

Table
Number **Table Name**

(Click on the table number to go to corresponding table)

Narrative

19.01	Farms by Size, Land in Farms, and Value of Land, Buildings, and Equipment: 2007, 2012 and 2017
19.02	Farms, Market Value and Value of Sales: 2007, 2012 and 2017
19.03	Farms by Size, Land in Farms, and Value of Land, Buildings and Equipment, by County: 2017
19.04	Farm Production Expenses: 2007, 2012 and 2017
19.05	Farm Income and Expenses: 2018 to 2021
19.06	Farm Organization and Selected Primary Producer Characteristics: 2007, 2012 and 2017
19.07	Number of Farms, Farm Acreage, and Average Farm Employment: 2000 to 2022
19.08	Farm Employment: 1998 to 2021
19.09	Farm Employment, by County: 2006 to 2021
19.10	Value of Crop, Livestock, and Aquaculture Sales: 1995 to 2021
19.11	Crops, by Acreage and Sales: 2019 to 2022
19.12	Seed Crops, by Number of Farms, Acreage, Outshipments, and Value: 2005/2006 to 2021/2022
19.13	Selected Crops Harvested and Land in Orchards, by Number of Farms, Acres and Weight: 2007, 2012 and 2017
19.14	Specialty Crops, Fruits, and Vegetables: 2021
19.15	Specialty Crops, Fruits, and Vegetables: 2022
19.16	Top 20 Agricultural Commodities: 2021
19.17	Livestock Inventory: 1991 to 2022
19.18	Livestock Sales, by Type: 1990 to 2022
19.19	Livestock and Poultry, Inventory and Sales, by Number and Farms: 2007, 2012 and 2017
19.20	Floriculture and Nursery Products: 1998 to 2022
19.21	Selected Floriculture and Nursery Products, by Commodity: 2021
19.22	Aquaculture Operations, by Number of Workers and Value: 2016 to 2021
19.23	Agricultural Chemicals Used, Including Fertilizer: 2012 and 2017
19.24	Farms, Land, and Value of Sales of Certified Organic Agricultural Products: 2021
19.25	General Excise Tax Base for Producing: 1998 to 2022
19.26	Agriculture Theft and Crime Cost: 2004 and 2019

Section 19

AGRICULTURE

This section presents statistics on agricultural land, farms and organic farms, agricultural employment and operation costs, crops, livestock, dairy products, poultry, and aquaculture. Related information appears in Sections 6 (land use) and 22 (food processing).

Important sources for data on agriculture include the 2017 *United States Census of Agriculture*; the annual report on *Statistics of Hawaii Agriculture* issued by the Hawaii Agricultural Statistics Service; the Bureau of Economic Analysis; data compiled by the former Hawaiian Sugar Planters' Association, now the Hawaii Agriculture Research Center; and the Aquaculture Development Program of the Hawaii State Department of Agriculture. Agricultural data for earlier years are summarized in *Historical Statistics of Hawaii*, Section 13.

Table 19.01-- FARMS BY SIZE, LAND IN FARMS, AND VALUE OF LAND, BUILDINGS, AND EQUIPMENT: 2007, 2012 AND 2017

Item	Unit	2007	2012	2017
Farms	Number	7,521	7,000	7,328
Land in farms	Acres	1,121,329	1,129,317	1,135,352
Farms by size				
1 to 9 acres	Number	4,813	4,412	4,868
10 to 49 acres	Number	1,972	1,752	1,693
50 to 179 acres	Number	423	480	396
180 to 499 acres	Number	154	172	171
500 to 999 acres	Number	44	57	74
1,000 to 1,999 acres	Number	50	48	43
2,000 acres or more	Number	65	79	83
Average size of farm	Acres	149	161	155
Median size of farm	Acres	5	5	5
Total cropland	Farms	6,281	5,551	5,826
	Acres	177,626	174,042	191,175
Harvested cropland	Farms	6,044	5,293	5,316
	Acres	103,120	99,031	84,767
Irrigated land	Farms	2,810	2,498	2,250
	Acres	58,635	81,813	45,452
Value of land and buildings				
Average per farm	Dollars	1,146,213	1,461,342	1,445,188
Average per acre	Dollars	7,688	9,058	9,328
Estimated market value of all machinery and equipment				
Total	\$1,000	304,997	307,994	371,436
Average per farm	Dollars	40,666	43,999	50,701

Source: USDA National Agricultural Statistics Service, *2007 Census of Agriculture, Vol. 1, Chapter 2: State Level Data* (December 2009), "Table 1. State Summary Highlights: 2007", pp. 276-293, *2012 Census of Agriculture, Vol.1, Part 1, Hawaii* (May 2014), "Table 1. Historical Highlights: 2012 and Earlier Census Years", pp. 7-8, *2012 Census of Agriculture, Vol. 1, Chapter 2: State Level Data*, "Table 1. State Summary Highlights: 2012", pp. 245-260 (May 2014); and *2017 Census of Agriculture*, Vol. 1, Chapter 2: State Level Data, "Table 1. County Summary Highlights: 2017" <https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Hawaii/st15_2_0001_0001.pdf> accessed April 15, 2019.

**Table 19.02-- FARMS, MARKET VALUE AND VALUE OF SALES:
2007, 2012 AND 2017**

Item	Unit	2007	2012	2017
Total farms in Hawaii	Number	7,521	7,000	7,328
Farms by value of sales				
Less than \$2,500	Number	2,932	2,130	2,671
\$2,500 to \$4,999	Number	1,012	902	784
\$5,000 to \$9,999	Number	996	1,058	1,070
\$10,000 to \$24,999	Number	1,143	1,397	1,176
\$25,000 to \$49,999	Number	557	684	707
\$50,000 to \$99,999	Number	353	323	389
\$100,000 to \$499,999	Number	380	358	368
\$500,000 or more	Number	148	148	163
Market value of agricultural products sold	\$1,000	513,626	661,347	563,803
Crops, including nursery and greenhouse crops	\$1,000	429,916	538,873	417,069
Livestock, poultry, and their products	\$1,000	83,711	122,474	146,733
Average market value of agricultural products sold per farm	Dollars	68,292	94,478	76,938

Source: USDA National Agricultural Statistics Service, *2017 Census of Agriculture, Vol. 1, Chapter 1, Hawaii*, "Table 1. Historical Highlights: 2017 and Earlier Census Years" <https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_State_Level/Hawaii/st15_1_0001_0001.pdf> accessed April 15, 2019.

