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**John Ogonowski**  
**Latin America**  
**Farmer-to-Farmer Program**

## Executive Summary

The non-citrus tropical fruit market has remained stable in the United States, in terms of imports/exports, production and consumption, with slight increases in imports in the past 10 years. The influx of Hispanics into the United States, namely South Florida can be one of the reasons why these fruits have continued to gain wide acceptance among consumers.

Production in the non-citrus category has slightly decreased in the states, therefore importing has become more prevalent to meet the continuing demand. South Florida, though not the largest producer of tropical fruit continues to grow in production, with most farms in Miami-Dade County. Hawaii, and countries like India, and Brazil continue to be leading producers in the tropical fruit category, as well as China, Taiwan and Thailand for Lychee.

Sapodilla and Black Sapote are not as widely accepted as other fruits in the non-citrus tropical fruit category, and their markets are not as demanding. Guava, Papaya and Lychee have entered into the US market by way of lifestyle and trend. These fruits have gained wide acceptance because of their popularity and abundance due to large importations. The sapodilla and black sapote market lag behind in a smaller niche market, however continuing to grow in their category.

The tropical fruit market has a promising future, if they continue to gain attention by US consumers. As expert Florida Agriculture Commissioner Charles H. Bronson puts it... "I expect demands for tropical fruits to increase as consumers become more health conscious and as immigration continues to increase from the Caribbean and Latin American countries" and "Growers and scientists are working to meet an increasing

demand for tropical fruits in Florida and around the nation.” He also states “As people are becoming more health conscious, they are eating more fresh produce, and they are looking for variety.”

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## Introduction

## Program Rationale

The John Ogonowski Farmer-to-Farmer Program, funded by the United States Agency for International Development, provides voluntary technical assistance to farmers, farm groups, and agribusinesses in developing and transitional countries to promote sustainable improvements in food processing, production, and marketing. The program relies on the expertise of volunteers from U.S. farms, land grant universities, cooperatives, private agribusinesses, and nonprofit farm organizations to respond to the local needs of host-country farmers and organizations.

To date, approximately one million farmer families (representing about five million people) have been direct beneficiaries of the FTF Program. Volunteers have provided direct hands-on training to over 80,000 people.

Winrock International and Florida International University's College of Business Administration have combined their resources and knowledge to implement the John Ogonowski Farmer-to-Farmer Program in Latin America, from 2003-2008.

The MAR 4613 course was created to add value to the Farmer-to-Farmer Program and prevent scarce volunteer resources from being diverted to requests for assistance, which are best, completed in the United States. The resulting freed up resources allow the program to fulfill requests with volunteers where an in country expert is a necessity. Of added value, hosts receive this additional US-based volunteer service at no cost to the FTF program.

## Introduction

### Research Objectives

The objective of this research is to analyze the US market potential of a variety of commodities. Our goal is to provide information on a variety of commodities, which can then be applied by our in-country partners to their business strategies. The primary beneficiaries of these reports are small and medium-sized farming cooperative groups which do not have the capability nor the resources to conduct these studies on their own.

It is of critical importance that while drawing conclusions to satisfy the research objective, a thorough analysis is carried out. In order to do so, some of the questions which must be analyzed are:

1. What is the demand of the product in question?
2. Who are the buyers and consumers of the product?
3. What are the quality standards and packaging requirements?
4. What is the distribution system for the product?
5. Who are the competitors?
6. What government regulations apply to the import of this product?

If it is a new product for the market, additional questions must be asked:

1. Who are the potential buyers of this product?
2. What are the potential distribution channels?
3. What are the additional important issues which must be investigated before attempting to export the product?
4. Are there any regulations which might inhibit this product from being sold in the US market?

### Research Method

Given that the research objectives include getting background information of the potential market of the commodities included in the report, the research was conducted using an explorative design. Two main methods were employed: secondary data research and personal interviews. In some instances focus groups with consumers were conducted.

The secondary research was conducted by searching and interpreting existing information relevant from governmental and private electronic sources. When specific information about a commodity was not found secondary research was guided by similar commodities relevant to the information needed.

In order to complement the secondary research, personal interviews with experts were conducted. The interviewees were either academic or commercial experts in the production and commercialization of the commodities in question. In some cases, the researchers felt the need to complement this information direct input from the consumers; in those cases focus groups session were conducted.

The sources of the information are cited through out the content of the report. Contact information of the experts is provided. At the end of the report conclusions and recommendations for future action are suggested.

# **Guava**

## Product Description

Guavas are known worldwide by the many variations of its name; guayaba, guyava, guyave, goyavier, guyaba, goeajaaba, guave, goejaba, goiaba, kuawa, abas, jambu batu, and bayabas. Guavas are round in shape and measure around 2 to 4 inches. Its skin is thin and light in color, usually yellow with a little bit of pink intonation. When ripe the fruit gives off a strong sweet smell, and has a juicy wide range of flavors, from acid to sweet. Some guavas have hard seeds while others have soft or almost no seeds at all. Before ripe the fruit is green and very acerbic, which make it unpleasant to the taste buds.

The origin of guavas is unknown because it has been cultivated by man and its seeds distributed by birds and animals. But it is most likely from Central America or Mexico and very common in warm areas of the tropical Americas and the West Indies. They are also very common in areas like the Bahamas, Bermuda, East Indies, Guam, Asia, Africa, Egypt, Palestine and India as well as southern Florida. It is not as common in Algeria or France, but it is occasionally seen there.

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## Statistical Data

### U.S. Production Data

The non-citrus fruit production has remained relatively steady in recent years. In 2004 records indicate that utilized production in the non-citrus fruit category totaled to 16.8 million. This number nearly dropped 1% from 2003. To illustrate the steadiness in production, the below graph indicates bearing acreage and yield per acre from 2002 to 2004. Guavas slightly decreased in bearing acreage from 550 acres in 2002 to 500 acres in 2004. Also the yield per acre slightly decreased from 8.80 tons in 2002 to 8.10 tons in 2004, with a significant drop in 2003 at 6.30 tons.

The total utilized production for Guava decreased from 4,900 tons in 2002 to 4100 tons in 2004. Hawaii is the largest producer of guava of the United States, accounting for 46% of total production. Florida, mainly Dade-County also has increasing levels of production; however it is not always seen relevant when compared to other production states because the levels of production are much lower. Acreage increased from 199 acres in 1998 to 291 acres in 2001. From its introduction to Florida in 1847 from Cuba, guava production has grown significantly. <sup>2</sup>

Guava total pre-harvest costs in Miami-Dade County in Miami,FL are estimated at \$3582.<sup>3</sup>

## Guava

### Apparent Consumption

The annual U.S. per capita consumption is 0.0158 lbs per person per year. In comparison to New York State which has a total consumption of 692,429.<sup>4</sup>

### Statistics of Foreign Trade

#### EXPORTATIONS:

Top Exporters to the United States include, Mexico, Brazil, Peru, Ecuador, Haiti, Philippines, Guatemala, Thailand, Nicaragua, and Costa Rica.

#### IMPORTATIONS:

The U.S. imports 10 million lbs of pink guava puree per and 2.4 million lbs of white. <sup>5</sup>

### Origin of Importations

The origin of guava is unsure; however studies indicate it originated in Mexico or Central America, and did not arrive in Hawaii until the early 1880s.<sup>6</sup>

## Guava

## Market Characteristics

## Consumer Preferences

### Fresh:

Guavas are consumed fresh or cooked, both ways are very common. When eaten fresh, the fruit is most often seeded and cut into slices. This method works well for desert dishes or toppings on a salad.

### Cooked:

Guavas are also often cooked, as in a stew, to make the popular guava shells, or in Spanish “cascos de guayaba”. Stewed guava shells are a common dish in Latin American countries. The guava is sliced in two halves, removing the central seed pulp. The shells are placed in a pot of hot water and boiled, later adding the seeds that had been previously removed to enrich and thicken the syrup.

### Canned:

The guava is also available canned with adequate amounts of syrup to maintain the moisture and taste and is often eaten along side a slice of cream cheese. They are sold with or without seeds.

### Paste:

Probably the most common form preferred by consumers is guava paste, also complemented with a slice of cream cheese. The paste comes in a form of a long thick bar, easy to cut.

## Guava

### Juice:

The juice is made by boiling sliced guavas pieces that were previously seeded and strained.

The juice is used to make punch or ice cream sodas.

Developed in South Africa is a clear juice, made by “trimming and mincing guavas” and combining them with a natural fungal enzyme. After leaving it for 18 hours at 120° to 130° F (49°-54° C) the juice is then filtered, and made into waffle syrup, ice cream, puddings, or milkshakes. Guava in the form of juice is most popular in the Caribbean islands.

### Frozen:

The guavas are also cut into halves sprinkled with sugar and frozen for future use in cakes, pies, puddings, sauce, ice cream, jam, butter, marmalade, chutney, relish, and catsup.

