

# HAWAII PAPAYAS



National Agricultural Statistics Service

Hawaii Agricultural Statistics Service  
Hawaii Department of Agriculture  
Box 22159, Honolulu, HI 96823-2159  
(808) 973-9588  
FAX (808) 973-2909  
Internet Web Site <http://www.nass.usda.gov/hi>

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## SEPTEMBER PRODUCTION ESTIMATED AT 3.9 MILLION POUNDS

Hawaii fresh papaya production is estimated at 3.9 million pounds for September, 7 percent lower than last month, but 17 percent more than September 2000.

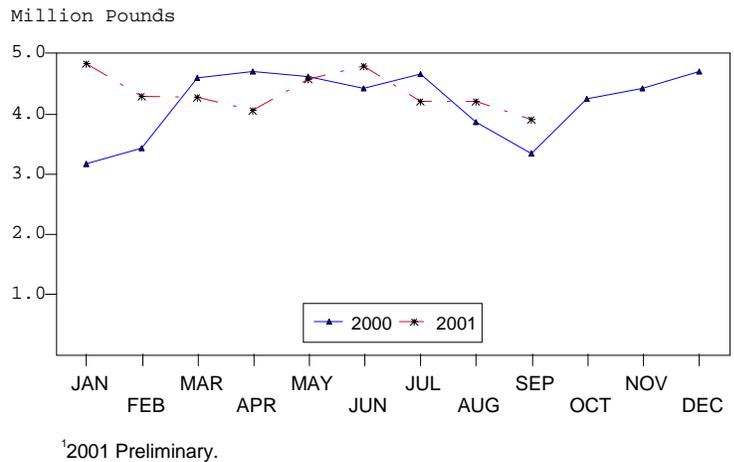
September weather conditions were variable with a mix of sunshine and showers over major papaya producing areas. Soil moisture in non-irrigated orchards has been adequate. Fruit losses were higher than usual as some shippers refused fruit for a week as a result of interruption of air service due to the Sept. 11 terrorist attack.

Area in crop totaled 2,690 acres, 24 percent lower than June and 2 percent less than a year ago.

Harvested area, at 1,925 acres, was 5 percent lower than June, but 12 percent higher than September 2000.

Papaya growers are expected to receive an estimated 27.0 cents per pound for fresh fruit in September, 10 percent (3.0 cents) lower than last month and 11 percent (3.2 cents) below last year.

## FRESH PAPAYA UTILIZATION STATE OF HAWAII, 2000-2001



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## FRESH PAPAYA UTILIZATION, STATE OF HAWAII, MONTH OF: September 2001

| Island                               | Sales               |            |              |             | Year ago | Year-to-date |        |
|--------------------------------------|---------------------|------------|--------------|-------------|----------|--------------|--------|
|                                      | Local <sup>1</sup>  | Intrastate | Out-of-State | Total fresh |          | 2000         | 2001   |
|                                      | <i>1,000 pounds</i> |            |              |             |          |              |        |
| Hawaii.....                          | 121                 | 1,349      | 1,700        | 3,170       | 2,300    | 24,110       | 29,665 |
| Kauai.....                           | 35                  | 40         | 20           | 95          | 215      | 3,400        | 1,360  |
| Maui/Molokai/Oahu <sup>2</sup> ..... | 627                 | 3          | 20           | 650         | 840      | 9,345        | 8,150  |
| State.....                           | 783                 | 1,392      | 1,740        | 3,915       | 3,355    | 36,855       | 39,175 |

<sup>1</sup> On island of production.

<sup>2</sup> Combined to avoid disclosure of individual operations.

