

Section 18
Agriculture

This section presents statistics concerning agricultural land development, irrigation, farms, and specific crops, livestock, dairy products and poultry. Important sources for data on these subjects include the United States Census of Agriculture for 1959 and earlier years, the Hawaii Department of Agriculture's annual Statistics of Hawaiian Agriculture (formerly issued by the University of Hawaii), and various publications of the Hawaii Agricultural Experiment Station of the University of Hawaii, the Hawaiian Sugar Planters' Association, and the Pineapple Companies of Hawaii. Personnel of these agencies may have additional information. National statistics appear in Sections 23, 24, and 25 of the Statistical Abstract of the United States: 1961.

Table 1.-- AGRICULTURAL STATISTICS: 1900 TO 1959

| Subject | 1959 | 1950 | 1940 | 1930 | 1920 | 1900 |
|---|-------|-------|-------|-------|-------|-------|
| Number of farms..... | 6,242 | 5,750 | 4,995 | 5,955 | 5,284 | 2,273 |
| Under 10 acres..... | 3,569 | 3,558 | 2,870 | 3,407 | 2,734 | 1,209 |
| 10 to 259 acres..... | 2,420 | 2,008 | 1,954 | 2,373 | 2,333 | 886 |
| 260 or more acres..... | 253 | 184 | 171 | 175 | 217 | 178 |
| Farm acreage ¹ | 2,461 | 2,432 | 2,486 | 2,815 | 2,702 | 2,610 |
| In farms of 260 or more acres ¹ | 2,364 | 2,350 | 2,411 | 2,727 | (NA) | 2,568 |
| Cropland harvested ¹ | 176 | 159 | 185 | (NA) | (NA) | (NA) |
| Quantity harvested: | | | | | | |
| Coffee (tons)..... | 5,003 | 2,324 | 4,273 | 9,975 | 9,942 | (NA) |
| Macadamia nuts (lb.) ¹ .. | 2,015 | 704 | 181 | 5 | (NA) | (NA) |
| Pineapples (tons) ¹ | 1,010 | 655 | 614 | 355 | 150 | (NA) |
| Rice (10,000 lbs.)..... | 29 | 66 | 190 | 758 | 2,957 | 3,344 |
| Sugarcane (tons) ¹ | 9,391 | 7,889 | 8,535 | 7,471 | 4,863 | 2,239 |
| Animals on farms: | | | | | | |
| Cattle and calves ¹ | 205 | 156 | 139 | 138 | 137 | 103 |
| Hogs and pigs ¹ | 78 | 65 | 32 | 31 | 24 | 8 |
| Sheep and lambs ¹ | 12 | 14 | 26 | 32 | 43 | 102 |
| Chickens over 4 mo. ¹ ... | 806 | 472 | 273 | 271 | 65 | 32 |

NA Not available

¹In thousands.

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Table 2.-- SIZE OF FARMS: 1959

| | Farms | | Land in farms | |
|---------------------------|--------|----------------------|---------------|----------------------|
| | Number | Percent distribution | Acres | Percent distribution |
| Total..... | 6,242 | 100.0 | 2,461,454 | 100.0 |
| Under 10 acres..... | 3,569 | 57.2 | 13,234 | 0.5 |
| 10 to 49 acres..... | 1,988 | 31.8 | 40,761 | 1.7 |
| 50 to 69 acres..... | 143 | 2.3 | 8,171 | 0.3 |
| 70 to 99 acres..... | 119 | 1.9 | 9,520 | 0.4 |
| 100 to 139 acres..... | 73 | 1.2 | 7,962 | 0.3 |
| 140 to 179 acres..... | 50 | 0.8 | 7,831 | 0.3 |
| 180 to 219 acres..... | 28 | 0.4 | 5,562 | 0.2 |
| 220 to 259 acres..... | 19 | 0.3 | 4,501 | 0.2 |
| 260 to 499 acres..... | 108 | 1.7 | 34,264 | 1.4 |
| 500 to 999 acres..... | 34 | 0.5 | 22,851 | 0.9 |
| 1,000 acres and over..... | 111 | 1.8 | 2,306,797 | 93.7 |

