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Section 19

AGRICULTURE

This section presents statistics on agricultural land, farms, crops, livestock, dairy products, poultry, and aquaculture. Related information appears in Sections 6 (land use), 12 and 15 (agricultural employment and earnings), and 22 (food processing).

Important sources for data on agriculture include the *United States Census of Agriculture*, most recently published for 2002, the annual report on *Statistics of Hawaii Agriculture* issued by the Hawaii Agricultural Statistics Service, and 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. National statistics appear in Section 17 of the *Statistical Abstract of the United States: 2008*.

**Table 19.01-- FARMS, LAND IN FARMS, AND SELECTED ITEMS:
1997 AND 2002**

Item	Unit	1997	2002
Farms	number	5,473	5,398
Land in farms	acres	1,439,071	1,300,499
Average size of farm	acres	263	241
Value of land and buildings: 1/			
Average per farm	dollars	632,281	842,875
Average per acre	dollars	2,405	3,507
Estimated market value of all machinery and equipment: 1/			
Total	\$1000	211,775	186,163
Average per farm	dollars	38,709	35,568
Farms by size:			
1 to 9 acres		3,456	3,440
10 to 49 acres		1,417	1,309
50 to 179 acres		318	335
180 to 499 acres		139	146
500 to 999 acres		43	61
1,000 acres or more		100	107
Total cropland	farms	4,882	4,755
	acres	292,107	211,120
Harvested cropland	farms	4,594	4,522
	acres	100,094	109,461
Irrigated land	farms	2,241	2,231
	acres	76,971	69,194
Market value of agricultural products sold	\$1000	496,935	533,423
Average per farm	dollars	90,798	98,819
Crops, including nursery and greenhouse crops	\$1000	401,411	445,356
Livestock, poultry, and their products	\$1000	95,524	88,067
Farms by value of sales:			
Less than \$2,500		1,638	1,407
\$2,500 to \$4,999		743	714
\$5,000 to \$9,999		797	916
\$10,000 to \$24,999		989	1,056
\$25,000 to \$49,999		535	506
\$50,000 to \$99,999		323	314
\$100,000 or more		448	485

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**Table 19.01-- FARMS, LAND IN FARMS, AND SELECTED ITEMS:
1997 AND 2002 -- Con.**

Item	Unit	1997	2002
Farm by type of organization:			
Family or individual		4,583	4,629
Partnership		328	225
Corporation		497	472
Operators by days worked off farm:			
Any		2,827	2,612
200 days or more		1,566	1,661
Operators by principal occupation:			
Farming		3,052	3,125
Other		2,421	2,273
Average age of principal operator	years	55.0	56.5
Total farm production expenses 1/	\$1000	398,567	450,946
Livestock and poultry:			
Cattle and calves inventory	farms	829	748
	number	181,732	154,308
Beef cows	farms	625	578
	number	93,711	83,277
Milk cows	farms	44	27
	number	8,389	6,465
Cattle and calves sold	farms	660	550
	number	66,726	60,739
Hogs and pigs inventory	farms	248	204
	number	29,440	23,364
Hogs and pigs sold	farms	190	158
	number	38,066	33,231
Broilers and other meat-type chickens sold	farms	9	17
	number	478,672	881,112

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**Table 19.01-- FARMS, LAND IN FARMS, AND SELECTED ITEMS:
1997 AND 2002 -- Con.**

Item	Unit	1997	2002
Selected crops harvested:			
Sugarcane for sugar	farms	13	2
	acres	31,483	(D)
	tons	2,873,712	(D)
Pineapples harvested	farms	27	34
	acres	12,992	10,211
	tons	348,428	314,626
Vegetables harvested	farms	657	633
	acres	6,549	6,554
Land in orchards	farms	2,786	2,833
	acres	37,906	34,908

D Withheld to avoid disclosing data for individual farms.

1/ Data are based on a sample of farms.

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service, *2002 Census of Agriculture, Vol.1, Part 11, Hawaii* (June 2004), table 1, pp. 6-7.

Table 19.02-- FARMS AND LAND IN FARMS, BY COUNTY: 2002

Item	Unit	Hawaii	Honolulu	Kauai	Maui
Farms	number	3,216	794	565	823
Land in farms	acres	821,276	70,705	151,828	256,690
Average size of farm	acres	255	89	269	312
Value of land and buildings: 1/					
Average per farm	dollars	724,308	738,577	1,068,439	1,251,598
Average per acre	dollars	2,822	8,358	3,989	4,112
Estimated market value of all machinery and equipment: 1/					
Average per farm	dollars	23,981	37,543	66,074	58,849
Farms by size:					
1 to 9 acres		2,009	574	352	505
10 to 49 acres		818	152	127	212
50 to 179 acres		207	34	38	56
180 to 499 acres		90	15	21	20
500 to 999 acres		38	5	11	7
1,000 acres or more		54	14	16	23
Total cropland	farms	2,908	681	474	692
	acres	90,778	29,103	30,510	60,729
Harvested cropland	farms	2,791	656	426	649
	acres	55,529	13,757	11,771	28,404
Irrigated land	farms	908	545	316	462
	acres	9,041	13,703	19,595	26,855
Market value of agricultural products sold	\$1000	187,736	179,321	41,855	124,511
Average per farm	dollars	58,375	225,845	74,080	151,289
Crops, including nursery and greenhouse crops	\$1000	143,924	149,050	35,737	116,645
Livestock, poultry, and their products	\$1000	43,812	30,271	6,118	7,866

1/ Data are based on a sample of farms.

