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U. S. Mango Imports and Production in Hawaii

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Introduction

The mango (*Mangifera indica* L.) is an evergreen tropical tree belonging to the family Anacardiaceae. The more familiar cashew nut is a member of this family. The flowers are borne on terminal panicles. On a panicle there are as many as 1500 flowers or more, most of which are staminate. The fruit is a drupe and are borne singly or in clusters. The size of the fruit varies from a few ounces to as much as 2 or 3 pounds. In Hawaii, the fruiting season begins as early as April and ends as late as October. The long season is primarily the result of cultivars coming into bearing at different times of the year.

Production Areas

The cultivation of mangos extends within the region between 23° North and South latitude, with the center of production in India. Other important producing countries include Indonesia, Philippines, Pakistan and Bangladesh, Thailand and Mexico. The total world production of mangos is estimated at 9.5 million tons of which 7 million tons is produced in India. World trade in fresh mangos is small.

In the United States mangos are grown in Florida and Hawaii. The total estimated acreage in Florida in 1973 was 1450 acres. Production during the same year was estimated at 250,000 bushels (1 bushel = 55 lbs) or 13,750,000 pounds. Hawaii has

125* acres producing approximately 1,250,000 pounds. Supplementing this supply, however, is an abundance of mangos in Hawaiian home gardens. Fruits are sold locally or are exported to Canada.

Since Florida and Hawaii do not produce adequate quantities of mangos, fresh and processed mango imports are beginning to exceed the quantity being produced by growers in the United States. In 1973, total imports amounted to 10,057,000 pounds. In 1974, imports increased to 15,179,000 pounds, most of which was fresh fruit. The largest suppliers of mangos to the United States are listed in Table 1. Mexico supplies the bulk of the imports.

Table 1. Total Mango Imports into U. S. Fresh and Preserved.

Country	1973 (pounds)	1974 (pounds)
Mexico	6,938,000	12,066,000
Haiti	2,303,000	2,138,000
Taiwan	250,700	177,600
India	237,600	487,800

1973 statistics obtained from Mexico, the largest exporter of mangos to the United States, show that in 1973 there were approximately 71,500 acres in mangos with an estimated production of 600 million pounds. Of this production, about 7 million pounds were exported to the United States and the amount doubled to 12,000,000

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* $\frac{1}{4}$ acre or larger.

pounds in 1974. A breakdown of the Mexican states producing mangos compared to production in Florida and Hawaii is shown in Table 2.

The principal reason mangos have not expanded into a commercial enterprise in Hawaii is a quarantine against exports to mainland United States. The quarantine has been imposed because of the mango seed weevil which may be found in the seed of the fruit. The seed weevil is not known to cause damage to other fruit crops. The removal of the quarantine could stimulate the development of a new export industry in Hawaii.

Cultivars

Presently, the most popular mango cultivars being cultivated in Hawaii are the 'Haden', 'Pirie' and 'White Pirie'. The 'Haden' is sold in the markets as well as exported to Canada. On the other hand the 'Pirie' and 'White Pirie' primarily are home garden cultivars and the fruits are rarely marketed because most of it is consumed in the islands and yields are relatively modest. Other cultivars of merit include 'Pope', 'Gouveia' and 'Momi K'. Still others of some interest because of outstanding characteristics such as color, firmness, or flavor include 'Ah Ping', 'Waianae

Table 2. Mexico and U. S. Mango Acreage and Production for 1973.

MEXICO		
Largest producing States		
State	Acreage	Production in Tons
Veracruz	31,295	103,210
Oaxaca	12,558	38,031
Guerrero	4,470	39,250
Michoacan	2,515	15,223
Sinaloa	6,410	19,972
Chiapas	1,853	16,000
Total (all 24 states)	71,519	300,871
UNITED STATES		
Florida	1,450	6,875
Hawaii	125	625

Beauty', and 'Harders'. (15 slides of mango varieties in Hawaii, Costa Rica, Jamaica, Florida and Fiji were shown.)

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The Breadfruit

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"Ulu" is the Hawaiian name for breadfruit. The variety commonly found in Hawaii is *Artocarpus incisus*, known as the Hawaiian breadfruit. The fruit is large, round or oblong, and about four to eight inches in diameter, Fig. 1.

The breadfruit is part of the mulberry family. It has a male flower, a large yellow catkin, and a female

flower attached to the branch by a large stem. The fruit develops from the female flower.

The rind of the breadfruit is green in the upripe stage and as the fruit matures greenish-brown or yellow spots become visible.

Breadfruit is essentially a carbohydrate food; it is low in protein and fat. Table 2. 100 grams of cooked, green

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