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Report Name: Industrial Hemp Report 2021

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Report Highlights:

On January 25, 2021, the Ministry of Public Health (MOPH) published a ministerial regulation allowing for the commercial production and use of hemp. The importation of hemp and hemp products, however, is limited to government agencies for medical and research purposes for five years until January 2026. The Thai government has encouraged the private sector to focus on hemp to create economic value from it.

SECTION I: HEMP

The Thai government has been slowly legalizing certain segments of the hemp industry over the last few years. On January 25, 2021, the Ministry of Public Health (MOPH) published a ministerial regulation allowing for the commercial production and use of hemp. Hemp, in general, remains a narcotic drug, but certain parts of the hemp plant have been delisted for domestic production and use. Hemp and several of its by products, including cannabidiol (CBD) extract, are allowed for use in cosmetics, pharmaceuticals, clothing, food, and other sectors. The importation of hemp and hemp products, however, is limited to government agencies for medical and research purposes for five years until January 2026. In addition, the importation of hemp and hemp products are still treated as narcotics and subject to the import regulations of narcotic substances. The only parts of the hemp plant that can be imported into Thailand is dried bark, dried straw, and dried fiber. The Thai government has encouraged the private sector to focus on hemp to create economic value from it. The ban on importations is seen as a way to help the domestic industry grow before facing foreign competition.

SECTION II: HEMP PRODUCTION

There is a long history of hemp production in Thailand. There are several northern tribes that have been producing hemp for generations. However, cultivation of hemp became illegal with the passing of the Narcotic Act in 1979. In 2005, Queen Sirikit helped protect some hemp production by bringing some farms into the Royal Development Project program. She also worked with the Cabinet to promote the legalization of hemp production. The Cabinet agreed that hemp could be commercialized if it was properly regulated. However, the first pilot program for hemp production was not initiated until 2018, and only government agencies or universities partnered with government agencies were allowed to grow industrial hemp for research purposes. The pilot program was set for 3 years (2018-2020) and growers had to get an annual permit from the Thai FDA to produce hemp, produce certified seed, or produce any narcotic from the hemp plant.

Most of the hemp plantations that participated in the pilot project were under the Royal Development Project. The plantations were mainly located in eight provinces in the northern region (Table 2.1). The Tak province has the most acreage, accounting for approximately 60 percent of total hemp acreage. All the growers were allowed to plant for straw and fiber, while only the Highland Research Development Institute (HRDI) was authorized to harvest for hemp seeds. Hemp is normally planted in May and harvested in July with average yield ranging from 4-12 metric tons per rai (25-75 MT/Hectare). The Highland Research Development Institute (HRDI) usually harvests for hemp seeds between December and January. The planting progress was closely monitored by local government agencies.

Table 2.1: Thailand’s Industrial Hemp Production, Supply and Demand

	2018	2019	2020
Planted Area (Ha)	26	68	100
Harvested Area (HA)	26	68	100
Production (MT)	1,118	2,924	4,300
Import	0	0	0
Total Supply	1,118	2,924	4,300
Export	0	0	0
Consumption and Residue	1,118	2,924	4,300
Ending Stocks	0	0	0
Total Distribution	1,118	2,924	4,300
Yield (MT/HA)	43	43	43

Source: The Thai FDA and Highland Research Development Institute

The Thai FDA legalized commercial production of hemp by private entities on January 29, 2021. Private entities must obtain a license from the Thai FDA before they can start producing industrial hemp, and the license must be renewed annually. The Thai FDA is currently working with applicants to approve new farming productions. Licensed hemp production must use certified hemp seeds until January 2026. The Thai government is actively developing new hemp seeds to increase both fiber yields and CBD yield. Thailand current has 4 varieties that produce high fiber yields but does not have any varieties that will yield higher CBD content, which is needed for cosmetic and healthcare products. The Department of Agriculture (DOA), Ministry of Agriculture and Cooperatives, stated that it is drafting a notification to regulate the use of hemp seeds stating that importers will need to seek permission from the DOA. The DOA regulations will be in addition to the regulations already set forth by the Thai FDA regulating certified seeds. The DOA also stated that it plans to set guidelines for planting hemp varieties whether the purpose is for high fiber yield or for higher CBD yield. Hemp varieties that contain more CBD usually come from Europe and China and require cooler weather.

