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Voluntary _ Public

Date: 11/24/2010

GAIN Report Number: ID1036

Indonesia

Post: Jakarta

Bakery Products Ingredient

Report Categories:

Product Brief

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Report Highlights:

Market opportunities for bakery ingredient exports from the United States to Indonesia are strong, as large scale and commercial Indonesian bakeries continue to demonstrate a preference for imported ingredient products. Post predicts that exports of U.S. bakery ingredients to Indonesia will remain bullish, particularly for ingredients such as egg powder, sweet whey, raisins, almonds (powder, sliced and whole), and other varieties of dried fruits and nuts. Other ingredients in high demand include butter, processed cheddar cheese, non-dairy creamer, butter substitute, and yeast. Ingredients with strong growth potential include Gouda cheese, cream cheese, powdered whipping cream, and food flavoring and coloring products. Ingredients that are not sufficiently available on the Indonesian market include dried black and blueberries, walnuts, pine nuts, hazelnuts, macadamia nuts, pecans, pistachios, demineralized whey, high quality multi-vitamins and minerals, multi-grain and premixed wheat flour, and other bakery and dough flour mixes for specific products, such as muffins, cupcakes, brownies, soft cookies, doughnuts, and cakes.

Executive Summary:

Basic ingredients for bakery industries in Indonesia are in high demand. In 2005, registered medium and large scale Indonesian bakeries reported about 96 million dollars in sales. Two years later, registered medium to large bakeries reported sales of 157.5 million dollars, an increase of 40% (see Table 1). In the past five years the number of upscale bakeries has also increased along with mall and department store developments in the larger cities throughout Indonesia. The Indonesian baking industry expects a steady level of 20 percent annual growth over the next five years, as increased numbers of better educated, middle class professionals embrace more Western and urban lifestyles.

Table 1: Productions of Medium and Large Bakery and Snack Industries

Year	Bakery (Million Dollars)	Sweet & Savory Snack (Million Dollars)	Traditional Snack & Others (Million Dollars)	Total Value (Million Dollars)	Number of Registered Companies Surveyed
2005	96.99	298.63	169.34	563.96	553
2007	157.52	296.19	294.74	481.88	728

Sources: "Large and Medium Manufacturing Statistics Vol. III, 2005," and "Large and Medium Industrial Statistic – Production 2007" of Center of Bureau Statistic (BPS), Jakarta-Indonesia

According to traders and importers, the 5,000 registered businesses accounted only 30 percent of total estimated 16,500 bakery snack food enterprises, as 70 percent of the total industry did not register their businesses. Additionally, approximately only 2 percent of the large modern bakeries belong to local bakery associations. Finally, on average the entire bakery industry uses about 70 percent imported ingredients and 30 percent local ingredients.

General Information: Market Situation

Most Indonesian bakeries produce Asian and Western styles of breads, pastries, cakes, doughnuts, and short-shelf life sweet and savory snacks (*nastar*, *cheese-sticks*, *cookies*, *dried breads*); and freshly made traditional snacks (*jajan pasar*).

Large bakery manufactures with branded products, such as Sari Roti and Roti Buana, account for only about one percent of the total level of national production. The majority of production comes from the roughly 11,000 small scale producers, located mostly on Java, which produce low-cost products, specifically targeted for price sensitive consumers. This demographic comprises about 60 percent (140 million people) of the Indonesian population. Small and medium scale manufactures typically employ between fifty to one hundred people and can produce 20,000 - 30,000 pieces of bread or pastry daily, with an average production cost of 0.12 dollars. These businesses generally operate 24 hour schedules with three shifts, and supply street vendors throughout Java and other islands. Most of the small bakeries use three primary ingredients, to include wheat flour, margarine and fresh eggs.

Specialty bakeries, which target higher-end consumers, produce specific bakery products such as

doughnuts (Dunkin Donuts, J-Co, Krispy Kreme), Asian breads and pastries or cakes (Eaton, Bread Talk, Roti Boy, Bread Story), cupcakes (Soho), puff pastries (Beard Papa, Chewy), and croissant (Oh Lala, Deli France). Other high end, small scale manufacturers produce healthy breads, which require imported specialty mixes of flour, oats, rye, other grains, dried fruits and nuts in their products. These types of bakeries use up to 80 percent imported ingredients, from specialty flour mix, butter, cream cheese, full cream milk powder, non-dairy creamer to various dried fruits and nuts.