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service, *2002 Census of Agriculture, Vol.1, Part 11, Hawaii* (June 2004), p.185.

Table 19.03-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT: 1980 TO 2006

Year	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self-employed farm operators	Unpaid family members	Hired workers
1980	4,300	1,970	3,400	1,100	10,550
1981	4,400	1,965	3,100	900	10,500
1982	4,500	1,960	2,600	1,300	13,000
1983	4,500	1,900	2,500	1,500	13,000
1984	4,600	1,850	2,200	1,300	11,800
1985	4,600	1,800	2,200	1,200	10,600
1986	4,600	1,750	2,050	1,200	9,700
1987	4,650	1,720	2,600	1,100	10,700
1988	4,650	1,720	2,600	1,100	10,300
1989	4,650	1,720	2,400	1,100	9,800
1990	4,700	1,680	2,500	1,000	9,600
1991	4,700	1,630	3,100	1,100	9,600
1992	4,800	1,590	3,100	1,300	9,500
1993	5,200	1,560	2,800	1,100	8,700
1994	5,300	1,530	2,700	1,200	8,100
1995	5,300	1,470	2,700	1,000	7,300
1996	5,400	1,440	2,700	1,000	7,400
1997	5,500	1,440	2,700	1,200	7,000
1998	5,500	1,440	2,700	1,200	7,400
1999	5,500	1,420	3,000	1,200	7,600
2000	5,500	1,380	3,100	1,000	7,800
2001	5,500	1,350	3,300	1,100	7,400
2002	5,500	1,320	4/ 3,000	4/ 1,100	7,500
2003	5,500	1,300	(NA)	(NA)	7,300
2004	5,500	1,300	(NA)	(NA)	7,300
2005	5,500	1,300	(NA)	(NA)	7,000
2006	5,500	1,300	(NA)	(NA)	7,000

NA Not available.

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.

4/ Beginning July 2002, estimates for self-employed and unpaid workers have been discontinued due to a change in the national labor statistics program. 2002 data are the average of January and April estimates.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 11, 2008.

Table 19.04-- VALUE OF CROP AND LIVESTOCK SALES: 1980 TO 2006

[Thousands of dollars]

Year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unprocessed cane)	Pine-apples (fresh equiv.)	Other crops	
1980	634,101	552,877	385,100	76,596	91,181	81,224
1981	489,502	401,348	207,500	89,745	104,103	88,154
1982	507,268	428,860	230,800	94,364	103,696	78,408
1983	568,414	481,926	266,900	100,376	114,650	86,488
1984	550,517	463,502	256,200	89,928	117,374	87,015
1985	528,649	445,826	222,400	90,530	132,896	82,823
1986	564,717	481,312	233,800	99,720	147,792	83,405
1987	557,298	469,565	218,000	99,286	152,279	87,733
1988	573,962	485,293	209,900	107,402	167,991	88,669
1989	585,048	493,261	210,300	98,310	184,651	91,787
1990	595,030	506,586	213,800	106,365	186,421	88,444
1991	551,382	464,139	174,900	107,775	181,464	87,243
1992	520,227	431,958	153,700	102,100	176,158	88,269
1993	506,475	421,593	163,000	79,850	178,743	84,882
1994	503,780	427,150	160,100	78,890	188,160	76,630
1995	493,385	421,089	127,700	87,360	206,029	72,296
1996	495,688	428,671	108,100	95,914	224,657	67,017
1997	488,159	420,360	85,500	91,721	243,139	67,799
1998	493,342	420,634	87,300	92,776	240,558	72,708
1999	512,992	443,111	86,800	101,448	254,863	69,881
2000	499,771	431,482	62,200	101,530	267,752	68,289
2001	502,178	437,438	57,800	96,337	283,301	64,740
2002	514,338	453,400	64,300	100,616	288,484	60,938
2003	520,473	461,680	64,400	101,470	295,810	58,793
2004	523,957	459,702	61,500	83,104	315,098	64,255
2005	1/ 554,387	1/ 493,991	1/ 58,900	79,288	1/ 355,803	1/ 60,396
2006	560,827	502,181	50,200	75,542	376,439	58,646

1/ Revised from previous *Data Book*.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 11, 2008.

**Table 19.05-- NUMBER OF FARMS, FARM ACREAGE, AND FARM
EMPLOYMENT, BY COUNTY: 1990 TO 2006**

County or island and year	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self- employed farm operators 4/	Unpaid family members 4/ 5/	Hired workers
State total:					
1990	4,600	1,710	2,500	1,000	9,600
1991	4,700	1,630	3,100	1,100	9,600
1992	4,800	1,590	3,100	1,300	9,500
1993	5,200	1,560	2,800	1,100	8,700
1994	5,300	1,530	2,700	1,200	8,100
1995	5,300	1,470	2,700	1,000	7,300
1996	4,600	1,590	2,700	1,000	7,400
1997	5,500	1,440	2,700	1,200	7,000
1998	5,500	1,440	2,700	1,200	7,400
1999	5,500	1,440	3,000	1,200	7,600
2000	5,500	1,440	3,100	1,000	7,800
2001	5,500	1,350	3,300	1,100	7,400
2002	5,500	1,320	3,000	1,100	7,500
2003	5,500	1,300	(NA)	(NA)	7,300
2004	5,500	1,300	(NA)	(NA)	7,300
2005	5,500	1,300	(NA)	(NA)	7,000
2006	5,500	1,300	(NA)	(NA)	7,000
Hawaii:					
1990	2,650	1,005	1,550	600	3,500
1991	2,700	955	1,900	650	3,650
1992	2,800	929	1,850	750	3,750
1993	3,000	920	1,800	650	3,300
1994	3,100	920	1,700	650	3,000
1995	3,150	890	1,750	550	2,550
1996	2,700	929	1,800	600	2,600
1997	3,300	870	1,800	700	2,450
1998	3,300	870	1,750	650	2,550
1999	3,300	870	1,850	600	2,400
2000	3,300	870	1,800	550	2,700
2001	3,250	840	1,950	550	2,650
2002	3,250	830	1,700	600	2,450
2003	3,250	820	(NA)	(NA)	2,750
2004	3,250	820	(NA)	(NA)	2,700
2005	3,250	820	(NA)	(NA)	2,500
2006	3,250	820	(NA)	(NA)	2,650