### Dehydrated:

Guavas that have been dehydrated to a powder-like substance can be used to flavor ice cream, to make fruit juices, to make jelly by boiling with sugar. It may also be used as pectic to make low-pectin fruit jellies. 7

## Quality Standards

Guavas can be categorized into 3 classes: “Extra” Class, Class I and Class II. Regardless of class all guavas imported into the United States must maintain the following qualifications:

- whole;
- firm;
- healthy and free from rotting or deterioration such as to make it unfit for consumption;
- clean and practically free from any visible foreign matter;
- practically free from any bruises;
- practically free from pests and damage caused by pests;
- free from abnormal external moisture, except for condensation following removal from cold storage;
- free of foreign smell and/or taste;
- practically free from spots;

## Guava

### “Extra” Class

In this class guavas must meet superior quality, free of defects, not including and minor superficial defects. These defects may not affect the overall appearance of the fruit, it may not compromise quality or the quality of the presentation when packaged.

### Class I

The fruits in this category also maintain strict quality standards; however there is more leniency with the types of defects, as long as they do not compromise quality or appearance of the produce.

The following minor defects are acceptable, unless the above provisions are not met

- slight defects of color or shape
- slight defects on the skin due to rubbing and other superficial defects such as sunburns
- blemishes and scabs not exceeding 5% of the total surface area.

These minor defects though acceptable may in no circumstance compromise the quality of the pulp of the fruit.

### Class II

The guavas in this class do not qualify in “Extra” Class nor Class I, however they satisfy minimum requirements. The following minor defects are acceptable, unless general provisions regarding the quality of the fruit or the quality of the presentation when packaged are not met.

- Defects in shape and color
- Defects on the skin due to rubbing and other defects such as sunburns, blemishes and scabs not exceeding 10% of the total surface area.

These minor defects though acceptable may in no circumstance compromise the quality of the pulp of the fruit.<sup>8</sup>

**Availability:** September-January, California, January-March and June-October, Florida. Grade: harvest at mature green stage, 90-120 mm (3.5-4.5 in) diameter.

**Precooling:** forced air.

**Temperature & Relative Humidity:** 5 to 10 C (41-50 F) 85-90%.

**Sensitivity:** chilling injury at 2 C (36 F), ethylene producer.

**Transit & Storage Life:** 2-3 weeks.<sup>8</sup>

## Acceptable Conditions

When buying guava look for guavas that are relatively soft when pressure is applied to the outer layer. Some guavas have small black marks; avoid too many black marks per guava. The color to look for is a yellow to yellow-green (flesh has more flavor).<sup>9</sup>

**Guava****Demand Trends**

Fresh guava is popular with Asian and Hispanic populations. Influx of these peoples to the U.S. brings greater demand for guava as a flavor component in processed foods and juices. <sup>10</sup>

## Market Access

## Tariff Measurements

Tariff Measurements<sup>11</sup>

<u>Heading/ Subheading</u>	<u>Suffix</u>	<u>Article Description</u>	<u>Unit of Quantity</u>	<u>Rates of Duty</u>	
				<u>General</u>	<u>Special</u>
2008.99.30	00	Guavas	kg	Free	35%
0804.50.40		Guavas	kg	6.6 cents	

## Restrictions

Guava cannot be shipped, offered for shipment, received for transportation or transported, carried, or allowed to be moved, shipped, transported, or carried by any means, from any state into or through any other state. This restriction is in affect for any area quarantined due to the oriental fruit fly. The Oriental Fruit Fly restriction is still in affect as of May 25, 2006.

### **Oriental Fruit Fly**

**Source:** 58 FR 8521

**§ 301.93 Restrictions on interstate movement of regulated articles.**

## Guava

No person shall move interstate from any quarantined area any regulated article except in accordance with this subpart.

Any properly identified inspector is authorized to stop and inspect persons and means of conveyance, and to seize, quarantine, treat, apply other remedial measures to, destroy, or otherwise dispose of regulated articles.<sup>12</sup>

The marking should be placed in a visible area, where it can be seen when item is being handled. The marking should not be covered or concealed; it must be visible and legible. A proper size and clearly marked must be used, so that a person of normal vision can easily read it. Any person who alters or removes the marking could be subject to criminal prosecution.<sup>15</sup>

## Regulations

Recommended temperature, relative humidity, and approximate transit and storage life for Guavas:

Product	Temp. oC	Temp . oF	Humidity %	Approximate Storage Life
Guava	5-10	41-50	90	2-3 weeks

<sup>13, 14</sup>

## Technical Procedures

All articles coming into the U.S. must be properly marked with the English name of the country of origin (the country of manufacture, production, or growth of the article).

For items such as fruits that cannot be marked it is appropriate to mark the outer container with the country of origin.

**Guava**

**Prices**

In 2004 guava prices were at 14.4 cents per pound, increasing from 13.8 cents in 2003, which had dropped from 15 cents in 2002. Sales in 2004 were at \$1,166,000, increasing from \$925,000 in 2003. Sales had significantly dropped since their peak in 2001 at \$2,157,000.<sup>16</sup>

Prices for cartons of guava for different terminal markets are as follows:

<b>Terminal Market</b>	<b>Average Unit Price 2004</b>	<b>lbs/carton</b>	<b>Origin</b>
<b>New York</b>	\$34.00	30	Florida
<b>Atlanta</b>	\$25.00	10	Florida
<b>Boston</b>	\$30.00	10	Florida
<b>Philadelphia</b>	\$21.00	10	Florida

The terminal market, New York, is purchasing guavas at the most competitive price at 30lbs per carton.<sup>17</sup>

# Papaya

## Papaya

## Product Description

Papayas are also known as papaws, or pawpaws in some parts of the world, such as the West Indies and Australia. The Asians like to call it kapaya, kepaya, lapaya or tapaya, while the French call it papaye. In the Latin American world papayas have many different names: melón zapote, lechosa, papayo, fruta bomba, mammon, mamona or mamao. When the Europeans were first introduced to the fruit, it was given the name “tree melon” because of its melon resemblance. Papayas are usually oval shaped; they measure 6 to 20 inches in length (15-30 cm) and 4 to 8 inches in thickness (10-20 cm) and can weigh as heavy as 20 lbs (9kg). The fruit has a tough skin, even though it is thin and waxy. Before ripening the skin is green and rich in white latex, once ripe its outer color changes to different shades of orange. If sliced open, the papaya will exhibit its many small round gelatinous black seeds, which are attached to the fruit by fibrous tissue. The papaya is soft in texture and its taste somewhat resembles that of cantaloupes; very sweet and juicy.

The papaya has been adopted by many countries and is now well-known in almost all tropical regions and Pacific Islands. The exact origin of the fruit is not known, but the papaya is believed to have originally come from tropical parts of the Americas, such as southern Mexico and Central American countries. The papaya plants can now be found in home gardens in many parts of the world, Florida being one of them, reaching heights of 5 to 6 feet. <sup>18</sup>

## Statistical Data

### U.S. Production Data

Papaya production has also remained steady in recent years. In 2002 the bearing acreage was 1,720 acres and slightly decreased in 2004 to 1,235 acres. The yield per acre however, increased from 13.40 tons in 2002 to 14.50 tons in 2004. The total utilized production also decreased from 23,000 tons in 2002 to 17,900 tons in 2004. In 2002 papaya production value was \$14,598.00 Hawaii accounts for most of the United States papaya production accounting for 1,960,000 lbs this year, decreased at 28% from the previous year but increased 4% from prior months. This number slightly decreased from 2005 when production was 2,740,000 lbs. Production within the states has slightly decreased from 35,800 lbs in 2004 to 32,900 lbs in 2005, however relatively steady.

Total pre-harvest costs in Miami-Dade County Miami, FL are estimated at \$3,872.00.<sup>19</sup>

### Apparent Consumption

United States has increase to 24% consumption of Papaya from 2003 to 2004. Its consumption is approximately 277.8 million pounds around the country. 75% of the supplies in 2004 were by Mexico with the largest production shipment volume. Other suppliers are Belize, and Brazil. Local production from Hawaii has been also increasing since 2004 covering 7% of the production of the fruit <sup>16</sup>.



## Papaya

## Market Characteristics

## Consumer Preferences

### Fresh:

When ripe they are most commonly eaten peeled, seeded and sliced into wedges, served with lime or lime or lemon. For those who enjoy the peppery flavor of the seeds, they can be eaten in moderation. The fresh papaya can also be added to a fruit salad or mixed fruit cup by cutting into small cubes. Unripe papaya is not commonly eaten, except in Thai or Vietnamese cooking where it is very common. The latex-like texture makes it very difficult to eat.

### Cooked:

Papaya may also be baked and eaten as a vegetable side dish. The flesh can also be used for shortcake, ice cream sundaes, cooked in a pie, pickled or made into marmalade or jam. The papayas can also be reduced to puree for later use in juices or jams.

### Juice:

Juice is also made from peeled or unpeeled papayas, which can be sold fresh or in bottles. <sup>23</sup>

## Quality Standards

**Availability:** year-round, Florida, Hawaii, Puerto Rico, Mexico, West Indies, Belize, Chile, Phillipines.

**Grade:** Hawaiian No. 1, harvested mature green, marketed one quarter to three quarter ripe, green to yellow-orange.

## Papaya

**Treatments:** hot water double-dip for fruit fly eradication and control of decay, at quarter ripe stage. Ripen at 21 to 27 C (70-81 F).

