

Food Industry in Thailand - "Kitchen of the World"

June 2012

An abundance of natural resources combined with significant investments in technology, food safety R&D and adhering to international quality standards have helped to dub Thailand as the "Kitchen of the World." As the largest sole net food exporter in Asia, Thailand is one of the world's largest producers of food products such as rice, canned tuna, frozen seafood, chicken and canned pineapple.

In 2011, the value of Thai food exports increased 20% from the previous year owing to strengthened economic performance amongst major food importers such as the US, Japan, and ASEAN countries.

Thailand's Exported Food Products, 2008 – 2011

Export Items	2008		2009		2010		2011	
	Metric	Million	Metric	Million	Metric	Million	Metric	Million
	Ton	US\$	Ton	US\$	Ton	US\$	Ton	US\$
Total Food	29,035,481	25,935	28,767,703	25,140	28,368,985	26,755	33,247,743	32,150
Fisheries	1,672,737	7,139	1,652,205	7,004	1,729,549	7,321	1,734,829	8,168
Shrimp	358,928	2,807	398,894	3,114	427,581	3,365	392,616	3,676
Tuna	506,097	2,152	534,878	1,915	588,727	1,981	594,751	2,357
Other canned fish	193,761	555	182,770	560	190,681	560	205,036	644
Frozen fish	408,117	781	343,833	670	325,476	643	303,853	651
Cuttlefish	81,778	449	78,400	400	73,638	413	67,269	447
Others	124,056	396	113,430	344	123,447	359	171,303	393
Cereal	10,376,414	6,830	8,677,883	5,757	8,983,099	5,625	11,121,224	6,717
Rice	10,218,286	6,775	8,638,842	5,741	8,939,630	5,606	10,706,229	6,537
Others	158,128	54	39,042	16	43,469	19	414,995	180
Meat	858,584	2,119	782,067	2,016	636,067	2,073	545,194	2,371
Chicken	400,057	1,922	388,931	1,798	427,610	1,853	441,343	2,061
(Prepared/Preserved)								
Others	458,527	198	393,136	217	208,457	219	103,851	310
Fruit	2,016,352	2,014	2,148,655	2,044	2,055,885	2,117	2,163,149	2,296
Pineapple	650,783	683	539,297	554	550,018	552	641,185	669
(Canned/Preserved)								
Pineapple Juice	152,793	183	151,396	217	139,877	220	146,771	227
Mango	36,333	48	45,343	53	42,987	50	59,691	56
Others	1,176,443	1,100	1,412,619	1,218	1,323,003	1,295	1,315,501	1,343
Vegetable	491,487	550	451,410	548	465,634	544	559,543	654
Sweet Corn	172,872	173	170,179	182	182,821	182	184,178	190

<i>(Canned)</i>								
Baby corn	48,615	52	44,523	49	45,587	49	46,092	51
<i>(Fresh/Canned)</i>								
Others	270,000	325	236,708	316	237,227	313	329,274	413
<i>Others Food</i>	13,619,908	7,283	15,055,482	7,773	14,498,751	9,075	18,858,632	20,112
Sugar	5,011,802	1,588	5,052,570	2,053	4,500,969	2,311	6,520,480	3,648
Non-Alcoholic	425,723	240	355,476	307	400,444	409	551,900	541
Beverage								
Seasoning	177,128	328	195,097	388	222,151	432	237,502	482
Palm oil	498,115	551	185,823	157	222,000	218	482,599	532
Tapioca	1,286,513	511	1,817,735	566	1,764,107	836	1,918,374	963
<i>(Flour/starch)</i>								
Tapioca	2,851,433	524	4,357,028	682	4,273,225	866	3,731,027	985
<i>(Pellet/chip)</i>								
Feed	695,028	289	796,044	274	988,775	417	878,463	409
Pet food	268,687	651	242,483	609	275,040	658	305,038	715
Others	2,405,478	2,601	2,053,227	2,738	1,852,040	2,927	4,233,249	11,837

Source: National Food Institute

Fishery products

In 2011, Thailand exported 1.7 million tons of fishery products valued at US\$8.2 billion, a 12% increase from 2011. This growth is driven by rising demand in the U.S. and Japan.

Rice

In 2011, the value of rice exports grew by 17% from 2010, owing to higher prices in the wake of natural disasters affecting global food supplies.

