

AGRICULTURE

This section presents statistics on agricultural land, farms, and specific crops, livestock, dairy products, and poultry. Related information appears in Section 6 (on land use), 11 and 15 (agricultural employment and earnings), 17 (energy used on farms), and 22 (food processing).

There were 4,100 farms in Hawaii as of 1977, with a total area of 2,300,000 acres. Both figures have declined during the past decade. The value of crop sales in 1977 was \$259 million, or 61 percent higher than the total for 1967. Livestock sales amounted to \$65 million, or 74 percent more than the 1967 level. Combined crop and livestock sales ranged from \$37 million in Kauai County to \$105 million on Oahu. Net farm income in 1976 was \$58.7 million, the lowest annual total since 1970. Major crops in 1977 were sugar (\$144 million in sales, up 36 percent over the decade), pineapple (\$62 million, or 62 percent over the 1967 total), and vegetables and melons (\$15 million, or 131 percent more than in 1967). Diversified agriculture, defined as all crops other than sugar and pineapple, rose from \$16 million in 1967 to \$53 million in 1977, or approximately 223 percent. About 550 farms sold \$14 million of flowers and nursery products in 1977, chiefly anthuriums, orchids, potted foliage, and ornamentals and trees. Important products of livestock farms as of 1977 included cattle (19 million in sales), hogs (\$7 million), milk (\$23 million), and eggs (12 million). Coffee sales have fluctuated sharply during the past decade, but macadamia nuts and horticultural specialties have increased rapidly. In 1977, Hawaii produced 43 percent of the fresh market vegetables consumed locally, 30 percent of the fresh market fruits, 35 percent of the beef veal, 22 percent of the chickens, none of the rice, butter, and oleomargarine, all of the milk, and 92 percent of the eggs.

Statistics on Hawaiian agriculture exclude *paka'ōlō* (marijuana) and other illicit plants. Some authorities have speculated that the income from such illegal production may exceed that from more traditional forms of diversified agriculture.

Important sources for data on agriculture include the *United States Census of Agriculture*, most recently conducted at the end of 1974, the annual report on *Statistics of Hawaiian Agriculture* issued by the Hawaii Agricultural Reporting Service, and publications of the Hawaii Agricultural Experiment Station, Hawaiian Sugar Planters' Association, and Pineapple Growers Association of Hawaii. National statistics appear in Section 24 of the *Statistical Abstract of the United States: 1977*.

Table 326.—AGRICULTURAL SUMMARY: 1950 TO 1974

Year	Number of farms, by size (in acres)					Farm acreage (thousands)			
	All farms	1 to 9	10 to 49	50 to 259	260 and over	Total acreage	In farms of 260 or more acres	Harvested cropland	Irrigated
1950	5,750	3,558	1,669	339	184	2,432	2,350	159.5	117.4
1959	6,242	3,569	1,988	432	253	2,461	2,364	176.4	141.2
1964	4,864	2,603	1,594	416	251	2,354	2,266	167.5	143.9
1969	3,896	2,024	1,281	389	202	2,058	1,982	178.7	145.6
1974	3,020	1,633	872	317	198	2,119	2,060	151.4	141.7
Year	Average age of farm operators (years)	Tenant farmers		Regular hired workers ¹	Average value of land and buildings		Market value of agricultural products sold		
		Percent of all operators	Percent of farm acreage		Per farm (\$1,000)	Per acre (dollars)	Total (\$1,000)	Average per farm (\$1,000)	Percent of farms over \$2,500
1950	47.8	57.5	1.7	21,597	34.0	80	164,554	28.6	(NA)
1959	49.5	38.7	1.6	14,403	(NA)	(NA)	152,334	24.4	(NA)
1964	51.0	41.1	2.6	12,375	98.9	205	187,505	38.5	46.4
1969	53.1	38.1	18.2	13,200	156.8	297	285,619	73.3	55.6
1974	55.4	36.6	18.2	11,497	340.6	485	609,788	201.9	69.3
Year	Livestock and poultry on farms (thousands)				Quantity of crops harvested				
	Cattle and calves	Hogs and pigs	Sheep and lambs	Chickens 3 mo. old and over ²	Sugar-cane (1,000 tons)	Pineapples (1,000 tons)	Rice (1,000 lb.)	Coffee (1,000 lb. ³)	Macadamia nuts (1,000 lb. ⁴)
1950	156	65	14	472	7,889	655	658	4,648	704
1959	205	78	12	806	9,391	1,010	287	10,005	2,015
1964	218	68	12	1,045	10,741	924	—	9,679	7,015
1969	233	52	(D)	1,072	11,258	946	—	2,755	10,323
1974	227	51	12	1,305	8,986	693	—	1,819	17,087

D Data withheld to avoid disclosure of information for individual farms.

