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## Section 5

# AGRICULTURE & AQUACULTURE

This section includes statistics on agriculture and aquaculture. The number of and statistics about farms are presented along with the value and distribution of farm and other land based herbaculture production. Fish catches and other aquaculture statistics are given.

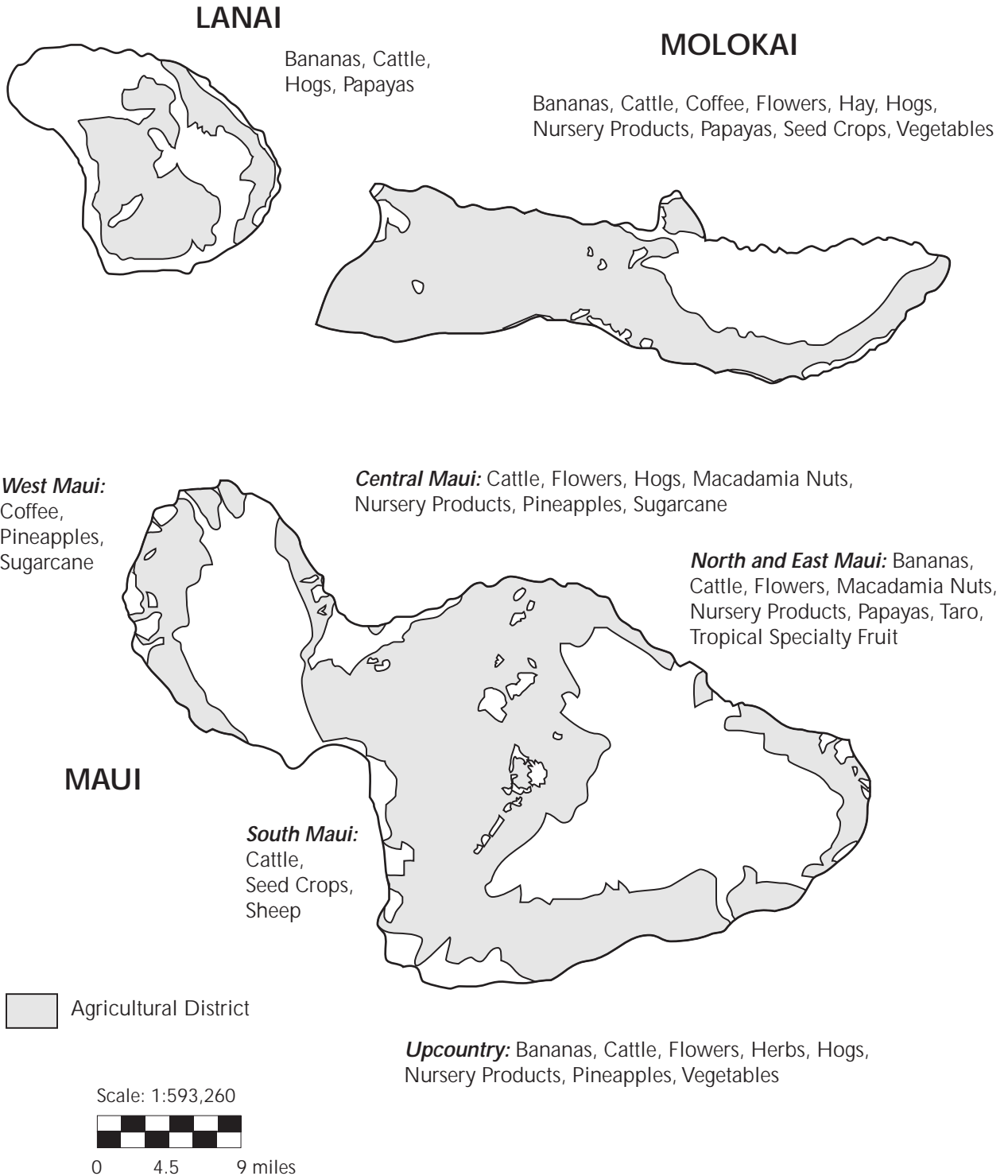
Agriculture remains an important element in Maui County's economy and land use patterns. Sugar and pineapple remain the largest crops, though the trend toward diversification of agriculture continues.