Livestock Products

In 2011, the value of meat exports increased by 14% from 2010. Following the 2011 tsunami and nuclear plant leaks, Japanese consumers significantly contributed to demand increases in poultry and meat products from unaffected countries such as Thailand.

Fruit and Vegetable Products

In 2011, the value of fruit and vegetable exports grew by 8% and 20% year-on-year respectively. Growth was focused in the processed fruits and vegetables industries and driven by demand growth from the US and EU.

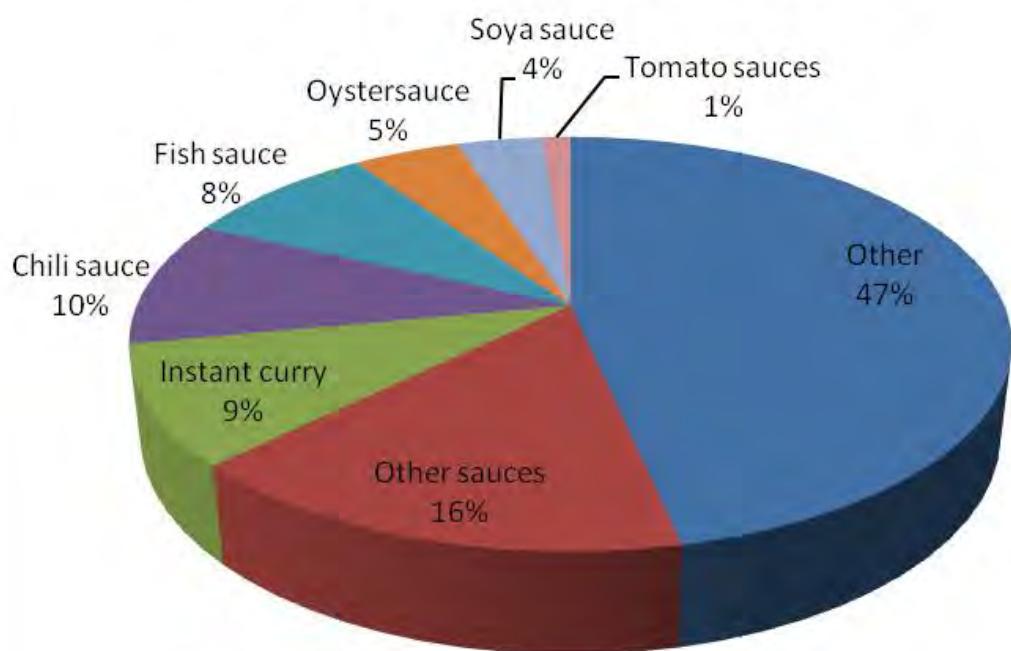
Sugar

In 2011, Thailand exported 6.5 million tons of sugar, an increase of 58% year-on-year, reflecting rising global demand and falling supply from India, due to severe drought in the country.

Seasonings and Ingredients

Thailand's strengths in food processing have also brought the country to global prominence in the seasonings and ingredients industries. The abundant supply of raw materials for seasoning and ingredients production and the potential for local skills development to manufacture specialty food products such as seasonings make the country an appealing destination for investment.

