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**Report Highlights:**

The gradual economic recovery from the COVID-19 pandemic is expected to continue to drive up import demand for soybeans in MY2020/21 and MY2021/22. The increased demand for livestock and aqua feed will likely boost soybean meal imports in MY2021/2022 due to insufficient local supplies. MY2021/22 palm oil production is expected to recover from the drought-triggered 13 percent reduction in oil palm production in MY2019/20.

## **Executive Summary**

MY2021/22 soybean imports are forecast to increase to 4.1 million metric tons, up 5 percent from MY2020/21 due to growing demand for soybeans in the food and feed industries. Import demand for soybean meal, which is mainly used for feed, is also expected to increase to 2.8 million metric tons in MY2021/22, up 2 percent from a 5 percent reduction in MY2020/21. Swine production in MY2020/21 is expected to grow at a slower pace than the 10 percent increase seen in MY2019/20. Live swine exports to neighboring countries have diminished as they impose strict import controls to stop the outbreak of African Swine Fever (ASF). Meanwhile, fish meal import demand will likely decline 4-6 percent in 2021 and 2022 in anticipation of increased supplies of locally produced fish meal.

MY2020/21 soybean oil production is expected to increase by 11 percent from MY2019/20, a slower pace than the 25 percent increase between MY2018/19 and MY2019/20. Larger supplies of palm oil in the market will offset some of the demand for soybean oil. Palm oil production is anticipated to recover gradually in MY2020/21 and MYT2021/22 after the 12 percent reduction in MY2019/2020 caused by drought. The government still maintains a mandatory 10 percent biodiesel blending rate in diesel fuel, which took effect in October 2020. The palm oil demand for biodiesel production accounted for 54 percent of total palm oil consumption in 2020, up from 48 percent in 2019.

## **Section 1: Oilseeds Situation and Outlook**

### **1.1 Soybean Production**

Soybean production is marginal at 50,000 – 60,000 metric tons for a decade. Farmers have no incentive to expand soybean acreage due to unattractive return compared to other field crops like corn and cassava. Also, cultivation of all transgenic or biotech plants, including soybeans, is still prohibited in Thailand. Moreover, the government did not provide any direct financial assistance, especially for the price guarantee program that other field crops receive, other than the domestic purchase requirement for those who want to import soybeans.

**Table 1.1.1: Thailand's Soybean Production, Supply and Demand**

Oilseed, Soybean Market Year Begins Thailand	2019/2020		2020/2021		2021/2022	
	Sep 2019		Sep 2020		Sep 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	34	34	32	32	0	32
Area Harvested (1000 HA)	34	34	32	32	0	32
Beginning Stocks (1000 MT)	250	250	315	425	0	344
Production (1000 MT)	52	52	52	52	0	52
MY Imports (1000 MT)	3831	3831	3890	3900	0	4100
MY Imp. from U.S. (1000 MT)	1600	1327	1600	1200	0	1250
MY Imp. from EU (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	4133	4133	4257	4377	0	4496
MY Exports (1000 MT)	3	3	3	3	0	3
MY Exp. to EU (1000 MT)	0	0	0	0	0	0
Crush (1000 MT)	2610	2500	2700	2800	0	2900
Food Use Dom. Cons. (1000 MT)	265	265	275	270	0	275
Feed Waste Dom. Cons. (1000 MT)	940	940	955	960	0	980
Total Dom. Cons. (1000 MT)	3815	3705	3930	4030	0	4155
Ending Stocks (1000 MT)	315	425	324	344	0	338
Total Distribution (1000 MT)	4133	4133	4257	4377	0	4496
CY Imports (1000 MT)	3831	4045	3150	4120	0	4320
CY Imp. from U.S. (1000 MT)	1600	1208	1600	1240	0	1300
CY Exports (1000 MT)	3	3	3	3	0	3
CY Exp. to U.S. (1000 MT)	0	0	0	0	0	0
Yield (MT/HA)	1.5294	1.5294	1.625	1.625	0	1.625

(1000 HA), (1000 MT), (MT/HA)

## 1.2 Soybean Consumption

**1.2.1 Crushing Demand:** Around 70 percent of soybeans are crushed for cooking oil. There are four active soybean crushers in Thailand, which are (1) Thai Vegetable Oil (TVO), (2) Thanakorn Vegetable Oil Products (TVOP), (3) Porn Amnuay Sup Vegetable Oil, and (4) Industrial Enterprise Co., Ltd. Besides the sales of cooking oil products, the largest portion of crushers' revenue is the sales of byproducts from the soybean crushing process, such as soybean meal for feed. In MY2021/22, soybean crushing demand is forecast to increase by 4 percent due to growing domestic consumption of cooking oil and increasing use of soybean meal in feed. The largest gains in feed demand will be in poultry and swine production following the recovery of the Thai economy. The Thai government expects GDP growth will be 4.7 percent in 2022.<sup>1</sup>

Soybean crushing demand is expected to decelerate in MY2020/21 as soybean cooking oil consumption will likely slow down following the gradual recovery in palm oil production in MY2020/21. Demand for soybean meal in feed rations is expected to increase slightly as swine production will likely grow at a slower pace than the 10 percent increase seen in 2020. Live swine exports to neighboring countries have diminished as they impose strict import controls to stop the outbreak of ASF in their respective countries. Additionally, poultry feed demand, which accounts for 55 percent of total feed demand, is expected to increase slightly in 2021 after a 2-3 percent reduction in 2020. Moreover, the government

<sup>1</sup> Based on the latest Bank of Thailand's GDP forecast on March 24, 2021.

expects a slow economic recovery at 3 percent in 2021.<sup>2</sup> The number of foreign tourists was revised down to 3 million from the previous forecast of 5.5 million caused by the prolonged outbreak of COVID-19 domestically and abroad. This is a further reduction from 6.7 million foreign tourists in 2020 when the number of foreign tourists fell sharply from 39.9 million in 2019 due to the COVID-19 outbreak.

Soybean crushing demand increased by 25 percent in MY2019/20 despite the COVID-19 outbreak that led to a negative economic growth of 6.1 percent in 2019. The increased demand was driven by soybean cooking oil consumption, which increased 24 percent in 2020 due to tight supplies of palm cooking oil as oil palm plantations were affected by drought. The government also had a measure to increase the blend rate in biodiesel in 2020, which led to a 6 percent reduction in palm cooking oil production in 2020. Additionally, demand for soybean meal in feed increased significantly in 2020, particularly for swine feed. Neighboring countries affected by ASF started importing an increased number of live swine from Thailand.

**1.2.2 Food Use:** Soybeans are increasingly used in beverage and processed food production, especially for soymilk and soy sauces. Demand for food-quality soybeans in beverage and processed food accounts for around 8 percent of total soybean consumption. Soymilk reportedly accounts for around 40 percent of the total UHT milk market, up from around 15 percent over the past two decades, following the healthy drink trend. Industrial sources expect soymilk per capita consumption to be 12 liters, compared to 18 liters for cow's milk, which is far below the global average of 113 liters. MY2021/22 food-quality soybean demand for beverage and processed food production is forecast to continue trending upward, totaling around 275,000 metric tons. Meanwhile, demand for food-quality soybean in beverage and processed food production in MY2019/20 and MY2020/21 is expected to grow around 2 percent driven by strong soy sauce exports.