The value of commercially caught fish has been generally declining since 1986 and this trend continued through 1993, although there has been a rise since 1994. Commercial aquaculture continues to grow in importance.

The data in this section comes mainly from the U.S. Bureau of Census, the Hawaii Agriculture Statistics Service, specific crop producers, and the Hawaii State Department of Land and Natural Resources.

5.1.1

**AGRICULTURAL AREAS,  
MAUI COUNTY**



Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture*, 1997.

5.1.2

**TENURE AND CHARACTERISTICS OF FARM OPERATORS AND TYPES OF FARM ORGANIZATION, MAUI COUNTY**

	1987	1992	1997
<b>Farms</b>	<b>722</b>	<b>850</b>	<b>806</b>
<b>Land In Farms (acres)</b>	<b>359,310</b>	<b>355,786</b>	<b>292,090</b>
<b>Tenure of Operator</b>			
Full Owners			
Farms	397	503	460
Acres	89,698	118,137	81,616
Part Owners			
Farms	155	159	137
Acres	234,912	225,867	188,649
Owned land in farms (acres)	D	141,136	140,909
Rented land in farms (acres)	D	84,731	47,740
Tenants			
Farms	170	188	209
Acres	34,700	11,782	21,825
<b>Operator Characteristics</b>			
Place of Residence			
On farm operated	480	577	536
Not on farm operated	218	219	215
Not reported	44	54	55
Principal Occupation			
Farming	398	456	372
Other	324	394	434
Days of Work Off Farm			
None	264	298	290
Any	408	482	455
1 to 49 days	55	55	59
50 to 99 days	38	31	33
100 to 149 days	52	62	40
150 to 199 days	37	71	46
200 days or more	226	263	277
Not reported	50	70	61
Years on Present Farm			
2 years or less	80	44	42
3 or 4 years	77	136	47
5 to 9 years	151	171	171
10 years or more	296	360	406
Average years on present farm	12.7	13.1	14.3
Not reported	118	139	140

## 5.1.2

CONTINUED

	1987	1992	1997
<b>Operator Characteristics (cont.)</b>			
Age Group			
Under 25 years	2	2	7
25 to 34 years	75	44	24
35 to 44 years	199	259	182
45 to 54 years	119	221	270
55 to 59 years	63	50	107
60 to 64 years	95	62	59
65 to 69 years	74	74	45
70 years and over	95	138	112
Average age	52.0	52.6	53.0
Male			
Farms	626	737	681
Acres	346,566	318,121	275,346
Female			
Farms	96	113	125
Acres	12,744	37,665	16,744
<b>Type of Organization</b>			
Individual or Family (sole proprietorship)			
Farms	593	710	679
Acres	47,363	53,463	31,942
Partnership			
Farms	59	52	44
Acres	21,535	D	34,620
Corporation (family held)			
Farms	44	46	56
Acres	D	90,740	101,236
Corporation (other than family held)			
Farms	12	26	13
Acres	D	192,428	123,312
Other (cooperative, estate or trust, institutional, etc.)			
Farms	14	16	14
Acres	10,161	D	980

D: Withheld to avoid disclosing data for individual farms.

SOURCES: U.S. Bureau of the Census, *1987 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data*, AC87-A-11 (August 1989), chapter 2, table 10; *1992 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data*, AC92-A-11 (1994), chapter 2, table 11, p. 161-162; U.S. Department of Agriculture, National Agricultural Statistics Service, *1997 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data*, (1998), chapter 2, table 11, p. 163-164.

