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FROM THE AMERICAN PEOPLE



John Ogonowski
Latin America
Farmer-to-Farmer Program

Executive Summary

The objective of this report is to conduct research in favor of Central American countries to find out if there is a market for honey, organic honey and sesame seeds in the United States. Throughout the research process we used mostly exploratory research through the gathering of secondary data. Based on the information gathered we have found that there are opportunities for outside countries to penetrate the United State's honey, organic honey and sesame seeds market.

The research will prove that there is more favoritism towards one of the commodities over the rest, organic honey. With the new "Organic" and health conscious trend sweeping over the nation, organic honey is considered a scarce commodity in the United States. Although the regular honey and sesame seed's production in the United States is limited, we noticed that the United States does not produce enough to fulfill the market. At the end, the United State out-sources all of these commodities from Latin America countries, among many others.

In conclusion, we see opportunities within the United States for the commodities mentioned within this report although organic honey would ultimately have the most profitability between the three.

*Ryun Alli
Manuel Gomez
Katherine Gonzalez-Rubio*

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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.

Honey



Honey

Honey

Product Description

Honey is a viscous liquid that is produced by bees. There are several types of honey, each with distinct flavors and different colors ranging from yellow to rich amber.¹

Organic Honey

Organic honey is a type of honey that is made with very strict regulations. It is produced in accordance with national regulations as set by the governing body of that region. Some regulations go as far as to determine the actual area in which organic honey can be produced.²



Statistical Data

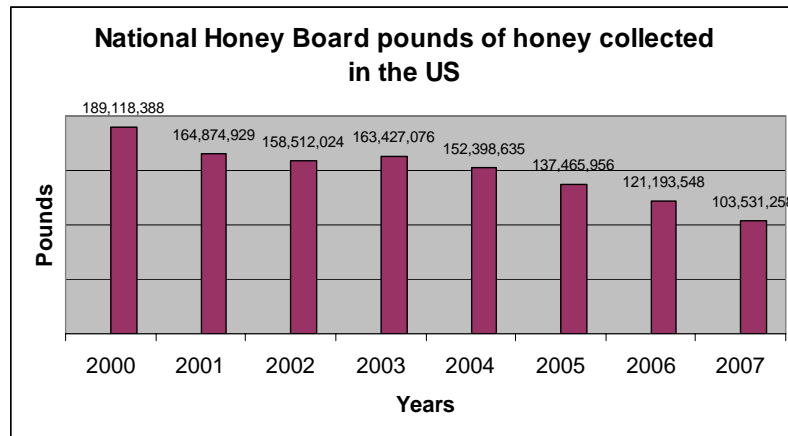
U.S. Production Data

The main producer states of honey are: Arkansas, California, Florida, Montana, South Dakota and Wisconsin.

There are between 139,600 and 210,000 beekeepers in the US. The majority of these beekeepers (95%) are hobbyists with fewer than 25 hives and about 4% of these hobbyists are part-timers who keep from 25 to 299 hives, for a total of 50% of bee colonies and about 40% of honey production coming from part-time hobbyists. Commercial beekeepers have 300 or more bee colonies and there are about 1,600 commercial beekeeping operations in the US, accounting for the production of 60% of honey in the nation. These commercial beekeepers are generally family businesses that have been maintained generation to generation.³

The production of honey in the United States has been declining over the years, which informs us that more honey is being imported from other countries around the world.

Honey



Yr	Lbs
2000	189,118,388
2001	164,874,929
2002	158,512,024
2003	163,427,076
2004	152,398,635
2005	137,465,956
2006	121,193,548
2007	103,531,258

Honey

Statistics of Foreign Trade: Exportations and Importations

Exports

- Below 15,000 kgs of honey exported to: Aruba, Antigua and Barbuda, Bahamas, Barbados, Belgium, Belize, Bermuda, Cambodia, Cayman Islands, China, Colombia, Costa Rica, Hong Kong, Iceland, Japan, Korea (south), Malaysia, South Africa, Taiwan, Yemen, and United Arab Emirates.
- From 15,000 to 35,000 kgs of honey exported to: Australia, Guatemala, Kuwait, Pakistan, Philippines, Saudi Arabia, and Thailand.
- Above 35,000 kgs of honey exported to: Brunei, Canada, Indonesia, and Israel.

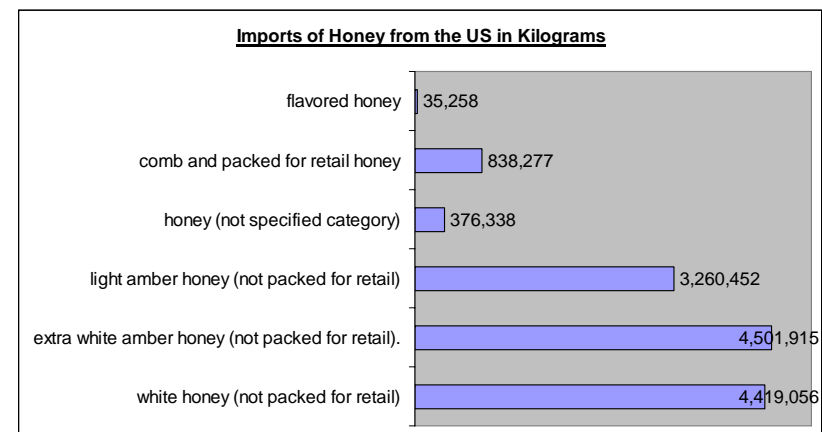
A grand total of 531,579.00 kgs of honey have been exported from the US to over 30 countries in the world, a total of \$1,752,743.00.