Table 3.-- ECONOMIC CLASS OF FARMS: 1959

| Subject | Farms |
|--|-------|
| All farms..... | 6,242 |
| Commercial farms by value of farm products sold: | |
| \$50 to \$2,499..... | 455 |
| \$2,500 to \$4,999..... | 830 |
| \$5,000 to \$9,999..... | 700 |
| \$10,000 to \$19,999..... | 482 |
| \$20,000 to \$39,999..... | 204 |
| \$40,000 and over..... | 244 |
| Other farms: | |
| Part-time..... | 2,748 |
| Part-retirement..... | 558 |
| Abnormal..... | 21 |

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Table 4.-- NUMBER AND ACREAGE OF FARMS, BY TENURE OF OPERATOR: 1959

| Tenure of operator | Number of farms | Thousands of acres |
|--------------------|-----------------|--------------------|
| Total..... | 6,242 | 2,461 |
| Full owners..... | 2,398 | 81 |
| Part owners..... | 1,315 | 750 |
| Managers..... | 114 | 1,590 |
| Tenants..... | 2,415 | 40 |

Table 5.-- PERSONS WORKING ON FARMS AND CASH WAGES PAID FOR HIRED LABOR: 1959

| Subject | Number of farms | Amount |
|----------------------------|-----------------|--------|
| Persons working on farms. | 5,340 | 25,896 |
| Working operators..... | 5,045 | 5,045 |
| Unpaid family workers.. | 2,831 | 4,418 |
| Hired workers..... | 1,006 | 16,433 |
| Cash wages paid (\$1,000). | 1,926 | 54,116 |

Table 6.-- IRRIGATED FARMS: 1959

| Subject | Number |
|---|-----------|
| Farms (irrigated and nonirrigated).....number..... | 6,242 |
| Irrigated farms.....number..... | 1,251 |
| Land in farms (irrigated and nonirrigated).....acres..... | 2,461,454 |
| Land in irrigated farms.....acres..... | *958,898 |
| Land in irrigated farms according to use: | |
| Cropland harvested.....acres..... | 109,101 |
| Cropland used only for pasture.....acres..... | 70,052 |
| Cropland not harvested and not pastured.....acres..... | 94,354 |
| Other pasture (not cropland and not woodland)...acres..... | 381,200 |
| Woodland.....acres..... | 156,657 |
| Land irrigated in Census year.....acres..... | 141,179 |
| Cropland harvested.....acres..... | 72,703 |
| Other irrigated land.....acres..... | 68,476 |
| Land irrigated, by source of water: | |
| Ground water sources on farm.....acres..... | 26,086 |
| Irrigation organization sources.....acres..... | 28,144 |
| Both farm ground water and surface sources.....acres..... | 86,949 |
| Both irrigation organization and farm ground water or farm surface sources.....acres..... | 14,909 |

*Includes 288,845 acres in Hawaii County; 137,842 acres in City and County of Honolulu (Oahu); 208,184 acres in Kauai County; and 324,027 acres in Maui County.

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Table 7.-- FARMLAND, BY USE, FOR COUNTIES: 1959

(State totals in thousands of acres. Counties in acres.)

| | The State | Hawaii Co. | Honolulu Co. | Kauai Co. | Maui Co. | Kalawao Co. |
|--|-----------|------------|--------------|-----------|----------|-------------|
| Land in farms..... | 2,461 | 1,447,194 | 166,824 | 282,554 | 556,748 | 8,134 |
| Cropland, total..... | 500 | 194,223 | 70,301 | 61,973 | 173,005 | 2 |
| Harvested..... | 176 | 60,706 | 35,497 | 29,907 | 50,298 | 2 |
| Used for pasture ¹ | 167 | 73,666 | 6,457 | 5,385 | 81,831 | - |
| Not harvested and not pastured..... | 156 | 59,851 | 28,347 | 26,681 | 40,876 | - |
| Other than cropland, total..... | 1,962 | 1,252,971 | 96,523 | 220,581 | 383,743 | 8,132 |
| Woodland pastured..... | 115 | 90,514 | 18,233 | 1,720 | 4,770 | - |
| Other pasture land..... | 917 | 576,342 | 14,059 | 115,439 | 203,531 | 8,018 |
| Other land..... | 635 | 449,082 | 28,845 | 58,921 | 97,881 | 114 |

