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**Report Highlights:**

Rising feed demand coupled with limited availability and higher prices for protein-rich substitutes is expected to increase China's soybean imports to a record forecast 100 million metric tons (MMT) in Marketing Year (MY) 22/23. Estimated soybean imports for MY 21/22 are reduced to 95 MMT from the previous Post estimate on continuing weak demand in the swine and poultry sectors and announced plans to auction state reserves. Oilseed production is forecast to increase slightly to 62.4 MMT in MY 22/23 on strong domestic prices and government incentives.

## Executive Summary

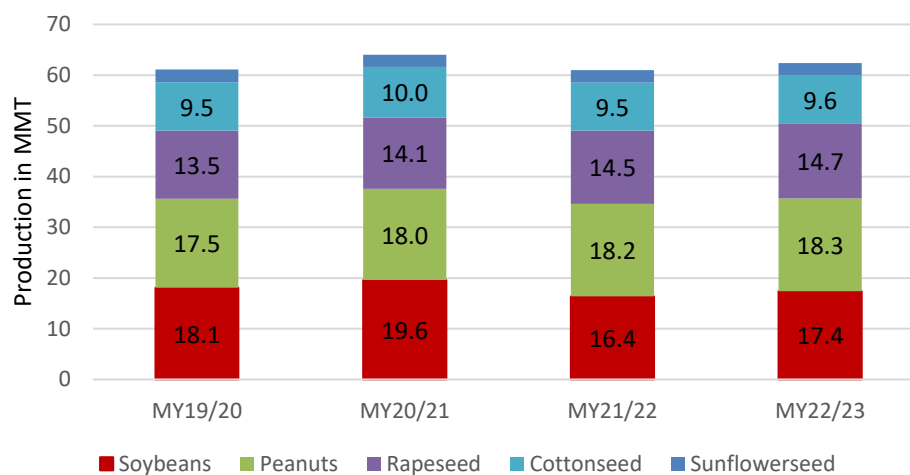
- Greater sow and hog inventories following the ASF outbreak in 2018, combined with high poultry production capacity and steadily increasing ruminant and aquaculture production, are expected to boost feed demand in MY 22/23, pushing soybean imports to a record 100 MMT.
- Estimated soybean imports for MY 21/22 are reduced to 95 MMT from previous Post estimate on weaker demand in the swine and poultry sector, lower than expected Brazilian production, and an announcement from China's State Food and Strategic Reserve Administration on plans to auction state reserve soybeans.
- China's oilseed production is forecast up slightly to 62.4 MMT in MY 22/23 from an estimated 61 MMT in MY 21/22 on expected higher subsidy rates for soybeans and stronger prices and demand for other oilseeds.
- Soybean crush volume is forecast at 98.5 MMT in MY 22/23, compared to an estimated 96.5 MMT in MY 21/22. Total MY 22/23 protein meal feed use is forecast to increase 1.8 percent year-on-year to 98.7 MMT.
- Government efforts to reduce soybean meal (SBM) inclusion rates are unlikely to substantially impact overall SBM use as prices for other feed grains remain high. The availability of other protein meals, particularly sunflower seed meal imported from Ukraine, is limited.

## I Oilseeds Situation and Outlook

Oilseed consumption for MY 22/23 is forecast at 166.7 MMT, up from an estimated 163.5 MMT in MY 21/22. Oilseed imports are forecast at 104.1 MMT in MY 22/23 compared to an estimated 98.4 MMT the previous marketing year. China's domestic oilseed production is forecast at 62.4 MMT in MY 22/23, up from an estimated 61 MMT in MY 21/22.

China's major oilseed crops include soybeans, rapeseed, cottonseed, peanuts and sunflower seed (see Chart 1). Oilseed demand, primarily in the animal feed sector, continues to outstrip domestic production, requiring significant volumes of imports. Despite government efforts to boost domestic oilseed production, imports are expected to account for 62 percent of total domestic oilseed consumption in MY 22/23, a slight increase from MY 21/22. Combined, Brazil, the United States, Argentina, and Canada are expected to supply 96 percent of China's oilseed imports in MY 22/23.

**Chart 1. China: Major Oilseed Production**  
(MY 2019/20 to MY 2022/23)



Source: MY 19/20 to MY 21/22 – National Bureau of Statistics (NBS) and China National Grain and Oilseeds Center (CNGOIC); Cottonseed production – FAS/Beijing estimates; MY 22/23 – FAS/Beijing forecasts

### Soybeans

#### *Production*

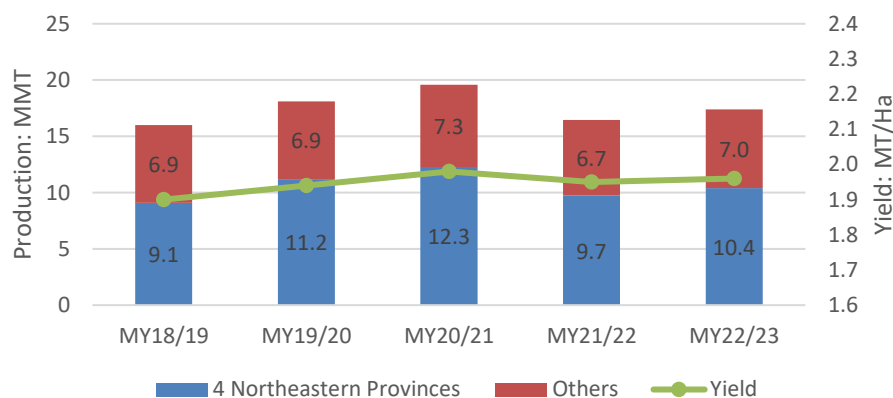
Soybean production for MY 22/23 is forecast at 17.4 MMT, up 1 MMT from the previous year based on expected acreage of 8.9 million hectares (MHa) and minimal yield growth. Post lowered MY 21/22 production to 16.4 MMT based on National Bureau of Statistics (NBS) data citing a smaller planted area of 8.42 MHa. The lower production spanned all provinces (see Table 1), with production in key growing regions in the Northeast declining nearly 3 MMT.

**Table 1. China: Soybean Production by Province (MY 19/20 to MY 22/23)**

Production (in MMT)	MY19/20	MY20/21	MY21/22	MY22/23 *
Total	18.1	19.6	16.4	17.4
Northeast Provinces	11.01	12.53	9.78	
---Heilongjiang	7.8	9.2	7.1	
---Inner Mongolia	2.3	2.35	1.87	
---Jilin	0.7	0.75	0.61	
---Liaoning	0.21	0.23	0.2	
Henan	0.98	0.96	0.85	
Anhui	0.96	0.9	0.83	
Shandong	0.53	0.55	0.47	
Others	4.64	4.65	4.52	

Source: CNGOIC; \*FAS/Beijing forecast

**Chart 2. China: Soybean Production Decreased in MY 21/22**  
(Left: production; Right: nation average yield)



Source: NBS; MY 22/23 data are FAS/China forecast; Note: Northeast provinces are: Heilongjiang, Inner Mongolia, Jilin, and Liaoning

Domestic oilseed production remains constrained by limited arable land, increasing production costs, and restricted access to biotech seed varieties. According to the People's Republic of China's (PRC) [2022 No.1 Document](#), an annual policy document focused on agriculture and rural development, the government intends to encourage and support soybean production in 2022. Specifically, the government plans to raise subsidies for crop rotations and awards to counties with high oilseed production; promote intercropping of corn and soybeans in the corn belt including Yellow River, Huai River and Hai River regions, the northwest and southwest; promote grain and soybean rotation in the northeast; encourage soybean planting in rice growing regions of Heilongjiang province where the underground water is over-exploited; promote use of idle winter land for rapeseed planting in the Yangtze River region, promote demonstration farming of soybeans on alkali and salty land; and support camellia planting and lift the camellia yield.

In late December 2021, Minister of Agriculture and Rural Affairs (MARA), Tang Renjian and other senior PRC officials addressed the central government's rural economy conference, calling

on participants to stabilize staple grain and corn production and expand soybean and other oilseeds production in 2022. The statements, which align with past PRC goals to boost production of strategic crops, were followed by national and provincial plans seeking to maximize use of limited arable lands that often compete among grain and soybean crops. Citing greater efficiency, MARA recommended increasing intercropping of corn and soybeans to 15 million Mu (1 MHa) from 7 million Mu the previous year and issued a technical guidance document promoting corn and soybean intercropping. Following the central government's lead, the Heilongjiang provincial government announced plans to expand soybean planted area by 10 million mu (0.67 MHa) in 2022 through "optimizing crop mix"; a phrase generally understood to mirror the No. 1 Document and include a combination of greater intercropping with corn and crop rotation away from paddy to soybean, particularly in areas where underground water resources are constrained. Similarly, Henan provincial officials noted the province will promote corn and soybean intercropping and PRC media reported on demonstration plots showing an additional 1.35 to 1.5 metric tons (MT) of soybeans per hectare could be gained without reducing corn production.

Although central government pronouncements may carry some weight in determining plantings for MY 22/23, industry sources note soybean planted area in 2022, particularly in the Northeast provinces, is likely to increase regardless, a result of normal crop rotation following higher corn plantings in 2021.

One factor that may spur soybean plantings is the subsidy rate vis-à-vis corn, which is still unconfirmed for MY 22/23. However, industry sources reported the government may raise the subsidy for soybeans in 2022 to maintain a spread of RMB200/Mu (RMB 3,000/Ha or U.S. \$476/Ha) above corn in Northeast provinces. Although area-based subsidy rates are not publicly available, sources indicate a declining subsidy spread for soybeans in 2021 (RMB 2,700 compared to RMB 3,000 in 2020) in Heilongjiang province, China's primary soybean production area, contributed to smaller soybean acreage in MY 21/22 (see Table 2).

