

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

THIS REPORT CONTAINS ASSESSMENTS OF COMMODITY AND TRADE ISSUES MADE BY  
USDA STAFF AND NOT NECESSARILY STATEMENTS OF OFFICIAL U.S. GOVERNMENT  
POLICY

Required Report - public distribution

**Date:** 3/15/2018

**GAIN Report Number:** TH8042

## **Thailand**

### **Grain and Feed Annual**

**2018**

**Approved By:**

Paul Welcher, Agricultural Attaché

**Prepared By:**

Ponnarong Prasertsri, Agricultural Specialist

**Report Highlights:**

MY2018/19 rice and corn production are expected to reach record highs due to acreage expansion driven by attractive farm-gate prices. Rice consumption and exports are expected to normalize due to limited supplies of government rice stocks. Import demand for wheat is likely to remain strong in line with growing demand from the baking and food processing industries. However, feed wheat imports remain restricted.

**Executive Summary:**

MY2018/19 rice and corn production is forecast to increase by 2-3 percent from MY2017/18 as farmers expand their acreage due to attractive farm-gate prices and sufficient reservoir volumes to support irrigation. However, rice consumption is expected to decline by 4 percent due to reduced broken rice demand from swine and limited supplies of government rice stocks. Feed demand growth is decelerating in 2018 due to domestic policies that protect domestic corn farmers at the expense of domestic livestock producers. Layer and swine production is expected to decline 1-3 percent as these farmers face higher production costs. Pork producers are also challenged by strong regional competition. However, broiler production is expected to continue to grow in line with strong chicken meat exports. The anticipated increase in broiler feed demand will drive demand for imported feed wheat, but the import volume will be limited as the government continues import restrictions on feed wheat. Milling wheat imports are expected to continue to grow in line with sustained economic growth.

**Commodities:**

Corn

Rice, Milled

Wheat

**1. Rice****Table 1.1: Thailand's Rice Production, Supply, and Demand**

<b>Rice, Milled</b>	<b>2016/2017</b>		<b>2017/2018</b>		<b>2018/2019</b>	
<b>Market Begin Year</b>	<b>Jan 2017</b>		<b>Jan 2018</b>		<b>Jan 2019</b>	
<b>Thailand</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>
<b>Area Harvested</b>	10247	10247	10700	10684	0	11045
<b>Beginning Stocks</b>	8403	8403	4239	4175	0	3245
<b>Milled Production</b>	19200	19200	20400	20370	0	20975
<b>Rough Production</b>	29091	29091	30909	30864	0	31780
<b>Milling Rate (.9999)</b>	6600	6600	6600	6600	0	6600
<b>MY Imports</b>	250	200	250	200	0	200
<b>TY Imports</b>	250	200	250	200	0	200
<b>TY Imp. from U.S.</b>	0	0	0	0	0	0
<b>Total Supply</b>	27853	27803	24889	24745	0	24420
<b>MY Exports</b>	11614	11628	10200	10000	0	10000
<b>TY Exports</b>	11614	11628	10200	10000	0	10000
<b>Consumption and Residual</b>	12000	12000	11500	11500	0	11000
<b>Ending Stocks</b>	4239	4175	3189	3245	0	3420
<b>Total Distribution</b>	27853	27803	24889	24745	0	24420
<b>Yield (Rough)</b>	2.839	2.839	2.8887	2.8888	0	2.8773

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

**Table 1.2: Thailand's Rice Production by Crop**

	2016/17			2017/18			2018/19		
	Main Crop	Second Crop	Total	Main Crop	Second Crop	Total	Main Crop	Second Crop	Total
<b>Area</b> (Million Hectares)									
Cultivation	8.745	1.900	10.645	9.000	2.000	11.000	9.175	2.100	11.275
Harvest	8.373	1.874	10.247	8.711	1.973	10.684	8.975	2.070	11.045
<b>Production</b> (Million Tons)									
Rough	20.909	8.182	29.091	22.227	8.637	30.864	22.780	9.000	31.780
Rice	13.800	5.400	19.200	14.670	5.700	20.370	15.035	5.940	20.975
<b>Yield</b> (Ton/Hectare)	2.497	4.366	2.839	2.552	4.377	2.888	2.538	4.348	2.877

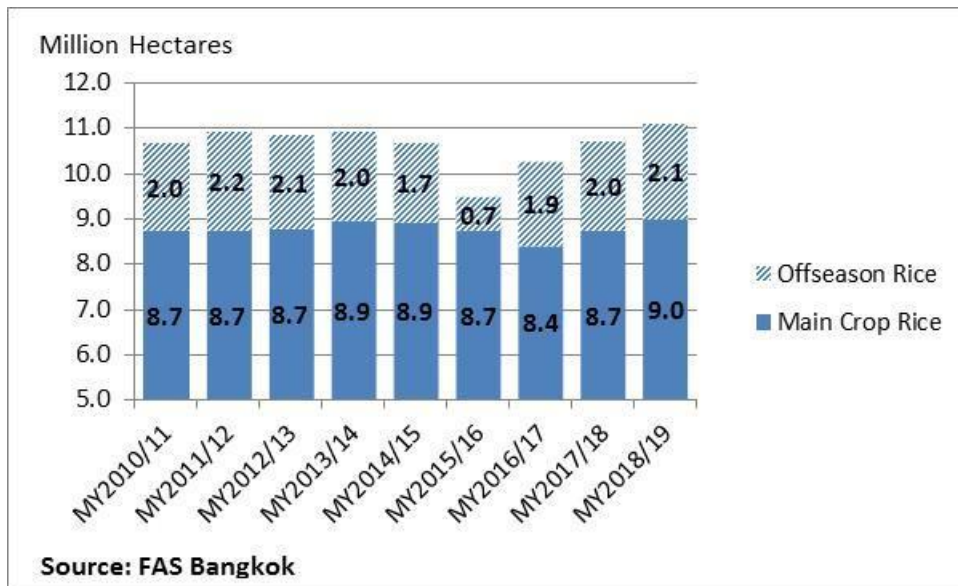
Note: 1. Main crop rice is mostly cultivated during May - August and harvested during November - December.

