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# GAIN Report

Global Agricultural Information Network

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## **Thailand**

### **Grain and Feed Annual**

**2016**

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**Report Highlights:**

TH6029 – Forecast MY2016/17 rice and corn production is expected to provide for larger exportable supplies in 2017. Tight rice supply situation in MY2015/16 will likely result in sluggish exports. Strong import demand for feed wheat in MY2015/16 for poultry and swine feed rations results from the shortages of domestic corn and broken rice.

## Executive Summary:

MY2016/17 rice and corn production is expected to gradually recover from drought-reduced production in MY2015/16 due to an acreage expansion and average yields. Rice production is forecast to increase to 17.5 million metric tons, up 11 percent from 15.8 million metric tons in MY2015/16 assuming some recovery of off-season rice production. Unlike in 2016 when new-crop rice supplies are tight, larger supplies of new-crop rice in 2017 will potentially boost Thai rice exports to 10 million metric tons. Meanwhile, tight supplies of new-crop rice in 2016 will likely limit Thai rice export potential at around 8 million metric tons despite heavily subsidized sales of the Government stocks.

MY2016/17 corn production will likely increase to 4.9 million metric tons after two consecutive years of drought. Meanwhile, the growth in demand for feed will likely decelerate in 2016 due to a slowdown in boiler production. This will lower the import demand for feed wheat in MY2016/17, in contrast to MY2015/16 when feed wheat imports increased to record 2.1 million metric tons. This is due to the shortages of domestic corn and broken rice.

Feed wheat imports are expected to decline to 1.5 million metric tons in MY2016/17 due to a recovery of domestic production of corn and larger supplies of broken rice. Meanwhile, MY2016/17 milling wheat imports will likely increase significantly to 1.4 million metric tons, particularly for high-protein wheat from the U.S. due to expanding capacity of large bakery manufacturers.

## Commodities:

Corn

Rice, Milled

Wheat

## Author Defined:

### 1. Rice

#### 1.1 Production

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

Rice, Milled	2014/2015		2015/2016		2016/2017	
	Jan 2015		Jan 2016		Jan 2016	
Thailand	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	10270	10643	9460	9444	0	9863
Beginning Stocks	11724	11724	9995	11032	0	7632
Milled Production	18750	19404	15900	15800	0	17500
Rough Production	28409	29400	24091	23939	0	26515
Milling Rate (.9999)	6600	6600	6600	6600	0	6600
MY Imports	300	300	300	300	0	300
TY Imports	300	300	300	300	0	300
TY Imp. from U.S.	3	0	0	0	0	0
Total Supply	30774	31428	26195	27132	0	25432

<b>MY Exports</b>	9779	9796	10000	8000	0	10000
<b>TY Exports</b>	9779	9796	10000	8000	0	10000
<b>Consumption and Residual</b>	11000	10600	11200	11500	0	12500
<b>Ending Stocks</b>	9995	11032	4995	7632	0	2932
<b>Total Distribution</b>	30774	31428	26195	27132	0	25432
(1000 HA) ,(1000 MT)						

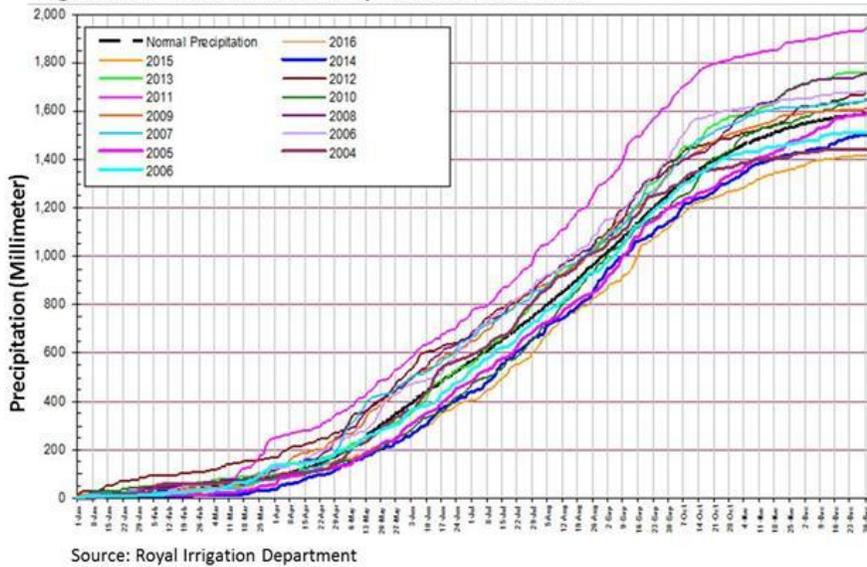
**Table 1.2: Thailand's Rice Paddy Area, Production, and Yield**