Imports

- A subtotal of 4,419,056 kgs of white honey (not packed for retail).
- A subtotal of 4,501,915 kgs of extra white amber honey (not packed for retail).
- A subtotal of 3,260,452 kgs of light amber honey (not packed for retail)
- A subtotal of 376,338 kgs of honey (not specified category).
- A subtotal of 838,277 kgs of comb and packed for retail honey.
- A subtotal of 35,258 kgs of flavored honey.

A grand total of 13,431,296 kgs of honey have been imported, a total of US \$ 24,001,244.00.

(Statistics collected from January to May in the year 2008 given by the United States Department of Agriculture)⁴



Honey

Main Origin of Importations

(Information collected from January to May in the year 2008 given by the United States Department of Agriculture)⁵

- Above 500,000 kgs importations of honey came from: Brazil, Canada, China, India, and Malaysia.
- From 100,000 to 500,000 kgs importations of honey come from: Argentina, Mexico, Mongolia, New Zealand, Russia, Singapore, Taiwan, Thailand, and Vietnam.
- Below 100,000 kgs importations of honey come from: Australia, Austria, Bulgaria, Dominican Republic, Egypt, Fiji, France, Germany, Hungary, Indonesia, Iran, Israel, Italy, Japan, Korea (south), Monaco, Peru, Poland, Spain, Switzerland, Ukraine, and the United Kingdom.

Demand Tendencies

The US consumes more than 400 million pounds of honey each year and US per capita consumption of honey is around 1.29 lbs per year.⁶

Market Characteristics

Market Segments

The US has experienced shortfalls in the production of honey, but had carryovers from the previous years crops, have been reduced since the beginning of 2008. The US is one of the world's largest markets for honey with 2.4 million honey producing colonies. The primary users, which make up 45%, of industrial honey are bakeries, health food and cereal manufacturers. The food service industry makes up 10% and individual consumers who use it for personal use make up a good significance to the consumption.⁷

Organic Honey

National Board of Honey list 33 organic honey suppliers in the US and the rest of the honey consumed in the US is imported from Canada, China, and South America along with other countries.⁸

Honey

Consumer Preferences

Organic Honey

Certified organic honey is often reported to be tastier and have greater health benefits, in meeting strict guidelines in terms of sources of bees, foraging areas, internal feeding, health care, extraction, storage and others.⁹

Organic Honey

One of the competitors that Organic Honey faces is the production of Local Honey because certain consumers prefer the local “mom and pop” production over the mass produced organic honey.¹²

Apparent Consumption

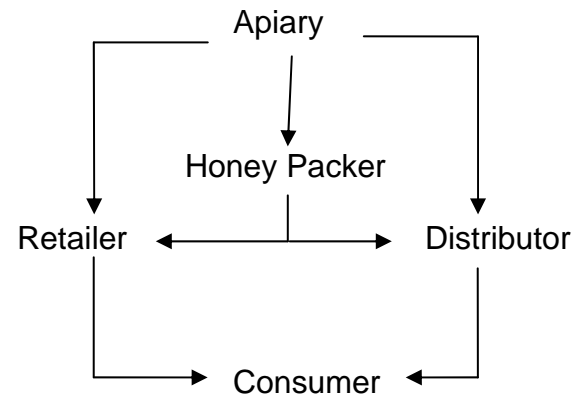
US consumes almost 118 million pounds of honey, which consists of about 100 million pounds produced domestically, and about 29 millions pounds imported.¹⁰

Competition

- Inexpensive, imported honey provides constant pressure on domestic prices.
- China and Argentina’s prices are very low and have tightened the margins.
- Honey competes with sugarcane and corn sweetener, but ultimately its biggest threat is from within the Honey industry.
- There are 300 different types of honey.¹¹

Distribution Channels

The following illustration represents a typical chain of distribution for honey, and organic honey. From the apiary the honey can be bottled and labeled and sent to retailers or distributors. Or it may be sent to a honey packer in bulk in order to be bottled and labeled, which in turn saves the apiary bottling and marketing costs. From the honey packer the bottled honey can then be distributed to retailers and distributors, who in turn vend it to consumers.¹³



Honey

Packing, Types Used: Crates and Labels

Packaging Regulations

(Information taken directly from the National Honey Board – Honey Labeling, Information & Tips)¹⁴

Labels MUST communicate the following:

- **The "Common" Name of the Product**

The word "honey" must be visible on the label. The name of a plant or blossom may be used if it is the primary floral source for the honey. Honey must be labeled with its common or usual name on the front of your package. (i.e. "Honey" or "Clover Honey")

- **Net Weight**

The net weight of your product (excluding packaging), both in pounds/ounces and in metric weight (g) must be included in the lower third of your front label panel in easy-to-read type. (i.e. Net Wt. 16 oz. (454 g))

When determining net weight, use the government conversion factor of 1 ounce (oz) = 28.3495 grams or 1 pound (lb.) = 453.592 grams. Round after making the calculation – not before. Use no more than three digits after the decimal point on the package. One may round down the final weight to avoid overstating the contents. When rounding, use typical mathematical rounding rules.