**Precooling:** forced air.

**Temperature & Relative Humidity:** 7 to 13 C (45-55 F), 85-90%.

**Sensitivity:** chilling injury below 7 C (45 F); bruising; ethylene producer.

**Transit & Storage Life:** 1-3 weeks.<sup>24</sup>

## Acceptable Conditions

In the process of ripening, the papaya's outer layer changes from green to yellow and finally when ripe to yellow-orange. When ripe the papaya should be soft when in pressing moderately on the skin. Once they are ripe the taste is sweet and creamy. If the papaya is still not ripe the it will be hard and tasteless. The fruit may be ripened at room temperature and to maintain freshness stored in the refrigerator. In order to speed the ripening process, placing the papaya in brown paper bag is commonly done.<sup>25</sup>

## Demand Trends

Currently in the state of Florida there is a severe shortage of papayas, due to low importation rates and low levels of production. The increasing migration of consumers from Latin American countries has increased the demand for the fruit. Growers in the state of Florida are striving to meet this demand with the support of University of Florida Agricultural Research and Education and Education Center in Homestead.<sup>26</sup>

## Market Access

## Tariff Measurements

### Tariff Measurements<sup>27</sup>

<u>HTSUS No</u>	<u>Article Description</u>	<u>Unit of Quantity</u>	<u>Rates of Duty</u>
0807.20.00	Papayas	kg	5.4%

## Restrictions

Papayas cannot be shipped, offered for shipment, received for transportation or transported, carried, or allowed to be moved, shipped, transported, or carried by any means, from any state into or through any other state. This restriction is in affect for any area quarantined due to the oriental fruit fly. The Oriental Fruit Fly restriction is still in affect as of May 25, 2006.

### **Oriental Fruit Fly**

**Source:** 58 FR 8521

### **§ 301.93 Restrictions on interstate movement of regulated articles.**

No person shall move interstate from any quarantined area any regulated article except in accordance with this subpart.

## Papaya

Any properly identified inspector is authorized to stop and inspect persons and means of conveyance, and to seize, quarantine, treat, apply other remedial measures to, destroy, or otherwise dispose of regulated articles.<sup>27</sup>

proper size and clearly marked must be used, so that a person of normal vision can easily read it. Any person who alters or removes the marking could be subject to criminal prosecution.<sup>30</sup>

## Regulations

Recommended temperature, relative humidity, and approximate transit and storage life for Papayas:

Product	Temperature C	Temperature F	Humidity %	Approximate Storage Life
Papaya	7-13	45-55	85-90	1-3 weeks

28 29

## Prices

Current papaya farm prices are at .49 cents per pound, jumping 11 cents since last year at .38 cents. <sup>31</sup>

## Technical Procedures

All articles coming into the U.S. must be properly marked with the English name of the country of origin (the country of manufacture, production, or growth of the article).

For items such as fruits that cannot be marked it is appropriate to mark the outer container with the country of origin.

The marking should be placed in a visible area, where it can be seen when item is being handled. The marking should not be covered or concealed; it must be visible and legible. A

# Lychee

## Product Description

The fruit is most commonly known as litchi, but in some regions it is called lichi, lichee, laichi, leechee, lechia, uenepe chinois, or lychee. The lychee is most of the time oval shaped or round and about 1 inch in width and 1.5 inches long. The outside color ranges from red to pink with a little bit of green sometimes. The skin is bumpy and thin, flexible and easily peeled off once the fruit is fresh. The inside of the fruit is a translucent white or grey color which resembles a grape, and separates easily from the seed which is not edible. Lychee's flavor is sub acid and very unique.

Lychees originally come from southern China, especially along rivers and near the coast, but are also cultivated in other Asian countries. It is also cultivated in the West Indies, England, France, Hawaii and the U.S (mostly Florida and California). Even though China is the main producer of lychee, India has also been a very large producer of the fruit. Other countries that cultivate lychees are: Pakistan, Bangladesh, Burma, former Indochina, Taiwan, Japan, the Philippines, Queensland, Madagascar, Brazil and South Africa. <sup>32</sup>

## Statistical Data

### U.S. Production Data

The main cultivator of lychee worldwide is Asia, accounting for 95% of world production at 2.11 million tons. Accounting for 500,000 of the 2.11 million tons is Africa, Madagascar and Australia.

Asia accounts for the majority of the balance producing in countries like China, India, Taiwan, Thailand and Vietnam, the world's top five largest lychee producers. Small amounts of lychee are produced in the United States, Mexico, Central and South America. China accounts for the majority of lychee production, covering 1,482,626 acres, 60% of which has been developed within the past ten years. Total annual production in China is 1.5 million tons, dropping to 0.6 million on a lower-production year. Yields average to roughly one ton/acre.

Producing approximately 500,000 tons of lychees per year on 138,873 acres is India, the second largest lychee producer. The average productivity is 3.1 tons/acre 1.6 tons/acre more than China.

Taiwan being the third largest producer, accounting for 100,000 tons of lychee production per year, in which 90% is sold on the domestic market. In 1988 lychee production peaked at an all time high at over 37,067 acres, but has declined to approximately 29,653 acres ever since.

Thailand is the fourth largest lychee producer, estimating production of 85,000 tons per year on 54,857 acres. <sup>33</sup>

## Lychee

The United States produces a small amount of lychee, estimating production of approximately 433 tons per year from 1,535 acres. Florida which accounts for most U.S. production occurs at 1,201 acres, Hawaii at 304 acres, and California at 30 acres. Total pre-harvest costs in Miami-Dade County Miami, FL are estimated at \$2,125.00.

Hawaii emerging as a major producer of Lychee for the United States, has increased the number of farms and therefore acres of lychee production, producing an increase from 77,000 lbs (90 farms and 330 acres) 88,000 lbs (110 farms and 370 acres)

## Apparent Consumption

For the lychee market, less than five percent of the world's production, or approximately 100,000 tons, enters into world trade on an annual basis. The fresh fruit market dominates the trade, followed by dried and canned fruit. <sup>34</sup>

## Statistics of Foreign Trade

### EXPORTATIONS:

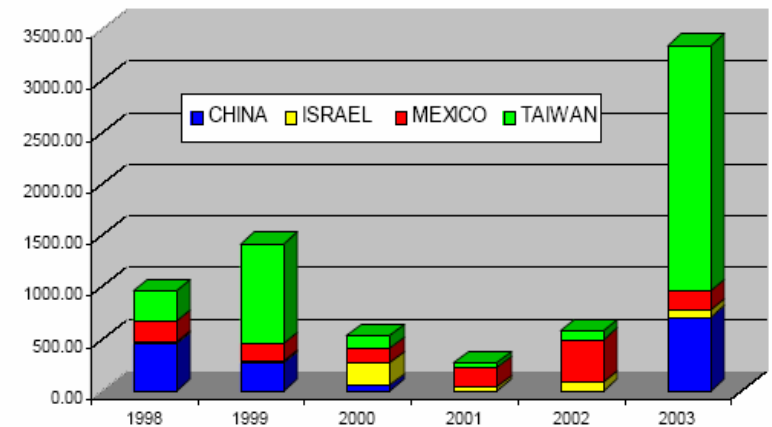
The main exporting countries are China, Taiwan, Thailand, Madagascar, South Africa, Mexico (most of it sent to California) and Australia.

### IMPORTATIONS:

Importing countries are the European Union, the United States, Hong Kong, Singapore, Japan, and Canada.

Lychee imports have dramatically increased from 967.9 tons in 1998 to 3,345.8 tons in 2003, due to imports from Taiwan. Taiwan being the main importer to the United States has dominated Mexico, United States previous main supplier of lychees. In 2003 Taiwan peaked to 2,373 tons, which translated to 70% of total US imports. Prices for lychees have considerably dropped due to this increase in importations.<sup>35</sup>

**US IMPORTS OF LYCHEE (1998-2003)**



**SOURCE:** TAA Trade Adjustment Assistance for Farms

## Lychee

### Origin of Importations

Lychee originated in Asia, specifically, Kwangtung and Fukien in Southern China. Soon it spread to neighboring countries in Asia. It was introduced to Hawaii and Florida in the late 1800's. <sup>36</sup>

## Market Characteristics

## Consumer Preferences

### Fresh:

Lychees are consumed relatively quick. They are peeled and pitted to remove seeds, and most commonly added to fruit salads or mixed fruit cups. A popular lychee dish is lychee stuffed with cottage cheese, which is served as a salad topped with pecans and a light dressing. They may also be stuffed with a mixture of cream cheese and mayonnaise, or pecan meats, and later topped with whipped cream to taste. Lychees are also served with ice cream, preferably pistachio ice cream and topped with whipped cream. They may be pureed and used to make ice creams.

