USAID
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John Ogonowski
Latin America
Farmer-to-Farmer Program

Executive Summary

This research project was conducted as part of the John Ogonowski Latin America Farmer-to-Farmer Program by Florida International University's College of Business students during their Summer 2007 term. The purpose of the research was to determine the market potential for importation of apricots, plums, and rambutans into the United States. The information gathered from secondary data evaluates the current level of market saturation in the United States as well as useful findings for the farming participants interested.

The main findings of the research go to prove that the United States in the main producer of fresh apricots and plums. Rambutan is also domestically produced, in Hawaii, although not in great abundance. Today's fresh fruit market is declining due to lack of consumption among Americans, more specifically women.

Although the fresh fruit market is slumping, the exotic fruit market is on the rise. Americans are looking for newer and rarer products, as well as organically produced fruits. FIU and its students continue to seek reasons why the fresh fruit market is not doing very well amidst the recent success of the organic market.

Marlen Ham
Nitza Manes
Vanessa Ortiz
Frances Rodriguez

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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.

Apricot

Product Description

The apricot is a small, round fruit that belongs to the Prunus genus and is a stone fruit belonging to the Rosaceae family. Apricots range in color from yellow to orange and sometimes have a red tone. Their skin has no texture and is smooth. Their juicy flesh is an orange color but certain types can be found with a white flesh. The flesh surrounds a hard shell that covers the seed.

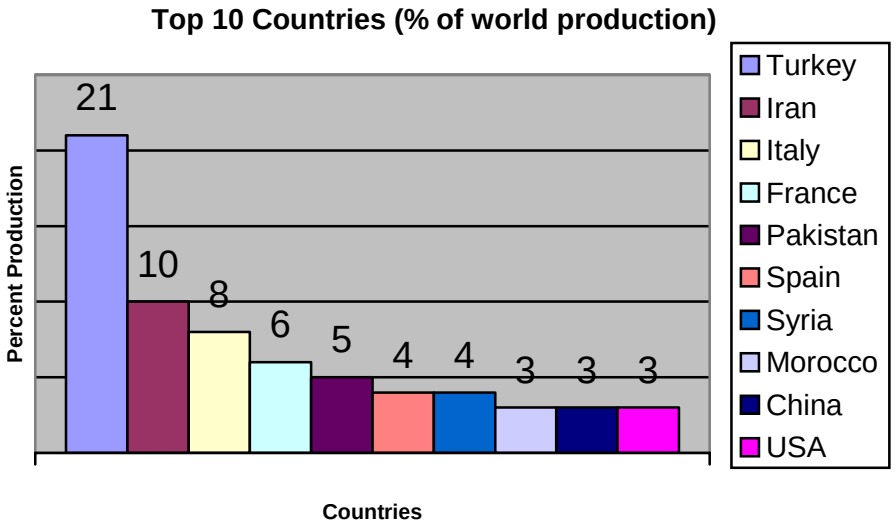
Apricots are believed to have originated in China and were brought to American in 1720 and have largely flourished in California since then. There are more than 20 different types of apricots grown throughout the world, the most common in the United States being the Newcastle which is grown in California.

The perfect time to harvest apricots is in the middle of May and usually ends at the end of July. The apricot is eaten fresh, as well as dried, packed, and as jam. This multifaceted fruit is a good source of Vitamins A and C as well as iron, potassium, and calcium.

Statistical Data

U.S. Production Data

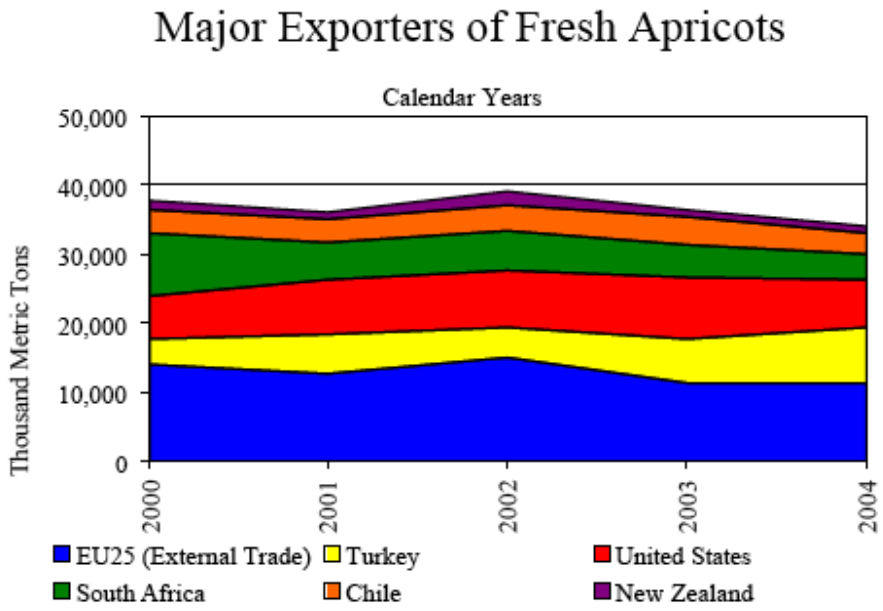
The United States produces about 220.1 million pounds of apricots a year. Approximately 31% of this amount is exported as fresh and dried fruit. Apricots are commercially grown in Washington and Utah but the majority of production occurs in California, which accounts for 94% of production. The United States does not produce a lot of apricots in comparison to other countries. It is in 10th place of production and only accounts for 3%.[1]



Source: Top 10 Countries[2]

Statistics of Foreign Trade: Exportations and Importations

According to the USDA Foreign Agricultural Service, the export of apricots amounted to $48 million in 2004 of which the Unites States contributed $8 million. In 2004 there was a 3 percent increase in the production of apricots in Australia, Chile, Spain, Poland, and the United States and the FAS forecasted that the amount produced would increase to 1.68 million in 2005.[3] Of the $8 million worth of exports by the United States, Canada and Mexico are expected to be the main destinations of the apricots.

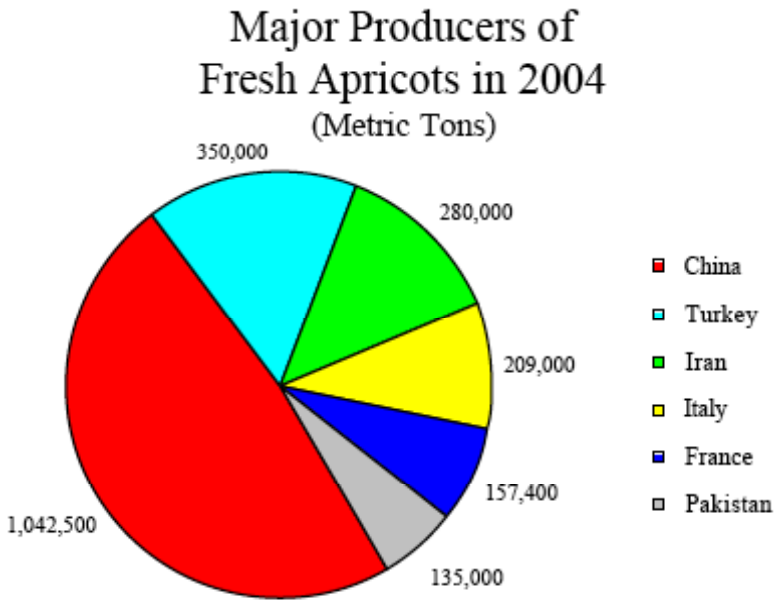


Source: USDA Foreign Agricultural Services[3]

