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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

			<u> </u>	<u> </u>	<u> </u>	
			Hawaii	City and Co.	Kauai	Maui
ltem	Unit	State total	County	of Honolulu	County	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
Total Cropiand	Acres	191,175	82,295	23,067	29,262	56,551
Harvested cropland	Farms	5,316	3,008	730	521	1,057
riai vesteu cropianu	Acres	84,767	58,504	13,664	5,467	7,132
Irrigated land	Farms	2,250	828	512	259	651
irigated land		45,452	6,662	11,683	22,258	4,849
	Acres	45,452	0,002	11,003	22,230	4,049
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
Avorago por acro	Bollaro	0,020	0,001	21,701	0,002	11,100
Estim. market value of all						
machinery & equipment	\$1,000	371,436	176,664	85,318	36,990	72,464
Average per farm	Dollars	50,701	41,883	92,036	47,852	51,466
Market value of agricultural						
products sold	\$1,000	563,803	269,188	151,383	61,025	82,206
Average per farm	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,	¢1 000	146 722	100 140	44 464	1E 106	7 005
& 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: 2017 TO 2020

[In thousands of dollars. Revised from previous *Data Book*]

Item	2017	2018	2019	2020
Out of the form we do fine	000 000	FF0 000	FOF 577	550.044
Cash receipts from marketings	623,006	556,099	565,577	550,944
Livestock and products	158,911	167,428	154,916	157,850
Crops	464,095	388,671	410,661	393,094
Other income	75,215	63,452	69,784	142,069
Government payments	10,245	11,913	13,154	88,211
Imputed and misc. income received 1/	64,970	51,539	56,630	53,858
Production expenses	644,910	614,983	637,105	608,740
Feed purchased	32,033	31,622	34,913	35,303
Livestock purchased	3,268	4,316	5,181	5,472
Seed purchased	12,711	12,372	11,976	12,006
Fertilizer, lime and agricultural chemicals	45,552	46,872	45,756	47,563
Petroleum products purchased	22,268	23,013	23,023	19,890
Hired farm labor expenses 2/	233,906	222,372	225,121	241,388
·		· ·	-	•
All other production expenses 3/	295,172	274,416	291,135	247,118
Value of inventory change	1,400	-887	-65	1,513
Livestock	1,082	-969	91	1,578
Crops	-	-	-	-
Materials and supplies	318	82	-156	-65

^{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.

Source: U.S. Bureau of Economic Analysis, "Local Area Personal Income and Employment, Farm Income and Expenses" (CAINC45) https://apps.bea.gov/iTable/ accessed April 13, 2022.

^{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.

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

Organization or primary producer characteristic 1/	2007	2012	2017
•	2007	2012	2017
Farm by type of organization Family or individual	0.000	E 00E	F 700
Partnership	6,363 437	5,685 446	5,733 569
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.

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.

^{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.

Table 19.07-- NUMBER OF FARMS, FARM ACREAGE, AND AVERAGE FARM EMPLOYMENT: 2000 TO 2021

			Annual average farm employment 3/		
Year	Number of farms 1/	Farm acreage (1,000) 2/	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

- 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; and Quick Stats https://quickstats.nass.usda.gov/> accessed April 14, 2022.

Table 19.08-- FARM EMPLOYMENT: 1998 TO 2020

[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 4/	12,515	5,939	6,576
2019	10,783	5,940	4,843
2020	10,425	5,936	4,489

^{1/ &#}x27;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.

Source: Bureau of Economic Analysis, "Annual State Personal Income and Employment, Total Full-Time and Part-Time Employment by NAICS Industry" (SAEMP25N) (September 23, 2021) and "Full-Time and Part-Time Wage and Salary Employment by NAICS Industry" (SAEMP27N) (September 23, 2021) https://www.bea.gov/itable/ accessed April 14, 2022.

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

^{3/ &#}x27;Farm wage and salary employment' is the number of hired laborers engaged in the direct production of agricultural commodities, either livestock or crops.

^{4/} Revised from previous Data Book.