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**Table 19.05-- NUMBER OF FARMS, FARM ACREAGE, AND FARM
EMPLOYMENT, BY COUNTY: 1990 TO 2006 -- Con.**

County or island and year	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self- employed farm operators 4/	Unpaid family members 4/ 5/	Hired workers
Honolulu:					
1990	950	125	450	250	2,450
1991	950	100	650	300	2,300
1992	900	92	650	350	2,350
1993	900	90	550	300	2,300
1994	900	90	500	350	2,050
1995	900	85	500	250	1,900
1996	900	92	450	200	2,000
1997	900	80	500	300	1,900
1998	900	80	450	250	2,100
1999	900	80	500	300	2,100
2000	900	80	500	200	2,200
2001	850	70	550	250	2,300
2002	800	70	550	250	2,100
2003	800	70	(NA)	(NA)	2,150
2004	800	70	(NA)	(NA)	2,200
2005	800	70	(NA)	(NA)	2,050
2006	800	70	(NA)	(NA)	1,950
Kauai:					
1990	400	225	200	50	1,150
1991	400	220	200	100	1,150
1992	400	214	200	100	1,100
1993	450	200	200	100	1,050
1994	450	200	200	50	1,050
1995	450	200	200	150	1,000
1996	400	214	200	100	1,000
1997	500	200	200	100	850
1998	500	200	200	100	800
1999	500	200	250	100	900
2000	500	200	300	50	950
2001	550	170	350	150	650
2002	600	160	250	100	750
2003	600	150	(NA)	(NA)	750
2004	600	150	(NA)	(NA)	650
2005	600	150	(NA)	(NA)	700
2006	600	150	(NA)	(NA)	700

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Table 19.05-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT, BY COUNTY: 1990 TO 2006 -- Con.

County or island and year	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self-employed farm operators 4/	Unpaid family members 4/ 5/	Hired workers
Maui:					
1990	600	355	250	150	2,500
1991	650	355	350	150	2,550
1992	700	355	400	150	2,300
1993	850	350	300	100	2,050
1994	850	320	250	100	2,000
1995	800	295	300	100	1,850
1996	600	355	300	150	1,850
1997	800	290	300	100	1,850
1998	800	290	350	150	1,950
1999	800	290	450	200	2,200
2000	800	290	500	150	2,000
2001	850	270	500	150	1,800
2002	850	260	500	150	2,250
2003	850	260	(NA)	(NA)	1,650
2004	850	260	(NA)	(NA)	1,850
2005	850	260	(NA)	(NA)	1,700
2006	850	260	(NA)	(NA)	1,750

NA Not available.

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

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

3/ Data not comparable among years shown due to changes in survey periods; sum of county estimates may not add due to rounding.

4/ Beginning July 2002, estimates for self-employed and unpaid workers have been discontinued due to a change in the national labor statistics program. 2002 data are the average of January and April estimates.

5/ Working 15 hours or more per week.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual) and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 11, 2008.

**Table 19.06-- VALUE OF CROP AND LIVESTOCK SALES, BY COUNTY:
1990 TO 2006**

[Thousands of dollars]

County or island and year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unpro- cessed cane)	Pine- apples 1/ (fresh equiv.)	Other crops 1/	
State total:						
1990	588,844	500,400	213,800	99,255	187,345	88,444
1991	551,382	464,139	174,900	107,775	181,464	87,243
1992	520,227	431,958	153,700	102,100	176,158	88,269
1993	506,475	421,593	163,000	79,850	178,743	84,882
1994	503,780	427,150	160,100	78,890	188,160	76,630
1995	493,385	421,089	127,700	87,360	206,029	72,296
1996	488,303	422,568	108,100	95,914	218,554	65,735
1997	486,460	418,661	85,500	91,721	241,440	67,799
1998	493,442	420,734	87,400	92,776	240,558	72,708
1999	512,992	443,111	86,800	101,448	254,863	69,881
2000	499,730	431,482	62,200	101,530	267,752	68,248
2001	502,181	437,438	57,800	96,337	283,301	64,743
2002	514,338	453,400	64,300	100,616	288,484	60,938
2003	520,473	461,680	64,400	101,470	295,810	58,793
2004	523,957	459,702	61,500	83,104	315,098	64,255
2005	2/ 554,387	2/ 493,991	2/ 58,900	79,288	2/ 355,803	2/ 60,396
2006	560,827	502,181	50,200	75,542	376,439	58,646
Hawaii:						
1990	197,997	168,580	55,000	(3/)	113,580	29,417
1991	179,716	149,009	43,600	(3/)	105,409	30,707
1992	168,406	140,235	38,200	(3/)	102,035	28,171
1993	166,309	140,610	39,000	(3/)	101,610	25,699
1994	161,475	140,770	35,800	(D)	104,970	20,705
1995	146,427	128,564	12,200	(D)	116,364	17,863
1996	141,910	125,915	1,700	(D)	124,215	15,995
1997	149,965	130,887	-	(3/)	130,887	19,078
1998	142,522	121,676	-	(3/)	121,676	20,846
1999	144,470	121,939	-	(3/)	121,939	22,531
2000	154,240	128,161	-	(3/)	128,161	26,079
2001	160,258	134,380	-	(3/)	134,380	25,878
2002	155,651	128,426	-	(D)	128,426	27,225
2003	159,592	132,331	-	(D)	132,331	27,261
2004	174,388	143,972	-	(D)	143,972	30,416
2005	2/ 195,025	2/ 164,772	-	(D)	2/ 164,772	2/ 30,253
2006	183,917	153,057	-	(D)	153,057	30,860