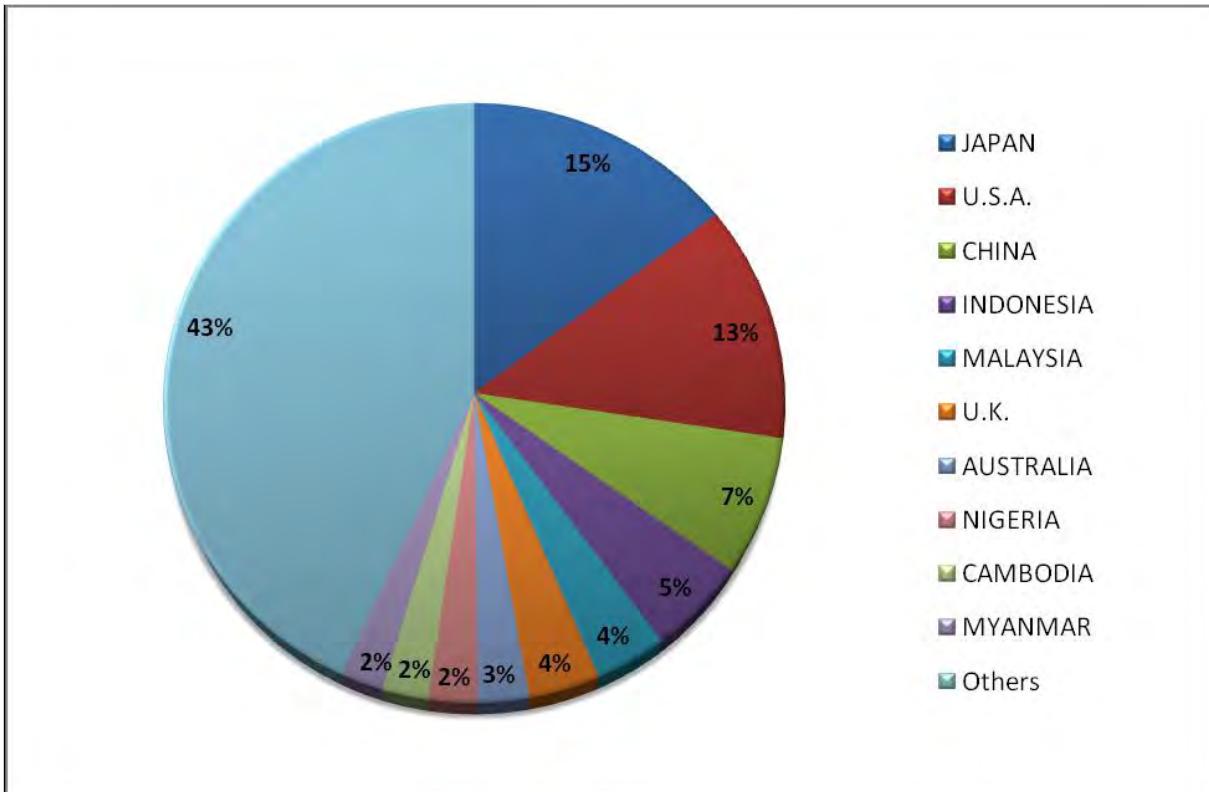
Thai Exports of Food Ingredients, 2011



Source: *The Customs Department of Thailand*

The value of Thailand's food ingredients exports in 2011 reached US\$479 million. Exports of chili sauce totaled US\$47 million, followed by instant curry (US\$45 million), fish sauce (US\$41 million), oyster sauce (US\$22 million), soya sauce (US\$18 million) and tomato sauces (US\$6 million). Additionally, chili sauce and oyster sauce saw annual growth rates in 2011 of 24%, followed by soya sauce (20%).

Thailand's Top 10 Food Export Markets, 2011



Source: National Food Institute

Thailand's food exports are evenly distributed across major geographic regions globally. In 2011, Japan was Thailand's biggest market for food products, taking 15% of the total export value, followed by the US at 13%, China at 7%, and Indonesia at 5%.

"Thailand is a strategic hub of food production for both Asia and the rest of the world due to its biodiversity and natural agriculture. Entrepreneurs in Thailand's agriculture and food processing industries continue to strive to introduce new technologies. In addition, the government has introduced policies which support food production at high standards of safety and quality. Thailand has both the high potential fundamentals to become a major production base and distribution center for world food production, as well as an attractive destination for investors."

-Dr. Petch Chinabutr, President of National Food Institute (NFI)-

TRENDS

The National Food Institute (NFI) has made the following growth projections for Thailand's food industry in 2012:

- The value of canned tuna exports is expected to increase by 6.3%.
- The value of poultry exports is predicted to rise by 12.5%.
- The value of exports of cassava and related products is projected to grow by 6.6%.

WHEN FRESH PRODUCE MEETS TECHNOLOGY

Thailand's abundant natural resources play a central role in its comparative advantage among its competitors in the food processing industry; 80% of the raw materials in domestic food manufacturing are locally available. The use of these rich natural resources, optimized by the introduction of technology and robust implementation of international standards of food safety and hygiene, will help Thailand remain a world leader in the food processing industry.

Thai Government and industry initiatives have helped Thailand's processed food industry upgrade its procedures and technologies so that its products meet international quality and sanitation standards, thus making them more competitive in the global marketplace. These initiatives have been so successful that processed food exports now exceed primary agricultural exports.

Thai food processors are successfully developing new frozen food products to keep up with shifting tastes in their overseas markets. In 2011, Thailand exported 416,922 tons of ready-to-eat (RTE) food and food ingredients valued at US\$955 million – a 16% increase over the previous year. Thai RTE food is gaining popularity overseas as other countries grow accustomed to Thai quality, nutrition, and taste. Additionally, sauces and curries are enjoying remarkable success in overseas markets. Between 2010 and 2011, annual growth reached 18% with a total value of US\$479 million. Major export markets currently include Japan, the US, Philippines and Cambodia.