Table 19.09-- FARM EMPLOYMENT, BY COUNTY: 2005 TO 2020

[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]

State 11,404 4,605 6,799 2006 11,304 4,513 6,799 2007 12,489 6,149 6,340 2008 11,661 6,006 5,655 2009 11,288 5,903 5,388 2010 11,510 5,848 5,662 2011 12,304 5,776 6,522 2012 11,735 5,636 6,099 2013 11,861 5,693 6,166 2014 13,153 5,777 7,376 2015 12,625 5,891 6,73 2016 12,255 5,961 6,294 2017 12,011 5,961 6,052 2018 4/ 12,515 5,939 6,576 2018 4/ 12,515 5,939 6,576 2019 10,783 5,940 4,843 2020 10,425 5,936 4,485 2006 5,162 2,807 2,355 2007 <t< th=""><th>County and year</th><th>Total farm employment 1/</th><th>Farm proprietors employment 2/</th><th>Farm wage and salary employment 3/</th></t<>	County and year	Total farm employment 1/	Farm proprietors employment 2/	Farm wage and salary employment 3/
2005		omprojiment ii		
2006 11,304 4,513 6,791 2007 12,489 6,149 6,344 2008 11,661 6,006 5,655 2009 11,288 5,903 5,388 2010 11,510 5,848 5,662 2011 12,304 5,776 6,528 2012 11,735 5,636 6,098 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 4/ 12,515 5,939 6,576 2019 10,783 5,940 4,843 2020 10,425 5,936 4,485 Hawaii County 2005 5,095 2,847 2,244 2006 5,162 2,807 2,355 2007 6,362 3,847 2,516	State			
2007	2005	11,404	4,605	6,799
2008	2006	11,304	4,513	6,791
2009	2007	12,489	6,149	6,340
2010	2008	11,661	6,006	5,655
2011 12,304 5,776 6,528 2012 11,735 5,636 6,098 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 4/ 12,515 5,939 6,576 2019 10,783 5,940 4,843 2020 10,425 5,936 4,488 Hawaii County 2005 5,162 2,807 2,358 2007 6,362 3,847 2,518 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 2,599 2015 6,033 3,598 2,438 2016 4/ 5,965 3,630 2,338 2016 4/ 5,965 3,630 2,338 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2009	11,288	5,903	5,385
2012	2010	11,510	5,848	5,662
2013	2011	12,304	5,776	6,528
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 4/ 12,515 5,939 6,576 2019 10,783 5,940 4,843 2020 10,425 5,936 4,485 Hawaii County 2005 5,095 2,847 2,248 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 2014 6,153 3,558 2,595 2015 6,033 3,598 2,435 2016 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2012	11,735	5,636	6,099
2015	2013	11,861	5,693	6,168
2016	2014	13,153	5,777	7,376
2016	2015	12,625	5,891	6,734
2018 4/ 12,515 5,939 6,576 2019 10,783 5,940 4,843 2020 10,425 5,936 4,489 Hawaii County 2005 5,095 2,847 2,248 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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2016	12,255	5,961	6,294
2019 10,783 5,940 4,843 2020 10,425 5,936 4,485 Hawaii County 2005 5,095 2,847 2,248 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 2,596 2015 6,033 3,598 2,436 2016 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2017	12,011	5,961	6,050
Hawaii County 2005	2018 4/	12,515	5,939	6,576
Hawaii County 2005	2019	10,783	5,940	4,843
2005 5,095 2,847 2,248 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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2020	10,425	5,936	4,489
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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	Hawaii County			
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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2005	5,095	2,847	2,248
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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2006	5,162	2,807	2,355
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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2007	6,362	3,847	2,515
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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2008	5,916	3,752	2,164
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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2009	5,666	3,680	1,986
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 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2010	5,599	3,638	1,961
2013 5,566 3,513 2,053 2014 6,153 3,558 2,595 2015 6,033 3,598 2,435 2016 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2011	5,776	3,584	2,192
2014 6,153 3,558 2,595 2015 6,033 3,598 2,435 2016 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2012	5,577	3,491	2,086
2015 6,033 3,598 2,435 2016 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2013	5,566	3,513	2,053
2016 4/ 5,965 3,630 2,335 2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2014	6,153	3,558	2,595
2017 4/ 6,077 3,621 2,456 2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2015	6,033	3,598	2,435
2018 4/ 6,307 3,607 2,700 2019 5,535 3,608 1,927	2016 4/	5,965	3,630	2,335
2019 5,535 3,608 1,927	2017 4/	6,077	3,621	2,456
	2018 4/	6,307	3,607	2,700
2020 5,427 3,604 1,823	2019	5,535	3,608	1,927
	2020	5,427	3,604	1,823

Continued on next page.