**1.2.3 Feed Use:** Soybeans can be processed through cooking or roasting to make full fat soybeans. Full fat soybeans are increasingly used in feed rations, especially when the costs of full fat soybeans are less expensive than the combined costs of soybean meal and oil ingredients. In MY2021/22 full fat soybean demand is forecast to increase by 5 percent in line with growing livestock production and exports following domestic and global economic recoveries in 2022.

MY2020/21 full fat soybean demand is expected to slow down as swine production is expected to grow at a slower pace in 2021 due to more stringent import measures on live swine in neighboring countries to control the ASF outbreak.

MY2019/20 full fat soybean consumption increased significantly due to a 10 percent increase in swine production following strong exports of live swine to neighboring countries. Full fat soybean demand accounted for approximately 25 percent of total soybean imports between MY2017/18 and MY2019/20.

### **1.3 Soybean Trade and Policy**

Thailand relies heavily on imported soybeans to meet domestic demand for vegetable oil, food, and animal feed as domestic soybean production is marginal. According to Thailand's commitment with

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<sup>2</sup> Ibid.

World Trade Organization (WTO), soybean imports are subject to a Tariff-Rate Quota of 10,922 metric tons with a 20 percent in-quota tariff and an 80 percent out-of-quota tariff. However, the government always allows unlimited duty-free imports of soybeans every year from WTO member countries due to insufficient domestic production. The government approved unlimited imports of duty-free soybeans between 2020 and 2022 on January 4, 2020. However, the government allowed only 16 food processing companies and importers who are members of eight trade associations to import.<sup>3</sup>

MY2021/22 soybean imports are forecast to increase to 4.1 million metric tons. This is a 5 percent increase from MY2020/21 due to growing demand for soybeans in the food and feed industries as the economy recovers.

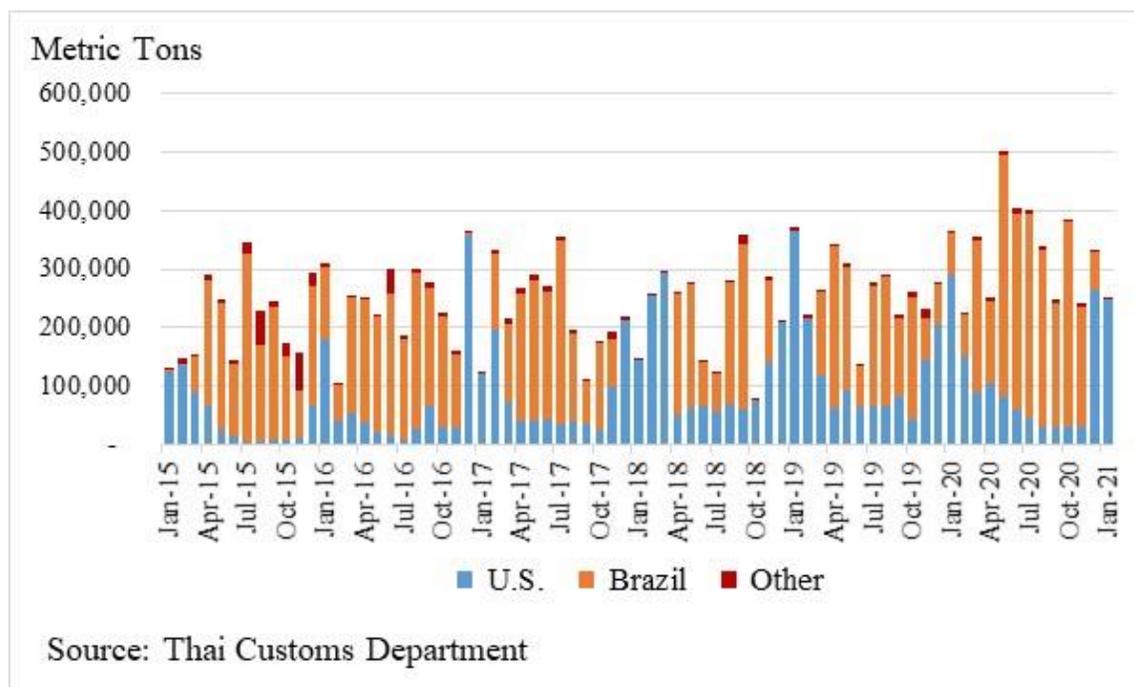
Soybean imports totaled 1.5 million metric tons in the first five month of MY2020/21, up 7 percent from the same period the previous year. Soybean import growth decelerated from the previous year as demand for full fat soybeans and soybean meal diminished due to a slowdown in live swine exports to neighboring countries. MY2020/21 soybean imports are expected to slow down due to diminishing swine production and a slow economic recovery in 2021. Swine production in 2021, which accounts for 35 percent of total feed demand, is expected to grow at a slower pace than the 10 percent increase seen in 2020. Live swine exports to neighboring countries have diminished as they impose strict import controls to stop the outbreak of African Swine Fever (ASF). Poultry production, which account for 55 percent of total feed demand, is also expected to increase slightly after a 2-3 percent reduction in 2020.

MY2019/20 soybean imports increased by 21 percent from MY2018/19, totaling around 3.8 million metric tons, despite the COVID-19 outbreak that adversely affect the domestic economy in 2020. The increase in imports was driven by strong demand for soybean cooking oil and demand for soybean meal and full fat soybeans in swine feed rations (Figure 1.1.3.1). Rising live swine exports to neighboring countries where swine farming was affected by the ASF outbreak drove the increase in swine feed demand in 2020. The increased live swine exports more than offset the reduced poultry feed demand that declined 1-2 percent in 2020. The reduced number of foreign tourists caused domestic meat consumption to shrink. The reduced customer volume severely hurt the hotel and restaurant business, which accounts for 6 percent of GDP. The reduced tourist numbers, together with lockdown measures, caused the Thai economic to contract by 6.1 percent in 2020.

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<sup>3</sup> The eight permitted trade associations are the Soybean Oil and Rice Bran Oil Association, the Thai Feed Mill Association, the Feedstuff Users Promotion Association, the Thai Livestock Association, the Association of Agricultural Trade with Neighboring Countries, the Association of Agricultural Trade and Processing Industries, Food Processors Association, and Thai Beverage Association.