**Table 2. China: Soybean and Corn Subsidy Rates and Area for Heilongjiang (2019-2022)**

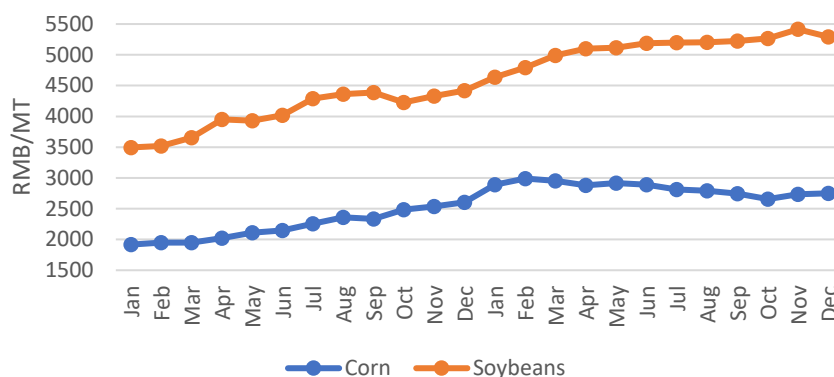
Crop	2019		2020		2021		2022*	
	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans
Subsidy RMB/Ha	450	3,825	570	3,570	1,020	3,720	1,020	4,020
Planted area (1,000 Ha)	5,800	4,279	5,500	4,832	6,500	3,810		

Source: NBS; Subsidy rates are estimates by industry source; \*Estimates based on China's media reports

Area expansion often depends on profits earned by farmers the previous season. Despite a record soybean price in MY 21/22 and higher subsidy rate, an industry source estimated net profits in Heilongjiang from soybeans stood at RMB 6,315/Ha (or U.S. \$1,000/Ha) in MY 21/22 compared to RMB 7,170/Ha (or U.S. \$1,138/Ha) for corn. Other sources noted based on production costs, purchasing price, and subsidy rates, soybean and corn profits were nearly identical in Northeast

provinces. Prices for MY 21/22 soybeans peaked at RMB 6,100/MT (U.S. \$968/MT) in mid-November but have remained high through February.

**Chart 3. China: Corn and Soybean Prices**  
(Jan 2020 to Dec 2021)



Source: [www.chinajci.com](http://www.chinajci.com)

Traditionally, farmers prefer planting corn over soybeans due to lower labor inputs. Soybean production costs are expected to increase by RMB 1,800 to 3,600/Ha (U.S. \$280 to \$560/Ha) in MY 22/23 on higher land rents and other input costs. After peaking in late October 2021, prices for all fertilizers remain high, up 50 to 75 percent from the previous year. The National Development and Reform Commission (NDRC) has noted increased production costs attributable to raw material prices are expected to sustain high prices for fertilizer throughout 2022.

Post forecasts soybean area in Northeast provinces will expanded 8 percent along with moderate growth in other provinces in MY 22/23. This is due to expected crop rotations favoring higher soybean planted area, government pronouncements on expanding soybean production increasing the likelihood of higher soybean subsidies, high prices for food use soybeans, and high fertilizer costs disproportionately increasing corn input costs.

### **Consumption**

Soybean consumption for MY 22/23 is forecast at 118.4 MMT, up from an estimated 116.2 MMT in MY 21/22. After suffering from high feed costs, weak demand, and over production in MY 21/22, moderate growth and profitability is expected to return to the swine and poultry sectors in MY 22/33, leading to 2.2 MMT of total consumption growth (see additional analysis in Meal and Oil Sections below).

### **Crush**

China's soybean crush volume is forecast at 98.5 MMT in MY 22/23, up from an estimated 96.5 MMT in MY 21/22 based on moderate growth in feed demand. Annual crush capacity is estimated at about 145 MMT and remains underutilized. Industry sources indicate utilization rates typically range from 55 to 70 percent with facilities frequently adjusting operations to balance crushing margins and demand for soybean products. Driven by strong prices for soybean

meal (SBM) and oil, soybean crushing margins rebounded in February 2022 from low to negative levels in December 2021.

### *Food Use*

Soybean for food use is expected to reach 15 MMT in MY 22/23, an increase of 200,000 MT on the previous year. A 2020 China Soybean Industry Association survey indicated of the 14.6 MMT of soybeans used for food, 61 percent was for soy-based foods (i.e., tofu, soymilk, etc.), 24 percent was used as ingredients for processed food products (i.e., soy protein for sausage etc.) and 15 percent was for directly consumed, including home use for food.

### *Feed, Seed, Waste Use*

Soybean for feed use in the form of extruded full-fat soybean meal is expected to decline slightly in MY 22/23 on fewer expected sows. However, the decline is expected to be offset by increased seed use, maintaining combined feed, seed, and waste use at 4.9 MMT in MY 22/23.

### *Trade*

China's soybean imports are forecast to reach 100 MMT in MY 22/23 on moderate demand growth in the feed sector. Estimated MY 21/22 imports are reduced to 95 MMT from previous Post estimate on weaker demand in the feed sector during the first half of 2022 as the swine and poultry sectors scale back feed purchases and feed mills seek ways to trim SBM inclusion rates to improve low margins or narrow losses.

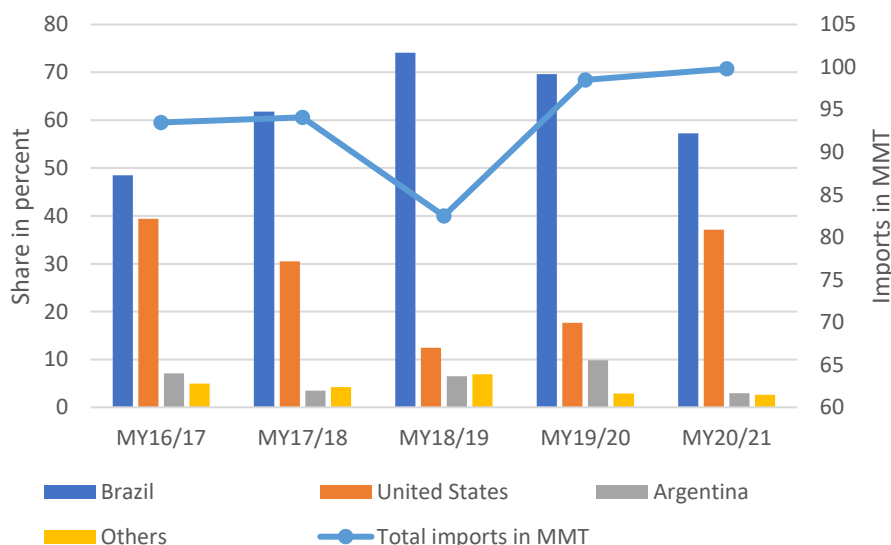
Soybean imports in the first quarter of MY 21/22 remained weak, down by 3.3 MMT from the previous year as the swine and poultry sectors struggled to achieve profitability. As weaker downstream demand reduced orders to feed mills, they in turn have carried lower inventories and placed fewer orders from crushers. Accordingly, facing tighter margins and weak demand, crushers have cut commercial stocks significantly from an average volume equivalent to 4-6 weeks of production to an average volume of two weeks production.

Currently, twelve countries have market access to export soybeans to China: Argentina, Benin, Bolivia, Brazil, Canada, Ethiopia, Kazakhstan, Russia, Tanzania, Ukraine, the United States, and Uruguay. Although China continues to seek ways to diversify its basket of soybean suppliers, its ability to add soybean imports from new suppliers faces numerous hurdles, from production availability to logistics. The ability to shift significant volumes of purchases to suppliers outside of Brazil, the United States and Argentina, is limited and likely to remain so for the foreseeable future. Total soybean imports from all other suppliers peaked at 5.7 MMT in MY 18/19, falling to an average of 2.7 MMT in MY 19/20 and MY 20/21.

U.S. soybean exports to China recovered in MY 20/21 with China's implementation of a tariff exclusion process on March 2, 2020, for Section 301 retaliatory tariffs. The tariffs had increased effective duties on U.S. soybean to 30.5 percent (for information on applicable tariff rates, see the [2021 Oilseeds and Products Annual](#)). The return to 3 percent duties as of March 2020 combined with a swine sector recovering from ASF and purchase commitments made under the Phase One Economic and Trade Agreement lifted U.S. soybean imports to a near record 37.1 MMT in MY 20/21; accounting for 37.2 percent of imports. However, China's weak overall demand in the first quarter of MY 21/22 resulted in a 3.2 MMT decline in total imports and a 4.9

MMT decline in imports of U.S. origin soybean compared to the same period the prior year. As of the [February 24, 2022](#) USDA Export Sales Report <sup>1</sup> had accumulated sales of U.S. soybeans to China remained nearly 10 MMT below volumes exported through the same period last year. However, supply challenges in Brazil, including reports of MY 21/22 production falling to 125 - 130 MMT compared to record pre-harvest estimates well-exceeding 140 MMT may yet increase demand for U.S. soybeans.

**Chart 4. China: Soybean Imports by Origin**  
(MY 16/17 to MY 20/21)



Source: Trade Data Monitor, LLC.

China's MY 22/23 soybean exports, which are primarily for food use, are forecast stable at 70,000 MT based on strong domestic demand and relatively high prices. Soybean exports have declined from 110,000 MT in MY 19/20. Japan, Korea, and Taiwan are the top destinations for China's limited exports.

