

Section 19

AGRICULTURE

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

There were 4,600 farms in Hawaii in 1985, with a total area of 1.95 million acres. The value of crop sales in 1985 was \$445 million, or 39 percent higher than the total for 1975. Livestock sales amounted to \$83 million, or 42 percent more than the 1975 level. Combined crop and livestock sales in 1985 ranged from \$65 million in Kauai County to \$171 million on the Big Island. Major crops were sugar (\$222 million in sales, down 6 percent over the decade), pineapple (\$91 million, or 118 percent over the 1975 total), flowers and nursery products (\$44 million, or 353 percent more than in 1975), vegetables and melons (\$30 million, up 161 percent), and macadamia nuts (\$30 million, up 429 percent). Diversified crops, defined as all crops other than sugar and pineapple, rose from \$41 million in 1975 to \$132 million in 1985, or approximately 225 percent. About 670 farms sold \$44 million of flowers and nursery products in 1985, chiefly anthuriums, potted foliage, and orchids. Important products of livestock farms as of 1985 included cattle (\$27 million in sales), milk (\$28 million), and eggs (\$14 million). In 1985, Hawaii produced 40 percent of the fresh market vegetables consumed locally, 28 percent of the fresh market fruits, 32 percent of the beef and veal, 20 percent of the chickens, and 83 percent of the eggs.

Aquaculture has been growing in importance in recent years, with an aggregate value rising from \$1,655,000 in 1980 to \$2.3 million in 1985. Freshwater prawn production amounted to 283,000 pounds in 1985, with a value of more than \$1.5 million.

Statistics on Hawaiian agriculture exclude pakalōlō (marijuana) and other illicit plants. Authorities confiscated \$810 million worth of marijuana in 1985, but the proportion escaping detection is unknown.

Important sources for data on agriculture include the United States Census of Agriculture, most recently conducted as of 1982, the annual report on Statistics of Hawaiian Agriculture issued by the Hawaii Agricultural Statistics Service, and data compiled by the Hawaiian Sugar Planters' Association and the Aquaculture Development Program of the Department of Land and Natural Resources. Agricultural data for earlier years are summarized in Historical Statistics of Hawaii, Section 13. National statistics appear in Section 24 of the Statistical Abstract of the United States: 1986.

Table 548.-- FARMS, LAND IN FARMS, AND LAND USE: 1982 AND 1978

Subject	1982	1978
Farms number ...	4,595	4,310
Land in farms acres	1,957,501	1,988,282
Average size of farm acres	426	461
Value of land and buildings:		
Average per farm dollars ..	778,471	413,948
Average per acre dollars ..	1,826	897
Farms by size:		
1 to 9 acres	2,743	2,527
10 to 49 acres	1,261	1,211
50 to 179 acres	320	296
180 to 499 acres	126	146
500 to 999 acres	33	24
1,000 to 1,999 acres	33	32
2,000 acres or more	79	74
Land in farms according to use:		
Total cropland farms	3,836	3,565
..... acres	346,113	333,262
Harvested cropland farms	3,538	3,299
..... acres	155,960	158,639
Cropland used only for pasture or grazing farms	400	272
..... acres	33,557	27,191
Other cropland farms	855	1,089
..... acres	156,596	147,432
Woodland, including woodland pastured ... farms	148	146
..... acres	117,270	145,802
Pastureland and rangeland other than cropland and woodland pastured farms	743	611
..... acres	1,132,849	1,143,095
Land in house lots, ponds, roads, wasteland, etc. farms	2,227	1,859
..... acres	361,269	366,123
Irrigated land farms	1,544	1,493
..... acres	145,982	159,323

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 1, tables 1 and 4.

Table 549.-- CHARACTERISTICS OF FARM OPERATORS: 1982 AND 1978

Subject	1982	1978
Farms by type of organization:		
Individual or family	number 3,852	3,614
	acres 481,212	656,332
Partnership	number 351	326
	acres 130,761	222,668
Corporation:		
Family held	number 272	233
	acres 507,280	377,595
Other than family held	number 80	93
	acres 492,941	595,644
Other -- cooperative, estate or trust, institutional, etc.	number 40	44
	acres 345,307	136,043
Tenure of operator:		
Full owners	farms 2,332	2,111
	acres 328,728	281,019
Part owners	farms 794	713
	acres 1,286,352	1,388,319
Owned land in farms	acres 537,945	603,654
Rented land in farms	acres 748,407	784,665
Tenants	farms 1,469	1,486
	acres 342,421	318,944
Operators by principal occupation and residence:		
Farming 1/.....	2,565	2,239
Residence on farm operated	1,629	1,287
Residence not on farm operated	657	516
Other than farming 1/.....	2,030	2,071
Residence on farm operated	1,043	890
Residence not on farm operated	779	660
Operators by age group:		
Under 25 years	35	51
25 to 34 years	630	535
35 to 44 years	794	600
45 to 54 years	803	1,005
55 to 64 years	1,325	1,270
65 years and over	1,008	849
Average age	52.7	52.7
Female operators:		
Farms	number 615	579
Land in farms	acres 129,674	132,173

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Table 549.-- CHARACTERISTICS OF FARM OPERATORS:
1982 AND 1978 -- Con.