	2014/15			2015/16						2016/17		
	Main Crop	Second Crop	Total	(January 2016 Forecast)			(March 2016 Forecast)			(March 2016 Forecast)		
				Main Crop	Second Crop	Total	Main Crop	Second Crop	Total	Main Crop	Second Crop	Total
<b>Area (million hectare)</b>												
Cultivation	9 288	1 940	11 228	9 096	0 929	10 025	9 096	1 055	10 151	9 080	1 229	10 308
Harvest	8 900	1 743	10 643	8 709	0 759	9 468	8 709	0 735	9 444	8 689	1 170	9 859
<b>Production (million ton)</b>												
Rough	22 000	7 400	29 400	20 973	3 118	24 091	20 973	2 966	23 939	21 667	4 848	26 515
Rice	14 520	4 884	19 404	13 842	2 053	15 895	13 842	1 953	15 800	14 300	3 200	17 500
<b>Yield (ton/hectare)</b>	2 472	4 245	2 762	2 408	4 103	2 544	2 408	4 035	2 535	2 482	4 144	2 688

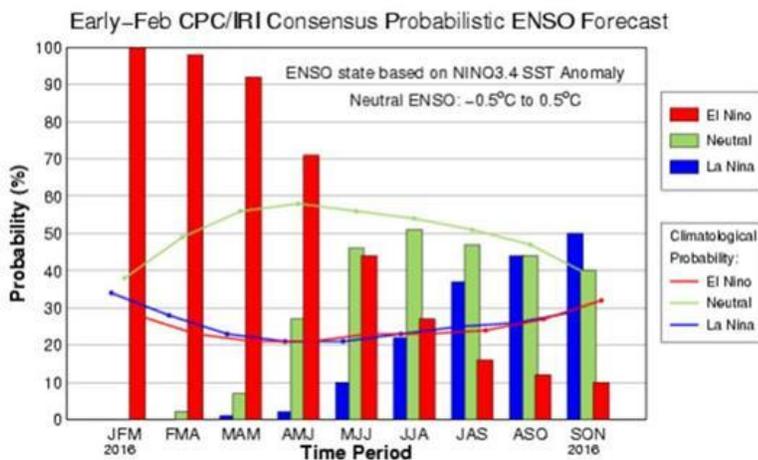
Source: FAS Estimate

MY2016/17 rice production is forecast to increase to 17.5 million metric tons, up 11 percent from MY2015/16 in anticipation of some recovery in off-season rice production. The Thai Meteorological Department (TMD) expects normal precipitation in 2016, compared to 11 percent below normal precipitation in 2015 (Figure 1.1). This is based on the International Research Institute for Climate and Society's latest estimate of 40-50 percent probability of neutral weather conditions during May – July 2016 when main-crop rice cultivation normally begins (Figure 1.2). Although normal monsoon could recharge reservoirs, the Government is likely to remain cautious in supplying irrigation water for MY2016/17 off-season rice production in the central plains. It may take a couple of years for reservoirs to be able to supply normal irrigation for off-season rice as reservoirs have been below normal levels for four straight years. Meanwhile, planting area of MY2016/17 main-crop rice is expected to decline further 0.1 million rai (16,000 hectares) as farmer will gradually shift some areas to sugarcane crop under the Government's 5-year Agricultural Restructuring Program (2015-2019).