### **Stocks**

Soybean ending stocks for MY 22/23 are forecast at 26.1 MMT compared to an estimated 27.2 MMT in the previous year. Data on the volume of China's state-managed soybean reserves, composed of both imported and domestic product, is not publicly available. Soybean reserves are held at both the national and provincial level. Central reserves are predominantly held by state-owned China Grain Reserve Corp (Sinograin) and COFCO Corp. In early 2022, two joint ventures between the companies were announced as part of a broader consolidation effort meant to play to the strengths of each company. Under the new arrangement, details of which are still emerging, Sinograin will lead a joint venture focused on grain storage and COFCO will lead a joint venture focused on oilseed crushing.

<sup>1</sup> Note: USDA Export Sales Report for soybeans runs from Marketing Year September – August as opposed to the USDA PS&D Marketing Year for China soybeans which runs from October – September).



On February 22, China’s State Food and Strategic Reserve Administration announced an auction of state-held soybeans and vegetable oil reserves from March to May as part of an effort to increase supplies of oilseeds and oils. Reports suggest approximately 120,000 MT of soybean oil will be auctioned from reserve holdings. No public information is available regarding the volume of soybeans to be auctioned; however, Post contacts have indicated weekly sales could be as high as 700,000 MT in March and April, or 5.6 MMT during the two-month period. The auction of such a large volume of state reserve soybeans comes after a period of weak demand in the animal feed sector and low to negative crushing margins led to lower imports and commercial stocks. Given China’s sizable state-held stocks, the eventual volume released could significantly impact MY 21/22 imports beyond Post’s current estimate.

### ***Policy***

The two main regulations governing the oilseeds trade are the *Administrative Measures regarding the Inspection and Quarantine for the Entry and Exit of Grain and Oilseeds*, also referred to as AQSIQ Decree 177 (see [GAIN report CH16003](#)), and the *Supervision and Management Measures for the Inspection and Quarantine of Import and Export Feed and Feed Additives*, also referred to as AQSIQ Decree 118 (see [GAIN report CH9071](#)). Imports of genetically engineered soybeans require a biosafety certificate from MARA (see [GAIN Report 2021 Agricultural Biotechnology Annual](#)).

### **Rapeseed**

#### ***Production***

Rapeseed production for MY 22/23 is forecast at 14.7 MMT, up from an estimated 14.45 MMT the previous year, based on a slight expansion of acreage to 7.1 MHa and yields in line with the three-year average. China maintains two planting periods for rapeseed, with a winter crop typically planted in November/December and harvested in April/May and a summer crop planted in June and harvested in September.

**Table 3. China: Rapeseed Production by Province**

MY/Production (in MMT)	MY19/20	MY20/21	MY21/22	MY22/23 *
Total	13.48	14.05	14.45	14.7
Sichuan	2.96	3.17	3.26	
Hubei	2.11	2.41	2.48	
Hunan	2.08	2.29	2.33	
Anhui	0.87	0.85	0.86	
Guizhou	0.77	0.76	0.79	
Jiangxi	0.69	0.68	0.7	
Northwest Provinces**	1.25	1.06	1.1	
Others	2.75	2.83	2.93	

Source: NBS and CNGOIC; \*FAS/China forecast; \*\*Inner Mongolia, Xinjiang, Gansu, Qinghai, Xizang and Ningxia

Rapeseed plantings for MY 22/23 are expected to reflect returns received by farmers in MY 21/22, which varied by province. According to an official survey, despite price increases, MY 21/22 rapeseed returns declined slightly in top producing Sichuan and Hubei provinces due to

lower yields, while profits in Anhui, Yunan and Chongqing slightly increased from the previous year. In addition to prior years margins, plantings in Sichuan and Hubei provinces are partly driven by local consumers' preference of rapeseed oil and tourism as travelers descend on rural areas during the Spring rapeseed flowering.

MARA's November survey indicated 2021 winter planted rapeseed area exceeded 96 million Mu (6.4 MHa), up by 4 million Mu (0.27 MHa) from the previous year. According to the China National Grain and Oils Information Center (CNGOIC), Anhui rapeseed area reached 6.84 million Mu (456,000 Ha), up 1.2 million Mu (80,000 Ha) from the previous year. For MY 22/23, the Hubei provincial government set its target rapeseed area at 17.2 million Mu (1.15 MHa), up 0.8 million Mu (53,000 Ha) from the previous year and aimed at achieving production of 2.5 MMT. To meet these targets the provincial government awarded funds to large rapeseed-producing counties to provide free or subsidized planting seeds and technical assistance to encourage farmers' use of idle land for winter sowing.

Industry sources report no significant issues with 21/22 plantings and favorable weather conditions for crop growth. As of mid-February 2022, MARA and CNGOIC indicated rapeseed growth in the Yangtze River region, Sichuan, and Yunnan is outperforming the previous year due to favorable weather and ample rainfall.

### ***Trade***

Based on an expected rebound in Canadian production and more competitive prices, China's MY 22/23 rapeseed imports are forecast at 2.7 MMT compared to an estimated 2 MMT in MY 21/22. Since MY 18/19, China's rapeseed imports have declined due to trade tensions with Canada, its main rapeseed supplier. Despite bilateral friction, Canada supplied 90 percent of imports in MY 20/21 and is on track to maintain the same level of market share in MY 21/22.

### ***Policy***

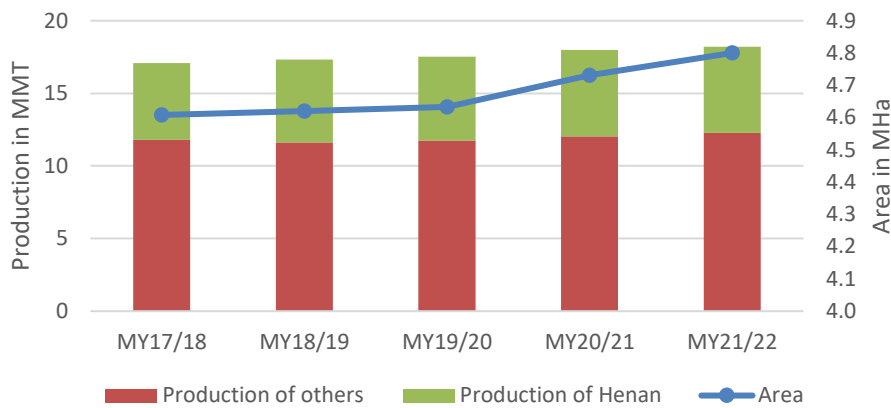
The PRC government provides a planting seed subsidy of RBM150/Ha (\$22/Ha), while some provincial governments provide limited, additional subsidies to encourage rapeseed production.

### ***Peanuts***

#### ***Production***

Peanut production is forecast at 18.3 MMT in MY 22/23, up from an estimated 18.2 MMT in MY 21/22. Peanut area expanded in MY 21/22, reaching 4.8 MHa and is expected to remain unchanged in MY 22/23. In most producing areas, favorable weather aided in maintaining yields. In Henan province, where flooding before harvest had raised damage and quality concerns, minimal impact on production was reported.

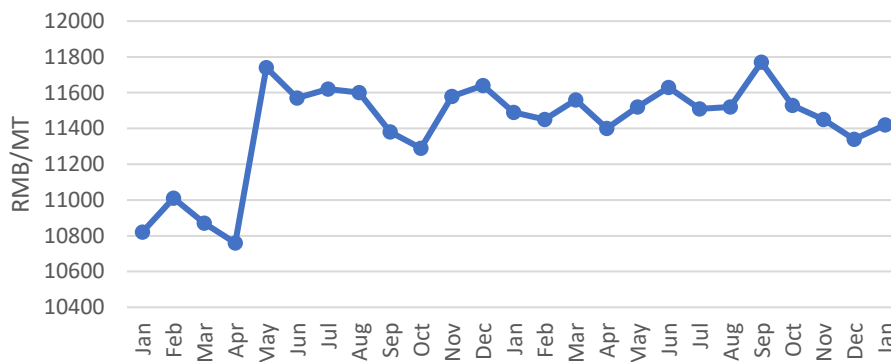
**Chart 5. China: Peanut Production and Area**  
(MY 17/18 to MY 21/22)



Source: NBS and MY 21/22 data is based on CNGOIC

Despite price fluctuations, peanut profits in recent years exceeded those from cotton, corn, and soybeans in most peanut-producing regions. However, industry statistics show peanut kernel prices have declined from their two-year peak of RMB 11,770/MT (U.S \$1,839/MT) in September 2021 to RMB \$11,420/MT (U.S \$1,767/MT) in January 2022. As prices for corn, soybeans and cotton increased in MY 21/22, peanuts lost their profit advantage in large peanut-producing provinces including Henan, Shandong, Hebei, and Liaoning. However, given past reliable returns and stable demand, Post expects stable peanut area in MY 22/23.

**Chart 6. China: Peanut Kernel Price Trend**  
(Jan 2020 to Jan 2022)



Source: MARA cited cngrain.com

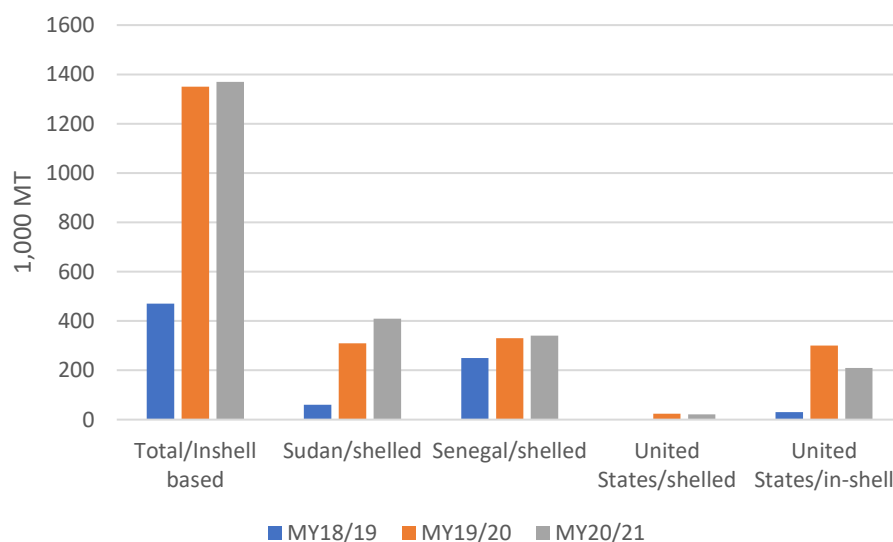
**Trade**

China’s peanut imports are forecast at 1.1 MMT in MY 22/23, unchanged from the previous year. Domestically produced peanuts dominate the food and snack food sectors and provide a large share of the crush volume, while imports primarily fill excess demand for crush.