Apricot

Main Origin of Importations

According to the USDA Foreign Agricultural Services, China was the largest producer of Apricots in 2004 and that amount was projected to 1.68 million in 2005. While China is the largest producer of apricots, they are not the largest exporters. The majority of exports of apricots to the United States come from Turkey, Chile, New Zealand and South Africa. The United States imports more than $4 million a year worth of apricots.[4]

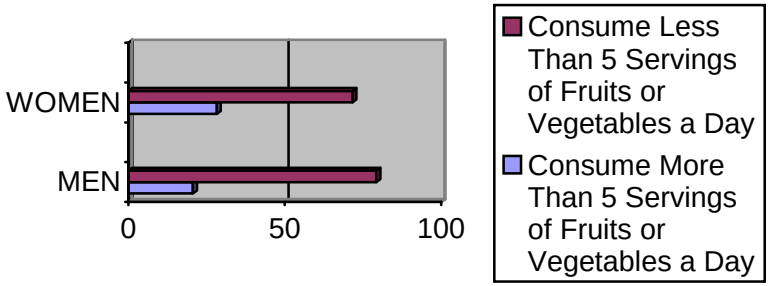


Source: USDA Foreign Agricultural Services[4]

Demand Tendencies

While there are not exact amounts of the demand for apricots in the Hispanic market, the Center for Disease Control and Prevention's report on the "Prevalence of Fruits and Vegetable Consumption by Race/Ethnicity in the United States" reports that consumption of fruits among Hispanic men and women in over the age of 18 was low. Seventy-nine percent of men reported consuming less than the recommended 5 fruits or vegetables a day. The percentage for women's fruit and vegetable consumption was slightly worse, with 71% of women consuming less than the recommended 5 fruits or vegetables a day.[5]

Consumption of Fruits and Vegetables Among Hispanic Men and Women in the United States (2005)



Source: Center for Disease Control and Prevention[5]

Market Characteristics

Market Segments

The market segment for apricots consists of the health-conscious fruit-loving individuals. From babies to adults, apricots can be enjoyed by people of all ages, whether it is in baby foods or favorite dishes, and oftentimes fresh from the tree.

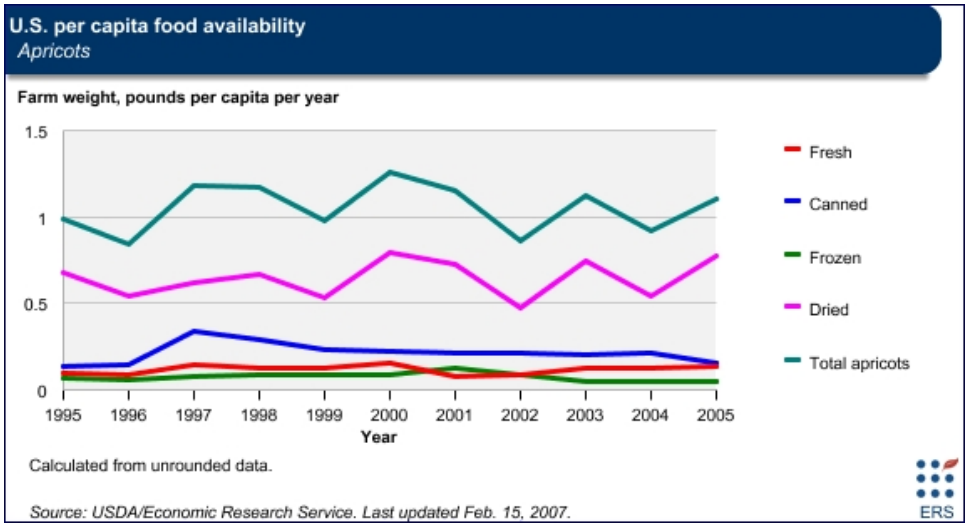
Consumer Preferences

Consumers enjoy apricots simply fresh or in several dishes that require nectarines or peaches. “They can also be used in tarts, cobblers, crisps, jams, chutneys, and compotes, or grilled, sautéed, broiled, or baked.”[6] It is not recommended that apricots be peeled due to their small size. All that needs to be done is simply cut along the seam or separate the fruit with your fingers. According to production and imports data in the U.S., there has been a change from a higher preference for canned apricots to its dried form.[7]

Apricot

Apparent Consumption

After analyzing the following graph provided by the USDA[8], it is clear that as of 2005, the market for apricots has been increasing. The greatest contributor to consumption is the dried apricots followed by its canned form. This further supports our observations for consumer preferences.



Competition

The three major processors of apricots in 2001 were Signature Fruit Company, Del Monte Foods, and Pacific Coast Producers, Signature Fruit Company having become the successor to the bankrupt Tri-Valley Growers in 2000. Del Monte Foods and Pacific Coast Producers combined account for nearly 55 percent of total canned apricots. Given the decrease in per capita consumption of canned apricots and increasing competition from abroad, growers have increased promotion of fresh-market apricots with the goal of receiving higher returns for their product.[9]

Distribution Channels

Procedures to Make Orders

According to Fowler Packing Company, apricots can be purchased with an initial price list sent by the seller to the purchaser via fax, email, or communicated by phone calls. The purchase orders can, then, be completed in the same manner.[10]

Apricot

Systems and Terms of Payment

The credit limit amount for purchasing apricots to be extended is determined by analyzing the credit ratings reference of the company in the “Blue Book”.

Payment terms granted are credit of 10 to 21 days typically throughout the industry. In some rare cases, sometimes up to 35 days are allowed.[10]

Transportation

Transportation channels are air and boat for imported fruit, and truck shipments for domestically grown fruit.

Trans. Mode	Origin Name	District
Air	New Zealand	Imports Through Los Angeles Airport
		Imports Through New York JFK Airport
		Imports Through San Francisco
Boat	Chile	Imports Through Los Angeles-Long Beach
		Imports Through Philadelphia-Camden
		Imports Through Wilmington (Delaware)
	New Zealand	Imports Through Los-Angeles-Long Beach
		Imports Through Philadelphia-Camden
Truck	California-Central	San Joaquin Valley District

Source: USDA Agricultural Marketing Service[11]

Packing, Types Used: Crates and Labels

The packing types used vary from 18 pound cartons to 5 kilogram containers, with loose packed fruit as well as, one, two, and three-layer tray pack cartons. The packing type varies with the size of the fruit.

PACKAGE	SIZES
18 lb cartons loose	80S 90S LGE
24 lb cartons	#5 #6 #7 #8 #10
24 lb cartons loose	#4 #6 #7 #8 #9 #10 #12 #14 LGE SML
25 lb cartons loose	#5 #6 #7 #8 #9 #10 #12 #14
5 kg containers	32S 36S 42S
Cartons 1 layer tray pack	28S 30S 32S 34S 36S 40S 42S 44S 48S 54S 66S 82S
Cartons 2 layer tray pack	#7 48S 54S 60S 64S 66S 68S 70S 72S 78S 80S 84S 88S 90S 96S 98S 108S
Cartons 3 layer tray pack	#70S #72S #78S #80S #84S #88S #90S #96S #108S #132S #144S #162S #168S
Cartons loose	#8 LGE

Source: USDA Agricultural Marketing Service[11]

Market Access

Acceptance Conditions

According to the United States Standards for Grades of Apricots, the following describes the tolerances allowed for each grade of quality:[12]

Defects:

- **U.S. No. 1 grade**
  Not more than 10 percent, by count, of any lot may be below the requirements of this grade and provided that not more than 5 percent, shall be allowed for defects causing serious damage and further provided that not more than 1 percent, shall be allowed for decay.
- **U.S. No. 2 grade**
  Not more than 10 percent, by count, of any lot may be below the requirements of this grade, and not more than 1 percent shall be allowed for decay.