Consumption

Flour

Indonesia does not produce wheat and domestic flour millers must import wheat from abroad, with the majority coming from Australia. Once the wheat is milled domestically, the wheat flour is typically used by instant noodle manufactures (54%), bakeries (27%), biscuit and snack manufactures (14%), and sold at the retail level (5%).

Since the Indonesian monetary crisis in 1998 when there were only four wheat millers, currently there are 14 wheat millers operating in Indonesia with a total installed capacity of 7.9 MMT per year. Those wheat millers are running at 60 percent of the total installed capacity. This year, another three new wheat millers will begin operations with an estimated annual capacity of 1.5 MMT. Most of the new wheat millers will be located outside of Java.

The high demand for wheat flour and the relatively lower price of wheat flour sold in Indonesia (when compared to other Asian countries) have motivated many multinational wheat flour based food manufacturers to start their operation in Indonesia.

In MY 2009/10, Indonesian per capita wheat flour consumption is 18 kg per capita annually. Relatively stable economic conditions have provided the capability to some middle and upper income consumers to diversify their diets. Instead of having three daily rice based meals, they may now have bread for breakfast. Numbers of high-end bakeries are continuously growing especially in Indonesian major cities such as Jakarta, Surabaya, Medan, and Bandung. Because the price of a pack of instant noodles is cheaper than rice, more middle and lower income segments of the population consume instant noodles. Therefore, the noodle industry is the fastest growing sector and contributes to 60 percent of overall Indonesian wheat flour consumption. Bakery and household use follows with 25 percent consumption share and biscuit industry takes the balance of 15 percent consumption share. Currently, the majority of imported wheat flour comes from Turkey, China, India, and Australia (Business Indonesia Online, 2009).

As a result, MY 2009/10 Indonesian wheat consumption is estimated to slightly increase to 5.4 MMT compared to previous MY 2008/09 of 5.35 MMT.

In 2008, imports of specialty premixed flour and dough for breads, doughnuts, cakes, and pastries was estimated at about 2,624 tons and valued at 4.1 million dollars. Industry estimates are that about 3,850 tons of premixed flour was consumed in 2009. Most premixed flour comes from Europe (Belgium, Germany), Thailand and the United States. Premixed flour is often used by bakeries located within

international resorts, five-star and boutique hotels, and some high-end retail outlets in Jakarta and Bali. Many of the bakeries located in high-end hotels and resorts, or specialty bakeries that require premixed flour have the capacity to produce up to 3,000 pieces daily. These bakeries often produce a wide variety of bread and bakery products, to include ciabatta, focaccia, panini, baguettes, whole wheat, rye bread, multi-grain bread, muffins, doughnuts, cakes, and cupcakes.

Dairy

Full cream is imported from New Zealand, Australia, and Europe. Also, the bakery industry uses skim milk, sweet whey, and anhydrous milk fat (AMF). Roughly 60 percent of the skim milk and sweet whey used in Indonesia is imported from the United States. AMF comes from New Zealand (53%) and Europe (47%) and is used for chocolate coating and for pastry flakes.

Indonesia imports 480 to 500 tons of demineralized whey, mostly Australia and the Netherlands, at the rate of tons each year. This product is used for chocolate coating and filling in breads and doughnuts.

Medium and large scale bakeries require on average approximately 24,000 tons of butter annually. Roughly 50 percent of this butter is imported from New Zealand, with Australia, Europe and the United States comprising the rest.

Butter oil substitute consumption in Indonesia is currently 11,340 tons, with shortening consumption at 4,860 tons. These products are imported primarily from Australia and are preferred by some bakeries because they are less expensive than pure butter. Sometimes bakeries mix butter with margarine to cut costs.

In years past, Indonesia imported processed cheddar cheese for some bakery items. More recently, imports of this product have slowed substantially because more and more local producers can meet domestic demand. The primary importers for processed cheddar cheese reported annual imports of 4,600 tons for cheese curd, valued at 6.1 million dollars. In 2008 cheese curd was imported from New Zealand (55%), the United States (35%), Australia (9%), and Ireland (0.5%) by less than five importers (BPS).

Cream cheese is used mainly by high-end bakeries for bread filling and as the basic ingredient for cheesecake. Cheesecake production accounts for 41% of total cream cheese imports (see Table 2). Cream cheese comes primarily from New Zealand and Australia.