Peanuts from Senegal and Sudan benefit from their price competitiveness and duty-free status, accounting for 68 percent (0.74 MMT) of China’s imports of shelled peanuts in MY 20/21. On

the other hand, the United States supplied almost all in-shell peanuts the same year, a trend likely to continue as importing U.S. in-shell peanuts for processing in China remains cost effective.

**Chart 7. China: Peanut Imports from Major Origins**  
(MY18/19 to MY20/21)



Source: Trade Data Monitor, LLC.

Peanut imports are subject to a 15 percent MFN import duty and a 10 percent value-added tax. China's implementation of a tariff exclusion process for the Section 301 retaliatory tariff on U.S. products in March 2020 facilitated U.S. peanuts exports to China in MY 20/21 and remains in place.

China's peanut exports are forecast at 0.5 MMT in MY 22/23, unchanged from the estimate for the previous year. Export growth remains limited by strong domestic demand. In MY 20/21, Asian countries including Japan, South Korea, and Indonesia accounted for 54 percent of China's peanut exports.

### ***Policy***

Peanut farmers continue to receive a RMB150/Ha (US \$22/Ha) planting seed subsidy from the central government.

### **Cottonseed**

#### ***Production***

Cottonseed production for MY 22/23 is forecast at 9.6 MMT, up slightly from the previous year. Cotton planting area in MY 22/23 is expected to modestly increase in Xinjiang province and remain unchanged in the Yellow River and the Yangtze River regions. Xinjiang's production gain on slight area expansion and high yield is expected to be offset by area and production declines in the Yellow River and the Yangtze River regions.

The PRC government’s direct subsidy to cotton farmers in Xinjiang in MY 22/23 remains unchanged from the previous year. The target price was set at RMB18,600/MT (\$2,950/MT) for three years starting from MY 20/21. Based on an industry survey, MY 21/22 cotton production costs in Xinjiang were up slightly over the previous year, however, seed cotton selling price was up about 55 percent, indicating higher profits for cotton farmers.

**Trade**

China’s cottonseed imports are forecast at 50,000 MT in MY 22/23, an insignificant volume in the context of the total oilseed complex. Given that the majority domestic cottonseed is produced in Xinjiang, relatively far from the primary consumption areas, sporadic imports of cottonseed are expected to continue.

**Other Oilseeds**

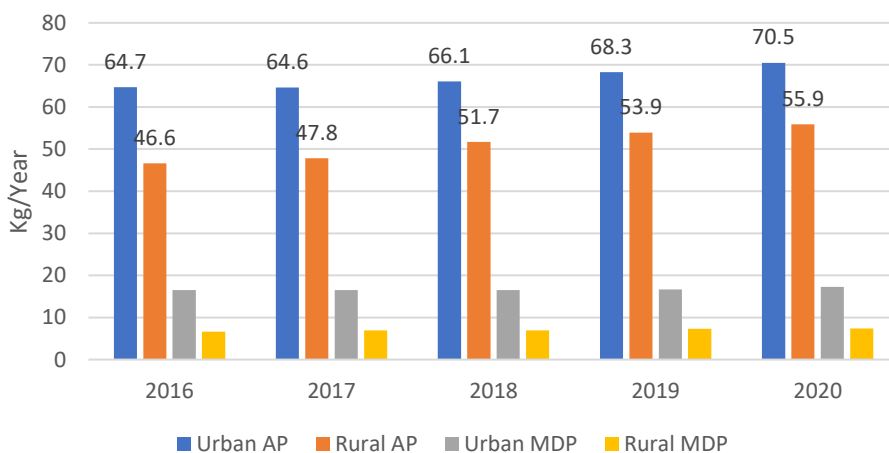
Camellia production continues in China’s southern provinces, including Hunan, Jiangxi, and Guangxi. However, due to low yields, production has grown slowly, with oil production basically flat at about 0.7 MMT in 2021, far below government production targets of 1 MMT in 2020 and 2 MMT by 2025. Though still far short of target levels, camellia oil production is expected to see moderate growth as newly planted trees gradually bear fruit in the coming years.

**II Oilseed Meal Situation and Outlook**

**Consumption**

Despite forecasted slower economic growth and historically low population growth of just 480,000 people in 2022, higher demand for animal protein is expected to provide steady demand for oilseed meal. China’s per capita consumption of animal products continues to rise, particularly among its growing middle-income urban population.

**Chart 8. China: Per Capita Consumption of Animal and Dairy Products**

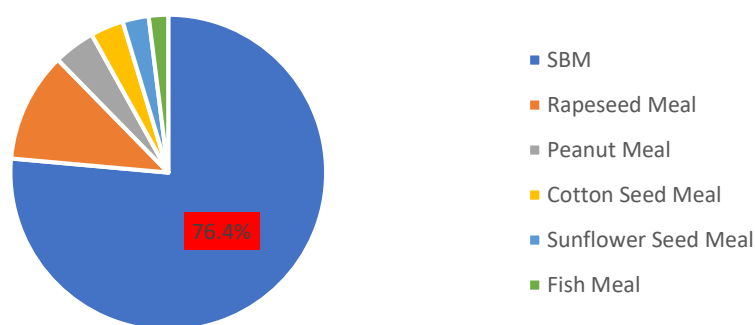


Source: NBS; Note: AP-Animal products including pork, beef and mutton, poultry, eggs and aquatic products; MDP- milk and dairy products

Forecast protein meal use for feed is 98.7 MMT in MY 22/23, up 1.7 MMT or 1.8 percent from the previous year. Protein meal feed use in MY 21/22 is estimated at 97 MMT, up only slightly

compared to MY 20/21 due to lower profits and higher prices causing swine and poultry producers to reduce meal inclusion rates. SBM feed use continues to dominate the protein meal complex, accounting for more than 76 percent of feed meal use in MY 22/23, almost unchanged from the previous year. Total SBM feed use is forecast to increase to 75 MMT in MY 22/23 from an estimated 74 MMT the previous year.

**Chart 9. China: Share of Protein Meals for Feed in MY 22/23**



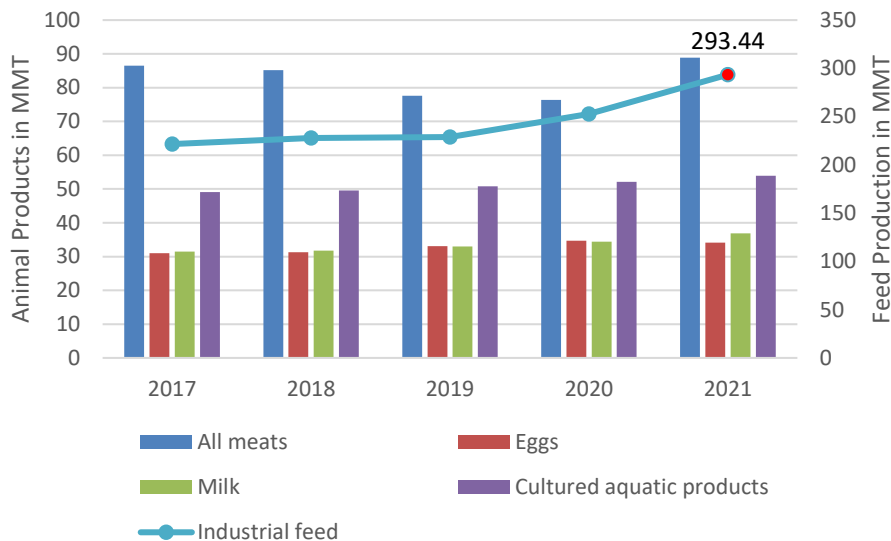
Source: FAS/Beijing Forecast

Recovered sow and hog inventories following the 2018 ASF outbreak, combined with high poultry production capacity and steadily increasing ruminant and aquaculture production, are expected to boost feed demand in 2022 and beyond. According to MARA, as of the end of 2021, sow inventories remained high at 43.29 million head, up 4 percent from the previous year. At these levels, inventories were 96.8 percent of the pre-ASF level at end of 2017, according to MARA. Total pig inventory was estimated at 449 million head, 10.5 percent higher than the previous year or 101.7 percent of the pre-ASF outbreak level.

Some industry sources estimate total slaughtered hogs will reach 700 million head in 2022, up from the NBS data indicating 670 million in 2021 (Note: Post estimates swine production at 655,000 million head in 2021 – see [Livestock and Products Semi-Annual](#)). To balance higher production entering the market with lackluster demand, MARA has called for cutting sow inventory to 41 million head. However, many swine companies have been slow to reduce production for fear of losing hard earned market share that could pay dividends once supply and demand rebalance. The industry's slow response is evident in MARA data showing sow inventory at the end of 2021 increasing by 330,000 head from November. More recent MARA data indicate sow inventories have declined slightly to 42.9 million head at the end of January 2022, a pace industry contacts noted is insufficient to alleviate current over capacity. Additionally, industry insiders believe recently eliminated sows are mostly lower performance 3-line cross bred sows, which are partly offset by increases of higher performing 2-line sows, all of which suggests swine production capacity will remain high despite low or negative profits in the first half of 2022.