Table 19.09-- FARM EMPLOYMENT, BY COUNTY: 2005 TO 2020 -- Con.

County and year	Total farm employment 1/	Farm proprietors employment 2/	Farm wage and salary employment 3/
Honolulu County	0.504	570	4.050
2005	2,531	579	1,952
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/	2,802	848	1,954
2018 4/	2,999	845	2,154
2019 4/	2,445	845	1,600
2020	2,297	845	1,452
Maui County 5/			
2005	2,530	704	1,826
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 4/	2,453	984	1,469
2017 4/	2,096	987	1,109
2018	2,099	984	1,115
2019 4/	1,776	984	792
2019 4/	1,776	984	792

Continued on next page.

Table 19.09-- FARM EMPLOYMENT, BY COUNTY: 2005 TO 2020 -- Con.

County and year	Total farm employment 1/	Farm proprietors employment 2/	Farm wage and salary employment 3/
Kauai County			
2005	1,248	475	773
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/	1,036	505	531
2018 4/	1,110	503	607
2019 4/	1,027	503	524
2020	969	503	466

^{1/ &#}x27;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.

Source: Bureau of Economic Analysis, "Local Area Personal Income and Employment, Total Full-Time and Part-Time Employment by Industry" (CAEMP25N) (November 16, 2021) and "Annual State Personal Income and Employment, Total Full-Time and Part-Time Employment by NAICS Industry" (SAEMP25N) (September 23, 2021) https://www.bea.gov/itable/ accessed April 14, 2022; and calculations by the Hawaii State Department of Business, Economic Development & Tourism.

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

^{3/ &#}x27;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.

Table 19.10-- VALUE OF CROP, LIVESTOCK, AND AQUACULTURE SALES: 1995 TO 2020

[Thousands of dollars]

			Cro				
Year	All crops, livestock, and aquaculture	All crops 1/	Sugar (unpro- cessed cane)	Pine- apples (fresh equiv.)	Other crops	Livestock	Aquaculture
1005	500,000	404.000	407.700	07.000	000 000	70.000	40.007
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	6/ 78,471
2020	(NA)	(NA)	(3/)	(D)	(NA)	5/ 44,338	66,396

Continued on next page.

Table 19.10-- VALUE OF CROP, LIVESTOCK, AND AQUACULTURE SALES: 1995 TO 2020 -- Con.

NA Not available.

- D Data not shown separately to avoid disclosure of individual operations but combined and included in 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 July 6, 2022; 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/Surveys/Bulletin/ Publications/Livestock, Poultry, and Dairy/Aquaculture/2021/AQUAHI_0921.pdf accessed July 6, 2022; 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: 2017 TO 2020

Subject and crop	2017	2018	2019	2020
Acreage in crop (1,000 acres)				
Sugarcane	(1/)	(1/)	(1/)	(1/)
Pineapples	(D)	(D)	(n) (D)	(n) (D)
Vegetables and melons (harvested acreage)	5.2	5.6	5.2	4.3
Fruits, excluding pineapples	(NA)	(NA)	(NA)	(NA)
Coffee (acres bearing)	7.2	7.1	6.9	6.8
Macadamia nuts (acres bearing)	17.0	16.9	16.9	17.0
Taro	0.4	0.3	(NA)	(NA)
Seed crops	3.0	2.8	2.4	2.2
All other crops	(NA)	(NA)	(NA)	(NA)
Value of crop sales (\$1,000)				
Sugar (unprocessed cane)	(1/)	(1/)	(1/)	(1/)
Pineapples (fresh equivalent)	(D)	(D)	(D)	(D)
Vegetables, ginger root, herbs, and melons 2/	45,620	66,307	54,580	49,815
Fruits (excluding pineapples)	(NA)	(NA)	(NA)	(NA)
Coffee 3/	43,774	50,160	54,298	48,383
Macadamia nuts (in shell)	53,900	42,007	48,840	49,600
Taro	2,580	1,970	(NA)	(NA)
Seed crops	121,900	116,000	109,400	109,300
Flowers and nursery products 4/	77,550	5/ 86,007	89,200	81,556

NA Not available.

- D Data not shown separately to avoid disclosure of individual operations.
- 1/ Hawaii's last sugar operation closed at the end of 2016.
- 2/ 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.
 - 3/ Value is expressed in cherry basis.
 - 4/ The 2019 total comes from the Hawaii Census of Agriculture and may not be comparable to previous years.
 - 5/ Revised from previous Data Book.