Table 19.03-- FARMS BY SIZE, LAND IN FARMS, AND VALUE OF LAND, BUILDINGS AND EQUIPMENT, BY COUNTY: 2017

Item	Unit	State total	Hawaii County	City and Co. of Honolulu	Kauai County	Maui County
Farms	Number	7,328	4,220	927	773	1,408
Land in farms	Acres	1,135,352	664,444	71,795	150,157	248,956
Farms by size						
1 to 9 acres	Number	4,868	2,621	707	530	1,010
10 to 49 acres	Number	1,693	1,153	139	149	252
50 to 179 acres	Number	396	240	43	38	75
180 to 499 acres	Number	171	103	17	28	23
500 to 999 acres	Number	74	42	5	11	16
1,000 or more acres	Number	126	61	16	17	32
Average size of farm	Acres	155	157	77	194	177
Median size of farm	Acres	5	6	4	5	4
Total cropland	Farms	5,826	3,315	780	583	1,148
	Acres	191,175	82,295	23,067	29,262	56,551
Harvested cropland	Farms	5,316	3,008	730	521	1,057
	Acres	84,767	58,504	13,664	5,467	7,132
Irrigated land	Farms	2,250	828	512	259	651
	Acres	45,452	6,662	11,683	22,258	4,849
Estim. market value of land and buildings						
Average per farm	Dollars	1,445,188	1,091,739	1,920,259	1,744,739	2,027,299
Average per acre	Dollars	9,328	6,934	24,794	8,982	11,466
Estim. market value of all machinery & equipment						
Average per farm	\$1,000	371,436	176,664	85,318	36,990	72,464
	Dollars	50,701	41,883	92,036	47,852	51,466
Market value of agricultural products sold						
Average per farm	\$1,000	563,803	269,188	151,383	61,025	82,206
	Dollars	76,938	63,789	163,305	78,946	58,385
Crops, including nursery & greenhouse crops	\$1,000	417,069	160,040	136,920	45,899	74,211
Livestock, poultry, & their products	\$1,000	146,733	109,148	14,464	15,126	7,995

Source: USDA National Agricultural Statistics Service, *2017 Census of Agriculture*, Hawaii, County Data, "Table 1. County Summary Highlights: 2017" <https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Hawaii/st15_2_0001_0001.pdf> accessed April 16, 2019.

Table 19.04-- FARM PRODUCTION EXPENSES: 2007, 2012 AND 2017

[In thousands of dollars]

Item	2007	2012	2017
Total farm production expenses	486,648	659,262	575,703
Selected farm production expenses			
Livestock and poultry purchased or leased	3,343	3,880	5,011
Feed purchased	24,678	43,811	36,783
Fertilizer, lime, and soil conditioners purchased	29,807	46,584	31,787
Gasoline, fuels, and oils purchased	24,443	33,157	23,512
Hired farm labor	178,496	269,907	230,205
Interest expense	14,838	13,208	21,587
Chemicals purchased	17,238	32,993	17,684

Source: USDA National Agricultural Statistics Service, *2017 Census of Agriculture, Vol. 1, Chapter 1, Hawaii*, "Table 1. Historical Highlights: 2017 and Earlier Census Years," <https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_State_Level/Hawaii/st15_1_0001_0001.pdf> accessed April 16, 2019.

Table 19.05-- FARM INCOME AND EXPENSES: 2018 TO 2021[In thousands of dollars. 2018 to 2020 revised from previous *Data Book*]

Item	2018	2019	2020	2021
Cash receipts from marketings	575,563	535,265	495,124	500,546
Livestock and products	167,217	148,831	137,594	147,271
Crops	408,346	386,434	357,530	353,275
Other income	63,451	69,758	134,077	93,260
Government payments	11,913	13,154	80,735	39,134
Imputed and misc. income received 1/	51,538	56,604	53,342	54,126
Production expenses	615,015	636,973	670,659	651,955
Feed purchased	31,622	34,913	33,385	38,322
Livestock purchased	4,317	5,153	5,418	5,413
Seed purchased	12,372	11,976	12,993	12,598
Fertilizer, lime and agricultural chemicals	46,872	45,756	49,603	57,807
Petroleum products purchased	23,013	23,023	20,912	24,302
Hired farm labor expenses 2/	222,372	225,121	239,859	239,692
All other production expenses 3/	274,447	291,031	308,489	273,821
Value of inventory change	-1,068	-646	998	1,263
Livestock	-969	-579	975	1,153
Crops	-	-	-	-
Materials and supplies	-99	-67	23	110

1/ Consists of the value of home consumption and other farm related income components, such as machine hire and custom work income and income from forest products.

2/ Consists of hired workers' cash pay and perquisites, employers' contributions for social security and Medicare, and payments for contract labor, machine hire, and custom work.

3/ Consists of repair and operation of machinery; depreciation, interest, rent and taxes; and other miscellaneous expenses including agricultural chemicals.

Source: U.S. Bureau of Economic Analysis, "Local Area Personal Income and Employment, Farm Income and Expenses" (CAINC45) <<https://apps.bea.gov/iTable/>> accessed March 30, 2023.

Table 19.06-- FARM ORGANIZATION AND SELECTED PRIMARY PRODUCER CHARACTERISTICS: 2007, 2012 AND 2017

Organization or primary producer characteristic 1/	2007	2012	2017
Farm by type of organization			
Family or individual	6,363	5,685	5,733
Partnership	437	446	569
Corporation	517	637	737
Other- cooperative, estate or trust, institutional, etc.	104	232	289
Primary producers by primary occupation			
Farming	3,861	3,642	3,828
Other	3,660	3,358	3,500
Primary producers by days worked off farm			
None	1,903	2,223	2,704
Any	5,618	4,777	4,624
1 to 49 days	1,015	690	874
50 to 99 days	857	562	529
100 to 199 days	919	927	866
200 days or more	2,827	2,598	2,355
Primary producers' place of residence			
On farm operated	5,355	4,649	5,158
Not on farm operated	2,166	2,351	2,170
Primary producers by sex			
Male	5,715	5,426	4,819
Female	1,806	1,574	2,509
Primary producers by race			
American Indian or Alaska Native	41	32	28
Asian	2,544	2,824	2,092
Black or African American	10	18	10
Native Hawaiian or Other Pacific Islander	625	689	667
White	3,627	2,749	3,726
More than one race	674	688	805
Average age of primary producer	58.6	60.4	61.8
Young primary producers 2/	(NA)	(NA)	316

NA Not available.

1/ In 2007 and 2012, data were reported for the "principal operator," which is defined as the person who is primarily responsible for the on-site, day-to-day operation of the farm or ranch business. The "primary producer" is a principal producer. If multiple principal producers were reported on a farm, the primary producer was chosen by designating the person who made the most decisions for the farm.

2/ A young producer is defined as a producer 35 years of age or younger.

Source: USDA National Agricultural Statistics Service, *2012 Census of Agriculture, Vol. 1, Part 1, Hawaii*, "Table 1. Historical Highlights: 2012 and Earlier Census Years" and "Table 62. Selected Principal Operator Characteristics by Race: 2012 and 2007" (May 2014) and *Ibid. 2017*. "Table 1. Historical Highlights: 2017 and Earlier Census Years" and "Table 52. Selected Producer Characteristics: 2017 and 2012" (April 2019) <<https://www.nass.usda.gov/AgCensus/>> accessed June 26, 2019.