Lychee Sherbet is made with fresh lychee juice, plain gelatin, hot milk, light cream, sugar and lemon juice.<sup>37</sup>

## Quality Standards

**Availability:** June-July, Florida, Mexico; September-October, California; Bahamas, Dominican Republic, Haiti, Jamaica.

**Grade:** rough orange-red fruit, 25-50 mm (1-2 in) diameter.

**Precooling:** forced air.

**Temperature & Relative Humidity:** 1.5 C (35 F), 90-95%.

**Sensitivity:** freezing injury, high moisture loss rate.

**Transit & Storage Life:** 3-5 weeks<sup>38</sup>

## Lychee

### Acceptable Conditions

Lychees because are consumed relatively quickly to achieve maximum freshness they should be ripe when purchasing. The skin, a raspberry red color, should peel away with ease. Lychees tend to dry relatively quickly, eating once they are ripe is best recommended.<sup>39</sup>

### Demand Trends

US Production of lychee is relatively low compared to other countries, however because of this production does not out weigh demand. It is produced and distributed domestically and consumption surpasses the demand for the fruit.

- Demand for lesser known uncommon fruit crops, such as lychees and longans, is expanding in the US in large part due to growth of Asian and Hispanic ethnic minority populations who readily search out the fruit in specialty stores. Demand is also growing among health-conscious consumers who seek exotic fruit dishes. Historically, the demand was primarily satisfied by frozen or canned fruit, but demand for fresh fruit is increasing.
- The demand for these non-traditional fresh fruit products has stimulated interest by fruit importers and wholesalers. Currently, much of the supply of the fresh fruit in California is from small back yard plantings in Southern California, and periodic shipments of fruit fly-free zones of Mexico or from China or Taiwan. Florida

is the only U.S. domestic production area of any size, and a large percentage of Florida fruit moves to Northeastern U.S. markets. In 1996, Florida growers harvested 1.37 million pounds of lychees valued at \$2.75 million, and 875,000 pound of longans valued at \$1.75 million. <sup>40</sup>

## Market Access

## Tariff Measurements

Tariff on Lychee from China – 20% and 15%

HTSUS No	Article Description	Rates of Duty(2004)
20089910	Lychee, in airtight containers	20%
20089990	Other	15%

41

## Restrictions

Litchi Rust Mite

Litchi from China cannot be imported into Florida due to litchi rust mite.

§ 318.13-4c Fruits listed in this section may only be moved interstate from/through Hawaii in accordance with this section or in accordance with other applicable sections in this subpart.

The following fruits may be moved interstate from/through Hawaii if, prior to interstate movement, they are inspected for plant pests by an inspector and are then treated for fruit flies under the supervision of an inspector with a treatment prescribed in the Plant Protection and Quarantine (PPQ) Treatment Manual, which is incorporated by reference at § 300.1 of this chapter: Avocados, carambolas, litchi, longan,

**Lychee**

pineapples (other than smooth cayenne), rambutan, and tomatoes.

Litchi that are moved interstate from Hawaii under this section may not be moved into Florida due to the litchi rust mite (*Eriophyes litchi*). Cartons used to carry such fruits must be stamped: “Not for movement into or distribution in FL.”<sup>42</sup>

be covered or concealed; it must be visible and legible. A proper size and clearly marked must be used, so that a person of normal vision can easily read it. Any person who alters or removes the marking could be subject to criminal prosecution.<sup>45</sup>

**Regulations**

Recommended temperature, relative humidity, and approximate transit and storage life for Lychee:

Product	Temp. o C	Temp. o F	Humidity %	Approximate Storage Life
Lychee	1.5	35	90-95	3-5 weeks

<sup>43, 44</sup>

**Technical Procedures**

All articles coming into the U.S. must be properly marked with the English name of the country of origin (the country of manufacture, production, or growth of the article).

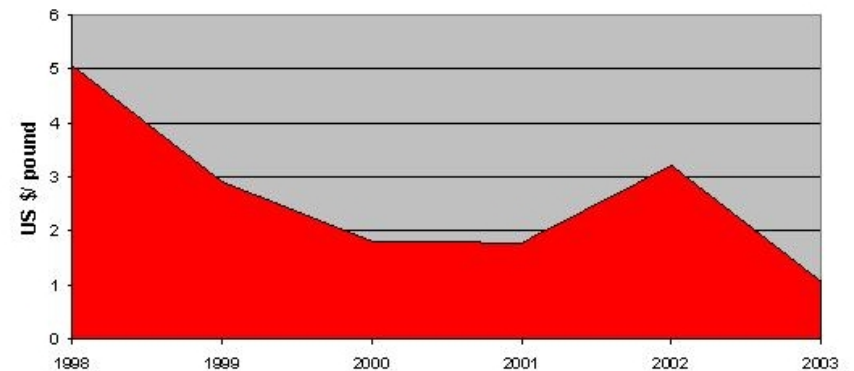
For items such as fruits that cannot be marked it is appropriate to mark the outer container with the country of origin.

The marking should be placed in a visible area, where it can be seen when item is being handled. The marking should not

# Prices

Lychee farm gate prices have steadily dropped between 1998 to 2003. In 1998 growers paid \$5.10 per pound, since then prices have decreased to \$1.10 per pound in 2003, a dramatic 78.7% difference. Due to this decline in 2003, farmers were forced to ask for trade adjustment assistance, or TAA (Trade Adjustment Assistance), which assists farmers with technical issues and provides monetary support to farmers and fisherman who qualify. The problems with the fluctuations in price have been attributed to the dramatic increase in lychee imports from Taiwan. As stated by the University of Florida IFAS Extension, “ Although imports from Taiwan should stabilize at current levels, U.S. domestic farm gate prices are expected to remain weak in the foreseeable future due to the prospect of China re-entering the U.S. market.<sup>46</sup>

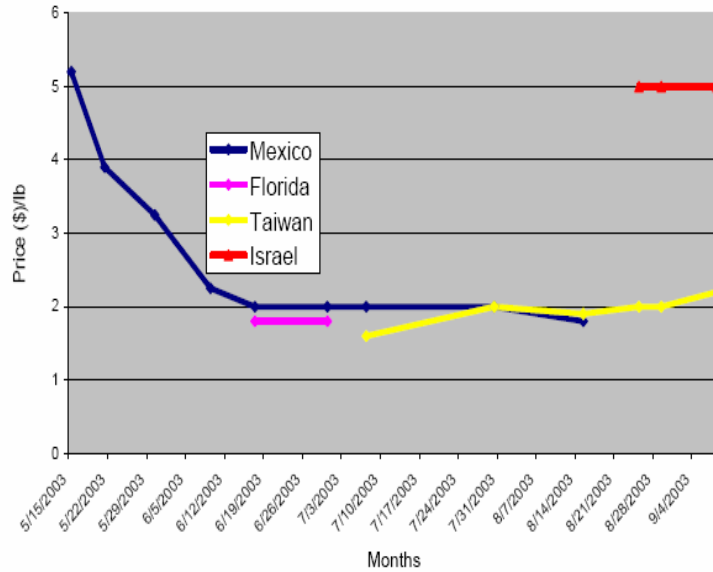
**U.S. domestic farm gate prices for lychee, 1998-2003**



SOURCE: UNIVERSITY OF FLORIDA IFAS EXTENSION

Lychee

Wholesale prices for Florida-grown and imported Lychees in the Los Angeles Terminal Market 2003



SOURCE: TAA Trade Adjustment Assistance for Farms

# **Black Sapote**

**Black Sapote****Product Description**

Even though the black sapote shares part of its name, it is not related to the sapote or white sapote. The black sapote is also known as sapote, sapote negro, zapote prieto, zapote de mico, matasano (or matazano) de mico, or ebano in spanish speaking countries, and black persimmon in Hawaii. The black sapote resembles stewed prunes in color and texture.

The black sapote is indigenous to both coasts of Mexico and frequently cultivated in the forested lowlands of Central America. Plants have been cultivated in California, but due to low temperatures were not very successful. In south Florida the plant is only grown out of curiosity, even though the climate is perfect for the fruit production. Outside of Mexico the fruit is some what unknown and has not reached any sort of popularity amongst consumers. <sup>47</sup>

## Statistical Data

### U.S. Production Data

Black Sapote is not commonly grown in the United States in mass production however a few smaller markets, ie South Florida, grow and distribute the fruit. The florida-agriculture.com website states, "More than two dozen minor tropical fruits are grown in South Florida, and mostly sold on the local fresh market. They include: banana/plantain, carambola, mamey, sapote, papaya, litchi, longan, guava, Barbados cherry, kumquats, sapodilla, pummelo, annona, passion fruit, coconut, jaboticaba, jackfruit, key lime, Tahiti lime, monstera, white sapote, **black sapote** and wax jambu."

Research shows there is no statistical data for black sapote in the United States, due to its very specific niche markets and the lack of mass production of the fruit. After speaking with Robert Moehling, from "Robert is Here" we learned that he used to grow black sapote in his Homestead, FL farms but put a halt to production when he realized there was no demand; "Nobody was buying it" he said. He also mentioned a reason for the lack of demand could rest on the fact that most consumers are unfamiliar with the fruit, where it may be very common among locals in Latin American countries, U.S. consumers have not been exposed to black sapote. <sup>48</sup>

## Black Sapote

### Statistics of Foreign Trade

In conducting this research no statistical data was found including exportation and importation information for Black Sapote.

