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# **Taiwan**

## **Oilseeds and Products Annual**

# Soybeans and Products Situation and Outlook

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#### **Report Highlights:**

Taiwan is a mature and stable market. The primary driver behind soybean imports is demand for soybean meal for animal feed. An outbreak of Avian Influenza (AI) in February 2017 is forecasted to cause soybean imports to drop slightly in MY2016/17 before recovering in MY2017/18.

#### **Executive Summary:**

Taiwan is a mature market with relatively stable demand. The primary driver behind soybean imports is demand for soybean meal for animal feed. Oil production from domestic crushing is sufficient to meet domestic oil demand. The little soybeans grown domestically are used for food products on the local market.

Soybean consumption is forecast to recover slightly in MY2017/18 to 2.41 million tons. MY2016/17 soybean consumption is forecast to drop to 2.38 million tons based on import and animal production trends. MY2015/16 soybean consumption is lowered to 2.41 million tons based on official soybean meal production statistics. Almost all soybean demand is supplied by imports, and MY2017/18 and MY2016/17 imports are forecasted at 2.4 million tons and 2.35 million tons accordingly.

MY2017/18 soybean meal consumption is forecast to increase slightly to 1.56 million on recovering feed demand. MY2016/17 soybean meal consumption is forecast to drop to 1.53 million tons as poultry production is forecast to decline slightly in 2017 due to AI outbreaks. Pork production is forecast to remain stable in 2017 and 2018. Swine and poultry production account for almost 90 percent of total feed consumption.

Soybean oil consumption is forecast to remain flat in MY2017/18 at 338,000 tons. Taiwan's population has stabilized at around 23 million and is not expected to grow, limiting potential growth for vegetable oil in Taiwan. Forecast MY2016/17 soybean oil consumption is lowered to 338,000 tons based on forecasted supply and the renewed competitiveness of imported palm oil. Trade in soybean oil and meal is minimal.

## **Soybeans**

#### **Area and Production**

MY2017/18 area and production are forecast at 5,000 hectares and 8,000 tons respectively. The Council of Agriculture (COA) has set a target of reaching this production level in MY2016/17 and the government provides incentives to encourage farmers to plant non-GE soybeans. However, post forecasts that MY2016/17 area and production will only increase to 4,000 hectares and 6,000 tons due to high production costs and limited arable land in Taiwan. Soybeans yields tend to be quite low in Taiwan as soybeans are not generally intensively cultivated and are sometimes intermixed with other crops.

Domestically grown soybeans are almost exclusively used for human consumption. Despite limited production, promotions for domestic non-genetically engineered (GE) soybeans products are prevalent across the island due to growing interest in local non-GE food. Domestic soybean production is expected to continue to slowly grow in coming years to meet demand for local soy food products.

## Consumption

Soybean consumption is forecast to recover slightly in MY2017/18 to 2.41 million tons. Soybean meal for animal feed is the primary driver of soybean demand in Taiwan, and animal production has remained flat in recent years. MY2016/17 soybean consumption is lowered 250,000 tons to 2.38 million tons based on import and animal production trends, as well as discussions with industry contacts. A new avian influenza (AI) outbreak in February 2017 is expected to cause feed demand to drop slightly in MY2017/18. MY2015/16 soybean consumption is lowered 120,000 tons to 2.41 million tons based on official statistics. These soybean meal production statistics are consistent with reports from industry contacts.

Soybean consumption is dominated by crushing, which generates soybean meal for domestic animal feed as well as soybean oil. Soybean crushing is forecast to remain essentially flat at 1.98 million in MY2017/18 based on soybean meal production statistics and flat demand. Taiwan has daily crushing capacity of 9,050 tons. Feed, seed, and waste consumption is forecast at 150,000 tons based on reports of direct soybean feed use for poultry. The price of other high-fat feed ingredients such as palm oil and animal fats have remained high, encouraging the use of soybeans in broiler feed. MY2015/16 and MY2016/17 feed, seed, and waste consumption estimates are also raised to 50,000 tons to 150,000 tons for the reasons stated above.

MY2017/18 food consumption is forecast to remain flat at 280,000 tons. Labeling and traceability requirements have gradually increased demand for non-GE soybeans. Non-GE soybean food consumption is estimated at 69,000 tons in MY2015/16, accounting for approximately one-quarter of food demand. GE soybeans for food use are mostly supplied by locally screened U.S. #2 grade soybeans.

#### **Trade**

MY2017/18 soybean imports are forecast at 2.4 million tons as soybean meal demand is expected to recover to MY2015/16 levels. MY2016/17 imports are lowered 250,000 tons to 2.35 million tons based higher beginning stocks and slower import pace for October-December 2016. Poultry feed demand is

also expected to be hurt due to an AI outbreak in February 2017. As of March 22, 2017, a total of 105 farms are reported as infected with AI, compared to 37 farms in 2016. With exception of a few thousand tons of local production, all soybean demand is met through imports. U.S. soybeans have successfully maintained a market share of around 50 percent in recent years despite strong competition from South America.