**Figure 1.1.3.1: Thailand's Imports of Soybeans**



U.S. market share of Thailand's soybean imports fluctuates depending on the availability of supply from Brazil and Argentina, and the difference in relative prices. Competitive prices are important for U.S. market opportunities in Thailand as Thai soybean oil processors believe that soybeans from Brazil and Argentina have relatively higher protein levels than those from the United States. The industrial sources report that importers are willing to place orders for U.S. soybeans if U.S. prices are at least U.S. \$10.0 per metric ton lower than Brazilian soybeans. In 2020, average prices of Brazilian soybeans were 7 percent cheaper than U.S. soybeans. In MY2020/21, the U.S. soybean market share is expected to further decline to 30 percent of total soybean imports, down from 35 percent in MY2019/20. The U.S. soybean market share was 49 percent in MY2018/19 and 55 percent in MY2017/18. The sharp increase in Chinese demand for U.S. soybeans after the resolution of the U.S.-China trade war should cause U.S. soybean prices to be less competitive than Brazilian soybeans in MY2020/21. In addition, beside the shortage of container shipping, several container shipments of U.S. soybeans mainly for feed use (production of full fat soybean) were contaminated with insects in 2019 causing many small-to-medium feed mills to suspend buying U.S. soybeans in 2020 and 2021. Also, feed mills are concerned about the relatively lower protein content of imported soybeans from the United States than Brazil. The Department of Livestock Development requires full fat soybeans to have a minimum protein content of 35 percent. The production of full fat soybeans accounted for around 24 percent of total soybean imports. U.S. soybeans dominated the food-quality soybean market in Thailand as food processors prefer certified food-quality soybeans from sustainable planting. However, the U.S. market share of food-quality soybeans declined to around half of total food-quality soybean imports due to competition from Canadian soybeans.

## Section 2: Oil Meals

### 2.1 Soybean Meal

#### 2.1.1 Production

**Table 2.1.1.1: Thailand's Soybean Meal Production, Supply and Demand**

Meal, Soybean Market Year Begins Thailand	2019/2020		2020/2021		2021/2022	
	Sep 2019		Sep 2020		Sep 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush (1000 MT)	2610	2500	2700	2800	0	2900
Extr. Rate, 999.9999 (PERCENT)	0.7797	0.778	0.78	0.7786	0	0.7793
Beginning Stocks (1000 MT)	96	96	98	148	0	178
Production (1000 MT)	2035	1945	2106	2180	0	2260
MY Imports (1000 MT)	2854	2854	2800	2700	0	2750
MY Imp. from U.S. (1000 MT)	1	1	100	1	0	0
MY Imp. from EU (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	4985	4895	5004	5028	0	5188
MY Exports (1000 MT)	47	47	50	50	0	50
MY Exp. to EU (1000 MT)	0	0	0	0	0	0
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	4840	4700	4866	4800	0	4950
Total Dom. Cons. (1000 MT)	4840	4700	4866	4800	0	4950
Ending Stocks (1000 MT)	98	148	88	178	0	188
Total Distribution (1000 MT)	4985	4895	5004	5028	0	5188
(1000 MT), (PERCENT)						

Soybean meal production is the byproduct from cooking oil extraction using mostly imported soybeans due to limited supplies of domestic soybean production. Locally produced soybean meal is reportedly more premium than imported soybean meal due to greater freshness with higher quality standards. Feed mills normally pay 1-2 percent higher for local soybean meal. Available supplies of soybean meal are forecast to increase around 4 percent in MY2021/22 due to increased cooking oil production following a gradual economic recovery in 2021 and 2022.

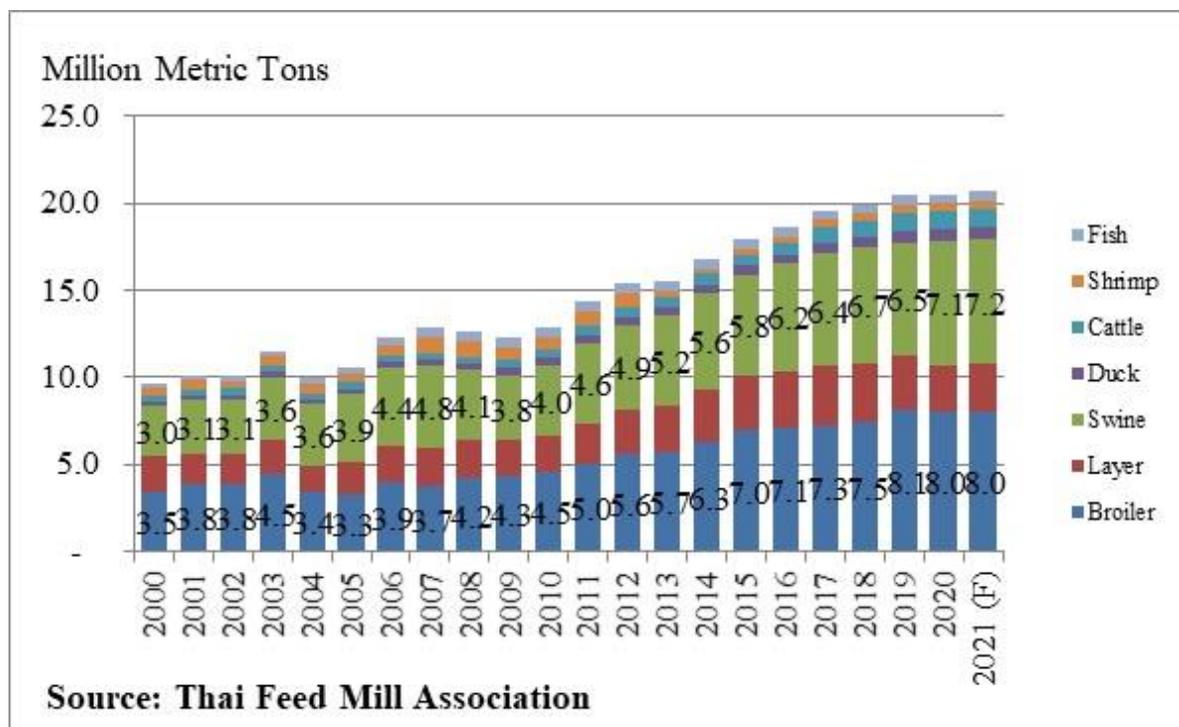
MY2020/21 soybean meal production is expected to grow by 12 percent as crushers continue to increase soybean oil production driven by the shortage of palm cooking oil supplies. In the first five months of MY2020/21, soybean oil production increased 19 percent from the same period last year. However, soybean oil production growth is expected to slow down for the rest of the year due to a gradual recovery in palm oil production.