- **Ingredients**

Single ingredient products (such as honey) do not have to name that single ingredient when already used in the common or usual name on the front panel. However, if there are ingredients other than honey, you must list them in an ingredient statement. Some exceptions are spices, flavorings and incidental additives (additives which have no functional role and with minimal presence in the finished product) which have special rules.

The type size for ingredient listings must be no less than 1/16th inch as measured by the small letter "o" or by the large letter "O" if all caps are used in the declaration. There are exemptions that allow smaller type sizes for small packages.

- **Contact Information**

The label must let consumers know who put the product on the market and how to contact that person. The name and the address of the manufacturer, packer or distributor of a packaged food product are required to appear on the label of the packaged food. This information, sometimes referred to as the "signature line," must appear on the front label panel or the information panel. If space permits, include full address and telephone number.

The information must be in a type size that is at least 1/16th inch tall.

In MOST cases, labels MUST also include:

- **Nutritional Labeling**

Nutritional labeling is mandatory for most foods. Products sold by companies qualifying for small business exemptions are one exception to this requirement. Small business exemptions are available for products sold in small volume (fewer than 100,000 units per year) by small companies (fewer than 100 employees). You may claim exemption by product. For example, if you produce Tupelo honey, Orange Blossom honey and crèmed honey, you would examine each product separately as exempt: Did you sell fewer than 100,000 units of Tupelo honey? If the answer is yes,

Honey

then your Tupelo honey is exempt from nutritional labeling (provided you do not have more than 100 employees). You will need to apply for this exemption in writing. (However, if you are not an importer, have fewer than 10 full-time employees, and sell fewer than 10,000 total units, you do not have to file a notice.) To apply for the exemption, call the Food and Drug Administration's Office of Food Labeling (at phone number: 301-436-2371) for the proper forms.

There are several rules that make nutritional labeling a little simpler. For example, while there is a standard detailed nutritional label that gives consumers nutritional information for 13 nutrients, honey usually can qualify for simplified formats. Specially shaped products, such as honey stix, are given additional flexibility. Packages with less than 40 square inches or less of available label space may use a variation called a tabular format (nutrients in columns, no footnotes but special language about 2,000 calorie diet) and may bear the nutritional information on any label panel (not just near the ingredient list). When the tabular format does not work for these small to medium sized packages, a linear (string) format may be used. Minimal information is required for very small packages with less than a 12 inch area available for label space. They may include only a telephone number or an address from which consumers may obtain nutritional information.

If you use certain descriptors such as "healthy" on your label, there must be a nutritional label on the product – even if the product is otherwise exempt. Whenever a nutrient content claim is made on a label, the claim must be accompanied by a "referral statement" directing the consumer to the panel on which the nutritional fact information is located (i.e. "See side panel for nutritional information").

- **Trans Fat Labeling Guidelines**

According to FDA, the following is required if a full format product label is used (listing all 14 ingredients). "Trans fatty acids should be listed as 'Trans fat' or 'Trans' on a separate line under the listing of saturated fat on the nutrition label. If a serving contains less than

0.5 grams, the content must be expressed as '0 g.' A declaration of '0 g' of trans fat is not required for products that contain less than 0.5 g of total fat in a serving if no claims are made about fat, fatty acid or cholesterol content. In the absence of these claims, the statement 'Not a significant source of trans fat' may be placed at the bottom of the table of nutrient values, in lieu of declaring '0 g' of trans fat."

However, according to FDA, if a company is using a simplified format label (five core nutrients and other significant ingredients) for a product containing less than 0.5 grams of fat, trans fat does not have to be listed in the nutrition label, nor does the trans fat footnote need to be added, unless certain health claims are made.

- **The composition of honey does not include fat, and therefore does not include trans fats.**

You may choose to show Total Fat = 0% on your nutrition facts label so there is no doubt in the consumer's mind.

- **The following are sample nutritional labels for a one-pound jar of honey.**

Honey

Simplified Format

Helvetica Regular 8 point with 1 point of leading

3 point rule

1/4 point rule centered between nutrients (2 points leading above and 2 points below)

8 point Helvetica Black with 4 points of leading

8 point Helvetica Regular with 4 points of leading

Franklin Gothic Heavy or Helvetica Black, flush left & flush right, no smaller than 13 point

7 point rule

6 point Helvetica Black

All labels are enclosed by 1/2 point box rule within 3 points of text measure

6 point with 1 point of leading

Nutrition Facts	
Serving Size 1 Tbsp (21g) Servings Per Container 22	
Amount Per Serving	
Calories 64	
% Daily Value	
Total Fat 0g	0%
Sodium 0mg	0%
Total Carbohydrate 17g	6%
Sugars 16g	
Protein 0g	

* Percent Daily Values are based on a 2,000 calorie diet.