Table 19.07-- NUMBER OF FARMS, FARM ACREAGE, AND AVERAGE FARM EMPLOYMENT: 2000 TO 2022

Year	Number of farms 1/	Farm acreage (1,000) 2/	Annual average farm employment 3/		
			Self-employed farm operators	Unpaid workers 4/	Hired workers
2000	5,500	1,440	3,100	1,000	7,800
2001	5,500	1,350	3,300	1,100	7,400
2002	5,398	1,300	3,000	1,100	7,500
2003	5,500	1,300	(5/)	(5/)	7,300
2004	5,500	1,300	(5/)	(5/)	7,300
2005	5,500	1,300	(5/)	(5/)	7,000
2006	5,500	1,160	(5/)	(5/)	7,000
2007	7,521	1,121	(5/)	(5/)	6,500
2008	7,500	1,110	3,300	900	6,200
2009	7,500	1,110	3,500	1,000	6,200
2010	7,200	1,100	3,800	1,000	6,300
2011	7,100	1,130	(5/)	(5/)	7,000
2012	7,000	1,130	(5/)	(5/)	6,500
2013	7,100	1,100	(5/)	(5/)	6,500
2014	7,100	1,100	(5/)	(5/)	7,000
2015	7,200	1,100	(5/)	(5/)	6,500
2016	7,300	1,100	(5/)	(5/)	6,000
2017	7,300	1,100	(5/)	(5/)	6,000
2018	7,300	1,100	(5/)	(5/)	6,300
2019	7,300	1,100	(5/)	(5/)	4,500
2020	7,300	1,100	(5/)	(5/)	4,300
2021	7,300	1,100	(5/)	(5/)	5,000
2022	7,300	1,100	(5/)	(5/)	5,300

1/ Based on farm definition of \$1,000 or more of agricultural sales.

2/ Includes land not in crop and pasture, such as farm house lots, roads, woodlots, etc.

3/ Working 15 or more hours per week. Annual averages are based on survey data for January, April, July, October.

4/ Includes family members and others that worked 15 or more hours during the survey week.

5/ Total farm workforce, self-employed operators, and unpaid workers estimates were discontinued from July 2002 to April 2007 due to a change in the national labor statistics program. Estimates were again discontinued beginning in October 2011.

Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *2017 Census of Agriculture, Hawaii* "Table 8. Farms, Land in Farms, Value of Land and Buildings, and Land Use" (April 2019) <<https://www.nass.usda.gov/Publications/AgCensus/2017>> accessed April 11, 2019; *Hawaii Annual Statistics Bulletin* (annually through 2013) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Annual_Statistical_Bulletin> accessed April 11, 2019; Quick Stats <<https://quickstats.nass.usda.gov/>> accessed April 28, 2023.

Table 19.08-- FARM EMPLOYMENT: 1998 TO 2021

[The estimates of employment for 1998-2006 are based on the 2002 North American Industry Classification System (NAICS). The estimates for 2007-2010 are based on the 2007 NAICS. The estimates for 2011-2016 are based on the 2012 NAICS. The estimates for 2017 forward are based on the 2017 NAICS]

Year	Total farm employment 1/	Farm proprietors employment 2/	Farm wage and salary employment 3/
1998	12,501	5,297	7,204
1999	12,292	5,274	7,018
2000	12,839	5,258	7,581
2001	12,314	5,236	7,078
2002	11,978	4,795	7,183
2003	11,917	4,719	7,198
2004	11,596	4,604	6,992
2005	11,404	4,605	6,799
2006	11,304	4,513	6,791
2007	12,489	6,149	6,340
2008	11,661	6,006	5,655
2009	11,288	5,903	5,385
2010	11,510	5,848	5,662
2011	12,304	5,776	6,528
2012	11,735	5,636	6,099
2013	11,861	5,693	6,168
2014	13,153	5,777	7,376
2015	12,625	5,891	6,734
2016	12,255	5,961	6,294
2017	12,011	5,961	6,050
2018	12,515	5,939	6,576
2019	10,783	5,940	4,843
2020	10,425	5,936	4,489
2021	11,374	5,939	5,435

1/ 'Total farm employment' is the number of workers engaged in the direct production of agricultural commodities, either livestock or crops; whether as a sole proprietor, partner, or hired laborer.

2/ Consists of sole proprietors and non-corporate partners in the farm industry.

3/ 'Farm wage and salary employment' is the number of hired laborers engaged in the direct production of agricultural commodities, either livestock or crops.

Source: Bureau of Economic Analysis, "Annual State Personal Income and Employment, Total Full-Time and Part-Time Employment by NAICS Industry" (SAEMP25N) (September 30, 2022) and "Full-Time and Part-Time Wage and Salary Employment by NAICS Industry" (SAEMP27N) (September 30, 2022) <<https://www.bea.gov/itable/>> accessed March 31, 2023.

Table 19.09-- FARM EMPLOYMENT, BY COUNTY: 2006 TO 2021

[The estimates of employment for 2001-2006 are based on the 2002 North American Industry Classification System (NAICS). The estimates for 2007-2010 are based on the 2007 NAICS. The estimates for 2011-2016 are based on the 2012 NAICS. The estimates for 2017 and forward are based on the 2017 NAICS]

County and year	Total farm employment 1/	Farm proprietors employment 2/	Farm wage and salary employment 3/
State			
2006	11,304	4,513	6,791
2007	12,489	6,149	6,340
2008	11,661	6,006	5,655
2009	11,288	5,903	5,385
2010	11,510	5,848	5,662
2011	12,304	5,776	6,528
2012	11,735	5,636	6,099
2013	11,861	5,693	6,168
2014	13,153	5,777	7,376
2015	12,625	5,891	6,734
2016	12,255	5,961	6,294
2017	12,011	5,961	6,050
2018	12,515	5,939	6,576
2019	10,783	5,940	4,843
2020	10,425	5,936	4,489
2021	11,374	5,939	5,435
Hawaii County			
2006	5,162	2,807	2,355
2007	6,362	3,847	2,515
2008	5,916	3,752	2,164
2009	5,666	3,680	1,986
2010	5,599	3,638	1,961
2011	5,776	3,584	2,192
2012	5,577	3,491	2,086
2013	5,566	3,513	2,053
2014	6,153	3,558	2,595
2015	6,033	3,598	2,435
2016	5,965	3,630	2,335
2017 4/	6,076	3,621	2,455
2018	6,307	3,607	2,700
2019	5,535	3,608	1,927
2020 4/	5,428	3,604	1,824
2021	5,860	3,607	2,253

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Table 19.09-- FARM EMPLOYMENT, BY COUNTY: 2006 TO 2021 -- Con.

County and year	Total farm employment 1/	Farm proprietors employment 2/	Farm wage and salary employment 3/
Honolulu County			
2006	2,385	554	1,831
2007	2,167	737	1,430
2008	2,069	735	1,334
2009	2,120	736	1,384
2010	2,352	744	1,608
2011	2,717	750	1,967
2012	2,582	746	1,836
2013	2,703	764	1,939
2014	3,024	784	2,240
2015	2,910	822	2,088
2016	2,804	842	1,962
2017 4/	2,803	848	1,955
2018	2,999	845	2,154
2019 4/	2,448	845	1,603
2020 4/	2,296	845	1,451
2021	2,543	845	1,698
Maui County 5/			
2006	2,568	691	1,877
2007	2,874	941	1,933
2008	2,661	930	1,731
2009	2,463	925	1,538
2010	2,572	928	1,644
2011	2,790	929	1,861
2012	2,591	919	1,672
2013	2,594	931	1,663
2014	2,870	944	1,926
2015	2,606	971	1,635
2016	2,453	984	1,469
2017 4/	2,095	987	1,108
2018 4/	2,101	984	1,117
2019 4/	1,774	984	790
2020	1,732	984	748
2021	1,931	984	947

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Table 19.09-- FARM EMPLOYMENT, BY COUNTY: 2006 TO 2021 -- Con.