Size:

- **U.S. No. 1 grade**
  If packages are marked with numerical count: Not more than 10 percent of the samples in a lot may fail the one-quarter inch variation requirement.
- **U.S. No. 2 grade**
  If packages are marked with minimum size: Not more than 10 percent, by count, of the apricots in any sample may be below the minimum size specified.

Apricot

Quality Standards

According to the USDA[12], the quality standards for apricots are separated into two categories as follows:

- **U.S. No. 1**
  shall consist of apricots of one variety which are mature but not soft, overripe, or shriveled and which are well formed, free from decay, cuts, skin breaks, worm holes, and free from damage caused by limb rubs, russeting, growth cracks, dirt, scab, scale, hail, bruises, disease, insects or mechanical or other means.

- **U.S. No. 2**
  shall consist of apricots of one variety which are mature but not soft, overripe or shriveled and which are free from decay, cuts, skin breaks, and worm holes and from serious damage caused by limbrubs, growth cracks, dirt, scale, hail, bruises, disease, insects or mechanical or other means.

Tariff Measurements

The table on the following page shows the Harmonized Tariff Schedule for Apricots and its products:

Apricot

Heading/ Subheading	Stat. Suffix	Article Description	Unit of Quantity	Rates of Duty		
				1		2
				General	Special	
0809		Apricots, cherries, peaches (including nectarines), plums (including prune plums) and sloes, fresh:				
0809.10.00	00	Apricots.....	kg	0.2¢/kg	Free (A+,AU,BH, CA,CL,D,E,IL,J, JO,MA,MX,P,SG)	1.1¢/kg
2007		Jams, fruit jellies, marmalades, fruit or nut purée and fruit or nut pastes, obtained by cooking, whether or not containing added sugar or other sweetening matter:				
2007.99		Other:				
		Jams				
2007.99.20	00	Apricot.....	kg	3.50%	Free (A,BH,CA, CL,E,IL,J,JO,MA, MX,P,SG) 0.8% (AU)	35%
2008		Fruit, nuts and other edible parts of plants, otherwise prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, not elsewhere specified or included:				
2008.50		Apricots:				
2008.50.20	00	Pulp.....	kg	10%	Free (A*,BH, CA,E,IL,J,JO,MA, MX,P,SG) 8.3% (AU) See 9911.77.13-9911.77.14 (CL)	35%
2008.50.40	00	Other.....	kg	29.80%	Free (A+,CA,E,IL, J,MX,P) 8.9% (JO) 17.8% (SG) 23.8% (BH)	35%

Source: United States International Trade Commission[13]

Restrictions and Regulations

The USDA has created several restrictions and regulations for the agriculture industry in order to control diseases among the exchanging of products as a safety precaution for all.

In addition to strict regulations, safety and wholesomeness of U.S. food products are safeguarded through pre-market clearances, mandatory production practices, inspections and random, ongoing sampling. The food safety standards that apply to domestically produced foods also apply to imported foods.[14]

According to the Federal Food, Drug, and Cosmetic Act (FD&C Act), a food label must contain specified information, displayed conspicuously and in terms that the ordinary consumer is likely to read and understand under ordinary conditions of purchase and use. Details concerning type sizes, location, etc., of required label information are contained in FDA Regulations, which cover the requirements of the Federal Food, Drug, and cosmetic Act and the Fair Packaging and Labeling Act. U.S. food labeling requirements.[14]

Technical Procedures

According to an FDA Registrar Compliance Specialist, any company that manufactures, processes, packs, or stores food, beverages, or health supplements that may be consumed in the U.S. by humans or animals is required to register with the U.S. FDA. The registration process is actually quite simple. There is a four page form that the producer must fill out and send back to the FDA. This form grants the producer permission to distribute and sell with a “Certificate of FDA Registration”. The exchange of form and certificate can be completed via fax or email. The original Certificate is also sent through regular mail.[15]

The USDA states that “imported goods may not be entered into the U.S. legally until the shipment has arrived within the limits of the port of entry and delivery of the merchandise has been authorized by the U.S. Customs Service, U.S. Treasury Department.” This is normally accomplished by filing the appropriate documents, either by the importer or by their agent. Customs entry papers may be presented before the merchandise arrives.[15]

Prices

Market Prices in different U.S. Cities

The following information was retrieved from the Federal-State Market News Service, USDA[16]. Apricots are one of the non-citrus fruits that are available to the consumers almost all year round making the market prices very competitive.

Atlanta	**OFFERING LIGHT**		
	Cartons 3 layer tray pack CA U.S.		
	One Poppycot 96s		32.00
	California Utility Poppycot 84s		12.00
	24 Lb cartons loose CA		
	California Utility Helene 80s		20.00
Boston	**MARKET ABOUT STEADY**		
	Cartons 2 layer tray pack CA		
	Goldbar 80s		19.00-24.00
	Poppycot 72s		24.00-26.00
	24 lbs cartons loose CA		
	Castlebrite #7		23.00-24.00
Los Angeles	**MARKET STEADY**		
	Cartons 2 layer tray pack CA		
	San Joaquin Valley California Earlicot 72s		22.00-24.00
	Honeycot 80s		22.00
	24 lbs cartons loose SA		
	San Joaquin Valley California Inter-specific Type Proprietary Varieties #8		15.00
New York	**MARKET ABOUT STEADY**		
	Cartons 2 layer tray pack CA		
	Lorna 64s		24.00
	Patterson 84s		28.00
	24 lbs cartons loose CA		
	Earlicot #9		19.00-20.00
AVG. MARKET PRICES	High Price: 23.60	Low Price: 21.40	Single price: 21.86

Source: Federal-State Market News Service USDA[16]

Sales Promotion

The apricot production from different parts in the United States had been declining in the last 2 years mostly due to the forces of nature, principally from the weather. The decline is also visible in California, where almost 98% of the apricots are grown there. Because of this despite decline in the domestic production, imports of fresh apricots are rising, especially from the Southern Cone in Latin America.

Out of the three types of apricot distribution, such as fresh fruit, canned fruit, and dried fruit; the fresh fruit and dried fruit sales had been rising in the past decade. This means that the retail consumption and demand of dry and fresh apricots had slightly increased in the past few years.[17]

In order to increase the demand of the apricots in the retail segment supermarkets and growers should work closely in developing marketing strategies, such as in-store promotions.

Plum

Product Description

The plum is believed to have first been introduced to the United States by the pilgrims but has been cultivated since ancient times, originating near the Caspian Sea. Plums are divided into three different groups according to the geographic region they are from. The plum is grown in temperate zones and the various types are suitable for many different soils and sites. The small, round fruit can either be European, Japanese or North American.

Plums are part of the Rosaceae family and the most common variety in the American market, the European plum, is classified as Prunus domestica. They are small, round, hard-pitted fruits that grow from trees from the genus Prunus, stone fruit trees. Their smooth skin that ranges in colors from dark purple to maroon is edible and has a slightly bitter taste to it. The thin skin covers a sweet, juicy pale yellowish or reddish flesh that surrounds a seed enclosed by a hard shell. This flesh ranges in firmness.

Some varieties have very firm flesh and high sugar content that allows them to dry without losing the majority of their original plumpness and flavor. Once the plums have been dried, they are called prunes. The drying of the fruit is believed to have first been done by people in the Middle East and is now largely produced in some central European and South American countries. Besides turning plums into prunes, plums are eaten raw, turn into jams, desserts, juices, and other processed foods that are good sources of vitamin A and B and rich in iron, calcium, and phosphorus.