Subject	1982	1978
Operators by race:		
White	1,304	1,039
Black and other races	3,291	3,271
Operators reporting days of work off farm:		
Any	2,534	2,495
100 days or more	2,024	1,878

1/ Components do not sum to category total because of non-reporting.

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Preliminary Report, Hawaii, AC82-A-15-000(P) (January 1984), table 2, and 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 1, tables 5 and 46.

Table 550.-- MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD, BY COUNTIES:
1982 AND 1978

Year	State total	Hawaii	Honolulu	Kauai	Maui
Total sales (\$1,000):					
1982	558,608	206,427	144,028	70,957	137,196
1978	419,251	148,399	118,608	48,679	103,564
Sales per farm (dollars):					
1982	121,569	81,302	147,570	173,066	204,771
1978	97,274	65,490	112,639	131,920	166,502

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 2, table 3.

Table 551.-- FARMS, LAND IN FARMS, AND LAND USE, FOR COUNTIES: 1982

Subject	Hawaii	Hono- lulu	Kauai	Maui ^{1/}
Farms number ..	2,539	976	410	670
Land in farms acres ..	1,172,448	125,932	255,981	403,140
Average size of farm acres ..	462	129	624	602
Value of land and buildings:				
Average per farm dollars	639,822	389,732	1,833,704	1,225,224
Average per acre dollars	1,385	3,017	2,930	2,036
Farms by size:				
1 to 9 acres	1,468	768	191	316
10 to 49 acres	746	141	136	238
50 to 179 acres	178	27	51	64
180 to 499 acres	68	17	16	25
500 to 999 acres	21	8	1	3
1,000 to 1,999 acres	13	8	7	5
2,000 acres or more	45	7	8	19
Land in farms according to use:				
Total cropland farms ..	2,286	757	286	507
..... acres ..	135,796	50,614	51,868	107,835
Harvested cropland farms ..	2,123	732	240	443
..... acres ..	59,629	(D)	24,039	(D)
Cropland used only for pasture or grazing farms ..	195	32	77	96
..... acres ..	17,438	(D)	2,670	(D)
Other cropland farms ..	514	142	78	121
..... acres ..	58,729	22,696	25,159	50,012
Woodland, including woodland pastured farms ..	80	22	13	33
..... acres ..	80,103	20,366	1,636	15,165
Pastureland and rangeland other than cropland and woodland pastured farms ..	339	84	145	175
..... acres ..	788,077	27,873	108,759	208,140
Land in house lots, ponds, roads, wasteland, etc. .. farms ..	1,109	475	251	392
..... acres ..	168,472	27,079	93,718	72,000
Irrigated land acres ..	11,870	36,131	34,414	63,567

D Withheld to avoid disclosing data for individual farms.

^{1/} Includes Kalawao (no farms in 1982).

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 2, tables 1, 2, and 4.

Table 552.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT:
1970 TO 1985

Year	Number of farms <u>1/</u>	Farm acreage <u>2/</u> (1,000)	Farm employment <u>3/</u>		
			Self-employed farm operators	Unpaid family members	Hired workers
1970	4,500	2,300	3,200	1,450	12,450
1971	4,400	2,300	3,050	1,500	11,810
1972	4,300	2,300	3,050	1,550	11,220
1973	4,300	2,300	3,050	1,550	10,770
1974	3,800	2,200	3,040	1,660	10,180
1975	3,900	2,150	3,060	1,720	11,040
1976	4,000	2,100	2,890	1,560	11,240
1977	4,100	2,050	2,840	1,550	11,300
1978	4,300	1,980	2,890	1,810	11,600
1979	4,300	1,980	3,020	1,520	10,800
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	1,960	2,500	1,500	13,000
1984 <u>4/</u>	4,600	1,950	2,200	1,300	11,800
1985	4,600	1,950	2,200	1,200	10,600

1/ Based on farm definition of \$600 or more of agricultural sales prior to 1974 and \$1,000 or more thereafter.

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

3/ Annual averages through 1980, and varying dates thereafter.