Simplified Tabular Format

Nutrition Facts			
Amount/serving	%DV*	Amount/serving	%DV*
Serving Size 1 Tbsp (21g) Servings 22 Calories 64			
Total Fat 0g	0%	Total Carb. 17 g	6%
Sodium 0 mg	0%	Sugars 16 g	
		Protein 0 g	

* Percent Daily Values (DV) are based on a 2,000 calorie diet.

Simplified Linear Format

Nutrition Facts Serv size: 1 Tbsp (21g), Servings: 22, Amount Per Serving: **Calories 64, Total Fat 0g (0% DV), Sodium 0mg (0% DV), Total carb. 17g (6% DV), Sugars 16g, Protein 0g.** Percent Daily Values (DV) are based on a 2,000 calorie diet.

If you have any questions regarding nutritional labeling specifications contact the US Food and Drug Administration.

- **UPC - Universal Product Code** (if selling in major retail outlets)

Many retailers require a Universal Product Code (UPC) on packaging. A UPC is a scannable number and bar code that uniquely identifies a product.

In order for your company to include a UPC bar code on your labels, your company must become a member of the Uniform Code Council, Inc. When you become a member, your company will be assigned an identification number licensed for your company's specific uses (this is the UCC Company Prefix). You will use this number to create your own UPCs.

A UPC Bar Code Symbol is a pattern of black bars with white spaces. The complete symbol also includes readable numbers below the symbol. The symbol uniquely identifies each product. The group of numbers is referred to as the Global Trade Item Number (GTIN). The symbol is read by scanners in retail stores that capture the GTIN. When used in conjunction with computer software, retailers can track sales and product orders. The GTIN in a UPC is always 12 digits in length.



For more information on obtaining a UPC for your product, contact the Uniform Product Code Council (address is at the bottom of this article).

Organic Honey

Packaging Regulations¹⁵

(Information taken directly from the National Honey Board – Honey Labeling, Information & Tips)

Honey

The regulations for Organic Honey are the same as Regular Honey with addition to the following:

- Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation.

The USDA Organic seal on a product (shown below) indicates that a product is at least 95 percent organic. Organic labeling standards can be found at

www.ams.usda.gov/nop/NOP/standards/LabelReg.html.



- **Use of the word "Natural"**

Like organic, the word "natural" on the label can add value to the product in the eyes of many consumers. The Food and Drug Administration has a specific position on natural – nothing artificial or synthetic has been included or added that consumers would not expect to be in honey. However, this is not a formal rule.

Market Access

Acceptance Conditions

Grades

The United States Department of Agriculture has set the following standards, effective since 1985, for extracted honey based on water content, flavor and aroma, clarity and absence of defects.¹⁶

	Minimum Total Solids (%)	Maximum Water Content (%)
Grade A	81.4	18.6
Grade B	81.4	18.6
Grade C	80.0	20.0

Organic Honey

(Directly derived from *NOSB Apiculture Task Force Report*)¹⁷

- (1) Hives must be made of natural materials, including wood and metal.
- (2) Outside hive surfaces may be painted with non-lead based paints.
- (3) Plastic foundation may be used if dipped in organic beeswax and mounted in a wooden frame.
 - (i) The producer must establish and maintain preventive health care practices, including: (1) Selection of bee stocks, hive densities, and colony locations appropriate to site-specific conditions and resistant to prevalent

Honey

diseases and pests; (2) Introduction of replacement bees which are from organic sources or from non-organic sources, replacement bees are managed organically for at least 60 days prior to the removal of organic apiculture products from the hive; (3) Maintenance of adequate supplies of honey and pollen in the hive, including leaving hives with reserves of honey and pollen sufficient for the colony to survive the dormancy period;

- (4) Use of foundation wax not contaminated with diseases or pests;
- (5) Destruction of equipment and bees contaminated with disease or pests;
- (6) Use of management methods or modified equipment to control pests and diseases;
- (7) Use of therapeutic applications of non-synthetic materials to control pests, parasites, and diseases;
- (8) Use of therapeutic applications of synthetic materials;

Quality Standards

Please find below some good manufacturing practices to maintain honey at its best:

- Use stainless steel wherever possible
- Wash your equipment on regular basis and keep equipment dry
- Keep honey processing clear of contaminants such as animal waste.
- Process, handle and store honey in ways that minimizes microbial contamination.¹⁸

In addition, as follows is the United States Standards for Grades of Extracted Honey (directly derived from the USDA – US Standards for Grades of Extracted Honey document pages 7, 10, and 11)¹⁹

§52.1400 Grades.

- (a) **U.S. Grade A** is the quality of extracted honey that meets the applicable requirements of Table IV or V, and has a minimum total score of 90 points.
- (b) **U.S. Grade B** is the quality of extracted honey that meets the applicable requirements of Table IV or V, and has a minimum total score of 80 points.
- (c) **U.S. Grade C** is the quality of extracted honey that meets the applicable requirements of Table IV or V, and has a minimum total score of 70 points.
- (d) **Substandard** is the quality of extracted honey that fails to meet the requirements of U.S. Grade C.

