

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## Taiwan

### Grain and Feed Annual

#### 2018 Grain and Feed Annual

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**Report Highlights:**

Rice production continues to be strong despite falling demand, as many farmers prefer the guaranteed income that comes from the government rice procurement program. As a result, rice stocks are forecast to rise by 12 percent and exceed 500,000 tons in MY2018/19, equaling almost half of annual consumption. Taiwan continues to be a top export market for U.S. grains due to stable consumption and feed demand. In 2017 Taiwan was the 6<sup>th</sup> largest export market for U.S. corn and 7<sup>th</sup> largest for wheat.

## Wheat

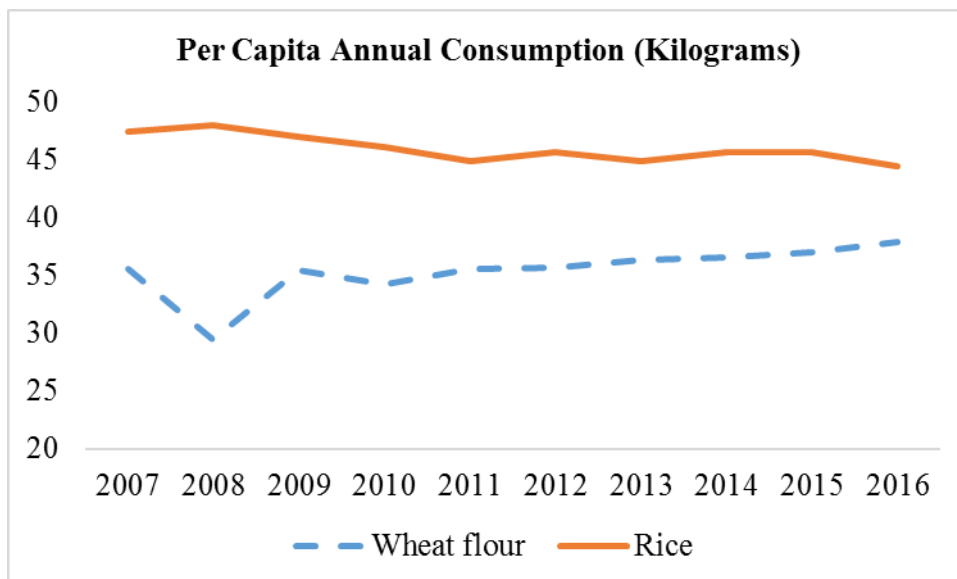
### Production

Taiwan grows a small amount of wheat with planting in November and harvest in March of the following year. Wheat production is forecast to remain flat in MY2018/19 at 6,000 tons. Estimated MY2017/18 wheat production is raised 1,000 tons, to 6,000 tons, on 3,000 hectares. The Council of Agriculture (COA) is using subsidies to encourage farmers to grow corn, wheat and soybeans as a rotation crop to reduce import demand and this program has resulted in a small increase in wheat acreage.

COA has initiated a wheat breeding program to develop wheat varieties that can adapt to Taiwan's climate and soil. The main variety grown now is Taichung #2, a medium protein hard red wheat variety that was initially bred three decades ago. COA's Agricultural Research and Extension launched Taichung #35, a low protein soft white wheat variety, in December 2017 for the winter planting season. Taichung #35 was bred to tolerate Taiwan's hot, humid climate and resist wheat rust and mildew.

### Consumption

Wheat consumption is gradually growing in Taiwan as people eat less rice and more wheat-based products such as noodles, buns, and baked goods. According to COA statistics, per capita annual wheat flour consumption increased 2.3 percent in 2016 to 37.9 kilograms. At the same time, per capita annual rice consumption fell 2.6 percent to 44.5 kilograms. Increased per capita consumption of wheat is partially offset by the aging of Taiwan's population and lack of population growth. Due to these trends, total wheat consumption is forecast to expand only slightly in MY2018/19 to 1.375 million tons. MY2017/18 wheat consumption is lowered 15,000 tons to 1.37 million tons based on Ministry of Economic Affairs (MOEA) flour production statistics and import trends.