## 5.1.3

## FARMS AND LAND IN FARMS, MAUI COUNTY

	1987	1992	1997
<b>Farms</b>	<b>722</b>	<b>850</b>	<b>806</b>
<b>Land in Farms</b>	<b>359,310</b>	<b>355,786</b>	<b>292,090</b>
Average size of farm (acres)	498	419	362
Median size of farm (acres)	NA	NA	6
<b>Estimated Market Value of Land and Buildings<sup>1</sup></b>			
Average per farm	873,008	1,118,184	818,342
Average per acre	1,754	2,671	2,258
<b>Estimated Market Value of All Machinery and Equipment<sup>1</sup></b>			
Average per farm	81,608	117,143	88,989
<b>Farms by Size</b>			
1 to 9 acres	365	505	468
10 to 49 acres	223	232	233
50 to 179 acres	79	60	48
180 to 499 acres	25	24	29
500 to 999 acres	5	3	5
1,000 acres or more	25	26	23
<b>Total Cropland</b>			
Farms	573	733	684
Acres	89,439	D	D
<b>Harvested Cropland</b>			
Farms	496	666	605
Acres	42,952	39,031	32,243
<b>Irrigated Land</b>			
Farms	410	541	480
Acres	67,198	61,549	35,031
<b>Market Value of Agricultural Products Sold (\$1,000)</b>	<b>153,313</b>	<b>164,767</b>	<b>128,385</b>
Crops, including nursery and greenhouse crops	140,722	153,285	116,084
Livestock, poultry, and their products	12,591	11,483	12,301
<b>Average Market Value of Agricultural Products Sold per Farm (\$)</b>	<b>212,345</b>	<b>193,844</b>	<b>159,287</b>

<sup>1</sup> Data are based on a sample of farms.

D: Withheld to avoid disclosing data for individual farms.

NA: Not available.

SOURCES: U.S. Bureau of the Census, *1987 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data*, AC87-A-11 (August 1989), chapter 2, table 1, p. 130; *1992 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data*, AC92-A-11 (1994), chapter 2, table 1, p. 148; U.S. Department of Agriculture, National Agricultural Statistics Service, *1997 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data*, (1998), chapter 2, table 1, p. 150.

### 5.1.4

## NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT, MAUI COUNTY

	1992	1993	1994	1995	1996	1997
Number of Farms <sup>1</sup>	700	850r	850r	800r	800r	800
Farm Acreage (1,000) <sup>2</sup>	355	350r	320r	295r	290r	290
Farm Employment <sup>3</sup>						
Self-employed farm operators	400	300	250	300	300	300
Unpaid workers <sup>4</sup>	150	100	100	100	150	100
Hired workers	2,300	2,050	2,000	1,850	1,850	1,850

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

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

<sup>3</sup> Average of quarterly data.

<sup>4</sup> Includes family members and others working 15 or more hours per week.

r: Revised.

SOURCE: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture (1997)*, *Statistics of Hawaiian Agriculture (1992-1996)*.

### 5.1.5

## MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD, HAWAII AND MAUI COUNTY

Subject and Year	State Total	Maui County
<b>Total Sales (\$1,000)</b>		
1978	419,251	103,564
1982	558,608	137,196
1987	609,740	153,313
1992	552,054	164,767
1997	496,935	128,325
<b>Sales Per Farm (\$)</b>		
1978	97,274	166,502
1982	121,569	204,771
1987	125,203	212,345
1992	103,458	193,844
1997	90,798	159,287

SOURCES: 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; *1987 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC87-A-11* (August 1989), chapter 2, table 2; *1992 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC92-A-11* (1994), chapter 2, table 2; U.S. Department of Agriculture, National Agricultural Statistics Service, *1997 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, (1998)*, chapter 2, table 2.

### 5.1.6

## VALUE OF CROP AND LIVESTOCK SALES, HAWAII AND MAUI COUNTY

*In thousands of dollars*

	All Crops and Livestock	All Crops	Sugar (unprocessed cane)	Pineapple (fresh equivalent)	Other Crops	Livestock
<b>State Total</b>						
1993	506,475	421,593	163,000	79,850	178,423	84,882
1994	503,780	427,150	160,100	78,890	187,840	76,630
1995	492,683r	421,089r	127,700	87,360	206,029r	71,594r
1996	494,565r	428,671r	108,100	95,914	224,657r	65,894r
1997	485,743	418,016	85,500	91,721	240,795	67,727
<b>Maui County</b>						
1993	131,935	118,934	62,700	24,890	27,962	13,001
1994	127,189	116,447	58,500	25,150	28,035	10,742
1995	124,657r	114,064r	59,400	24,775	29,889r	10,593r
1996	126,587r	116,444r	57,200	27,144	32,100r	10,143r
1997	127,608	116,453	53,900	28,295	34,258	11,155

r: Revised.

SOURCE: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997), pp. 12-14.