NA Not available.

¹ Working 150 days or more. Data for 1964, 1969, and 1974 exclude farms with sales less than \$2,500 (which accounted for 152 hired workers in 1964).

² Chickens 4 months old and over before 1969.

³ Parchment.

⁴ Husked, unshelled.

Source: U.S. Bureau of the Census, *U.S. Census of Agriculture: 1959*, Vol. I, Part 50; *U.S. Census of Agriculture: 1964*, Vol. I, Part 50; *U.S. Census of Agriculture: 1969*, Vol. I, Part 50; *U.S. Census of Agriculture: 1974*, Vol. I, Part 11.

Table 327.—AGRICULTURAL SUMMARY, BY COUNTIES: 1974

County	Number of farms, by size (in acres)					Farm acreage (thousands)			
	All farms	1 to 9	10 to 49	50 to 259	260 and over	Total acreage	Total cropland	Harvested cropland	Irrigated
State total	3,020	1,633	872	317	198	2,119	351.6	151.4	141.7
Hawaii	1,641	801	546	182	112	1,315	143.2	56.5	9.7
Honolulu	697	513	122	36	26	136	51.2	23.9	34.8
Kauai	248	113	81	34	20	270	49.8	24.2	38.3
Maui	434	206	123	65	40	398	107.4	46.9	59.0
County	Average size of farm (acres)	Average age of farm operators (years)	Tenant operators: percent of total	Regular hired workers ¹	Average value of land and buildings		Market value of agricultural products sold		
					Per farm (\$1,000)	Per acre (dollars)	Total (\$1,000)	Average per farm (\$1,000)	Percent of farms over \$2,500
State total	702	55.4	36.6	11,497	340.6	485	609,788	201.9	69.3
Hawaii	801	55.6	36.4	3,662	330.3	412	214,316	130.9	67.9
Honolulu	195	55.4	41.3	2,507	272.4	1,398	135,134	193.9	76.8
Kauai	1,089	54.9	38.3	1,980	397.4	365	102,298	412.5	66.1
Maui	917	55.2	28.8	3,348	456.3	497	157,539	363.0	64.3
County	Livestock and poultry on farms (thousands)			Market value of machinery and equipment (\$1,000)	Quantity of crops harvested				
	Cattle and calves	Hogs and pigs	Chickens 3 mo. old and over		Coffee, parchment (1,000 lb.)	Macadamia (1,000 lb.)	Papayas (1,000 lb.)	Pineapples (1,000 tons)	Sugarcane (1,000 tons)
State total	227.5	51.0	1,305	97,279	1,819	17,087	37,184	693	8,986
Hawaii	137.0	7.7	195	26,675	1,813	16,922	33,579	} 165	{ 3,484
Honolulu	29.3	32.4	1,014	20,802	} 6	(D)	1,594		
Kauai	18.4	1.8	} 97	15,969		{ 77	1,229		
Maui	42.7	9.2		33,833			{ (D)		

D Data withheld to avoid disclosure information for individual farms.

¹Working 150 days or more on farms with sales of \$2,500 and over.

Source: U.S. Bureau of the Census, *U.S. Census of Agriculture, 1974*, Vol. 1, Part 11.