Source: Council of Agriculture

Food, seed and industrial (FSI) consumption is forecast to increase slightly in MY2018/19 to 1.3 million tons. 66,000 tons is used for food fermentation (e.g., soy sauce), and most of the rest is milled into

flour. [Note: Total consumption is FSI plus feed and residual usage.] According to a recent market survey, over one-third of flour is used to produce noodles and steamed buns. Taiwan's milling capacity is estimated at 2 million metric tons on a 24-hour-300-day operation basis. Current capacity utilization is estimated at 60 percent.

Based on further review of COA statistics, feed and residual in MY2016/17 and MY2017/18 is raised 50,000 tons to properly account for wheat feed use. FSI consumption is lowered for those years to subtract feed use and reflect current MOEA flour production estimates.

### **Trade**

Taiwan relies on imports for 99 percent of its wheat. As a result, imports closely track consumption. MY2018/19 wheat imports are forecast up slightly to 1.435 million tons on rising demand. MY2017/18 imports are lowered 70,000 tons to 1.43 million tons on import trends.

The Taiwan Flour Millers' Association (TFMA) uses group purchases to import U.S. wheat via bulk vessels. These purchases account for approximately 75 percent of imports. The remaining 25 percent mostly consist of containerized shipments from Australia and Canada. In 2017, 58 percent of U.S. wheat imported under group purchases was Dark Northern Spring, 30 percent was Hard Red Winter, and 12 percent was low protein wheat.

The tariff on wheat is 6.5 percent, while the tariff on flour (HS 1101) is 17.5 percent in order to protect the domestic milling industry. Flour and other processed wheat products account for only four percent of Taiwan wheat imports. All of Taiwan's wheat exports are flour or other processed products.

### **Stocks**

Millers typically hold 1-2 months of stocks to avoid disruptions in operation. Stocks are forecast to stay stable at between 550,000 – 560,000 tons in MY2018/19 and MY2017/18.

## **Corn**

### **Production**

MY2018/19 corn production is forecast at 78,000 tons based on COA production targets. COA is providing rice farmers incentives to grow corn, wheat and soy as a rotational crop on rice paddies. MY2017/18 production is lowered 11,000 tons to 71,000 tons based on COA estimates and targets. MY2016/17 production is lowered 13,000 tons to 65,000 tons based on COA statistics. Corn yields in Taiwan have generally ranged between 4.5-5.3 tons per hectare, which is about half of yields in the United States.

### **Consumption**

Total corn consumption is forecast to remain stable at 4.35 million tons in MY2018/19. Corn consumption closely tracks total feed production in Taiwan, which has stayed stable at around 7.5 million tons. MY2017/18 corn consumption is lowered 250,000 tons to 4.35 million tons based on feed and animal production estimates.

Animal and feed production in Taiwan have remained stable in recent years. According to COA statistics, swine and poultry production accounted for 90 percent of total feed output with dairy cows and aquaculture accounting for most of the remaining 10 percent.

**Feed Production (million tons)**

	2014	2015	2016	2017 (estimate)	2018 (forecast)
Total Feed	7.46	7.38	7.52	7.37	7.46
Hog Feed	3.17	3.26	3.26	3.22	3.24
Poultry Feed	3.44	3.29	3.48	3.37	3.44
Others	0.85	0.83	0.78	0.78	0.78

Source: Council of Agriculture (2014-2016) and post estimate and forecasts (2017-2018).

**Pork and Poultry Production (Animals Slaughtered)**

	<b>Pork (1,000 head)</b>	<b>Poultry (million birds)</b>
2013	8,720	347
2014	8,067	370
2015	8,200	357
2016 (revised)	8,144	379
2017 (preliminary)	8,050	367
2018 (forecast)	8,100	375

Source: Council of Agriculture

**Trade**

MY2018/19 corn imports are forecast at 4.25 million tons, down 100,000 tons from the year before due to flat demand and ample stocks. MY2017/18 imports are lowered 150,000 tons to 4.35 million tons based on import trends and lower estimated feed demand. The United States supplies approximately half of Taiwan’s corn imports, with most of the rest coming from Brazil. Only 13 percent of corn imports were shipped via container, but the majority of those came from the United States.