Table 2. Total Basic Food Ingredient Import Volume and Value in Indonesia

Ingredient	Industry	2009		2010**	
	Type*	Volume	Value	Volume	Value

		(MT)	(Million USD)	(MT)	(Million USD)
Skim Milk Powder (SMP)	B, S, Bv	72,477	167.5	35,464	108.5
Whole Milk Powder/Full	B, S, Bv	19,635	52.2	11,046	37.7
Cream					
Sweet Whey	B, S, Bv	27,358	31.2	17,837	24.7
Whey (demineralized/ others)	B, S, Bv	5,494	8.0	4,859	9.0
Buttermilk	B, S	6,866	13.1	4,217	11.4
Butter	B, S	3,224	9.3	2,152	9.7
Anhydrous Milk Fat	B, S	5,606	16.5	3,182	13.9
(Butterfat)					
Cream Cheese	B, S	3,657	15.9	1,914	8.2
Non Dairy Creamer	B, S, Bv	29,000	44.5	340	0.8
Bread Yeast	В	1,383	4.1	956	2.5
Baking Powder	B, S	1,501	3.4	774	0.8
Egg Powder	B, S	1,789	9.6	431	2.3
Raisins	B, S	1,974	2.3	186	0.3
Almonds	В	569	2.5	199	1.0

Source: Export – Import Online Data of Center of Bureau Statistic (BPS), Jakarta (Value & Volume recalculated for the purpose of this report only)

Dried fruits and nuts

Raisins are imported mostly from the United States (55%) and China (34%), with the remainder coming from South Africa and the Middle East. Raisin imports totaled 1,774 tons (2.1 million dollars) in 2008, followed by an 11 percent volume increase in 2009 to 1,974 tons (2.3 million dollars).

Over ninety percent of total imported dried prunes are used by the baking industry. Prunes come from the United States (57%), Malaysia (30%) and Australia (6%).

Preserved cherries are imported mainly from France (70%), the United States (29%), and Australia (1%). Most preserved cherries are also used by the baking industry.

Ninety percent of almonds are imported from the United States, mostly for the baking industry. In 2008, Indonesian imported a total of 469 tons of almonds, valued at 2.2 million dollars. 2009 almond imports increased in value to 2.5 million dollars. During the first 4 months of 2010, the value already reached 1 million dollars, up considerably over the same period in 2009 (see Table 2).

In general, the higher-end bakery sector uses 70 percent to 80 percent imported ingredients, with the middle to mid-low bakery sector using about 50 percent imported and 50 percent local ingredients. Table 3 summarizes the primary imported ingredients, with estimates based on feedback from the top 200 leading bakery operators.

^{*}Type of industry using the ingredient: **B**~Bakery, **S**~Snack & Confectionery, **Bv**~Beverage

^{**}Data collected from BPS Export-Import Online of January – April 2010.

Other ingredients

Egg powder consumption for the baking industry is estimated at around 894 tons per year, with a total value at 4.7 million dollars. In 2009 about 44 percent or 393.4 tons of the egg powder were imported into Indonesia originated from the United States, with the remainder coming from India and the Ukraine.

In 2009 Indonesian imported 80 tons of non-dairy dried whipping cream, primarily come from Europe and Australia. This product is often used for filling, cake layering and decorating. The aforementioned countries currently enjoy a price advantage over U.S. non-dairy whipping cream.

Ninety percent of bread yeast for the bakery sector in Indonesia is imported, with most of the yeast coming from China. In 2009, yeast imports reached 1,383 tons at 4.1 million dollars. Within the first four months of 2010, imports were 956 tons of 2.5 million dollars and comprised of 69 percent of 2009's total consumption.

Baking powder is imported from Europe and Australia at about 896 tons per year, valued at 1.2 million dollars (see Table 3).

About 40 percent of the chocolate consumed in Indonesia is imported, with the vast majority coming from Europe.

Canned fruits like fruit cocktail, peaches, and pears used to be dominated by U.S. fruit. However, during the last several years, Chinese canned fruit has started to compete for significant canned fruit market share in Indonesia.