Honey

TABLE IV - FILTERED STYLE

	Factors	Grade A	Grade B	Grade C	Substandard
Analytical	Percent Soluble Solids (Minimum)	81.4	81.4	80.0	Fails Grade C.
10 Q u a l i t y	Absence of Defects	Practically free- practically none that affect appearance or edibility.	Reasonably Free- do not materially affect the appearance or edibility.	Fairly free - do not seriously affect the appearance or edibility.	Fails Grade C.
	Score Points	37 - 40	34 - 36 <u>1/</u>	31 - 33 <u>1/</u>	0 - 30 <u>1/</u>
	Flavor & Aroma	Good - free from caramelization, smoke, fermentation, chemicals, and other causes.	Reasonably good- practically free from caramelization; free from smoke, fermentation, chemicals, and other causes.	Fairly good - reasonably free from caramelization; free from smoke, fermentation, chemicals, and other causes.	Poor - Fails Grade C.
	Score Points	45 - 50	40 - 44 <u>1/</u>	35 - 39 <u>1/</u>	0 - 34 <u>1/</u>
	Clarity	Clear - may contain air bubbles that do not materially affect the appearance; may contain a trace of pollen grains or other finely divided particles in suspension that do not affect appearance.	Reasonably clear - may contain air bubbles, pollen grains, or other finely divided particles in suspension that do not materially affect the appearance.	Fairly clear- may contain air bubbles, pollen grains, or other finely divided particles in suspension that do not seriously affect the appearance.	Fails Grade C.
	Score Points	8 - 10	6 - 7	4 - 5 <u>1/</u>	0 - 3 <u>2/</u>

1/ Limiting rule - sample units with score points that fall in this range shall not be graded above the respective grade regardless of the total score.

2/ Partial limiting rule - sample units with score points that fall in this range shall not be graded above U.S. Grade C regardless of the total score.

Honey

Table V - Strained Style

	Factors	Grade A	Grade B	Grade C	Substandard
Analytical	Percent Soluble Solids (Minimum)	81.4	81.4	80.0	Fails Grade C.
Q u a l i t y	Absence of Defects	Practically free- practically none that affect appearance or edibility.	Reasonably Free- do not materially affect the appearance or edibility.	Fairly free - do not seriously affect the appearance or edibility.	Fails Grade C.
	Score Points	37 - 40	34 - 36 <u>1/</u>	31 - 33 <u>1/</u>	0 - 30 <u>1/</u>
	Flavor & Aroma	Good - free from caramelization, smoke, fermentation, chemicals, and other causes.	Reasonably good- practically free from caramelization; free from smoke, fermentation, chemicals, and other causes.	Fairly good - reasonably free from caramelization; free from smoke, fermentation, chemicals, and other causes.	Poor - Fails Grade C.
	Score Points	45 - 50	40 - 44 <u>1/</u>	35 - 39 <u>1/</u>	0 - 34 <u>1/</u>

1/ Limiting rule - sample units with score points that fall in this range shall not be graded above the respective grade regardless of the total score.

Honey

Organic Honey

The standards that organic honey needs to meet are based on the *Organic Apiculture Standards* of the NOSB Apiculture Task Force. The standards are as follows:

(Directly derived from the *NOSB Apiculture Task Force Report*)²⁰

- Organic raw honey. Honey as it exists in the beehive or as obtained by extraction, settling, or straining without adding heat.
- Products from an apiculture operation that are to be sold, labeled, or represented as organic must be from hives which have been under continuous organic management for no less than 270 days prior to the removal of the products from the hive. If a prohibited material has been used in or on the hive prior to the 270 day transition, the producer must replace the hive's foundation with foundation made from organic wax and remove those products to be sold as organic, prior to the start of the transition period.
- A producer of organic apiculture products must develop an organic apiculture plan* in accordance with the provisions of the NOSB. This plan must include: Contain a map of the forage zone which shows the location of the hives, the location of organic and wild land, and the location of all non-organic areas; describe the quantity of organic and/or wild forage to be provided per colony, including the type or types of forage, approximate bloom period, forage density, competing species density, honeybee colony density, colony health, colony strength, topography, and climatic conditions; describe the water sources

available in the forage zone; list all sanitary landfills, incinerators, sewage treatment facilities, power plants, golf courses, towns or cities, land to which prohibited materials are applied, and all other sources of potential contamination located in the forage zone; and for all operations, including split operations, list and describe the management practices used to prevent commingling and contamination, including measures to prevent commingling resulting from bee drift and robbing.