Source: Hawaii Seed Crops (May 2022) https://www.nass.usda.gov/Statistics_by_State/Hawaii/
Publications/Seed%20Crops/index.php> accessed May 26, 2022; USDA National Agricultural Statistics Service, Hawaii Floriculture and Nursery Products (annual), and Hawaii Vegetable and Melon Crops (annual)
www.nass.usda.gov/hi accessed May 23, 2022; Hawaii Coffee, Final Season Estimates (May 2022)
https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Fruits_and_Nuts/index.php accessed May 23, 2022; www.nass.usda.gov/hi accessed May 23, 2022; Quick Stats https://quickstats.nass.usda.gov/ accessed May 23, 2022; and USDA National Agricultural Statistics Service, Hawaii Horticulture and Nursery Products Annual Summary 2020 www.nass.usda.gov/hi accessed May 23, 2022; and records.

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]

				Value (\$1,000)		1/
Crop year	Number of farms	Acreage	Outshipments of seed (1,000 lb.)	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 2/	(NA)	2,240	3,600	109,300	(D)	(D)
2021/2022 3/	(NA)	2,235	3,190	107,470	(D)	(D)

NA Not available.

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

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

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

^{2/} Revised from previous Data Book.

^{3/} Preliminary.

https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Seed%20Crops/index.php accessed July 6, 2022.

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

Unit	2007	2012	2017
Farms	1/1	15	20
			4,899
	·	· ·	· ·
		*	521,944
	_	_	9
Acres	(D)	(D)	30
Tons	(D)	(D)	435
Farms	901	960	915
Acres	6,845	8,880	8,579
Farms	15	38	30
Acres	7	26	149
Farms	94	143	90
Acres	297	882	876
Farms	4,443	3,488	3,901
Acres	36,652	35,832	38,872
Farms	42	42	(1/)
Acres	(D)	(D)	(1/)
Tons	(D)	(D)	(1/)
	Farms Acres Farms Acres Farms Acres Farms Acres Farms Acres Farms	Acres 3,115 Bushels 124,878 Farms 9 Acres (D) Tons (D) Farms 901 Acres 6,845 Farms 15 Acres 7 Farms 94 Acres 297 Farms 4,443 Acres 36,652 Farms 42 Acres (D)	Acres 3,115 5,198 Bushels 124,878 367,142 Farms 9 18 Acres (D) (D) Tons (D) (D) Farms 901 960 Acres 6,845 8,880 Farms 15 38 Acres 7 26 Farms 94 143 Acres 297 882 Farms 4,443 3,488 Acres 36,652 35,832 Farms 42 42 Acres (D) (D)

D Withheld to avoid disclosing data for individual farms.

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.

^{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.

Table 19.14-- SPECIALTY CROPS, FRUITS, AND VEGETABLES: 2020

[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/	Price received (\$ per lb.) 2/	Utilized Production (1,000 lb.) 3/	Value of sales (\$1,000)
Specialty crops						
Coffee 4/	6,800	(NA)	3.5	2.13	23,870	48,383
Macadamia nuts 5/	17,000	(NA)	2.4	1.24	40,000	49,600
Seed crops	(NA)	2,240	(X)	(X)	(X)	109,300
Fruits						
Avocados	820	(NA)	1.5	1.19	1,640	1,186
Papayas	600	(NA)	13.8	0.44	6,950	3,053
Vegetables						
Beans, long	(NA)	40	4.9	1.51	195	295
Bittermelon	(NA)	15	3.7	1.45	55	80
Cabbage, Chinese	(NA)	160	10.8	0.97	1,730	1,680
Cabbage, mustard	(NA)	45	8.2	1.00	370	370
Daikon radish	(NA)	50	9.2	0.93	460	430
Eggplant	(NA)	60	7.8	1.12	465	520
Kale	(NA)	70	4.6	2.78	320	890
Lettuce, head	(NA)	55	14.5	2.29	800	1,830
Lettuce, leaf	(NA)	145	10.6	1.82	1,540	2,800
Lettuce, Romaine	(NA)	80	10.3	1.81	825	1,490
Onions, green	(NA)	115	10.6	2.50	1,215	3,040
Potatoes, sweet	(NA)	220	18.2	0.69	4,000	2,760
Pumpkins	(NA)	95	6.4	1.18	610	720
Squash, Oriental	(NA)	25	2.8	1.00	70	70

X Not applicable.