**Table 328.—NUMBER OF FARMS, FARM ACREAGE, AND VALUE OF CROP AND LIVESTOCK SALES:
1967 TO 1977**

Year and county	Number of farms	Area in farms ¹ (1,000 acres)	Value of sales (\$1,000) ²				
			Crops and livestock	Sugar (un-processed cane)	Pineapples (fresh equivalent)	Other crops	Livestock
1967	4,800	2,360	198,293	106,000	38,500	16,334	37,459
1968	4,700	2,330	203,051	111,200	35,900	18,066	37,885
1969	4,600	2,310	199,101	104,900	35,500	19,214	39,487
1970	4,500	2,300	213,689	110,600	39,500	21,941	41,648
1971	4,400	2,300	221,692	115,800	40,300	22,539	43,053
1972	4,300	2,300	232,497	117,300	43,900	25,055	46,242
1973	4,100	2,300	266,161	141,900	39,600	29,392	55,269
1974	4,100	2,300	575,473	442,300	40,300	34,964	57,909
1975	4,100	2,300	377,552	237,000	41,600	40,688	58,264
1976	4,100	2,300	327,830	164,700	53,000	47,815	62,315
1977	4,100	2,300	324,466	144,200	62,500	52,758	65,008
COUNTIES: 1967							
Hawaii	2,650	1,378	58,002	39,200	—	8,878	9,924
Maui	730	540	55,836	24,900	23,900	2,464	4,572
Honolulu	980	156	57,257	19,000	13,300	4,091	20,866
Kauai	440	286	27,198	22,900	1,300	901	2,097
COUNTIES: 1977							
Hawaii	2,450	1,340	97,944	51,900	—	27,939	18,105
Maui	500	526	83,988	37,100	30,700	9,080	7,108
Honolulu	850	152	105,182	23,000	31,800	12,828	37,554
Kauai	300	282	37,352	32,200	—	2,911	2,241

¹ Includes land not in crop and pasture, such as farm house lots, roads, etc.

² Excludes illegal crops, which are thought by some authorities to have sales greater than those of all legal crops. Shipments of *pakaʻiʻi* (marijuana) from Hawaii County alone have been estimated at 250,000 pounds annually, with annual sales from these shipments running \$250 million and \$750 million; see *Honolulu Advertiser*, August 15, 1978, p. A-4.

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

Table 329.—ACREAGE IN CROPS AND PASTURE, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES, BY COUNTY: 1967 AND 1977

Subject	State total		Counties, 1977			
	1967	1977	Hawaii	Kauai	Maui	Honolulu
Acreage (1,000 acres):						
Sugarcane	239.8	220.7	93.1	45.9	47.5	34.2
Pineapples (land used for pineapple)	64.0	47.0	—	—	32.4	14.6
Vegetables and melons	3.4	3.8	1.0	0.1	1.2	1.3
Fruits (excluding pineapples)	3.5	5.1	3.4	0.4	0.6	0.7
Coffee	4.6	2.4	2.4	—	—	—
Macadamia nuts	8.0	9.9	9.8	(D)	(D)	(D)
Miscellaneous crops	1.6	8.4	2.6	0.5	1.6	3.7
Number of crop farms:						
Sugar	785	520	509	5	3	3
Pineapples	63	16	—	—	14	2
Vegetables and melons	630	504	161	45	72	226
Fruits (excluding pineapples)	532	673	406	73	42	152
Coffee	830	780	780	—	—	—
Macadamia nuts	240	456	451	3	1	1
Taro	148	129	48	48	31	2
Flower and nursery	510	550	280	20	70	180
Volume of crop marketings:						
Sugar (unprocessed cane; 1,000 tons)	11,046	8,994	3,649	1,877	2,097	1,371
Pineapples (fresh equivalent; 1,000 tons)	1,010	690	—	—	424	266
Vegetables and melons (1,000 lb.)	55,440	67,980	24,340	1,900	25,660	16,080
Fruits (excluding pineapples; 1,000 lb.)	38,692	76,842	46,653	7,112	15,461	7,601
Coffee (parchment; 1,000 lb.)	5,440	2,250	2,250	—	—	—
Macadamia nuts (in shell; 1,000 lb.)	7,972	19,180	19,100	(D)	(D)	(D)
Taro (1,000 lb.)	8,155	7,870	1,665	4,820	1,385	
Value of crop sales (\$1,000):						
Sugar (unprocessed cane)	106,000	144,200	51,900	32,200	37,100	23,000
Pineapples (fresh equivalent)	38,500	62,500	—	—	30,700	31,800
Vegetables and melons	6,421	14,860	4,773	554	4,814	4,719
Fruits (excluding pineapples)	2,762	9,368	5,781	1,046	1,260	1,281
Coffee (parchment)	1,474	2,858	2,858	—	—	—
Macadamia nuts (in shell)	1,961	7,481	7,449	(D)	(D)	(D)
Taro	579	999	245	588	166	
Field crops (not estimated separately)	314	3,055	333	517	1,134	1,071
Horticultural specialities	2,700	14,007	6,396	167	1,696	5,748
Forest products	123	130	104	7	10	9

D Withheld to avoid disclosure of individual operations.