Table 3. Summary of Estimated Consumption required in Bakery Industries

Ingredients	Estimated Consumption (Tons/year)*	Country of Origin	
Skim Milk Powder, Sweet Whey Powder,	1,745	USA, Europe, New	
Anhydrous Milk Fat (AMF)		Zealand, Australia	
Full Cream	3,928	New Zealand, Australia,	
		Europe	
Demineralized Whey	480 - 500	Australia, Europe	
Butter	24,000	New Zealand, Australia,	
		Europe, Local	
Cream	250,000 liter	New Zealand, Australia	
Milk (fresh)	100,000 liter	Local	
Cream cheese	1,500	New Zealand, Australia	
Mozzarella	240	Europe, New Zealand,	
		Australia	
Gouda	30	Netherland	
Non-Dairy Creamer	10,000	Local, China, Malaysia	
Shortening	6,000	Australia, Local	

Margarine	1,300	Australia, Malaysia, Local
Gelatin powder/leaves	18	France, Switzerland
Baking powder	896	Europe, Australia
Bread Yeast	1,537 – 1,931	China, Europe, Middle East, Local
Egg powder	894	USA, Ukraine, India
Prepared flour: premix and dough for bakery products	3,850	USA, Germany, Belgium, Thailand
Almond powder, sliced, whole	471 - 660	USA, Australia
Walnut	35	China, Malaysia, Australia, USA
Sunflower seeds	65	China
Raisins	60-100	USA, Middle East, China, South Africa
Other dried fruits: Apricot, prunes, berries (cranberry/blueberry), figs	45-50	USA, Australia, China
Preserved cherry	15-25	France, USA, Australia
Cake flavoring	112	Europe, Local
Chocolate sprinkles	4,800	Local
Cheddar cheese	3,600	Local

^{*}Estimation by FAS USDA survey based on 9 major importers and 6 bakeries. The volume based on the 100-200 top bakeries utilized imported ingredients in Jakarta, Bandung, Surabaya, Bali (June-August, 2010)

End User Price Sensitivities

The ingredients market is very price sensitive and buyers can shift dynamically to the least expensive price for ingredients like skim milk and full cream. This is particularly true for those products that originate from other Asian countries, like China and Malaysia. However, for some specialty ingredients, regional or domestic substitutes are often unavailable. Examples include cream cheese; dried fruits (cranberries, prunes, preserved cherries); nuts (almonds and walnuts); seasonal items (pistachios and pecans); gelatin; and high quality chocolate.

The ingredients sector purchases ingredients like almonds at the price range 8.90 dollars to 10.13 dollars per kg, walnuts range from 13.40 dollars per kg, and raw pistachios at 33.35 dollars per kg. These products generally come from the United States.

The local Indonesian type of sweet bread is the most popular bread product in Indonesia. This kind of bread is often consumed with chocolate and cheese filling, especially in middle and mid-lower income levels. Over the past five years, the varieties of bakery products have expanded tremendously, as bakery chains and doughnut shops have opened throughout big cities. These establishments cater to higher income consumers and often feature berry fillings, cream cheese, shredded meat, cheese, smoked beef filling, chocolate coating, almonds, and white, dark and milk chocolate.

Table 4. Price Range of Popular Bakery Products at High to Mid-low Modern Bakery Industry in

Major Cities

Type of Bakery Products	High End	Middle	Mid-low*
	Price Range	Price Range	Price Range
	per Piece	per Piece	per Piece
	(USD)	(USD)	(USD)
White bread	1.80 - 2.02	1.12 - 1.69	0.45 - 0.67
Wheat/Brown bread	2.00 - 2.50	1.35 - 1.70	1.12 - 1.25
Healthy bread, soft to hard	2.10 - 3.60	1.12 - 1.80	n/a
Asian sweet bread with chocolate, cheese,	0.90 - 1.35	0.60 - 0.85	0.35 - 0.55
meat, fruit and other filling			
French pastry - flakes	1.35 - 2.50	0.67 - 1.12	n/a
Doughnut	0.61 - 1.12	0.45 - 0.50	0.25 - 0.35
Sponge cake (O - standard size)	3.40 - 5.10	2.80 - 3.15	2.13 - 2.50
Three layered cakes (20 cm)	13.50 - 22.50	7.85 - 11.25	4.50 - 5.00
Muffin/cupcake/Brownies (a slab)	1.35 - 2.45	0.75 - 1.12	0.56 - 0.60
Cheesecake (slice)	2.80 - 3.60	2.25 - 2.50	n/a

^{*}The consumption of bakery ingredients for this Mid-low* is not included in Table 3.