Source: USDA National Agricultural Statistics Service, *Hawaii Vegetable and Melon Crops Report* (February 2022) https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Vegetables/index.php accessed May 25, 2022; *Hawaii Seed Crops* (May 2022) https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Fruits_and_Nuts/index.php accessed May 26, 2022; Quick Stats https://quickstats.nass.usda.gov accessed May 26, 2022; and calculations by the Hawaii State Department of Business, Economic Development & Tourism.

NA Not available.

^{1/} For 'Vegetables', they are calculated as 'utilized production' divided by 'acreage harvested.' Some precision is lost due to rounding in the source. Avocados are converted from tons to lbs (1/2000).

^{2/} For 'Vegetables', they are calculated as 'value of sales' divided by 'utilized production.' Some precision is lost due to rounding in the source. Avocados are converted from dollars per ton to dollars per lb (1/2000).

^{3/} For avocados, converted from tons to lbs (1/2000). Some precision is lost due to rounding in the source.

^{4/} Valuation of coffee is in cherry basis.

^{5/} Valuation of macadamia nuts is in shells.

Table 19.15-- TOP 20 AGRICULTURAL COMMODITIES: 2020

[Florticulture and food crops grown under cover include only producers with total sales of \$10,000 or more]

Rank	Commodity	Value of production (\$1,000)	Rank	Commodity	Value of production (\$1,000)
1 2 3 4 5	Seed crops Macadamia nuts Coffee Cattle Algae	107,100 48,980 48,383 42,217 32,753	11 12 13 14 15	Bananas Palms, potted Ornamental, aquaculture Papayas Green onions	4,977 3,773 3,561 3,053 3,040
6 7 8 9	Basil Crops grown under cover Eggs Lettuce	22,338 14,817 11,954 6,120	16 17 18 19	Phalaenopsis, potted Sweet potatoes Honey Dendrobiums, potted	2,775 2,760 2,536 2,433
10	Cabbage	5,550	20	Anthuriums, potted	2,376

Source: State of Hawaii Department of Agriculture, 2020 State of Hawaii Top 20 Commodities Produced https://hdoa.hawaii.gov/add/market-analysis-news-branch/ accessed March 9, 2022.

Table 19.16-- LIVESTOCK INVENTORY: 1991 TO 2021

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

		Cat	ttle and cal	ves				
Year	Total	Milk cows	Beef cows	Calves	Other cattle 1/	Hogs	Chickens 2/	Bee colonies
1991	215	11.0	80.0	43.0	81.0	34.0	1,213	10.0
1991	200	10.0	77.0	53.0	60.0	35.0	1,213	9.0
1993	178	11.0	77.0 78.0	44.0	45.0	33.0	1,109	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	3/ 1.5	3/ 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)	15.0

NA Not Available

Source: USDA National Agricultural Statistics Service, Quick Stats https://quickstats.nass.usda.gov/ accessed May 24, 2022, records, and calculations by the Department of Business, Economic Development and Tourism.

^{1/} Includes other heifers, bulls, and steers.

^{2/} Excluding broilers.

^{3/} Revised from previous Data Book.

Table 19.17-- LIVESTOCK SALES, BY TYPE: 1990 TO 2021

[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	4/ 40,317	1,343	(NA)	4/ 2,678
2021	45,667	1,381	(NA)	3,083

NA Not available.

Source: USDA National Agricultural Statistics Service, Quick Stats https://quickstats.nass.usda/gov/ accessed July 6, 2022.

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

^{2/} Excludes interfarm sales in-state.

^{3/} Honey in production, for marketing year.

^{4/} Revised from previous *Data Book*.

Table 19.18-- 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
Cattle and calves inventory	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 19.19-- FLORICULTURE AND NURSERY PRODUCTS: 1998 TO 2020

			Growing area					
Year	Number of farms	Total (acres) 1/	Green- house (1,000 sq. ft.) 2/	Artificial shade structure (1,000 sq. ft.)	Natural shade area (acres)	Open field (acres)	Whole-sale value (\$1,000)	
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	- (212)	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	77,550	
2018	(NA)	3/ 2,562	3/ 2,280	17,149	(NA)	2,116	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	81,556	

NA Not available.

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/Statistics_by_State/Hawaii/Publications/Flowers_and_Nursery_Products/index.php> accessed July 6, 2022.

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

^{2/} Glass or glass substitute structure.