Table 8.-- VALUE OF FARM PRODUCTS SOLD: 1949 AND 1959

(In thousands of dollars)

| | The State ¹ | | Counties | | | |
|------------------------------------|------------------------|---------|----------|----------|--------|--------|
| | 1949 | 1959 | Hawaii | Honolulu | Kauai | Maui |
| All farm products sold..... | 164,554 | 152,334 | 46,999 | 44,660 | 19,354 | 41,305 |
| Field crops ² | 136,994 | 109,804 | 32,821 | 23,149 | 17,008 | 36,825 |
| Vegetables..... | 2,675 | 3,194 | 736 | 1,486 | 173 | 799 |
| Fruits and nuts..... | 2,189 | 5,015 | 4,005 | 887 | 59 | 64 |
| Horticultural specialties..... | 1,382 | 2,214 | 931 | 1,118 | 43 | 122 |
| Dairy products..... | 5,892 | 9,672 | 506 | 8,192 | 378 | 595 |
| Poultry and poultry products..... | 3,841 | 7,185 | 1,447 | 4,552 | 722 | 463 |
| Livestock and livestock products.. | 11,581 | 15,250 | 6,553 | 5,275 | 970 | 2,438 |

¹Including Kalawao County, not shown separately.

²Other than vegetables and fruits and nuts.

³Other than dairy and poultry.

Source of tables 1 to 8: U.S. Bureau of the Census, U.S. Census of Agriculture: 1959, Counties, Hawaii.

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Table 9.-- ACREAGE, PRODUCTION, AND MARKETINGS OF VEGETABLES,
FRUITS, AND MELONS: 1960

| Crop | Acres harvested | Production (1,000 lb.) | Value (\$1,000) |
|------------------------------|--------------------|---------------------------|--------------------|
| Vegetables and melons..... | 3,445 | 48,180 | 4,593 |
| Beans..... | 139 | 1,580 | 309 |
| Broccoli..... | 38 | 345 | 58 |
| Burdock..... | 40 | 520 | 95 |
| Cabbage, head..... | 449 | 8,495 | 325 |
| Cabbage, Chinese..... | 194 | 2,845 | 246 |
| Cabbage, mustard..... | 85 | 1,300 | 115 |
| Carrots..... | 40 | 505 | 33 |
| Cauliflower..... | 31 | 350 | 31 |
| Celery..... | 41 | 1,775 | 145 |
| Corn, green..... | 307 | 1,140 | 93 |
| Cucumbers..... | 218 | 3,340 | 347 |
| Daikon..... | 304 | 3,565 | 175 |
| Dasheens..... | 16 | 340 | 64 |
| Eggplant..... | 35 | 780 | 82 |
| Ginger root..... | 32 | 905 | 178 |
| Lettuce..... | 281 | 3,450 | 336 |
| Lotus root..... | 66 | 200 | 42 |
| Onions, dry..... | 117 | 1,810 | 109 |
| Onions, green..... | 55 | 845 | 125 |
| Peppers, sweet..... | 64 | 915 | 142 |
| Potatoes..... | 66 | 455 | 35 |
| Pumpkins..... | 19 | 250 | 19 |
| Squash, Italian..... | 10 | 160 | 18 |
| Sweet potatoes..... | 119 | 1,360 | 123 |
| Tomatoes..... | 305 | 5,170 | 705 |
| Watercress..... | 30 | 3,020 | 387 |
| Cantaloups..... | 6 | 60 | 9 |
| Watermelons..... | 338 | 2,700 | 247 |
| Fruits..... | 2,142 | 20,910 | 1,369 |
| Avocados..... | 199 | 950 | 66 |
| Bananas..... | 1,121 | 6,890 | 471 |
| Oranges..... | 30 | 415 | 25 |
| Papayas..... | 756 | 12,025 | 743 |
| Tangerines..... | 36 | 630 | 64 |
| Miscellaneous..... | 10,297 | 25,542 | 4,602 |
| Coffee ⁴ | 6,188 | 12,999 | 3,488 |
| Macadamia ⁵ | 3,515 | 2,616 | 480 |
| Rice ⁶ | 68 | 221 | 40 |
| Taro..... | 526 | 9,706 | 594 |