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

Table 330.—VEGETABLES, MELONS, FRUITS, COFFEE, NUTS, AND TARO: 1977

Crop ¹	Acreage harvested ²	Yield per acre (1,000 lb.)	Production (1,000 lb.)	Farm price (cents per lb.)	Value of sales (\$1,000)
Vegetables and melons:					
Snap beans	160	7.5	1,200	52.5	630
Chinese cabbage	265	26.8	7,090	12.3	872
Head cabbage	440	29.5	13,000	11.2	1,456
Celery	42	56.2	2,360	17.0	401
Cucumbers	260	16.5	4,300	23.4	1,006
Daikon	155	21.6	3,350	12.2	409
Eggplant	55	25.9	1,425	32.9	469
Ginger root	33	25.9	855	65.8	563
Lettuce (head, semi-head)	530	18.5	9,800	19.1	1,872
Dry onions	80	23.1	1,850	35.6	659
Green onions	90	9.3	835	60.7	507
Tomatoes	240	25.0	6,000	30.8	1,848
Watermelons	210	9.9	2,075	19.6	407
Fruits:					
Bananas	550	10.5	5,800	15.6	905
Papayas	2,155	29.5	63,548	11.9	7,565
Macadamia nuts	6,300	3.0	19,180	39.0	7,481
Coffee (1977-1978)	2.0	1.1	2,250	127.0	2,858
Taro	470	...	7,870	127	999

¹ Data shown for crops with sales in excess of \$400,000.

² Acreage bearing for macadamia nuts; acreage in crop for taro.

Source: Hawaii Agricultural Reporting Service, *Statistics of Hawaiian Agriculture, 1977*.

**Table 331.—NUMBER OF LIVESTOCK FARMS, VOLUME OF LIVESTOCK MARKETINGS,
AND VALUE OF LIVESTOCK SALES, BY COUNTY: 1967 AND 1977**

Subject	State total		Counties, 1977			
	1967	1977	Hawaii	Kauai	Maui	Honolulu
Number of livestock farms:						
Cattle (incl. beef and dairy)	1,400	900	385	150	255	110
Hogs	790	640	85	100	120	335
Milk	170	80	30	5	20	25
Eggs	450	70	28	7	9	26
Broilers	36	10	(D)	(D)	(D)	(D)
Honey	37	23	4	4	5	10
Volume of livestock marketings:						
Beef (1,000 lb. dressed weight)	31,277	32,325	20,071	2,925	7,596	7,733
Pork (1,000 lb. dressed weight)	8,263	8,750	1,222	400	1,685	5,443
Milk (million lb.)	142.5	147.5	(D)	(D)	(D)	120.3
Eggs (million)	195	218	14.1	14.3		189.6
Broilers and chickens (1,000 lb. ¹)	5,066	6,158	(D)	(D)	(D)	5,765
Honey (1,000 lb.)	246	679	(D)	(D)	(D)	(D)
Value of livestock sales (\$1,000):						
Cattle ²	11,850	18,837	11,485	1,848	4,664	840
Hogs ²	3,680	7,105	888	380	1,483	4,354
Milk	12,804	23,158	(D)	(D)	(D)	18,827
Eggs	7,101	12,408	893	929		10,586
Broilers and chickens	1,927	3,125	(D)	(D)	(D)	2,933
Others	97	375	316	13	32	14

D Withheld to avoid disclosure of individual operations.

¹ Ready-to-cook weight.

² Excludes interfarm sales.

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

Table 332.—FLOWERS AND NURSERY PRODUCTS, BY ISLAND; 1977

Island and year	Number of farms	Area				Whole-sale value (\$1,000)	Out-of-State shipments (\$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:								
1975	502	1,005	682	8,280	156	643	9,767	5,392
1976	500	1,137	830	10,155	172	713	11,828	6,450
1977	550	1,267	948	11,700	242	734	14,004	7,152
Islands, 1977:								
Hawaii	280	763	550	8,500	210	345	6,396	(NA)
Kauai	20	37	18	35	2	34	167	(NA)
Mauai	70	96	105	150	5	85	1,696	(NA)
Oahu	180	371	275	3,015	25	270	5,748	(NA)

NA Not available.

Source: Hawaii Agricultural Reporting Service, "1977 Record Year for Flowers and Nursery Products," *Hawaii Flowers & Nursery Products, Annual Summary* (May 25, 1978).