**Figure 1.1: Cumulative Precipitation in Thailand**



**Figure 1.2: Probability of Weather Phenomenon in 2016**

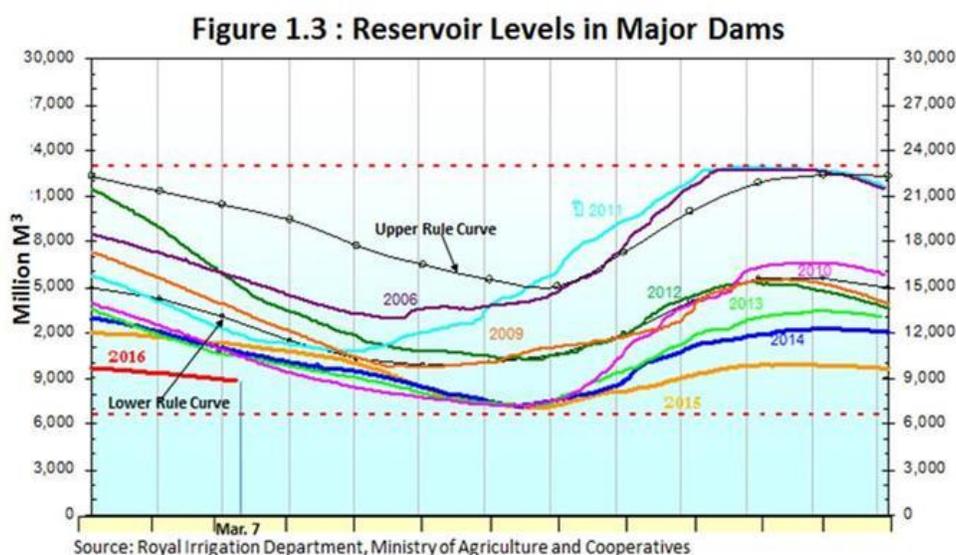


Despite larger-than-expected MY2015/16 off-season rice planting areas in non-irrigated area, MY2015/16 rice production is revised down to 15.8 million metric tons due to an expansion of drought damaged areas (Table 1.3). According to the Ministry of Agriculture and Cooperatives’ Disaster Center (as of March 10, 2016), the abandoned off-season rice crop increased to 1.6 million rai (0.26 million hectares), up from 1.1 million rai (0.2 million hectares) reported in January 2016. The damage areas are expected to increase further to 2 million rai (0.3 million hectares) by the end of the off-season crop due to the Government’s water restriction measures. Traders expect MY2015/16 off-season rice production of no more than 2 million metric tons due to lack of water. Post revised down MY2015/16 off-season rice production to around 1.9 million metric tons, a decline of 60 percent from MY2014/15 due to larger-than-expected abandoned areas.

Table 1.3: Off-Season Rice Areas			
Unit: million hectares			
	MY2014/15	MY2015/16	
		Jan. 2016 (E)	Mar. 2016 (E)
Irrigated Areas	1.248	0.740	0.740
Non-Irrigated Areas	0.693	0.190	0.315
<b>Total Planted Areas</b>	<b>1.941</b>	<b>0.929</b>	<b>1.055</b>
Damaged area <sup>1/</sup>	0.197	0.170	0.320
<b>Harvested area</b>	<b>1.744</b>	<b>0.759</b>	<b>0.735</b>

Note: <sup>1/</sup> Abandoned area reported by the Ministry of Agriculture and Cooperatives' Disaster Center  
Source: FAS Estimate (March 2016) and the Royal Irrigation Department

Thus far, around 40 percent of the off-season rice has been harvested. Average yield reportedly dropped significantly due to insufficient water supplies. Also, most farmers reportedly cannot plant second off-season crop as the Royal Irrigation Department (RID) reduced its water discharge to around 18 million cubic meters per day, down from 25 million cubic meters per day at the same time last year to ensure enough drinking water for the remaining months of the dry season (March – May 2016) (Figure 1.3). The RID reported that cultivation of second off-season rice is minimal at around 2,000 rai (320 hectares, as of March 2, 2016), compared to around 55,100 rai (8,820 hectares) in the same period last year. In addition, the second off-season crop will likely be adversely affected by salty water, particularly in the lower central plain region.