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Table 10.-- WHOLESale PRICE PER POUND FOR ISLAND VEGETABLES AND FRUITS
IN HONOLULU: ANNUAL AVERAGE, 1960

| Commodity | Cents | Commodity | Cents |
|--|-------|--|-------|
| Beans, snap ¹ | 26.7 | Onions, dry ¹ | 8.3 |
| Broccoli ¹ | 22.4 | Onion, green, bunched..... | 18.4 |
| Burdock..... | 24.5 | Peas, small Chinese..... | 81.4 |
| Cabbage, head..... | 6.3 | Peppers, sweet ¹ | 20.5 |
| Cabbage, Chinese..... | 13.3 | Pumpkins..... | 10.9 |
| Cabbage, mustard (Kai Choi)... | 11.6 | Squash, Italian ¹ | 16.4 |
| Cabbage, mustard (Pak Choi)... | 10.1 | Sweet potatoes, reds ¹ | 13.0 |
| Carrots, topped ¹ | 8.7 | Sweet potatoes, baker varieties ¹ | 13.0 |
| Cauliflower ¹ | 13.9 | Tomatoes, loose ¹ | 20.2 |
| Celery ¹ | 11.7 | Tomatoes, loose ² | 16.5 |
| Corn, green ¹ | 11.0 | Watercress..... | 16.0 |
| Cucumbers ¹ | 16.6 | Yam bean root..... | 15.2 |
| Daikon, bunched..... | 7.8 | Cantaloups..... | 17.5 |
| Dasheens..... | 25.3 | Watermelons..... | 15.0 |
| Eggplant, long..... | 14.9 | Avacados ¹ | 10.3 |
| Eggplant, round..... | 10.0 | Bananas, Bluefield..... | 10.3 |
| Ginger root..... | 24.4 | Bananas, apple (Brazilian)..... | 7.9 |
| Lettuce, iceberg type ¹ | 13.9 | Bananas, Chinese (cavandish).... | 7.8 |
| Lettuce, semi-head ¹ | 13.3 | Papayas ¹ | 9.3 |
| Lotus root..... | 29.4 | Tangerines..... | 15.4 |

¹Hawaii No. 1.

²Hawaii No. 2.

Table 11.-- AGRICULTURAL LAND UTILIZATION FOR DIVERSIFIED CROPS: 1960

| Crop | Acreage |
|----------------------------|---------|
| Total..... | 15,884 |
| Vegetables and melons..... | 3,445 |
| Fruits..... | 2,142 |
| Coffee..... | 6,188 |
| Macadamia nuts..... | 3,515 |
| Rice..... | 68 |
| Taro..... | 526 |

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Table 12.-- PRODUCTION, MARKETINGS AND VALUE OF MARKETINGS OF LIVESTOCK ON FARMS, FOR ISLANDS: 1960