Importers have used the availability of backhaul containers to import bulk products such as soybeans via container. In MY2015/16 a third of soybeans were imported via containerized shipments. This has provided importers with greater flexibility in their purchasing schedules and allowed them to limit stocks to 1-1.5 months' supply. The combination of low stocks and shipping delays in the U.S. Pacific Northwest created challenges for Taiwan crushers in early 2017, although these delays are not expected to have a long-term impact on production or trade.

GE and non-GE soybeans exported to Taiwan are required to be cleared under separate HS codes. Taiwan imported 66,000 tons of non-GE soybeans in 2016, equaling three percent of all imports. Canada supplied 25,000 tons of non-GE soybeans to Taiwan in 2016, while the United States supplied 23,000 tons. On average, non-GE soybeans were priced at approximately 1.6 times that of conventional soybeans in 2016 according to trade statistics.

Taiwan prohibits imports of soybeans (including meal and oil) from China. However, since 2008 Taiwan has permitted imports of specialty black skin soybeans under a separate HS code (1201-9000-10-4). Black skin soybeans are primarily used to make specialty soy milk or fermented soy sauce. Taiwan imported 9,000 tons of black skin soybeans from China in MY2015/16, up from 7,000 tons the year before.

## Soybean Meal

#### **Production**

MY2017/18 soybean meal production is forecast at 1.56 million tons as animal feed demand is expected to recover to normal levels. Estimated MY2016/17 meal production is lowered 240,000 tons to 1.53 million tons as a result of expected weaker poultry feed demand due to AI outbreaks. MY2015/16 meal production is estimated at 1.55 million tons based on Taiwan Ministry of Economic Affairs (MOEA) published statistics.

Year	Soybean Meal in million tons
2014	1.587
2015	1.511
2016	1.555
Source: T	Caiwan Ministry of Economic Affairs

Taiwan's two main crushers have invested in de-hulling equipment to increase production of high protein de-hulled meal. In addition to conventional soybean meal, full fat soybeans and de-hulled high protein meal with crude protein (CP) of 47 percent or above remain popular. Soybean meal is traded

according to Chinese National Standards (CNS), with a 43 percent minimum CP national standard for soybean meal.

## Consumption

MY2017/18 soybean meal consumption is forecast to increase slightly to 1.56 million on recovering feed demand. MY2016/17 soybean meal consumption is forecast to drop to 1.53 million tons as poultry production is forecast to decline slightly in 2017 due to AI outbreaks. Pork production is forecast to remain stable in 2017 and 2018. Swine and poultry production accounted for 88 percent of total feed output in 2015 according to COA statistics, with dairy cows and aquaculture accounting for most of the remaining 12 percent. Soybean meal consumption closely tracks total feed production in Taiwan.

**Taiwan Feed Production for Calendar Year 2014-2017 (million tons)** 

	2014	2015	2016 (estimate)	2017 (forecast)	2018 (forecast)
<b>Total Feed</b>	7.46	7.38	7.36	7.30	7.36
Hog Feed	3.17	3.26	3.24	3.24	3.24
Poultry Feed	3.44	3.29	3.29	3.23	3.29
Others	0.85	0.83	0.83	0.84	0.83

Source: Council of Agriculture (2013-2015) and post estimate and forecast (2016-2018)

## **Hog Sector**

The 2016 hog population is 5.44 million head according to the November 2016 COA hog census, down one percent from the year before. The reduction was attributed to typhoon damage and sporadic PEDv cases during the second half of 2016. Pork production is expected to remain flat in 2017 and 2018. Domestic demand has been generally stable. Taiwan has not had any significant pork exports since foot and mouth disease (FMD) outbreaks in 1997 closed the Japan market.

#### **Poultry Sector**

Taiwan suffered a High Path Avian Influenza (HPAI) outbreak in February 2017. As of March 22, 2017, COA has confirmed detection of HPAI in 105 poultry farms throughout the Island this season and that 963,112 birds have been depopulated. The more virulent H5N6 strain has been detected on 12 of the 105 farms. The Minister of Agriculture announced that Taiwan's Animal Health Research Institute has been commissioned to produce AI vaccines for "emergency and preventive" use. As a result, post forecast's that poultry production in 2017 will be two percent lower than COA's target number of 357 million birds slaughtered. Production is expected to recover in 2018 absent new outbreaks. Equivalent poultry feed demand is estimated at 3.23 MMT for MY2016/17 and 3.28 MMT for MY2017/18.