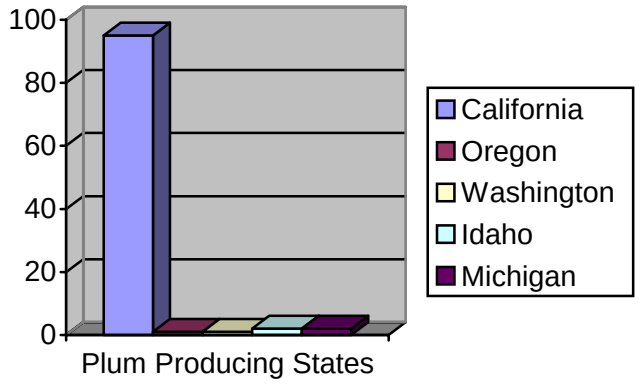
Statistical Data

U.S. Production Data

The United States produces about 656 million pounds of plums a year, which is considered low because it is usually double this amount. Approximately 95-98% of these plums are produced in California. The remainder of plums is produced only in Oregon, Washington, Idaho, and Michigan. The United States is second in the world of plum production, second only to China in the list of 81 countries who produce more than 21.6 billions pounds per year.[18]

Plums grow successfully in California because of the soil and terrain that is available in certain parts of the state.[13]

Plum Producing States in the U.S.



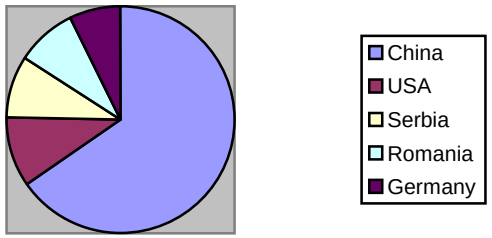
Source: Mark's Fruit Crops[18]

Statistics of Foreign Trade: Exportations and Importations

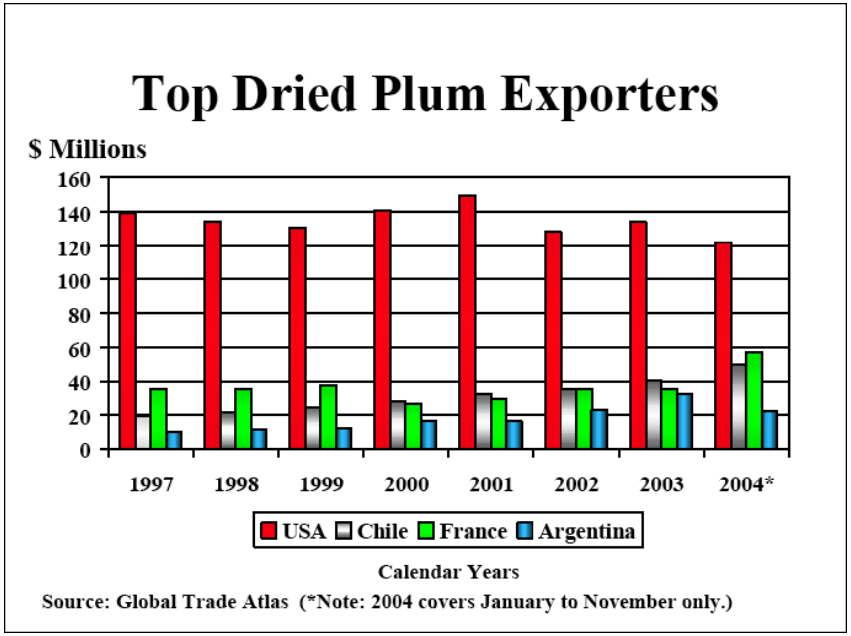
The United States exports approximately 40% of their plum production. The majority of that percentage is sent to Japan. However, their amount of plum exports is expected to decrease because they will use their resources to meet domestic needs.[19]

Contrary to the United States, Chile exports the majority (90%) of their plum production. In 2004-2005 they were predicted to produce 38,000 tons which was a 3% increase form the previous year.

Top Plum Producers of the World

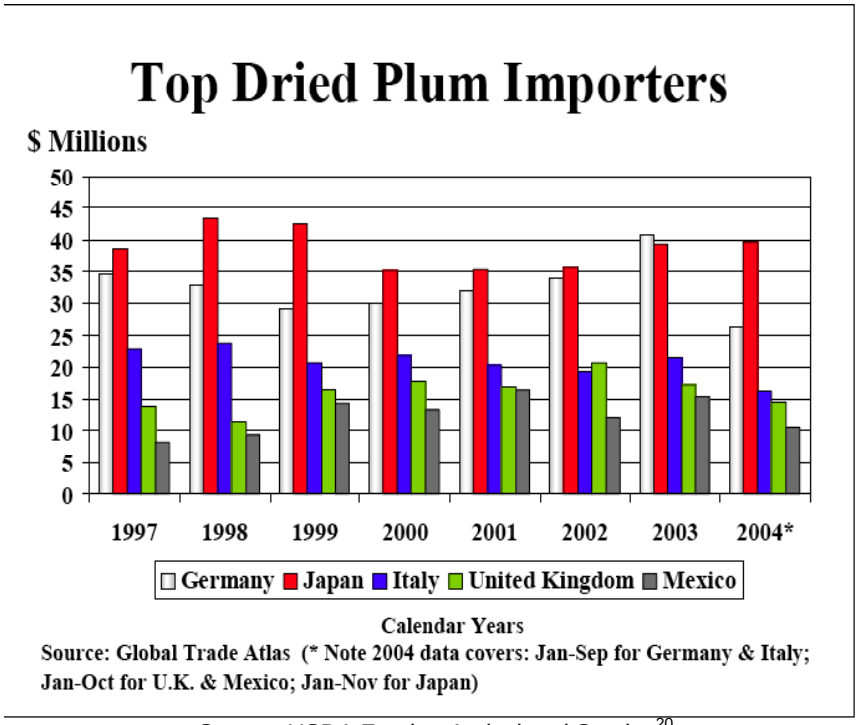


Source: USDA Foreign Agricultural Service[19]



Main Origin of Importations

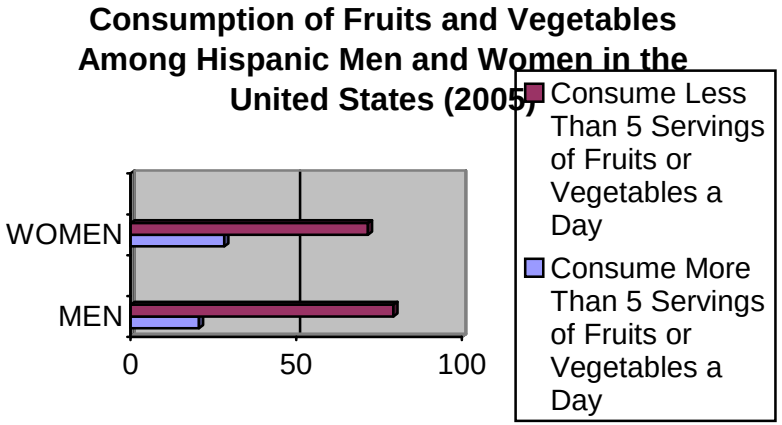
The United States produces large amounts of plums per year, therefore, supplying US demand, making it unnecessary for large, identifiable amounts of plums to be imported.[20]



Source: USDA Foreign Agricultural Service[20]