Growing feed demand in the animal protein sectors despite low to negative margins among swine and poultry producers can be seen in China's robust industrial feed production in 2021, which according to MARA reached 293.44 MMT, up 16.1 percent from the previous year.

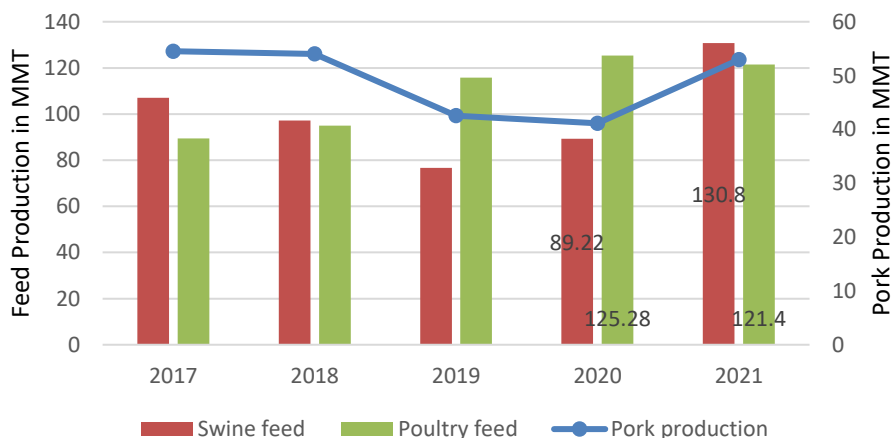
**Chart 10. China: Feed and Animal Products Production (2017 – 2021)**



Source: NBS and MARA

Compared to 2020, compound feed increased 17.1 percent, accounting for 270.2 MMT, concentrate increased 2.4 percent, accounting for 15.5 MMT, and feed pre-mix additives increased 11.5 percent, accounting for 6.63 MMT. By feed category, swine feed accounted for 130.8 MMT, up 46.6 percent, ruminant feed accounted for 14.8 MMT, up 12.2 percent, aquaculture feed accounted for 22.93 MMT, up 8 percent, and pet food accounted for 1.13 MMT, up 17.3 percent. However, feed for all types of egg and poultry meat was 32.31 MMT and 89.1 MMT, down 3.6 percent and 2.9 percent, respectively, from the previous year.

**Chart 11. China: Swine Feed Gain Offset Poultry Feed Fall in 2021**



Source: MARA; Swine and Poultry Feed Production -FAS/Beijing-Estimate

Meal demand continues to be bolstered by the shift towards more large-scale swine production, raising the use of compound feed. MARA's total 2021 compound feed production of 270.2 MMT represents a striking 17.1 percent increase or net growth of about 40 MMT from the previous year and a 65 MMT increase from 2018. Based on an industry source, the top 20 Chinese swine companies produced (slaughtered) 136.35 million hogs in 2021, accounting for 19.5 percent of the nation's total, compared to an estimated 14 percent in 2020. A Shandong animal husbandry leader reported that scale swine farming expanded in the province, with small-scale swine farms/households declining significantly to 276,400 in 2020 from over one million in 2015. An industry source suggested the share of large-scale (classified as annual slaughter of 500 or more hogs by MARA) swine farming in 2021 exceeded 55 percent.

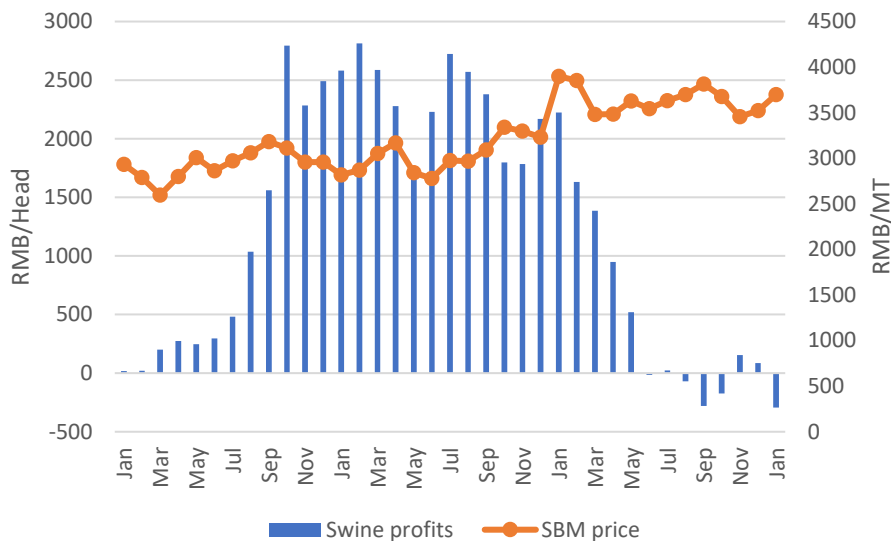
The use of wheat as a substitute for high-priced corn attributed to a decline in SBM inclusion in 2021. Post forecasts lower use of corn substitutes, including wheat, sorghum and barley in 2022 will modestly increase SBM inclusion rates (see more in [2022 Grain and Feed Update](#)). In late January 2022, the China Feed Industry Association began a nationwide survey on use of substitutes for SBM and corn in feed. Subsequently, in February 2022, a MARA official highlighted how a "low protein feed program" was succeeding in reducing SBM use in feed, citing 2021 total SBM consumption growth at 5.7 percent, far below total feed production growth of 16.1 percent. MARA noted total feed consumption (industrial and non-industrial feed) reached 450 MMT in 2021, with SBM inclusion rate averaging 15.3 percent, down 2.4 percent from 2020. This inclusion rate implies a reduction of SBM use by 10.8 MMT or 14 MMT of soybeans, levels not substantiated by Post analysis. In making this theoretical assessment, MARA highlighted three measures as key to driving lower SBM use growth: 1) promotion of lower protein rations (MARA notes 2021 SBM inclusion rate in compound feed for the 33 feed companies with yearly production exceeding 1 MMT was 11.8 percent, down 1.6 percentage points from the previous year); 2) maximized use of protein materials, including approval and use of new protein feed ingredients such as clostridium ethanolicin; and 3) optimized cattle and sheep feed structures utilizing more silage resulting in a 1.2 MMT SBM use reduction.

Although Post forecasts the year-on-year growth rate of protein meal feed use slowing in MY 22/23, it remains to be seen to what extent government and industry's call to adopt a "lower protein ration" will contribute to this slower growth. Most industry contacts expressed the need for feed companies to design their own formulas, operating with maximum flexibility in mind to balance availability and costs of energy and protein ingredients in determining the most economical formulation. Accordingly, high SBM prices, and low to negative profits for both swine and poultry sectors are expected to slow the growth of protein meal use.

According to NBS, China remained the world's top producer of cultured seafood in 2021 with an output of 53.88 MMT, up 3.1 percent from the previous year. Aquaculture feed production, an indicator of future demand, increased 8 percent to 22.9 MMT in 2021 on stronger demand for cultured seafood. China's declining wild caught ocean and freshwater seafood combined with fewer available freshwater production areas is expected to increase the intensity of cultured seafood production, requiring higher protein levels which could push the industry's average SBM inclusion rate beyond the current 28 – 30 percent. For additional information, please see [2021 China Fisheries Report](#).



**Chart 12. China: Swine Farming Profits and SBM Prices**  
(Jan 2019 to Jan 2022)



Source: China JCI Consulting Co.

***Oilseed Meal Trade***

Protein meal imports are forecast at 5.3 MMT in MY 22/23, up from an estimated 5.1 MMT in MY 21/22. Rapeseed meal imports, which are primarily utilized by the aquaculture sector, are forecast at 1.75 MMT in MY 22/23, down from an estimated 1.9 MMT in MY 21/22 on expected higher rapeseed imports. Estimated sunflower seed meal imports are reduced to 1.4 MMT in MY 21/22 and forecast to rebound slightly to 1.8 MMT in MY 22/23 due to supply disruptions in Ukraine. Partially offsetting lower sunflower meal imports, palm kernel meal imports, also popular for their price advantage, are forecast to rise to 950,000 tons and 1 MMT in MY 21/22 and MY 22/23, respectively.

Fish meal imports for MY 22/23 are forecast at 1.6 MMT, unchanged from the estimate for MY 21/22 based on a stable demand by the growing aquaculture sector and slightly lower use for swine feed as producers trim more expensive feeds to cushion losses. Industry statistics indicate global fish meal production in 2021 increased by 3.6 percent. Higher production helped maintain lower prices which resulted China importing a record 1.84 MMT. In 2021, Peru maintained its place as China’s number one fish meal supplier with exports exceeding 1 MMT, accounting for 55.6 percent of the market. U.S. fish meal exports to China increased slightly to 74,000 MT in 2021.

China’s protein meal exports are limited, comprised almost entirely of SBM. Protein meal exports are forecast at 1.2 MMT in MY 22/23.

### **III Vegetable Oil Situation and Outlook**

#### ***Production***

Vegetable oil production for MY 22/23 is forecast at 29.2 MMT, up from 28.5 MMT in MY 21/22 on increased soybean crush. Soybean oil will continue to be China's primary domestically produced vegetable oil, projected to account for 61 percent of total oil production in MY 22/23, followed by rapeseed oil and peanut oil, at 23 percent and 11 percent, respectively. China's production of specialty oils also continues to grow, taking market share from traditional oils. The top domestically produced specialty oils include camellia oil, sesame oil, corn oil, and rice oil.