## 1.2 Consumption

MY2016/17 rice consumption is forecast to increase to 12.5 million metric tons, up around 9 percent from MY2015/16 mainly due to larger demand for broken rice in swine feed. The recovery in rice production will likely ease current tight supplies of broken rice. Also, the Government is expected to

continue the sales of non-food grade rice stocks for feed use in 2017. Presently, domestic prices of broken rice are 10.6 baht per kilogram (\$299/MT) which is an increase of 9 percent over this time last year due to drought-reduced MY2015/16 off-season rice.

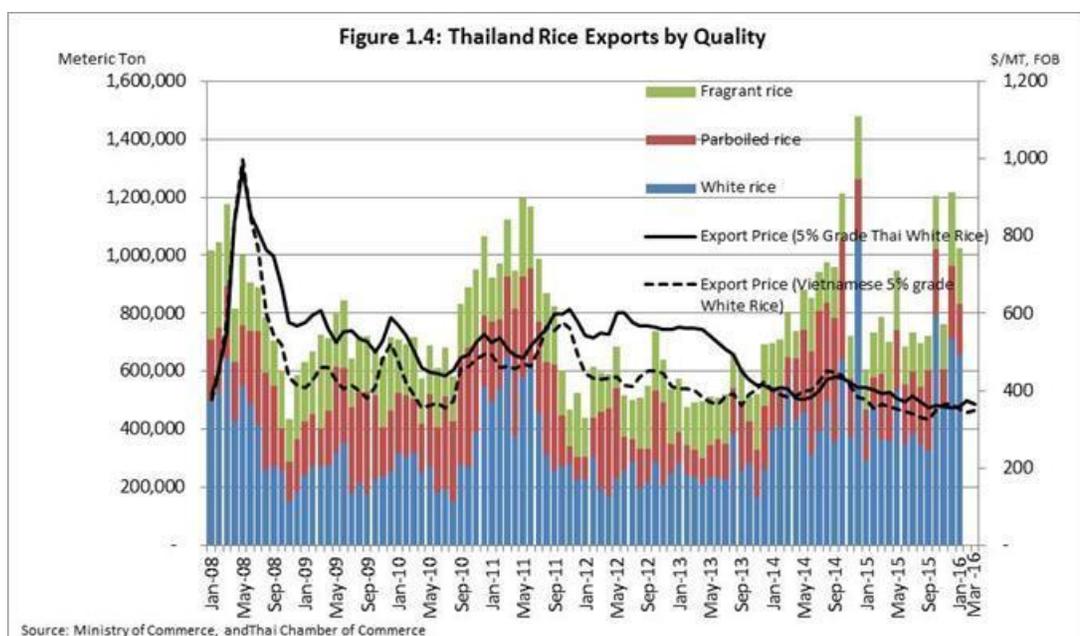
In February 2016, the Government began to sell non-food grade rice stocks through public tenders. The first tender consisted of 360,000 metric tons of non-food grade rice. The Government reportedly sold 140,603 metric tons of non-food grade rice for feed use worth 933 million baht (\$26 million). None of non-food grade rice has been used for ethanol production as its price is still higher than cassava chip. Post's forecast of MY2015/16 rice consumption remains unchanged at 11.5 million metric tons as estimated demand for non-food grade rice in ethanol production (0.5 million metric tons, please see TH5147: Grain and Feed Update, November 2015) will likely be offset by the demand for non-food grade rice in swine feed manufacturers.