Demand Tendencies

While there are not exact amounts of the demand for plums in the Hispanic market, the Center for Disease Control and Prevention's report on the "Prevalence of Fruits and Vegetable Consumption by Race/Ethnicity in the Unites States" reports that consumption of fruits among Hispanic men and women in over the age of 18 was low. Seventy-nine percent of men reported consuming less than the recommended 5 fruits or vegetables a day. The percentage for women's fruit and vegetable consumption was slightly worse, with 71% of women consuming less than the recommended 5 fruits or vegetables a day.[5]



Source: Center for Disease Control and Prevention[5]

Market Characteristics

Market Segments

According to research conducted by the California PPN Network, the market for plums is segmented into:[21]

- Summer Enthusiasts: the middle class, all-American families who seek out the joy, freedom, family time, and outdoor activities of summer
- Super Moms and Dads: focused on family, especially the healthy eating habits of their kids
- Generation Starbucks: a portion of which keeps healthy lifestyles
- Light Lifestyles: health conscious and embraces summer activities, heavy users of fresh fruit, motivated by health claims

These are all people who love the summer and associate it with a time to eat a lot of fruit. Plums are considered thirst-quenching for hot summer days. They have great portability and are small enough to carry on-the-go. They can be eaten chilled or at room temperature. They can be consumed as a snack or mini-meal, at breakfast, mid-morning, throughout the afternoon, or after dinner.[20]

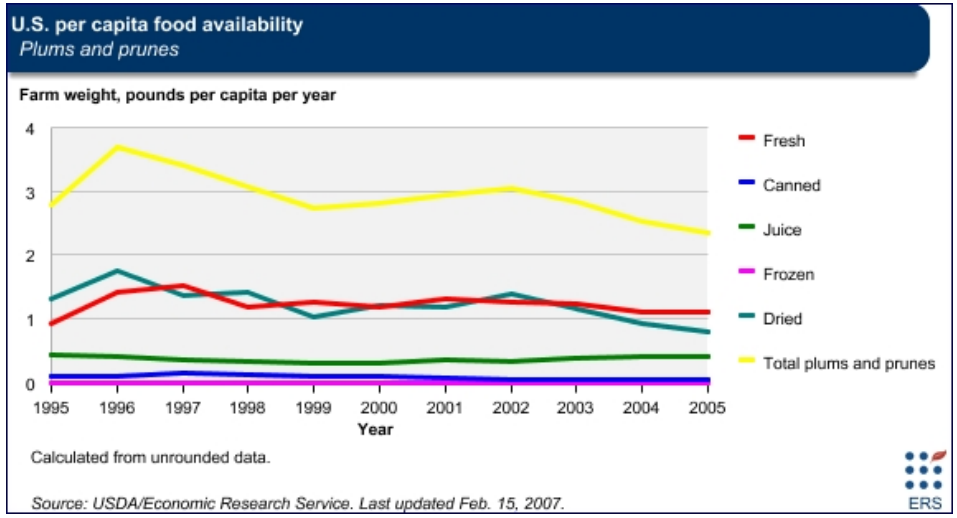
Plum

Consumer Preferences

Consumers of plums typically enjoy these fruits in two forms: fresh and dried. They are divided into two broad categories, which are the Japanese plums and European plums, or prunes. The Japanese plum is eaten fresh, canned, and put into jams and jellies. European plums are often called prunes because they can be dried without their pits being removed. Plums are enjoyed mainly for their fiber content. The skin of the fresh plums contains a fibrous substance.[22]

Apparent Consumption

According to the following data provided by the USDA, consumption appears to be declining.



Competition

According to the Fruit and Tree Nut Yearbook provided by the USDA, fresh fruit consumption has declined significantly. The fresh fruits still popular among Americans are:[23]

1. Bananas
2. Apples
3. Oranges

Plums and prunes have notably decreased in consumption, but still remain a consumer favorite due to their nutritional content.

Distribution Channels

Procedures to Make Orders

According to Fowler Packing Company, plums can be purchased with an initial price list sent by the seller to the purchaser via fax, email, or communicated by phone calls. The purchase orders can, then, be completed in the same manner.[10]

Plum

Systems and Terms of Payment

The credit limit amount for purchasing plums to be extended is determined by analyzing the credit ratings reference of the company in the “Blue Book”.

Payment terms granted are credit of 10 to 21 days typically throughout the industry. In some rare cases, sometimes up to 35 days are allowed.[10]

Transportation

Transportation channels are air and boat for imported fruit, and truck shipments for domestically grown fruit.

Trans. Mode	Origin Name	District
Air	Chile	All Areas
		Imports Through Miami Airport
	New Zealand	Imports Through Los Angeles Airport
		Imports Through San Francisco
Boat	Argentina	Imports Through Philadelphia-Camden
	Chile	Imports Through Elizabeth (New Jersey)
		Imports Through Los-Angeles-Long Beach
		Imports Through Philadelphia-Camden
		Imports Through South Florida/Tampa
		Imports Through Wilmington (Delaware)
Truck	California-Central	San Joaquin Valley District

Source: USDA Agricultural Marketing Service[11]

Packing, Types Used: Crates and Labels

The packing types used vary to accommodate the different sizes of the fruit.

PACKAGE	SIZES
10 kg containers	#50S, #56S, #60S, #70S
10 kg containers loose	#24S, 30SZ, 35SZ, 40SZ, 50, 60, 70, 80, 90 SERIES
2 1-layer cartons	52S, 56S
28 lb cartons loose	30 – 100 SERIES
32 lb containers loose	40SZ, 48SZ, 50SZ, 60SZ
5 kg containers	50S, 54S, 60S
5.25 kg containers	LGE, XLGE
9 kg containers	50 – 70 SERIES
9 kg containers loose	25, 40 – 80 SERIES
Cartons 1 layer tray pack	50S, 52S, 72S, 78S
Cartons 2 layer	20 – 80 SERIES
Cartons/lugs 2 layer	40 – 50, 70 – 80 SERIES
Cartons/lugs 2 layer tray pack	10 – 90 SERIES
Flats/cartons 1 layer tray pack	30 – 40 SERIES

Source: USDA Agricultural Marketing Service[11]

Market Access

Acceptance Conditions

According to the United States Standards for Grades of Fresh Plums and Prunes, the following lists the tolerances allowed for each grade of quality:[24]

- **U.S. Fancy and U.S. No. 1**
  - **For defects of plums or prunes other than Italian type prunes at shipping point:** 8 percent for fruit which fails to meet the requirements of the specified grade: Provided that included in this amount not more than 4 percent shall be allowed for defects causing serious damage, including in this latter amount not more than ½ of 1 percent for fruit which is affected by decay.
  - **For defects of plums or prunes other than Italian type prunes en route or at destination:** 12 percent for fruit which fails to meet the requirements of the specified grade: Provided that included in this amount not more than the following percentages shall be allowed for defects listed:
    i) 8 percent for permanent defects;
    ii) 6 percent for defects causing serious damage, including therein not more than 4 percent for serious damage by permanent defects and not more than 2 percent for decay.

Plum

- **For defects of Italian type prunes at shipping point**: Not more than a total of 12 percent of the fruit in any lot may fail to meet the requirements of the specified grade: Provided that included in this amount not more than the following percentages shall be allowed for the defects listed:

  i) 10 percent for prunes which fail to meet the color requirement;

  ii) 10 percent for prunes which fail to meet the minimum diameter requirement;

  iii) 8 percent for prunes which fail to meet the remaining requirements of the grade: Provided that not more than ½ of this amount, or 4 percent, shall be allowed for defects causing serious damage, including in the latter amount not more than ½ of 1 percent for decay.