2. Off-season rice is mostly cultivated during November - January and harvested during March - May.

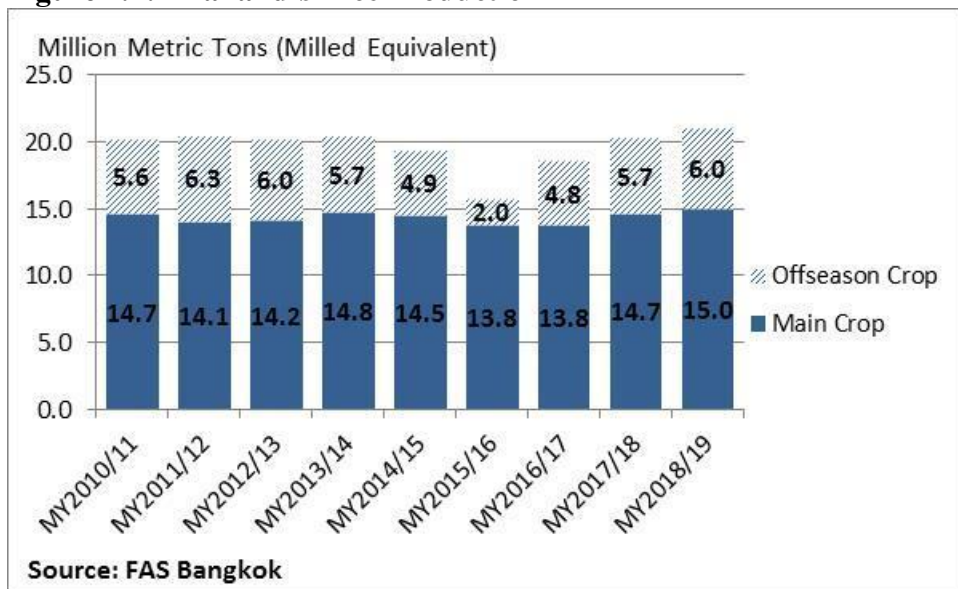
## 1.1 Production

MY2018/19 rice production is expected to increase to a record 21 million metric tons, up 3 percent from MY2017/18 in anticipation of acreage expansion in response to attractive farm-gate prices (Figure 1.1, 1.2 and 1.3). In February 2018, farm-gate prices for white and fragrant paddy rice are 7,691 baht per metric ton (MT) (U.S. \$247/MT) and 14,228 baht per metric ton (U.S. \$443/MT), up 5 percent and 53 percent respectively from the same period last year. Many farmers in the northeastern region are likely to shift from glutinous rice to fragrant rice production as farm-gate prices of glutinous rice are currently 10-15 percent lower than last year's prices. Fragrant rice production in MY2018/19 is expected to increase to approximately 6 million metric tons, up 8 percent from MY2017/18. Meanwhile, glutinous rice production is expected to decline significantly to 3 million metric tons. White rice production is forecast to increase to 12 million metric tons, up approximately 5 percent from MY2017/18. This is because farmers will begin planting rice earlier as the Royal Irrigation Department announced that it will begin providing water for irrigation for MY2018/19 main crop rice beginning on April 1, 2018 to avoid possible flooding damage during the harvest period as this is three weeks earlier than normal. This will allow farmers in the lower northern region and the central plains to double crop the main rice crop in MY2018/19 given normal precipitation.