- A producer of organic apiculture products must maintain records, must maintain hives on land, must provide bees with forage all in accordance to the provisions of the NOSB (available in www.ams.usda.gov)

*Organic Apiculture plan available at

<http://ces.ca.uky.edu/jefferson/anr/productionhandlingC.htm>

Tariff Measurements

(Derived from Chapter 15 of the *Harmonized Tariff Schedule of the United States*)

There are no tariffs from the US imposed on bee wax whether or not refined.²¹

Honey

Restrictions and Regulations

Due to terrorism acts in the United States during September 11 of 2001, the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 was passed. This act directly affects producers exporting to the US due to the regulation stated in the 6 sections in Title III of the act.²²

- This act is intended to gather basic information from suppliers.
- It requires that domestic and foreign food facilities that export to the U.S. register with the Food and Drug Administration (FDA) by December 12, 2003.
- The FDA registration is a new process that only applies to FDA-regulated products (e.g. all foods except meat, poultry and egg products) and is not related to any pre-approval process, such as USDA/Animal Plant Health Inspection Service/Plant Protection and Quarantine Pre-Approval Program
- It includes recordkeeping requirements, prior notice of imported food shipments, and administrative detention.
- And there is no fee associated with this registration
- For more information and full details please visit the US Food and Drug Administration*

*(<http://www.fda.gov/oc/bioterrorism/bioact.html>)

Organic Honey

(Directly derived from the *NOSB Apiculture Task Force Report*)²³

The producer must not:

- (1) Accept the presence of pests, parasites, or disease without initiating efforts to restore the health of the colony;
- (2) Use synthetic materials not listed as allowed by the NOSB**
- (3) Use non-synthetic materials prohibited by the NOSB
- (4) Use lumber treated with synthetic materials that are not listed under the provisions of the NSOB, or non-synthetic materials prohibited by the NOSB;
- (5) Use synthetic materials or non-synthetic materials prohibited by the NOSB
- (6) Annually destroy bee colonies following honey flows;
- (7) Rotate hives between organic and non-organic management.
- (8) Sell apiculture products as organic if they contain a residue of a prohibited material greater than 5 percent of the Environmental Protection Agency's tolerance for the specific residue detected or unavoidable residual environmental contamination
- (9) Label honey as "organic raw honey" if it has been heated, filtered using filter elements smaller than 200 microns, or if diatomaceous earth has been added to separate seed crystals from the honey.

**Non-synthetic list available at

<http://ces.ca.uky.edu/jefferson/anr/prohibitedsubstances.htm> (as of Nov. 2003)

Honey

Technical Procedures

Freezing Point Depression²⁴

15% of honey solutions freezes at 29.44 to 29.25 °F (-1.42 to -1.53 °C)

68% of honey solution freezes at 21.6 °F (-5.78 °C)

Heat Treatment²⁵

A procedure made to prevent fermentation (which is caused by osmophilic yeasts, and will not occur in honey that has contents of carbohydrate > 83%, moisture <17.1%, stored at temperature <53 °F (11 °C) or that has been heat-treated) and to delay crystallization (which is caused by glucose contents spontaneously precipitated out of the supersaturated honey solution and that occurs when there is more than 70% of sugar in honey relative to a water content of 20%).

Heat treatments commonly used are:

- Heating honey at 170 °F (77 °C) for 2 minutes followed by rapid cooling to 130 °F (54 °C)
- Heating honey to 140 °F (60 °C) for 30 minutes or 160 °F (71 °C) for 1 minute
- Or some straight line gradient between 140 °F (60 °C) and 160 °F (71 °C).

Storage Temperatures²⁶

Cool temperature [below 50 °F (10 °C)] = ideal to prevent crystallization.

Moderate temperature [50-70 °F (10-21 °C)] = generally encourage crystallization.

Warm temperature [70-80 °F (21-27 °C)] = discourage crystallization but degrades the honey.

Very warm temperature [over 81 °F (27 °C)] = prevents crystallization but encourages spoilage by fermentation and degrades the honey.

Filtration²⁷

This method is used to remove undesired color, particle and substances in honey. The most common methods of filtration are: membrane separation systems, ion exchange, adsorption, distillation and evaporation. Among the membrane separation systems we have macrofiltration (also known as particle filtration), microfiltration, ultrafiltration, nanofiltration. Also, osmosis is also known as hyperfiltration (reverse osmosis), and ion exchange is also called preferential absorption.

Honey

Prices

The average domestic price in 2006 was \$1.04 per pound which was up 14% percent from 2005, which was \$0.90. The price of honey is constantly increasing. Retail prices have been increasing since 2003, for 2007 prices are ranging between \$3.90 and \$4.00 per pound.²⁸

Organic Honey

Organic honey retailing prices range between \$4.80 and \$5.20 per bottle (13 oz = less than a pound) in groceries stores.²⁹

Sales Promotion

Honey is promoted in several ways depending on what it will be used for. Honey can be used for several different applications such as a sweetener in place of sugar, as an ingredient when cooking, or also honey is said to be used for its curative properties, when combined with other products. Organic honey has had very successful sales promotions because currently more people are switching over to organic products due to health concerns from pesticides, and other artificial chemicals added to non-organic products.³⁰

Dr. Ronald Ward from the University of Florida has done extensive research and created a presentation which includes characteristics of the honey market which can in turn be used when marketing honey:³¹

1. Declining per capita honey consumption points to the need for programs to reverse the trend, the main reason for

Honey

considering the Research and Promotion Act. Although the negative trend in consumption could possibly reduce effectiveness of new advertising programs, the market is not saturated and there exists room for expansion.

2. As a product group, honey can be considered homogeneous. This should contribute to generic promotion success, but existence of and control over grades and standards are essential.

3. Lighter and milder honeys are marketed for table use, whereas darker ones are sold for industrial use. This may provide a good division for differentiating advertising messages and identifying target audiences.