#### 2.1.2 Consumption

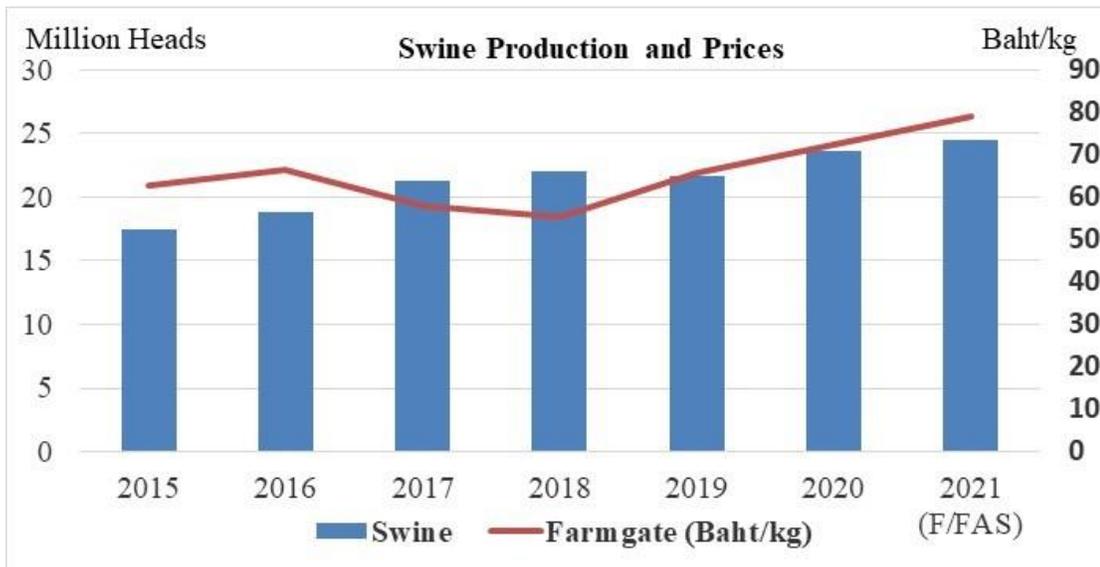
Soybean meal is mainly used for livestock feed with a small portion being used for soybean sauce and curd production. MY2021/22 soybean meal consumption is forecast to increase around 3 percent from MY2020/21 due mainly to a growing swine and poultry production. Demand for soybean meal in poultry feed accounts for 65 percent of total soybean meal demand in feed rations, followed by 30 percent in swine feed.

MY2020/21 soybean meal consumption growth is expected to decelerate, increasing around 2 percent from MY2019/20 due mainly to diminishing swine feed demand following a slowdown in swine production. Soybean meal accounts for around 30 percent of both swine and poultry feed rations. In 2021, the Thai Feed Mill Association expects total feed demand to increase to 21 million metric tons, up around one percent from 2020. The demand growth is far below the average annual demand growth of 5 percent over the past five years preceding the COVID-19 outbreak in 2020 (Figure 2.1.2.1). Swine production, which accounts for 35 percent of total feed demand, is expected to grow at a slower pace than the 10 percent increase in 2020 (Figure 2.1.2.2). Thai exports of live swine to neighboring countries have slowed as Thailand’s neighbors have implemented more stringent import restriction of live swine to control the ASF outbreak. Poultry production, which accounts for 55 percent of total feed demand, is expected to increase slightly after a 2-3 percent reduction in 2020 due to reduced domestic demand caused by the COVID-19 outbreak (Figure 2.1.2.3 and 2.1.2.4). Shrimp and fish production, which account for 5 percent of total feed demand, is expected to increase 10 percent and 3 percent, respectively, in 2021 (Figure 2.1.2.5).

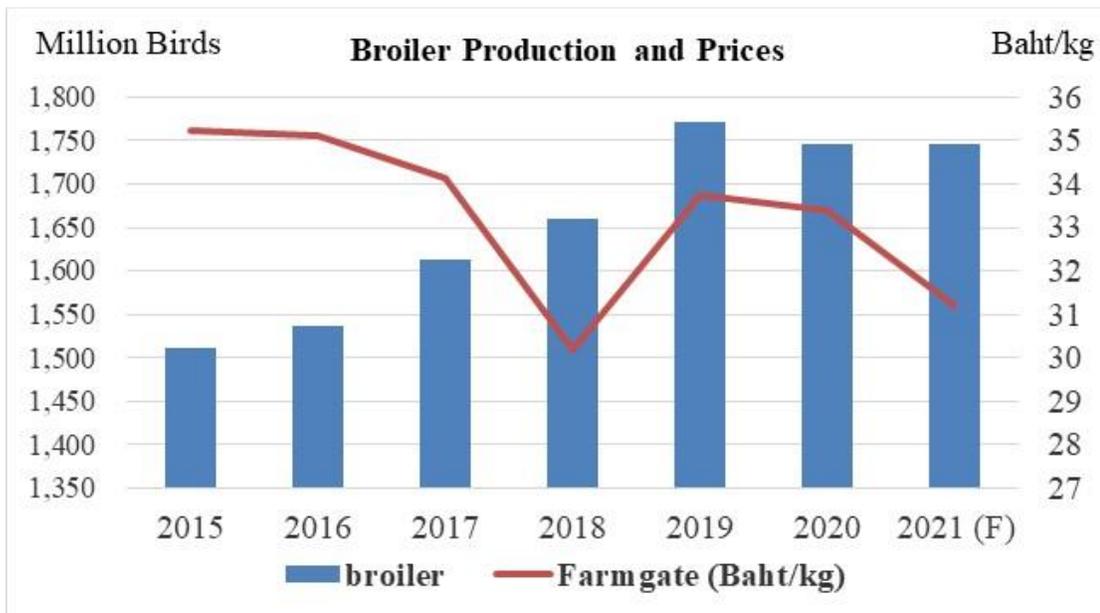
**Figure 2.1.2.1: Feed Demand in Thailand**



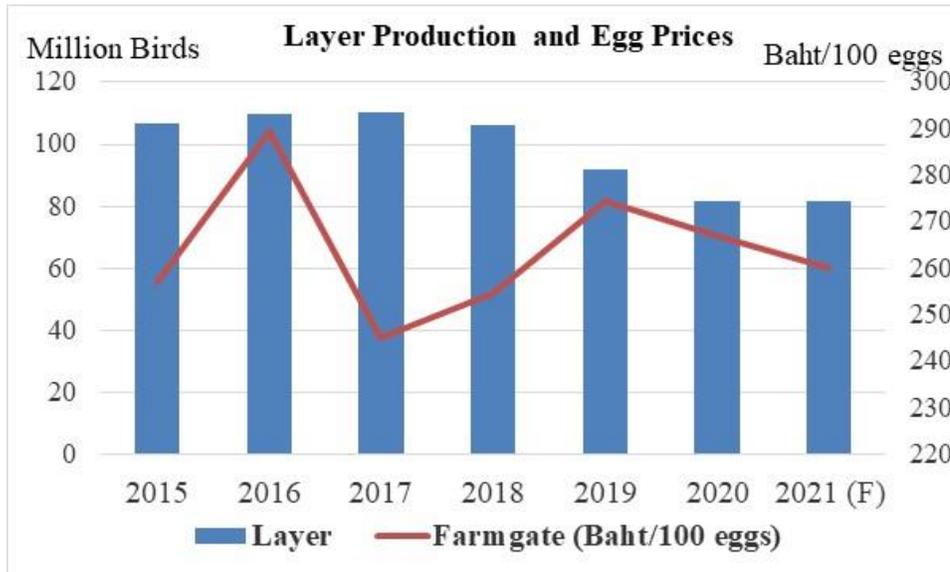
**Figure 2.1.2.2: Swine Production in Thailand**



