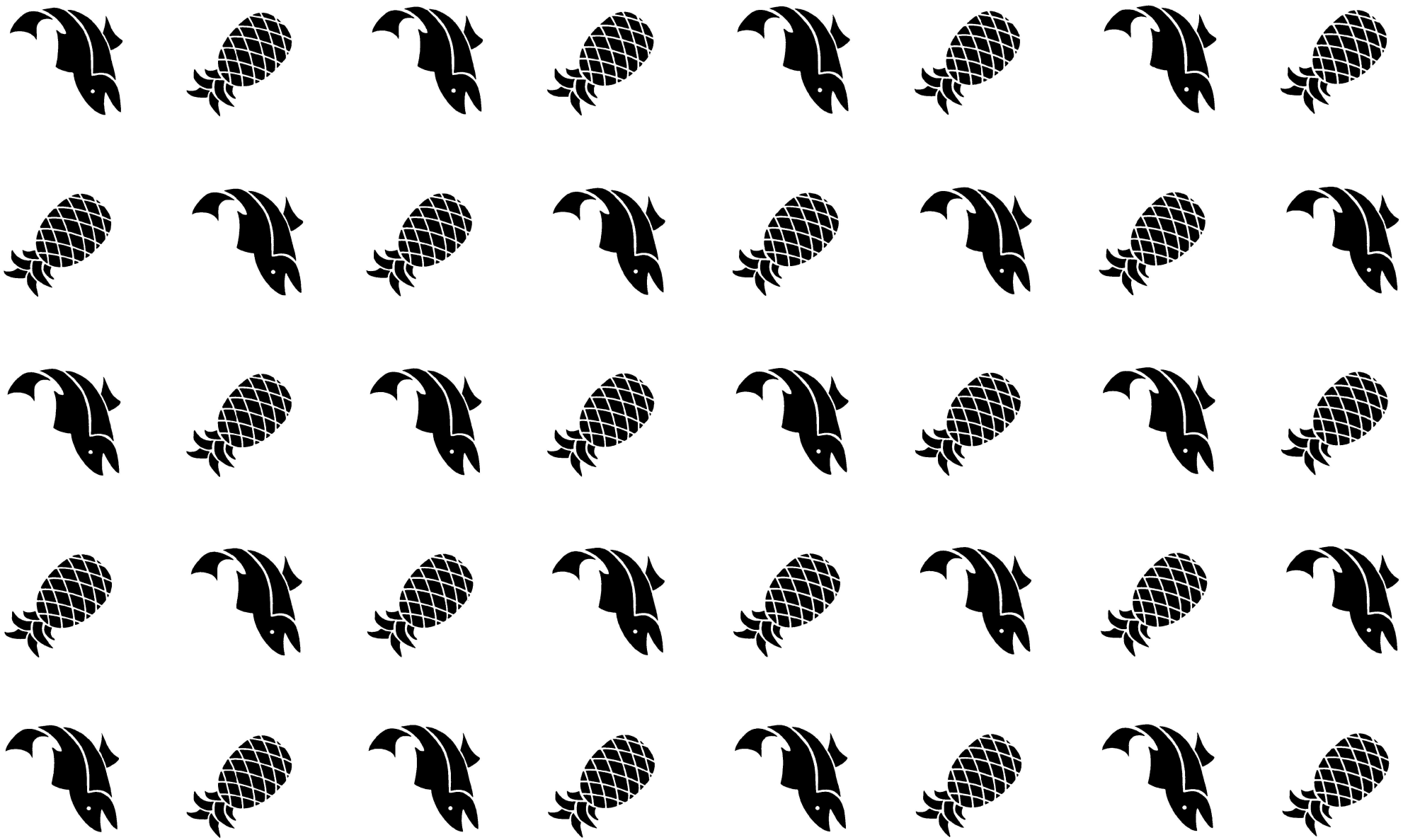
Agriculture & Aquaculture



Section 5

AGRICULTURE & AQUACULTURE

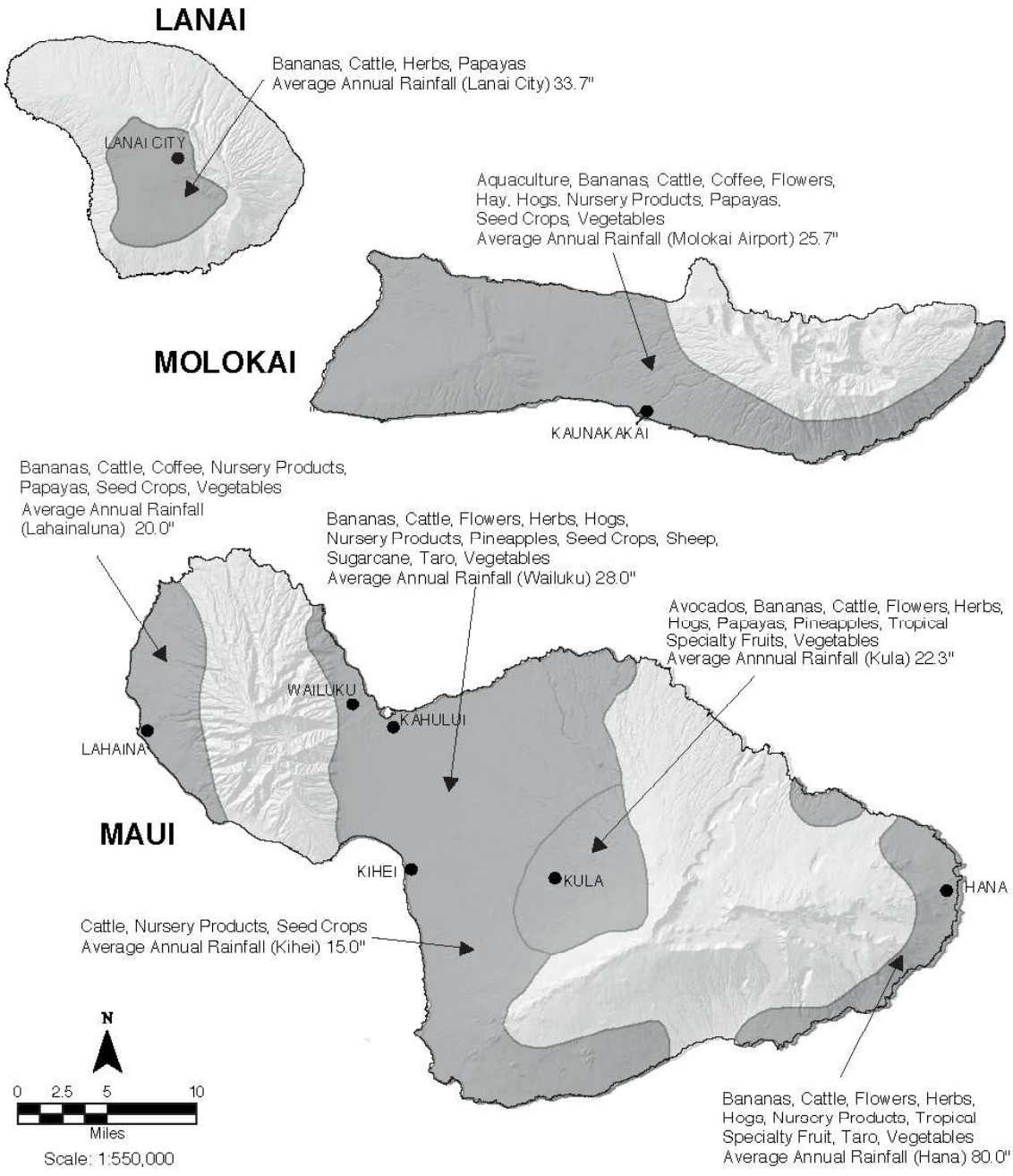
This section includes statistics on agriculture and aquaculture. Statistics about farms are presented along with the value and distribution of farm and other land based herbaculture production. Fish catches and other aquaculture statistics are given.

Maui's last sugar plantation closed in 2016 and therefore data on sugarcane has been discontinued. Coffee production in the state is now featured.

Agriculture remains an important element in Maui County's economy and land use patterns. The trend toward diversification of agriculture continues.