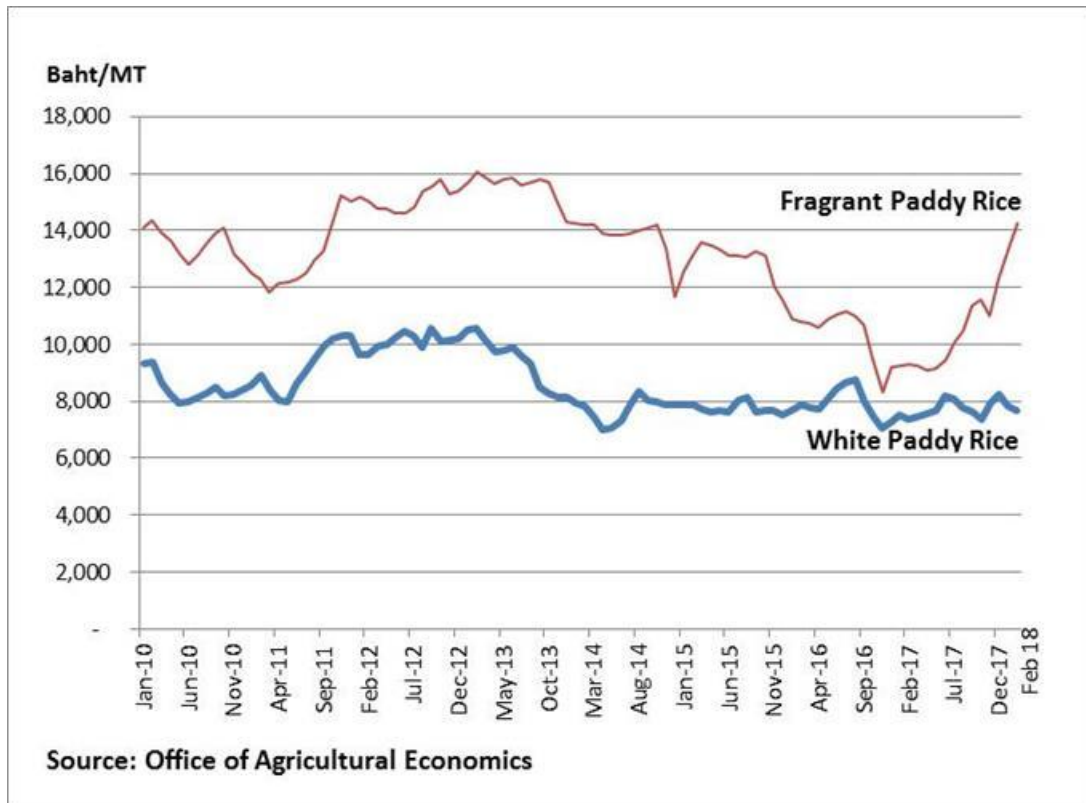
**Figure 1.1: Thailand's Rice Acreage**



**Figure 1.2: Thailand's Rice Production**

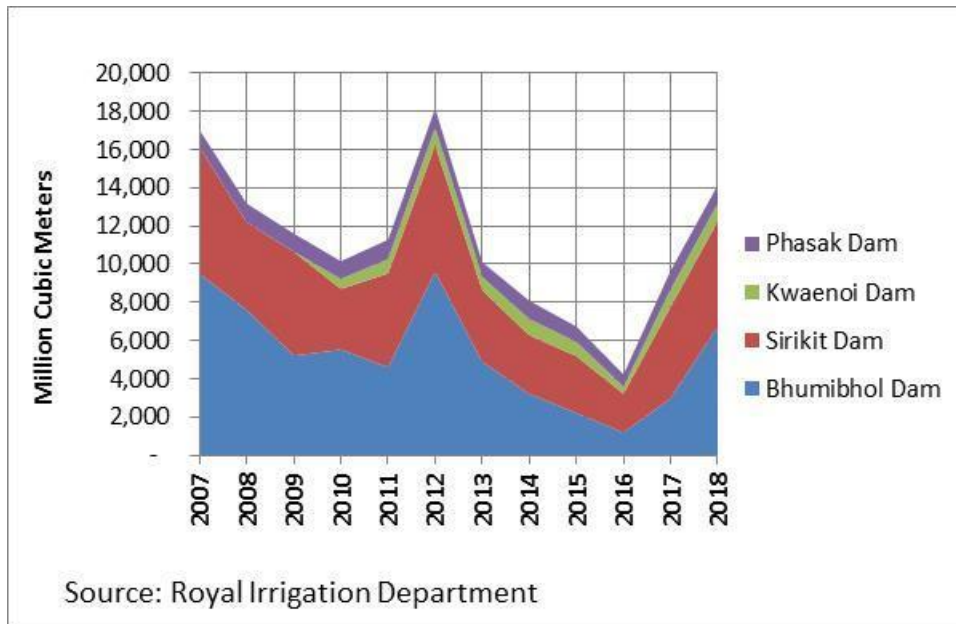


**Figure 1.3: Monthly Farm-gate Prices of Paddy Rice**

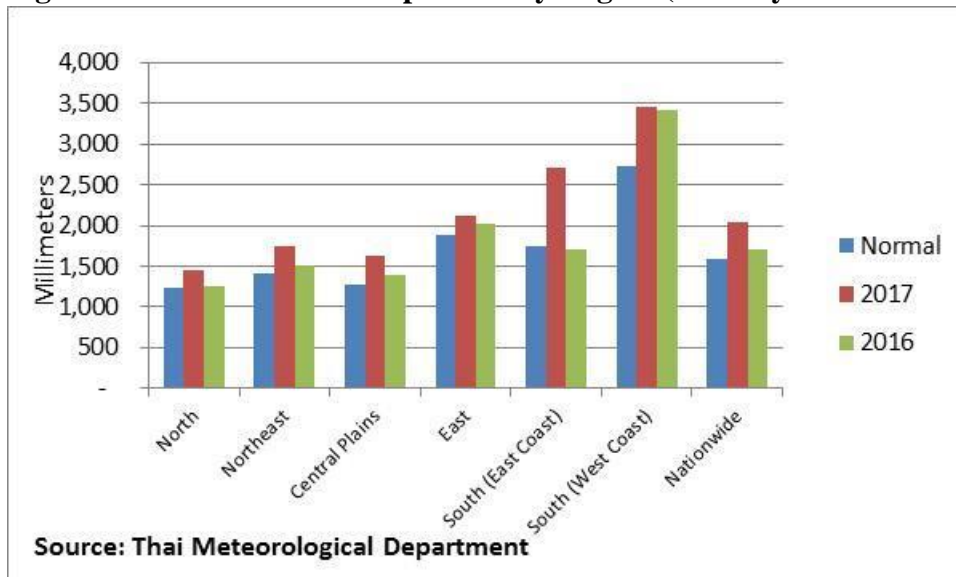


As of February 9, 2018, water supplies for irrigation in the northern region and the central plains during the dry season (November 2017 – April 2018) totaled 11 billion cubic meters (Figure 1.4). This is a 46 percent increase from the previous year due to favorable rainfall in 2017. The Thai Meteorological Department reported that precipitation in 2017 was 28 percent above normal precipitation and 20 percent higher than the previous year’s rainfall levels (Figure 1.5). The Hydro and Agro Informatics Institute expects that precipitation in 2018 will be 10 percent above normal. The rainy season is expected to begin in late April 2018 which is around 2 weeks earlier than usual.

**Figure 1.4: Water Available for Irrigation in Major Dams**



**Figure 1.5: Cumulative Precipitation by Region (January 1 – December 31)**



## 1.2 Consumption

Rice is the primary food staple for Thais with per capita consumption ranging from 80 kilograms for city households to around 155 kilograms (kg.) for rural households. MY2018/19 rice consumption is forecast to decline to around 11 million metric tons, down 4-5 percent from MY2017/18 due to reduced broken rice demand from swine farmers. Swine farmers are expected to continue to scale down swine production in 2019 in response to falling domestic prices for pork meat. Additionally, rice utilization by power plants and fertilizer producers is expected to decline significantly due to limited supplies of deteriorated rice. The government is expected to completely sell all of the remaining 0.6 million metric tons of deteriorated rice stocks in 2018.