Per capita rice consumption ranges from 80 kilograms for city households, around 155 kilograms for rural household, up to 125 kilogram for low-income households. On average, per capita consumption is reportedly at 106 kilogram which has declined significantly from 190 kilogram over the past decade. The reduction reflects the changing lifestyle toward western style, particularly in the city and metropolitan areas.

### **1.3 Trade**

MY2016/17 rice exports are forecast to increase to 10 million metric tons due to larger exportable supplies of white and parboiled rice. Also, rice exports will likely be driven by heavily subsidized sales of the Government stocks which are expected to be sold off in 2017.

Meanwhile, Post's estimate of MY2015/16 rice exports remains unchanged at 8 million metric tons due to tight supplies of new-crop white and parboiled rice. Also, demand for Thai rice in African market is reportedly sluggish due to the economic slowdown there which is reportedly resulting in payment delays. This will likely disrupt the sales of old-crop rice in the Government stocks in the coming months. Exporters expect that average monthly rice exports for the remainders of the first nine months of MY2015/16 will likely decline to around 0.6 - 0.7 million metric tons in contrast to 1 million-metric-ton export in January 2016. Also, smaller new-crop rice supplies are likely to limit or delay the shipments under the Government-to-Government agreement with China and additional new Government-to-Government contracts with Indonesia and the Philippines in 2016. Thai rice exports are likely to accelerate in the last quarter of 2016 when supplies of new-crop white rice enter the market.



#### 1.4 Stocks

MY2016/17 rice stocks are forecast to decline to 2.9 million metric tons from around 7.6 million metric tons in MY2015/16. Reportedly, the Government is holding rice stocks of around 13 million metric tons, of which 7 million metric tons are food-grade rice which can be reprocessed for exports. The remaining stocks of 6 million metric tons are feed and non-food grade rice which includes “rotten” rice and rice that is unaccounted for. The Government plans to sell off its remaining stocks by mid-2017.

#### 1.5 Policy

The Government continues to move forward with its plan to cut planted areas of rice by 0.7 million rai (112,000 hectares) between MY2015/16 to MY2017/18. In MY2016/17, rice farmers are expected to shift to sugarcane crop only around 0.1 million rai (16,000 hectares), mainly in the northeastern region. This limited amount is due to bureaucratic approval process on the establishment of new sugar facilities. The Ministry of Industry recently approved only 12 sugar mills out of 36 applicants which had been proposed in September 2015. It will take some time to start the new operations.

Thai Government analysts consider optimal rice production to be about 25 million metric tons (16.5 million metric ton milled equivalent). This is about the same production levels in MY2015/16 when the Government was unable to supply irrigation for rice farmers due to critically low reservoirs. The target is to restrict an acreage expansion of off-season rice in irrigated areas. The Government is expected to continue to recommend to farmers that they not plant second off-season rice in MY2016/17 and future years. However, the details of the plan, particularly on the compensation to farmers, have not been finalized.

The Government is expected to continue some limited on-farm pledging program for MY2016/17. It is known as the “Farmer Loans to Delay the Sales of Rice Paddy” which aims to stabilize farm-gate prices of fragrant and glutinous rice paddy. The military Government will have the Ministry of Finance to cover possible losses from the program. This is different from its operation over the past two years when the Bank of Agriculture and Agricultural Cooperatives took full responsibility for financing the pledging programs. The Government expects that this change will make the pledging program more active and receive more pledges than in the past. In MY2014/15 only 350,000 metric tons of paddy

were pledged and in MY2015/16 only 540,000 metric tons were pledged vis-à-vis the target of 2 million metric tons.