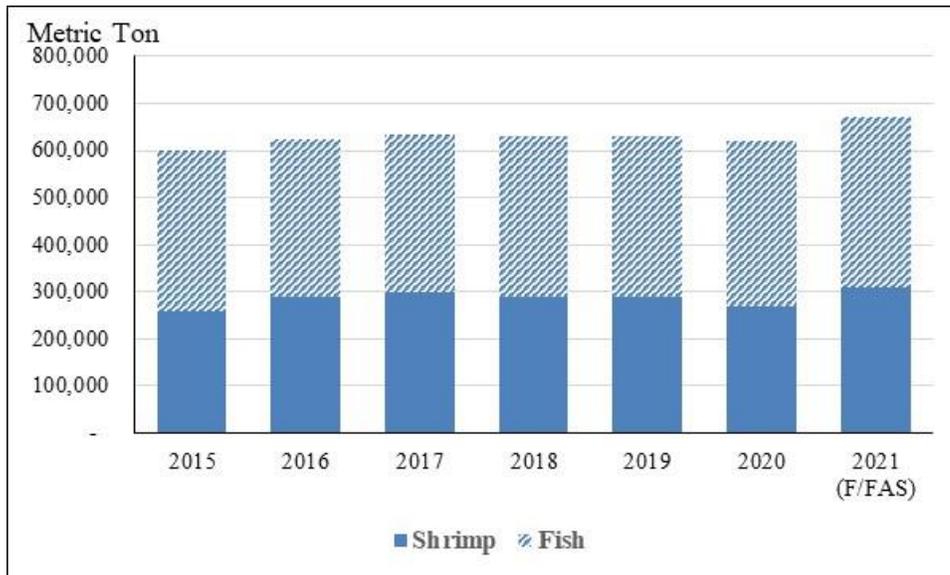
**Figure 2.1.2.3: Broiler Production in Thailand**



**Figure 2.1.2.4: Layer Production in Thailand**



**Figure 2.1.2.5: Aquaculture Production in Thailand**



Feed mills also rely on imported alternative feed ingredients depending on the availability of locally produced corn and duty-free imported corn from neighboring countries. The increased import demand for alternative feed ingredient, especially for feed wheat, DDGS, and barley, due to limited domestically produced corn and duty-free imported corn in 2021 and 2022 is expected to undermine the demand for soybean meal. Soybean meal and alternative feed ingredients are substitutable to a certain degree depending on the digestibility, which is different by livestock. However, soybean remains an essential protein sources for livestock in Thailand (Table 2.1.2.1)

**Table 2.1.2.1: Thailand's Protein Meal Use (Soy Meal Equivalent)**

Unit: Thousand Metric Tons

	MY2018/19	MY2019/20	MY2020/21 (Estimate)	MY2021/22 (Forecast)
Soybean	4,350	4,700	4,800	4,950
Sunflower Seed	70	60	63	70
Rape Seed	266	250	255	265
Copra	-	-	-	-
Cotton Seed	-	-	-	-
Palm Kernel	197	225	230	240
Peanut				
Fish	409	375	385	395
Corn Gluten Meal	-	-	-	-
DDGS	390	420	435	470
<b>Total</b>	<b>5,682</b>	<b>6,030</b>	<b>6,167</b>	<b>6,390</b>
% Change	0.7	6.1	2.3	3.6

### 2.1.3 Trade and Policy

Imported soybean meal is mostly used for feed. In MY2021/22, soybean meal imports are forecast to increase to 2.8 million metric tons. This is a 2 percent increase from MY2020/21 due to growing swine and poultry production.

MY2020/21 soybean meal imports are expected to further decline 5 percent due to increased domestic supplies. In the first half of MY2020/21, soybean meal imports totaled 1.2 million metric tons, down 14 percent from the same period last year. Increased domestic production of cooking oil created larger supplies of domestically produced soybean meal.

MY2019/20 soybean meal imports totaled 2.8 million metric tons, down one percent from MY2018/19 due to increased supplies of soybean meal following a 25 percent increase in soybean oil production in MY2019/20. Thailand's major soybean meal suppliers are Brazil, Argentina, India, and the United States, accounting for 81 percent of total soybean meal imports in MY2019/20.

Soybean meal imports are subject to a 230,559 metric ton TRQ with a 20 percent in-quota tariff and a 119 percent out-of-quota tariff rate, according to Thailand's WTO commitments. However, the government lowered the in-quota tariff rate to 2 percent with unlimited imports since 2009 to help reduce production costs for the livestock industry. On October 6, 2020, the Cabinet continued to allow unlimited in-quota imports of soybean meal for three years (2021 – 2023). The in-quota tariff rate remains unchanged at 2 percent. The Thai government still limits import permits to 11 trade associations.<sup>4</sup> The Ministry of Commerce's Department of Internal Trade continues to require eligible soybean meal importers to purchase locally produced soybean meal at prices not below 14.58 baht per kilogram (U.S. \$470/MT) in 2021, the same level as in 2020.

<sup>4</sup> The 11 permitted trade associations include (1) Thai Livestock Association, (2) Thai Broiler Processing Exporters Association, (3) Thai Feed Mill Association, (4) Association of Broiler Raisers for Export, (5) Association of Duck Raisers for Trade and Export, (6) National Swine Raisers Association, (7) Poultry Promotion Association of Thailand, (8) Feedstuff Users Promotion Association, (9) Agricultural Produce Traders Association, (10) Association of Agricultural Trade and Processing Industries, and (11) Thai Federation of Dairy Cooperatives of Thailand.

On October 20, 2020, the Cabinet agreed to maintain the importation of soybean meal for food processing under the quota allocation basis with a 10 percent in-quota tariff rate. That is the same rate that was set in March 2018 when the Cabinet first approved to allow the importation of soybean meal for food processing. The out-of-quota tariff rate is 133 percent. This policy intends to provide Thai processors of soybean sauce and curd with sufficient raw material supplies when domestic availability is low. The maximum quota of soybean meal for food processing is set at 230,559 metric tons per annum for three years (2021 – 2023). On January 19, 2021, the Ministry of Commerce’s Department of Foreign Trade announced the import quota allocation of 6,749 metric tons of soybean meal to three food processors in 2021.

The Cabinet lifted a long-standing export ban on soybean meal since April 2016. On December 17, 2020, the Ministry of Commerce’s Department of Foreign Trade allocated an export quota of 309,250 metric tons of soybean meal in 2021 to four soybean oil crushers in the following amounts: (1) 191,725 metric tons for Thai Vegetable Oil Public Company Limited; (2) 101,620 metric tons for Thanakorn Vegetable Oil Products Co., Ltd.; (3) 10,048 metric tons for Sime Darby Oils Morakot Public Company Limited; and (4) 5,857 metric tons for PAS Produce Export and Silo Co., Ltd.