MY2017/18 rice consumption is expected to decline to 11.5 million metric tons. This is a 4 percent reduction from MY2016/17 due mainly to reduced broken rice utilization in layer and swine feed given smaller supplies of feed-quality government rice stocks. The government is expected to sell all the remaining 1.5 million metric tons of feed-quality rice stocks in 2018. In 2017, the government sold 2.3 million metric tons of feed-quality rice stocks. Additionally, farmers are likely to reduce their swine production, particularly in the second half of 2018 in response to low prices and shrinking exports of swine to China.

### 1.3 Trade

Thai rice exports are forecast to decline to 10 million metric tons in 2018 and 2019; a 14 percent reduction from the record 11.6 million metric tons exported in 2017 (Table 1.3). However, 2017 exports were driven by the sale of the remaining food-quality government rice stocks which totaled 3.2 million metric tons. With the assistance of food-quality government rice stocks, white and fragrant rice exports reached 5.1 and 2.7 million metric tons in 2017, up 5 and 7 percent respectively from 2016 as average government stock rice export prices were 8 percent lower than new-crop rice prices and 6 percent cheaper than Vietnamese rice in African markets. This caused average export prices of Thai and Vietnamese rice to converge in the second half of 2017 (Figure 1.6). Additionally, parboiled rice exports recovered to 3.4 million metric tons, an increase of 57 percent from 2016 in response to the recovery of MY2016/17 off-season rice production due to abundant rainfall.

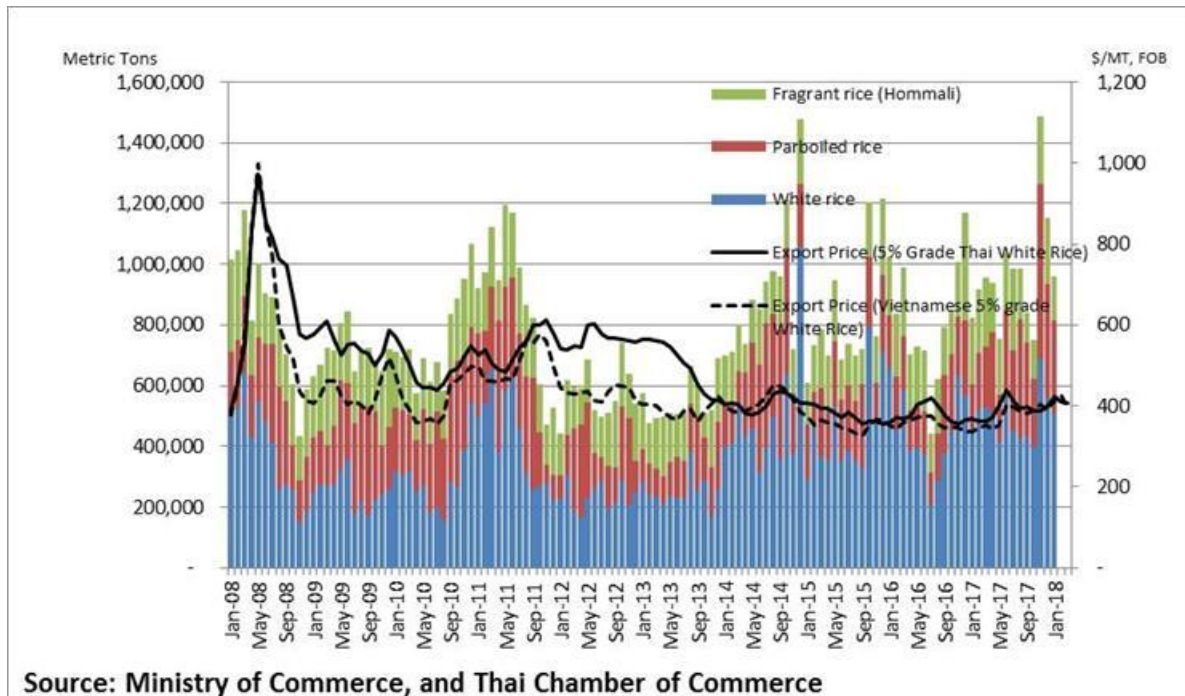
**Table 1.3: Annual Thai Rice Exports by Variety**

Unit: Metric Tons						
Rice Variety	2014	2015	2016	2017	% share	% change
White Rice	5,183,646	4,994,387	4,819,941	5,070,062	43.6	5.2
Parboiled Rice	3,261,521	2,316,900	2,149,597	3,370,384	29.0	56.8
Fragrant Rice	2,030,844	2,111,658	2,497,912	2,671,033	23.0	6.9
Glutinous Rice	493,359	372,835	438,943	516,822	4.4	17.7
<b>Grand Total</b>	<b>10,969,370</b>	<b>9,795,780</b>	<b>9,906,393</b>	<b>11,628,301</b>	<b>100.0</b>	<b>17.4</b>

Source: Ministry of Commerce

**Figure 1.6 Monthly Thai Rice Exports by Variety**





Thai rice exports in January 2018 totaled 961,860 metric tons. This is a 17 percent increase from the same period in 2017 due to strong demand for white rice from Indonesia and the Philippines. White rice exports totaled 0.5 million metric tons, up approximately 8 percent from the same period last year. Parboiled rice exports also were strong in January 2018 totaling 0.3 million metric tons, double the amount exported in January last year. However, fragrant rice exports declined approximately 20 percent due to tight domestic supplies.