County and year	Total farm employment 1/	Farm proprietors employment 2/	Farm wage and salary employment 3/
Kauai County			
2006	1,189	461	728
2007	1,086	624	462
2008	1,015	589	426
2009	1,039	562	477
2010	987	538	449
2011	1,021	513	508
2012	985	480	505
2013	998	485	513
2014	1,106	491	615
2015	1,076	500	576
2016	1,033	505	528
2017 4/	1,037	505	532
2018 4/	1,108	503	605
2019 4/	1,026	503	523
2020	969	503	466
2021	1,040	503	537

1/ 'Total farm employment' is the number of workers engaged in the direct production of agricultural commodities, either livestock or crops; whether as a sole proprietor, partner, or hired laborer.

2/ Consists of sole proprietors and non-corporate partners in the farm industry.

3/ 'Farm wage and salary employment' is the number of hired laborers engaged in the direct production of agricultural commodities, either livestock or crops. For counties, it is calculated by subtracting 'Farm proprietors employment' from 'Total farm employment'. The calculated residuals might include corporate partners.

4/ Revised from previous *Data Book*.

5/ Includes Kalawao County.

Source: Bureau of Economic Analysis, "Local Area Personal Income and Employment, Total Full-Time and Part-Time Employment by Industry" (CAEMP25N) (November 16, 2022) and "Annual State Personal Income and Employment, Total Full-Time and Part-Time Employment by NAICS Industry" (SAEMP25N) (September 30, 2022) <<https://www.bea.gov/itable/>> accessed March 31, 2023; and calculations by the Hawaii State Department of Business, Economic Development & Tourism.

Table 19.10-- VALUE OF CROP, LIVESTOCK, AND AQUACULTURE SALES: 1995 TO 2021

[Thousands of dollars]

Year	All crops, livestock, and aquaculture	Crops				Livestock	Aquaculture
		All crops 1/	Sugar (unprocessed cane)	Pine-apples (fresh equiv.)	Other crops		
1995	506,692	421,089	127,700	87,360	206,029	72,296	13,307
1996	511,343	428,671	108,100	95,914	224,657	67,017	15,655
1997	504,705	420,306	85,500	91,721	243,085	67,799	16,600
1998	509,962	420,634	87,300	92,776	240,558	72,708	16,620
1999	531,094	443,111	86,800	101,448	254,863	69,881	18,102
2000	521,941	431,482	62,200	101,530	267,752	68,289	22,170
2001	524,378	437,438	57,800	96,337	283,301	64,740	22,200
2002	539,518	453,400	64,300	100,616	288,484	60,938	25,180
2003	548,123	461,680	64,400	101,470	295,810	58,793	27,650
2004	552,057	459,702	61,500	83,104	315,098	64,255	28,100
2005	582,785	493,991	58,900	79,288	355,803	60,396	28,398
2006	579,590	499,684	50,200	73,652	375,832	58,649	21,257
2007	577,999	498,338	47,600	(D)	450,738	54,551	25,110
2008	605,570	522,139	44,200	(D)	477,939	48,781	34,650
2009	641,850	553,862	44,200	(D)	509,662	55,658	32,330
2010	674,590	583,680	69,800	(D)	513,880	60,940	29,970
2011	719,474	602,881	78,100	(D)	524,781	76,623	39,970
2012	646,318	527,554	73,322	(D)	454,222	63,024	55,740
2013	641,703	521,182	77,740	(D)	443,442	61,856	2/ 58,665
2014	631,063	474,707	54,349	(D)	420,358	78,115	78,241
2015	604,052	446,850	48,148	(D)	398,702	80,968	76,234
2016	578,595	445,717	54,375	(D)	391,342	57,168	75,710
2017	563,803	417,069	(3/)	(D)	(NA)	4/ 57,467	76,367
2018	(NA)	(NA)	(3/)	(D)	(NA)	4/ 59,350	2/ 78,429
2019	(NA)	(NA)	(3/)	(D)	(NA)	5/ 55,014	78,471
2020	(NA)	(NA)	(3/)	(D)	(NA)	5/ 44,338	6/ 66,602
2021	(NA)	(NA)	(3/)	(D)	(NA)	5/ 51,268	79,670

Continued on next page.

**Table 19.10-- VALUE OF CROP, LIVESTOCK, AND AQUACULTURE SALES:
1995 TO 2021 -- Con.**

D Data not shown separately to avoid disclosure of individual operations but combined and included in
NA Not available.

total crop value.

1/ Sum of individual commodities may not add to total. Forage crops' and forest products' value combined and included in total crop value.

2/ Data come from the *Census of Aquaculture* and may not be comparable with other years.

3/ Hawaii's last sugar operation closed at the end of 2016.

4/ Includes cattle, hogs, milk, and honey. See Table 19.18 for details.

5/ Includes cattle, hogs, and honey. See Table 19.18 for details.

6/ Revised from previous *Data Book*.

Source: USDA National Agricultural Statistics Service, *Hawaii Annual Statistics Bulletin* (annual through 2013) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Annual_Statistical_Bulletin/> accessed July 26, 2017; Quick Stats <<https://quickstats.nass.usda.gov/>> accessed June 20, 2023; U.S. Dept. of Agriculture, National Agricultural Statistics Service, 2017 Census of Agriculture, Vol. 1, Chapter 1, Hawaii, "Table 2. Market Value of Agricultural Products Sold Including Landlord's Share, Food Marketing Practices, and Value-Added Products: 2017 and 2012" (April 2019) <<https://www.nass.usda.gov/AgCensus/index.php>> accessed July 8, 2020; Hawaii Aquaculture (annual) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Livestock,_Poultry,_and_Dairy/Aquaculture/index.php> accessed June 20, 2023; USDA National Agricultural Statistics Service, *Census of Aquaculture* <https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Census_of_Aquaculture/index.php> accessed July 8, 2021, and records.

Table 19.11-- CROPS, BY ACREAGE AND SALES: 2019 TO 2022

Subject and crop	2019	2020	2021	2022
Acreage in crop (1,000 acres)				
Coffee (acres bearing)	1/ 7.1	1/ 6.9	6.8	7.2
Macadamia nuts (acres bearing)	16.9	17.0	17.0	16.2
Pineapples	(D)	(D)	(D)	(D)
Seed crops	2.4	2.2	(NA)	(NA)
Taro	(NA)	(NA)	0.4	(NA)
Vegetables and melons (harvested acreage)	5.2	4.3	5.1	5.2
Value of crop sales (\$1,000)				
Coffee 2/	1/ 50,160	1/ 54,298	48,383	61,947
Flowers and nursery products	1/ 89,206	81,556	(NA)	(NA)
Macadamia nuts (in shell)	48,840	49,600	65,067	33,176
Pineapples (fresh equivalent)	(D)	(D)	(D)	(D)
Seed crops	109,400	109,300	(NA)	(NA)
Taro	(NA)	(NA)	6,359	(NA)
Vegetables, ginger root, herbs, and melons 3/	54,580	49,815	64,860	72,980

D Data not shown separately to avoid disclosure of individual operations.

NA Not available.

1/ Revised from previous *Data Book*.

2/ Value is expressed in cherry basis.

3/ Includes noni, kava (‘awa), and others. Non-published commodities not included to avoid disclosure of individual operations but combined and included in total crop value.