#### ***Consumption***

MY 22/23 food consumption of vegetable oil is forecast at 36.3 MMT, up 1.3 percent from the previous year. Though slowing, GDP and population growth, urbanization, and increasing rural consumption continue to push demand for vegetable oil. China's per capita vegetable oil consumption is estimated at 25.4 Kg in MY 21/22, higher than comparable markets such as Taiwan and Korea due to consumer dietary preferences.

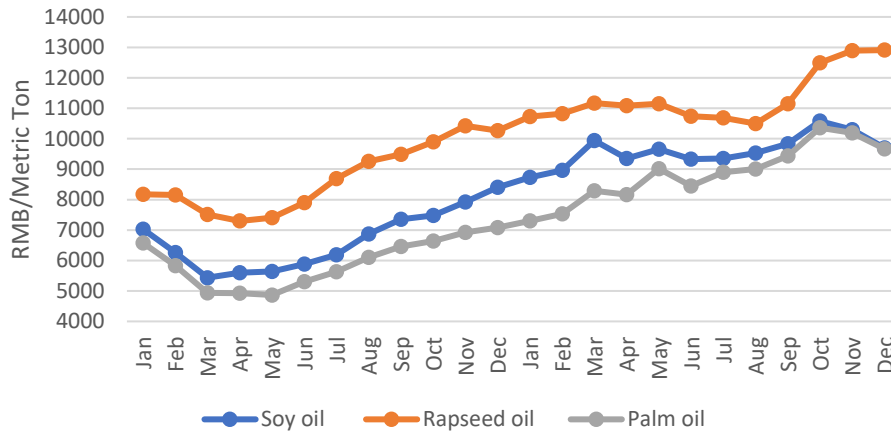
China's food service remains a major consumer of vegetable oil. The sector continues to recover from restaurant closures during the 2020 COVID-19 outbreak, which resulted in a significant fall in food service revenue. According to NBS data, food service revenue rebounded in 2021, rising 18.6 percent from the previous year, although still 1.1 percent lower than 2019 revenue. Although the food service sector is expected to continue growing in 2022, new COVID-19 cases and the government's "zero-tolerance" policy create uncertainties and hamper the industry's ability to operate.

China's food processing industry is also a driving force for vegetable oil consumption. Far below the world average, China's per capita consumption of baked food has room to grow. Despite pandemic-related challenges, bakery revenue grew in 2020 and is expected to grow 10 percent in 2021 and 2022. Sales of cakes, pastries, cookies and breads are increasing (see [China's Rising Bakery Sector](#) for more information), as is consumption of instant noodles, a major end-user of palm oil.

Vegetable oil, particularly soybean oil due to its ready availability, is consumed in the feed sector. The vegetable oil inclusion rate varies widely among feed mills and feed varieties and is impacted by the fluctuating prices of oil and other feed ingredients. Post estimates feed use vegetable oil at 1.8 MMT in MY 21/22 and MY 22/23, down from MY 20/21 due to less wheat inclusion in feed rations.

Prices for major vegetable oils increased rapidly in 2021 (see Tables 28-30). NSB data show sales value of grain and vegetable oils in 2021 increased by 10.8 percent from the previous year, reflecting higher prices for grain and oilseeds. A relatively high price spread compared to rapeseed oil and low spread compared to palm oil have provided some market advantage for soybean oil use.

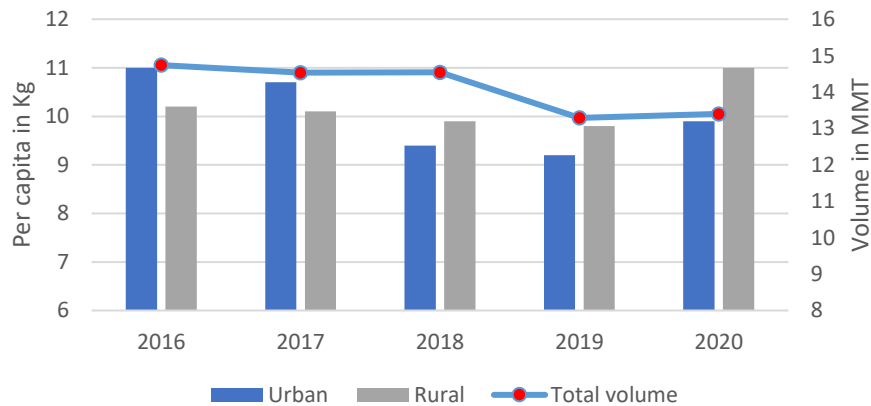
**Chart 13. China: Prices for Major Vegetable Oils**  
(Jan 2020 to Dec 2021– Monthly Average)



Source: China JCI Consulting Co.

Per capita consumption of oils and fats for home use (see Chart 14) shows a downward trend for urban consumers and upward trend for rural consumers. Based on urban and rural population data, yearly total home use consumption indicates a declining trend since 2016. Accordingly, growth of vegetable oil consumption is forecast to mainly occur through demand growth in the food service and food processing sectors in MY 21/22 and beyond.

**Chart 14. China: Per Capita and Total Consumption of Vegetable Oils and Fats**  
(2016 to 2020)



Source: NSB; The per capita consumption covers home use; total volume is calculated based on population and the yearly per capita consumption

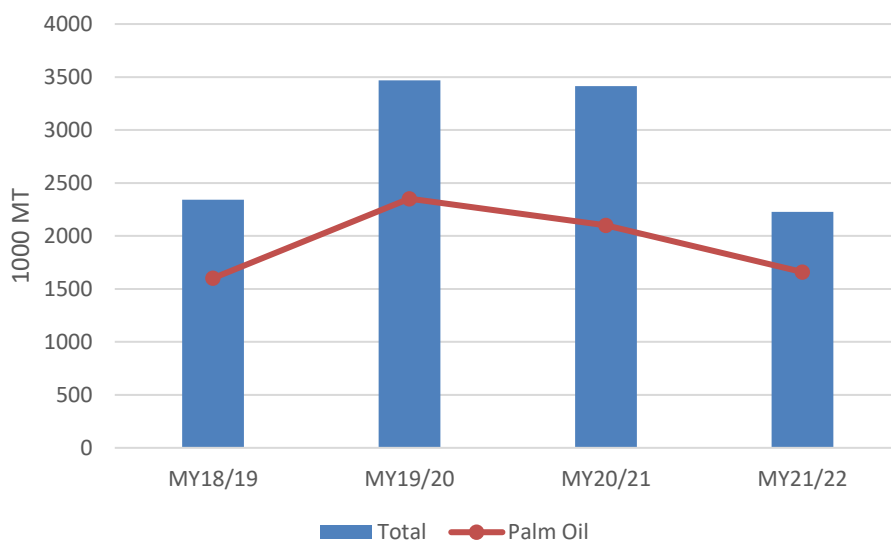
**Trade**

MY 22/23 total oil imports are forecast at 11.9 MMT, up from an estimated 11.2 MMT in MY 21/22, based on moderate increase of imports of rapeseed oil and sunflower seed oil.

Imports of the five major vegetable oils (palm oil, rapeseed oil, sunflower seed oil, soybean oil and peanut oil) in the first quarter of MY 21/22 declined significantly to 2.2 MMT from the 3.4 MMT in the previous year. Weak domestic consumption and high prices coupled with increased

domestic production and supply disruptions from Ukraine are expected to reduce MY 21/22 total vegetable oil imports by 1.4 MMT from the previous year.

**Chart 15. China: Q1 Imports of Vegetable Oils**  
(MY 18/19 – MY 21/22)



Source: Trade Data Monitor, LLC.; Total includes 1<sup>st</sup> Quarter imports of 5 major oils (palm oil, rapeseed oil, sunflower seed oil, soybean oil and peanut oil).

Palm oil remains China’s number one vegetable oil import due to stable demand and the lack of domestic production. Imports of palm oil are forecast at 6.8 MMT in MY 22/23, unchanged from estimate for MY 21/22. Palm oil import growth is expected to be constrained by record high prices, reducing its traditional price advantage over soybean oil and thus limiting opportunities for blending.

Rapeseed oil imports are forecast higher at 1.9 MMT in MY 22/23 from an estimated 1.7 MMT in MY 21/22, on expected increase in Canadian rapeseed production. Peanut oil imports are also forecast higher at 350,000 tons (equivalent to approximately 1 MMT of in-shell peanuts), up from an estimated 300,000 tons in MY 21/22.

Imports of sunflower seed oil, mainly from Ukraine and Russia, are expected to fall significantly to 1.1 MMT in MY 21/22 due to war-related trade disruptions.

### **Stocks**

The PRC government maintains a strategic vegetable oil reserve. Although information about the volume of the reserve is not publicly available, the State Food and Strategic Reserve Administration recently announced the government intended to auction state-held vegetable oil reserves. Reports suggest approximately 120,000 MT of soybean oil will be auctioned from state reserve oil holdings as early as March 2022.