## 2. Corn

### 2.1 Production

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

<b>Corn</b>	<b>2014/2015</b>		<b>2015/2016</b>		<b>2016/2017</b>	
<b>Market Begin Year</b>	<b>Jul 2014</b>		<b>Jul 2015</b>		<b>Jul 2016</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>	1100	1100	1090	1090	0	1120
<b>Beginning Stocks</b>	144	144	138	139	0	129
<b>Production</b>	4800	4800	4700	4700	0	4900
<b>MY Imports</b>	600	600	600	600	0	600
<b>TY Imports</b>	600	600	600	600	0	600
<b>TY Imp. from U.S.</b>	51	0	0	0	0	0
<b>Total Supply</b>	5544	5544	5438	5439	0	5629
<b>MY Exports</b>	306	305	100	60	0	100
<b>TY Exports</b>	247	247	100	60	0	100
<b>Feed and Residual</b>	5000	5000	5100	5150	0	5300
<b>FSI Consumption</b>	100	100	100	100	0	100
<b>Total Consumption</b>	5100	5100	5200	5250	0	5400
<b>Ending Stocks</b>	138	139	138	129	0	129
<b>Total Distribution</b>	5544	5544	5438	5439	0	5629

(1000 HA) ,(1000 MT)

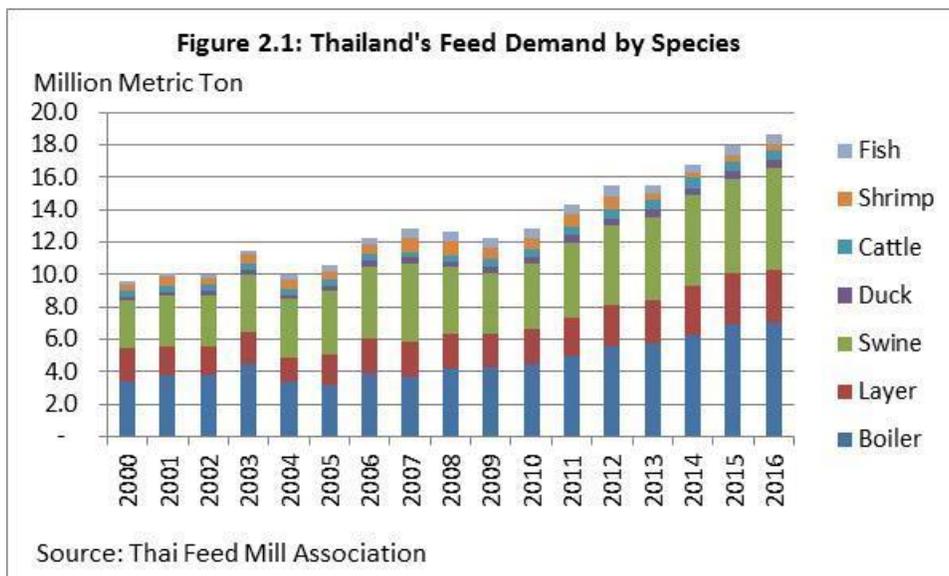
MY2016/17 corn production is forecast to increase to 4.9 million metric tons, up 4 percent from MY2015/16 due to an acreage expansion. Farmers will likely shift from cassava to corn crop due to attractive corn prices. Presently, farm-gate prices of corn are around 8.13 baht per kilogram (\$299/MT) which is an increase of 5 percent from MY2014/15. Meanwhile, farm-gate prices of cassava have declined 17 percent from last year.

Post's estimate of MY2015/16 corn production remains unchanged at around 4.7 million metric tons. This is a slight decline of 2 percent from MY2014/15 as the off-season corn production partly offset the drought-damaged main-crop corn production. This will be a reduction in corn production for two consecutive years due to unfavorable weather conditions.