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**Table 19.06-- VALUE OF CROP AND LIVESTOCK SALES, BY COUNTY:
1990 TO 2006 -- Con.**

[Thousands of dollars]

County or island and year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unpro- cessed cane)	Pine- apples 1/ (fresh equiv.)	Other crops 1/	
Honolulu:						
1990	181,083	135,899	36,800	62,280	36,819	45,184
1991	171,378	129,602	30,600	62,075	36,927	41,776
1992	152,483	108,965	27,300	45,430	36,235	43,518
1993	162,086	119,906	29,700	54,923	35,283	42,180
1994	160,678	119,958	30,600	53,690	35,668	40,720
1995	162,578	123,074	21,000	62,585	39,489	39,504
1996	156,582	121,143	10,400	68,770	41,973	35,439
1997	142,256	107,347	-	63,426	43,921	34,909
1998	160,819	124,630	-	64,363	60,267	36,189
1999	179,324	142,407	-	73,123	69,284	36,917
2000	177,704	145,784	-	72,085	73,699	31,920
2001	177,462	146,504	-	69,222	77,282	30,958
2002	179,778	153,725	-	70,992	82,733	26,053
2003	178,852	154,228	-	71,029	83,199	24,624
2004	163,974	138,878	-	54,704	84,174	25,096
2005	2/ 155,862	2/ 133,918	-	(D)	2/ 133,918	2/ 21,944
2006	154,648	135,550	-	(D)	135,550	19,098
Kauai:						
1990	65,276	60,267	52,400	(3/)	7,867	5,009
1991	57,912	53,018	42,800	(3/)	10,218	4,894
1992	46,549	41,679	32,600	(3/)	9,079	4,870
1993	46,145	42,143	31,600	(3/)	10,543	4,002
1994	54,438	49,975	35,200	(D)	14,775	4,463
1995	59,631	55,387	35,100	(D)	20,287	4,244
1996	65,988	61,814	38,800	(D)	23,014	4,174
1997	63,425	59,425	31,600	(3/)	27,825	4,000
1998	54,728	49,612	28,700	(3/)	20,912	5,116
1999	57,933	53,390	26,600	(3/)	26,790	4,543
2000	46,739	42,886	18,500	(3/)	24,386	3,853
2001	40,790	38,292	12,900	(3/)	25,392	2,498
2002	(D)	40,854	13,000	(D)	27,854	(D)
2003	(D)	47,077	13,500	(D)	33,577	(D)
2004	(D)	47,652	15,300	(D)	32,352	(D)
2005	(D)	2/ 49,318	14,700	(D)	2/ 34,618	(D)
2006	(D)	57,551	9,500	(D)	48,050	(D)

Continued on next page.

**Table 19.06-- VALUE OF CROP AND LIVESTOCK SALES, BY COUNTY:
1990 TO 2006 -- Con.**

[Thousands of dollars]

County or island and year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unpro- cessed cane)	Pine- apples 1/ (fresh equiv.)	Other crops 1/	
Maui:						
1990	144,488	135,654	69,600	36,975	29,079	8,834
1991	142,376	132,510	57,900	45,700	28,910	9,866
1992	152,789	141,079	55,600	56,659	28,820	11,710
1993	131,935	118,934	62,700	24,890	31,344	13,001
1994	127,189	116,447	58,500	25,150	32,797	10,742
1995	124,748	114,064	59,400	24,775	29,889	10,684
1996	123,823	113,696	57,200	27,144	29,352	10,127
1997	126,266	116,453	53,900	28,295	34,258	9,813
1998	135,373	124,816	58,700	28,413	37,703	10,557
1999	131,265	125,375	60,200	28,325	36,850	5,890
2000	121,047	114,651	43,700	29,445	41,506	6,396
2001	123,671	118,262	44,900	27,115	46,247	5,409
2002	(D)	130,395	51,300	29,624	49,471	(D)
2003	(D)	128,043	50,900	30,441	46,702	(D)
2004	(D)	129,200	46,200	28,400	54,600	(D)
2005	(D)	2/ 145,983	2/ 44,200	(D)	101,783	(D)
2006	(D)	156,023	40,700	(D)	115,323	(D)

D Data not shown to avoid disclosure of individual operations but included in State total.

1/ County data may fail to add exactly to State total.

2/ Revised from previous *Data Book*.

3/ Less than \$50,000.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual);
and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 11, 2008.