### Origin of Importations

Black Sapote is a native fruit of Mexico and Central American, which still accounts for most of its production. In 1776 black sapote arrived in the Philippines and around 1962 seeds traveled with Spaniards to Amboina. Later the fruit was known to countries throughout the Caribbean and Pacific Ocean, arriving in Malacca, Mauritius, Hawaii, Brazil, Cuba, Puerto Rico and the Dominican Republic.<sup>49</sup>

## Market Characteristics

### Consumer Preferences

#### In the Philippines:

The pulp, including the seeds is typically served as a dessert dish along side a small amount of milk or orange juice poured on top. It is also used as pie or pastry filling, by adding lemon or lime juice. It is also used to make ice creams.

#### In Mexico:

It is made into a dessert by mashing the pulp until its relatively smooth and then mixing with orange juice or brandy to be served with or without whipped cream, depending on ones taste. Mixing the pulp with wine, cinnamon, and sugar and served as a dessert is also very common.

#### In Central America:

The fruit is fermented and made into a liquor similar to brandy.

#### In Florida:

The pulp is passed through an eggbeater adding milk and ground nutmeg, creating a foamy beverage. The beverage is then mixed with canned pineapple juice and passed through a blender for extra smoothness.<sup>50</sup>

## Black Sapote

### Quality Standards

**Availability:** December-April, Florida.

**Grade:** dull olive green fruit, 60-120 mm (2.5-4.5 in) diameter, shipped unripe.

**Precooling:** forced air, room cool.

**Temperature & Relative Humidity:** 13 to 15 oC (55-60 oF), 85-90%.

**Sensitivity:** chilling injury.

**Transit & Storage Life:** 2-3 weeks.<sup>51</sup>

### Acceptable Conditions

Black Sapote before ripening is very bitter, and should be best eaten when ripe. When ripe the skin turns a dull black color, it will feel soft when pressure is placed on the outer layer. It may even seem the fruit has gone bad, however that just means it is ready to eat. Ripening occurs rather quickly, from one day to the next, therefore must be watched carefully. Once opened the flesh will appear dairy and very creamy.<sup>52</sup>

### Demand Trends

- While the most common here in the United States is the white sapote, a number of fruits called simply sapote or sapota and even zapote, show up now and then in the market.
- The arrival of many Cubans in Dade County during the past 2 decades has created an active demand for the fruits and for the trees for home planting, and some commercial orchards of 5 to 20 acres (2-8 1/3 ha) or more have been established. In 1983, one man with 15 trees in his backyard was selling the fruits to Cuban people and bringing in seedlings 5 ft (1 1/2 in) high from the Dominican Republic at \$100 each. Such enthusiasm has spurred efforts to develop practical methods of vegetative propagation and one expert propagator is now selling grafted trees at \$10.50 each, wholesale. In the fall of 1984, a nursery had acquired a stock of 1,000 of these trees and one customer bought them all. Thus, the status of the sapote has risen dramatically in southern Florida because of an ethnic change in the population. <sup>53</sup>

## Market Access

### Tariff Measurements

According to fruit expert Jim Eckles Context Network Consultants, tariff measurements for Black Sapote will be extremely difficult to find, due to a very low amount of importation. <sup>54</sup>

### Restrictions

Black Sapote cannot be shipped, offered for shipment, received for transportation or transported, carried, or allowed to be moved, shipped, transported, or carried by any means, from any state into or through any other state. This restriction is in affect for any area quarantined due to the sapote fruit fly. *There are no areas (of continental U.S.) quarantined because of the Sapote Fruit Fly as of July 22, 2003.*

Any fruits that is canned/dried or frozen below -17.8oC. (0o F.) are not under any restrictions.

#### Sapote Fruit Fly

#### § 301.99 Restrictions on interstate movement of regulated articles.

No person shall move interstate from any quarantined area any regulated article except in accordance with this subpart. <sup>1</sup>

**Black Sapote**

<sup>1</sup> Any properly identified inspector is authorized to stop and inspect persons and means of conveyance, and to seize, quarantine, treat, apply other remedial measures to, destroy, or otherwise dispose of regulated articles.<sup>55</sup>

**Regulations**

Recommended temperature, relative humidity, and approximate transit and storage life for Black Sapote:

Product	Temp. C	Temp. F	Humidity %	Approximate Storage Life
Black Sapote	13-15	55-60	85-90	2-3 weeks

<sup>56</sup>

**Technical Procedures**

All articles coming into the U.S. must be properly marked with the English name of the country of origin (the country of manufacture, production, or growth of the article).

For items such as fruits that cannot be marked it is appropriate to mark the outer container with the country of origin.

The marking should be placed in a visible area, where it can be seen when item is being handled. The marking should not be covered or concealed; it must be visible and legible. A proper size and clearly marked must be used, so that a person

of normal vision can easily read it. Any person who alters or removes the marking could be subject to criminal prosecution.<sup>57</sup>

**Prices**

In conducting this research no statistical data was found including price information for Black Sapote.

# **Sapodilla**

## Sapodilla

## Product Description

Sapodilla is one of the most interesting and desirable tropical fruit trees, and it has a wide array of common names depending on where you are. Some common names are: baramasi (Bengal and Bihar, India); buah chiku (Malaya); chicle (Mexico); chico (Philippines, Guatemala, Mexico); chicozapote (Guatemala, Mexico, Venezuela); chikoo (India); chiku (Malaya, India); dilly (Bahamas; British West Indies); korob (Costa Rica); mespil (Virgin Islands); mispel, mispu (Netherlands Antilles, Surinam); muy (Guatemala); muyozapot (El Salvador); naseberry (Jamaica; British West Indies); neeseberry (British West Indies); nispero (Puerto Rico, Central America, Venezuela); nispero quitense (Ecuador); sapodilla plum (India); sapota (India); sapotí (Brazil); sapotille (French West Indies); tree potato (India); Ya (Guatemala; Yucatan); zapota (Venezuela); zapote (Cuba); zapote chico (Mexico; Guatemala); zapote morado (Belize); zapotillo (Mexico). Sapodilla may have different shapes but most often it is round or oval, and about 2 to 4 inches in width. The skin is smooth and sandy brown, while the fruit itself maybe coarse and its' colors rage from all shades of brown. It has a sweet flavor that might recall that of a pear.

Sapodilla is found in the forests throughout Central America, but it is originally thought to be from southern Mexico, Belize and Guatemala. It is also found throughout tropical America, West Indies, the Bahamas, Bermuda, Florida, Philippines, Venezuela and Guatemala, but cultivation is most extensive in the coasts of India. <sup>58</sup>

## Statistical Data

### U.S. Production Data

Leading producers of sapodilla are India, the Philippines, Sri Lanka, Malaysia, Mexico, Guatemala, and some Central American countries. With production from 24,000 ha (Chadha 1992) India continues to be the leader. South Florida also produces sapodilla, which is marketed locally and later shipped to different U.S. Markets. Still not a common fruit in the states, sapodilla continues to trickle into the fruit market as an exotic fruit, considered one of the best tropical fruits in its native countries.<sup>59</sup>

### Statistics of Foreign Trade

In conducting this research no statistical data was found including exportation and importation information for Sapodilla.

### Origin of Importations

The sapodilla is also said to have originated in southern Mexico, northern Belize and northeastern Guatemala.<sup>60</sup>

## Sapodilla

## Market Characteristics

## Consumer Preferences

### Fresh:

Most frequently the sapodilla is cut into two halves and the flesh is eaten with a spoon, preferably room temperature or chilled. The skin of the sapodilla is rather firm serves as a shell for easy eating. The flesh may also be emptied out of the shell and added to a fruit salad or mixed fruit cup. Dessert sauces are also common using fresh sapodilla flesh by mashing the flesh and adding orange juice, whipped cream is optional.

### Dehydrated:

Dehydrated by using process where the sapodilla flesh is mixed with a 60% sugar solution and osmotic dehydration. The solution is left for approximately 5 hours, until fully dried. The fruit can maintain in good quality for up to 2 months.<sup>61</sup>

### Determining Ripeness

- Color: Slight yellow or peach.
- Loosen the scurf and scratch fruit to ensure it is not green.
- If the skin is brown, the fruit separates from the stem easily (without latex leakage).