DONALD A. MARTIN  
State Agricultural Statistician

ARTHUR Y. OSAKI  
Research Statistician

SANDY K. NAKASONE  
Statistical Assistant

**PAPAYA ACREAGE, STATE OF HAWAII, 2001 WITH COMPARISONS**

| Island                 | Total acreage in crop |       |       |       |           |       |          |      |
|------------------------|-----------------------|-------|-------|-------|-----------|-------|----------|------|
|                        | March                 |       | June  |       | September |       | December |      |
|                        | 2000                  | 2001  | 2000  | 2001  | 2000      | 2001  | 2000     | 2001 |
| Hawaii.....            | 2,100                 | 2,270 | 1,600 | 3,000 | 2,050     | 2,360 | 2,040    |      |
| Kauai.....             | 325                   | 120   | 340   | 105   | 235       | 75    | 185      |      |
| Maui/Molokai/Oahu..... | 665                   | 470   | 645   | 430   | 470       | 255   | 470      |      |
| State.....             | 3,090                 | 2,860 | 2,585 | 3,535 | 2,755     | 2,690 | 2,695    |      |
|                        | Total bearing acres   |       |       |       |           |       |          |      |
| Hawaii.....            | 1,010                 | 1,660 | 950   | 1,670 | 1,300     | 1,675 | 1,495    |      |
| Kauai.....             | 185                   | 85    | 200   | 80    | 160       | 50    | 125      |      |
| Maui/Molokai/Oahu..... | 460                   | 280   | 435   | 285   | 265       | 200   | 255      |      |
| State.....             | 1,655                 | 2,025 | 1,585 | 2,035 | 1,725     | 1,925 | 1,875    |      |

**FRESH PAPAYA FARM PRICE, STATE OF HAWAII, 2000-2001**

| Year              | Jan.                   | Feb. | Mar. | Apr. | May  | June | July | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|-------------------|------------------------|------|------|------|------|------|------|------|------|------|------|------|---------|
|                   | <i>Cents per pound</i> |      |      |      |      |      |      |      |      |      |      |      |         |
| 2000              | 44.9                   | 44.8 | 38.8 | 39.6 | 26.7 | 25.7 | 36.3 | 34.5 | 30.2 | 22.7 | 21.0 | 21.0 | 31.6    |
| 2001 <sup>1</sup> | 21.0                   | 28.0 | 32.0 | 37.0 | 35.0 | 32.0 | 33.0 | 30.0 | 27.0 |      |      |      |         |

<sup>1</sup> Preliminary.

# Papaya Acreage Survey 2001 Results

There are many varieties of papaya being grown in the islands. Being well adapted to growing conditions in the Puna district of the Big Island where rainfall is plentiful and the land is porous for good drainage, the Kapoho variety has been the predominant variety produced by the industry for several decades.

Papaya Ringspot Virus (PRV) has been present in the State since 1959, being first discovered on Oahu. It is well established on Oahu and commercial papaya growing on Oahu is, at most, marginally successful. PRV has been present on the Big Island for many years. However, the Big Island's mountains, forests, and low population had kept papaya growing areas in the Puna district geographically isolated from other virus infected districts of the Big Island -- until 1992.

Prior to 1992, production has had its ups and downs from year to year. After PRV's foothold into the Puna district in 1992, production rapidly declined. To try to re-establish the amount of area devoted to the Kapoho variety, plantings of papaya increased in areas outside the Puna district as well as on other islands. Growers on the Big Island moved their operations to lands formerly planted to sugarcane along the Hamakua coast where the incidence of PRV was nil. The Hamakua area is known for its ample rainfall. However, the soil is very different from that found in the Puna district. Kapoho did not do well outside the Puna area and PRV kept spreading. Statewide production reached a 23-year low in 1997.

After many years of research, PRV resistant varieties Rainbow and Sunup were released to growers in May 1998. An increase in the quantity of fruit of the Rainbow variety became noticeable toward the end of summer 1999 as fields matured. Overall, yields increased in 1999 as production increased in virus free areas and more resistant orchards began to bear fruit.

Dramatic yield increases occurred in 2000 as harvest started on more Rainbow acreage and close monitoring and roguing of PRV infected trees has kept disease incidence low.