**Total Oilseeds, Total Meal, and Total Oil Production, Supply, and Distribution (PSD) Tables**

**Table 4. China: Total Oilseeds**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Total Oilseeds (1000 tons; 1000Ha)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
<b>Market Year Begin</b>		10/2020		10/2021		10/2022
Area Planted		25,363		24,002		24,730
Area Harvested	25,502	25,363	24,150	24,002		24,730
Beginning Stocks	28,481	28,481	36,475	33,890		28,684
Production	65,579	63,989	62,081	60,974		62,400
MY Imports	104,136	104,136	97,185	98,350		104,100
<b>TOTAL SUPPLY</b>	198,196	196,606	195,741	193,214		195,184
MY Exports	1,000	1,000	925	1,020		1,020
Crush Dom. Cons.	129,840	131,224	129,260	132,275		135,000
Food Use Dom. Cons.	22,493	22,670	23,300	23,150		23,445
Feed,Seed,Waste Dom.Cons.	8,388	7,822	7,804	8,085		8,225
<b>TOTAL Dom. Consumption</b>	160,721	161,716	160,364	163,510		166,670
Ending Stocks	36,475	33,890	34,452	28,684		27,494
<b>TOTAL DISTRIBUTION</b>	198,196	196,606	195,741	193,214		195,184

**Table 5. China: Total Meals**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Total Meal (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
<b>Market Year Begin</b>		10/2010		10/2021		10/2022
Crush	130,940	132,224	130,360	133,275		136,000
Extr. Rate, 999.9999						
Beginning Stocks	0	0	0	0		0
Production	92,276	93,592	91,698	94,621		96,646
MY Imports	6,171	6,171	5,325	5,100		5,285
<b>TOTAL SUPPLY</b>	<b>98,447</b>	<b>99,763</b>	<b>97,023</b>	<b>99,721</b>		<b>101,931</b>
MY Exports	1,062	1,062	915	815		1,160
Industrial Dom. Cons.	1,927	1,967	1,928	1,960		2,080
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	95,458	96,734	94,180	96,946		98,691
<b>TOTAL Dom. Consumption</b>	<b>97,385</b>	<b>98,701</b>	<b>96,108</b>	<b>98,906</b>		<b>100,771</b>
Ending Stocks	0	0	0	0		0
<b>TOTAL DISTRIBUTION</b>	<b>98,447</b>	<b>99,763</b>	<b>97,023</b>	<b>99,721</b>		<b>101,931</b>

**Table 6. China: Total Oils**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Total Oils (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
<b>Market Year Begin</b>		10/2020		10/2021		10/2022
Crush	129,840	131,224	129,260	132,275		135,000
Extr. Rate, 999.9999						
Beginning Stocks	2,250	2,250	2,711	3,011		2,337
Production	27,956	28,267	27,933	28,486		29,158
MY Imports	12,572	12,572	11,910	11,180		11,930
<b>TOTAL SUPPLY</b>	<b>42,778</b>	<b>43,089</b>	<b>42,554</b>	<b>42,677</b>		<b>43,425</b>
MY Exports	75	75	147	119		120
Industrial Dom. Cons.	2,350	2,500	2,350	2,550		2,600
Food Use Dom. Cons.	37,642	35,503	38,249	35,871		36,332
Feed Waste Dom. Cons.	0	2,000	0	1,800		1,800
<b>TOTAL Dom. Consumption</b>	<b>39,992</b>	<b>40,003</b>	<b>40,599</b>	<b>40,221</b>		<b>40,732</b>
Ending Stocks	2,711	3,011	1,808	2,337		2,573
<b>TOTAL DISTRIBUTION</b>	<b>42,778</b>	<b>43,089</b>	<b>42,554</b>	<b>42,677</b>		<b>43,425</b>

## Oilseeds PSD Tables

**Table 7. China: Soybeans**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Oilseed, Soybean (1000 tons; 1000 Ha)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Area Planted	9,900	9,900	8,500	8,415		8,900
Area Harvested	9,883	9,866	8,400	8,415		8,900
Beginning Stocks	26,790	26,790	34,484	32,082		27,212
Production	19,602	19,600	16,400	16,400		17,400
MY Imports	99,762	99,762	94,000	95,000		100,000
Total Supply	146,154	146,152	144,884	143,482		144,612
MY Exports	70	70	100	70		70
Crush	93,000	95,000	92,000	96,500		98,500
Food Use Dom. Cons.	14,000	14,400	14,800	14,800		15,000
Feed Waste Dom. Cons.	4,600	4,600	4,900	4,900		4,900
Total Dom. Cons.	111,600	114,000	111,700	116,200		118,400
Ending Stocks	34,484	32,082	33,084	27,212		26,142
Total Distribution	146,154	146,152	144,884	143,482		144,612



**Table 8. China: Rapeseed**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oilseed, Rapeseed (1000 tons;1000 Ha)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Area Planted		6,680		6,900		7,100
Area Harvested	6,765	6,680	6,800	6,900		7,100
Beginning Stocks	1,253	1,253	1,597	1,597		1,327
Production	14,049	14,049	14,000	14,450		14,700
MY Imports	2,795	2,795	1,800	2,000		2,700
Total Supply	18,097	18,097	17,397	18,047		18,727
MY Exports	0	0	0	0		0
Crush	16,000	16,000	15,800	16,200		17,000
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	500	500	448	520		525
Total Dom. Cons.	16,500	16,500	16,248	16,720		17,525
Ending Stocks	1,597	1,597	1,149	1,327		1,202
Total Distribution	18,097	18,097	17,397	18,047		18,727

**Table 9. China: Peanuts**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oilseed, Peanut (1000 tons; 1000 Ha)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Area Planted	4,731	4,731	4,750	4,800		4,800
Area Harvested	4,731	4,731	4,750	4,800		4,800
Beginning Stocks	0	0	0	0		0
Production	17,993	17,993	18,200	18,200		18,300
MY Imports	1,371	1,371	1,100	1,100		1,100
Total Supply	19,364	19,364	19,300	19,300		19,400
MY Exports	455	455	450	500		500
Crush	10,100	10,474	10,200	10,290		10,250
Food Use Dom. Cons.	7,543	7,335	7,550	7,410		7,500
Feed Waste Dom. Cons.	1,266	1,100	1,100	1,100		1,150
Total Dom. Cons.	18,909	18,909	18,850	18,800		18,900
Ending Stocks	0	0	0	0		0
Total Distribution	19,364	19,364	19,300	19,300		19,400

**Table 10. China: Sunflower Seed**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oilseed, Sunflower seed (1000 tons; 1000 Ha)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Area Planted	873	866	1,100	887		900
Area Harvested	873	866	1,100	887		900
Beginning Stocks	438	438	394	211		145
Production	2,570	2,347	2,900	2,424		2,450
MY Imports	136	136	175	200		250
Total Supply	3,144	2,921	3,469	2,835		2,845
MY Exports	475	475	375	450		450
Crush	1,200	1,200	1,800	1,200		1,200
Food Use Dom. Cons.	950	935	950	940		945
Feed Waste Dom. Cons.	125	100	125	100		100
Total Dom. Cons.	2,275	2,235	2,875	2,240		2,245
Ending Stocks	394	211	219	145		150
Total Distribution	3,144	2,921	3,469	2,835		2,845

**Table 11. China: Cottonseed**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Oilseed, Cottonseed (1000 tons; 1000 Ha)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Area Planted (Cotton)	3,250	3,220	3,100	3,000		3,030
Area Harvested (Cotton)	3,250	3,220	3,100	3,000		3,030
Seed to Lint Ratio	0	0	0	0		0
Beginning Stocks	0	0	0	0		0
Production	11,365	10,000	10,581	9,500		9,550
MY Imports	72	72	110	50		50
Total Supply	11,437	10,072	10,691	9,550		9,600
MY Exports	0	0	0	0		0
Crush	9,540	8,550	9,460	8,085		8,050
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	1,897	1,522	1,231	1,465		1,550
Total Dom. Cons.	11,437	10,072	10,691	9,550		9,600
Ending Stocks	0	0	0	0		0
Total Distribution	11,437	10,072	10,691	9,550		9,600

## Meal PSD Tables

**Table 12. China: Soybean Meal**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Meal, Soybean (1000 tons)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	93,000	95,000	92,000	96,500		98,500
Extr. Rate, 999.9999	0.792	0.792	0.792	0.792		0.792
Beginning Stocks	0	0	0	0		0
Production	73,656	75,240	72,864	76,428		78,012
MY Imports	74	74	60	60		60
Total Supply	73,730	75,314	72,924	76,488		78,072
MY Exports	1,052	1,052	900	800		1,150
Industrial Dom. Cons.	1,250	1,342	1,250	1,330		1,450
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	71,428	72,920	70,774	74,358		75,472
Total Dom. Cons.	72,678	74,262	72,024	75,688		76,922
Ending Stocks	0	0	0	0		0
Total Distribution	73,730	75,314	72,924	76,488		78,072

**Table 13. China: Rapeseed Meal**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Meal, Rapeseed (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	16,000	16,000	15,800	16,200		17,000
Extr. Rate, 999.9999	0.59	0.59	0.59	0.59		0.59
Beginning Stocks	0	0	0	0		0
Production	9,442	9,442	9,324	9,558		10,030
MY Imports	1,967	1,967	1,800	1,900		1,750
Total Supply	11,409	11,409	11,124	11,458		11,780
MY Exports	5	5	10	5		0
Industrial Dom. Cons.	475	475	476	480		480
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	10,929	10,929	10,638	10,973		11,300
Total Dom. Cons.	11,404	11,404	11,114	11,453		11,780
Ending Stocks	0	0	0	0		0
Total Distribution	11,409	11,409	11,124	11,458		11,780

**Table 14. China: Peanut Meal**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Meal, Peanut (1000 tons)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	10,100	10,474	10,200	10,290		10,250
Extr. Rate, 999.9999	0.4	0.4	0.4	0.4		0.4
Beginning Stocks	0	0	0	0		0
Production	4,040	4,190	4,080	4,116		4,100
MY Imports	51	51	100	120		60
Total Supply	4,091	4,241	4,180	4,236		4,160
MY Exports	0	0	0	0		0
Industrial Dom. Cons.	0	0	0	0		0
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	4,091	4,241	4,180	4,236		4,160
Total Dom. Cons.	4,091	4,241	4,180	4,236		4,160
Ending Stocks	0	0	0	0		0
Total Distribution	4,091	4,241	4,180	4,236		4,160