4/ Revised from Data Book 1985, table 530.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 553.-- VALUE OF CROP AND LIVESTOCK SALES: 1970 TO 1985

[\$1,000]

Year	All crops and livestock	Crops				Live-stock
		All crops	Sugar (unprocessed cane)	Pine-apples (fresh equiv.)	Other crops	
1970	213,667	172,019	110,600	39,500	21,919	41,648
1971	221,692	178,639	115,800	40,300	22,539	43,053
1972	232,497	186,255	117,300	43,900	25,055	46,242
1973	265,771	210,502	141,900	39,600	29,002	55,269
1974	575,432	517,523	442,300	40,259	34,964	57,909
1975	377,575	319,304	237,000	41,616	40,688	58,271
1976	327,820	265,498	164,700	52,983	47,815	62,322
1977	325,182	260,164	144,200	62,249	53,715	65,018
1978	380,655	308,098	182,700	63,090	62,308	72,557
1979	441,253	362,789	217,600	69,409	75,780	78,464
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 1/ ...	507,268	428,860	230,800	94,364	103,696	78,408
1983 1/ ...	568,422	481,934	266,900	100,376	114,658	86,488
1984 1/ ...	550,516	463,501	256,200	89,928	117,373	87,015
1985	527,877	445,056	222,400	90,530	132,126	82,821

1/ Revised from Data Book 1985, table 531.Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 554.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT, BY COUNTIES OR ISLANDS: 1975, 1984, AND 1985

County or island	Number of farms <u>1/</u>	Farm acreage <u>2/</u> (1,000)	Farm employment <u>3/</u>		
			Self-employed farm operators	Unpaid family members	Hired workers
State total:					
1975	3,900	2,150	3,060	1,720	11,040
1984 <u>4/</u>	4,600	1,950	2,200	1,300	11,800
1985	4,600	1,950	2,200	1,200	10,600
Hawaii Co.:					
1975	2,250	1,290	1,560	750	3,380
1984 <u>4/</u>	2,650	1,140	1,500	900	3,800
1985	2,650	1,140	1,400	800	3,500
Maui Co.:					
1975	500	445	420	190	3,350
1984	550	420	300	100	3,700
1985	550	420	250	150	2,950
Oahu:					
1975	850	135	790	640	2,760
1984	1,025	120	400	300	2,850
1985	1,025	120	450	250	2,750
Kauai Co.:					
1975	300	280	290	140	1,550
1984	375	275	100	50	1,400
1985	375	275	150	50	1,300

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/ Revised from Data Book 1985, table 532.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 555.-- VALUE OF CROP AND LIVESTOCK SALES, BY COUNTIES
OR ISLANDS: 1975, 1984, AND 1985

[\$1,000]

County and year	All crops and livestock	Crops				Live-stock
		All crops	Sugar (unprocessed cane)	Pine-apples (fresh equiv.)	Other crops	
State total:						
1975	377,575	319,304	237,000	41,616	40,688	58,271
1984 <u>1/</u> ...	550,516	463,501	256,200	89,928	117,373	87,015
1985	527,877	445,056	222,400	90,530	132,126	82,821
Hawaii Co.:						
1975	123,636	108,062	87,800	-	20,262	15,574
1984 <u>1/</u>	185,215	161,982	94,000	-	67,982	23,233
1985	171,077	148,955	69,800	-	79,155	22,122
Maui Co.:						
1975	94,933	87,797	55,900	25,010	6,887	7,136
1984 <u>1/</u>	145,419	132,898	72,600	42,176	18,122	12,521
1985	131,504	119,289	63,600	36,380	19,309	12,215
Oahu:						
1975	102,422	69,706	42,000	16,606	11,100	32,716
1984 <u>1/</u>	156,328	110,270	37,200	47,752	25,318	46,058
1985	160,628	117,213	35,700	54,150	27,363	43,415
Kauai Co.:						
1975	56,584	53,739	51,300	-	2,439	2,845
1984 <u>1/</u>	63,554	58,351	52,400	(<u>2/</u>)	5,951	5,203
1985	64,668	59,599	53,300	(<u>2/</u>)	6,299	5,069

1/ Revised from Data Book 1985, table 533.

2/ Less than \$50,000.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 556.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES: 1975, 1984, AND 1985

Subject	1975	1984 ^{1/}	1985
Acreage in crop (1,000 acres):			
Sugarcane	221.4	188.4	187.9
Pineapples (land used for pineapple)	50.0	35.0	34.5
Vegetables and melons (harvested acreage) ..	3.6	5.3	5.4
Fruits, excluding pineapples	4.6	6.5	6.5
Coffee	2.4	2.0	2.1
Macadamia nuts	10.4	16.9	20.0
Miscellaneous crops	5.7	12.0	8.6
Number of crop farms:			
Sugar	520	185	155
Pineapples	20	18	18
Vegetables and melons	497	677	715
Fruits (excluding pineapples)	577	800	805
Coffee	780	615	620
Macadamia nuts	444	605	610
Taro	128	137	155
Flowers and nursery products	465	670	670
Volume of crop marketings:			
Sugar, unprocessed cane (1,000 tons)	9,485	8,454	7,916
Pineapples, fresh equivalent (1,000 tons) ..	720	600	565
Vegetables and melons (1,000 lb.)	63,895	87,350	89,620
Fruits, excluding pineapples (1,000 lb.) ...	54,411	99,430	80,980
Coffee, parchment (1,000 lb.)	1,860	1,750	1,700
Macadamia nuts, in shell (1,000 lb.)	18,210	37,700	42,000
Taro (1,000 lb.)	7,592	6,310	6,860
Value of crop sales (\$1,000):			
Sugar (unprocessed cane)	237,000	256,200	222,400
Pineapples (fresh equivalent)	41,616	89,928	90,530
Vegetables and melons	11,529	26,609	30,034
Fruits (excluding pineapples)	7,347	13,315	12,794
Coffee (parchment)	1,399	4,812	4,675
Macadamia nuts (in shell)	5,754	26,088	30,450
Taro	851	1,382	1,578
Field crops (not estimated separately)	3,861	6,062	8,148
Flowers and nursery products	9,767	38,905	44,247
Forest products	180	(NA)	(NA)