SECTION III: LABELING REQUIREMENTS

The Narcotics Control Committee within the Thai FDA published updated guidance on labeling of containers or packings containing hemp and hemp extracts, excluding pharmaceutical products containing hemp, on January 28, 2021. This notification addresses the requirement for raw hemp and hemp seeds. On March 4, 2021, the Food Committee within the Thai FDA published another notification outlining the labeling requirements for food products that contain hemp seeds, hemp oil, or hemp protein. The following is a summary of those two notifications.

Hemp and Hemp Extracts

The packaging must have the label in a very visible location, and the product information must be in Thai. The label for hemp seeds must contain the name of the species (if the name of species is not known, then the source of the hemp must be identified), the tetrahydrocannabinol (THC) content, the seed germination rate and date of the test, month and year of harvest, date of breeding expiration, type of production, net weight, name and location of the licensee to produce or import, and production or license number. The label for hemp fiber must have the name of the species (if the name of species is not known, then the source of the hemp must be identified) and the month and year of harvest. The label

for hemp extract must have the name of the major components of the product; quantity in the package; the term “Category 5 Narcotic” must be visible in red letters on a white background with a red outline; the date, month, and year of manufacture; the storage conditions; and the name of the producer, importer, or owner of the product and business location. There are additional requirements for hemp that is intended to be exported.

Labeling for Food Containing Hemp

The package must contain the word “Warning” in letters not smaller than 1.5 mm and in color that contrasts with the rest of the color of the packaging. In addition, statements on how certain groups (e.g., children, pregnant women, women who are nursing, people with allergies, and people who have adverse reactions) should refrain from or limit their consumption of food that contain hemp are required to be on the label. The requirement also stipulates that the label must state that these products may contain THC and CBD. The label must list hemp protein as a possible food allergy and state that the product contains omega-6 and omega-3 fatty acids from hemp by listing the amount of oil from hemp, the amount of linoleic acid, and the amount of alpha-linolenic acid in milligrams based on 1 unit of the product. Supplements must also include additional information regarding the packaging and the amount of hemp contained in the supplement. The label must state that this food should be consumed as part of a balanced diet and encourage the consumption of a variety of foods from all five food groups and that the product does not protect from and/or cure disease. The notification prohibits the use of images or symbols of any part of the hemp plant on the packaging. The Minister of Public Health may specify additional labeling requirements.

SECTION IV: PACKAGING AND CONTAINER REQUIREMENTS

Not available at this time.

SECTION V: HEMP/CANNABINOID REGULATIONS

History of Legislation and Regulation Governing the Hemp Sector

Statue	Month/Year	Summary
Narcotics Act	April 1979	Categorized hemp as a category 5 narcotic and prohibited its production and use.
Ministerial Regulation on Hemp	January 2017	Separated hemp from regulation governing other category 4 and 5 narcotics and provided the procedure to allow government agencies to get permission to produce, sell, or have in possession hemp.
Narcotics Act Amendment	February 2019	Legalized the use of hemp and marijuana for medical purposes.
Narcotics Act Amendment	August 2019	Legalized the production of CBD for medical purposes and the use of hemp seed and dried straw in the production of food and cosmetics.
Narcotics Act Amendment	October 2019	Redefined the characteristics of hemp and marijuana, defining plants that have THC levels of 1 percent by dry weight and below as hemp and plants with THC levels

above 1 percent are considered marijuana.