**Tip:** Wash off sand-like scurf before setting aside to ripen. The fruit is ready to eat when the texture is mildly firm to moderately smooth.<sup>61</sup>

## Sapodilla

### Quality Standards

**Availability:** St. Kitts, St. Lucia, St. Vincent.

**Grade:** oval brown rough surface fruit, 30-80 mm (1-1/4 to 3 in) long.

**Precooling:** room cool.

**Temperature & Relative Humidity:** 16 to 20 C (60-68 F), 85-90%.

**Sensitivity:** chilling injury.

**Transit & Storage Life:** 2-3 weeks.<sup>62</sup>

### Acceptable Conditions

When ripe the outer layer of the sapodilla will be soft when add pressure. It is recommended to leave the fruit in a moderately lit area for approximately 5 days, and once ripe it should be refrigerated to maintain freshness.<sup>63</sup>

## Market Access

## Tariff Measurements

Tariff on Sapodilla from Venezuela - 15%<sub>064</sub>

VENEZUELAN TARIFF HEADING	CARICOM TARIFF HEADING	PRODUCT DESCRIPTION	TARIFF %
0810.90.00	0810.00	Sapodilla, Fresh or Dry	15

## Restrictions

Sapodilla cannot be shipped, offered for shipment, received for transportation or transported, carried, or allowed to be moved, shipped, transported, or carried by any means, from any state into or through any other state. This restriction is in affect for any area quarantined due to the oriental fruit fly and west Indian fruit fly. The Oriental Fruit Fly and West Indian Fruit Fly restriction is still in affect as of May 25, 2006.

### Oriental Fruit Fly and West Indian Fruit Fly

**Source:** 58 FR 8521 and 66 FR 6433

**§ 301.93 Restrictions on interstate movement of regulated articles.**

## Sapodilla

### § 301.98 Restrictions on interstate movement of regulated articles.

No person shall move interstate from any quarantined area any regulated article except in accordance with this subpart.

Any properly identified inspector is authorized to stop and inspect persons and means of conveyance, and to seize, quarantine, treat, apply other remedial measures to, destroy, or otherwise dispose of regulated.<sup>65</sup>

## Regulations

Recommended temperature, relative humidity, and approximate transit and storage life for Sapodilla:

Product	Temp. C	Temp. F	Humidity %	Approximate Storage Life
Sapodilla	16-20	60-68	85-90	2-3 weeks

<sup>66</sup>

Soon there might be regulation on Sapodilla dealing with residue of a pesticide called Mancozeb. A petition for this regulation was filed in March of 2006 with the Environmental Protection Agency.

[Federal Register: March 15, 2006 (Volume 71, Number 50)]

*Notice of Filing of Pesticide Petitions for Establishment of Regulations for Residues of Mancozeb in or on Various Food Commodities*

AGENCY: Environmental Protection Agency (EPA).

SUMMARY: This notice announces the initial filing of pesticide petitions proposing the establishment of regulations for residues of mancozeb in or on food commodities sugar apple, cherimoya, atemoya, custard apple, and sweetsop (9E5061); mango, star apple (caimito), canistel, mamey sapote, **sapodilla**, and white sapote (5E4570); ginseng (9E5054); and the cucurbit vegetable crop group 9 (3E4173).<sup>67</sup>

## Technical Procedures

All articles coming into the U.S. must be properly marked with the English name of the country of origin (the country of manufacture, production, or growth of the article).

For items such as fruits that cannot be marked it is appropriate to mark the outer container with the country of origin.

The marking should be placed in a visible area, where it can be seen when item is being handled. The marking should not be covered or concealed; it must be visible and legible. A proper size and clearly marked must be used, so that a person of normal vision can easily read it. Any person who alters or removes the marking could be subject to criminal prosecution.<sup>68</sup>

## Sapodilla

## Prices

**Retail Price:**

The retail price per pound of sapodilla is approximately \$6.79 per lb, according to [Deliciousorganics.com](http://Deliciousorganics.com).<sup>69</sup>

## Commercial Practices

### Procedures to Make Orders

There are many steps exporters need to take when they are approved for specialty fruit orders. The exporter have to make sure that the fruits have been cleared of all kinds of inspections associated with each fruit. <sup>70</sup>

### Systems and Terms of Payment

There are many terms of payments:

- Cash in advance - the most common and secure method of payment.
- Commercial letter of credit (L/C) - is a promise from the buyer's bank to pay seller once all terms and conditions are met.
- Open account – means you have a good line of credit with the company. (90 Days) <sup>71</sup>

### Transportation

There are four different ways to transport these fruits. They can be transported by truck, rail, ocean and air. Most moves consist of a combination of these four.

## Commercial Practices

The most common way of transporting fruits from country to country is through the ocean. Shipping products by ocean are usually containerized.

Products are loaded into containers and moved from door to door without the contents being handled. Container vessels can handle both dry and refrigerated cargo. Containerized shipments are the most common mode of transportation for high-value or value-added agricultural exports.<sup>72</sup>

### Packing, Types Used: Crates and Labels

Proper packaging of agricultural products is essential to maintaining quality during transportation and marketing. Packaging serves to enclose the product and facilitate handling. Labeling provides required information and a further opportunity to position the product in the market through attractive graphics. Shipping high quality, high-value, perishable products in poor-quality packaging can lead to damage, decay, low prices, or outright rejection by the buyer. Improper labeling can also lead to delays and product loss.

#### Packaging must withstand:

- Rough handling during loading and unloading;
- Compression from the overhead weight of other containers;
- Impact and vibration during transportation; and
- High humidity during precooling, transit, and storage.

#### Widely used packaging materials include:

- Fiberboard—Pallets, slip sheets, bins, boxes (glued, stapled, interlocking), lugs, trays, flats, dividers, and partitions.
- Wood—Pallets, bins, crates (wire bound, nailed), baskets, trays, and lugs.
- Paper—Bags, sleeves, wraps, liners, pads, excelsior, and labels.
- Plastic—Pallets, bins, boxes, trays, bags (mesh, solid), containers, sleeves, film wraps, liners, coatings, dividers, and slip sheets.
- Polystyrene—Foam boxes, trays, lugs, sleeves, liners, dividers, and pads. <sup>72</sup>

## Sales Promotion

One way to promote products is to target a specific group. All of these fruits have a tendency to be associated with the Hispanic culture. The Hispanic market is the fastest growing ethnic group market. Hispanics are more inclined to buying these fruits because they might have heard of them or even tried them back home. Hispanics tend to go to the supermarket more than once a week, so they are more prone to buying these types of fruits.

In a recent study, Hispanics are estimated to grow ten times the rate of non-Hispanics. The best way to promote these fruits and get them to be known is to sell them at Sedanos, and Navarros where the majority of shoppers are Hispanic.

Households with higher incomes tend to buy about 25% more fruits than households with lower income. Americans last year each consumed an average of almost 100 pounds of fresh fruit, the highest amount in almost 40 years, the U.S. Department of Agriculture reported.<sup>73</sup>

## Market Perspectives

The U.S. market is one that is constantly growing. There are always new products being imported. Imports of fresh fruits are still small but continuously growing each year.

Many Latin American countries are trying to expand their exports. South America has many different types of fruit that have never been brought to the U.S. Most of these fruits are native to their country. These fruits are ready to be processed to export to the U.S. but have to pass many inspections in order to successfully be admitted in the U.S.

There are many steps one must take to achieving marketing strategies:

- Product diversification-new products must be developed and existing products modified.
- Consumer Information-consumer motivations, needs, desires and attitudes that can be identified with the product.
- Marketing Plan-advertising, promotion, pricing, packaging and merchandising to potential customers.

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### POTENTIAL MARKET SEGMENTS:

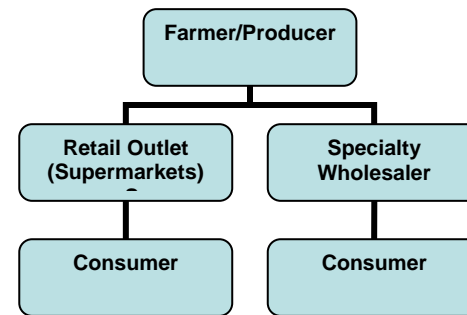
Consumers purchase all kinds of fruits because they familiarize themselves with the product. Many of them have eaten or seen these fruits back home. Peoples influence to purchase come from their culture. To potentially make the product grow you must go out to local supermarkets, restaurants, and food courts in populated malls. Give out free samples to get the people acquainted with such fruits. Once

## Market Perspectives

consumers start to make an association with the fruit, then you can go out and put it in some local supermarkets to see who can be a potential customer. Another way to implement these fruits with potential customers is to start of with a local restaurant where people can sit and enjoy the product.