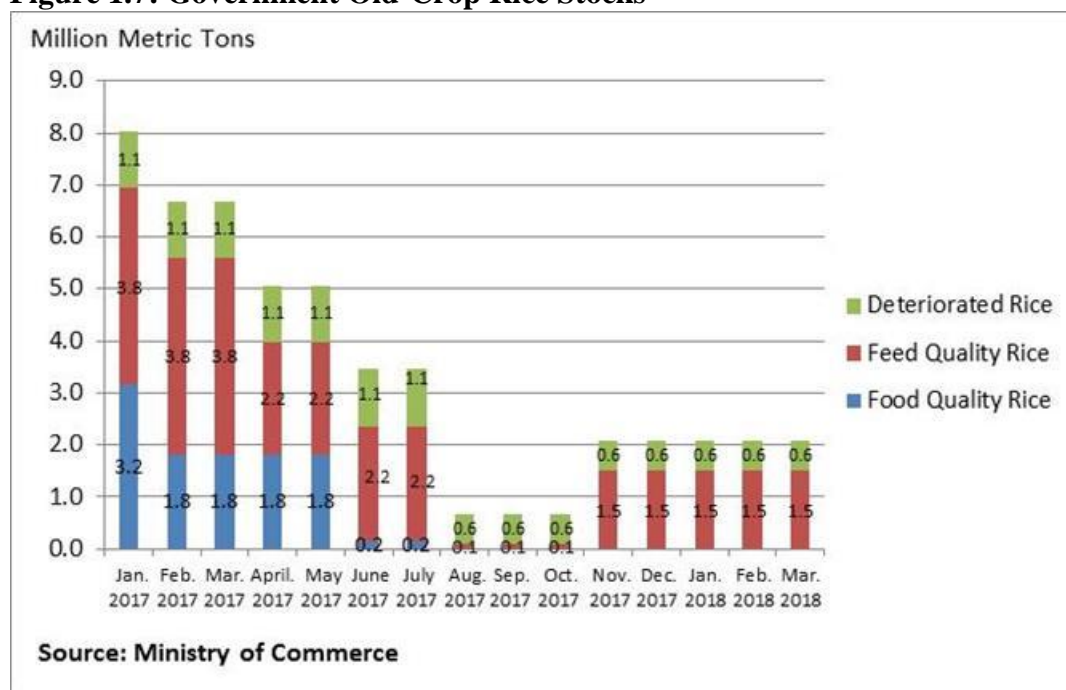
Even though Thai rice exports will likely remain strong in the first quarter of 2018, the export growth pace is expected to begin to decline by the second quarter of 2018. Thai rice exporters are forecast to lose their competitive edge for white and fragrant rice exports as the government sold all of their food-quality rice stocks in 2017. Total 2018 white and fragrant rice exports are expected to decline significantly by 10-15 percent from 2017. However, 2018 parboiled rice exports are expected to be similar to 2017 parboiled rice exports due to the full recovery of MY2017/18 offseason rice production.

#### 1.4 Stocks

MY2017/18 and MY2018/19 rice stocks are expected to decline to around 3 million metric tons due to the reduction in government rice stocks. The government is expected to sell the remaining 1.5 million metric tons of feed-quality rice stocks and 0.6 million metric tons of deteriorated rice stocks in 2018 (Figure 1.7). Traders expect that most of these remaining feed-quality government rice stocks will likely be used for swine feed while the deteriorated rice stocks will be used for fertilizer and power generation. The sale of the remaining government stocks in 2018 means that ending stocks for MY2017/18 and MY2018/19 are all private stocks. Normally, private sector maintains stocks for around 2 months of use. However, due to the large quantities of government stocks, private industry has been carrying a lot less the last couple of years.



**Figure 1.7: Government Old-Crop Rice Stocks**



## 1.5 Policy

On February 13, 2018, the cabinet approved a 906 million baht (U.S. \$2.9 million) budget to compensate the Bank for Agriculture and Agricultural Cooperatives (BAAC) for losses from the sale of government stocks for the MY2015/16 Main Crop Paddy Rice Pledging Program. Many participating farmers chose to forfeit their paddy rice as market prices were lower than the loan rate. The government reported that the MY2015/16 pledging program received 514,140 metric tons of paddy rice, of which 293,793 metric tons were redeemed. Meanwhile, the government did not have to provide compensation to the BAAC for the MY2016/17 Paddy Rice Pledging Program as rice stocks for that year were sold above the loan rate. Farmers are expected to redeem almost all of the paddy rice pledged under the MY2017/18 pledging program as current market prices are 32 percent higher than the loan rate. The government has chosen to not offer a pledging program for MY2017/18 offseason rice due to high farm-gate rice prices.

## 2. Corn

### 2.1 Production

**Table 2.1: Thailand's Corn Production, Demand and Supply**

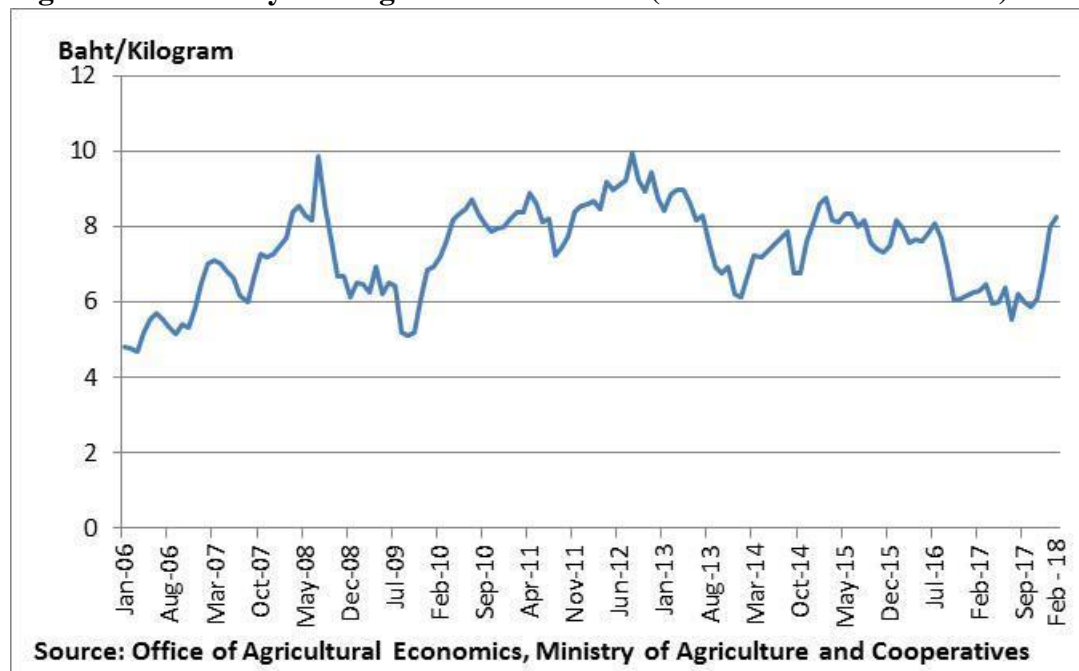
Corn	2016/2017		2017/2018		2018/2019	
Market Begin Year	Jul 2016		Jul 2017		Jul 2018	
Thailand	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	1168	1168	1124	1124	0	1152
Beginning Stocks	172	172	143	143	0	143
Production	5200	5200	5000	5000	0	5130
MY Imports	600	600	700	700	0	700