NA Not available.

^{1/} Revised from Data Book 1985, table 534.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 557.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES, BY GEOGRAPHIC AREAS: 1985

Subject	Hawaii County	Maui County	Oahu	Kauai County
Acreege in crop (1,000 acres):				
Sugarcane	69.9	47.2	27.1	43.7
Pineapples (land used for pineapple)	-	23.0	11.5	(1/)
Vegetables and melons (harvested acreage)	2.0	1.9	1.4	0.1
Fruits, excluding pineapples	4.8	0.1	0.7	0.9
Coffee	2.1	-	-	-
Macadamia nuts	18.2	(D)	(D)	(D)
Miscellaneous crops	3.2	4.1	0.6	0.7
Number of crop farms:				
Sugar	144	3	3	5
Pineapples	-	13	2	3
Vegetables and melons	340	75	240	60
Fruits (excluding pineapples)	535	45	145	80
Coffee	620	-	-	-
Macadamia nuts	600	3	3	4
Taro	72	23	12	48
Flowers and nursery products	305	85	250	30
Volume of crop marketings:				
Sugar, unprocessed cane (1,000 tons)	2,686	2,208	1,220	1,802
Pineapples, fresh equivalent (1,000 tons)	-	358	207	(2/)
Vegetables and melons (1,000 lb.)	37,130	35,590	15,210	1,690
Fruits, excluding pineapples (1,000 lb.)	64,030	1,260	5,260	10,430
Coffee, parchment (1,000 lb.)	1,700	-	-	-
Macadamia nuts, in shell (1,000 lb.)	41,400	(D)	(D)	(D)
Taro (1,000 lb.)	1,010	(D)	(D)	4,780
Value of crop sales (\$1,000):				
Sugar (unprocessed cane)	69,800	63,600	35,700	53,300
Pineapples (fresh equivalent)	-	36,380	54,150	(3/)
Vegetables and melons	12,486	9,731	7,209	608
Fruits (excluding pineapples)	9,284	255	1,558	1,697
Coffee (parchment)	4,675	-	-	-
Macadamia nuts (in shell)	30,015	(D)	(D)	(D)
Taro	290	(D)	(D)	1,032
Field crops (not estimated separately) ...	2,615	3,442	330	1,761
Flowers and nursery products	19,605	5,273	18,190	1,179

D Withheld to avoid disclosure of individual operations.

1/ Less than 500 acres.

2/ Less than 500 tons.

3/ Less than \$50,000.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1985, pp. 3, 4, 6, 8, and 9.

Table 558.-- VEGETABLES, MELONS, FRUITS, NUTS, COFFEE, AND TARO: 1985

[Data shown for crops with sales in excess of \$500,000]

Crop	Acreage har- vested ^{1/}	Yield per acre (1,000 lb.)	Produc- tion (1,000 lb.)	Farm price (cents per lb.)	Value of sales (\$1,000)
Vegetables and melons:					
Snap beans	160	7.8	1,250	77.2	965
Burdock	45	16.7	750	66.8	501
Chinese cabbage	370	22.4	8,300	13.6	1,129
Head cabbage	460	28.9	13,300	16.3	2,168
Celery	110	31.4	3,450	19.5	673
Cucumbers	260	16.2	4,200	29.7	1,247
Daikon	260	13.8	3,600	17.8	641
Eggplant	55	24.4	1,340	51.0	683
Ginger root	125	43.4	5,425	82.3	4,465
Lettuce (head, semi-head)	650	14.5	9,400	24.9	2,341
Dry onions	165	11.5	1,890	71.6	1,353
Green onions	200	7.1	1,410	75.7	1,067
Watercress	35	...	1,530	79.2	1,212
Green peppers	120	12.3	1,480	55.0	814
Romaine	150	16.8	2,520	22.8	575
Sweet potatoes	200	9.6	1,910	28.6	546
Tomatoes	300	26.0	7,800	40.2	3,136
Watermelons	480	18.3	8,800	17.0	1,496
Fruits:					
Bananas	840	9.7	8,160	30.3	2,472
Guavas	680	...	8,890	10.2	907
Papayas	2,650	22.8	60,400	14.2	8,579
Macadamia nuts (1985-1986)	13,500	3.1	42,000	72.5	30,450
Coffee (1985-1986)	1,700	1.0	1,700	275.0	4,675
Taro	400	...	6,860	23.0	1,578

^{1/} Acreage bearing for macadamia nuts; acreage in crop for watercress and taro.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1985, pp. 32-68.