### 2.2 Consumption

The Thai Feed Mill Association expects overall growth in feed demand will likely decelerate in 2016 mainly due to a slowdown in boiler production. Total feed demand is expected to increase

approximately 4 percent to 18.6 million metric tons, compared to a 7-percent increase in feed demand in 2015. Boiler production is forecast to grow only 2 percent as chicken meat export growth is expected to decelerate to 4 percent due to a slowdown in trading partners' economies. Boiler feed demand accounts for around 40 percent of total feed demand. Layer production, accounting for around 20 percent of total feed demand, is expected to grow by 3 percent mainly due to growing domestic egg consumption. Swine production, which accounts for around 30 percent of total feed demand, will likely increase around 6 percent. Shrimp production, accounting for around 2 percent of total feed demand, is likely to increase to 290,000 metric tons, up 12 percent from last year. This is still far below normal level of production of around 500,000 to 600,000 metric tons due to the outbreaks of Early Mortality Syndrome (EMS). Meanwhile, fish production, accounting for around 3 percent of total feed demand, will likely decline around 2 percent due to drought.



MY2016/17 corn consumption is forecast to increase to 5.3 million metric tons, up 3 percent from MY2015/16 in line with poultry production. Poultry feed accounts for around 40 to 60 percent of total corn consumption. Feed mills still rely on some imported corn from neighboring countries and imported feed wheat due to insufficient domestic corn production.

Post's forecast of MY2015/16 corn consumption remains unchanged at around 5.2 million metric tons. The shortage of domestic corn vis-à-vis growing demand for poultry feed resulted in a surge in import of feed wheat and Distiller Dried Grain with Soluble (DDGS). Prices of domestic corn increased to record 11 baht per kilogram (\$310/MT, ex-warehouse) in mid-2015, compared to prices of imported feed wheat at 7-8 baht per kilogram (\$211/MT).

### 2.3 Trade

MY2016/17 corn exports are forecast to increase to around 100,000 metric tons in anticipation of larger exportable supplies due to an increase in corn production and slowdown in poultry feed demand.

Meanwhile, import demand for corn will likely remain strong as domestic corn production still falls short of domestic feed demand. Imports will be mainly from border trade, particularly from Laos and Cambodia.

### 2.4 Policy

The Government did not have a corn subsidy program for MY2015/16 and is unlikely to implement one in MY2016/17 as domestic corn prices remain high due to insufficient corn production. The Government will likely maintain an import window for tariff and quota-free corn imports from Laos, Cambodia, and Myanmar during 2016 – 2017. The imports will be allowed from February 1 to August 31 instead of March 1 to June 30 in the past. Meanwhile, corn imports from other region remains subject to a Tariff-Rate Quota (TRQ) of 54,700 metric tons at 20-percent in-quota tariff. Out-of-quota imports are subject to a 73-percent tariff rate with a surcharge of 180 baht per metric tons (\$6/MT)

### 3. Wheat

#### 3.1 Production

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

<b>Wheat</b>	<b>2014/2015</b>		<b>2015/2016</b>		<b>2016/2017</b>	
<b>Market Begin Year</b>	<b>Jul 2014</b>		<b>Jul 2015</b>		<b>Jul 2016</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>	561	561	881	879	0	899
<b>Production</b>	0	0	0	0	0	0
<b>MY Imports</b>	3489	3487	3500	3500	0	3100
<b>TY Imports</b>	3489	3487	3500	3500	0	3100
<b>TY Imp. from U.S.</b>	646	666	0	590	0	630
<b>Total Supply</b>	4050	4048	4381	4379	0	3999
<b>MY Exports</b>	219	219	215	220	0	220
<b>TY Exports</b>	219	219	215	220	0	220
<b>Feed and Residual</b>	1850	1850	2100	2100	0	1500
<b>FSI Consumption</b>	1100	1100	1160	1160	0	1240
<b>Total Consumption</b>	2950	2950	3260	3260	0	2740
<b>Ending Stocks</b>	881	879	906	899	0	1039
<b>Total Distribution</b>	4050	4048	4381	4379	0	3999

(1000 HA) ,(1000 MT)

Wheat production is marginal in Thailand due to unfavorable climatic condition, lack of seed development, and unattractive returns as compared 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 in the upper northern region of the country as a minor crop after main-crop rice harvest, particularly in Maehongson and Nan provinces.