### 5.1.7

## ACREAGE IN CROP AND NUMBER OF CROP FARMS, MAUI COUNTY

	1993	1994	1995	1996	1997
<b>Acreage in Crop (1,000 acres)</b>					
Sugarcane	42.1	41.9	42.6	42.3	43.1
Pineapples (land used for pineapple)	10.9	10.8	9.5	9.3	9.1
Vegetables and melons (harvested acreage) <sup>1</sup>	2.6	2.6	2.0	1.5	1.4
Fruits (excluding pineapples)	0.2	0.3	0.2	0.2	0.3
Coffee	D	D	D	D	D
Macadamia nuts	D	D	D	D	D
All other crops <sup>2</sup>	1.9	2.1	2.2	1.4	1.2
<b>Number of Crop Farms</b>					
Sugar	2	2	2	2	2
Pineapples <sup>3</sup>	5	4	3	6	4
Vegetables and melons	78	85	95	105	105
Fruits (excluding pineapples)	52	61	74	85	86
Coffee	D	D	D	D	D
Macadamia nuts	9	11	D	D	D
Taro	23	21	20	22	15
Flowers and nursery products	102	102	106	111	106

<sup>1</sup> Includes ginger root.

<sup>2</sup> Includes taro, seed corn, feed and forage crops (excluding pineapple feed products), and flowers, foliage and nursery products.

<sup>3</sup> Includes specialty pineapple.

D: Withheld to avoid disclosure of individual operations.

SOURCE: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997), pp. 7 and 8.

### 5.1.8

## VALUE OF CROP SALES AND VOLUME OF CROP MARKETINGS, MAUI COUNTY

	1993	1994	1995	1996	1997
<b>Value of Crop Sales (\$1,000)</b>					
Sugar (unprocessed cane)	62,700	58,500	59,400	57,200	53,900
Pineapples (fresh equivalent)	24,890	25,150	24,775	27,144	28,295
Vegetables, ginger root, herbs & melons	14,371	15,112	13,760	11,652	11,692
Fruits (excluding pineapples)	779	984	1,031	858	1,136
Coffee (parchment)	D	D	D	D	D
Macadamia nuts, in shell	D	D	D	D	D
Taro	D	D	D	D	D
Seed and forage crops	D	D	D	D	D
Flowers and nursery products <sup>1</sup>	9,136	7,912	7,796	7,515	8,320
Total Crops <sup>2</sup>	118,934	116,447	114,064	116,444	116,453
<b>Volume of Crop Marketings</b>					
Sugar, unprocessed cane (1,000 tons)	1,900	1,729	1,678	1,702	1,784
Pineapples, fresh equivalent (1,000 tons)	201	199	188	195	188
Veg., ginger, herbs & melons (1,000 lb)	42,660	42,935	36,110	26,570	26,590
Fruits, excluding pineapples (1,000 lb)	1,360	1,860	1,880	1,690	1,990
Coffee, parchment (1,000 lb)	D	D	D	D	D
Macadamia nuts, in shell (1,000 lb)	D	D	D	D	D
Taro (1,000 lb)	D	D	D	D	D

<sup>1</sup> Flowers, foliage, and nursery products.

<sup>2</sup> Total crop values shown are actual. Sum of individual commodities may not add to total. Forage crops' and Forest product's value combined and included in total crop value.

D: Withheld to avoid disclosure of individual operations.

SOURCE: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997), pp. 10, 12, 13.

### 5.1.9

## PINEAPPLE: NUMBER OF FARMS, ACREAGE IN CROP, VOLUME OF CROP MARKETINGS, VALUE OF CROP SALES, MAUI COUNTY

	1993	1994	1995	1996	1997
Number of farms	5	4	3	6	4
Acreage of farms (1,000 acres)	10.9	10.8	9.5	9.3	9.1
Volume of marketings (fresh equivalent, 1,000 tons)	201	199	188	195	188
Value of sales (\$1,000)	24,890	25,150	24,775	27,144	28,295

NOTE: Includes specialty pineapple.

SOURCE: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997), pp. 7, 8, 10 and 12.