Although most processed food products are for the international market, the domestic consumption of processed food continues to grow due to changes in lifestyles that have brought about increased demand for convenient food options. These processed food products are available in a wide variety of venues, most notably major Thai supermarkets such as Tesco, Makro, The Mall Group, Big C, Foodland, and Tops.

At present, the Thai food processing industry is comprised of over 10,000 food-processing companies. Major Thai and multinational industry leaders include: Nestle, Saha Pathana Inter Holding, Patum Rice Mill & Granary, Royal Friesland Foods NV, Unilever Group, Thai Union, Dole Thailand, Charoen Pokphand Group, Betagro, Saha Farms, Thai Beverage, Kellogg's, Kraft, PepsiCo, Del Monte, Procter & Gamble, Ajinomoto and Effem Foods.

"Dole Food Company has operated a growing processed fruit business in Thailand for over 35 years. We currently operate three major facilities employing more than 8,000 associates."

Dole has invested several million dollars over the past few years to upgrade and expand our production facilities in Thailand. The government and the incentives offered by the BOI have been beneficial to us as investors and have helped to ensure that we earn a return on our investments in the Kingdom."

-Mark Mc Kinney, President of Dole-

EMERGING AS HALAL CENTER

Halal food is produced in accordance with Islamic dietary guidelines. According to these guidelines, Muslims cannot consume pork or pork products, as well as any other meat that is not properly slaughtered, birds of prey, carnivorous animals, blood products and alcohol. In Thailand, the Central Islamic Committee sets high standards for the accreditation of halal food companies. Thai halal products are processed in accordance with the committee's Standard B.E. 2544 regulations, which cover production facilities, raw materials, products, storage, employees, transport and distribution.

Demand for halal food has increased tremendously during the last few years. The global halal food market is now worth an estimated US\$667 billion annually. In Thailand, exports of halal products amounted to US\$433 million in 2011, a 30% increase from US\$333 million in 2010. Up to 60% of the exports went to Indonesia, Malaysia and Brunei. Thailand ranks first for halal exports among the 10 countries in Southeast Asia.

As the global Muslim population continues to grow, the halal market is set to expand rapidly to meet the demand. Thailand's exports of halal food are predicted to grow by at least 10% annually through 2014. The major export markets for Thai halal food are Singapore, Malaysia, Indonesia, Brunei, the UAE, Saudi Arabia and Egypt. As the country with the largest Muslim population in the world, Indonesia is a particularly attractive market. China, with a Muslim population of 30 million, is emerging as a potentially lucrative market for Thai halal food products. Apart from China, Thai halal food entrepreneurs are seeking business opportunities in Mongolia, Russia, Kazakhstan, Kyrgyzstan and Pakistan.

"Thailand has abundant raw materials for Halal food production. This has supported the establishment of over 2,000 food processing facilities with more than 35,000 Halal-certified products."

-Khathawut Lohmud, Head of Academics, Department of Halal Affairs, Central Islamic Committee of Thailand

FOOD SAFETY AND FOOD STANDARDS

Adherence to the highest quality and hygiene standards is critical to the success in the global food processing industry. Thailand has a number of authorized food safety inspection agencies, including the Department of Medical Science, the Thai Industrial Standards Institute, the Department of Agriculture, the Department of Fisheries, and the Department of Livestock.

The Food and Drug Administration (FDA) ensures product safety by issuing manufacturing licenses, labeling food products, conducting pre- and post-marketing control, and enforcing adherence to Good Manufacturing Practices (GMP). GMP certification is mandatory for manufacturers and importers of 54 different food product types.

The National Bureau of Agricultural Commodity and Food Standards (ACFS) certifies the standards applied to agricultural commodities and food products. ACFS standards include Good Agricultural Practices (GAP), Good Hygienic Practices (GHP) and Hazard Analysis Critical Control Point (HACCP), as well as other standards regarding pesticide residues and diagnostic testing for foot and mouth disease and bovine tuberculosis. Ministry of Public Health's Manual for Labeling Procedures regulates processed food containing genetically modified organisms (GMO).

Quality assurance systems such as GMP, Total Quality Management (TQM), HACCP, and the International Organization for Standardization (ISO) are mandatory for certain products, including canned foods. The members of the Asia-Pacific Economic Cooperation (APEC) also adopt all of the standards Thailand uses to regulate its food industry.