The data in this section comes mainly from the 2022 U.S. Census of Agriculture, the Hawai‘i Agriculture Statistics Service, specific crop producers, and the Hawai‘i State Department of Land and Natural Resources.

AGRICULTURAL AREAS
MAUI COUNTY



SOURCE: HAWAI'I DEPARTMENT OF AGRICULTURE, AGRICULTURAL DEVELOPMENT DIVISION, AND U.S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE. STATISTICS OF HAWAI'I AGRICULTURE, 2011.

5.1.2

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

	2007	2012	2017	2022
Tenure of Operator				
Full Owners				
Farms	827	774	1,031	1,091
Acres	62,325	94,317	124,568	160,435
Part Owners				
Farms	138	151	133	125
Acres	141,052	108,528	102,257	78,126
Owned land in farms (acres)	105,762	75,931	70,577	47,974
Rented land in farms (acres)	35,290	32,597	31,680	30,152
Tenants				
Farms	191	203	244	189
Acres	22,191	26,321	22,131	19,657
Operator Characteristics				
Place of Residence				
On farm operated	929	840	1,772	1,988
Not on farm operated	227	288	625	624
Primary Occupation				
Farming	515	609	892	1,257
Other	641	519	1,017	1,355
Days of Work Off Farm[1]				
None	229	406	723	881
Any	927	722	1,186	1,731
1 to 49 days	155	100	248	362
50 to 99 days	151	125	103	188
100 to 199 days	166	144	252	296
200 days or more	455	353	583	885
Years on Present Farm				
2 years or less	51	36	142	93
3 or 4 years	68	89	178	338
5 to 9 years	284	201	420	593
10 years or more	753	802	1,169	1,588
Average years on present farm	16.7	19.1	16.6	18

5.1.2

CONTINUED

	2007	2012	2017	2022
Age Group				
Under 25 years	4	4	12	15
25 to 34 years	32	37	78	172
35 to 44 years	89	78	154	292
45 to 54 years	314	227	273	336
55 to 64 years	NA	NA	614	480
65 to 74 years	NA	NA	555	897
75 years and over	NA	NA	223	420
Average age	57.7	59.0	60.4	60.7
Male				
Farms	856	873	1,194	1,193
Acres	217,574	201,222	223,781	251,977
Female				
Farms	300	255	951	1,026
Acres	7,994	27,944	96,440	119,169
Type of Organization				
Individual or Family (sole proprietorship)				
Farms	975	904	1,114	1,145
Acres	34,647	65,110	58,004	52,028
Partnership				
Farms	66	96	123	87
Acres	11,751	32,275	39,416	32,061
Corporation (family held)				
Farms	69	64	94	107
Acres	114,456	113,188	100,189	68,798
Corporation (other than family held)				
Farms	33	27	23	28
Acres	60,646	D	D	99,013
Other (cooperative, estate or trust, institutional, etc.)				
Farms	13	37	54	38
Acres	4,068	D	D	6,318

D: Withheld to avoid disclosing data for individual farms

NA: Not available

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.3

FARMS AND LAND IN FARMS
MAUI COUNTY

	2007	2012	2017	2022
Farms	**1,156**	**1,128**	**1,408**	**1,405**
Land in Farms	**225,568**	**229,166**	**248,956**	**258,218**
Average size of farms (acres)	195	203	177	184
Median size of farms (acres)	5	5	4	4
Estimated Market Value of Land & Buildings[1]				
Average per farm ($)	1,601,950	1,998,208	2,027,299	2,220,926
Average per acre ($)	8,210	9,836	11,466	12,084
Estimated Market Value of Machinery & Equipment[1]				
Average per farm ($)	52,480	53,228	51,466	51,060
Farms by Size				
1 to 9 acres	766	711	1,010	956
10 to 49 acres	289	293	252	329
50 to 179 acres	48	61	75	63
180 to 499 acres	21	24	23	14
500 to 999 acres	11	10	16	17
1,000 acres or more	21	29	32	26
Total Cropland				
Farms	975	902	1,148	1,158
Acres	54,557	49,578	56,551	61,707
Harvested Cropland				
Farms	928	852	1,057	1,055
Acres	26,528	D	7,132	14,531
Irrigated Land				
Farms	650	603	651	682
Acres	28,027	41,548	4,849	14,972
Value of Agricultural Products Sold ($1,000)	**139,326**	**188,100**	**82,206**	**93,906**
Crops, including greenhouse & nursery crops	132,058	181,480	74,211	88,427
Livestock, poultry, and their products	7,268	6,620	7,995	5,479
Processed or value-added agricultural products	NA	NA	16,369	NA
Value of Agricultural Products Sold per Farm ($)	**120,524**	**166,755**	**58,385**	**66,837**