Source: USDA National Agricultural Statistics Service, *Hawaii Seed Crops* (May 2022) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Seed%20Crops/> accessed May 26, 2022; *Hawaii Floriculture and Nursery Products* (December 2021) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Flowers_and_Nursery_Products/> accessed May 26, 2022; Census of Horticulture (January 2021) <https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Census_of_Horticulture_Specialties/> accessed May 26, 2023; Hawaii Vegetable and Melon Crops (February 2023) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Vegetables/> accessed May 26, 2023; *Pacific Region - Hawaii Coffee: Final season estimates* (May 2023) and *Pacific Region - Hawaii Noncitrus Fruits* <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Fruits_and_Nuts/> accessed May 26, 2023; Quick Stats <<https://quickstats.nass.usda.gov/>> accessed May 26, 2023; Hawaii Department of Agriculture, Market Analysis and News Branch, *Taro Statistics 2021* (October 2021) <<https://hdoa.hawaii.gov/add/market-analysis-news-branch/>> accessed May 26, 2023.

Table 19.12-- SEED CROPS, BY NUMBER OF FARMS, ACREAGE, OUTSHIPMENTS, AND VALUE: 2005/2006 TO 2021/2022

[Seed crops are grown year-round in Hawaii with the main season from November to June]

Crop year	Number of farms	Acreage	Outshipments of seed (1,000 lb.)	Value (\$1,000) 1/		
				Total	Seed corn	Other seed crops
2005/2006	10	4,140	7,550	77,330	74,800	2,530
2006/2007	10	4,260	10,470	103,040	98,050	4,990
2007/2008	10	5,300	8,380	140,710	135,580	5,130
2008/2009	10	5,990	11,275	176,990	169,275	7,715
2009/2010	11	6,500	12,000	236,410	224,490	11,920
2010/2011	10	6,205	10,230	239,370	229,935	9,435
2011/2012	10	6,910	10,750	241,615	230,450	11,165
2012/2013	10	5,900	8,245	184,235	178,615	5,620
2013/2014	10	4,840	7,970	158,800	155,000	3,800
2014/2015	10	4,260	8,590	140,830	137,680	3,150
2015/2016	10	3,980	5,740	144,530	140,000	4,530
2016/2017	11	4,090	7,600	148,400	144,100	4,300
2017/2018	10	3,030	5,320	121,900	111,800	10,100
2018/2019	(NA)	2,790	4,195	116,000	112,500	3,500
2019/2020	(NA)	2,360	4,060	109,400	(D)	(D)
2020/2021	(NA)	2,240	3,600	109,300	(D)	(D)
2021/2022 2/	(NA)	2,235	3,190	107,470	(D)	(D)

NA Not available.

D Values not meeting NASS publication standards combined to avoid disclosure.

1/ Value is based on sales or gross operational budgets.

2/ Preliminary.

Source: USDA National Agricultural Statistics Service, *Hawaii Seed Crops* (annual)

<https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Seed%20Crops/index.php> accessed June 20, 2023.

**Table 19.13-- SELECTED CROPS HARVESTED AND LAND IN ORCHARDS,
BY NUMBER OF FARMS, ACRES AND WEIGHT: 2007, 2012 AND 2017**

Item	Unit	2007	2012	2017
Corn for grain	Farms	14	15	20
	Acres	3,115	5,198	4,899
	Bushels	124,878	367,142	521,944
Sugarcane for sugar	Farms	9	18	9
	Acres	(D)	(D)	30
	Tons	(D)	(D)	435
Vegetables harvested	Farms	901	960	915
	Acres	6,845	8,880	8,579
Potatoes	Farms	15	38	30
	Acres	7	26	149
Sweet potatoes	Farms	94	143	90
	Acres	297	882	876
Land in orchards 1/	Farms	4,443	3,488	3,901
	Acres	36,652	35,832	38,872
Pineapples harvested	Farms	42	42	(1/)
	Acres	(D)	(D)	(1/)
	Tons	(D)	(D)	(1/)

D Withheld to avoid disclosing data for individual farms.

1/ Data for 2007 and 2012 exclude pineapples. Data for 2017 include pineapples. Starting in 2017, pineapples were moved from the field crops section to the fruit and nut section. As a result, 'Land in orchards' includes pineapples in 2017 and is not directly comparable to 2012 and earlier. This category includes land in bearing age and nonbearing age fruit trees, citrus or other groves, vineyards, and nut trees of all ages, including land which all fruit crops failed. Respondents also reported bearing age acres and nonbearing age acres by individual fruit and nut crops.

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service, *2012 Census of Agriculture, Vol.1, Part 1, Hawaii*, "Table 1. Historical Highlights: 2012 and Earlier Census Years" (May 2014); *2017 Census of Agriculture, Vol. 1, Chapter 1, Hawaii*, "Table 1. Historical Highlights: 2017 and Earlier Census years" (April 2019) <<https://www.nass.usda.gov/AgCensus/index.php>> accessed April 16, 2019.

Table 19.14-- SPECIALTY CROPS, FRUITS, AND VEGETABLES: 2021

[Excludes organics. See Table 19.24 for sales of certified organic agricultural products]

Crop	Acreage bearing	Acreage harvested	Yield per acre (1,000 lb.) 1/ 2/	Price received (\$ per lb.) 3/	Utilized Production (1,000 lb.) 2/	Value of sales (\$1,000)
Specialty crops						
Coffee 4/	6,800	(NA)	3.5	2.13	22,715	48,383
Macadamia nuts 5/	17,000	(NA)	3.1	1.23	52,900	65,067
Seed crops	(NA)	(NA)	(X)	(X)	(X)	(NA)
Fruits						
Avocados	740	(NA)	1.6	1.13	1,080	1,217
Papayas	600	(NA)	22.3	0.69	12,330	8,460
Vegetables						
Beans, long	(NA)	45	3.9	1.80	175	315
Beans, snap	(NA)	125	2.6	1.94	330	640
Bittermelon	(NA)	15	3.3	2.00	50	100
Cabbage, Chinese	(NA)	190	15.3	1.11	2,900	3,230
Cabbage, mustard	(NA)	50	8.7	0.85	435	370
Daikon radish	(NA)	60	8.9	1.12	535	600
Eggplant	(NA)	95	11.3	1.15	1,070	1,230
Kale	(NA)	70	7.7	2.72	540	1,470
Lettuce, head	(NA)	100	9.3	2.46	930	2,290
Lettuce, leaf	(NA)	195	7.2	2.54	1,400	3,550
Lettuce, Romaine	(NA)	130	7.5	2.20	970	2,130
Onions, green	(NA)	95	11.5	2.70	1,090	2,940
Potatoes, sweet	(NA)	175	18.3	0.89	3,210	2,860
Pumpkins	(NA)	95	5.6	1.08	530	570

NA Not available.

X Not applicable.

1/ For vegetables, calculated as 'utilized production' divided by 'acreage harvested.' Avocados are converted from tons to pounds (1/2000). Some precision may be lost due to rounding in the source.

2/ For avocados, converted from tons to pounds (1/2000). Some precision is lost due to rounding in the source.

3/ For vegetables, calculated as 'value of sales' divided by 'utilized production.' Avocados are converted from tons to pounds (1/2000). Some precision may be lost due to rounding in the source.

4/ Valuation of coffee is in cherry basis.

5/ Valuation of macadamia nuts is in shells.

Source: USDA National Agricultural Statistics Service, *Hawaii Vegetable and Melon Crops* (February 2023) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Vegetables/> accessed May 26, 2023; *Pacific Region - Hawaii Coffee: Final season estimates* (May 2023) and *Pacific Region - Hawaii Noncitrus Fruits* <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Fruits_and_Nuts/> accessed May 26, 2023; Quick Stats <<https://quickstats.nass.usda.gov/>> accessed May, 26, 2023; and calculations by the Hawaii State Department of Business, Economic Development & Tourism.