# Distribution Channels

Like most fresh fruits, sapodillas, guavas, black sapote, papaya, and lychees have a short storage life of 1 to 5 weeks so to reduce the amount of transportation and time, the best channel would be to sell directly from the farmers to the consumers. However it would be very difficult to directly sell imported fruits, so in this situation it is best to use a retail outlet to reach the consumers. Large supermarkets dominate the distribution of fresh fruits, but they will not buy directly from a farmer, so the use of an intermediary or “middle man” will be needed. The intermediary would help in selling and price negotiations between the buyer (retailers) and the seller (farmers). Since these fruits are exotic or specialty fruits, another alternative would be to seek a specialty wholesaler (companies that typically deal with a small number of products in a specific market) as a distribution channel to get the products to the end customer. <sup>76</sup>



## Importers List and Distribution Networks

# Importers List and Distribution Networks

*Possible importer/distributors for all fruits:*

**Melissa's**

Melissa's/World Variety Produce, Inc.  
P.O. Box 21127  
Los Angeles, CA 90021  
<http://www.melissas.com/>

**BROOKS TROPICALS, INC.**

P.O. Box 900160 or 18400 SW 256 Street  
Homestead, Florida 33090  
Toll Free: 800-327-4833  
Phone: 305-247-3544 Fax: 305-246-5827  
Email: maryo@brookstropicals.com  
<http://www.brookstropicals.com/>

**Latinos Export & Import Enterprise**

Contact: Jose Benitez  
[http://www.importers.com/Importer\\_Exporter\\_Service/ID.96756/Latinos\\_Export\\_Import\\_Enterprise.html](http://www.importers.com/Importer_Exporter_Service/ID.96756/Latinos_Export_Import_Enterprise.html)

*Possible importers/distributors for Guava:*

**Fruity Fresh (Western) Ltd  
Importers, Wholesalers and Distributors  
of Exotic Fruit & Vegetables**

84 – 87 Western International Market  
Hayes Road Southall Middlesex  
Telephone: 020 8561 8196

## Importers List and Distribution Networks

Fax : 020 8813 7369 / 020 8573 8213

Email: info@fruityfresh.com

<http://www.fruityfresh.com/>

### **Sintex Corp.**

Contact: Claudio

[http://www.importers.com/Importer\\_Exporter/ID.8326/Sintex\\_Corp\\_.html](http://www.importers.com/Importer_Exporter/ID.8326/Sintex_Corp_.html)

*Possible importers/distributors for Lychee:*

### **Fruity Fresh (Western) Ltd Importers, Wholesalers and Distributors of Exotic Fruit & Vegetables**

84 – 87 Western International Market  
Hayes Road Southall Middlesex

Telephone: 020 8561 8196

Fax : 020 8813 7369 / 020 8573 8213

Email: info@fruityfresh.com

<http://www.fruityfresh.com/>

*Possible importers/distributors for Papaya:*

### **Sintex Corp.**

Contact: Claudio

[http://www.importers.com/Importer\\_Exporter/ID.8326/Sintex\\_Corp\\_.html](http://www.importers.com/Importer_Exporter/ID.8326/Sintex_Corp_.html)

### **Shippers Choice Inc.**

Contact: Dana Pouridas

[http://www.importers.com/Importer/ID.36827/shippers\\_choice\\_incorporated.html](http://www.importers.com/Importer/ID.36827/shippers_choice_incorporated.html)

*Possible importers/distributors for Sapodilla:*

### **Shruff International Co., Ltd.**

Contact: Pranee Udombharkyakul

<http://b2b.tradeholding.com/default.cgi/action/viewcompanies/searchterm/sapodilla/searchtermcondition/1/incountryid/262/incountry/Thailand/>

*Possible importers/distributors for Black Sapote:*

**No importers/distributors at the time.**

## Upcoming Commercial Events

# Upcoming Commercial Events

## Food Marketing Institute

Food Marketing Institute (FMI) conducts programs in research, education, industry relations and public affairs on behalf of its 1,500 member companies — food retailers and wholesalers — in the United States and around the world. FMI's U.S. members operate approximately 26,000 retail food stores with a combined annual sales volume of \$340 billion — three-quarters of all food retail store sales in the United States. FMI's retail membership is composed of large multi-store chains, regional firms and independent supermarkets. Its international membership includes 200 companies from 50 countries. <sup>77</sup>

## 2006 U.S. Food Export Showcase

2006 U.S. Food Export Showcase offers an unparalleled opportunity for producers, processors, and suppliers of American food and beverage products to show their wares to the world. In 2005, more than 5,000 high profile international buyers attended the Showcase.

The Showcase is sponsored by the National Association of State Departments of Agriculture (NASDA) and supported in part by Foreign Agricultural Service (FAS) market development funds. It is held each year at Chicago's McCormick Place in conjunction with the Food Marketing Institute's Supermarket Industry Exposition, which attracts supermarket industry executives from around the world. <sup>78</sup>

## Upcoming Commercial Events

### United Fresh Fruit and Vegetable Association

The 2006 United Produce Expo & Conference features a comprehensive educational program to help trade partners increase sales and profitability throughout the produce supply chain. It includes more than 250 exhibitors showcasing the latest innovations in fresh produce, cutting-edge technology solutions, cost-saving supply chain efficiencies, and the full-range of creative merchandising and marketing tools. The United Produce Show at FMI is one of a kind, bringing together the worldwide produce industry with senior management and trade professionals from supermarkets, specialty food stores, restaurant chains, C-stores and multiple channels of the retail trade. For more information, visit <sup>79</sup>

### National Association for the Specialty Food Trade

The National Association for the Specialty Food Trade (NASFT) is an international not-for-profit trade association comprised of more than 2,500 manufacturers, importers, distributors, brokers, retailers, restaurateurs, caterers and others. The NASFT fosters commerce and interest in specialty foods through its three Fancy Food Shows each year. The Spring Fancy Food Show is co-located with The FMI Show. <sup>80</sup>

### ALL THINGS ORGANIC

As the only exclusively organic event in North America, All Things Organic™ serves up more organic exhibitors and

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## Conclusions and Recommendations

### Guava

Experts like said Florida Agriculture Commissioner Charles H. Bronson, expect demands for tropical fruits to increase as consumers become more health conscious and as immigration continues to increase from the Caribbean and Latin American countries. In an interview for florida-agriculture.com Bronson says, “Growers and scientists are working to meet an increasing demand for tropical fruits—in Florida and around the nation,” Bronson said. “As people are becoming more health conscious, they are eating more fresh produce, and they are looking for variety. Tropical fruits have been enjoyed around the world for generations, but many people in this country are just now discovering how delicious and nutritious they can be.” He also mentions how “People associate the exotic, romantic taste of tropical fruits with good times,” said Florida Agriculture Commissioner Charles H. Bronson. “Serving fresh Florida guava and papaya makes any meal or get-together more festive.”<sup>82</sup>

### Papaya

The future of Papaya seems to have much potential due to influx of Latin American consumers, who are very familiar with the fruit. The potential of its success possibly lies on that of continued importation of the fruit from its major exporters, India Peru and Brazil, to meet future demand.<sup>83</sup>

## Conclusions

### Lychee

In an analysis by the University of Florida IFAS Extension there is a substantial opportunity for lychee production, “Our analysis shows that with a yield of 5,000 pounds per acre and a F.O. B. price of \$1.75, it is possible to realize a net return of \$2,365 per acre, or returns to investment and recurring costs of 37%.” As stated in their analysis many growers are beginning to take notice of this lurking opportunity, when taking into consideration, “...the present value of a string of such returns over a 20-year horizon (assuming a constant interest rate of 6% per annum) amounts to only about \$27,000 as opposed to the current market value of \$55,000 per acre for agricultural land in the area, one can understand why many growers are beginning to question the profitability of this enterprise.”<sup>84</sup>

### Black Sapote

In 1996, however outdated, Black Sapote was considered as a possible crop to produce in Israel during a period of depression in their export market. Israel, being a self-sufficient agricultural country, has a small local market with frequent fluctuations in both supply and demand. Due to these uncertainties in the market, Israel’s most reliable and profitable industry is export. European countries remain Israel’s top importers, meeting supply and demand by millions of consumers. Israel’s agriculture produce is approximately \$1 billion US dollars per year.<sup>85</sup>

### Sapodilla

According to the horticulture experts in Perdue University in Lafayette, Indiana, sapodilla has an opportunity for growth in the near future. Many countries are giving the fruit much attention, specifically growers and consumers. India continues to be a leading producer in sapodilla with new technology in the research and development stages to improve conditions in storage, transport and marketing strategies. The United States has many opportunities for sapodilla production, due to its favoring climate conditions, which would support the new trend in sapodilla dessert dishes in restaurants.<sup>86</sup>

## References

## References

- 1 <http://www.hort.purdue.edu/newcrop/proceedings1996/V3-439.html>
- 2 <http://www.hort.purdue.edu/newcrop/morton/guava.html#Origin%20and%20Distribution>
- 3 <http://www.hort.purdue.edu/newcrop/morton/guava.html#Origin%20and%20Distribution>
- 4 <http://www.ams.usda.gov/tmd/Tropical/f&v/guava.htm>
- 5 <http://www.agrsci.unibo.it/wchr/wc1/segre.html>
- 6 <http://www.crfq.org/pubs/ff/guava.html>
- 7 <http://www.hort.purdue.edu/newcrop/default.html>
- 8 <http://www.ams.usda.gov/tmd/Tropical/f&v/guava.htm>
- 9 <http://www.theworldwidegourmet.com/fruits/exotic/quava.htm>
- 10 <http://www.agrsci.unibo.it/wchr/wc1/segre.html>
- 11 <http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0602C20.pdf>
- 12 <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=05faf23d7af79d33a7bc1802ffc3eba9&rqn=div6&view=text&node=7:5.1.1.1.2.22&idno=7> and <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=05faf23d7af79d33a7bc1802ffc3eba9&rqn=div6&view=text&node=7:5.1.1.1.2.24&idno=7>
- 13 <http://www.ams.usda.gov/tmd/Tropical/requirements.htm>
- 14 [http://www.agribusinessonline.com/regulations/grades/standards\\_codex/quava.pdf](http://www.agribusinessonline.com/regulations/grades/standards_codex/quava.pdf)
- 15 <http://www.customs.gov/linkhandler/cgov/toolbox/publications/trade/markingo.ctt/markingo.doc>
- 16 <http://www.nass.usda.gov/hl/rlsetoc.htm>