- **For defects of Italian type prunes en route or at destination:** Not more than a total of 18 percent of the fruit in any lot may fail to meet the requirements of the specified grade: Provided that included in this amount not more than the following percentages shall be allowed for the defects listed:

  i) 12 percent for permanent defects including therein not more than 10 percent which fail to meet the color requirement, 10 percent which fail to meet the minimum diameter requirement, and 8 percent which fail to meet the requirements of the grade because of other permanent defects;

  ii) 6 percent for defects causing serious damage, including therein not more than 4 percent for serious damage by permanent defects and not more than 2 percent for decay.

➢ **U.S. Combination and U.S. No. 2**

- **For defects at shipping point:** 8 percent for fruit which fails to meet the requirements of the specified grade: Provided that included in this amount not more than 4 percent shall be allowed for sunscald, decay or serious damage by insects or heat injury, including in this latter amount not more than ½ of 1 percent for decay.

- **For defects en route or at destination:** 12 percent for fruit which fails to meet the requirements of the specified grade: Provided that included in this amount not more than the following percentages shall be allowed for defects listed:

  i) 8 percent for permanent defects including therein not more than 4 percent for sunscald, or serious damage by insects or heat injury;

  ii) 2 percent for decay.

- When applying the tolerance for the U.S. Combination grade individual packages may have not more than 10 percent less than the percentage of U.S. No. 1 required: Provided that the entire lot averages within the required percentage.

Quality Standards

According to the USDA, the quality standards for plums are separated into five categories as follows:[24]

- **U.S. Fancy:**
  Consists of plums or prunes of one variety which are well formed, clean, mature but not overripe or soft or shriveled; which are free from decay, sunscald, heat injury, sunburn, split pits and hail marks, and free from damage caused by broken skins, growth cracks, drought spots, gum spots, russeting, scars, other disease, insects or mechanical or other means. (a) Italian type prunes shall be well colored and, unless otherwise specified, shall be not less than 1 ¼ inches in diameter.

- **U.S. No. 1:**
  Consists of plums or prunes of one variety which are well formed, clean, mature but not overripe or soft or shriveled; which are free from decay and sunscald, and free from damage caused by broken skins, heat injury, growth cracks, sunburn, split pits, hail marks, drought spots, gum spots, russeting, scars, other disease, insects or mechanical or other means. (a) Italian type prunes shall be fairly well colored and, unless otherwise specified, shall be not less than 1 ¼ inches in diameter.

- **U.S. Combination:**
  Consists of a combination of U.S. No. 1 and U.S. No. 2 plums or prunes: Provided that at least 75 percent, by count, meet the requirements of U.S. No. 1 grade.

- **U.S. No. 2:**
  Consists of plums or prunes of one variety which are not badly misshapen, which are clean, mature but not overripe or soft or shriveled; which are free from decay and sunscald, and free from serious damage caused by broken skins, heat injury, growth cracks, sunburn, split pits, hail marks, drought spots, gum spots, russeting, scars, other disease, insects or mechanical or other means.

- **Unclassified:**
  Consists of plums or prunes which have not been classified in accordance with any of the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no grade has been applied to the lot.

Plum

Tariff Measurements

The table on the following page shows the Harmonized Tariff Schedule for Plums and its products:

Heading/ Subheading	Stat. Suffix	Article Description	Unit of Quantity	Rates of Duty 1 General	Rates of Duty 1 Special	Rates of Duty 2
0809		Apricots, cherries, peaches (including nectarines), plums (including prune plums) and sloes, fresh:				
0809.40		Plums (including prune plums) and sloes:				
0809.40.20	00	If entered during the period from January 1 to May 31, inclusive, in any year.....	kg	Free		1.1¢/kg
0809.40.40	00	If entered at any other time.....	kg	0.5¢/kg	Free (A+,AU,BH, CA,CL,D,E,IL,J, JO,MA,MX,P,SG)	1.1¢/kg
2008		Fruit, nuts and other edible parts of plants, otherwise prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, not elsewhere specified or included:				
2008.99		Other, including mixtures: Other:				
2008.99.60	00	Plums (including prune plums and sloes).....	kg	11.20%	Free (A+,CA,D,E, IL,J,JO,MX,P) 5.6% (SG) 5.6% (CL) 6.7% (BH) 7.8% (AU) 8.9% (MA)	

Source: United States International Trade Commission[13]

Restrictions and Regulations

The USDA has created several restrictions and regulations for the agriculture industry in order to control diseases among the exchanging of products as a safety precaution for all.

In addition to strict regulations, safety and wholesomeness of U.S. food products are safeguarded through pre-market clearances, mandatory production practices, inspections and random, ongoing sampling. The food safety standards that apply to domestically produced foods also apply to imported foods.[12]

According to the Federal Food, Drug, and Cosmetic Act (FD&C Act), a food label must contain specified information, displayed conspicuously and in terms that the ordinary consumer is likely to read and understand under ordinary conditions of purchase and use. Details concerning type sizes, location, etc., of required label information are contained in FDA Regulations, which cover the requirements of the Federal Food, Drug, and cosmetic Act and the Fair Packaging and Labeling Act. U.S. food labeling requirements.[12]

Technical Procedures

According to an FDA Registrar Compliance Specialist, any company that manufactures, processes, packs, or stores food, beverages, or health supplements that may be consumed in the U.S. by humans or animals is required to register with the U.S. FDA. The registration process is actually quite simple. There is a four page form that the producer must fill out and send back to the FDA. This form grants the producer permission to distribute and sell with a “Certificate of FDA Registration”. The exchange of form and certificate can be completed via fax or email. The original Certificate is also sent through regular mail.[13]

The USDA states that “imported goods may not be entered into the U.S. legally until the shipment has arrived within the limits of the port of entry and delivery of the merchandise has been authorized by the U.S. Customs Service, U.S. Treasury Department.” This is normally accomplished by filing the appropriate documents, either by the importer or by their agent. Customs entry papers may be presented before the merchandise arrives.[12]

Prices

Market Prices for Plums in Different U.S. Cities

As part of the non-citrus fruit family like the apricots, plums are also available most of the year round. The easy distribution of this fruit to end consumers makes the market price of this fruit competitive in comparison with other fruit from the same family. The following market prices data was retrieved from the Federal-State Market News Services, USDA[14].

Plum

Atlanta	**MARKET ABOUT READY**		
	28 lb cartons loose CA		
	Earliqueen 70sz		21.50
	Red Beaut 60sz		23.25
	Cartons 2 layer CL		
	Angeleno 50s, 60s		14.00
Boston	**MARKET ABOUT READY**		
	28 Lb cartoons loose CA		
	Maturity Not Marked Ebony: 50-55sz 60-65sz		28.00-30.00 24.00
	Cartons/Lugs 2 layer tray pack CA		
	Maturity Not Marked Interspecific Type Early Dapple 64sz		24.00-28.00
Los Angeles	**MARKET STEADY**		
	28 lb cartons loose CA		
	San Joaquin Valley California Earliqueen: 50sz 60sz		 30.00 26.00
	Cartons/Lugs 2 layer tray pack CA		
	San Joaquin Valley California Interspecific Type Flavorosa 64sz		22.00
New York	**MARKET LOWER**		
	28 lb cartons loose CA		
	Read Beaut 50sz		20.00
	California Utility Black Beaut 60sz		20.00
	Cartons/Lugs 2 layer tray pack CA		
	Interspecific Type Flavorosa 70s		28.00
AVG. MARKET PRICES	High Price: 29.00	Low Price: 26.00	Single price: 22.06

Source: Federal-State Market News Service USDA[14]

Sales Promotion

The market segment for the plums is widely spread out across the United States. The majority of the production of plums is concentrated in some states in the West of the United States, such as Napa, Sonoma, Sacramento, and San Joaquin Valleys. The production of plums in these areas supplies almost 99 percent of the USA and approximately 70 percent of the world supply.[25]

The sales promotions that can be used in order to promote this fruit in its different packaging types, such as a fruit, canned, or dried product could be in-store promotions, flyers, and discount coupons.