The National Food Institute (NFI), as part of the team responsible for Food Safety Management in Thailand, promotes food safety by helping entrepreneurs produce products that comply with international standards. It provides the following services:

- Consultancy services in the implementation of GMP/HACCP/ISO 9000/ISO14000/ ISO/IEC 17025 and Clean Technology Systems Risk Assessment studies;
- Dissemination of information related to food safety regulatory laws and standards; and
- Chemical and microbiological testing of food samples to ensure that products intended for commercial distribution are up to international regulatory standards.

OPPORTUNITIES

Asia harbors tremendous opportunities for food processors. Food demand in South and Southeast Asia will experience substantial growth as populations and incomes expand.

Ready-to-eat food

The retail market value of global packaged food is predicted to grow by 9.74% from US\$1.95 trillion in 2010 and is expected to reach US\$2.14 trillion by 2015. In line with the global market, the local Thai market for package food products is also experiencing significant growth. As lifestyles continue to change, convenient and ready-to-eat processed food products will become increasingly popular. Demand from abroad is expanding as well. In 2011, the export value of ready-to-eat products was US\$9.3 billion, 12% higher than in the previous year.

Snacks

Demand of sweet and savory snacks in Thailand has continued to increase, driven by aggressive advertising and marketing activities among leading players in the industry. In 2011, sweet and savory snacks grew by 7% year-on-year in current retail value terms to reached US\$840 million. Thailand's market for sweet and savory snacks is expected to reach US\$1 billion by 2016.

Resulting from the growth in health-conscious consumers, there has been an increase of health and wellness snacks. Many manufacturers have tried to reformulate their products to reduce the amount of salt or make them salt free, reduced the amount of sugar or make them sugar free and reduce the amount of fat in their products, in response to increased demand from consumers for healthier snacks.

Health food

According to the Euromonitor International 2011 report compiled by the National Food Institute, in 2010, health and wellness products sales reached US\$627.5 billion and are expected to reach over US\$772 billion by 2015. Natural food products occupy the largest market share at 38.5%, fortified/functional food 30.3%, better-for-you food 25.5%, organic food 4.3%, and food allergy products 1.3%.

The Thai domestic market also has strong demand for health food products. According to the National Food Institute, consumer expenditures on health and wellness foods in 2011 grew to US\$4 billion, while US\$1.7 billion was spent on consumer health foods including sports nutrition, vitamins and dietary supplements, weight management, herbal/traditional products, allergy care and child-specific consumer health products.

Food Machinery and Equipment

The market for food machinery and packaging equipment has been driven by the growth of the general food processing industry. Leaders in the Thai food processing industry are constantly developing cutting-edge technologies to keep up with increasing global demand. For instance, the introduction of the GMP standard for the food safety equipment in 2003 has brought a notable increase in the volume of GMP-level equipment purchased by Thailand-

based firms. The market of food processing and packaging equipment in Thailand has grown by an average of 20% every year since 1999. In Thailand, the total trade value of food processing and packaging equipment in 2011 was almost US\$ 270 million, a 61% increased from 2010.

Opportunities for investment also exist in many other areas such as manufacture of flour or starch made from plants, dextrin or modified starch; food ingredients; oil or fat from plants or animals; alcohol or fuel from agricultural products, including scrap, garbage and/or waste; and grading, packaging and storage of plants, vegetables, fruits or flowers, using modern technology

WHY THAILAND

"Jelly Belly's primary reason for investing in Thailand is the availability of raw materials, including GMO-free products. Additionally, Thailand has competitive labor costs and a central geographic position in Southeast Asia."

-Herman G. Rowland Jr., Managing Director of Jelly Belly Candy Company (Thailand) Ltd.
Thailand offers a number of outstanding advantages for companies in the food-processing industry. These include:

Competitive workforce: According to the Thai National Food Institute, there are approximately 800,000 laborers in Thailand's food industry. Furthermore, the government's numerous training and support organizations will ensure a robust and technically-equipped workforce today and into the future.

Strong Business Climate: Thailand's economy is one of the fastest growing in Asia, with 2012 GDP projected to grow by around 6.5 percent, and the World Bank Doing Business 2012 report indicated that Thailand was ranked 17th in the world and 2nd in Southeast Asia in terms of ease of doing business.