1. Data based on a sample of farms.

D: Withheld to avoid disclosing data for individual farms. NA: Not available

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.4

FARM EMPLOYMENT
MAUI COUNTY

	2007	2012	2017	2022
Number of Farms Hiring	245	328	365	299
Number of Farms Hiring Migrant Workers	17	6	14	23
Hired Workers	2,051	2,311	1,880	1,781
Worked 150 days or more	1,386	1,655	1,174	1,143
Migrant workers	NA	26	36	117
Payroll ($1,000)	47,311	99,270	62,694	48,249

NA: Not available

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.5

LIVESTOCK: NUMBER OF OPERATIONS AND VALUE OF SALES, MAUI COUNTY

	2007	2012	2017	2022
Number of Livestock Operations, December 31	**284**	**284**	**410**	**NA**
Cattle	190	204	193	163
Hogs	57	81	80	45
Goats	86	131	214	200
Sheep and lambs	33	24	59	83
Horses	175	112	115	137
Poultry and eggs	49	67	146	193
Bees	41	50	114	115
Aquaculture	2	10	11	NA
Value of Livestock, Poultry, and Product Sales ($1,000)	**7,268**	**6,620**	**7,995**	**5,479**
Cattle and calves	5,689	5,231	D	D
Hogs and pigs	724	D	506	494
Goats	NA	210	204	370
Sheep and lambs	NA	21	45	136
Horses	NA	51	D	69
Poultry and eggs	20	D	194	NA
Bees	NA	96	70	173
Aquaculture	D	D	D	NA

D: Withheld to avoid disclosure of individual operations

NA: Not available

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.6

VEGETABLES ACREAGE AND NUMBER OF FARMS, MAUI COUNTY

	2017		2022	
	Farms	Acres	Farms	Acres
Beans, Snap	35	119	29	47
Beets	27	12	21	21
Broccoli	15	73	18	25
Cabbage, Chinese	16	30	19	20
Cabbage, Head	13	80	12	D
Carrots	18	25	21	15
Celery	4	1	10	D
Collards	7	4	11	3
Cucumbers and pickles	16	D	17	D
Daikon	23	26	17	5
Eggplant	22	10	38	15
Ginger root	14	3	31	6
Herbs, Fresh Cut	51	47	59	128
Kale	38	39	37	63
Lettuce, All	30	66	47	D
Lettuce, Romaine	16	13	18	10
Mustard greens	13	3	14	2
Okra	11	2	13	2
Onions, Dry	13	55	10	D
Onions, Green	27	19	28	49
Parsley	14	15	10	1
Peas, Chinese	12	2	5	D
Peppers, Bell	9	10	13	D
Peppers, Other than Bell	17	2	17	3
Potatoes	9	2	3	D
Pumpkins	15	33	26	14
Radishes	10	11	16	12
Spinach	8	3	15	2
Squash, All	14	13	26	29
Sweet Corn	16	D	14	D
Sweet Potatoes	12	D	14	34
Taro	58	85	75	64
Tomatoes	25	27	25	24
Turnips	13	1	8	D
Other Vegetables	71	127	41	68
Total	**221**	**1,377**	**222**	**1,014**

D: Withheld to avoid disclosure of individual operations. NA: Not available.