Table 19.07-- ACREAGE IN CROP, NUMBER OF CROP FARMS, AND VALUE OF CROP SALES: 1996, 2004 TO 2006

Subject	1996	2004	2005	2006
Acreage in crop (1,000 acres):				
Sugarcane	68.8	43.0	40.1	42.1
Pineapples (land used for pineapple)	20.0	13.0	14.0	13.9
Vegetables and melons (harvested acreage) 1/	6.2	6.7	6.3	5.5
Fruits, excluding pineapples	7.1	6.0	6.2	5.8
Coffee	6.4	7.7	2/ 7.9	8.2
Macadamia nuts	20.2	18.0	18.3	17.0
All other crops	8.9	9.4	2/ 9.2	9.7
Number of crop farms:				
Sugar	7	2	2	2
Pineapples	20	30	30	30
Vegetables and melons 1/	950	620	600	610
Fruits (excluding pineapples)	1,040	1,290	1,265	1,245
Coffee	560	750	790	820
Macadamia nuts	680	650	650	650
Taro	180	130	110	110
Flowers and nursery products	690	920	2/ 955	930
Value of crop sales (\$1,000):				
Sugar (unprocessed cane)	108,100	61,500	2/ 58,900	50,200
Pineapples (fresh equivalent)	95,914	83,104	79,288	75,542
Vegetables and melons 1/	40,672	67,892	67,717	73,038
Fruits (excluding pineapples)	26,603	24,533	2/ 25,747	26,138
Coffee (parchment)	20,800	19,880	37,310	37,000
Macadamia nuts (in shell)	44,070	41,245	2/ 43,740	38,860
Taro	2,793	2,808	2,322	2,565
Seed crops	13,821	62,600	2/ 77,330	97,580
Flowers and nursery products	69,475	95,178	2/ 100,962	100,689

1/ Includes ginger root, herbs, noni, kava ('awa), and others.

2/ Revised from previous *Data Book*.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 11, 2008.

Table 19.08-- ACREAGE IN CROP, NUMBER OF CROP FARMS, AND VALUE OF CROP SALES, BY COUNTY: 2006

Subject	Hawaii	Honolulu	Kauai	Maui
Acreage in crop (1,000 acres):				
Sugarcane	-	-	7.2	34.9
Pineapples (land used for pineapple)	(1/)	(D)	(1/)	(D)
Vegetables and melons (harvested acreage) 2/	1.1	3.5	0.1	0.8
Fruits, excluding pineapples	3.6	0.8	0.8	0.6
Coffee	3.8	(D)	(D)	(D)
Macadamia nuts	(D)	(D)	(D)	(D)
All other crops	2.9	2.4	1.9	2.5
Number of crop farms:				
Sugar	-	-	1	1
Pineapples	(D)	(D)	(D)	(D)
Vegetables and melons 2/	226	215	63	106
Fruits (excluding pineapples)	668	153	174	250
Coffee	775	(D)	(D)	(D)
Macadamia nuts	(D)	(D)	(D)	(D)
Taro	30	10	50	20
Flowers and nursery products	410	250	75	195
Value of crop sales (\$1,000):				
Sugar (unprocessed cane)	-	-	9,500	40,700
Pineapples (fresh equivalent)	(D)	(D)	(D)	(D)
Vegetables and melons 2/	18,630	41,812	1,543	11,053
Fruits (excluding pineapples)	17,921	4,634	1,688	1,895
Coffee (parchment)	25,600	(D)	(D)	(D)
Macadamia nuts (in shell)	(D)	(D)	(D)	(D)
Taro	180	(D)	1,815	(D)
Seed crops	(D)	(D)	(D)	(D)
Flowers and nursery products	51,945	33,524	2,944	12,276

D Withheld to avoid disclosure of individual operations.

1/ Less than 50 acres.

2/ Includes ginger root, herbs, noni, kava ('awa), and others.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 11, 2008.

Table 19.09-- SPECIALTY CROPS, FRUITS, AND VEGETABLES: 2006

[Data shown for crops with sales in excess of \$1,000,000]

Crop	Acreage harvested	Yield per acre (1,000 lb.)	Production (1,000 lb.)	Farm price (cents per lb.)	Value of sales (\$1,000)
Specialty crops:					
Coffee (2006-07)	6,300	1.2	7,400	500.0	37,000
Ginger root (2006-07)	80	35.0	2,800	85.0	2,380
Fresh herbs	(X)	(X)	5,700	(X)	9,067
Seed crops (2006-07)	4,820	(X)	9,020	(X)	97,580
Macadamia nuts (2006-07)	15,000	3.9	65,000	67.0	38,860
Fruits:					
Rambutan	140	(X)	106	2.8	292
Bananas	1,000	20.0	20,000	49.0	9,800
Papayas	1,530	18.8	28,700	38.5	11,049
Guavas	365	(X)	7,400	14.2	1,051
Vegetables:					
Cabbage, Chinese	250	24.4	6,100	29.0	1,769
Cabbage, head	450	22.4	10,100	27.0	2,727
Cucumbers	330	16.4	5,400	50.0	2,700
Onions, dry	140	10.0	1,400	145.0	2,030
Onions, green	130	11.5	1,500	100.0	1,500
Peppers, green	260	10.8	2,800	71.0	1,988
Romaine	110	11.8	1,300	63.0	819
Sweet potatoes	360	16.7	6,000	74.0	4,440
Taro	1/ 380	(X)	4,500	57.0	2,565
Tomatoes	700	21.0	14,700	77.0	11,319
Watermelons	590	17.6	10,400	28.0	2,912

X Not applicable.

1/ Acreage in crop.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 3, 2008.

