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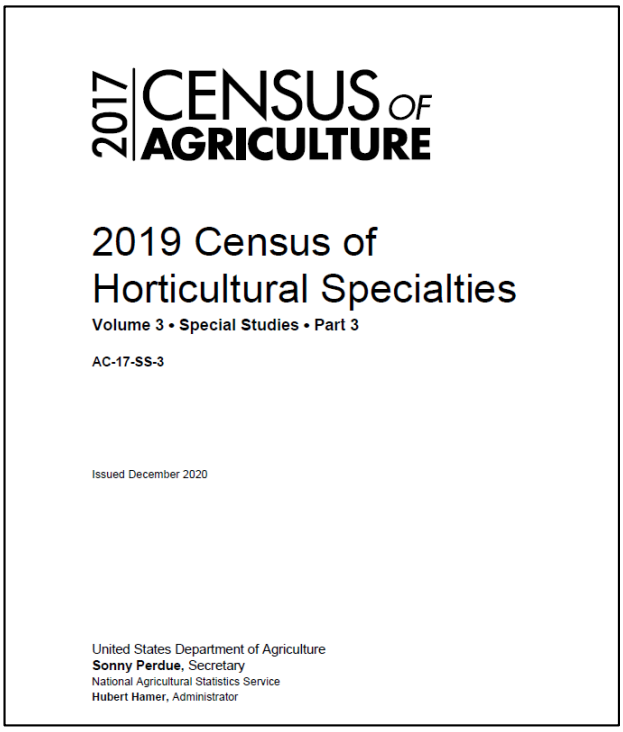
Census of Horticultural Specialties

The Census of Horticultural Specialties is a great source for the latest nation-wide horticulture crop production economic data, including state-by-state details.



Source: USDA NASS

Are you wondering who is growing what where? The most comprehensive source for up-to-date horticulture crop production data is the United States Department of Agriculture (USDA) Census of Horticultural (CHS). The most recent CHS was published in December of 2020, and can be found on the USDA National Agriculture Statistics Service website here:

https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Census_of_Horticulture_Specialties/index.php

The first census of horticulture crops was conducted in 1889, and the 2019 is the eleventh census focusing on horticultural crops. Although previous surveys have included respondents that have produced and sold $1,000 or $2,000 worth of horticultural specialty crops, the CHS has included those operation producing an selling more than $10,000 worth of horticulture crops since 1998.

The CHS is a part of the larger Census of Agriculture. In the CHS, there is a large amount of information available for consumption. For greenhouse and controlled environment food crop producers, some of the most important information is likely going to be the statistics on food crops grown under protection. At the national level, as well as state-by-state, data on the area number of producers, area under production, production of crops (by weight), and value of sales. These data are also presented on a national and state-by-state level for specific food crops grown under protection, including cucumbers, herbs, lettuce, peppers, strawberries, tomatoes, and "other" (Fig. 1). An additional level of detail is provided for the production (in weight) of food crops under protection- the amount produced in hydroponic systems is segregated from non-hydroponic food crops grown under protection.

The CHS contains other data that could be useful. For example, similar data on the number of producers, area in production, units produced, and value for a wide range of other horticultural crops are included, from floriculture crops to Christmas trees. Additional data are collected on value of assets, area in production (including different types of protective structures), and production expenses (Fig. 2).

There is a wealth of data available in the CHS- but what can you do with it? For commercial producers, it can help better understand the market for greenhouse- and hydroponically grown food crops. For additional perspective and trends, there are older CHS that can be used to compare data to and identify trends that can affect your business and opportunities in the industry.

Item	Operations	Area under protection (1,000 square feet)	Production (cwt)		Value of sales ($1,000)		
			Total	From hydroponic systems	Total	Wholesale sales	Retail sales
Food crops grown under protection and sold, total	2,994	88,943	7,856,801	4,221,751	703,469	512,758	190,711
Cucumbers	1,003	6,337	510,300	340,153	45,691	40,192	5,499
Herbs, cut fresh	700	10,685	326,309	73,598	65,153	40,996	24,157
Lettuce, all	1,042	5,531	551,716	363,885	71,129	49,008	22,122
Peppers, all (excluding ornamentals)	745	2,481	110,739	3,454	8,577	6,056	2,521
Strawberries	161	659	11,792	1,837	937	256	681
Tomatoes	2,205	52,576	4,165,635	2,533,489	345,025	253,332	91,693
Other food crops grown under protection and sold	1,005	10,674	2,180,310	905,334	166,957	122,919	44,038