<b>TY Imports</b>	600	600	700	700	0	700
<b>TY Imp. from U.S.</b>	11	0	0	0	0	0
<b>Total Supply</b>	5972	5972	5843	5843	0	5973
<b>MY Exports</b>	729	729	300	300	0	150
<b>TY Exports</b>	692	692	300	300	0	150
<b>Feed and Residual</b>	5000	5000	5300	5300	0	5500
<b>FSI Consumption</b>	100	100	100	100	0	100
<b>Total Consumption</b>	5100	5100	5400	5400	0	5600
<b>Ending Stocks</b>	143	143	143	143	0	223
<b>Total Distribution</b>	5972	5972	5843	5843	0	5973
<b>Yield</b>	4.4521	4.4521	4.4484	4.4484	0	4.4531

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

MY2018/19 corn production is forecast to increase to 5.1 million metric tons, up 2-3 percent from MY2017/18 in anticipation of an acreage expansion due to attractive prices. In February 2018, farm-gate prices of corn increased to 8.2 baht per kilogram (kg.) (U.S. \$263/MT), up 31 percent from the same period last year. Despite higher farm-gate corn prices, the acreage expansion in the northern region will likely be limited due to the domestic ban on planting corn in forest areas.

**Figure 2.1: Monthly Farm-gate Prices of Corn (14.5% Moisture Content)**



The government reported that MY2017/18 offseason corn acreage totaled 515,846 rai (0.1 million hectares), 74 percent of the 700,000 rai (1.1 million hectares) target. The government has been encouraging farmer to shift offseason production from rice to corn due to corn's lower water requirements. The reported acreage is consistent with Post's previous forecast ([GAIN Report: TH8020 – Grain and Feed Update, January 2018](#)). In total, MY2017/18 corn production is expected to decline to 5.0 million metric tons, down 3.8 percent from MY2016/17 due mainly to a reduction in MY2017/18 main crop corn production. This is unchanged from the previous forecast.

## 2.2 Consumption

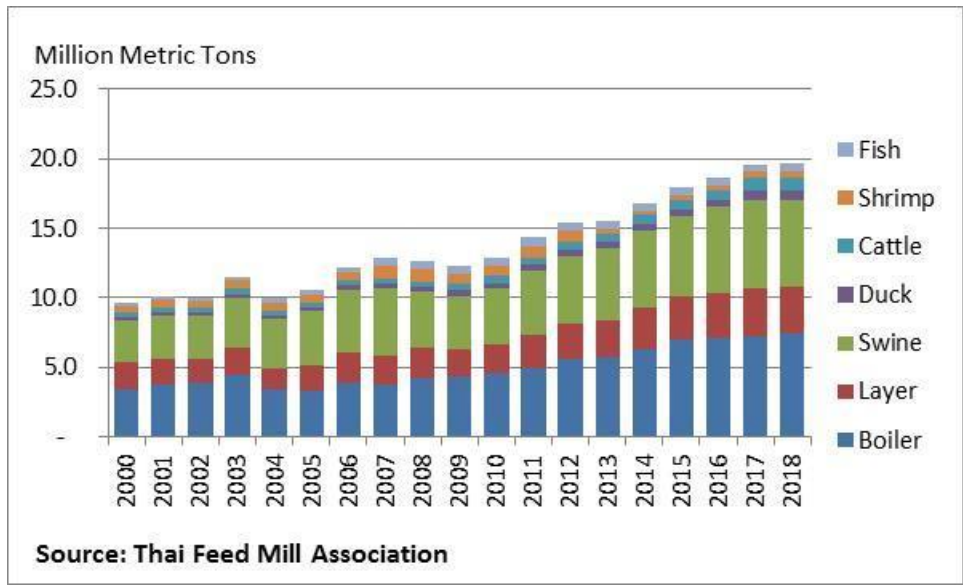
MY2018/19 and MY2017/18 feed consumption growth is forecast to slow down from prior growth rates. In particular, growing poultry feed demand is expected to be partially offset by a reduction in swine feed demand. The Thai Feed Mill Association (TFMA) expects total feed demand to increase to 19.7 million metric tons in 2018, up slightly from 2017 (Table 2.1). This is considerably slower growth compared to the average annual growth rate of 5 percent over the past five year (Table 2.1 and Figure 2.1). Farmers are facing downward pressure on domestic egg and slaughtered hog prices and experiencing higher production costs caused by the government's import restrictions on alternative feed ingredients such as feed wheat. Layer production, which accounts for around 20 percent of total feed demand, is expected to decline 3-4 percent from 2017, as the government's Egg Board is expected to restrict the numbers of imported roosters and hens for breeding stocks through the Export and Import of Goods Act B.E. 2522 (1979) to reduce the supply of layers. Additionally, swine production, which accounts for one-third of total feed demand (Figure 2.2), is expected to decline 5 percent from 2017, as the Pork Product Development Policy Commission (Pig Board) is likely to restrict domestic hog supplies in response to the decline in swine exports to China. However, broiler production which accounts for around 40 percent of total feed demand is expected to increase 3 percent from 2017 as chicken meat exports will likely remain strong. Additionally, shrimp feed demand is expected to increase by 7 percent in 2018 as shrimp production continues to recover from disease outbreak of Early Mortality Syndrome (EMS).