1. Taro root added to the vegetable section, removed from the field crop section.

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.7

COFFEE
STATE OF HAWAIʻI

	Bearing Acreage (1,000 acres)	Cherry Basis: Yield per Acre (1,000 pounds)	Cherry Basis: Total Production (1,000 pounds)	Cherry Basis: Harvested not Sold (1,000 pounds)
2020-2021	6.8	3.510	23,870	1,155
2021-2022	7.4	3.950	29,230	768
2022-2023	7.5	3.150	23,625	600
2023-2024	7.3	2.800	20,440	3,500

Basis	Utilized Production (1,000 pounds)	Price per Pound ($)	Value of Utilized Production ($1,000)
Cherry			
2020-2021	22,715	2.13	48,383
2021-2022	28,462	2.26	64,324
2022-2023	23,025	2.35	54,109
2023-2024	16,940	2.51	42,519
Parchment			
2020-2021	5,390	13.40	72,226
2021-2022	6,489	12.80	83,059
2022-2023	5,180	13.50	69,930
2023-2024	3,777	13.50	50,990
Green			
2020-2021	4,312	19.40	83,653
2021-2022	5,191	20.30	105,377
2022-2023	4,144	15.20	62,989
2023-2024	3,022	22.60	68,297

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE.

5.1.8

FRUITS AND NUTS
MAUI COUNTY

	2017		2022	
	Farms	Acreage	Farms	Acreage
Noncitrus Fruits	**667**	**2,809**	**579**	**D**
Apples	16	7	8	5
Avocados	305	D	265	D
Bananas	313	253	242	211
Cherimoyas	17	8	14	10
Cherries, Tart	6	1	2	D
Coffee	95	D	72	D
Grapes	5	D	4	D
Guavas	30	9	62	21
Lychees	NA	NA	72	55
Mangoes	105	54	150	89
Papayas	129	175	123	88
Passion Fruit	74	18	94	25
Peaches, All	15	D	5	D
Persimmons	26	47	28	D
Pineapple	55	D	67	D
Pomegranates	14	3	3	Z
Other	202	339	108	176
Citrus Fruits	**378**	**286**	**362**	**D**
Grapefruit	93	30	80	14
Kumquats	9	D	27	3
Lemons	207	55	230	D
Limes	201	64	215	D
Oranges, All	219	72	195	63
Tangelos	59	D	82	13
Tangerines	119	35	101	D
Other	31	16	15	D
Nuts	**67**	**579**	**85**	**D**
Hazelnuts	NA	NA	3	D
Macadamia Nuts	65	D	79	D
Pecans, All	2	D	2	D
Other Nuts	1	D	4	1

D: Withheld to avoid disclosure of individual operations. NA: Not available. Z: Less than half of the unit shown

Note: Totals may not add due to rounding.

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.9

FLORICULTURE AND NURSERY PRODUCTS MAUI COUNTY

Number of farms and growing area

2022	Farms	Sq ft under glass	Open acreage	Value of sales ($)
Aquatic plants	5	D	D	102,881
Bulbs and tubers	5	D	5	58,332
Cuttings and seedlings	21	D	29	29,260
Bedding & garden plants	27	D	11	199,448
Cut flowers	181	D	392	5,398,240
Foliage, indoor	31	D	20	D
Potted flowering plants	40	76,494	D	1,089,471
Nursery stock crops	123	445,287	132	D
Sod	3	X	D	D
Vegetable seeds	7	D	X	7,198
Vegetable transplants	11	18,796	X	198,998

D: Withheld to avoid disclosure of individual operations. X: Not applicable

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.10

FARM MACHINERY AND EQUIPMENT, MAUI COUNTY

	2007	2012	2017	2022
Value of all equipment ($1000)	60,352	60,042	72,464	71,740
Average per farm ($)	52,480	53,228	51,466	51,060
Trucks				
Farms	862	774	1,001	1,006
Number	1,362	1,347	1,602	1,532
Tractors				
Farms	547	554	586	575
Number	974	1,032	994	1,005
Grain and bean combines				
Farms	1	6	3	4
Number	D	9	D	6
Forage harvesters				
Farms	13	5	1	1
Number	13	5	D	D
Hay balers				
Farms	3	1	4	NA
Number	3	D	4	NA