Hub of Asia: The reduction of tariff and non-tariff barriers articulated in free trade agreements between Thailand and India, China, Japan, Australia and ASEAN extends trade opportunities with neighboring countries. Thailand stands out amongst neighboring countries because of its bilateral and multilateral collaboration, excellent infrastructure, abundant raw materials, skilled labor, government support, and the central location among ASEAN countries with close proximity to India and China. Furthermore, the launch of ASEAN Economic Community (AEC) in 2015 will expand the market of Thai food to around 600 million consumers over Southeast Asia.

Excellent logistics systems: Thailand boasts world-class infrastructure, including state-of-the-art ports, airports and communication facilities. Suvarnabhumi International Airport and Laem Chabang Deep Seaport offer manufacturers the transportation foundation investors need for their export operations. The 225 km of inter-city motorways – currently in expansion – linking Bangkok to other regions of the country also facilitate overall domestic transportation. In addition, Thailand is a hub of transportation in the Southeast Asia region; the perfect route through the east-west and north-south corridor that can distribute products to nearby countries including Laos, Cambodia, Vietnam, Myanmar, Malaysia, Singapore and also southern China from the North and Northeast of the country.

DEVELOPED NETWORK OF SUPPORTING ORGANIZATIONS

Government and organizations supporting the growth and competitiveness of the food processing industry in Thailand include:

The National Food Institute (NFI)

- The Technological Services Department** assists processors in the implementation of GMP or HACCP safety systems in food production.
- The Agricultural Research Development Agency (ARDA)** cooperates with the NFI to develop processed food production and agro-food human resources.

The Halal Standard Institute of Thailand helps ensure that the development and certification of halal food standards comply with the provisions of Islam and correspond to international standards so that it is trusted and accepted by local and international public, food producers and consumers which will therefore promote and increase the competitiveness of the country's halal food industry and protect Islamic consumers locally.

The Halal Science Centre, Chulalongkorn University (CU) focuses on the following mission:

- The establishment of halal laboratories fully equipped with modern and high standard analytical and preparative scientific devices.

- Provide analytical services for quality control against inconsistencies with Islamic law (Haram and Najis) in raw materials, and finished products supplied for Halal Food market
- Conduct research and development on new methodologies, product innovation as well as reagent kits exploitable for halal food verification.
- Prepare lists of chemicals, raw materials and products as to accommodate halal food manufacturers and consumers.

Kasetsart University (KU)

- Institute of Food Research and Product Development (IFRPD)** performs research on food science and technology to assist food industries by providing relevant information to social and academic organizations and communities.
- KU Food Innovation Research and Services in Thailand (KU-FIRST)** focuses on increasing the competitiveness of the Thai food industry in the world market through the development of food safety mechanisms
- Cassava and Starch Technology Research Unit** aims to support industrial sectors by conducting R&D on cassava starch properties, starch processing, starch modification and industrial applications. The Unit also coordinates technology between producers and users and facilitates the transfer of technology and supporting technical services.

The Food Processing Industry Club has 8 sub-sectors: beverages; tea, coffee, cocoa milk and dairy products; spice, seasonings, sugar and deserts; meat, poultry and feed; flour and flour products; fishery product; fresh and processed vegetables and fruits; oil, edible fats, and other specialty foods.

Thai Food Processors' Association:

- Tuna Processors' Group
- Seafood Processors' Group
- Pineapple Processors' Group
- Fruit & Vegetable Processors' Group
- Sweet Corn Processors' Group
- Food Ingredient and Ready-to-eat Processors' Group

BOARD OF INVESTMENT INCENTIVES

Thailand Board of Investment offers a wide range of fiscal and non-tax incentives for investments based on location. Tax-based incentives include exemption or reduction of import duties on machinery and raw materials, and corporate income tax exemption and reduction. Non-tax incentives include permission to bring in foreign workers, own land and take or remit foreign currency abroad.

For further information:

- Thailand Board of Investment (BOI): <http://www.boi.go.th>
- Thai National Food Institute: www.nfi.or.th
- The Halal Standard Institute of Thailand: <http://www.halal.or.th/en/main/index.php>
- The Halal Science Centre, Chulalongkorn University (CU):
- The Food and Drug Administration: www.fda.moph.go.th/enginfo.htm
- The Food Processing Industry Club: <http://www.fti.or.th/FTI%20Project/GroupCallEng.aspx>
- Thai Food Processors' Association: http://www.thaifood.org/Thai_Food_Processors'_Association.htm