As the chart on the following page illustrates, corn faces some competition from other grains and feed products, such as dried distillers grains and solubles (DDGS) and corn gluten feed. The feed inclusion rates for corn substitutes varies depending on prices.

**Imports of Other Feed Ingredients (in 1,000 tons)**

Feed Ingredient/HS Code	MY2014/15	MY2015/16	MY2016/17
1003: Barley	55	51	55

1007: Sorghum	70	74	48
2302.10: Bran, sharps & residues of maize (corn gluten feed)	14	18	20
2303.10: Corn gluten meal and feed	37	35	41
2303.30: DDGS	184	199	255
Total	360	377	419

Source: Taiwan Customs

### Stocks

Feed mills and corn processors generally hold 1-2 months of stocks. Feed mills use smaller container shipments and joint purchases to help manage stock levels and reduce inventory costs. MY2018/19 ending stocks are forecast at 627,000 tons. MY2017/18 and MY2016/17 ending stocks are lowered to 649,000 tons and 578,000 tons respectively on import trends and estimated consumption.

### Rice

#### Production

MY2018/19 (calendar year 2019) rice production is forecast to remain flat at 1.138 million tons. MY2017/18 rice production is lowered 6,000 tons to 1.138 million tons as COA works to reduce excess rice production. MY2016/17 rice production is raised to 1.213 million tons based on preliminary COA statistics. Higher production in MY2016/17 was the result of favorable weather and higher yields, along with a small increase in acreage.

COA is working to revise its rice support policies to reduce excess production and stocks. However, there is strong opposition by farmers to canceling direct government rice purchases. On February 5, 2018 COA issued an [Announcement on Application for Direct Payment](#). The announcement offered a NT\$13,500 per hectare direct payment for the first rice crop and NT\$10,000 for the second rice crop if farmers sell their crop commercially instead of to the government. As a result, rice farmers can now choose between receiving a direct payment and selling their rice to COA.

#### Consumption

Rice consumption is forecast to increase slightly in MY2018/19 to 1.16 million tons on higher expected feed use. Forecast MY2017/18 rice consumption is raised 10,000 tons to 1.15 million tons based on higher reported feed use. COA, faced with falling human consumption and strong production, is under pressure reduce publicly held rice stocks through exports, food aid, and feed use. However, COA efforts to promote increased domestic rice consumption have met with limited success. In 2016, per capita rice consumption fell 2.6 percent to 44.5 kilograms.

#### Trade

MY2017/18 and MY2018/19 rice imports are forecast at 126,000 tons, the full amount allowed under Taiwan's tariff rate quota (TRQ). MY2016/17 imports are estimated at 125,000 tons based on customs statistics. Out-of-quota imports are not commercially viable due to prohibitively high tariffs. The TRQ is divided into private sector imports (35 percent) and public sector imports (65 percent). Taiwan

completed the 2017 country specific quota (CSQ) for U.S. rice, totaling 64,634 tons on a brown equivalent basis. The public sector quota is divided by country of origin and tender type.

**2018 CSQ Allotments for Public Sector Imports (tons, brown basis)**

Country	Simultaneous Buy-Sell Tender			Normal Tender	Total CSQ
	1 <sup>st</sup> Tranche	2 <sup>nd</sup> Tranche	Total		
Egypt	2,500	0	2,500	0	2,500
Thailand	8,300	0	8,300	0	8,300
Australia	4,000	2,500	6,500	12,134	18,634
USA	18,500	13,100	31,600	33,034	64,634
Total	33,300	15,600	48,900	45,168	94,068

Source: Council of Agriculture

MY2018/19 and MY17/18 rice exports are forecast at 50,000 tons, including an expected 17,000 tons per year of food aid. Taiwan exported rice in recent years to relieve the pressure of rising rice stocks. MY2016/17 exports are lowered to 37,000 tons based on customs statistics, including 17,000 tons of food aid.