## Other Oilseed Meal Substitutions for Soybean Meal

Locally crushed soybean meal faces some competition from imports of distiller's dried grain with solubles (DDGS), fish meal, and other oilseed meals. Imports of alternative protein sources have been declining in recent years on a soybean meal equivalent (SME) basis, although trade statistics for October 2016 – January 2017 suggest imports may rebound in MY2016/17.

**Imports of Soybean Meal Substitutes (in 1,000 tons)** 

Meal/HS Code	MY2013/14	MY2014/15	MY2015/16	MY2016/17 (Oct- Jan)
2301.20: Fish meal	152	149	138	43
SME (x1.445)	220	215	199	62
2303.10: Corn gluten meal and feed	34	37	35	14
SME (x0.681)	23	25	24	10
2303.30: DDGS	213	184	199	75
SME (x0.5833)	124	107	116	44
2305: Peanut meal	8	4	1	3
SME (x1.124)	9	4	1	3
2306.50 Copra meal	26	17	12	4
SME (x0.4515)	12	8	5	2
2306.41-49 Rapeseed meal	53	39	10	2
SME (x0.7115)	38	28	7	1
2306.60 Palm kernel meal	90	89	55	15
SME (x0.3557)	32	32	20	5
Total in SME	434	394	349	118

Source: Taiwan Customs Statistics

### **Trade**

Soybean meal trade in Taiwan is small, with most demand supplied by local crushers. MY2017/18 soybean meal imports are forecast to remain flat at 30,000 tons. Estimated MY2016/17 imports are lowered to 30,000 tons based on the pace of imports. Taiwan also exports a small amount of soybean meal to regional markets. MY2017/18 exports are forecast to remain flat at 25,000 tons. MY2016/17 exports are raised to 25,000 tons based on the pace of exports.

# Soybean Oil

#### **Production**

MY2017/18 oil production is forecast at 361,000 tons, up slightly from the year before due to a forecast increase in soybean crushing. MY2016/17 oil production is lowered 65,000 tons to 355,000 tons, also on estimated soybean crushing. MY2015/16 oil production is lowered 41,000 tons to 361,000 tons based on MOEA soybean meal production statistics. Oil production in Taiwan is primarily driven by demand for soybean meal and is produced as a co-product by crushers. Meal demand tends to result in crushers producing slightly more oil than is required for the domestic market, making Taiwan a net-exporter of soy oil.

#### Consumption

Soybean oil consumption is forecast to remain flat in MY2017/18 at 338,000 tons. Taiwan's population has stabilized at around 23 million and is not expected to grow, limiting potential growth for vegetable oil in Taiwan. Forecast MY2016/17 soybean oil consumption is lowered to 338,000 tons based on forecasted supply and the renewed competitiveness of imported palm oil. MY2015/16 consumption is lowered to 335,000 tons based on production data and trade statistics. Taiwan producers generally retain limited stocks and there is only minor trade in soybean oil, so production closely tracks consumption.

Sales of soybean oil in supermarkets have been hurt by GE and trans-fat labeling requirements. However, soybean oil is still commonly found in supermarkets in the form of blended vegetable oils. Soybean oil remains widely used in the hotel, restaurant and institutional (HRI) sector due to its price competitiveness. Palm oil is also widely used in this sector. Chinese traditionally used oils such peanut, sesame, and tea seed oil remain popular despite their higher price due to their flavor and perceived health benefits.

#### **Trade**

MY2017/18 soybean oil exports are forecast to remain stable at 15,000 tons. MY2016/17 exports are raised slightly to 15,000 tons based on the pace of exports. A new crusher began operation in Taiwan in June 2015, increasing domestic oil supply. This has helped to increase exports and removed the need for imports.

Following a tainted lard scandal in 2014, imported fats and oils are required to enter under separate HS codes depending on whether they are for human consumption or for feed or industrial use. Importers are required to declare that the goods are for "fit for human consumption" or for industry or feed use. While lard and tallow exports may already be accompanied by suitable language on the USDA export certificate, Taiwan authorities have also accept U.S. Food and Drug Administration FDA Certificate of Free Sale for fat and oil shipments.

## **GE Labeling**

Primary products made from GE raw materials, such as soybean oil, corn starch and syrup and soy sauce, are required to be labeled as GE. "Secondary" products made with GE primary products, such as beverages containing corn syrup, are exempted from GE labeling requirements. Business licenses can be revoked for serious violations. Canola oil has been hurt the most by these labeling requirements, with imports of Australian non-GE rapeseed taking substantial market share from Canadian GE Canola producers. Soybean oil has been impacted to a lesser degree as it is often used in the HRI sector where labeling is less of an issue. More information is available in the 2016 <u>Agricultural Biotechnology Annual GAIN Report</u>.