Table 333—FLOWERS AND NURSERY PRODUCTS, BY KIND OF FLOWERS: 1977

Kind of flower	Number of farms	Number of flowers sold		Wholesale value (\$1,000)
		Unit	Number	
Cut flowers:				
Anthuriums	165	1,000 dozens	1,549	3,372
Birds of paradise	16	Do.	35	49
Carnations	5	Do.	28	42
Chrysanthemums, pompon	14	1,000 bunches	291	233
Chrysanthemums, other	5	1,000 dozens	12	49
Gingers	20	...	(NA)	69
Proteas, sunburst cordifolium	8	1,000 stems	163	82
Proteas, other	8	Do.	29	14
Roses	4	1,000 dozens	402	572
Others	28	...	(NA)	196
Cut orchids:				
Cattleyas	21	1,000 flowers	41	34
Cymbidiums	20	Do.	753	249
Dendrobiums, sprays	31	1,000 dozens	31	125
Others	47	...	(NA)	92
Lei flowers:				
Carnations	17	Million flowers	34.6	900
Vanda Miss Joaquim	28	Do.	35.4	501
Plumerias	15	Do.	28.6	395
Tuberose	4	Do.	16.1	280
Pikake	8	1,000 strands	100	97
Cut foliage:				
Ti leaves	31	Million leaves	13.0	230
Other greens	28	Do.	20.8	182
Potted plants:				
Chrysanthemums	10	1,000 pots	177	433
Orchids	75	Do.	256	800
Potted foliage	46	...	(NA)	2,450
Other potted plants	75	...	(NA)	515
Ornamentals and trees	97	...	(NA)	997
Other nursery products	25	...	(NA)	1,049

NA Not available

Source: Hawaii Agricultural Reporting Service, "1977 Record Year for Flowers and Nursery Products," *Hawaii Flowers & Nursery Products, Annual Summary* (May 25, 1978).

Table 334.—MARKET SUPPLY OF SPECIFIED FOODS: 1967 TO 1977

Commodity and year	Total market supply ¹			Per capita market supply ²	Percent from Hawaii
	Total	Inshipments	Hawaii		
Fresh market vegetables:					
1967	109,653	60,313	49,340	148	45.0
1976	145,178	85,173	60,005	152	41.3
1977	150,057	86,016	64,041	154	42.7
Fresh market melons:					
1967	7,350	5,715	1,635	10	22.2
1976	10,751	9,221	1,530	11	14.2
1977	10,861	8,786	2,075	11	19.1
Fresh market fruits:					
1967	49,193	26,138	23,055	66	46.9
1976	69,533	49,779	19,754	73	28.4
1977	69,060	48,404	20,656	71	29.9
Eggs:					
1967	17,233	984	16,249	23	94.3
1976	19,596	1,396	18,200	21	92.9
1977	19,706	1,506	18,200	20	92.4
Beef and veal:					
1967	61,891	30,614	31,277	83	50.5
1976	92,573	60,253	32,320	97	34.9
1977	93,142	60,817	32,325	96	34.7
Pork:					
1967	22,931	14,668	8,263	31	36.0
1976	31,072	23,300	7,772	33	25.0
1977	31,972	23,222	8,750	33	27.4
Chickens:					
1967	17,259	12,193	5,066	23	29.4
1976	27,137	21,016	6,121	28	22.6
1977	28,021	21,863	6,158	29	22.0

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 (see table 3).

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

Table 335.—INCOME FROM FARMING: 1960 TO 1976
[In millions of dollars.]

Year	Realized gross farm income					Farm production expenses	Realized net farm income ²	Net change in farm inventories	Total net farm income ¹
	Cash receipts from farm marketings	Government payments	Non-money income	Other farm income	Total ¹				
1960	149.9	9.2	5.1	2.5	166.7	128.6	38.1	8.4	46.5
1961	160.3	9.0	5.3	2.5	177.2	129.5	47.7	.4	48.1
1962	170.4	10.1	5.2	2.7	188.3	133.4	55.0	1.0	55.9
1963	192.8	10.4	5.5	3.0	211.6	138.6	73.1	.4	73.5
1964	176.4	12.1	5.7	3.2	197.3	143.5	53.8	1.2	55.0
1965	183.4	11.1	6.0	3.7	204.2	147.5	56.7	1.5	58.2
1966	194.4	11.1	5.7	4.1	215.3	153.8	61.5	.5	62.0
1967	192.2	8.6	6.0	4.8	211.5	166.0	45.5	.8	46.2
1968	200.7	11.3	6.1	5.3	223.3	166.7	56.6	-.6	56.0
1969	197.3	11.0	6.3	5.7	220.3	175.2	45.1	1.0	46.1
1970	210.9	11.1	6.1	5.5	233.7	184.8	48.8	.8	49.6
1971	220.6	10.4	6.4	6.6	244.0	181.5	62.5	-.8	61.7
1972	232.4	11.1	6.6	6.7	256.9	185.6	71.3	-.9	70.4
1973	268.4	9.3	9.0	8.3	295.1	224.5	70.5	-.4	70.2
1974	575.1	8.3	10.3	10.2	603.9	258.5	345.3	2.7	348.1
1975	377.5	8.6	12.5	12.9	411.5	269.2	142.3	-1.7	140.6
1976	323.3	.4	13.8	14.3	351.8	292.0	59.8	-1.1	58.7

¹ Details may not add to totals due to rounding.