Lower income levels accounts for over 90% of the total baked goods consumed in Indonesia. Businesses catering to the lower income consumers are often SMEs and/or at-home family enterprises. These businesses produce plain breads or sweet breads, pastries or similar products with or without sweet fillings. These baked goods generally do not use any dairy ingredients and are sold at the street vendor level. Breads or pastries made with sweet filling is usually sold for about 0.28 - 0.33 dollars per unit and plain sweet bread and is sold for roughly 0.11 dollar per unit. This level of the bakery sector uses many local ingredients (including local flour milled with imported wheat).

Preferences

The preferred breads for typical Indonesian consumers include sliced white bread, and bread rolls stuffed with chocolate, cheese, or meat. Middle and upper income consumers, to include international tourists and expatriates, demonstrate a growing interest in wheat bread, pastries made with almonds and other tree nuts, pastries and doughnuts made with blueberries, blackberries, and fresh-fruits tarts. This segment of the population (roughly 8%) is eager to try any new bakery products including cheese cakes, muffins, brownies, cupcakes, fruitcakes, and other Western pastries.

Consumers with higher levels of education and income seek to consume healthy bread products containing oats, rye, sunflower seeds, pistachios, walnuts, cranberries, blueberries, and other berries as they become more health conscious and are exposed to western trends and lifestyles through cable TV and internet.

Distribution

There are at least fifteen major food and beverage ingredient importers in Indonesia. Several large manufactures normally import their main ingredients in bulk. Imported ingredients usually enter the

market through Jakarta in 20 and/or 40 foot containers. The shipments are broken down to fit on to smaller vessels or trucks and are then distributed to Surabaya in East Java and Medan in Sumatra. The largest food and beverage manufactures are mostly located on Java, as is approximately 70 percent of the Indonesian population.

Most major importers have their own storage facilities and container trucks, which they use to distribute the products to manufactures, sub-distributors, or agents in major cities throughout Indonesia. If the end user is a large-scale or chain retail bakery outlet, the importer or its distributor will send the product directly send to them. Smaller manufacturers generally procure their ingredients from lower level subagents or distributors. Agents and distributors commonly sell ingredient products to smaller sub-agents or bakery ingredient stores in urban areas. The ingredients may then be distributed to local bakeries, SMEs and home-scale type bakery industries. The products may also be distributed to a deeper level of sub-agent for distribution in small towns and throughout the provinces.

End consumers normally come to the bakery outlets themselves to purchase and choose the products. The bakeries, hotels, and catering services do deliver the baked products for a minimum order with delivery charge depending on the area. Individually packaged Indonesian sweet breads (with or without filling), white bread, muffins, doughnuts, sponge and layer cakes, and other products are distributed by each bakery operator to modern retailers and minimarkets, independent mom and pop stores and wet markets. The other way of distribution is by selling sweet breads, white bread, and other pastry products by street vendors, which are common and scattered throughout urban areas.

Constraints

Major constraints include the lack of infrastructure and the lack of an efficient distribution system, which includes a general lack of cold storage facilities, unreliable shipping agencies, and very poor transportation infrastructure. These challenges can result in cost increases.

Many businesses are not aware of the availability of U.S. bakery ingredient products due to lack of promotion by Indonesian importers or U.S. suppliers. There is also a general lack of technical support by the U.S. ingredient suppliers to the Indonesian industry in general.

Advantages and Challenges for Bakery Ingredients Products in Indonesia

Advantages	Challenges (Barriers to US Export)
U.S. ingredients are known for best quality	Price in general is higher compare to other countries
products and consistent supply.	and domestic products.
Any ingredients from US set trend on new	Lack of introduction and promotion support to create
style products in bakery industry.	awareness of various ingredients to local distributors

	and end consumers.		
Some ingredients cannot be produced	Industry looks for alternative and less expensive		
locally such as dried fruits and nuts.	ingredients.		
Specialty ingredients like full grain/gluten	US suppliers tend to request for large quantity making		
free pre-mix flour, dried fruits and nuts,	it difficult for importer to order small quantity		
confetti, sugar decorating, etc. are in	especially for specialty ingredients.		
demand.			
Import tariff of around 5 percent.	Aggressive introduction of new-to-market ingredients		
	is required.		
The increasing number of modern upscale	Competition from other countries like Australia, New		
bakery outlets and industries.	Zealand, Europe, Middle East, and China		
Importation gets easier, once a long-term	U.S. suppliers are not familiar with local culture,		
relationship established between U.S.	system, industry, specific ingredient requirements,		
suppliers and local suppliers.	and lack of good long term relationship with the local		
	importers.		
Reliable importers exist for any U.S.	Unpredictable import regulations, procedures, and		
ingredient products for this industry.	custom clearance continue to be a major constrain for		
	U.S. ingredients to enter this market.		