Table 559.-- FRESH FRUIT AND VEGETABLE ARRIVALS IN HONOLULU,
BY SOURCE: 1983 TO 1985

[1,000 pounds, net]

Source	1983	1984	1985
Total arrivals	256,952	265,998	275,623
From Hawaii	95,448	102,323	101,080
Oahu <u>1/</u>	44,635	47,331	44,260
Other islands <u>2/</u>	50,813	54,992	56,820
Hawaii <u>2/</u>	28,276	30,488	29,188
Maui <u>2/</u>	17,586	15,089	15,949
Molokāi <u>2/</u>	3,430	6,268	8,654
Kauai <u>2/</u>	1,521	3,147	3,029
From U.S. Mainland <u>2/</u>	157,398	158,368	165,833
From foreign countries <u>2/</u>	4,106	5,307	8,710

1/ Wholesalers' truck receipts.

2/ Ship and plane arrivals.

Source: Hawaii State Department of Agriculture, Market News Service, Honolulu Arrivals, Fresh Fruits and Vegetables, 1985 (April 1986), table 1.

Table 560.--FEED INSHIPMENTS FROM ALL SOURCES: 1981 TO 1985

[1,000 tons]

Commodity	1981	1982	1983	1984	1985
Total feed	172.0	167.8	193.0	191.6	170.2
Feed grains	67.0	67.5	89.8	88.4	78.4
Mixed feeds	29.7	25.0	24.5	21.8	18.5
Alfalfa products	22.7	26.1	30.2	32.3	24.1
Protein foods	30.6	29.9	26.5	29.6	28.6
Other feed stuff	22.0	19.3	21.9	19.5	20.6

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1985, p. 92.

Table 561.-- LIVESTOCK INVENTORY, 1975, 1984, AND 1985, AND BY
GEOGRAPHIC AREAS, 1985

[In thousands]

Year and geographic area	All cattle and calves <u>1/</u>	Milk cows <u>2/</u>	Hogs and pigs <u>3/</u>	Chickens (excluding broilers) <u>3/</u>	Bee colon- ies
1975	250	13	58	1,243	6
1984 <u>4/</u>	221	12	47	1,195	9
1985	209	11	55	1,210	9
GEOGRAPHIC AREAS: 1985					
Hawaii County	123.9	1.5	4.8	168	(NA)
Maui	31.7	1.0	10.2	(5/)	(NA)
Molokai and Lanai	5.4	-	1.0	(5/)	(NA)
Oahu	33.0	8.3	33.6	1,042	(NA)
Kauai County	15.0	0.5	5.4	(5/)	(NA)

NA Not available.

1/ As of following January 1.

2/ As of January 1.

3/ As of December 1.

4/ Revised from Data Book 1985, table 537.

5/ Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 562.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS,
AND VALUE OF LIVESTOCK SALES: 1975, 1984, AND 1985

Subject	1975	1984 <u>1/</u>	1985
Number of livestock operations, Dec. 31:			
Cattle <u>2/</u>	930	850	850
Hogs	620	650	650
Milk	100	90	90
Eggs	80	55	55
Broilers	10	8	7
Honey	22	25	22
Volume of livestock marketings:			
Beef (dressed weight; 1,000 lb.) <u>3/</u>	27,283	32,116	33,928
Pork (dressed weight; 1,000 lb.)	7,902	7,878	7,859
Milk (million lb.)	143.7	146.0	139.8
Eggs (million)	209	209.7	220.5
Broilers and chickens (1,000 lb.) <u>4/</u>	5,659	8,102	7,706
Honey (1,000 lb.)	426	1,089	1,184
Value of livestock sales (\$1,000):			
Cattle <u>5/</u>	17,412	28,101	26,632
Hogs <u>5/</u>	6,142	8,088	7,995
Milk	20,549	29,288	28,310
Eggs	11,234	15,535	14,020
Broilers and chickens	2,638	5,189	4,895
Other <u>6/</u>	289	814	969

1/ Revised from Data Book 1985, table 538.

2/ As of January 1; includes beef, dairy, and dairy replacement farms.

3/ Includes slaughter cattle, but excludes calves shipped out-of-State.

4/ Ready-to-cook weight.