D: Withheld to avoid disclosure of individual operations.
NA: Not available

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.11

FERTILIZERS AND CHEMICALS APPLIED
MAUI COUNTY

In acres

	2007	2012	2017	2022
Commercial fertilizer	42,248	40,923	9,664	16,790
Manure	395	1,214	776	736
Organic fertilizer	NA	NA	450	326
Acres treated to control				
Insects	5,566	4,424	8,891	12,879
Weeds	28,416	46,098	15,416	20,411
Nematodes	2,812	861	415	440
Diseases in crops	1,757	1,647	1,557	11,027
Chemicals used to control growth, thin fruit, ripen or defoliate	D	D	358	496

D: Data not provided to avoid disclosing individual information NA: Not available

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.12

ORGANIC AGRICULTURE
STATE OF HAWAIʻI

2022	State of Hawaiʻi	Hawaiʻi County	Honolulu County	Kauaʻi County	Maui County
USDA Certified organic farms	146	79	20	23	24
USDA Exempt from certification organic farms[1]	65	21	10	12	22
Farms transitioning to organic	24	11	7	3	3
Value of sales of Certified or Exempt organically produced commodities					
Number of farms	183	82	26	33	42
Total organic product sales ($1,000)	22,210	7,400	2,827	9,373	2,610
Farms by value of sales					
$1 to $4,999	86	27	14	17	28
$5,000 or more	97	55	12	16	14

1. Small organic farms with gross agricultural income from organic sales less than $5,000 per year.

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.13

AGRICULTURAL TOURISM BY COUNTY

	State of Hawai'i	Hawai'i County	Honolulu County	Kaua'i County	Maui County
2012					
Farms	233	106	36	39	52
Value ($1,000)	17,768	1,029	6,449	3,874	6,416
2017					
Farms	294	172	28	25	69
Value ($1,000)	16,609	D	D	1,525	7,590
2022					
Farms	261	130	47	19	65
Value ($1,000)	26,512	4,675	6,379	6,251	9,207

Note: Agricultural tourism is a commercial enterprise on a working farm conducted for the enjoyment, education, and/or active involvement of the visitor, generating supplemental income for the farm. Activities such as producing and selling products directly from the farm, operating a bed and breakfast, conducting educational farm tours, offering horseback riding, festivals, concerts, and many other on-farm activities qualify as ag-tourism.

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.1.14

FARM INCOME AND EXPENSES
MAUI COUNTY

In thousands of dollars

	2007	2012	2017	2022
Income				
Total sales	139,326	188,100	82,206	93,906
Total income from farm-related sources, gross before tax and expenses	14,642	8,761	9,812	18,921
Customwork and other agricultural services	306	448	792	2,708
Gross cash rent or share payments	D	1,533	737	4,276
Sales of forest products	D	D	42	45
Agri-tourism and recreational services	8,464	6,416	7,590	9,207
Patronage dividends and refunds from cooperatives	D	D	6	104
Crop and livestock insurance payments	D	146	143	2,274
Amount from state and local government payments	D	184	120	207
Other farm-related income sources	D	92	382	101
Total federal government payments	688	558	2,174	2,170
Total farm production expenses	129,617	195,907	107,246	111,334
Fertilizer and lime purchased	7,976	15,426	3,523	4,700
Chemicals purchased	4,008	12,092	1,654	2,330
Seeds, plants, vines and trees purchased	3,810	5,534	1,685	4,874
Livestock purchased	601	679	595	536
Feed purchased	3,669	3,261	2,080	2,662
Petroleum products purchased	7,316	11,492	3,620	3,642
Utilities	9,857	3,978	4,688	4,837
Repairs, supplies and maintenance costs	21,992	23,095	7,738	6,842
Hired farm labor	47,311	99,270	62,694	48,249
Contract labor	2,530	1,670	1,725	7,069
Customwork and custom hauling	138	341	391	473
Cash rent for land, building and grazing fees	3,409	2,037	2,201	2,800
Rent and lease expenses	996	593	734	960
Interest expense	2,019	1,988	4,557	4,163
Property tax paid	2,170	2,294	3,712	5,735
Medical supplies, veterinary, and custom services	0	0	329	420
All other production expenses	11,815	12,157	5,320	11,043
Net cash farm income of the operations	**25,039**	**1,512**	**(13,054)**	**3,663**

NA: Not available

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, NATIONAL AGRICULTURAL STATISTICS SERVICE, CENSUS OF AGRICULTURE.