Some dairy products (i.e. sweet whey) from United States have different specifications in term of color (more yellowish), taste (saltier), and moisture content (caking up) compare to similar European or Australian products. U.S. sweet whey is mostly derived from cheddar cheese while other countries' whey is derived from Swiss cheese and other white cheeses.

Dairy products must be certified as halal by an approved U.S. halal certifying body, which has been recognized by the Indonesian Council of Ulama (MUI). In some cases this can make it more challenging for the Indonesian bakery industry to source foreign products. In the United States, some halal certification bodies are currently approved by MUI to certify U.S. dairy products. (Decree Number D-410/MUI/X/2009, List of Approved Foreign Halal Certification Body).

When ordering ingredients from the United States, the empirical system of measurement is often confusing for Indonesian importers and distributors, as they generally use to metric system. Although the United States has consistently supplied the market, rapid fluctuations in U.S. dairy ingredient prices between ordering and shipping times can create concern among importers.

U.S. suppliers are not always willing or able to fulfill the National Agency for Drug and Food Agency Control (BPOM) requirements; especially for dairy based ingredients.

Importing new products is time consuming, especially for some functional ingredients. This is often caused by BPOM and other related government agencies due to their lack of knowledge about new ingredients. This can lead to ambiguity in issuing regulations coupled by redundant implementation, as well as be expensive time consuming because of certain testing requirements.

Small specialty ingredients from United States come enter Indonesia by way of other Southeast Asian countries such as Singapore. Trans-shipped U.S. products require a minimum quantity per order.

Competition

Australia and New Zealand are the primary competitors in Indonesia. Their close proximity to Indonesia gives them an advantage in freight costs and shipping time. The market share for Australia and New Zealand is between 40 percent and 60 percent for most bakery ingredients generally. Also the comparative exchange rates with the U.S. dollar and the Australian and New Zealand dollars remain a major determinant in U.S. bakery ingredients competitiveness in the Indonesian market.

Europe, with its long history with Indonesia becomes a major supplier of bakery ingredients. However, prices for European products are often 10-15 percent higher than similar U.S. products.

China is becoming increasingly competitive and can now offer prices that are 50% less expensive than any other countries. As of now, the targeted industry for Chinese ingredients is the SME level, as they prefer cheaper products and are less concerned with quality.

Government Policy

In addition to a five percent import duty, the Indonesian government imposes a 10 percent Value Added Tax (VAT) on all imported products, including basic ingredients for the bakery sector.

The Ministry of Agriculture's Director General of Livestock and BPOM require the following documentation for importing bakery ingredients:

- Health Certificate must accompany each product at the point of entry, valid for two months and
 for one shipment only. It must be issued by U.S. Department of Agriculture and endorsed by
 any appointed services.
- Halal Certificate from country of origin is required and based on the Decree of The Indonesian Council of Ulama D-140/MUI/X/2009, October 15, 2009. The approved Halal Certification Agencies in the United States for certifying processed ingredients but not flavoring are:
 - 1. American Halal Foundation (AHF)
 - 2. Halal Food Council S.E.A
 - 3. IFANCA

Forecast and Future Development

Steady growth

Over the last five years, most bakery ingredient importers saw a 20 percent average annual increase in product volume, mostly due to the increased availability of premixed flour. Innovations and blending ingredients to customer's specific requests have led to increased exports to Indonesia. Wider varieties like gluten free and additive free premixed products are also serving more middle and high-end customers. Although infrastructure challenges remain in Indonesian, some improvements to the distribution system are occurring and this provides greater reach to more areas outside of Java and Bali.

The bakery industry confidently expects at least 20 to 25 percent growth annually over the next five years. The main growth factors are new product innovations, broader marketing efforts, improved management and distribution (delivery order) systems, new equipments, and new retails outlets. Bakeries in West Java continue to expand their businesses into manufacturing both sweet and savory snacks.

The demand for healthier bakery products will more likely increase along with urbanization, higher incomes and continued exposure to western products. Bakery products with low-fat, less sugar, natural cheese, more fiber, whole wheat, multi-grains, healthy dried fruits and nuts, and fortified with vitamins/minerals will continue to gain in popularity. This segment is estimated to increase up to 5 percent annually over the next few years.