^{3/} Revised from previous Data Book.

^{4/} Data from the 2019 Census of Horticulture.

Table 19.20-- SELECTED FLORICULTURE AND NURSERY PRODUCTS, BY COMMODITY: 2020

[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]

	Number of	Numb	er sold	
Commodity	farms having sales 1/	Unit	Number	Value of sales (\$1,000)
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.

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.

^{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.

Table 19.21-- AQUACULTURE OPERATIONS, BY NUMBER OF WORKERS AND VALUE: 2015 TO 2020

Subject	2015	2016	2017	2018	2019 1/	2020
Peak number of workers	406	500	462	(2/)	369	344
Value (\$1,000) Shellfish Finfish Algae Ornamental Other 3/	76,234 (D) (D) 33,808 (D) 42,426	75,710 (D) (D) 34,349 (D) 41,361	76,367 (D) (D) 35,190 (D) 41,177	(2/) (2/) (2/) (2/) (2/) (2/)	78,741 (D) (D) 32,652 2,643 43,176	66,396 (D) (D) 32,753 3,561 30,082

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

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

^{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.

https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/ accessed March 4, 2022.

Table 19.22-- 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	5,101	4,790	
	\$1,000	79,577	49,471	
Manure used	Farms	634	622	
	Acres on which used	5,165	4,748	
Organic fertilizer used	Farms	(NA)	668	
	Acres on which used	(NA)	5,235	
Commercial fertilizer, lime and soil conditioners used	Farms	3,450	2,979	
	Acres on which used	109,503	100,104	
Commercial fertilizer, lime and soil conditioners expenses	Farms	4,428	4,196	
	\$1,000	46,584	31,787	
Chemical expenses	Farms	4,487	3,803	
	\$1,000	32,993	17,684	
Acers treated to control- Insects Nematodes Diseases in crops and orchards Weeds, grass, or brush	Farms Acres on which used Farms Acres on which used Farms Acres on which used Farms	2,349 30,417 379 4,089 963 9,143 3,299	1,945 50,380 178 5,040 805 8,963 2,439	
Chemicals used on crops to control growth, thin fruit, ripen, or defoliate	Acres on which used Farms Acres on which used	114,713 338 19,000	93,195 228 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 19.23-- FARMS, LAND, AND VALUE OF SALES OF CERTIFIED ORGANIC AGRICULTURAL PRODUCTS: 2019

Subject	Farms	Acres	Amount (\$1,000)
Certified organic farms	129	(NA)	(X)
Certified organic acres operated Cropland	129	2,790	(X)
	125	2,080	(X)
Pastureland/rangeland Land owned Land rented from others	23	710	(X)
	96	1,541	(X)
	48	1,345	(X)
Land rented to others Total value of certified organic agricultural products sold	4	96	(X)
	129	(NA)	17,283
Crops, including nursery and greenhouse All vegetables All citrus fruits	125	(NA)	15,495
	41	(D)	7,165
	30	(D)	(D)
All berries and other fruits All tree nuts All field crops	74	609	4,371
	10	(D)	(D)
	8	39	80
Propagative materials Crops under glass or other protection 1/	5	4	129
Mushrooms	2	(D)	(D)
Tomatoes	1	(D)	(D)
Other vegetables and fresh herbs	7	(X)	910
Christmas trees harvested Livestock and poultry Poultry products	(X)	(X)	(X)
	7	(X)	(D)
	3	(X)	27
Other livestock products 2/	4	(X)	1,761

X Not applicable.

Source: USDA National Agricultural Statistics Service, 2019 Organic Survey (October 2020)

 $https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Organics/ORGANICS.pdf \ accessed\ January\ 13,\ 2021.$

NA Not available.

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.

Table 19.24-- GENERAL EXCISE TAX BASE FOR PRODUCING: 1998 TO 2021

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

^{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, 2022.

Table 19.25-- 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) Incidents	1,946 4,739	634 1,574	798 2,492	185 439	329 234
Vandalism Loss (\$1,000) Incidents	2,019 1,153	192 494	568 133	99 79	1,160 447
Security Cost (\$1,000)	7,400	3,119	2,553	893	835
2019					
Theft Loss (\$1,000) Incidents	2,623 3,616	1,583 1,953	250 784	612 402	178 477
Vandalism Loss (\$1,000) Incidents	502 1,112	217 687	(1/) (1/)	(1/) (1/)	157 192
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.