## 2.2 Fish Meal

### 2.2.1 Production

**Table 2.2.1.1 Thailand’s Fish Meal Production, Supply and Demand**

Meal, Fish Market Year Begins Thailand	2019/2020		2020/2021		2021/2022	
	Jan 2020		Jan 2021		Jan 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Catch For Reduction (1000 MT)	1100	1180	1100	1200	0	1250
Extr. Rate, 999.9999 (PERCENT)	0.3045	0.3051	0.3091	0.3042	0	0.3
Beginning Stocks (1000 MT)	8	8	8	9	0	9
Production (1000 MT)	335	360	340	365	0	375
MY Imports (1000 MT)	50	53	55	50	0	48
MY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
MY Imp. from EU (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	393	421	403	424	0	432
MY Exports (1000 MT)	100	152	105	150	0	148
MY Exp. to EU (1000 MT)	0	0	0	0	0	0
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	285	260	290	265	0	273
Total Dom. Cons. (1000 MT)	285	260	290	265	0	273
Ending Stocks (1000 MT)	8	9	8	9	0	11
Total Distribution (1000 MT)	393	421	403	424	0	432

(1000 MT), (PERCENT)

The production of fish meal depends on Surimi and canned tuna production waste and bycatch. The production from Surimi and canned tuna production waste accounts for around two-thirds of total fish meal production. The remainders are from bycatch products. In 2021 and 2022, fish meal production is forecast to increase 1-3 percent annually, in anticipation of the increased Surimi and canned tuna production waste in line with growing caned fish production.

Fish meal production increased 3 percent from 2019 despite the COVID-19 outbreak in 2020, mainly due to the growing production waste from Surimi and canned tuna production. Surimi and canned tuna production increased 11 percent from 2019 driven by strong domestic and export demand for canned fish products. The fish meal from canned fish production waste more than offset the reduced fish meal production from bycatch products following depleted fish supplies in both the Gulf of Thailand and the Andaman Sea.

### **2.2.2 Consumption**

In 2021 and 2022, domestic demand for fishmeal is expected to increase 2 and 3 percent, respectively, due to growing poultry and aquaculture production. Poultry and aquaculture production are forecast to increase as the domestic and global economies recover following the prolonged outbreak of COVID-19.

In 2020, domestic demand for fishmeal declined around 8 percent due to reduced poultry and shrimp production, which account for around 50 percent and 10 percent of total fish meal demand, respectively. The reduced fish meal demand in poultry and shrimp feed, which declined by 3 percent and 10 percent, respectively, more than offset the increased fish meal demand in swine and fish feed.

### **2.2.3 Trade and Policy**

Thailand exports low-protein fish meal and imports high-protein fish meal. In 2021 and 2022, fish meal exports are expected to decline 1 percent annually due to a gradual recovery in poultry and aquaculture production. In 2020, Thailand's fish meal exports totaled 152,147 metric tons, up 41 percent from 2019. Fish meal exports increased due to larger exportable supplies from reduced fish meal demand in domestic poultry and shrimp production.

Fish meal imports are forecast to decline 6 percent in 2021, and further decline by 4 percent in 2022 in anticipation of larger supplies of locally produced fish meal. Imports of fish meal totaled 52,979 metric tons, up 5 percent from 2019. The imports of fish meal were mainly from Myanmar, Vietnam, and India, accounting for approximately 80 percent of total fish meal imports.

Imports of high-protein fish meal (more than 60 percent protein content) are not subject to import permit requirements or quantity limitations. Meanwhile, imports of low-protein fishmeal (below 60 percent) are subject to import permit requirements. In both cases, the applied import duties are 15 percent. Fish meal imports under the ASEAN Free Trade Area (AFTA), Thai-Australian FTA, Thai-New Zealand FTA, ASEAN-China FTA, and ASEAN-Australia-New Zealand FTA, and Japan-Thailand Economic Partnership Agreement are duty free.

## Section 3: Vegetable Oils

### 3.1: Soybean Oil

#### 3.1.1: Production

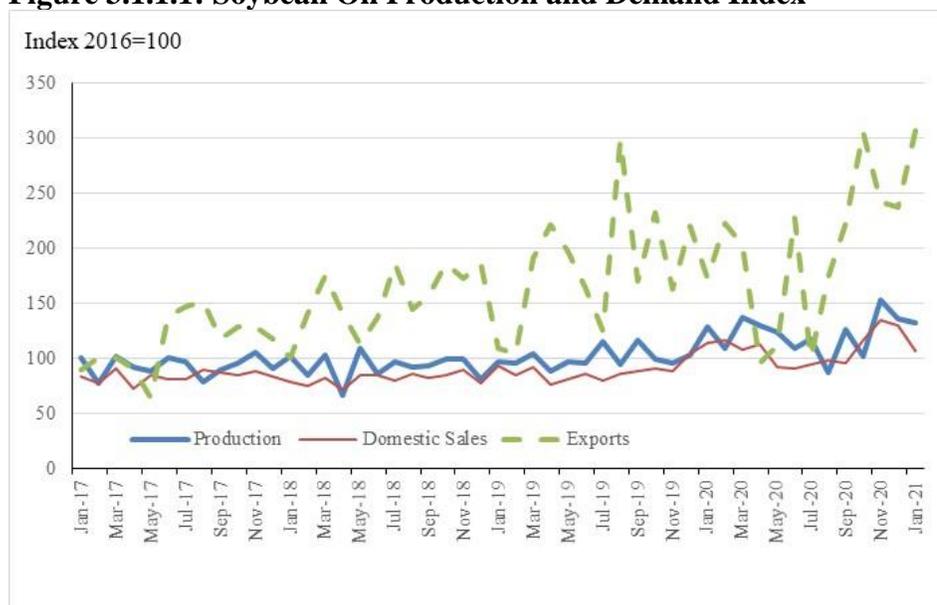
**Table 3.1.1.1: Thailand's Soybean Oil Production, Supply and Demand**

Oil, Soybean Market Year Begins	2019/2020		2020/2021		2021/2022	
	Sep 2019		Sep 2020		Sep 2021	
Thailand	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush (1000 MT)	2610	2500	2700	2800	0	2900
Extr. Rate, 999.9999 (PERCENT)	0.1793	0.18	0.18	0.1786	0	0.1793
Beginning Stocks (1000 MT)	38	38	51	73	0	67
Production (1000 MT)	468	450	486	500	0	520
MY Imports (1000 MT)	3	3	1	1	0	2
MY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
MY Imp. from EU (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	509	491	538	574	0	589
MY Exports (1000 MT)	103	103	90	150	0	155
MY Exp. to EU (1000 MT)	0	0	0	0	0	0
Industrial Dom. Cons. (1000 MT)	55	55	55	57	0	60
Food Use Dom. Cons. (1000 MT)	300	260	345	300	0	315
Feed Waste Dom. Cons. (1000 MT)	0	0	0	0	0	0
Total Dom. Cons. (1000 MT)	355	315	400	357	0	375
Ending Stocks (1000 MT)	51	73	48	67	0	59
Total Distribution (1000 MT)	509	491	538	574	0	589
(1000 MT), (PERCENT)						

MY2021/22 soybean oil production is forecast to increase 4 percent from MY2020/21 due to growing demand for cooking oil and increasing use of soybean meal in feed. Poultry and swine production is expected to increase as the domestic economy recovers.