**Table 2.1: Thailand's Feed Demand by Sector**

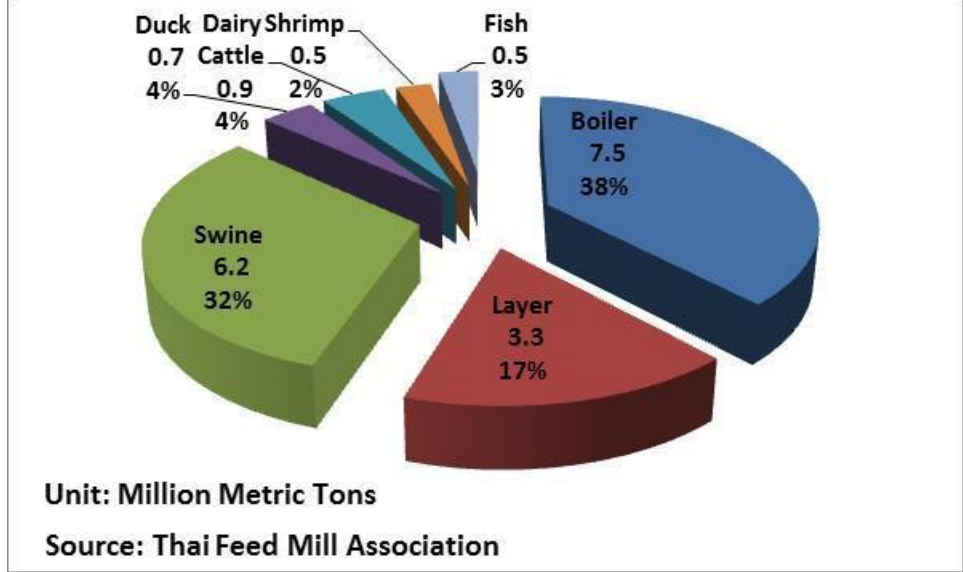
Unit: Million Metric Tons					
	2015	2016	2017	2018 (Forecast)	% Change
<b>Boiler</b>	7.0	7.1	7.3	7.5	3.0
<b>Layer</b>	3.2	3.3	3.4	3.3	-1.4
<b>Swine</b>	5.8	6.2	6.4	6.2	-3.3
<b>Duck</b>	0.5	0.5	0.7	0.7	8.7
<b>Dairy Cattle</b>	0.6	0.6	0.9	0.9	3.0
<b>Shrimp</b>	0.4	0.4	0.5	0.5	6.7
<b>Fish</b>	0.5	0.5	0.5	0.5	2.0
<b>Total</b>	<b>17.9</b>	<b>18.6</b>	<b>19.6</b>	<b>19.7</b>	<b>0.4</b>

Source: Thai Feed Mill Association

**Figure 2.1: Livestock Feed Demand in Thailand**



**Figure 2.2: 2018 Feed Demand by Livestock Type**



The TFMA estimates that demand for corn in poultry and swine feed rations will reach approximately 8 million metric tons in 2018 despite the reduction in layer and swine production. However, local corn production is forecast at only 5.1 million metric tons. The gap between feed demand and domestic corn production will drive import demand for alternative animal feeds like feed wheat and distiller’s dried grains with solubles (DDGS). This is despite the government’s import restrictions on feed wheat and high tariff rates on DDGS currently set at 9 percent, compared to 2 percent for soybean meals.

**2.3 Trade**

MY2018/19 corn exports are forecast to decline to around 0.2 million metric tons, down 70 percent from MY2017/18 as Thai corn prices will likely remain uncompetitive. Presently, export prices for Thai corn are approximately 35 percent above world market prices as domestic supplies of corn are in demand domestically for animal feed. The government is expected to maintain the import restrictions

on feed wheat which require feed mills to purchase domestic corn at a guaranteed price floor prior to importing feed wheat. The import regulations on feed wheat will help keep corn prices high and may increase the volume of corn smuggled into Thailand from neighboring countries, particularly from Laos and Cambodia.

## 2.4 Policy

The government did not implement a corn pledging program in MY2017/18 and is not expected to implement one in MY2018/19 as domestic corn prices should remain high. However, the government continues to provide a 2,000 baht per rai (U.S. \$390/hectare) direct payment (up to 15 rai per household or 30,000 baht/household (U.S. \$937/household) for rice farmers participating in the Offseason Corn Extension program to shift offseason production from rice to corn in MY2017/18.

The government still maintains a zero-tariff and quota-free corn import window from February 1 – August 31, 2018 for Laos, Cambodia, and Myanmar. Meanwhile, corn imports from other countries are subject to a Tariff-Rate Quota (TRQ) of 54,700 metric tons with a 20 percent in-quota tariff, and an out-of-quota tariff of 73 percent. The out-of-quota tariff is accompanied by a surcharge of 180 baht per metric ton (U.S. \$6/MT).

## 3. Wheat

**Table 3.1: Thailand's Wheat Production, Supply and Demand**

<b>Wheat</b>	<b>2016/2017</b>		<b>2017/2018</b>		<b>2018/2019</b>	
<b>Market Begin Year</b>	<b>Jul 2016</b>		<b>Jul 2017</b>		<b>Jul 2018</b>	
<b>Thailand</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>
<b>Area Harvested</b>	0	0	0	0	0	0
<b>Beginning Stocks</b>	1066	1066	813	868	0	828
<b>Production</b>	0	0	0	0	0	0
<b>MY Imports</b>	3689	4064	3000	3000	0	3100
<b>TY Imports</b>	3689	4064	3000	3000	0	3100
<b>TY Imp. from U.S.</b>	696	707	0	700	0	720
<b>Total Supply</b>	4755	5130	3813	3868	0	3928
<b>MY Exports</b>	242	242	240	240	0	240
<b>TY Exports</b>	242	242	240	240	0	240
<b>Feed and Residual</b>	2500	2800	1500	1500	0	1550
<b>FSI Consumption</b>	1200	1220	1300	1300	0	1350
<b>Total Consumption</b>	3700	4020	2800	2800	0	2900
<b>Ending Stocks</b>	813	868	773	828	0	788
<b>Total Distribution</b>	4755	5130	3813	3868	0	3928
<b>Yield</b>	0	0	0	0	0	0