Table 19.15-- SPECIALTY CROPS, FRUITS, AND VEGETABLES: 2022

[Excludes organics. See Table 19.24 for sales of certified organic agricultural products]

Crop	Acreage bearing	Acreage harvested	Yield per acre (1,000 lb.) 1/ 2/	Price received (\$ per lb.) 3/	Utilized Production (1,000 lb.) 2/	Value of sales (\$1,000)
Specialty crops						
Coffee 4/	7,200	(NA)	4.0	2.26	27,410	61,947
Macadamia nuts 5/	16,200	(NA)	2.3	0.88	37,700	33,176
Seed crops	(NA)	(NA)	(X)	(X)	(X)	(NA)
Fruits						
Avocados	730	(NA)	1.0	1.35	600	807
Papayas	500	(NA)	16.7	0.64	7,020	4,462
Vegetables						
Beans, long	(NA)	50	1.5	2.20	75	165
Beans, snap	(NA)	120	2.4	2.41	290	700
Bittermelon	(NA)	20	2.5	2.50	50	125
Cabbage, Chinese	(NA)	190	12.2	1.31	2,320	3,050
Cabbage, mustard	(NA)	45	8.4	0.97	380	370
Daikon radish	(NA)	60	9.2	1.27	550	700
Eggplant	(NA)	60	16.0	1.27	960	1,220
Kale	(NA)	65	6.2	3.40	400	1,360
Lettuce, head	(NA)	120	12.7	2.89	1,520	4,400
Lettuce, leaf	(NA)	190	7.8	2.41	1,480	3,570
Lettuce, Romaine	(NA)	140	7.1	2.28	1,000	2,280
Onions, green	(NA)	95	16.0	2.59	1,520	3,930
Potatoes, sweet	(NA)	270	9.3	0.90	2,500	2,240
Pumpkins	(NA)	90	5.6	1.15	500	575

NA Not available.

X Not applicable.

1/ For vegetables, calculated as 'utilized production' divided by 'acreage harvested.' Avocados are converted from tons to pounds (1/2000). Some precision may be lost due to rounding in the source.

2/ For avocados, converted from tons to pounds (1/2000). Some precision is lost due to rounding in the source.

3/ For vegetables, calculated as 'value of sales' divided by 'utilized production.' Avocados are converted from tons to pounds (1/2000). Some precision may be lost due to rounding in the source.

4/ Valuation of coffee is in cherry basis.

5/ Valuation of macadamia nuts is in shells.

Source: USDA National Agricultural Statistics Service, *Hawaii Vegetable and Melon Crops* (February 2023) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Vegetables/> accessed May 26, 2023; *Pacific Region - Hawaii Coffee: Final season estimates* (May 2023) and *Pacific Region - Hawaii Noncitrus Fruits* <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Fruits_and_Nuts/> accessed May 26, 2023; Quick Stats <<https://quickstats.nass.usda.gov/>> accessed May, 26, 2023; and calculations by the Hawaii State Department of Business, Economic Development & Tourism.

Table 19.16-- TOP 20 AGRICULTURAL COMMODITIES: 2021

Rank	Commodity	Value of production (\$1,000)	Rank	Commodity	Value of production (\$1,000)
1	Seed Crops	107,470	11	Lettuce	7,970
2	Macadamia Nuts	62,730	12	Cabbage	6,725
3	Coffee	61,947	13	Taro	6,359
4	Cattle	47,848	14	Bananas	5,631
5	Algae	36,716	15	Ornamental, aquaculture	3,616
6	Basil	29,360	16	Palms, potted	3,556
7	Food crops grown under protection	1/ 14,817	17	Honey	3,083
8	Potted orchids, total	11,954	18	Green Onions	2,940
9	Eggs	10,637	19	Sweet Potatoes	2,860
10	Papayas	8,460	20	Mushrooms	2,614

1/ Value listed is from 2020.

Source: State of Hawaii Department of Agriculture, *2021 State of Hawaii Top 20 Commodities Produced* <<https://hdoa.hawaii.gov/add/market-analysis-news-branch/>> accessed March 6, 2023.

Table 19.17-- LIVESTOCK INVENTORY: 1991 TO 2022

[In thousands. As of January 1 for cattle. As of December 1 for hogs and chicken. Marketing year for bee colonies]

Year	Cattle and calves					Hogs	Chickens 2/	Bee colonies
	Total	Milk cows	Beef cows	Calves	Other cattle 1/			
1991	215	11.0	80.0	43.0	81.0	34.0	1,213	10.0
1992	200	10.0	77.0	53.0	60.0	35.0	1,109	9.0
1993	178	11.0	78.0	44.0	45.0	33.0	1,012	9.0
1994	165	11.0	78.0	39.0	37.0	35.0	981	9.0
1995	178	11.0	82.0	45.0	40.0	34.0	933	8.0
1996	174	10.0	81.0	44.0	39.0	28.0	876	8.0
1997	172	10.0	83.0	39.0	40.0	29.0	863	9.0
1998	180	9.0	88.0	40.0	43.0	29.0	747	8.0
1999	173	9.0	86.0	40.0	38.0	28.0	721	8.0
2000	164	9.0	84.0	35.0	36.0	26.0	722	7.0
2001	150	7.0	81.0	34.0	28.0	27.0	659	8.0
2002	152	7.0	78.0	35.0	32.0	24.0	625	7.0
2003	151	7.0	79.0	32.0	33.0	23.0	600	7.0
2004	156	6.0	82.0	36.0	32.0	22.0	598	8.0
2005	155	5.7	81.3	34.0	34.0	19.0	547	9.0
2006	161	4.6	87.4	35.0	34.0	16.0	470	10.0
2007	158	3.8	85.2	35.0	34.0	15.0	398	10.0
2008	152	2.3	82.7	34.0	33.0	13.0	375	10.0
2009	150	1.6	84.4	32.0	32.0	13.0	381	10.0
2010	151	1.8	81.2	36.0	32.0	12.5	366	10.0
2011	141	2.0	79.0	30.0	30.0	11.5	(NA)	9.0
2012	140	1.9	78.1	32.0	28.0	11.5	(NA)	10.0
2013	135	2.2	71.8	33.0	28.0	11.5	(NA)	13.0
2014	133	2.2	71.8	34.0	25.0	9.0	(NA)	15.0
2015	133	2.2	68.8	32.0	30.0	9.0	(NA)	16.0
2016	140	2.2	72.8	34.0	31.0	10.0	(NA)	18.0
2017	142	2.4	73.6	34.0	32.0	8.0	(NA)	19.0
2018	144	2.0	75.0	34.0	33.0	9.0	(NA)	17.0
2019	142	1.5	75.5	33.0	32.0	11.0	(NA)	16.0
2020	140	0.7	75.3	33.0	31.0	10.0	(NA)	15.0
2021	142	0.6	76.4	33.5	31.5	9.0	(NA)	3/ 20.0
2022	144	0.8	79.2	34.0	30.0	7.0	(NA)	(NA)

NA Not available

1/ Includes other heifers, bulls, and steers.

2/ Excluding broilers.

3/ Revised from previous *Data Book*.