### 5.1.10

## SUGARCANE: NUMBER OF FARMS, ACREAGE YIELD, PRODUCTION, PRICE AND VALUE, MAUI ISLAND

	1993	1994	1995	1996	1997
Number of farms <sup>1</sup>	2	2	2	2	2
Acreeage (1,000 acres)					
In crop <sup>1</sup>	42.1	41.9	42.6	42.3	42.4
Harvested for sugar	19.8	19.5	20.6	20.1	19.7
Yield per acre (tons) <sup>2</sup>					
Sugarcane	96.0	88.7	81.5	84.7	90.6
Raw sugar 96°	13.25	12.33	11.12	11.55	11.36
Production of cane for sugar (1,000 tons)	1,900	1,729	1,678	1,702	1,784
Farm price (dollars per ton)	33.00	33.80	35.40	33.60	30.20
Value of cane for sugar (\$1,000,000) <sup>3</sup>	62.7	58.5	59.4	57.2	53.9
Mill production (1,000 tons)					
Raw sugar 96°	260	241	229	232	224
Molasses <sup>4</sup>	72	69	74	75	90
Average returns received (dollars per ton) <sup>5</sup>					
Raw sugar 96°	360	363	387	368	359
Molasses <sup>4</sup>	43.00	43.00	58.90	55.40	38.00
Value of production (\$1,000,000)					
Raw sugar 96°	93.6	87.5	88.6	85.4	80.4
Molasses <sup>4</sup>	3.1	3.0	4.4	4.2	3.4
Total	96.7	90.5	93.0	89.6	83.8

<sup>1</sup> At end of year.

<sup>2</sup> Yield and farm price may not compute exactly due to rounding.

<sup>3</sup> Value of cane for sugar estimated by deducting processing and marketing costs from value of sugar and molasses. Processing costs based on toll charges by independent producers.

<sup>4</sup> Commercial.

<sup>5</sup> Derived from production and value. Prices may not compute exactly due to rounding.

SOURCE: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997) pp. 22-23; primary data source, Hawaii Agricultural Research Center (formerly Hawaii Sugar Planters' Association).

### 5.1.11

## SUGAR COMPANIES, ACREAGE AND PRODUCTION, MAUI COUNTY

	Total Caneland Acreeage	Acres Harvested	Production (short tons)	Tons Sugar Per Harvested Acre
A&B-Hawaii, Inc.				
Hawaiian Commercial & Sugar Company	36,593	16,457	206,217	12.53
AMFAC/JMB Hawaii, Inc.				
Pioneer Mill Co., Ltd.	6,241	3,057	34,299	11.22
Total all companies in State of Hawaii	121,140	64,328	658,538	10.24

SOURCE: Hawaiian Sugar Planters' Association, *Hawaiian Sugar Manual* (1995), p. 3.

## 5.1.12

**LIVESTOCK: NUMBER OF OPERATIONS, VOLUME  
OF MARKETINGS, AND VALUE OF SALES,  
MAUI COUNTY**

	1993	1994	1995	1996	1997
<b>Number of Livestock Operations, December 31</b>					
Cattle <sup>1</sup>	200	190	190	190	190
Hogs	60	70	70	70	70
Milk	5	5	5	5	5
Eggs	7	7	7	7	7
Honey <sup>2</sup>	4	4	2	5	5
<b>Volume of Livestock Marketings</b>					
Beef (dressed weight; 1,000 lb) <sup>3</sup>	3,569	2,721	2,055	2,665	2,844
Pork (dressed weight; 1,000 lb)	1,562	1,491	1,584	1,361	933
Milk (million lb)	D	D	D	D	D
Eggs (million)	D	D	D	D	D
Honey (1,000 lb)	D	D	D	D	D
<b>Value of Livestock Sales (\$1,000)</b>					
Cattle <sup>4</sup>	6,623	4,500	3,511	2,872	4,345
Hogs <sup>5</sup>	1,655	1,521	1,668	1,513	1,008
Milk	D	D	D	D	D
Eggs	D	D	D	D	D
<b>Total livestock sales<sup>6</sup></b>	<b>13,001</b>	<b>10,742</b>	<b>10,585</b>	<b>10,127</b>	<b>11,155</b>

<sup>1</sup> Includes beef, dairy, and dairy replacement operations.

<sup>2</sup> Oahu combined with Maui, Molokai and Lanai to avoid disclosure of individual operations.