² Of farm operations.

Source: Hawaii Agricultural Reporting Service, "1976 Net Income of Hawaii Farmers Down Sharply," *Hawaii Farm Income* (October 19, 1977).

Table 336.—LAND USE PRODUCTIVITY RATINGS FOR MAJOR ISLANDS: 1968

[In acres]

Island and land use	Agricultural productivity rating						
	Total ¹	A (very good)	B (good)	C (moderate)	D (poor)	E (very poor)	Not rated for productivity ¹
Six islands	4,050,176	68,037	128,833	312,558	783,817	2,668,515	88,416
Island:							
Kauai	354,112	10,038	30,276	28,458	30,525	249,276	5,539
Oahu	388,928	24,584	32,286	21,986	19,728	228,218	62,126
Molokai	167,104	702	—	4,519	40,405	120,309	1,169
Lanai	89,280	—	—	4,849	20,219	63,777	435
Maui	466,432	32,713	20,067	38,467	99,806	268,726	6,653
Hawaii	2,584,320	—	46,204	214,279	573,134	1,738,209	12,494
Land use:							
Pineapple	69,276	—	16,204	22,131	29,038	1,903	—
Sugarcane	262,377	65,776	71,354	82,760	40,230	2,257	—
Diversified agriculture	33,569	2,261	6,497	14,218	6,205	4,388	—
Grassland grazing	492,905	—	22,905	116,641	175,186	178,173	—
Wooded grazing	657,629	—	4,313	37,776	175,767	439,773	—
Idle agricultural land	13,585	—	994	3,139	4,545	4,907	—
Forest	289,039	—	1,729	7,864	58,877	220,569	—
Forest reserve	1,190,954	—	1,603	14,596	237,389	937,366	—
Recreation	17,248	—	798	657	4,630	11,163	—
Game management	87,585	—	—	2,302	17,565	67,718	—
National park	229,423	—	—	5,191	26,554	197,678	—
Military	38,048	—	1,637	3,280	3,624	29,507	—
Undeveloped subdivision	76,814	—	799	2,003	4,198	69,814	—
Pali and barren land	503,308	—	—	—	9	503,299	—
Quarry	1,462	—	—	—	—	—	1,462
Water	8,063	—	—	—	—	—	8,063
Urban: military	17,658	—	—	—	—	—	17,658
Urban: civilian	61,233	—	—	—	—	—	61,233

¹ Quarry, water, or urban.

Source: Arthur Y. Ching and Tamotsu Sahara, *Land Use and Productivity Rating, State of Hawaii, 1968*, L.S.B. Circular No. 15 (University of Hawaii, Land Study Bureau, July 1969), pp. 20-21.

Table 337.—FERTILIZER CONSUMPTION: 1960 TO 1977
 [In tons. Years ended June 30.]

Year	Total	Mixtures	Direct application materials	
			Primary nutrients	Secondary and micro-nutrients
1960	127,255	57,906	66,167	3,182
1961	156,627	76,780	79,346	501
1962	158,274	83,107	73,488	1,679
1963	145,423	83,774	59,422	2,227
1964	158,843	89,235	66,476	3,132
1965	158,833	85,878	69,851	3,104
1966	162,798	92,232	69,163	1,403
1967	165,750	86,060	75,726	3,964
1968	168,988	92,360	73,559	3,069
1969	171,778	91,321	76,936	3,521
1970	189,262	97,713	88,794	2,755
1971	199,858	103,581	94,078	2,199
1972	202,725	98,624	100,878	3,223
1973	171,199	105,722	62,983	2,494
1974	165,720	104,413	58,155	3,152
1975	180,704	106,713	70,984	3,007
1976	176,735	114,116	56,952	5,667
1977	191,022	118,821	65,718	6,483

Source: Hawaii Agricultural Reporting Service, "Hawaii Fertilizer Consumption Up 8 Percent," *Hawaii Fertilizer Use* (November 21, 1977).