Oilseed, Soybean	2015/2016	2016/2017	2017/2018
Market Begin Year	Oct 2015	Oct 2016	Oct 2017

Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	3	0	4	0	5
Area Harvested	1	3	1	4	0	5
Beginning Stocks	178	178	125	247	0	227
Production	1	3	1	6	0	8
MY Imports	2476	2476	2600	2350	0	2400
MY Imp. from U.S.	1325	1280	1350	1180	0	1200
MY Imp. from EU	0	0	0	0	0	0
Total Supply	2655	2657	2726	2603	0	2635
MY Exports	0	0	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Crush	2150	1980	2250	1950	0	1980
Food Use Dom. Cons.	280	280	280	280	0	280
Feed Waste Dom. Cons.	100	150	100	150	0	150
Total Dom. Cons.	2530	2410	2630	2380	0	2410
Ending Stocks	125	247	96	227	0	225
Total Distribution	2655	2657	2726	2607	0	2635
(1000 HA), (1000 MT)						·

Meal, Soybean	2015/20	)16	2016/2	017	2017/2018			
Market Begin Year	Oct 2015		Oct 20	Oct 2016		17		
Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post		
Crush	2150	1980	2250	1950	0	1980		
Extr. Rate, 999.9999	0.786	0.7854	0.7867	0.7846	0	0.7854		
Beginning Stocks	46	46	29	54	0	49		
Production	1690	1555	1770	1530	0	1555		
MY Imports	33	33	45	30	0	30		
MY Imp. from U.S.	7	20	0	10	0	10		
MY Imp. from EU	0	0	0	0	0	0		
Total Supply	1769	1634	1844	1614	0	1634		
MY Exports	25	25	20	25	0	25		
MY Exp. to EU	0	0	0	0	0	0		
Industrial Dom. Cons.	0	0	0	0	0	0		
Food Use Dom. Cons.	0	0	0	0	0	0		
Feed Waste Dom. Cons.	1715	1555	1750	1540	0	1555		
Total Dom. Cons.	1715	1555	1750	1540	0	1555		
Ending Stocks	29	54	74	49	0	54		
Total Distribution	1769	1634	1844	1614	0	1634		
(1000 MT) ,(PERCENT)	(1000 MT),(PERCENT)							

Meal, Copra	2015/20	16	2016/20	17	2017/20	18
Market Begin Year	Oct 201	5	Oct 201	6	Oct 201	7
Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	0	0	0	0	0	0
Extr. Rate, 999.9999	0	0	0	0	0	0
Beginning Stocks	0	0	0	0	0	0
Production	0	0	0	0	0	0
MY Imports	17	12	20	12	0	12
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from EU	0	0	0	0	0	0
Total Supply	17	12	20	12	0	12
MY Exports	0	0	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	0	0	0	0	0	0

Feed Waste Dom. Cons.	17	12	20	12	0	12
Total Dom. Cons.	17	12	20	12	0	12
Ending Stocks	0	0	0	0	0	0
Total Distribution	17	12	20	12	0	12
(1000 MT) ,(PERCENT)						

Meal, Palm Kernel	2015/20	2015/2016		2016/2017		18
Market Begin Year	Oct 201	6	Oct 20	Oct 2017		8
Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	0	0	0	0	0	0
Extr. Rate, 999.9999	0	0	0	0	0	0
Beginning Stocks	0	0	0	0	0	0
Production	0	0	0	0	0	0
MY Imports	0	55	0	50	0	50
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from EU	0	0	0	0	0	0
Total Supply	0	55	0	50	0	50
MY Exports	0	0	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	0	55	0	50	0	50
Total Dom. Cons.	0	55	0	50	0	50
Ending Stocks	0	0	0	0	0	0
Total Distribution	0	55	0	50	0	50
(1000 MT) ,(PERCENT)						

Oil, Soybean	2015/20	2015/2016		2016/2017		2017/2018	
Market Begin Year	Oct 20	15	Oct 20	16	Oct 2017		
Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Crush	2150	1980	2250	1950	0	1980	
Extr. Rate, 999.9999	0.187	0.1823	0.1867	0.1821	0	0.1823	
Beginning Stocks	29	29	24	25	0	27	
Production	402	361	420	355	0	361	
MY Imports	0	0	0	0	0	0	
MY Imp. from U.S.	0	0	0	0	0	0	
MY Imp. from EU	0	0	0	0	0	0	
Total Supply	431	390	444	380	0	388	
MY Exports	11	12	14	15	0	15	
MY Exp. to EU	0	0	0	0	0	0	
Industrial Dom. Cons.	18	18	18	18	0	18	
Food Use Dom. Cons.	378	335	387	320	0	320	
Feed Waste Dom. Cons.	0	0	0	0	0	0	
Total Dom. Cons.	396	353	405	338	0	338	
Ending Stocks	24	25	25	27	0	35	
Total Distribution	431	390	444	380	0	388	
(1000 MT) ,(PERCENT)							