In the first five month of MY2020/21, soybean oil production increased 19 percent due to strong exports and domestic demand for soybean cooking oil driven by the shortage of palm oil supplies (Figure 3.1.1.1), according to the Ministry of Industry's industrial economic survey. MY2020/21 soybean oil production is expected to increase at a slower pace by 11 percent from MY2019/20. The growth of soybean oil production will likely decelerate during the rest of MY2020/21 due to larger supplies of relatively cheaper palm oil following better weather condition for oil palm plantation in MY2020/21.

**Figure 3.1.1.1: Soybean Oil Production and Demand Index**



In MY2019/20, soybean oil production increased around 25 percent from MY2018/19, despite the COVID-19 outbreak. This was driven by strong domestic soybean cooking oil consumption, which increased 24 percent in 2020 due to tight supplies of palm cooking oil. The government also had a measure to increase the blend rate in biodiesel in the beginning of 2020, which led to a 6 percent reduction in palm cooking oil production in 2020. Additionally, exports of soybean oil in MY2019/20 increased 22 percent from MY2018/19. Demand for soybean meal in feed rations increased significantly, particularly for swine feed.

### 3.1.2 Consumption

MY2021/22 soybean oil consumption is forecast to increase by 4 percent from MY2020/21. The increase in consumption is in line with an anticipated economic recovery in 2022.

In the first five months of MY2020/21, soybean cooking oil consumption increased 20 percent from the same period last year driven by a shortage of palm cooking oil. However, soybean cooking oil consumption growth will likely diminish during the rest of MY2020/21 as shortages of relatively cheaper palm cooking oil ease. MY2020/21 soybean cooking oil consumption is expected to grow at a slower pace at 10 percent, compared to an 18 percent increase in MY2019/20 following tight supplies of palm oil in 2020.

### 3.1.3 Trade and Policy

MY2020/21 and MY2021/22 soybean oil exports are forecast to slow down from the approximately 20 percent increase in soybean oil exports seen during MY2018/19 and MY2019/20. The slowdown in exports is mainly due to a recovery in supplies of palm cooking oil in neighboring countries, particularly Malaysia. Soybean oil exports to Malaysia increased significantly in MY2019/20 and continued to increase by 64 percent in the first half of MY2020/21. Exports of soybean oil to Vietnam, which is Thailand's largest market for soybean oil, increased 15-16 percent during MY2018/19 and MY2019/20.

In the first half of MY2020/21, soybean oil exports to Vietnam, however, dropped by 2 percent from the same period in MY2019/20.

Soybean oil imports are marginal as the imports of both crude and refined oil are subject to a tariff-rate-quota under Thailand's commitment with WTO. In addition, non-transparent import permit administration discourages imports, totaling less than 1,000 metric tons annually. The import quota for soybean is limited to 2,281 metric tons with a 20 percent in-quota tariff rate and a 146 percent out-of-quota tariff rate.

## 3.2 Palm Oil

### 3.2.1 Production

#### 3.2.1.1 Thailand's Palm Oil Production, Supply and Demand

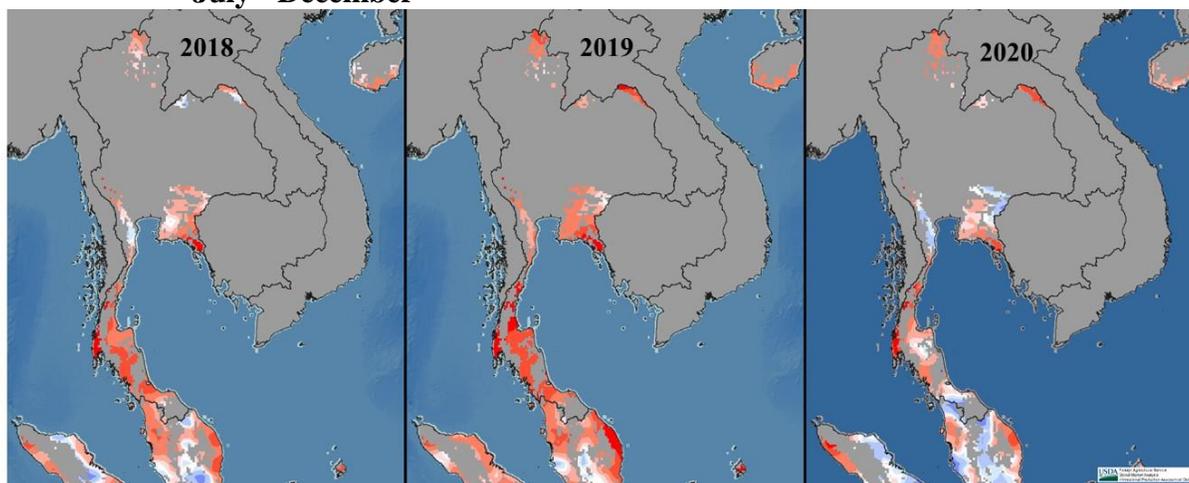
Oil, Palm Market Year Begins Thailand	2019/2020		2020/2021		2021/2022	
	Jan 2020		Jan 2021		Jan 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	0	0	0	0	0	0
Area Harvested (1000 HA)	810	940	820	975	0	1000
Trees (1000 TREES)	0	0	0	0	0	0
Beginning Stocks (1000 MT)	464	464	398	368	0	355
Production (1000 MT)	2800	2650	3100	2845	0	3120
MY Imports (1000 MT)	3	3	2	2	0	2
MY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
MY Imp. from EU (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	3267	3117	3500	3215	0	3477
MY Exports (1000 MT)	219	219	325	250	0	350
MY Exp. to EU (1000 MT)	0	0	0	0	0	0
Industrial Dom. Cons. (1000 MT)	1360	1710	1410	1745	0	1790
Food Use Dom. Cons. (1000 MT)	1250	810	1300	850	0	920
Feed Waste Dom. Cons. (1000 MT)	40	10	40	15	0	30
Total Dom. Cons. (1000 MT)	2650	2530	2750	2610	0	2740
Ending Stocks (1000 MT)	398	368	425	355	0	387
Total Distribution (1000 MT)	3267	3117	3500	3215	0	3477
CY Imports (1000 MT)	3	3	2	2	0	2
CY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
CY Exports (1000 MT)	230	219	325	250	0	350
CY Exp. to U.S. (1000 MT)	0	0	0	0	0	0
Yield (MT/HA)	3.4568	2.8191	3.7805	2.9179	0	3.12

(1000 HA), (1000 TREES), (1000 MT), (MT/HA)

In MY2021/22, palm oil production is forecast to recover to 3.1 million metric tons, up 10 percent from MY2020/21. The recovery is due to increased harvesting areas after farmers shifted from rubber plantation to oil palm in 2018. The Thai Meteorological Department (TMD) also expects average precipitation to be 10-20 percent above normal in 2021, particularly in the beginning of the rainy season. Average yield of fresh fruit bunches (FFB) and oil extraction rate is expected to increase slightly following increased uses of fertilizer due to attractive returns. Farm-gate prices of FFB were 5.51 baht per kilogram (U.S. \$177/MT), up 28 percent from the same period last year.