Item	Operations	Area under protection (1,000 square feet)	Production (cwt)		Value of sales ($1,000)		
			Total	From hydroponic systems	All sales	Wholesale sales	Retail sales
FOOD CROPS GROWN UNDER PROTECTION AND SOLD, TOTAL							
United States	2,994	88,943	7,856,801	4,221,751	703,469	512,758	190,711
Alabama	10	(D)	74,688	61,982	1,050	402	647
Alaska	43	229	8,523	7,354	2,474	2,032	442
Arizona	15	(D)	222,929	(D)	25,246	25,005	241
Arkansas	28	243	37,335	-	6,537	(D)	(D)
California	100	22,706	1,960,873	1,044,089	213,605	192,592	21,013
Colorado	66	2,495	340,074	260,388	14,886	13,616	1,270
Connecticut	41	606	19,308	6,803	3,138	1,606	1,532
Delaware	10	68	5,425	4,032	326	180	146
Florida	127	3,375	135,885	75,108	17,596	13,914	3,682
Georgia	41	857	174,783	92,424	9,149	5,686	3,462
Hawaii	34	794	41,139	31,717	11,030	9,390	1,640
Idaho	35	127	4,201	2,553	1,935	1,616	319
Illinois	92	1,974	99,394	(D)	13,945	11,226	2,720
Indiana	119	1,044	18,424	1,001	3,515	2,226	1,289
Iowa	99	766	23,701	12,015	7,772	2,252	5,519
Kansas	34	265	4,114	1,174	1,185	670	515
Kentucky	79	855	230,987	89,914	2,579	1,802	776
Louisiana	14	124	4,846	-	842	484	358
Maine	59	2,165	(D)	(D)	(D)	(D)	(D)
Maryland	53	428	20,313	10,029	2,702	486	2,216
Massachusetts	94	1,076	158,140	123,769	15,295	13,331	1,964
Michigan	158	3,898	128,788	(D)	16,289	14,180	2,109
Minnesota	81	2,268	90,845	(D)	17,283	(D)	(D)
Mississippi	14	175	4,123	3,104	798	451	347
Missouri	134	1,655	60,928	24,413	6,153	5,147	1,006
Montana	49	234	46,480	(D)	2,009	1,120	889
Nebraska	14	1,047	(D)	(D)	10,131	(D)	(D)
Nevada	1	(D)	(D)	-	(D)	-	(D)
New Hampshire	48	383	10,444	1,712	2,054	1,200	854
New Jersey	37	1,146	150,976	(D)	15,258	9,269	5,989

Figure 1. A sample of the nation-wide (top) and state-by-state (bottom) crop production information for food crops grown under protection from the 2019 Census of Horticultural Specialties. *Source: USDA NASS.*

Item	Sod, sprigs, or plugs	Dried bulbs, corms, rhizomes, and tubers	Food crops grown under protection	Transplants for commercial vegetable and strawberry production	Vegetable seeds	Flower seeds	Aquatic plants	Cultivated Christmas trees	Other kinds of businesses
VALUE OF LAND, BUILDINGS, MACHINERY AND EQUIPMENT									
Land and buildings, operations	996	115	2,168	164	252	64	87	2,527	1,015
Land and buildings, value ($1,000)	3,464,700	106,267	1,173,185	561,478	623,579	117,953	17,350	1,657,973	792,158
Machinery and equipment, operations	996	115	2,168	164	252	64	87	2,527	1,015
Machinery and equipment, value ($1,000)	698,008	16,344	241,846	147,076	125,190	24,169	4,219	208,745	192,940
TOTAL LAND AREA USED TO GROW CROPS									
Total land area covered by greenhouses, operations	26	41	2,138	141	50	30	66	70	956
Total land area covered by greenhouses, square feet (1,000)	(D)	791	79,046	26,117	1,461	(D)	976	414	59,921
Glass covered, operations	4	7	178	14	14	4	7	6	109
Glass covered, square feet (1,000)	9	19	30,643	1,393	47	(D)	125	20	8,773
Rigid plastic, operations	7	5	321	35	6	9	22	12	214
Rigid plastic, square feet (1,000)	(D)	342	8,950	2,799	629	(D)	60	33	7,060
Plastic film (single or multi-layer poly), operations	20	32	1,833	121	38	21	50	59	855
Plastic film (single or multi-layer poly), square feet (1,000)	(D)	431	39,454	21,926	786	(D)	791	361	44,088
Greenhouse area erected in 2019, operations	3	1	306	21	10	-	-	4	53
Greenhouse area erected in 2019, square feet (1,000)	(D)	(D)	1,514	393	25	-	-	7	1,095
Total land area covered by shade structures, operations	10	9	172	4	5	6	9	26	208
Total land area covered by shade structures, square feet (1,000)	(D)	(D)	2,997	(D)	(D)	21	94	163	5,733
Total land area covered by natural shade, operations	2	4	55	-	1	-	13	21	83
Total land area covered by natural shade, acres	(D)	9	56	-	(D)	-	12	(D)	111
Total land area in the open, operations	21	113	698	87	246	62	76	305	582
Total land area in the open, acres	(D)	6,446	10,247	5,011	42,523	6,409	(D)	13,141	10,399