Source: USDA National Agricultural Statistics Service, Quick Stats <<https://quickstats.nass.usda.gov/>> accessed May 2, 2023, records, and calculations by the Department of Business, Economic Development and Tourism.

Table 19.18-- LIVESTOCK SALES, BY TYPE: 1990 TO 2022

[In thousands of dollars]

Year	Cattle 1/	Hogs 2/	Milk	Honey 3/
1990	28,735	7,252	30,760	738
1991	29,787	6,463	30,328	747
1992	29,235	6,521	32,495	671
1993	26,864	6,355	32,035	828
1994	18,458	6,209	31,747	432
1995	15,417	6,596	32,146	578
1996	13,175	6,585	29,234	1,004
1997	14,323	4,902	29,479	1,130
1998	16,861	5,235	33,293	727
1999	16,806	5,072	31,270	512
2000	19,204	4,425	28,102	643
2001	18,007	4,514	26,546	606
2002	18,326	4,788	22,467	1,057
2003	17,192	4,345	21,449	1,157
2004	22,534	4,463	20,175	1,221
2005	22,548	4,553	18,387	1,686
2006	26,452	4,158	14,508	1,125
2007	26,196	3,682	9,673	1,564
2008	24,305	3,359	5,460	1,431
2009	28,945	3,000	7,491	1,672
2010	30,892	3,661	8,750	2,118
2011	46,369	2,634	9,547	2,431
2012	52,426	2,429	9,644	3,113
2013	50,771	2,191	10,079	2,126
2014	61,444	4,972	10,514	3,195
2015	59,826	2,792	10,022	3,117
2016	42,769	1,740	9,161	4,699
2017	41,820	771	11,068	3,808
2018	45,983	485	9,464	3,362
2019	42,752	1,106	(NA)	1,664
2020	40,317	1,343	(D)	2,678
2021	45,667	1,381	(D)	3,083
2022	52,771	2,544	(D)	(D)

NA Not available.

D Withheld to avoid disclosing data for individual operations.

1/ Excludes interfarm sales in-state; includes calves.

2/ Excludes interfarm sales in-state.

3/ Honey in production, for marketing year.

Source: USDA National Agricultural Statistics Service, Quick Stats <<https://quickstats.nass.usda.gov/>> accessed June 20, 2023.

**Table 19.19-- LIVESTOCK AND POULTRY, INVENTORY AND SALES,
BY NUMBER AND FARMS: 2007, 2012 AND 2017**

Item	Unit	2007	2012	2017
Cattle and calves inventory	Farms	1,142	1,314	1,218
	Number	151,479	133,957	137,930
Beef cows	Farms	853	1,173	1,047
	Number	86,000	(D)	(D)
Milk cows	Farms	15	12	20
	Number	2,296	(D)	(D)
Cattle and calves sold	Farms	713	711	667
	Number	70,567	56,159	58,066
Hogs and pigs inventory	Farms	225	231	226
	Number	14,933	11,441	(D)
Hogs and pigs sold	Farms	148	131	155
	Number	20,569	12,529	(D)
Broilers and other meat-type chickens sold	Farms	7	22	31
	Number	(D)	2,639	8,356

D Withheld to avoid disclosing data for individual farms.

Source: USDA National Agricultural Statistics Service, *2017 Census of Agriculture, Vol. 1, Chapter 1, Hawaii*, "Table 1. Historical Highlights: 2017 and Earlier Census Years" <https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_State_Level/Hawaii/st15_1_0001_0001.pdf> accessed April 16, 2019.

Table 19.20-- FLORICULTURE AND NURSERY PRODUCTS: 1998 TO 2022

Year	Number of farms	Growing area					Wholesale value (\$1,000)
		Total (acres) 1/	Green-house (1,000 sq. ft.) 2/	Artificial shade structure (1,000 sq. ft.)	Natural shade area (acres)	Open field (acres)	
1998	745	2,679	2,810	24,200	9	2,050	73,207
1999	765	2,712	2,910	25,695	15	2,040	75,725
2000	735	2,719	3,235	25,180	7	2,060	82,684
2001	790	3,049	3,175	26,660	9	2,355	88,597
2002	870	3,648	3,030	30,415	10	2,870	95,715
2003	865	3,890	2,540	27,465	16	3,185	95,601
2004	920	3,830	2,620	26,560	-	3,160	95,178
2005	955	3,988	2,095	27,015	-	3,320	100,962
2006	930	4,064	2,190	25,410	(NA)	3,430	98,725
2007	1,060	4,376	2,020	25,015	(NA)	3,755	108,710
2008	1,025	3,170	2,120	23,570	(NA)	2,580	94,662
2009	1,010	2,780	1,930	24,615	(NA)	2,170	76,814
2010	970	2,650	1,875	20,940	(NA)	2,120	71,100
2011	970	2,695	1,770	19,990	(NA)	2,195	69,600
2012	(NA)	2,987	1,748	19,987	(NA)	2,488	70,300
2013	(NA)	2,615	1,419	19,873	(NA)	2,126	72,292
2014	(NA)	2,620	1,794	21,332	(NA)	2,089	67,935
2015	(NA)	2,281	1,770	19,505	(NA)	1,793	67,399
2016	(NA)	2,264	1,822	19,061	(NA)	1,785	74,543
2017	(NA)	2,746	1,817	17,617	(NA)	2,300	3/ 77,550
2018	(NA)	2,562	2,280	17,149	(NA)	2,116	3/ 86,007
2019 4/	530	2,456	5,406	12,896	251	1,785	72,708
2020	(NA)	2,324	2,091	13,224	(NA)	1,973	3/ 5/ 81,555
2021	6/ 274	1,230	2,626	7,776	(NA)	991	7/ 51,322
2022	6/ 291	1,104	2,520	6,539	(NA)	896	7/ 47,108

NA Not available.

1/ Details may not sum to total due to rounding and categories not shown separately.

2/ Glass or glass substitute structure.

3/ Wholesale value is reported for operations with production and sales over \$10,000.

4/ Data are from the 2019 Census of Horticulture and are not comparable to other years.

5/ Revised from previous *Data Book*.

6/ Includes all commercial operations with \$10,000 or more in sales.

7/ Wholesale value is reported for operations with production and sales over \$100,000.

Source: USDA, National Agricultural Statistics Service, Hawaii Field Office, *Census of Horticulture* <https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Census_of_Horticultural_Specialties/index.php> accessed July 8, 2021; and *Hawaii Horticulture and Nursery Products* (annual) <<https://www.nass.usda.gov/>> Hawaii Department of Agriculture (HDOA), *Statistics on Floriculture, State of Hawaii, 2022* <<https://hdoa.hawaii.gov/add/market-analysis-news-branch/>> accessed June, 20, 2023; and calculations by the Hawaii State Department of Business Economic Development & Tourism.

**Table 19.21-- SELECTED FLORICULTURE AND NURSERY PRODUCTS,
BY COMMODITY: 2021**

[Shown for commodities with value of sales over \$500,000 and excludes "Other" categories.
Includes only producers having total sales of \$10,000 or more]

Commodity	Number of farms having sales 1/	Number sold		Value of sales (\$1,000)
		Unit	Number	
Selected cut flowers				
Anthuriums	28	1,000 stems	1,597	1,679
Proteas	16	1,000 stems	650	655
Orchids				
Cut, Dendrobiums	16	1,000 stems	660	642
Potted, Dendrobiums	46	1,000 pots	307	2,433
Potted, Phalaenopsis	27	1,000 pots	317	2,775
Foliage				
Potted, Palms	28	1,000 pots	(NA)	3,773
Potted flowering plants				
Anthuriums	22	1,000 pots	283	2,376
Poinsettias	18	1,000 pots	218	1,137
Plant rentals	27	(NA)	(NA)	1,708
Landscape Plant Materials 2/	117	(NA)	(NA)	20,593

NA Not available.