## References

<sup>17</sup> <http://miami.dade.ifas.ufl.edu/programs/agdevelopment/Publication%20&%20Announcements/Daily-Guava-Prices-2004.PDF>

<sup>18</sup> <http://www.hort.purdue.edu/newcrop>

<sup>19</sup> [http://www.agmarketing.ifas.ufl.edu/dlfiles/AppB\\_ProdCosts\\_Tropfruit.pdf](http://www.agmarketing.ifas.ufl.edu/dlfiles/AppB_ProdCosts_Tropfruit.pdf)

<sup>20</sup> [www.ers.usda.gov/Data/foodconsumption/spreadsheets/frtot.xls](http://www.ers.usda.gov/Data/foodconsumption/spreadsheets/frtot.xls)

<sup>21</sup> <http://www.agribusinessonline.com/markets/>

<sup>22</sup> [http://www.hort.purdue.edu/newcrop/morton/papaya\\_ars.html](http://www.hort.purdue.edu/newcrop/morton/papaya_ars.html)

<sup>23</sup> [http://www.hort.purdue.edu/newcrop/morton/papaya\\_ars.html](http://www.hort.purdue.edu/newcrop/morton/papaya_ars.html)

<sup>24</sup> <http://www.ams.usda.gov/tmd/Tropical/f&v/papaya.htm>

<sup>25</sup> <http://www.deliciousorganics.com/recipes/exoticfruit.htm>

<sup>26</sup> <http://edis.ifas.ufl.edu/>  
<sup>27</sup> [http://www.ustr.gov/assets/Trade\\_Agreements/Bilateral/Singapore\\_FTA/Final\\_Texts/asset\\_upload\\_file313\\_4038.pdf](http://www.ustr.gov/assets/Trade_Agreements/Bilateral/Singapore_FTA/Final_Texts/asset_upload_file313_4038.pdf)

<sup>28</sup> <http://ecfr.gpoaccess.gov/cgi/t/text/text->

<sup>29</sup> <http://www.ams.usda.gov/tmd/Tropical/requirements.htm>

<sup>30</sup> <http://www.customs.gov/linkhandler/cgov/toolbox/publications/trade/markingo.ctt/markingo.doc>

<sup>31</sup> <http://www.nass.usda.gov/hi/rlsetoc.htm>

<sup>32</sup> <http://www.hort.purdue.edu/newcrop>

<sup>33</sup> <http://agecon-trec.ifas.ufl.edu/documents/LycheeTAAChapter1.pdf>

<sup>34</sup> <http://agecon-trec.ifas.ufl.edu/LycheePublications.htm>

<sup>35</sup> <http://agecon-trec.ifas.ufl.edu/documents/LycheeTAAChapter1.pdf>

<sup>36</sup> <http://agecon-trec.ifas.ufl.edu/documents/LycheeTAAChapter1.pdf>

<sup>37</sup> <http://www.hort.purdue.edu/newcrop/morton/lychee.html>

<sup>38</sup> <http://www.ams.usda.gov/tmd/Tropical/f&v/lychee.htm>

<sup>39</sup> <http://www.deliciousorganics.com/recipes/exoticfruit.htm>

<sup>40</sup> <http://agecon-trec.ifas.ufl.edu/documents/LycheeTAAChapter1.pdf>

<sup>41</sup> [http://www.thunderlake.com/ministerials/PRC\\_Ag.pdf](http://www.thunderlake.com/ministerials/PRC_Ag.pdf)

<sup>42</sup> [http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/cfr\\_2003/pdf/7cfr318.13-4b.pdf](http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/cfr_2003/pdf/7cfr318.13-4b.pdf)

<http://www.aphis.usda.gov/is/sps/mod2/2commodities.html>  
<sup>43</sup> [http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/cfr\\_2003/7cfr318.13-4b.htm](http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/cfr_2003/7cfr318.13-4b.htm)

<sup>43</sup> <http://www.ams.usda.gov/tmd/Tropical/requirements.htm>

## References

- 44 [http://www.agribusinessonline.com/regulations/grades/standards\\_codex/litchi.pdf](http://www.agribusinessonline.com/regulations/grades/standards_codex/litchi.pdf)
- 45 <http://www.customs.gov/linkhandler/cgov/toolbox/publications/trade/markingo.ctt/markingo.doc>
- 46 <http://edis.ifas.ufl.edu/FE496>
- 47 [http://www.hort.purdue.edu/newcrop/morton/black\\_sapote.html](http://www.hort.purdue.edu/newcrop/morton/black_sapote.html)
- 48 <http://www.florida-agriculture.com/>
- Robert Moehling: **Robert is Here** CEO Tel: (305) 246-1592  
fresh@robertishere.com
- 49 <http://www.hort.purdue.edu/newcrop/morton/guava.html#Origin%20and%20Distribution>
- 50 [http://www.hort.purdue.edu/newcrop/morton/black\\_sapote.html](http://www.hort.purdue.edu/newcrop/morton/black_sapote.html)
- 51 <http://www.ams.usda.gov/tmd/Tropical/f&v/blacksapote.htm>
- 52 <http://www.deliciousorganics.com/recipes/exoticfruit.htm>
- 53 <http://www.florida-agriculture.com/agindustry.htm>
- 54 Jim Eckles: **Context Network Consulting** CEO and Consultant- Tel: (954)217-0785 [jeckles@myacc.net](mailto:jeckles@myacc.net)
- 55 <http://pi.cdfa.ca.gov/pqm/manual/pdf/225.pdf>
- <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=05faf23d7af79d33a7bc1802ffc3eba9&rqn=div6&view=text&node=7:5.1.1.1.2.25&idno=7>
- 56 <http://www.ams.usda.gov/tmd/Tropical/requirements.htm>
- 57 <http://www.customs.gov/linkhandler/cgov/toolbox/publications/trade/markingo.ctt/markingo.doc>
- 58 <http://www.hort.purdue.edu/newcrop/morton/sapodilla.html>
- 59 <http://www.hort.purdue.edu/newcrop/proceedings1996/V3-439.html>
- 60 <http://www.hort.purdue.edu/newcrop/morton/sapodilla.html>
- 61 <http://www.hort.purdue.edu/newcrop/proceedings1996/V3-439.html>
- 62 <http://www.ams.usda.gov/tmd/Tropical/f&v/sapodilla.htm>
- 63 <http://www.deliciousorganics.com/recipes/exoticfruit.htm>
- 64 <http://www.sice.oas.org//Trade/CARIVEN3.asp>
- 65 <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=05faf23d7af79d33a7bc1802ffc3eba9&rqn=div6&view=text&node=7:5.1.1.1.2.22&idno=7>
- <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=05faf23d7af79d33a7bc1802ffc3eba9&rqn=div6&view=text&node=7:5.1.1.1.2.24&idno=7>
- 66 <http://www.ams.usda.gov/tmd/Tropical/requirements.htm>
- 67 <http://www.epa.gov/fedrgstr/EPA-PEST/2006/March/Day-15/p2432.htm>
- 68 <http://www.customs.gov/linkhandler/cgov/toolbox/publications/trade/markingo.ctt/markingo.doc>

## References

- 69 [http://shop.deliciousorganics.com/index.cfm?fuseaction=category.display&category\\_ID=217](http://shop.deliciousorganics.com/index.cfm?fuseaction=category.display&category_ID=217)
- 72 <http://www.ams.usda.gov/TMD/export/AgExTransHand04.pdf>
- 73 [http://www.findarticles.com/p/articles/mi\\_hb4331/is\\_199410/ai\\_n15110412](http://www.findarticles.com/p/articles/mi_hb4331/is_199410/ai_n15110412)
- 77 [www.fmi.org](http://www.fmi.org)
- 78 <http://www.nasda.org/nasda/nasda/Usfes/>
- 79 <http://www.uffva.org/produceshow/2006/index.cfm?fuseaction=main>
- 80 <http://www.specialtyfood.com/do/fancyFoodShow/LocationsAndDates>
- 81 [http://www.organicexpo.com/ato06/custom/2005\\_site/colocation\\_partners.shtml](http://www.organicexpo.com/ato06/custom/2005_site/colocation_partners.shtml)
- 82 <http://www.florida-agriculture.com/news/06-12-06.htm>
- 83
- 84 <http://edis.ifas.ufl.edu/FE496>
- 85 <http://www.hort.purdue.edu/newcrop/ncnu02/v5-378.html>
- 86 <http://www.hort.purdue.edu/newcrop/proceedings1996/V3-439.html>