Item	United States	Alabama	Alaska	Arizona	Arkansas
HORTICULTURAL PRODUCTION EXPENSES					
All horticultural production expenses, operations	20,655	233	107	100	122
All horticultural production expenses, $1,000	11,635,518	209,207	12,985	181,845	46,216
Seeds, plants, vines, trees, etc. purchased, operations	18,419	190	92	92	111
Seeds, plants, vines, trees, etc. purchased, $1,000	1,989,177	31,480	2,355	28,471	6,498
Potting soils and growing media purchased, operations	12,436	157	78	61	68
Potting soils and growing media purchased, $1,000	360,663	4,608	674	7,514	1,126
Fertilizer, lime, and soil conditioner purchased, operations	18,589	226	95	96	114
Fertilizer, lime, and soil conditioner purchased, $1,000	378,972	9,176	241	7,078	1,632
Chemicals purchased, operations	17,826	228	59	90	115
Chemicals purchased, $1,000	295,941	8,934	74	3,284	1,122
Containers purchased, operations	14,080	183	81	73	86
Containers purchased, $1,000	552,517	11,942	480	12,301	2,286
Plastic, operations	11,814	152	74	60	56
Plastic, $1,000	430,427	6,371	456	4,164	1,959
Styrofoam or other foam containers, operations	505	6	1	7	4
Styrofoam or other foam containers, $1,000	6,661	(D)	(D)	(D)	2
Naturally based containers (wood, peat, straw, rice hulls, etc.), operations	1,793	15	11	20	19
Naturally based containers (wood, peat, straw, rice hulls, etc.), $1,000	36,809	1,787	14	4,604	14
Clay pots, operations	779	-	2	7	7
Clay pots, $1,000	6,133	-	(D)	(D)	10
Glazed pottery, operations	696	2	1	11	3
Glazed pottery, $1,000	16,902	(D)	(D)	232	3
Other containers, operations	2,045	36	5	10	22
Other containers, $1,000	55,584	3,767	7	2,179	297
Hired labor expenses, all, operations	14,861	185	80	91	79
Hired labor expenses, all, $1,000	4,416,561	86,149	4,881	74,662	19,029
Worked 150 days or more, operations	10,482	142	24	60	61
Worked 150 days or more, $1,000	3,513,129	73,777	3,209	68,066	13,614
Worked less than 150 days, operations	10,649	118	75	48	53
Worked less than 150 days, $1,000	903,432	12,372	1,672	6,596	5,415
Contract labor expenses, operations	4,649	62	23	30	32
Contract labor expenses, $1,000	461,588	3,980	247	3,754	663
Gasoline, fuels, and oils purchased, operations	19,632	231	98	90	117
Gasoline, fuels, and oils purchased, $1,000	440,005	7,832	538	6,069	2,618
Utilities purchased, operations	18,813	224	103	87	112
Utilities purchased, $1,000	379,825	5,376	985	7,714	1,770

Figure 2. Additional information contained in the 2019 Census of Horticultural Specialties, including value of assets, area in production (including different types of protective structures), and production expenses
Source: USDA NASS.

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