Rambutan

Product Description

The rambutan is an exotic fruit that is not commonly seen around the United States but is familiar to those in regions such as Malaysia, Thailand, Vietnam, and other areas in Southeast Asia.

The rambutan fruit grows on a medium-sized tree that can range in size from 50 to 80 feet tall in groups of small bushels along with leaflets and small flowers. It grows best in warm tropical climates that do not go below 10° C in hilly terrain high in organic matter and hilly terrain with adequate drainage. The bushels contain single oval shaped rambutan that is between 2 to 3 inches long. They have a leathery outer layer in a vibrant reddish color that can be a yellowish or orangey color in certain varieties of the fruit. The rambutan's name is derived from the Mayas word rambut which means 'hairy'. It has a rind that is covered with spiky hair-like spines all around it. When the spiky rind of the fruit is cut open, a clear, pale pink, gooey flesh is revealed that can be eaten by sucking away at the juicy, acidic flesh until the inedible, bitter seed is reached. The seed that is usually a glossy brown color, should never be eaten.

This fruit is part of the Sapindaceae botanical family along with other fruits such as the canepa or the mamoncillo. There are more than 20 different types of rambutan depending on size, color, flesh, and growth per tree at age, etc.

Statistical Data

U.S. Production Data

The rambutan is not grown anywhere in the United States except Hawaii. The climate in Hawaii provides the prefect temperature and soil that is perfect for its cultivation. While the number of farms that grow rambutan in Hawaii has not grown significantly since 1999, the total amount of trees that they have per acre as well as the number of pounds grown and utilized has increased significantly. In 2003 the state of Hawaii grew approximately 306,000 pounds of rambutan.[26]

Rambutan

Tropical Specialty Fruit Statistics: Rambutan

Crop	Farms[2]	Acreage		Number of trees		Utilized production[3]	Farm price[3 4]	Value of sales
		In crop	Harvested	Total	Bearing			
	Number	*Acres*				*1,000 pounds*	*Dollars per pound*	*1,000 dollars*
Rambutan								
1999	60	205	70	9,400	3,500	113	2.88	326
2000	70	225	85	9,800	5,000	220	2.98	656
2001	60	245	100	12,500	6,400	205	3.01	618
2002	55	270	145	13,200	6,800	257	3.01	773
2003	**60**	**270**	**185**	**12,900**	**8,500**	**306**	**2.73**	**834**

Source: USDA [20]

Statistics of Foreign Trade: Exportations and Importations

The USDA Foreign Agricultural Service reports that there is not significant export of rambutan to the Indonesian countries that consume it. The rambutan that is grown in Hawaii is exported interstate.

Authors such as R.J. Campbell and N. Leadsman report in the website for the International Society for Horticultural Science that about the increasing export potential of rambutan grown in Tropical America on a small scale but have high potential for expansion.[27]

Rambutan

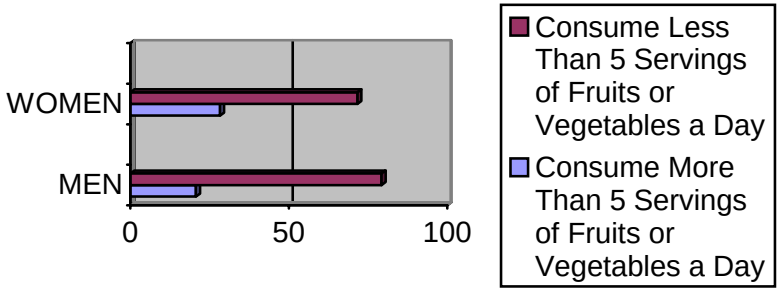
Main Origin of Importations

According to the USDA Foreign Agricultural Service, from 2001 to 2003 Thailand supplied approximately 100% of rambutan to the United States. It is also largely grown in other tropical areas in Africa, Cambodia, the Caribbean Islands, Central America, the Philippines, Indonesia, and Asia, all countries where they are widely known and consumed.

Demand Tendencies

While there are not exact amounts of the demand for rambutan in the Hispanic market, the Center for Disease Control and Prevention's report on the "Prevalence of Fruits and Vegetable Consumption by Race/Ethnicity in the Unites States" reports that consumption of fruits among Hispanic men and women in over the age of 18 was low. Seventy-nine percent of men reported consuming less than the recommended 5 fruits or vegetables a day. The percentage for women's fruit and vegetable consumption was slightly worse, with 71% of women consuming less than the recommended 5 fruits or vegetables a day.[4]

Consumption of Fruits and Vegetables Among Hispanic Men and Women in the United States (2005)



Source: Center for Disease Control and Prevention[4]

Market Characteristics

Market Segments

Being that the rambutan is still a fairly unknown fruit to the masses, consumption is largely focused in ethnic groups. According to Maurice Kong, an expert for the Rare Fruit Council, Southeast Asians love the fruit, and so do Hispanics. It is a fruit that anyone would like, including people in the Midwest once it is imported and introduced by specialty fruit importers.[28] Interest in and awareness of the rambutan seems to be rising amongst those within the exotic fruit market. For those in search of the newest and rarest fruits in the market, the rambutan is becoming of much interest.[29]

Consumer Preferences

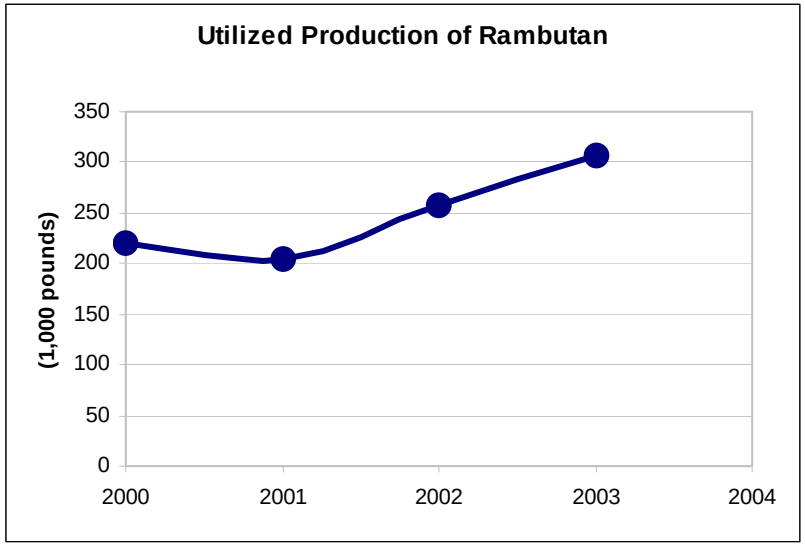
According to Francis T. Zee, the rambutan is cultivated primarily for its fresh fruit. It is also used in syrup form or cooked for stewed fruit and jams. These colorful fruits are frequently used in displays with flower and fruit arrangements. It has also been known to be used medicinally in Java.[30] In terms of medicinal uses, “a root extract is used to treat fever, a bark extract for tongue diseases, and a poultice of crushed leaves is placed on the head to relieve headache”.[31]

Rambutan

Apparent Consumption

After looking at the following data available, it is clear that the apparent consumption of the rambutan is steadily increasing. From production numbers, one can deduct that through increasing awareness of the fruit, consumption will continue to increase.