<sup>3</sup> Includes slaughter cattle, but excludes calves shipped out-of-state.

<sup>4</sup> Excludes interfarm sales; includes out-of-state sales of slaughter cattle and feeder calves.

<sup>5</sup> Excludes interfarm sales; includes out-of-state sales of slaughter animals.

<sup>6</sup> Sum of individual commodities may not add to total. Includes sheep, wool, turkeys, horses, honey, beeswax, broilers and chickens.

D: Withheld to avoid disclosure of individual operations.

SOURCE: Hawaii Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997), pp. 9, 11 and 14.

## 5.1.13

**VEGETABLES, MELONS AND TARO,  
ACREAGE, PRODUCTION AND VALUE,  
MAUI COUNTY**

Commodity	1992	1993	1994	1995	1996	1997
<b>HARVESTED ACREAGE<sup>1</sup></b>						
Beans, snap	120	45	25	30	37	45
Cabbage, head	410	400	390	370	315	300
Celery	25	25	20	20	20	20
Corn, sweet	90	95	30	45	50	25
Cucumbers	50	65	60	70	140	155
Lettuce	90	70	30	30	25	15
Onions, dry	115	160	170	205	200	180
Onions, green	20	15	15	15	15	10
Peppers, green	195	245	195	105	15	5
Romaine	85	105	100	110	85	90
Squash, Italian	65	75	60	45	35	40
Sweet potatoes	130	130	145	155	95	70
Tomatoes	130	150	130	190	215	245
Watermelon	595	490	645	360	60	5
Other Vegetables & Melons <sup>2</sup>	470	538	536	263	258	250
<b>Total Vegetables &amp; Melons</b>	<b>2,590</b>	<b>2,608</b>	<b>2,551</b>	<b>2,013</b>	<b>1,565</b>	<b>1,455</b>
Taro <sup>3</sup>	115	90	75	85	85	85
<b>PRODUCTION (1,000 pounds)</b>						
Beans, snap	465	240	140	220	245	350
Cabbage, head	9,800	9,800	7,900	8,000	7,300	6,700
Celery	560	650	450	380	300	370
Corn, sweet	740	520	130	160	185	130
Cucumbers	830	920	930	900	2,500	2,600
Lettuce	750	640	300	240	200	100
Onions, dry	1,090	1,750	2,070	2,265	1,980	1,690
Onions, green	210	170	150	150	120	105
Peppers, green	2,760	2,470	2,475	1,300	160	60
Romaine	900	1,070	1,150	1,140	960	1,150
Squash, Italian	700	710	600	410	380	350
Sweet potatoes	1,580	1,300	1,500	1,500	1,100	800
Tomatoes	2,430	3,540	3,270	4,900	5,580	8,070
Watermelon	7,690	10,300	13,440	9,950	1,750	95
Other Vegetables & Melons <sup>2</sup>	7,480	8,290	8,153	4,355	3,460	3,730
<b>Total Vegetables &amp; Melons</b>	<b>37,985</b>	<b>42,370</b>	<b>42,658</b>	<b>35,870</b>	<b>26,220</b>	<b>26,300</b>
Taro (marketings) <sup>3</sup>	1,040	880	980	1,240	1,100	900

### 5.1.13

C O N T I N U E D

Commodity	1992	1993	1994	1995	1996	1997
	VALUE (\$1,000)					
Beans, snap	438	215	149	228	256	359
Cabbage, head	2,117	1,842	1,659	1,784	1,351	1,380
Celery	140	169	115	118	79	102
Corn, sweet	292	151	104	105	114	98
Cucumbers	382	373	372	342	988	832
Lettuce	300	315	168	106	80	41
Onions, dry	1,226	1,589	2,215	2,587	2,344	1,658
Onions, green	189	163	152	171	132	111
Peppers, green	1,568	1,405	1,309	723	79	30
Romaine	333	380	411	473	341	414
Squash, Italian	290	320	288	209	181	179
Sweet potatoes	569	547	807	816	558	432
Tomatoes	1,446	1,965	1,645	2,239	2,751	4,064
Watermelon	1,192	1,597	2,043	1,602	277	18
Other Vegetables & Melons <sup>2</sup>	2,388	2,588	2,919	1,694	1,308	1,351
<b>Total Vegetables &amp; Melons</b>	<b>12,870</b>	<b>13,619</b>	<b>14,356</b>	<b>13,197</b>	<b>10,839</b>	<b>11,069</b>
Taro <sup>3</sup>	443	447	502	610	568	450

<sup>1</sup> For vegetables and melons, acreage harvested (e.g., one acre planted and harvested three times during the year equals three harvested acres). For taro, average acreage in crop during the year; does not include acreage used primarily for leaf production..

