic conditions, coupled with the carelessness of many planters, result in killing nearly one-half the plants and trees sent out each year, and further neglect results in the loss of one-half of those remaining before the end of the third year; and it has been estimated by some horticulturists that of all the trees set out not more than 1 in 20 ever comes to full fruiting. This is not so much on account of soil and climatic conditions as from ignorance and carelessness of the average planters, for skilled orchardists have little trouble in bringing 90 per cent of all trees planted into full fruitage. This loss of trees, coupled with the steady growth of the country and the increased taste in horticultural matters, must of necessity cause the demand for nursery products to be even greater in the future than in the past. 20 years ago a fruit orchard 50 acres in extent was considered a wonder; now in nearly every state apple, pear, and peach orchards

of 100, 200, and 300 acres are being planted, while in Georgia and California there are many peach orchards of 1,000 or more acres each. The greatest and most steady demand, however, will ever continue to be for plants and trees for the home ground and the fruit garden. The latter, a luxury a few years ago, is fast becoming a recognized necessity, and as greater attention is being given it each year it can not fail to help the nursery trade, and so it is expected to grow and prosper even more in the future than in the past.