1/ Number of farms having sales during that year.

2/ Includes broadleaf and coniferous evergreens, deciduous and flower trees, palms, and citrus, fruit and nut trees, and sod. Does not include palms or potted foliage for indoor or patio use, bedding and garden plants, propagative floriculture material, and items which are included in published categories.

Source: USDA National Agricultural Statistics Service, 2020 *Hawaii Horticulture and Nursery Products Annual Summary* <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Flowers_and_Nursery_Products/index.php> accessed March 4, 2022.

Table 19.22-- AQUACULTURE OPERATIONS, BY NUMBER OF WORKERS AND VALUE: 2016 TO 2021

Subject	2016	2017	2018	2019	2020 1/	2021
Peak number of workers	500	462	(2/)	369	352	408
Value (\$1,000)	75,710	76,367	(2/)	78,741	66,602	79,670
Shellfish	(D)	(D)	(2/)	(D)	(D)	(D)
Finfish	(D)	(D)	(2/)	(D)	(D)	(D)
Algae	34,349	35,190	(2/)	32,652	32,753	36,716
Ornamental	(D)	(D)	(2/)	2,643	3,561	3,616
Other 3/	41,361	41,177	(2/)	43,176	30,288	39,338

D Withheld to avoid disclosing data for individual farms but included in 'Other'.

1/ Revised from previous *Data Book*.

2/ 2018 data were collected by the Census of Aquaculture. Numbers are not comparable.

3/ Includes seed stock, brood stock, and items not sold by weight which includes number count.

Source: USDA National Agricultural Statistics Service, *Hawaii Aquaculture* (annual)

<https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/> accessed February 14, 2023.

Table 19.23-- AGRICULTURAL CHEMICALS USED, INCLUDING FERTILIZER: 2012 AND 2017

Chemicals used	Unit	2012	2017
Any fertilizer, manure, or chemicals used	Farms	4,457	3,941
Any fertilizer or chemical expense	Farms \$1,000	5,101 79,577	4,790 49,471
Manure used	Farms Acres on which used	634 5,165	622 4,748
Organic fertilizer used	Farms Acres on which used	(NA) (NA)	668 5,235
Commercial fertilizer, lime and soil conditioners used	Farms Acres on which used	3,450 109,503	2,979 100,104
Commercial fertilizer, lime and soil conditioners expenses	Farms \$1,000	4,428 46,584	4,196 31,787
Chemical expenses	Farms \$1,000	4,487 32,993	3,803 17,684
Acers treated to control-			
Insects	Farms Acres on which used	2,349 30,417	1,945 50,380
Nematodes	Farms Acres on which used	379 4,089	178 5,040
Diseases in crops and orchards	Farms Acres on which used	963 9,143	805 8,963
Weeds, grass, or brush	Farms Acres on which used	3,299 114,713	2,439 93,195
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate	Farms Acres on which used	338 19,000	228 3,506

NA Not available.

Source: U.S. Department of Agriculture, *2017 Census of Agriculture, Vol. 1, Chapter 1, Hawaii*, "Table 46. Fertilizers and Chemicals Applied: 2017 and 2012" (April 2019) <<https://www.nass.usda.gov/AgCensus/>> accessed June 26, 2019.

Table 19.24-- FARMS, LAND, AND VALUE OF SALES OF CERTIFIED ORGANIC AGRICULTURAL PRODUCTS: 2021

Subject	Farms	Acres	Amount (\$1,000)
Certified organic farms	144	(NA)	(X)
Certified organic acres operated	144	3,117	(X)
Cropland	139	2,563	(X)
Pastureland/rangeland	15	554	(X)
Land owned	106	1,723	(X)
Land rented from others	54	(D)	(X)
Land rented to others	2	(D)	(X)
Total value of certified organic agricultural products sold	144	(NA)	17,497
Crops, including nursery and greenhouse	139	(NA)	15,247
All vegetables	46	276	7,717
All citrus fruits	34	81	183
All berries and other fruits	79	894	3,693
All tree nuts	12	(D)	1,739
All field crops	10	60	107
Propagative materials	2	(D)	(D)
Crops under glass or other protection			
Mushrooms	2	(D)	(D)
Tomatoes	2	(D)	(D)
Other vegetables and fresh herbs	14	1/ 64,510	1,009
Livestock and poultry	7	(X)	-
Poultry products	2	(X)	(D)
Other livestock products 2/	5	(X)	2,237

NA Not available.

X Not applicable.

D Withheld to avoid disclosing data for individual farms.

1/ Area reported in square feet rather than acres.

2/ This category includes semen, embryos, manure, feathers, etc., that was sold.

Source: USDA National Agricultural Statistics Service, *2021 Certified Organic Survey* (December 2022)

<https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Organic_Production/>

accessed April 24, 2023.

Table 19.25-- GENERAL EXCISE TAX BASE FOR PRODUCING: 1998 TO 2022

[In dollars. Data are on a cash basis accounting. "Producing" refers to the raising and production of agricultural products in their natural state, the production of natural resource products, fishing, and aquaculture]

Year 1/	Amount	Year 1/	Amount
1998	478,200,600	2011	399,078,200
1999	501,500,800	2012	401,495,600
2000	519,272,000	2013	392,735,360
2001	499,896,000	2014	336,674,800
2002	522,418,200	2015	337,701,600
2003	543,561,000	2016	283,553,400
2004	550,948,600	2017	346,652,600
2005	613,694,000	2018	317,715,400
2006	480,012,000	2019	307,818,400
2007	475,827,000	2020	290,948,400
2008	448,975,400	2021	391,775,000
2009	351,578,020	2022	394,563,800
2010	339,034,600		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Collections" (annual tabular release) <http://tax.hawaii.gov/stats/a5_3txcolrptarchive/> accessed June 20, 2023.

**Table 19.26-- AGRICULTURE THEFT AND CRIME COST BY COUNTY:
2004 AND 2019**

Year and subject	State total	Hawaii County	City and Co. of Honolulu	Kauai County	Maui County
2004					
Theft					
Loss (\$1,000)	1,946	634	798	185	329
Incidents	4,739	1,574	2,492	439	234
Vandalism					
Loss (\$1,000)	2,019	192	568	99	1,160
Incidents	1,153	494	133	79	447
Security Cost (\$1,000)	7,400	3,119	2,553	893	835
2019					
Theft					
Loss (\$1,000)	2,623	1,583	250	612	178
Incidents	3,616	1,953	784	402	477
Vandalism					
Loss (\$1,000)	502	217	(1/)	(1/)	157
Incidents	1,112	687	(1/)	(1/)	192
Security Cost (\$1,000)	11,227	7,783	1,619	1,033	792

1/ Does not meet NASS publication standards but included in State totals.

Source: USDA National Agricultural Statistics Service, *Hawaii Agricultural Theft and Vandalism* (October 2005; April 2020) <https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Miscellaneous/index.php> accessed April 29, 2020.