**Table 19.10-- SUGARCANE ACREAGE, BY TYPE OF IRRIGATION:
1993 TO 2006**

Year	Total cane land	Irrigated cane land		Unirrigated cane land
		Drip	Furrow or overhead	
1993	121,322	74,557	11,595	35,170
1994	98,413	68,547	10,753	19,113
1995	81,957	62,462	8,416	11,079
1996	68,816	56,147	7,511	5,158
1997	67,820	55,585	7,115	5,120
1998	67,585	55,828	6,620	5,137
1999	60,758	51,234	4,602	4,922
2000	43,821	43,821	-	-
2001	50,410	50,410	-	-
2002	47,476	47,476	-	-
2003	47,733	47,733	-	-
2004	43,465	43,465	-	-
2005	40,145	40,145	-	-
2006	42,080	42,080	-	-

Source: Hawaii Agriculture Research Center, records.

Table 19.11-- LIVESTOCK INVENTORY, 1984 TO 2006, AND BY COUNTY, 2006

[In thousands]

Year and county	All cattle and calves 1/	Milk cows 1/	Hogs and pigs 2/	Chickens (excluding broilers) 2/	Bee colonies
1984	221	12	47	1,195	9
1985	209	11	55	1,210	9
1986	199	12	50	1,185	9
1987	203	12	47	1,212	9
1988	212	12	43	1,217	9
1989	205	11	39	1,216	9
1990	215	11	36	1,183	10
1991	200	10	34	1,213	10
1992	178	11	35	1,109	9
1993	165	11	33	1,012	9
1994	178	11	35	981	9
1995	174	10	34	933	8
1996	172	10	28	876	8
1997	180	9	29	863	9
1998	173	9	29	747	8
1999	164	9	28	721	8
2000	150	7	26	722	7
2001	152	7	27	659	8
2002	151	7	24	625	7
2003	156	6	23	600	7
2004	155	6	22	598	8
2005	161	5	19	547	9
2006	158	4	16	470	10
2006 3/					
Hawaii	117.2	2.2	0.9	(D)	(NA)
Honolulu	7.1	1.6	9.6	(D)	(NA)
Kauai	12.0	(4/)	2.0	(D)	(NA)
Maui	21.7	(4/)	3.5	(D)	(NA)

NA Not available.

D Withheld to avoid disclosing data for individual operations.

1/ As of January 1 of the following year.

2/ As of December 1.

3/ Sum of county estimates may not add to State total due to rounding.

4/ Equals less than 50.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 3, 2008.

Table 19.12-- NUMBER OF LIVESTOCK OPERATIONS AND VALUE OF LIVESTOCK SALES: 2003 TO 2006

Subject	2003	2004	2005	2006
Number of livestock operations, Dec. 31:				
Cattle 1/	750	800	800	800
Hogs	210	250	230	230
Milk	30	30	30	30
Eggs	80	80	80	80
Honey	29	31	34	35
Value of livestock sales (\$1,000):				
Cattle 2/	17,192	22,534	3/ 22,548	26,452
Hogs 2/	4,345	4,463	4,553	4,158
Milk	21,449	20,175	18,387	14,508
Eggs	9,396	10,670	8,979	8,192
Honey	1,157	1,221	3/ 1,686	1,107

1/ Includes beef, dairy, and dairy replacement operations.

2/ Excludes interfarm sales; includes out-of-state sales of slaughter cattle and feeder calves.

3/ Revised from previous *Data Book*.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 3, 2008.

Table 19.13-- NUMBER OF LIVESTOCK OPERATIONS AND VALUE OF LIVESTOCK SALES, BY COUNTY: 2006

Subject	Hawaii	Honolulu	Kauai	Maui
Number of livestock operations, Dec. 31:				
Cattle 1/	470	50	120	160
Hogs	70	70	30	60
Milk	14	6	4	6
Eggs	37	15	8	20
Honey	17	(D)	(D)	(D)
Value of livestock sales (\$1,000):				
Cattle 2/	19,809	1,515	1,725	3,403
Hogs 2/	256	2,371	611	920
Milk	(D)	8,515	(D)	(D)
Eggs	(D)	6,507	(D)	(D)

D Withheld to avoid disclosure of individual operations.

1/ Includes beef, dairy, and dairy replacement operations.

2/ Excludes interfarm sales; includes out-of-state sales of slaughter cattle and feeder calves.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 3, 2008.

**Table 19.14-- FLORICULTURE AND NURSERY PRODUCTS, 1997 TO 2006,
AND BY COUNTY, 2003 TO 2006**

County and year	Number of farms	Growing area					Wholesale value (\$1,000)
		Total (acres)	Green-house (1,000 sq. ft.)	Artificial shade structure (1,000 sq. ft.)	Natural shade area (acres)	Open field (acres)	
State total:							
1997	670	2,158	2,805	23,885	10	1,535	66,655
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 1/	955	3,988	2,095	27,015	-	3,320	100,962
2006	930	4,052	2,180	25,115	-	3,425	100,689
County, 2003:							
Hawaii	395	2,408	1,895	21,295	16	1,860	50,206
Honolulu	230	701	230	5,035	-	580	31,092
Kauai	80	180	65	360	-	170	3,067
Maui	160	601	350	775	-	575	11,236
County, 2004:							
Hawaii	425	2,404	1,990	20,840	-	1,880	50,414
Honolulu	235	638	255	4,660	-	525	32,173
Kauai	80	234	90	310	-	225	3,056
Maui	180	554	285	750	-	530	9,535
County, 2005: 1/							
Hawaii	425	2,455	1,445	20,980	-	1,940	53,449
Honolulu	265	774	275	4,715	-	660	32,399
Kauai	80	210	110	525	-	195	3,204
Maui	185	549	265	795	-	525	11,910
County, 2006:							
Hawaii	410	2,580	1,450	19,875	-	2,090	51,945
Honolulu	250	707	255	3,985	-	610	33,524
Kauai	75	232	205	530	-	215	2,944
Maui	195	533	270	725	-	510	12,276

1/ Revised from previous *Data Book*.