Narcotics Act Amendment	December 2020	Delisted hemp bark, tree, fibers, branches, roots, leaves that do not have shoots or inflorescences attached to them, extract containing CBD that does not have THC more than 0.2 percent by weight, and the residue from the extraction that also does not contain THC more than 0.2 percent by weight from being a narcotic.
Ministerial Regulation on Hemp Amendment	January 2021	Amended the Ministerial Regulation on hemp to allow for the commercial production, use, and trade of hemp.
Food Act Amendment	February 2021	Allowed for the use of delisted parts of the hemp plant that are produced domestically to be used in food.
Food Act Amendment	March 2021	Set forth the rules for using hemp seed, hemp oil, and hemp protein in processed foods.

Narcotics Act

Hemp is categorized as a category 5 narcotic under the Narcotics Act of 1979. The act restricts the production, use, trading, and consumption of hemp with severe penalties. The penalty for the unauthorized production, importation, or exportation of hemp is up to 15 years in prison and a fine of 1.5 million baht (\$50,000). There has, however, been a push to legalize the production and trade of hemp in Thailand in the last few years to promote hemp as a new cash crop. The first major actions to legalize the commercial production and use of hemp took place in 2019. The Thai MOPH legalized medical marijuana and hemp in February 2019, and in August 2019, the Thai MOPH legalized the production of CBD extract for medical purposes and the use of hemp seed and dried straw in the production of food and cosmetics. These actions were the first steps in defining and legalizing the use of hemp; however, production was still limited to government agencies or groups associated with government agencies. In addition, the Narcotics Control Committee updated the definition of the characteristics of hemp in October 2019, limiting the amount of THC that a hemp plant and certified hemp seed could contain to 1 percent by dry weight. Any plant with a THC content higher than 1 percent by dry weight is considered marijuana.

The MOPH further legalized the production and use of hemp by delisting certain parts of the hemp plant that are produced domestically from being classified as a narcotic on December 14, 2020. Hemp and marijuana remain listed as category 5 narcotics, but the new notification exempted the non-narcotic parts of each of the plants that are produced domestically. The imports of these parts, however, remain subject to the import regulations as defined by the Narcotic Act. The only parts of the hemp plant that can be imported into Thailand is dried bark, dried straw, and dried fiber, which were deregulated in the Narcotics Act in 1979. The exempted parts for hemp include the bark, tree, fibers, branches, roots, leaves that do not have shoots or inflorescences attached to them, extract containing CBD that does not have THC more than 0.2 percent by weight, and the residue from the extraction that also does not contain THC more than 0.2 percent by weight. The exempted parts for marijuana were the same as hemp but excluded marijuana seeds and marijuana seed oil or extract.

Ministerial Regulation – The Production, Import, Export, and Sell of Hemp

The first effort to legalize the production of hemp took place in January 2017 when the MOPH announced a pilot program that allowed government agencies and entities associated with government agencies, mainly universities, to produce hemp for research purposes. The pilot program lasted for 3 years (2018-2020). Hemp remained a category 5 narcotic during the pilot project. The MOPH didn't delist parts of the hemp plant until the end of the pilot project. Even then, the entire plant remains a narcotic, meaning it is still illegal to grow hemp without permission from the Thai FDA. On January 25, 2021, the MOPH published regulations legalizing the commercial production, use, and trade of hemp and outlined the procedure by which people or groups could obtain the required permissions to do so. Production licenses were divided into the following 6 categories depending on the intended use of hemp: furthering the aims of a government agency; use of hemp fiber in connection with cultural, lifestyle, and family traditions (limited production area); commercial or industrial use; medical purposes; study, research and development, or improvement of the hemp strain; and production of certified hemp seeds. The Thai FDA started accepting licenses on January 29, 2021. Separate licenses would be needed to export or import hemp but included the same categories except for the cultural, lifestyle, and family traditions. Licenses must be renewed yearly on a calendar basis.

There are several requirements that the applicant must meet including Thai nationality (or partnering with a Thai citizen), age, bankruptcy, and criminal record requirements. In addition, the application must include a map showing the location and coordinates of the premises of production, import, export, and distribution of hemp, and a description of nearby buildings and the purpose of the nearby buildings. The application must also include a detailed plan for production, import, export, sale or utilization and security measures to prevent misuse. The applicant must also submit evidence showing ownership of the land or documentation on the right to produce on the land.