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

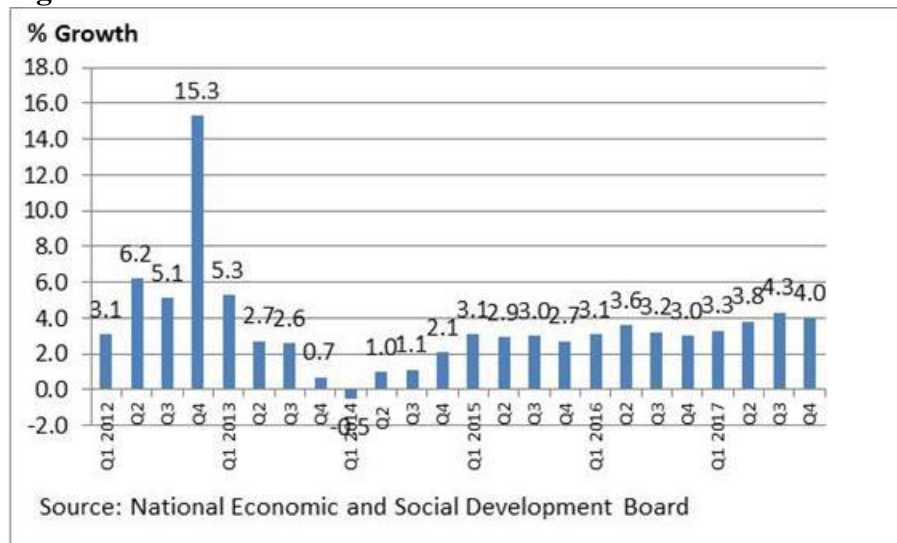
### 3.1 Production

Wheat production is marginal in Thailand due to unfavorable climatic conditions, the lack of seed development, and unattractive returns compare to other field crops. Total production is estimated at approximately 300 to 400 metric tons on a cultivated area of around 1,000 rai (160 hectares). Cultivation is mainly in the upper northern regions of the country as a minor crop after the main-crop rice harvest, particularly in the provinces of Maehongson and Nan.

### 3.2 Consumption

MY2018/19 wheat consumption is forecast to increase to 2.9 million metric tons, up 3-4 percent from MY2017/18. Milling wheat consumption is expected to continue to grow, increasing by 4 percent from MY2017/18 driven by growing demand from the baking and food processing industries in line with expected economic growth. Bakery and instant noodle production account for 60-70 percent of total milling wheat consumption. The recent official economic report by the National Economic and Social Development Board forecasts that the Thai economy will further grow 3.6 – 4.6 percent in 2018 from 3.9 percent in 2017 (Figure 3.1). Additionally, two new wheat flour mills are expected to begin operating in MY2018/19 with a combined total production capacity of around 0.3 million metric tons per year. About 20 percent of this new capacity will be used for aqua feed production. This is a 10 percent increase in total wheat flour production capacity to around 2.5 million metric tons per year.

**Figure 3.1: Thai Economic Growth**



MY2018/19 feed wheat demand is expected to increase to around 1.6 million metric tons, up 3 percent from MY2017/18 due to the increased broiler and shrimp production. Feed mills anticipate that the government's import restrictions on feed wheat will limit the maximum allowed volume of feed wheat imports to just 1.9 million metric tons, of which 1.7 million metric tons are based on the domestic corn purchase requirements (3 metric tons of local corn for every metric ton of imported feed wheat) and 0.2 million metric tons for aquaculture feed that are exempted from the domestic corn absorption requirements.

### 3.3 Trade



MY2018/19 wheat imports are forecast to increase to 3.1 million metric tons, up 3-4 percent from MY2017/18 in anticipation of growing domestic demand for milling wheat and feed wheat. Milling wheat imports are likely to increase to around 1.3 million metric tons, up 4 percent from MY2017/18 in anticipation of growing demand from bakeries and noodle producers. Import demand for U.S. milling wheat is expected to remain strong in line with growing demand for high-protein wheat from bakeries. High-protein U.S. wheat still dominates the bakery wheat flour market. Thai flour mills have been partially sheltered from the increasing world wheat prices as the strengthening of the Thai baht has mostly offset the 10 percent increase in milling wheat prices.

MY2018/19 feed wheat imports are expected to increase to 1.6 million metric tons, up 3 percent from MY2017/18 as feed wheat will likely remain cheaper than domestic corn. Additionally, import demand for wheat flour and wheat products are likely to increase slightly to 0.2 million metric tons.

### **3.4 Policy**

The government will likely maintain the import restrictions on feed wheat which have been in place since January 2017 in order to protect domestic corn farmers from cheaper imports. Under these import restrictions, importers are required to purchase domestic corn prior the import of feed wheat at a 3 to 1 absorption ratio. In other words, to import a ton of feed wheat a mill must use 3 tons of domestic corn. The government also set a minimum purchase price of domestic corn at 8 baht per kilogram (U.S. \$256/MT) for feed mills. Eligible feed wheat importers must be feed mill owners. Additionally, feed mill owners are prohibited from selling the imported feed wheat.

The tariff on wheat import has been zero since September 2007. Meanwhile, the applied tariff on wheat flour is 5 percent or 0.5 baht/kg. (U.S. \$16/MT), except for imports from the ASEAN Free Trade Agreement (Brunei, Indonesia, Malaysia, Philippines, and Singapore) and from the ASEAN-Australia-New Zealand Free Trade Agreement where wheat flour has been duty free since January 2010 as long as 40 percent of the content originates from the exporting country. Wheat flour imports from Vietnam have been duty free since the end of 2015 under the ASEAN Economic Community.

End of report.