5/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

6/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 563.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS,
AND VALUE OF LIVESTOCK SALES, BY GEOGRAPHIC AREAS: 1985

Subject	Hawaii County	Mau County	Oahu	Kauai County
Number of livestock operations, Dec. 31:				
Cattle <u>1/</u>	400	205	80	165
Hogs	85	110	335	120
Milk	41	16	20	13
Eggs	24	7	20	4
Broilers	-	-	6	1
Honey	7	4	3	8
Volume of livestock marketings:				
Beef <u>2/</u> (dressed weight; 1,000 lb.)	21,824	8,447	1,539	2,118
Pork (dressed weight; 1,000 lb.)	700	1,803	4,667	689
Milk (million lb.)	(D)	(D)	107.0	(D)
Eggs (million)	(D)	(D)	186.4	(D)
Broilers and chickens <u>3/</u> (1,000 lb.)	-	-	(D)	(D)
Honey (1,000 lb.)	(D)	(D)	(D)	(D)
Value of livestock sales (\$1,000):				
Cattle <u>4/</u>	16,870	6,820	1,082	1,860
Hogs <u>4/</u>	760	1,935	4,542	758
Milk	(D)	(D)	21,710	(D)
Eggs	(D)	(D)	11,477	(D)
Broilers and chickens	-	-	(D)	(D)
Other <u>5/</u>	662	149	43	115

D Withheld to avoid disclosure of individual operations.

1/ As of January 1; includes beef, dairy, and dairy replacement farms.

2/ Includes slaughter cattle, but excludes calves shipped out-of-State.

3/ Ready-to-cook weight.

4/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

5/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1985, pp. 5, 7, and 10.

Table 564.-- FLOWERS AND NURSERY PRODUCTS, 1983 TO 1985, AND BY ISLANDS, 1985

Island and year	Number of farms	Area					Value of sales (\$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:							
1983	680	1,786	2,327	26,329	106	1,022	36,165
1984 1/	670	1,715	2,414	26,817	92	959	38,905
1985	670	1,761	2,836	29,643	91	924	44,247
Islands, 1985:							
Hawaii	305	966	1,439	19,087	82	413	19,605
Kauai	30	37	12	244	5	26	1,179
Mau i	85	296	307	1,286	-	259	5,273
Oahu	250	462	1,078	9,026	4	226	18,190

1/ Revised from Data Book 1985, table 540.

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (August 6, 1986).

Table 565.-- VALUE OF SALES, TOTAL AND OUT-OF-STATE, FOR FLOWERS AND NURSERY PRODUCTS: 1981 TO 1985

[\$1,000]

Subject	1981	1982	1983	1984	1985
Total sales	29,482	30,600	36,165	38,905	44,247
Anthuriums, cut	5,295	5,633	6,035	7,351	7,645
Out-of-State sales	15,976	17,909	22,000	21,610	24,284
Anthuriums, cut	6,237	6,370	7,005	7,050	7,581

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1985, pp. 23 and 31.

Table 566.-- FLOWERS AND NURSERY PRODUCTS, BY COMMODITY: 1985

[Shown for commodities with value of sales over \$500,000]

Commodity	Number of farms	Number sold		Value of sales (\$1,000)
		Unit	Number	
Selected cut flowers:				
Anthuriums	195	1,000 dozens	2,305	7,645
Roses	10	1,000 dozens	645	1,956
Chrysanthemums, pompon	14	1,000 bunches	455	833
Orchids:				
Cut: Dendrobium sprays	74	1,000 dozens	270	1,687
Potted: Dendrobiums	88	1,000 pots	201	1,061
Lei flowers:				
Carnations	19	Million blooms	31.0	1,149
Vanda, Miss Joaquim	31	Million blooms	24.0	1,015
Tuberose	8	Million blooms	36.0	1,149
Foliage:				
Potted, primarily for --				
Indoor or patio use	110	...	(NA)	12,019
Landscape use	45	...	(NA)	1,812
Unfinished stock (for further growing on)	29	...	(NA)	1,845
Potted flowering plants:				
Chrysanthemums	13	1,000 pots	240	779
Poinsettias	38		192	618
Ornamentals and trees	40	...	(NA)	603

NA Not available.

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (August 6, 1986).