The production of hemp will be closely monitored by government officials. Farmers will need to alert a competent official of the date and time of harvest, and production totals. The location of hemp production must display signs that are easily visible around the permitter identifying the area as a hemp production facility and display the name of the licensee, the license number, and the expiration date of the license. An analysis of the THC content must be performed before hemp can be transported off the facility, and the producer must give advance notice to a competent official before moving the product. Farmers are only allowed to use certified seeds in hemp production until five years after the publishing of the regulation.

The import of hemp and hemp products is limited to research purposes and government agencies for medical purposes for five years until January 2026. The new regulation does stipulate certain conditions on importing. Import permits will be required for every shipment. The application for an import permit will require the name, quantity, and characteristics of the imported product, along with the name and location of the place of operation of the importer. In addition, the procedure for importing includes presenting the imported product to a competent official at the food and drug checkpoint to inspect the documentation and certificate of analysis, which must include the THC levels. A phytosanitary certificate will be required, and an export certificate from the originating country may also be required. Importers must develop an import or utilization plan and provide signage around their facilities stating that this facility is a hemp importation facility and display the licensee name, license number, and

license expiration date. No further information about potential conditions of entry is available at this time.

The Thai FDA also issued several subsequent notifications governing different aspects of the sector. The notifications included labeling requirements, handling requirements, venue standards and control systems of hemp cultivation, how to request for a plan adjustment, and the necessary forms to apply for a license. The delisted parts of hemp can be used in food items produced in restaurants and bakeries but not in processed food. The Thai FDA would need to issue notifications on the use of hemp and products derived from hemp in processed foods before they could be used in processed foods. The Thai FDA has only issued one notification on the use of hemp seeds, hemp oil, and hemp protein in processed foods.

Food Act

The Thai FDA published Notification 424 on February 25, 2021, allowing for the use of the delisted domestically produced parts of the hemp plant to be used in food. The notification states that only hemp products produced in the country are allowed to be used in food products. In addition, any finished products that contain hemp or its byproducts as an ingredient are also not allowed to be imported as they would fall under the import regulations of the Narcotics Act.

The Thai FDA published Notification 425 Re: Hemp Seeds, Hemp Oil, Hemp Protein, and Food Products Containing Hemp Seeds, Hemp Oil, and Hemp Protein, which updated the Food Act, on March 4, 2021. The notification sets the quality and standards for hemp seeds, hemp oil, and hemp protein; labeling requirements on processed food products; and methods of analysis. The notification adds hemp seeds, hemp oil, and hemp protein to the many notifications already governing food including food additives, containers, placement of nutritional claims and health claims. The notification also prohibits the use of images or symbols of any part of the hemp plant on the packaging. A summary of the qualities and standards from the notification can be found in the appendix.

SECTION VI: REGULATORY SOURCES

Ministry	Department	Division	Summary
Ministry of Public Health	The Thai Food and Drug Administration	Narcotics Control Division	Regulates illegal drugs in Thailand, including hemp that hasn't be delisted (e.g., production of the whole hemp plant)
		Food Control Division	Regulates the use of hemp in food
Ministry of Agriculture and Cooperatives	Department of Agriculture	The Office of Agricultural Regulations	Regulates the use of seed in crop production. (pending)
Ministry of Industries	Thai Industrial Standard Institute	N/A	Regulates the standards of raw material. (pending)

SECTION VII: OTHER REQUIREMENTS, REGULATIONS, AND REGISTRATIONS MEASURES

Not applicable

SECTION VIII: OTHER REGULATORY AND IMPORT CONTACTS

Not applicable

SECTION IX: MARKET POTENTIAL.

There is a large market potential for hemp and products derived from hemp. Thai consumers are very interested in new products that contain hemp and CBD oil. Consumer studies show a strong consumer interest in products containing hemp and cannabis. The Thai government and domestic industry realize the great potential and are looking to make hemp its new cash crop. The protections put in place to limit the importation of hemp and products derived from hemp will help the domestic Thai industry grow before having to face foreign competition.