4. Degree of substitution directly affects expanding honey demand. The more substitutes available, the more difficult it becomes to increase consumption. The growth in substitute sweeteners is a formidable problem in new honey use. It appears the darker honeys are more susceptible to competition from substitutes, and less payoff from advertising directed toward the commercial sector would be expected.

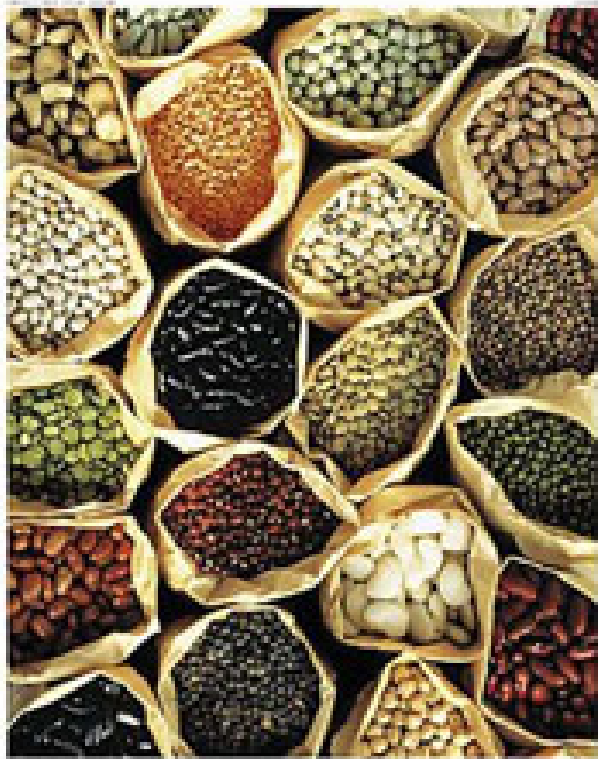
5. Table honey does not lose its identity while moving through market channels, a distinct advantage in generic advertising.

6. In comparison to other products like milk and orange juice, special storage costs on honey are nil, an important attribute when considering candidates for promotion.

7. Much of the successes with milk and orange juice is due to perceived health attributes of the commodities. Honey might also be promoted on this basis with the proper studies to back up claims.

8. Because today's consumers are looking for convenience foods, advertising programs have been particularly successful in this class of products. Honey could also be promoted on this basis.

9. Honey is an "experience good," one the consumer can try without incurring much cost. Many commodities are promoted on this basis. However, standards must be high and quality consistent, if repeated consumption is to be achieved.



Sesame Seeds

Sesame Seeds

Product Description

Sesame seeds are nuts that come from the sesame plant. The seeds come in several different colors ranging from black, brown, red, yellow, and white. They are crispy tiny seeds with a nutty flavor. They are used for several different purposes such as in baking, turned into a paste to be used as a condiment, crushed and turned into a powder for seasoning, and several other cooking applications. Also sesame oil can be extracted from the seeds and used as cooking oil, or to enhance the flavor of certain foods. ^{32, 33, 34, 35}



Statistical Data

U.S. Production Data

Sesame seeds production in the US is minimal. The few crops are found in Missouri, and under contract with Sesaco Corporation in the following areas: Texas, Oklahoma, southwest Kansas south of Wichita, and Yuma, Arizona.³⁶

Statistics of Foreign Trade: Exportations and Importations

*The data found was outdated (last reports found on 2004)

Exports

Most of US productions of sesame seeds are exported to Japan, which is the second largest importer of sesame seeds in the world.³⁷

Imports

As of 2004 (data provided by the Food and Agricultural Organization of the United Nations) United States imports about 42,890 tons of sesame seeds.³⁸

Even though India and Sudan are the top producers of sesame in the world, the US imports most of its sesame seeds from South America and then some from India.³⁹

Sesame Seeds

Main Origin of Importations

Even though India and Sudan are the top producers of sesame in the world, the US imports most of its sesame seed products from South America, primarily from Mexico, and in Latin America specifically from Guatemala, Nicaragua, Venezuela and El Salvador.⁴⁰

Demand Tendencies

Arrowhead Mills is one of the big sesame seed buyers in the US, which uses the seeds for their product line which includes: seeds, hot and cold cereals, pancake, waffle, cake and brownie mixes, and nut butters among other products. Sesame seeds are used for hamburger buns, products like crackers, sticks and cookies. Also, it is widely used in the making of Tahini and Halvah (typical foods of Middle Eastern countries) and some is made into flour and oil.⁴¹

Market Characteristics

Market Segments

The United States produces nearly 40 percent of its annual spice needs, with imports supplying the remainder. Rising domestic use of spices reflects growing Hispanic and Asian populations and heightened popularity of ethnic foods from Asia and Latin America.⁴²

Consumer Preferences

A trend toward the use of spices to compensate for less salt and lower fat levels in foods and also used as Sesame Meal and Flour, Pharmaceutical and Nutraceutical Applications, and in natural cosmetics.⁴³

Apparent Consumption

Through the ages, sesame seeds have been a source of food and oil. About 65 percent of the annual sesame crop is processed into oil and 35 percent is used in food. The food segment includes about 42 percent roasted sesame, 36 percent washed sesame, 12 percent ground sesame and 10 percent roasted sesame seed with salt.⁴⁴