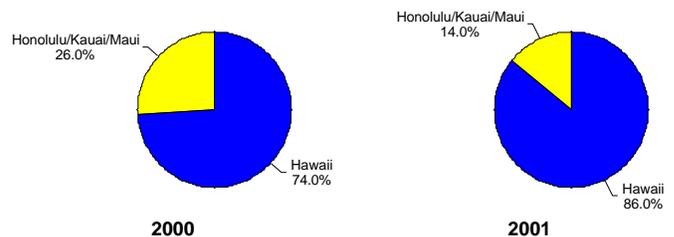
## Acreage Summary

Hawaii's August 2001 total papaya acreage was pegged at 2,720 acres, 2 percent lower than the same time a year ago. A 16 percent increase in total papaya acreage for Hawaii county was not enough to offset a 46 percent drop for Maui/Honolulu counties and a 62 percent decrease for Kauai county. However, the number of bearing acres (harvested) were 21 percent greater at 1,955 acres.

The Big Island's 153 farms accounted for 87 percent of the state's total papaya acreage, and the Big Island's harvested acreage comprised 86 percent of the State's harvested papaya acreage. A year ago, the Big Island's share was 74 percent. By comparison, the Big Island accounted for over 90 percent of the harvested acreage from 1986 through 1996.

Maui/Molokai/Oahu followed with 35 growers and 10 percent of the total papaya acreage. Kauai's 17 producers had 3 percent of the State's total papaya acreage.

**Papaya: Harvested Area  
Hawaii vs. Honolulu/Kauai/Maui  
August 2001 with 2000 Comparison**



**Papaya acreage, State of Hawaii, August 2001 with 2000<sup>1</sup> comparison**

| County        | Farms  |      | Bearing           |       | Non-bearing |      | Total |       |
|---------------|--------|------|-------------------|-------|-------------|------|-------|-------|
|               | 2000   | 2001 | 2000              | 2001  | 2000        | 2001 | 2000  | 2001  |
|               | Number |      | ----- Acres ----- |       |             |      |       |       |
| Hawaii        | 174    | 153  | 1,185             | 1,675 | 855         | 685  | 2,040 | 2,360 |
| Maui/Honolulu | 46     | 35   | 280               | 225   | 230         | 50   | 510   | 275   |
| Kauai         | 24     | 17   | 145               | 55    | 80          | 30   | 225   | 85    |
| State         | 244    | 205  | 1,610             | 1,955 | 1,165       | 765  | 2,775 | 2,720 |

<sup>1</sup> Revised.

## Varietal Summary

Kapoho, with 43 percent of the state's total papaya acreage, was the predominant variety grown. Rainbow, the predominant variety last August, was planted to 39 percent of the total acreage. Sunrise represents 11 percent of the acreage grown followed by other varieties which make up the remaining 7 percent.

Rainbow was being harvested from 41 percent of the bearing acreage. This was down from 54 percent a year ago. Kapoho represented 39 percent of the bearing acreage, up from 29 percent last August.

Slightly over half of the non-bearing acreage is of the Kapoho variety.

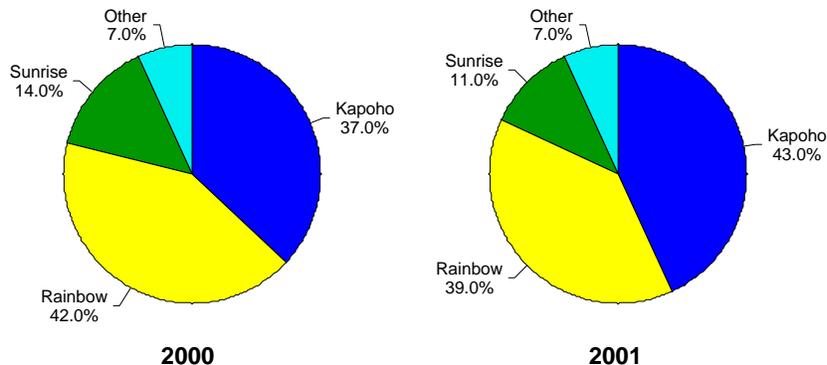
**Papaya varietal distribution, State of Hawaii, August 2001 with 2000<sup>1</sup> comparison**

| Variety            | Bearing        |      | Non-bearing |      | Total |      |
|--------------------|----------------|------|-------------|------|-------|------|
|                    | 2000           | 2001 | 2000        | 2001 | 2000  | 2001 |
|                    | <i>Percent</i> |      |             |      |       |      |
| Kapoho             | 29             | 39   | 49          | 53   | 37    | 43   |
| Rainbow            | 54             | 41   | 23          | 33   | 42    | 39   |
| Sunrise            | 11             | 12   | 19          | 11   | 14    | 11   |
| Other <sup>2</sup> | 6              | 8    | 9           | 3    | 7     | 7    |
| Total              | 100            | 100  | 100         | 100  | 100   | 100  |

<sup>1</sup> Revised.