Source: Hawaii Agricultural Statistics Service, *Hawaii Flowers & Nursery Products, Annual Summary*, various issues. See also <<http://www.nass.usda.gov/hi/flower/flower.pdf>> accessed January 17, 2008.

**Table 19.15-- FLORICULTURE AND NURSERY PRODUCTS, BY
COMMODITY: 2006**

[Shown for commodities with value of sales over \$500,000 and growers with total sales of \$10,000 or more]

Commodity	Number of farms having sales	Number sold		Value of sales (\$1,000)
		Unit	Number	
Selected cut flowers:				
Anthuriums	57	1,000 dozens	674	5,459
Ginger, red	60	1,000 dozens	135	1,059
Heliconias	64	1,000 dozens	68	822
Proteas	29	1,000 stems	2,293	1,828
Orchids:				
Sprays: Dendrobiums	43	1,000 dozens	309	2,481
Sprays: Oncidiums	26	1,000 dozens	59	630
Potted: Dendrobiums	76	1,000 pots	1,127	5,768
Potted: Oncidiums	36	1,000 pots	221	1,304
Potted: Phalaenopsis	23	1,000 pots	90	752
Lei or individual flowers:				
Dendrobiums	23	1,000 blooms	14,800	532
Plumerias	15	1,000 blooms	12,700	372
Foliage:				
Potted, dracaena	27	(X)	(NA)	5,590
Potted, palms	48	(X)	(NA)	8,309
Ti leaves, cut	46	1,000 leaves	6,400	710
Potted flowering plants:				
Anthuriums	18	1,000 pots	109	497
Poinsettias	29	1,000 pots	331	1,525
Plant rentals	41	(X)	(NA)	5,126
Landscape plants	139	(X)	(X)	20,853

X Not applicable.

NA Not available.

Source: Hawaii Agricultural Statistics Service, *Hawaii Flowers & Nursery Products, Annual Summary*, various issues. See also <<http://www.nass.usda.gov/hi/flower/flower.pdf>> accessed January 17, 2008.

Table 19.16-- OUT-OF-STATE SALES OF FLORICULTURE AND NURSERY PRODUCTS: 2001 TO 2006

[Thousand of dollars. Based on F.O.B. island value. Includes both wholesale and retail sales. Does not include sales of cut flowers, leis, etc., purchased within the State and hand carried out]

Type	2001	2002	2003	2004	2005	2006
Total sales	52,100	47,870	50,940	47,585	1/ 49,530	49,020
Anthuriums, cut	8,800	7,700	8,500	6,475	1/ 6,210	7,070
Dendrobiums, sprays	3,500	3,400	3,600	3,900	1/ 3,900	3,100
Foliage, potted	15,800	10,700	11,000	11,300	13,200	11,600
Heliconias	1,020	1,040	1,200	1,200	1,000	1,100
Dendrobiums, potted	4,900	4,510	4,590	4,645	4,335	3,760
Proteas	1,560	1,620	1,800	1,715	2,000	1,900
Other flowers, nursery products	16,520	18,900	20,250	18,350	1/ 18,885	20,490

1/ Revised from previous *Data Book*.

Source: Hawaii Agricultural Statistics Service, *Hawaii Flowers & Nursery Products, Annual Summary*, (September 10, 2007), p. 14. See also <<http://www.nass.usda.gov/hi/flower/flower.pdf>> accessed March 17, 2008.

Table 19.17-- AGRICULTURAL LABOR: HIRED WORKERS ON FARMS BY TYPE OF FARM, 1993 TO 2007

[Figures are averages based on January, April, July, and October surveys]

Year	Hired workers 1/	Hired workers by type of farm		
		Sugar	Pineapple	Other
1993	8,700	2,500	1,400	4,800
1994	8,100	2,300	1,300	4,500
1995	7,300	1,700	1,200	4,400
1996	7,400	1,400	1,200	4,800
1997	7,000	1,200	1,300	4,500
1998	7,400	1,200	1,200	5,000
1999	7,600	1,200	1,300	5,200
2000	7,800	1,000	1,200	5,600
2001	7,400	800	1,200	5,500
2002	7,500	900	1,300	5,400
2003	7,300	700	1,200	5,300
2004	7,300	700	1,200	5,400
2005	7,000	700	1,100	5,200
2006	7,000	600	1,000	5,400
2007 2/	6,500	(NA)	(NA)	(NA)

NA Not available.

1/ Sum of hired workers by type of farm may not add to hired workers total due to rounding.

2/ The January 2007 Farm Labor Survey was not conducted. Therefore, the 2007 annual average for hired workers is based on modeled data for January and survey data for April, July, and October.

Source: Hawaii Agricultural Statistics Service, *Hawaii Agricultural Labor*, Quarterly, various issues, <<http://www.nass.usda.gov/hi/speccrop/aglabor.pdf>> accessed February 11, 2008.

**Table 19.18-- GENERAL EXCISE TAX BASE FOR PRODUCING:
1996 TO 2007**

[In thousands of 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	Year 1/	Amount
1996	479,009	2000	519,272	2004	550,949
1997	505,557	2001	499,896	2005	591,329
1998	478,201	2002	522,418	2006	445,679
1999	501,501	2003	543,561	2007	475,827

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 Base" (annual tabular release) see also <http://www.state.hi.us/tax/a5_3txcolrpt.htm>.