Utilized Production of Rambutan	
Year	Production *(1,000 pounds)*
2000	220
2001	205
2002	257
2003	306
2004	--



Source: Hawaii Department of Agriculture 2005[32]

Rambutan

Competition

The rambutan is very much like the lychee and longan. Being that the rambutan is quite new to the United States, very little competition exists among this sector. Competition will arise in the exotic fruit market once awareness of the rambutan begins to develop.

Distribution Channels

Procedures to Make Orders

Hula Brothers Inc., a major exporter of rambutan located in Hawaii, accepts orders via the internet when the fruit is in season.[33]

Rambutan

Systems and Terms of Payment

Hula Brothers, Inc., in Hawaii, picks, packs and ships the same day to ensure the freshest fruit. They accept credit cards as payment and ship the fruits using Federal Express.[26]

Transportation

The transportation channel is air because of the highly perishable nature of this fruit.

Rambutan should be shipped by air, preferably under refrigeration within 24 hours of harvest.[34]

Trans. Mode	Origin	City
Air	Hawaii	Los Angeles
		New York
		San Francisco

Source: USDA Agricultural Marketing Service[10]

Packing, Types Used: Crates and Labels

Rambutan is shipped in 7 pound cartons. The fruit may be packed in perforated bags holding 3.5 pounds each.[10]

According to the USDA Agricultural Research Service, there are no U.S. or international grade standards for Rambutan. However, the packing used is 5 pound and 10 pound fiberboard one-piece cartons.[35]

Market Access

Acceptance Conditions

The rambutan appears acceptable under three tolerance classifications, which are as follows: [36]

- **"Extra" Class**:

  Rambutans in this class must be of superior quality. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

- **Class I:**

  Rambutans in this class must be of good quality. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:
  - a slight defect in shape;
  - slight skin defects not exceeding 5% of the total surface area, excluding defects on spinterns.
  - the defects must not, in any case, affect the flesh of the produce.

➢ **Class II:**

This class includes rambutans which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified under "Quality Standards" in the following section. The following defects, however, may be allowed, provided the rambutans retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape;
- skin defects not exceeding 10% of the total surface area, excluding defects on spinterns.
- the defects must not, in any case, affect the flesh of the produce.

Quality Standards

According to the FAO Codex Alimentarius[29], the quality standards for the rambutan are that they must be:

- whole;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter;
- practically free of pests and damage caused by them affecting the general appearance of the produce;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- fresh in appearance;
- free of damage caused by low and/or high temperatures.

The rambutans must have been carefully picked and have reached an appropriate degree of development and ripeness. The development and condition of the rambutans must be such as to enable them:

- to withstand transport and handling; and
- to arrive in satisfactory condition at the place of destination.

Rambutan

Tariff Measurements

Due to the fact that the rambutan is a fairly new fruit to the U.S., there is currently no tariff schedule. However, since the rambutan is closely related to the lychee, the following table shows the Harmonized Tariff Schedule for lychees and longans:

Heading/ Subheading	Stat. Suffix	Article Description	Unit of Quantity	Rates of Duty		
				1		2
				General	Special	
2008		Fruit, nuts and other edible parts of plants, otherwise prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, not elsewhere specified or included: Other, including mixtures:				
2008.99.35	00	Lychees and longans.....	kg	7%	Free (A*,BH,CA, CL,E,IL,J,JO,MA, MX,P,SG) 1.7% (AU)	35 %

Source: United States International Trade Commission[12]

Restrictions and Regulations

The USDA has created several restrictions and regulations for the agriculture industry in order to control diseases among the exchanging of products as a safety precaution for all.

In addition to strict regulations, safety and wholesomeness of U.S. food products are safeguarded through pre-market clearances, mandatory production practices, inspections and random, ongoing sampling. The food safety standards that apply to domestically produced foods also apply to imported foods.[12]

According to the Federal Food, Drug, and Cosmetic Act (FD&C Act), a food label must contain specified information, displayed conspicuously and in terms that the ordinary consumer is likely to read and understand under ordinary conditions of purchase and use. Details concerning type sizes, location, etc., of required label information are contained in FDA Regulations, which cover the requirements of the Federal Food, Drug, and cosmetic Act and the Fair Packaging and Labeling Act. U.S. food labeling requirements.[12]

Technical Procedures

According to an FDA Registrar Compliance Specialist, any company that manufactures, processes, packs, or stores food, beverages, or health supplements that may be consumed in the U.S. by humans or animals is required to register with the U.S. FDA. The registration process is actually quite simple. There is a four page form that the producer must fill out and send back to the FDA. This form grants the producer permission to distribute and sell with a “Certificate of FDA Registration”. The exchange of form and certificate can be completed via fax or email. The original Certificate is also sent through regular mail.[13]

The USDA states that “imported goods may not be entered into the U.S. legally until the shipment has arrived within the limits of the port of entry and delivery of the merchandise has been authorized by the U.S. Customs Service, U.S. Treasury Department.” This is normally accomplished by filing the appropriate documents, either by the importer or by their agent. Customs entry papers may be presented before the merchandise arrives.[12]

Prices

Market Prices for Rambutan in Different US Cities

The rambutan is not a popular fruit in comparison to other fruit from the same family; thus, there is not sufficient data available in regards to the market prices. However, small plantations of rambutan exist on the island of Kauai and Hawaii. Average price for 1kg is 9.00-13.00.[37]

Sales Promotion

Since the rambutan is not a very popular fruit in the United States; we can use the same marketing strategy and channels that we use to promote the lychee, because both fruits are part of the same family.

With the appropriate sales and marketing promotion in place, the rambutan's awareness can increase leading to an increase of imports of this fruit from Hawaii and hopefully from others distributors around the world.

Importers List and Distribution Networks

Melissa's/World Variety Produce, Inc.
P.O. Box 21127
Los Angeles, CA 90021
Email hotline@melissas.com
Phone (800) 588-0151

Frieda's Inc.
4465 Corporate Center Dr.,
Los Alamitos, CA 90720
mail@friedas.com
Phone (662) 349-2888

Blue Produce
5868 Westheimer Rd Ste A1-213
Houston, Texas 77057-5641
(713) 609-9166 Tel
(832) 295-5786 Fax
info@blueproduce.com

Upcoming Commercial Events

March 9-11, 2008|International Restaurant & Foodservice Show|New York
It's all about the restaurant and foodservice business with every product and service available for sampling and sourcing. New foods to spice up your menu, new ideas to attract customers, time and cost-saving services and equipment.[38]

May 4-7, 2008|Mandalay Bay Convention Center|Las Vegas
Food Marketing Institute presents the only supermarket industry showcase of new products and services, education sessions and business opportunities combined with the latest retail technology. Discover electrifying ideas on how to lower costs, increase productivity and improve the shopping experience —all on one show floor. [39]

Conclusions and Recommendations

In conclusion, both plums and apricots are widely produced in the United States and domestically distributed. As a result, there is not a large market potential for imports from Latin American companies since the supply provided by the United States for apricots and plums meets its demand. Rambutan on the other hand, is not widely consumed or well-known in the United States outside of the market in Hawaii and certain parts of California. Rambutan has a good potential for successful import into the United States market.

It is highly recommendable that the rambutan be brought to the United States since there is an increasing demand amongst the exotic fruit market. The rambutan has high market potential and is creating awareness throughout the west coast of the U.S. However, apricots and plums need not be imported to the United States from abroad because there is a market surplus for these fresh fruits. The demand for apricots and plums is below its equilibrium.

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