<sup>2</sup> Only selected items are shown separately. All other vegetables and melons for the island are included in the other vegetables and melons category.

<sup>3</sup> Oahu combined with Maui and Molokai to avoid disclosure of individual operations.

SOURCES: Hawaii Agricultural Statistics Service, *Hawaii Vegetables, Annual Report of Harvested Acreage, Production and Farm Values*, October 1998, p. 4; *Statistics of Hawaii Agriculture* (1997), p. 67.

### 5.1.14

## FLORICULTURE AND NURSERY PRODUCTS, MAUI COUNTY

*Number of farms and growing area*

	Number of Farms	Greenhouse (1,000 sq ft)	Artificial Shade (1,000 sq ft)	Natural Shade (Acres)	Open Field (Acres)	Total (Acres)
<b>State Total</b>						
1992	686	3,880	22,025	13	1,890	2,497
1993	662	4,565	19,955	21	1,800	2,384
1994	660	3,770	21,600	18	1,690	2,290
1995	705	3,770 <sup>r</sup>	24,215 <sup>r</sup>	15	2,040	2,698
1996	690	2,820	23,405	10	1,600	2,212
1997	670	2,805	23,885	10	1,535	2,158
<b>Maui/Molokai</b>						
1992	104	275	650	*	440	461
1993	102	285	585	0	450	470
1994	102	310	505	0	480	499
1995	106	270	375	0	450	465
1996	111	230	335	0	415	428
1997	106	235	345	0	295	308

\* Less than 1/2 acre.

r: Revised.

SOURCE: Hawaiian Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997), p. 34.

### 5.1.15

## FLORICULTURE AND NURSERY PRODUCTS, BY COMMODITY, MAUI COUNTY

*Value of grower sales (\$1,000)*

Commodity	1993	1994	1995	1996	1997
Cut Flowers <sup>1</sup>	1,960	2,283	2,188 <sup>r</sup>	2,371	2,202
Orchids <sup>2</sup>	619	487	470 <sup>r</sup>	744	D
Lei Flowers	1,102	1,096	1,331	1,228	D
Foliage <sup>3</sup>	D	D	D	D	D
Potted Flowering Plants	D	D	D	D	D
All Other Nursery Products <sup>4</sup>	5,300	3,710	3,533	2,923	5,807
Unspecified Sales <sup>5</sup>	155	336	274	249	311
<b>Total</b>	<b>9,136</b>	<b>7,912</b>	<b>7,796<sup>r</sup></b>	<b>7,515</b>	<b>8,320</b>

<sup>1</sup> Cut orchids included in "Orchids" category.

<sup>2</sup> Excludes orchids used for lei flowers.

<sup>3</sup> Includes potted, cut and unfinished.

<sup>4</sup> Includes bedding plants, plant rentals, sod, trees, and any other nursery products not elsewhere classified.

<sup>5</sup> Includes grower sales greater than \$999 but less than \$10,000 which were not categorized.

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

r: Revised.

SOURCE: Hawaiian Agricultural Statistics Service, *Statistics of Hawaii Agriculture* (1997), p. 27.

## 5.2.1

### AQUACULTURE OPERATIONS AND PRODUCTION, MAUI COUNTY

	Number of operations	Acreage (Dec. 31)	PRODUCTION (1,000 LB.)			
			Total	Shellfish	Finfish	Algae
1989	4	13	7.5	7.2	0.3	NA
1990	5	13	14.3	14.0	0.3	-
1991	8	15	32.0	32.0	NA	NA
1992	9	16	62.5	38.5	19.0	5.0
1993	10	20	29.0	21.0	3.0	5.0
1994	18	30	60.1	46.0	14.1	NA
1995	18	35	50.1	40.0	10.1	-
1996	19	40	75.1	60.0	15.1	NA

SOURCE: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, records.