Table 567.-- MARKET SUPPLY OF SPECIFIED FOODS: 1975, 1984, AND 1985

Commodity and year	Total market supply <u>1/</u>			Per capita market supply <u>2/</u>	Percent from Hawaii
	Total	Inship-ment	Hawaii		
Fresh market fruits:					
1975	63,518	43,251	20,267	67.3	31.9
1984 <u>3/</u>	89,648	64,318	25,330	78.7	28.3
1985	94,513	68,083	26,430	82.0	28.0
Fresh market melons:					
1975	9,025	6,615	2,410	9.6	26.7
1984	19,636	13,531	6,105	17.2	31.1
1985	21,964	13,164	8,800	19.1	40.1
Fresh market vegetables:					
1975	132,641	73,803	58,838	140.6	44.4
1984 <u>3/</u>	194,038	114,508	79,530	170.2	41.0
1985	201,122	121,602	79,520	174.6	39.5
Beef and veal: <u>4/</u>					
1975	86,229	59,229	27,000	91.4	31.3
1984 <u>3/</u>	104,388	72,272	32,116	91.6	30.8
1985	105,084	71,156	33,928	91.2	32.3
Pork: <u>4/</u>					
1975	29,456	21,554	7,905	31.2	26.8
1984	37,492	29,614	7,878	32.9	21.0
1985	37,927	30,068	7,859	32.9	20.7
Chickens:					
1975	24,901	19,242	5,659	26.4	22.7
1984	37,887	29,785	8,102	33.2	21.4
1985	39,011	31,305	7,706	33.9	19.8
Eggs:					
1975	18,897	1,497	17,400	20.0	92.1
1984 <u>3/</u>	22,285	4,810	17,475	19.6	78.4
1985	22,217	3,842	18,375	19.3	82.7

1/ Eggs in 1,000 dozens; other foods in 1,000 pounds.

2/ Eggs in dozens; other foods in pounds. Based on de facto population estimates in DPED Statistical Reports 173 and 190.

3/ Revised from Data Book 1985, table 543.

4/ Carcass weight equivalent.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 568.-- AGRICULTURAL, URBAN AND OTHER LAND USE, FOR THE SIX LARGEST ISLANDS: 1978-1980

[Estimated area in thousands of acres, as measured from 1:24,000-scale quadrangle maps. These data differ somewhat from the official statistics compiled from surveys of farmers and ranchers and published in Statistics of Hawaiian Agriculture (annual), cited elsewhere in this section. For greater detail, see Data Book 1984, table 584]

Land use	Six-island total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Total land area ..	4,034.70	2,573.40	465.80	90.50	165.80	385.30	353.90
Agriculture	1,442.20	960.17	216.39	16.92	86.23	77.55	84.94
Sugarcane	251.05	104.13	54.92	-	-	38.68	53.32
Pineapple	44.54	-	11.11	16.82	3.61	12.98	.02
Field crops	17.88	11.06	2.40	-	1.27	2.82	.33
Orchards	35.68	30.08	2.42	-	.08	1.51	1.59
Wetland crops .....	.67	.13	.15	-	.01	.07	.31
Aquaculture .....	.58	.12	.02	-	-	.35	.09
Livestock	1,091.80	814.65	145.37	.10	81.26	21.14	29.28
Feedlot	4.77	1.54	1.97	-	-	1.00	.26
Grazing	1,086.09	813.02	142.55	.10	81.26	20.14	29.02
Other ^{1/} .....	.94	.09	.85	-	-	-	-
Urban ^{2/}	163.61	36.22	18.91	4.61	4.11	87.43	12.33
Built-up	107.55	15.90	9.64	.33	1.29	71.60	8.79
Vacant	56.06	20.32	9.27	4.28	2.82	15.83	3.54
In agric. use ...	10.06	2.01	1.56	.31	.43	4.48	1.27
Balance ^{3/}	2,428.89	1,577.01	230.50	68.97	75.46	220.32	256.63

^{1/} Unidentified livestock, also including grazing.

^{2/} Includes Rural District lands.

^{3/} Includes Conservation District lands.

Source: Hawaii State Department of Agriculture, Annual Report, Fiscal Year 1983, p. 27.

Table 569.-- LAND EVALUATION RATING, FOR SIX MAJOR ISLANDS: 1985

[Thousand acres. The Land Evaluation and Site Assessment Commission land evaluation rating is a composite index, scaled from 0 to 100, based on measurements of soil productivity and the suitability of land for agricultural purposes. Data exclude Kahoolawe, Niihau, Lehua, Kaula, and the Northwestern Hawaiian Islands]

Land evaluation rating	Six-island total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Total area	4,042	2,579	466	90	166	386	355
90 to 100	66	-	17	3	7	39	-
80 to 89	137	17	39	11	16	33	20
70 to 79	189	95	20	2	6	27	40
60 to 69	212	125	36	(Z)	9	22	20
50 to 59	221	113	64	3	10	12	18
40 to 49	309	227	40	6	10	18	7
30 to 39	605	543	29	1	3	11	17
20 to 29	492	282	55	48	50	30	26
10 to 19	1,813	1,176	165	15	55	194	206
Under 10	-	-	-	-	-	-	-
CUMULATIVE							
90 or more	66	-	17	3	7	39	-
80 or more	203	17	56	14	23	72	20
70 or more	392	112	76	15	29	99	61
60 or more	604	237	112	16	38	121	80
50 or more	825	350	176	19	48	133	99
40 or more	1,134	577	216	25	58	151	106
30 or more	1,738	1,121	245	26	61	162	122
20 or more	2,230	1,402	300	75	112	192	149

Z Less than 500 acres.