In MY2020/21, palm oil production is expected to increase to 2.8 million metric tons, up 7 percent from MY2019/20. Whereas MY2019/20 palm oil production decreased 12 percent due to drought. The increased palm oil production in MY2020/21 is mainly attributed to acreage expansion. Additionally, the TMD reported that precipitation in 2020 was 14 higher than the previous year's levels but remained 4 percent below normal (Figure 3.2.1.1).

**Figure 3.2.1.1: Precipitation Anomaly in Oil Palm Planting Area during July - December**



Source: USDA-FAS, Global Agricultural & Disaster Assessment System

### 3.2.2 Consumption

Palm oil is used for food processing, which mainly includes cooking oil, margarine, and non-dairy creamer, as well as biodiesel production, consumer products like soap, cosmetics, and medical products. Palm oil consumption is forecast to continue to increase around 5 percent in 2022 following an economic recovery from the prolonged outbreak of COVID-19.

In 2021, palm oil consumption is expected to increase around 3 percent in line with the anticipated gradual economic recovery. More than half of palm oil consumption will be used for biodiesel production, which is expected to increase slightly as the transportation sector is unlikely to recover while the arrival of foreign tourists is still limited. Palm oil demand in food processing and consumer product industry is expected to increase 5 percent from 2020, mainly for cooking oil production, which accounts for around 30 percent of total palm oil demand.

In 2020, palm oil consumption declined approximately 10 percent from 2019, especially in food processing production, including cooking oil, due to the shortage of palm oil supplies and shrinking domestic consumption due to the COVID-19 outbreak. Additionally, palm oil supplies were increasingly used for biodiesel production following the government's policy to increase the mandatory blending rate of biodiesel in diesel fuel from B7 to B10,<sup>5</sup> which took effect on October 1, 2020. Despite reduced diesel fuel consumption by 3 percent in 2020, demand for palm oil in biodiesel production in

<sup>5</sup> B7 and B10 refers to respectively 7 percent and 10 percent blend by volume of biodiesel in diesel fuel.

2020 increased to 1,363,651 metric ton, up 2 percent from 2019. The palm oil demand for biodiesel production accounted for 54 percent of total palm oil consumption in 2020, up from 48 percent in 2019.

### **3.2.3 Trade**

Thailand's imports of palm oil are marginal as the government protects domestic palm oil producers by allowing only the state-owned Public Warehouse Organization to bring in imports. Nearly all of the imports are refined, bleached, and deodorized crude palm oil (RBD).

In 2022, palm oil exports are forecast to recover to around 350,000 metric tons. In 2020, exports of palm oil totaled 219,484 metric tons, down 18 percent from 2019 due to reduced exportable supplies following increased domestic demand for palm oil in biodiesel production.

### **3.2.4 Stocks**

Despite increased palm oil production in MY2020/21 and MY2021/22, palm oil stocks are forecast to remain low at less than two months of uses. The reason for low stocks is due to an increase in domestic consumption, particularly in food processing and industrial uses, including biodiesel, driven by an economic recovery after the prolonged outbreak of COVID-19. In 2020, palm oil stocks declined 29 percent from 2019 due to tight domestic supplies caused by drought.

### **3.2.5 Policy**

On February 16, 2021, the Cabinet approved a budget of 8.8 billion baht (U.S. \$283 million) for the price guarantee program to cover palm oil production between January and September 2021. The guarantee prices remain unchanged from the previous year's program at 4 baht per kilogram (U.S. \$127/MT) with a maximum acreage of 25 rai per household. The guarantee price is calculated from the production cost of 2,800 baht per metric ton (U.S. \$90/MT), and transportation cost of 250 baht per metric ton (U.S. \$/MT) with a profit margin of 932 baht per metric ton (U.S. \$30/MT). Farmers eligible for the program will receive a compensation under this program when the market prices are lower than the guarantee price.

The government maintains the mandatory B10 biodiesel blending rate in diesel fuel; the mandatory biodiesel blending rate increased from B7 to B10 in October 2020. Gas stations still have the option to sell B7 and B20. The government, however, is only maintaining the price subsidy incentive for B10, while lowering the price subsidy incentives for B7 and B20.

## Appendix Tables

**Table 1: Thailand's Palm Kernel Oil Production, Supply and Demand**

Oil, Palm Kernel Market Year Begins	2019/2020		2020/2021		2021/2022	
	Jan 2020		Jan 2021		Jan 2022	
Thailand	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush (1000 MT)	900	750	910	790	0	855
Extr. Rate, 999.9999 (PERCENT)	0.4556	0.46	0.456	0.462	0	0.4561
Beginning Stocks (1000 MT)	61	61	71	51	0	41
Production (1000 MT)	410	345	415	365	0	390
MY Imports (1000 MT)	31	31	25	25	0	23
MY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
MY Imp. from EU (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	502	437	511	441	0	454
MY Exports (1000 MT)	66	66	70	70	0	75
MY Exp. to EU (1000 MT)	0	0	0	0	0	0
Industrial Dom. Cons. (1000 MT)	285	230	285	235	0	245
Food Use Dom. Cons. (1000 MT)	80	90	85	95	0	98
Feed Waste Dom. Cons. (1000 MT)	0	0	0	0	0	0
Total Dom. Cons. (1000 MT)	365	320	370	330	0	343
Ending Stocks (1000 MT)	71	51	71	41	0	36
Total Distribution (1000 MT)	502	437	511	441	0	454
(1000 MT), (PERCENT)						

**Table 2: Thailand's Palm Kernel Meal Production, Supply and Demand**

Meal, Palm Kernel Market Year Begins	2019/2020		2020/2021		2021/2022	
	Jan 2020		Jan 2021		Jan 2022	
Thailand	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush (1000 MT)	900	750	910	790	0	855
Extr. Rate, 999.9999 (PERCENT)	0.4889	0.4867	0.489	0.4873	0	0.4912
Beginning Stocks (1000 MT)	0	0	0	0	0	0
Production (1000 MT)	440	365	445	385	0	420
MY Imports (1000 MT)	267	267	220	260	0	250
MY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
MY Imp. from EU (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	707	632	665	645	0	670
MY Exports (1000 MT)	5	5	5	5	0	5
MY Exp. to EU (1000 MT)	0	0	0	0	0	0
Industrial Dom. Cons. (1000 MT)	0	0	0	0	0	0
Food Use Dom. Cons. (1000 MT)	0	0	0	0	0	0
Feed Waste Dom. Cons. (1000 MT)	702	627	660	640	0	665
Total Dom. Cons. (1000 MT)	702	627	660	640	0	665
Ending Stocks (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	707	632	665	645	0	670
(1000 MT), (PERCENT)						

End of report.

**Attachments:**

No Attachments