Other Opportunities

- Some high-end bakeries and home-industries plan to produce frozen dough, and frozen croissant dough for the food service industry. These enterprises are targeting five-star hotels, boutique and resort hotels, villas, cruise ships, cafes, and restaurants in Bali, Lombok, and Jakarta. Currently a few home industries produce made-to-order frozen pie crusts of various sizes for three to five-star hotels in West Java and frozen pastries for cafés in Jakarta.
- The future trend for bakery ingredients is the reduction of solid fat content (SFC) in bakery products for middle to high-end consumers. One large bakery has conducted trials using olive oil on bread products. Others try to use mixtures of vegetable oil for filling or cream fats. Fortification of omega-3 (2%) and vitamin E (200-700 ppm) have been added into bakery fat, followed by multivitamin like A, D and K, and fitosterol as antioxidants.
- Dried fruits and nuts from various berries, pine nuts, macadamia nuts, walnuts, pecans, hazelnuts, and pistachios have great potential in Indonesia. Almond products (powdered, sliced, slivered, diced, and whole) consumption estimates are estimated to be 1,350 tons annually (see Table 3). Currently about 10 high-end bakeries utilize hazelnuts, walnuts, and pistachios from the United States at a rate of 2 to 4 tons per year.

Products with potential in this market include the following:

- Specialty flour and ingredients such as potato flour and pumpernickel flour
- Gluten free flour has gained favor in small high-end market niche
- Pre-mixed multi-grain bread and dough flour from the United States has been imported in the past and last year reached 12 tons
- Whey permeate from the United States was imported at about 180 tons in 2009 dropped from 1,200 tons prior to 2008 due to the shortage of products and high price as reported by few importers.
- Soft gelatin for making mousse; post predicts an importer can sell 6 tons/year
- Dietary fiber such as cellulose powder has been used for trial in bakery products to increase shelf-life. The amount is to be determined.
- Butter is in high demand but very expensive for small industries. Based on distributors the demand can be as high as 24,000 tons annually, half of the demand has been imported by New Zealand.
- Butter oil 20 ton, worth 118 thousand dollars is imported. Mainly it is used by pastry and snack

manufactures.

- Cheese products for bakery in constant demand are mozzarella (24 tons/year), Gouda cheese (4,800 tons/year), and cheddar (120 tons/year/bakery).
- Cheddar/ imitation cheese/cheese analog for Indonesian Style Pancake (*Martabak Manis*) used by sellers and vendors consume at least 4.8 tons permonth in a single small city of five brands excluding the leading brand.
- Cake flavoring and coloring usage is reportedly at the rate of 113 tons per year. However, demand is high for these products and in the near term the usage could double.

Recommendations

- Stakeholders are encouraged to work with FAS Jakarta to organize technical seminars, programs, and baking demos for bakery industry on regular bases. Arrange one-on-one consultations between the interested industry representatives and U.S. suppliers to address any technical difficulties. Continue to provide pastry chefs with recipes and innovative ways to use ingredients.
- Organize buying missions in conjunction with U.S. food ingredient shows for the ingredient importers should be organized annually to touch based with U.S. suppliers and opportunity to source for new items for the industries.
- Participate in FAS Jakarta sponsored local ingredient food shows, as well as larger national and regional food shows.
- Establish long term relationships with local bakery associations and work closely with local
 importers to get better understanding in market situation of ingredients of this large industry.
 High value ingredients for Western healthy bakery products require aggressive promotion and
 introduction as the industry is still lack of knowledge on the benefits and its applications.
 Provide technical seminars and baking demos in Jakarta, but also Bandung, Surabaya, Medan,
 and Manado.

POST CONTACT AND FURTHER INFORMATION

The U.S. Foreign Agricultural Service in Jakarta maintains up-to-date information covering food and agricultural import opportunities in Indonesia and would be pleased to assist in facilitating U.S. exports and entry to the Indonesia market. Questions or comments regarding this report should be directed to the U.S. FAS in Jakarta at the following address:

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Please visit our home page for more information on exporting U.S. food products to Indonesia, including *Exporter Guide: Indonesia; Food Processing Sector Report: Indonesia; The Retail Sector Report: Indonesia; The HRI Food Service Sector Report: Indonesia, and other related reports.*

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