Source: Land Evaluation and Site Assessment Commission, A Progress Report of the State of Hawaii Land Evaluation and Site Assessment System to the Thirteenth Legislature, State of Hawaii (March 1985), p. 29, and A Report on the State of Hawaii Land Evaluation and Site Assessment System (February 1986), Exhibit A.

Table 570. -- AGRICULTURAL CHEMICALS USED, INCLUDING FERTILIZER AND LIME:
1982 AND 1978

Chemicals used	1982	1978
Any chemicals, fertilizer, or lime used farms	3,532	3,568
Commercial fertilizer farms	3,158	3,172
acres on which used	228,984	284,452
\$1,000	33,477	26,530
Lime farms	525	525
acres on which used	9,547	12,488
tons	10,423	12,011
Other agricultural chemicals ^{1/} farms	3,084	3,277
\$1,000	16,417	13,700
Sprays, dusts, granules, fumigants, etc., to control --		
Insects on hay and other crops farms	1,702	1,204
acres on which used	45,671	28,787
Nematodes in crops farms	654	441
acres on which used	9,638	9,806
Diseases in crops and orchards farms	1,067	912
acres on which used	18,085	12,310
Weeds, grass, or brush in crops and pasture farms	2,385	2,325
acres on which used	213,551	269,801
Chemicals used for defoliation or for growth control of crops or thinning of fruit farms	165	160
acres on which used	50,455	57,280

^{1/} Data for 1978 include the cost of lime which was not collected in 1982.

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chap. 1, table 16.

Table 571.-- FERTILIZER CONSUMPTION BY TYPE: 1982 TO 1985

[In tons. For years ended June 30]

Year	Total	Mixtures <u>1/</u>	Direct application materials	
			Primary nutrient <u>2/</u>	Secondary and micro-nutrient
1982	156,439	100,797	54,627	1,015
1983	138,343	97,360	40,114	869
1984	128,348	83,544	44,108	696
1985	151,955	94,659	56,309	987

1/ Fertilizers having various combinations of primary nutrients.

2/ The primary nutrients are nitrogen, phosphate, and potash.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1985, p. 95.

Table 572.-- SALES OF AQUACULTURAL PRODUCTS, BY ISLANDS: 1982

Subject	State total	Oahu	Other islands
Number of farms	13	9	4
Water surface area (acres) ...	189	155	34
Sales (\$1,000)	884	755	129

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, AC82-A-11 (September 1984), Chapter 2, table 21.

Table 573.-- NUMBER OF AQUACULTURE INDUSTRY OPERATIONS,
BY COUNTIES: 1980 TO 1985

[As of December 31]

County	1980	1981	1982	1983	1984	1985
ALL AQUACULTURE INDUSTRY OPERATIONS						
State total	37	41	44	42	47	48
Hawaii	5	6	8	8	14	12
Maui	2	6	5	5	5	6
Honolulu	25	24	25	24	23	24
Kauai	5	5	6	5	5	6
PRAWN PRODUCERS						
State total	24	21	22	21	17	20
Hawaii	4	4	4	3	3	5
Maui	1	1	1	1	1	-
Honolulu	16	13	13	13	10	11
Kauai	3	3	4	4	3	4

Source: Hawaii State Department of Land and Natural Resources,
Aquaculture Development Program, October 20, 1986.

Table 574.-- AQUACULTURE ACREAGE, PRODUCTION, AND VALUE, BY TYPE AND COUNTIES: 1983 TO 1985

Subject and year	State total	Type		County			
		Fresh-water prawns	Other species <u>1/</u>	Hawaii	Maui	Hono-lulu	Kauai
Acreage: <u>2/</u>							
1983	496	239	257	34	40	378	44
1984	474	246	228	45	26	369	34
1985	465	219	246	54	43	333	35
Production: <u>3/</u>							
1983	344.9	268.5	76.4	22.9	15.7	274.8	31.5
1984	441.2	317.8	123.4	36.9	26.5	332.2	45.6
1985	582.9	283.3	299.6	33.4	29.5	485.4	34.6
Value: <u>4/</u>							
1983	1,604.8	1,347.3	257.5	90.8	46.6	1,302.9	164.5
1984	2,299.7	1,706.6	593.1	126.5	97.4	1,831.0	244.8
1985	2,780.5	1,550.6	1,229.9	196.5	134.9	2,255.2	193.9

1/ Juvenile freshwater prawns, marine shrimp, oysters, brine shrimp, carp and Chinese catfish, catfish, koi, tilapia, tropical fish and aquarium plants, trout, abalone, ogo and microalgae.

2/ As of December 31.

3/ In thousands of pounds. Excludes items not sold by weight: post-Tarvae, brine shrimp, koi, tropical fish, and aquarium plants.

4/ In thousands of dollars.

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, October 20, 1986.