| Subject | The State | Hawaii | Oahu | Kauai and Niihau | Maui | Molokai |
|------------------------------------|-----------|---------|--------|---------------------|--------|---------|
| Beef cattle.....number | 168,600 | 101,500 | 9,800 | 14,800 ² | 36,000 | 6,500 |
| Slaughter.....number | 42,720 | 22,680 | 7,220 | 4,100 | 7,680 | 1,040 |
| Dressed weight.....1,000# | 22,764 | 12,202 | 3,864 | 2,214 | 3,978 | 506 |
| Value of marketings....\$1,000 | 9,342 | 4,795 | 1,707 | 919 | 1,718 | 203 |
| Dairy milk cows.....number | 13,080 | 960 | 10,800 | 560 | | 760 |
| Slaughter.....number | 3,420 | 360 | 3,420 | 120 | | 160 |
| Dressed weight.....1,000# | 1,972 | 195 | 1,623 | 66 | | 88 |
| Value of marketings....\$1,000 | 589 | 62 | 477 | 22 | | 28 |
| Milk, quarts.....1,000 | 54,014 | 2,837 | 46,754 | 1,982 | 2,441 | |
| Value of marketings....\$1,000 | 10,364 | 524 | 8,630 | 523 | | 687 |
| Hogs and pigs.....number | 54,920 | 3,890 | 45,930 | 2,540 | 2,130 | *430 |
| Slaughter ¹number | 70,060 | 6,590 | 55,730 | 2,880 | 4,460 | 400 |
| Live weight.....1,000# | 11,644 | 1,075 | 9,405 | 424 | 676 | 64 |
| Value of marketings....\$1,000 | 3,687 | 364 | 2,891 | 176 | 233 | 23 |
| Chickens.....1,000 | 1,189 | 171 | 824 | 122 | 71 | 2 |
| Meat birds marketed.....1,000 | 1,423 | 172 | 1,056 | 120 | 72 | 3 |
| Live weight.....1,000# | 5,647 | 620 | 4,186 | 498 | 327 | 16 |
| Value of marketings....\$1,000 | 2,015 | 246 | 1,440 | 191 | 130 | 8 |
| Eggs marketed, dozen.....1,000 | 10,700 | 1,828 | 6,909 | 1,173 | 778 | 12 |
| Value of marketings....\$1,000 | 6,433 | 1,061 | 4,169 | 700 | 494 | 9 |

*Includes Lanai.

¹Slaughter hogs imported from the mainland are not included.

Source of tables 9 to 12: University of Hawaii, Hawaii Cooperative Extension Service, Statistics of Hawaiian Agriculture, 1960.

Table 13.-- LAND ACREAGE USED FOR SUGAR OR PINEAPPLE, BY ISLAND: 1960

| Crop | The State | Hawaii | Maui | Lanai | Molokai | Oahu | Kauai |
|----------------|-----------|---------|--------|--------|---------|--------|--------|
| Sugar..... | 287,400 | 134,800 | 53,700 | -- | -- | 40,100 | 58,800 |
| Pineapple..... | 96,500 | -- | 19,300 | 16,100 | 13,500 | 35,900 | 11,700 |

Source: University of Hawaii, Land Study Bureau, Land Use on the Six Major Islands of Hawaii, 1960 (L. S. B. Report No. 3, November 1960).

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Table 14.-- SOIL CONSERVATION DISTRICTS:
CUMULATIVE TO JUNE 6, 1957

(The Hawaii Soil Conservation Districts Law was enacted by the 1947 Territorial Legislature.)

| Subject | Number | Thousands of acres |
|----------------|--------|--------------------|
| Districts..... | 16 | 3,370 |
| Farms..... | 4,968 | 2,330 |

Source: U.S. Department of Agriculture, Soil Conservation Service, Improving Hawaiian Soil Resources (July 1958).

Table 15.-- INCORPORATED AGRICULTURAL COOPERATIVES: JANUARY 1, 1959

| Subject | Number |
|----------------------------|--------|
| Cooperatives..... | 27 |
| Fruits, vegetables..... | 9 |
| Livestock, poultry..... | 7 |
| Coffee..... | 4 |
| Miscellaneous..... | 7 |
| Membership..... | 2,071 |
| Active..... | 1,380 |
| Non-member patrons..... | 2,085 |
| Business (\$1,000,000).... | 114 |
| Marketing..... | 113 |
| Purchasing..... | 1 |

Source: Hawaii Agricultural Experiment Station, University of Hawaii, Agricultural Cooperatives in Hawaii, 1959.

Table 16.-- SUITABILITY OF LAND FOR INTENSIVE AGRICULTURE, FOR THE SIX LARGEST ISLANDS (IN ACRES): 1960

| Island | All land | Well suited | Moderately suited | Fair to marginal | Un-suited | Un classified |
|------------------|-----------|-------------|-------------------|------------------|-----------|---------------|
| Six islands..... | 4,043,520 | 125,158 | 234,529 | 435,605 | 3,121,223 | 127,005 |
| Oahu only..... | 386,560 | 67,816 | 30,754 | 29,707 | 258,283 | --- |

Source: Land Study Bureau, University of Hawaii, Hawaii: Its Major Islands (L. S. B. Circular No. 10, July 1960), p. 4.