**Taiwan 2017 Food Aid Shipments**

Recipient Destination	Tons
Haiti	6,980
Jordan	1,700
Philippines	1,680
El Salvador	1,000
Honduras	960
Pakistan	800
Guatemala	800
South Africa	740
Sierra Leone, Rep. of	600
Other countries	2,080

Source: Council of Agriculture

**Stocks**

Ending stocks are forecast to reach 522,000 tons in MY2018/19. Forecast MY2017/18 ending stocks are raised to 468,000 tons as supply continues to exceed demand. According to media reports, rice stocks reached 800,000 tons on a brown basis after harvest in December 2017. Most stocks are government held and acquired through the domestic government procurement program or TRQ public tenders. COA is working to reduce stocks by encouraging the planting of other crops on rice paddies, providing rice as food aid, and using aging stocks for animal feed. According to feed millers, rice has to be milled into broken rice, is difficult to store, and is an imperfect substitute for corn.

Wheat	2016/2017	2017/2018	2018/2019
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Market Begin Year	Jul 2016		Jul 2017		Jul 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Taiwan						
Area Harvested	2	2	2	3	0	3
Beginning Stocks	567	567	569	563	0	559
Production	5	5	5	6	0	6
MY Imports	1430	1424	1500	1430	0	1435
TY Imports	1430	1424	1500	1430	0	1435
TY Imp. from U.S.	1072	1054	0	0	0	0
Total Supply	2002	1996	2074	1999	0	2000
MY Exports	68	68	65	70	0	72
TY Exports	68	68	65	70	0	72
Feed and Residual	25	75	25	75	0	75
FSI Consumption	1340	1290	1360	1295	0	1300
Total Consumption	1365	1365	1385	1370	0	1375
Ending Stocks	569	563	624	559	0	553
Total Distribution	2002	1996	2074	1999	0	2000
Yield	2.5	2.5	2.5	2	0	2
(1000 HA) ,(1000 MT) ,(MT/HA)						

Corn Market Begin Year	2016/2017		2017/2018		2018/2019	
	Oct 2016		Oct 2017		Oct 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Taiwan						
Area Harvested	13	11	14	12	0	13
Beginning Stocks	650	650	691	578	0	649
Production	78	65	82	71	0	78
MY Imports	4163	4163	4500	4350	0	4250
TY Imports	4163	4163	4500	4350	0	4250
TY Imp. from U.S.	3049	3049	0	0	0	0
Total Supply	4891	4878	5273	4999	0	4977
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	4050	4150	4450	4200	0	4200
FSI Consumption	150	150	150	150	0	150
Total Consumption	4200	4300	4600	4350	0	4350
Ending Stocks	691	578	673	649	0	627
Total Distribution	4891	4878	5273	4999	0	4977
Yield	6	5.9091	5.8571	5.9167	0	6
(1000 HA) ,(1000 MT) ,(MT/HA)						

Rice, Milled Market Begin Year	2016/2017		2017/2018		2018/2019	
	Jan 2017		Jan 2018		Jan 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Taiwan						
Area Harvested	260	267	260	256	0	256
Beginning Stocks	243	243	303	404	0	468
Milled Production	1144	1213	1144	1138	0	1138
Rough Production	1634	1733	1634	1626	0	1626
Milling Rate (.9999)	7000	7000	7000	7000	0	7000
MY Imports	126	125	126	126	0	126
TY Imports	126	125	126	126	0	126

<b>TY Imp. from U.S.</b>	49	54	0	0	0	0
<b>Total Supply</b>	1513	1581	1573	1668	0	1732
<b>MY Exports</b>	70	37	70	50	0	50
<b>TY Exports</b>	70	37	70	50	0	50
<b>Consumption and Residual</b>	1140	1140	1140	1150	0	1160
<b>Ending Stocks</b>	303	404	363	468	0	522
<b>Total Distribution</b>	1513	1581	1573	1668	0	1732
<b>Yield (Rough)</b>	6.2846	6.4906	6.2846	6.3516	0	6.3516
(1000 HA) ,(1000 MT) ,(MT/HA)						