Competition

All the other spices that are being used like mustard seeds, soy beans and sunflower seeds.⁴⁵

Packing, Types Used: Crates and Labels

All sesame seed products that involve the use of sesame seeds must be labeled. Also, products that include trace amounts of sesame seeds or products that are processed in the same facilities as sesame seeds must also note that on labels due to sesame seeds being one of the most common food allergens.⁴⁶

Market Access

Tariff Measurements

(Derived from Chapter 12 of the *Harmonized Tariff Schedule of the United States*)

There are no tariffs from the US imposed on sesame seeds.⁴⁷

Restrictions and Regulations

Even though no restrictions were found for the United States, there were restrictions on the exports of India to Russia that affected India's business with other countries.⁴⁸

Sesame Seeds

Technical Procedures

Planting

Sesame crops need fairly warm soil temperatures of 70°F or more. Sesame should not be planted before the soil reaches a temperature of about 70°F, roughly one month after the last killing frost. Daytime temperatures of 77°F to 80°F are optimal; below 68°F, growth is reduced, and at 50°F, germination and growth is inhibited. Sesame must also be planted shallow, preferably 1/2" deep, which makes getting into moisture difficult. Because sesame is weak against weeds, fields with low weeds density are preferred for a better maintenance and treatment of the crops.⁴⁹

Fertility

For the fertility of sesame, its crops require about 80 pounds of nitrogen, 20 pounds of phosphorus and 20 pounds of potassium per acre. And a soil pH of 5.6 or above is satisfactory. Seeds are to mature 4 to 6 weeks after proper fertilization.⁵⁰

Moisture

Warm, moist-free seedbeds are needed to maintain sesame seeds in good conditions.

At the same time, the plant requires adequate moisture for germination and early growth, and a minimum rainfall of 20 to 26 inches per season is necessary for reasonable yields.⁵¹

Storage

It is recommended that the seed be harvested as dry as possible, and stored at moisture of 6% or less to avoid the product to become rancid.⁵²

Prices

Sesame benefits from both a high price and a strong domestic market, with organic sesame commanding a significantly higher price. This high price, roughly double that of sunflowers or soybeans, is offset by the relatively low yields of sesame.⁵³

Sales Promotion

Sales promotion for sesame seed varies depending on the region. At one time McDonald's had ran a marketing campaign in which they designed a jingle for the Big Mac burger which included sesame seeds in the song. China, India, Ethiopia, El Salvador, Nicaragua, Sudan, Mexico, Guatemala and Nigeria are all countries that produce sesame seeds, and each one may use it in a different way. In Middle East they use a paste called Tahini which is sesame seed paste. In Greece the seeds are used in cakes, and in China the oil is used in several different food applications. Currently, many countries import sesame seeds in large amounts, including the United States, which actually imports more sesame seeds than it cultivates on its own.

Upcoming Commercial Events

Upcoming Commercial Events

Honey & Organic Honey

Bee Movie

Hispanic PR hosted the “Shop with a Charger’ charity event in Dec 07.

The honey sponsored event took place in the San Diego Wal-Mart.

Hispanic event - Moms Menu.com celebrates the pleasure of life with honey at the Latin Carnival with Fat Tuesday Participation in March in the National Standard Race (NASTAR) event held in Steamboat Springs, Colorado.

Culinary competitions in Savannah Technical College and Culinary Institute of Charleston

Conclusions and Recommendations

Conclusions and Recommendations

After conducting research on honey, organic honey, and sesame seeds we have concluded that there is a small marketing opportunity for each commodity in the United States. For any of the commodities to be competitive in the United States they have to provide lower prices than that which is currently available.

Honey is a commonly used product in several households that are turning away from natural sugar, and also artificial sweeteners. Also it is used in flavoring for several different products sold on the market today such as candy, ham, syrups, and several other applications. The United States imports large quantities of honey from all over the world; it is important to take advantage of logistics and reduced costs by importing from closer countries in Central America versus China, India, and Brazil.

Organic honey has a growing market especially in the United States due to several health conscious consumers. Currently organic honey is a scarce commodity in the United States. It is a current trend growing in the United States which is causing many people to switch from regular honey to organic honey in order to be environmentally safe and also live healthier lives. After conducting our research we recommend producing, marketing, and distributing organic honey. In order to produce organic honey there are strict regulations that must be followed in order to deem it as "organic". These regulations differ from country to country, and have to be followed in the country where it is produced, and also sold.

Every year the United States imports about 43,000 tons of sesame seeds from several different countries throughout the world. The majority of imports come from Mexico, Guatemala, Nicaragua, Venezuela, and El Salvador.

Conclusions and Recommendations

For Guatemala, Nicaragua, and El Salvador we recommend continuing producing sesame seeds at low costs in order to keep their current market share, and potentially look for opportunities in other markets for growth. For other countries in Central America it is already a competitive market which may be too difficult to enter and compete in comparison to the neighboring countries, and also the top producers India and Sudan.

In conclusion there is an opportunity for all of these products to be marketed in the United States and so we recommend continuing producing of all of these commodities.

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