## 5.2.2

### AQUACULTURE PRODUCTION VALUE, MAUI COUNTY

*At farm gate (\$1,000)*

Maui	Total	Shellfish	Finfish	Algae	Other <sup>1</sup>
1989	42.9	42.0	0.9	NA	NA
1990	76.9	76.0	0.9	-	NA
1991	145.0	145.0	NA	NA	NA
1992	243.1	188.6	46.0	8.5	NA
1993	128.0	110.0	9.5	8.5	NA
1994	328.1	272.0	56.1	NA	NA
1995	279.1	240.2	38.2	-	0.7
1996	402.8	350.0	52.8	NA	NA

<sup>1</sup> Non-food products, e.g., ornamental fish, seedstock.  
NA: Data not reported.

SOURCE: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, records.

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### 5.2.3

## COMMERCIAL FISH LANDINGS, MAUI COUNTY

Year ended June 30

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Year	Pounds Landed	Pounds Sold	Value (\$)
1982	792,504	734,258	873,251
1983	944,045	899,995	1,109,356
1984	889,715	810,257	1,083,651
1985	862,333	810,599	1,140,578
1986	1,007,255	915,637	1,659,720
1987	1,120,497	1,026,307	1,919,196
1988	961,337	851,858	1,780,096
1989	698,000	596,620	1,363,703
1990	777,385	624,466	1,428,937
1991	744,805	602,325	1,390,838
1992	854,282	692,870	1,596,576
1993	516,909	409,498	1,050,460
1994	624,147	486,682	1,226,805
1995	731,447	586,398	1,597,826
1996	783,394	620,343	1,577,195
1997	705,624	546,863	1,436,087
1998	793,378	638,085	1,627,632

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SOURCE: State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Marine Landings, State of Hawaii*, fiscal year reports.

## 5.2.4

### SEA SPECIES COMMONLY CAUGHT NEAR FISH AGGREGATING DEVICES, MAUI COUNTY

*Pounds landed in year ending June 30*

Species	1994	1995	1996	1997
Aku	19,889	41,737	13,497	14,651
Bigeye	868	5,509	353	77
Yellowfin	21,996	112,697	17,665	18,256
Kawakawa	115	147	108	87
Tuna (misc.)	50	1	88	—
Black Marlin	—	—	220	—
Blue Marlin	36,755	6,442	38,679	16,084
Striped Marlin	8,241	3,029	4,994	4,495
Sailfish	—	24	28	27
Shortbill Spearfish	926	604	619	693
Kahala	—	40	—	—
Kaku	—	—	—	23
Kamanu	—	142	57	11
Keokeo	—	—	7	—
Mahimahi	46,755	50,227	30,156	44,824
Mako	350	—	—	—
Mano	5,216	250	1,385	1,095
Ono	7,851	9,901	5,586	9,458
Opelu	—	—	12	137
Uku	—	5	—	—
Other	133	11	73	19
<b>Total</b>	<b>149,145</b>	<b>230,766</b>	<b>113,527</b>	<b>109,937</b>
<b>Devices Available</b>	<b>19</b>	<b>18</b>	<b>14</b>	<b>19</b>

NOTES: Fish aggregating devices are non-navigational buoys placed several miles offshore to attract fish. Data is incomplete due to late submission and processing of fish catch records.

SOURCE: State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Marine Landings, State of Hawaii*, fiscal year reports.

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### 5.3.1

## AGRICULTURAL LANDHOLDINGS OF FOREIGN OWNERS, MAUI COUNTY

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<b>Parcels</b>	
Acres	60,300
Reported Value (\$1,000) <sup>1</sup>	165,293
<b>Use (acres)</b>	
Crop Land	2,708
Pasture	47,668
Forest	1,140
Other Agriculture	8,184
Other Non-agriculture	600
<b>Total</b>	<b>60,300</b>

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<sup>1</sup> Reported value is purchase price or non-purchase price (estimated value) at time of acquisition.

SOURCE: Hawaiian Agricultural Statistics Service, *Statistics of Hawaiian Agriculture*, (1995, annual), from "Foreign ownership of U.S. agricultural land through December 31, 1995," Economic Research Service, USDA, *ERS Statistical Bulletin No. 931*.