**Appendix I - Qualities or Standards of Hemp in Certain Processed Foods as Outlined in
Notification Re: Hemp Seeds, Hemp Oil, Hemp Protein, and Food Products Containing Hemp
Seeds, Hemp Oil, and Hemp Protein**

Standard	Hemp Seeds
Moisture Content	Not more than 10% by weight
Cadmium	Not more than 0.3 mg/kg of hemp seed, dry weight
Lead	Not more than 10 mg/kg of hemp seed, dry weight
THC Content	Not more than 5 mg/kg of hemp seed, dry weight
CBD Content	Not more than 3 mg/kg of hemp seed, dry weight

Note: Must comply with the notification of the Ministry of Public Health re: Food with Toxic Residue.

Standard	Hemp Oil
Color	Depends on the hemp seed
Odor and Flavor	No Foreign matter and no rancid smell
Saponification	184-205 mg potassium hydroxide per 1 g of oil.
Iodine	WIJS 153-167
Unsaponifiable Matter	Not more than 15 g/kg of oil
Acid Value (% Free Fatty Acid) - potassium hydroxide	Not more than 4.0 mg/g of oil.
Peroxide	Not more than 15 milliseconds or equivalent/kg of oil.
Water and Volatile Matter	Not more than 0.2 percent at 105 degrees Celsius
Soap Content	Not more than 0.005 percent of weight
Other Insoluble Impurities	Not more than 0.05 percent of weight
THC	Not more than 1 mg/kg
CBD	Not more than 3 mg/kg
Iron	Not more than 5 mg/kg
Copper	Not more than 0.4 mg/kg

Note: Must comply with the notification of the Ministry of Public Health re: Food Contaminant Standards and re: Quality Requirements or Standards, Criteria, Conditions, and Methods for the analysis of Microbial Food Pathogenic

Standard	Hemp Protein
Color	Depends on the peculiarities of the hemp protein
Odor and Flavor	No Foreign matter, depends on the hemp protein
Moisture	Not more than 10 percent
Hemp Protein Content	
Hemp Protein or Protein from Hemp (Hemp Protein Meal)	Not less than 30 percent
Hemp protein concentrate	Not less than 65 percent
Hemp Protein Isolate	More than 90 percent
THC	
Hemp Protein or residue of hemp	Not more than 2 mg/kg
Hemp Protein Concentrate or Hemp Protein Isolate	Not more than 0.15 mg/kg
CBD	
Hemp Protein or residue of hemp	Not more than 3 mg/kg
Hemp Protein Concentrate or Hemp Protein Isolate	Not more than 3 mg/kg

Note: Must comply with the notification of the Ministry of Public Health re: Food Contaminate Standards and re: Quality Requirements or Standards, Criteria, Conditions, and Methods for the analysis of Microbial Food Pathogenic

The following table breaks out the THC and CBD standards for certain food products.

Hemp Product	Type of Food	Maximum Value (mg/kg)	
		THC	CBD
Hemp seed, hemp seed flour, hemp seed protein	Breakfast Cereals, including rolled oats	0.15	3.0
	Baked Goods, unsweetened	0.15	3.0
	Baked Goods, sweetened	0.15	3.0
	Food supplements from hemp protein or hemp protein meal	2.0	3.0
	Food supplements from protein concentrate from hemp seeds and protein extracted from hemp seeds	0.15	3.0
	Cereal and grain beverages except tea, coffee, herbal tea, and similar products	0.15	3.0
	Snacks made with potatoes, cereal, starch, or starches	0.15	3.0
	Nut-based snacks or processed grains	0.15	3.0
Hemp oil	Hemp oil for direct consumption	1.0	3.0
	Oil-on-oil emulsion (fat spreads, dairy fat spreads, and blended spreads)	0.15	3.0
	Salad and sandwich spread products	0.15	3.0
	Food supplement (oil supplement)	5.0	3.0

Attachments:

No Attachments.