5.2.1

SEA LANDINGS BY FISHING METHOD AND SPECIES GROUP STATE OF HAWAIʻI

Pounds landed

	2019	2020	2021	2022	2023
Fishing Method					
Aku Pole & Line	*	*	*	*	*
Longline	30,098,067	24,045,181	25,437,196	24,281,007	25,623,660
Deep Bottom Handline	301,378	223,566	249,648	294,004	238,115
Tuna Handline	1,210,071	1,009,058	1,073,038	1,803,743	1,054,741
Trolling	2,488,466	1,492,059	1,836,268	1,783,536	1,622,868
All Other	799,822	734,852	646,229	729,299	714,364
Total	**34,897,804**	**27,504,716**	**29,242,379**	**28,891,590**	**29,253,747**
Species Group					
Tuna	23,247,875	20,594,492	22,193,279	21,569,368	21,974,282
Billfish	5,434,048	3,169,926	3,322,172	3,998,873	3,796,392
Misc. Pelagic	5,082,805	2,789,663	2,866,648	2,327,357	2,561,826
Deep Bottomfish	322,169	258,016	264,221	350,529	272,097
Akule/ʻŌpelu	370,084	345,267	323,987	323,384	356,409
Inshore	237,298	261,716	198,848	235,139	204,707
All Other	203,524	85,635	73,225	86,941	88,035
Total	**34,897,804**	**27,504,716**	**29,242,379**	**28,891,590**	**29,253,747**

* Due to low level of fishermen reporting and to preserve confidentiality, data for these methods are pooled under “All Other” group.

Source: State of Hawai'i, Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Marine Landings Summary Trend Report, calendar year reports.

5.2.2

SEA LANDINGS BY PORT OF LANDING

Pounds landed

Port of Landing	2019	2020	2021	2022	2023
Maui County	642,050	371,158	466,974	512,503	465,249
Maui	619,384	355,547	450,281	484,001	423,393
Molokaʻi	15,713	9,103	12,816	22,126	34,938
Lānaʻi	6,953	6,508	3,877	6,377	6,918
Oʻahu	31,388,301	25,077,474	26,478,714	25,588,468	26,721,884
Hawaiʻi	2,207,788	1,586,280	1,802,027	2,139,250	1,634,097
Kauaʻi and Niʻihau	659,665	469,804	494,665	651,369	432,517
Total	**34,897,804**	**27,504,716**	**29,242,379**	**28,891,590**	**29,253,747**

Source: State of Hawaiʻi, Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Marine Landings Summary Trend Report, calendar year reports.

5.2.3

SEA LANDINGS BY AREA FISHED MAUI COUNTY

Pounds landed

Area Fished	2019	2020	2021	2022	2023
Kaʻiwi (Molokaʻi Channel)	19,236	10,690	8,984	14,434	8,176
Penguin Bank	96,107	67,435	61,756	63,172	47,210
Kealaikahiki Channel	69,909	22,156	19,241	24,012	48,072
ʻAlenuihāhā Channel	77,348	30,456	52,517	83,290	52,196
ʻAuʻau, Kalohi & Pailolo Channels	17,226	12,224	18,054	18,150	23,471
ʻAlalākeiki Channel	57,806	47,105	42,094	69,227	48,443
Molokaʻi	13,958	11,659	13,739	32,839	29,979
Lānaʻi	58,862	31,142	67,320	89,451	82,888
Kahoʻolawe	16,413	21,541	6,451	15,547	14,601
Mākena - Hāna	19,497	16,077	13,845	18,740	15,855
Hāna - Kahului	177,217	112,330	154,872	116,949	106,396
Honolua - Lahaina	2,002	1,564	1,914	1,898	737
Lahaina - Mākena	42,564	51,278	39,063	39,247	33,229

Source: State of Hawaiʻi, Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Marine Landings Summary Trend Report, calendar year reports.