**Table 19.19-- AGRICULTURAL CHEMICALS USED, INCLUDING FERTILIZER:
1992, 1997, AND 2002**

[Data are based on a sample of farms]

Chemicals used	Unit	1992	1997	2002
Any fertilizer, manure or chemical used 1/	farms	4,476	4,531	4,586
Commercial fertilizer 2/	farms	4,028	4,051	4,326
	acres on which used	200,723	133,927	127,996
	\$1,000	30,574	25,653	17,791
Agricultural chemicals	farms	3,853	3,834	3,627
	\$1,000	20,396	17,187	16,134
Sprays, dusts, granules, fumigants, etc., to control -- Insects on hay and other crops 3/	farms	1,790	1,604	1,840
	acres on which used	53,593	34,673	41,616
Nematodes in crops	farms	489	350	275
	acres on which used	15,587	11,086	8,169
Diseases in crops and orchards	farms	1,018	1,033	800
	acres on which used	21,036	33,343	30,824
Weeds, grass, or brush in crops and pasture	farms	2,820	2,685	2,820
	acres on which used	178,422	122,576	101,258
Chemicals used for defoliation or for growth control of crops or thinning of fruit	farms	157	184	216
	acres on which used	40,292	15,184	26,378

1/ Data for 1997 exclude lime and manure.

2/ Expense data for 1997 exclude lime.

3/ Data for 1997 include treatment of crops, including hay, but not other land.

Source: U.S. Department of Agriculture, *1997 Census of Agriculture, Hawaii*, (March 1999), p. 23 and U.S. Department of Agriculture, *2002 Census of Agriculture, Hawaii*, (June 2004), p. 32.

Table 19.20-- AQUACULTURE INDUSTRY OPERATIONS: 1970 TO 2006

Year	Number of operations, Dec. 31	Acreage, Dec. 31	Production (1,000 lb.)	Value (\$1,000)
1970	2	193	20	11
1971	2	193	17	17
1972	2	193	18	23
1973	3	203	34	34
1974	4	213	41	136
1975	10	234	82	178
1976	14	235	94	210
1977	25	246	123	281
1978	25	320	178	525
1979	23	493	246	1,531
1980	37	575	320	1,655
1981	41	547	338	1,868
1982	44	643	551	2,625
1983	42	496	345	1,605
1984	47	474	441	2,300
1985	48	465	583	2,780
1986	44	444	1,015	3,549
1987	45	437	1,689	6,263
1988	44	477	1,170	5,560
1989	46	479	1,264	6,835
1990	53	489	1,452	9,241
1991	71	595	1,207	6,884
1992	83	615	1,272	7,134
1993	90	640	1,296	7,469
1994	105	605	990	9,036
1995	107	635	1,410	13,307
1996	117	695	1,992	15,656
1997	110	(NA)	(NA)	16,600
1998	105	(NA)	2,243	16,620
1999	100	(NA)	2,404	18,102
2000	85	(NA)	2,898	22,170
2001	80	(NA)	(NA)	22,200
2002	70	(NA)	(NA)	25,180
2003	85	(NA)	(NA)	27,650
2004	100	(NA)	(NA)	28,100
2005	70	(NA)	(NA)	28,398
2006	80	(NA)	(NA)	21,257

NA Not available.

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program (1970-1997), records and Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual) and <http://www.nass.usda.gov/hi/stats/t_of_c.htm> (1998-2006) accessed March 3, 2008.

**Table 19.21-- AQUACULTURE OPERATIONS, ACREAGE, PRODUCTION,
AND VALUE, BY COUNTY: 2005 AND 2006**

Subject	State total	Hawaii	Honolulu	Kauai	Maui
2005					
Number of operations	70	25	(D)	(D)	(D)
Production (1,000 lb.)	(NA)	(NA)	(NA)	(NA)	(NA)
Shellfish 1/	(D)	(D)	(D)	(D)	(D)
Finfish	(D)	(D)	(D)	(D)	(D)
Algae	(X)	(X)	(X)	(X)	(X)
Value (\$1,000)	28,398	20,179	(D)	(D)	(D)
Shellfish	(D)	(D)	(D)	(D)	(D)
Finfish	(D)	(D)	(D)	(D)	(D)
Algae	14,637	(D)	(D)	(D)	(D)
Other 2/	(D)	(D)	(D)	(D)	(D)
2006					
Number of operations	80	25	(D)	(D)	(D)
Production (1,000 lb.)	(NA)	(NA)	(NA)	(NA)	(NA)
Shellfish 1/	180	103	(D)	(D)	(D)
Finfish	426	(D)	(D)	(D)	(D)
Algae	(X)	(X)	(X)	(X)	(X)
Value (\$1,000)	21,257	17,470	(D)	(D)	(D)
Shellfish	2,351	1,834	(D)	(D)	(D)
Finfish	2,388	(D)	(D)	(D)	(D)
Algae	11,914	(D)	(D)	(D)	(D)
Other 2/	4,604	(D)	(D)	(D)	(D)

NA Not available.

D Not shown to avoid disclosure of individual operations, but combined and included in the state total.

X Not applicable.

1/ Some shellfish products sold by pieces, pounds not given.

2/ Non-food products: ornamental fish, seedstock, brood stock, and other. Items not sold by weight.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (annual); and
<http://www.nass.usda.gov/hi/stats/t_of_c.htm> accessed March 3, 2008.