<sup>2</sup> Sunup combined with "Other" to avoid disclosure.

**Papaya: Varietal Distribution  
State of Hawaii  
August 2001 with 2000 Comparison**



## Island Summary

Kapoho represents 49 percent of the Big Island's 2,360 total papaya acres, unchanged from a year ago. Rainbow was planted to 43 percent of the Big Island papaya acreage, compared to 45 percent a year ago. "Other" varieties made up the remaining 8 percent of Big Island papaya acreage.

Big Island's bearing acreage in Rainbow and Kapoho was 47 percent and 45 percent, respectively. This compares with last year's 56 percent and 38 percent for Rainbow and Kapoho, respectively.

### Papaya: Big Island varietal distribution, August 2001 with 2000<sup>1</sup> comparison

| Variety            | Bearing        |      | Non-bearing |      | Total |      |
|--------------------|----------------|------|-------------|------|-------|------|
|                    | 2000           | 2001 | 2000        | 2001 | 2000  | 2001 |
|                    | <i>Percent</i> |      |             |      |       |      |
| Kapoho             | 38             | 45   | 64          | 58   | 49    | 49   |
| Rainbow            | 56             | 47   | 30          | 35   | 45    | 43   |
| Other <sup>2</sup> | 6              | 8    | 6           | 7    | 6     | 8    |
| Total              | 100            | 100  | 100         | 100  | 100   | 100  |

<sup>1</sup> Revised.

<sup>2</sup> Sunrise combined with "Other".

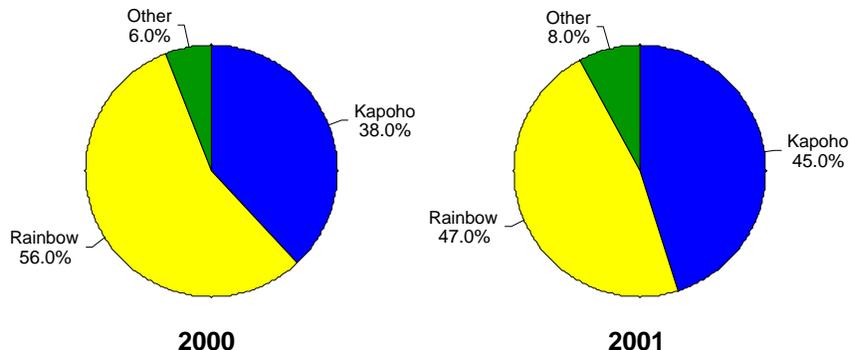
### Papaya: Big Island distribution within variety, August 2001 with 2000<sup>1</sup> comparison

| Variety            | Bearing        |      | Non-bearing |      | Total |      |
|--------------------|----------------|------|-------------|------|-------|------|
|                    | 2000           | 2001 | 2000        | 2001 | 2000  | 2001 |
|                    | <i>Percent</i> |      |             |      |       |      |
| Kapoho             | 47             | 66   | 53          | 34   | 100   | 100  |
| Rainbow            | 73             | 77   | 27          | 23   | 100   | 100  |
| Other <sup>2</sup> | 59             | 74   | 41          | 26   | 100   | 100  |
| Total              | 59             | 71   | 41          | 29   | 100   | 100  |

<sup>1</sup> Revised.

<sup>2</sup> Sunrise combined with "Other".

## Papaya: Harvested Acreage Distribution Big Island, August 2001 with 2000 Comparison



# Papaya Yields

## State of Hawaii, 1946-2001

Pounds per acre (1,000)