#### 3.2 Consumption

MY2016/17 wheat consumption is forecast to decline to around 2.7 million metric tons, down approximately 16 percent from MY2015/16 due to a reduction in feed wheat demand. The use of feed wheat in poultry and swine feed rations will likely decline due to a recovery in domestic corn and rice

production. Also, the growth in demand for boiler feed is expected to slow down. In addition, demand for feed wheat in shrimp farming is still lower than normal due to the concern over EMS. Meanwhile, milling wheat consumption will likely continue on an upward trend. MY2016/17 milling wheat consumption is forecast to increase by 7 percent due to growing demand from baking and food processing industries, particularly from instant noodle manufacturers. Also, one of the largest bakery manufacturers is expanding its production capacity by 20 percent in the second half MY2016/17. Bakery and instant noodle production accounts for 60-70 percent of total milling wheat consumption. MY2015/16 wheat consumption will likely increase to around 3.3 million metric tons, up 10 percent from MY2014/15 due to strong demand for feed wheat in poultry and swine feed rations. This is due to the shortage of domestic corn and broken rice as crops are affected by drought. Feed wheat demand is likely to increase to 2.1 million metric tons, up 14 percent from MY 2014/15. Meanwhile, milling wheat consumption is expected to increase to around 1.2 million metric tons, up around 6 percent from last year mainly due to the increase in bakery production. Sources expect that bakery production will likely grow around 7-10 percent in MY2015/16. Also, instant noodle production is expected to grow by 5 percent in 2016, compared to sluggish growth of only 0.4 percent in 2015.

### **3.3 Trade**

MY2016/17 wheat imports are forecast to decline to 3.1 million metric tons, down 11 percent from MY2015/16 in anticipation of a reduction in feed wheat imports. Imports of feed wheat are expected to decline to 1.5 million metric tons, down 25 percent from MY2015/16 as domestic corn and rice production is likely to recover from severe drought. Meanwhile, imports of milling wheat are expected to increase to 1.4 million metric tons, up 8 percent from last year due to growing wheat-base food consumption and expanding production capacity of bakery manufacturer. U.S. wheat imports will likely maintain its market share of 45 percent of milling wheat market due to growing demand for high-protein wheat for bakery production.

MY2015/16 wheat imports are expected to be steady at around 3.5 million metric tons as demand for feed wheat remains strong due to the shortages of domestic corn and broken rice for poultry and swine feed rations. Imports of feed wheat will likely increase to 2.1 million metric tons, up 14 percent from last year. Feed wheat imports are mainly from Ukraine. Meanwhile, imports of U.S. wheat will likely decline by around 10 percent from last year due to no feed-grade wheat supplies this year, in contrast to the imports of around 50,000 metric tons of U.S. feed wheat in MY2014/15. U.S. wheat imports will likely maintain market share of around 45 percent as prices of U.S. wheat reportedly remain more competitive than Australian wheat.

### **3.4 Policy**

According to Cabinet action on January 19, 2016, imported wheat grain is now listed as a “controlled” commodity due to the concern about the impact on domestic corn and cassava demand. The announcement came after the surge in feed wheat imports to a record 3 million metric tons in 2015. While, the Government has not banned the imports of wheat grain yet, it now requires that importers have to declare final uses. The purpose is to monitor the imports of feed wheat to ensure that the imports will not affect domestic corn and cassava prices. Also, the Department of Livestock Development has recently issued standards for imported feed wheat as a feed ingredient. This standard is reportedly acceptable among the traders. Sources indicate that food-grade wheat imports are not affected.

The tariff on imported wheat has been zero since September 2007. Meanwhile, the applied tariff on wheat flour is 5 percent of 0.5 baht/kg, except in AFTA (Brunei, Indonesia, Malaysia, Philippines, and Singapore) and ASEAN-Australia-New Zealand which has been duty free since January 2010; however,

40 percent of the content has to originate from the exporting countries. Wheat flour imports from Vietnam have been duty free since the end of 2015 under the AEC.