**Table 15. China: Sunflower Seed Meal**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Meal, Sunflower seed (1000 tons)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	1,200	1,200	1,800	1,200		1,200
Extr. Rate, 999.9999	0.545	0.545	0.545	0.545		0.545
Beginning Stocks	0	0	0	0		0
Production	654	654	981	654		654
MY Imports	2,233	2,233	1,765	1,400		1,800
Total Supply	2,887	2,887	2,746	2,054		2,454
MY Exports	5	5	5	10		10
Industrial Dom. Cons.	62	0	62	0		0
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	2,820	2,882	2,679	2,044		2,444
Total Dom. Cons.	2,882	2,882	2,741	2,044		2,444
Ending Stocks	0	0	0	0		0
Total Distribution	2,887	2,887	2,746	2,054		2,454



**Table 16. China: Cottonseed Meal**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Meal, Cottonseed (1000 tons)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	9,540	8,550	9,460	8,085		8,050
Extr. Rate, 999.9999	0.433	0.433	0.433	0.433		0.433
Beginning Stocks	0	0	0	0		0
Production	4,134	3,702	4,099	3,501		3,486
MY Imports	10	10	25	20		15
Total Supply	4,144	3,712	4,124	3,521		3,501
MY Exports	0	0	0	0		0
Industrial Dom. Cons.	140	150	140	150		150
Food Use Dom. Cons.	0	0	0	0		0
Feed Waste Dom. Cons.	4,004	3,562	3,984	3,371		3,351
Total Dom. Cons.	4,144	3,712	4,124	3,521		3,501
Ending Stocks	0	0	0	0		0
Total Distribution	4,144	3,712	4,124	3,521		3,501

**Table 17. China: Fish Meal**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Meal, Fish (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		1/2020		1/2021		1/2022
Catch for Reduction	1,100	1,000	1,100	1,000	0	1,000
Extr. Rate, 999.9999	0.318	0.364	0.318	0.364	0	0.364
Beginning Stocks	0	0	0	0	0	0
Production	350	364	350	364	0	364
MY Imports	1,836	1,836	1,575	1,600	0	1,600
Total Supply	2,186	2,200	1,925	1,964	0	1,964
MY Exports	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.	2,186	2,200	1,925	1,964	0	1,964
Total Dom. Cons.	2,186	2,200	1,925	1,964	0	1,964
Ending Stocks	0	0	0	0	0	0
Total Distribution	2,186	2,200	1,925	1,964	0	1,964

**Table 18. China: Palm Kernel Meal**

Commodity	Meal, Palm Kernel (1000 tons)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
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	890	890	900	950	0	1,000
Total Supply	890	890	900	950	0	1,000
MY Exports	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.	890	890	900	950	0	1,000
Total Dom. Cons.	890	890	900	950	0	1,000
Ending Stocks	0	0	0	0	0	0
Total Distribution	890	890	900	950	0	1,000

**Oil PSD Tables**

**Table 19. China: Soybean Oil**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oil, Soybean (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	93,000	95,000	92,000	96,500		98,500
Extr. Rate, 999.9999	0.179	0.179	0.179	0.179		0.179
Beginning Stocks	650	650	700	744		507
Production	16,666	17,005	16,486	17,273		17,651
MY Imports	1,231	1,231	1,100	1,100		1,100
Total Supply	18,547	18,886	18,286	19,117		19,258
MY Exports	42	42	100	100		100
Industrial Dom. Cons.	0	0	0	0		
Food Use Dom. Cons.	17,805	16,100	17,736	16,710		16,546
Feed Waste Dom. Cons.	0	2,000	0	1,800		1,800
Total Dom. Cons.	17,805	18,100	17,736	18,510		18,346
Ending Stocks	700	744	450	507		812
Total Distribution	18,547	18,886	18,286	19,117		19,258

**Table 20. China: Rapeseed Oil**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Oil, Rapeseed (1000 tons)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	16,000	16,000	15,800	16,200		17,000
Extr. Rate, 999.9999	0.39	0.39	0.39	0.39		0.39
Beginning Stocks	1,100	1,100	1,511	1,573		1,086
Production	6,240	6,240	6,162	6,318		6,630
MY Imports	2,365	2,365	1,660	1,700		1,900
Total Supply	9,705	9,705	9,333	9,591		9,616
MY Exports	2	2	5	5		5
Industrial Dom. Cons.	0	0	0	0		0
Food Use Dom. Cons.	8,192	8,130	8,220	8,500		8,594
Feed Waste Dom. Cons.	0	0	0	0		0
Total Dom. Cons.	8,192	8,130	8,220	8,500		8,594
Ending Stocks	1,511	1,573	1,108	1,086		1,017
Total Distribution	9,705	9,705	9,333	9,591		9,616

**Table 21. China: Peanut Oil**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oil, Peanut (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	10,100	10,474	10,200	10,290	0	10,250
Extr. Rate, 999.9999	0.32	0.32	0.32	0.32	0	0.32
Beginning Stocks	0	0	0	0	0	0
Production	3,232	3,352	3,264	3,293	0	3,280
MY Imports	346	346	300	300	0	350
Total Supply	3,578	3,698	3,564	3,593	0	3,630
MY Exports	11	11	10	10	0	10
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	3,567	3,687	3,554	3,583	0	3,620
Feed Waste Dom. Cons.	0	0	0	0	0	0
Total Dom. Cons.	3,567	3,687	3,554	3,583	0	3,620
Ending Stocks	0	0	0	0	0	0
Total Distribution	3,578	3,698	3,564	3,593	0	3,630

**Table 22. China: Cotton Seed Oil**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oil, Cottonseed (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	9,540	8,550	9,460	8,085		8,050
Extr. Rate, 999.9999	0.146	0.145	0.146	0.145		0.145
Beginning Stocks	0	0	0	0		0
Production	1,388	1,240	1,376	1,172		1,167
MY Imports	0	0	0	0		0
Total Supply	1,388	1,240	1,376	1,172		1,167
MY Exports	3	3	2	2		3
Industrial Dom. Cons.	0	0	0	0		0
Food Use Dom. Cons.	1,385	1,237	1,374	1,170		1,164
Feed Waste Dom. Cons.	0	0	0	0		0
Total Dom. Cons.	1,385	1,237	1,374	1,170		1,164
Ending Stocks	0	0	0	0		0
Total Distribution	1,388	1,240	1,376	1,172		1,167

**Table 23. China: Sunflower Seed Oil**

PSD Table						
Country	China, Peoples Republic of					
Commodity	Oil, Sunflower Seed (1000 tons)					
	2020/21		2021/22		2022/23	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	1,200	1,200	1,800	1,200		1,200
Extr. Rate, 999.9999	0.358	0.358	0.358	0.358		0.358
Beginning Stocks	0	0	0	0		0
Production	430	430	645	430		430
MY Imports	1,640	1,640	1,970	1,100		1,600
Total Supply	2,070	2,070	2,615	1,530		2,030
MY Exports	3	3	3	2		2
Industrial Dom. Cons.	0	0	0	0		0
Food Use Dom. Cons.	2,067	2,067	2,612	1,528		2,028
Feed Waste Dom. Cons.	0	0	0	0		0
Total Dom. Cons.	2,067	2,067	2,612	1,528		2,028
Ending Stocks	0	0	0	0		0
Total Distribution	2,070	2,070	2,615	1,530		2,030



**Table 24. China: Palm Oil**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oil, Palm (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Area Planted	0	0	0	0		0
Area Harvested	0	0	0	0		0
Trees	0	0	0	0		0
Beginning Stocks	500	500	500	694		744
Production	0	0	0	0		0
MY Imports	6,818	6,818	6,700	6,800		6,800
Total Supply	7,318	7,318	7,200	7,494		7,544
MY Exports	14	14	27	0		0
Industrial Dom. Cons.	2,350	2,500	2,350	2,550		2,600
Food Use Dom. Cons.	4,454	4,110	4,573	4,200		4,200
Feed Waste Dom. Cons.	0	0	0	0		0
Total Dom. Cons.	6,804	6,610	6,923	6,750		6,800
Ending Stocks	500	694	250	744		744
Total Distribution	7,318	7,318	7,200	7,494		7,544

**Table 25. China: Coconut Oil**

<b>PSD Table</b>						
<b>Country</b>	<b>China, Peoples Republic of</b>					
<b>Commodity</b>	<b>Oil, Coconut (1000 tons)</b>					
	<b>2020/21</b>		<b>2021/22</b>		<b>2022/23</b>	
	USDA Official	Post Estimate New	USDA Official	Post Estimate New	USDA Official	Post Estimate New
Market Year Begin		10/2020		10/2021		10/2022
Crush	0	0	0	0		0
Extr. Rate, 999.9999	0	0	0	0		0
Beginning Stocks	0	0	0	0		0
Production	0	0	0	0		0
MY Imports	172	172	180	180		180
Total Supply	172	172	180	180		180
MY Exports	0	0	0	0		0
Industrial Dom. Cons.	0	0	0	0		0
Food Use Dom. Cons.	172	172	180	180		180
Feed Waste Dom. Cons.	0	0	0	0		0
Total Dom. Cons.	172	172	180	180		180
Ending Stocks	0	0	0	0		0
Total Distribution	172	172	180	180		180

## Oilseed, Meal, and Oil Product Price Tables

**Table 26. China: Nation Average Soybean Prices, CY2019 - CY2021**

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Dec/Jan Change
2019	3,535	3,497	3,381	3,364	3,384	3,421	3,446	3,490	3,535	3,504	3,512	3,512	-0.7%
2020	3,495	3,522	3,653	3,950	3,929	4,021	4,291	4,361	4,390	4,225	4,332	4,417	+26.4%
2021	4,635	4,792	4,989	5,098	5,114	5,187	5,198	5,205	5,223	5,268	5,415	5,291	+14.2%

**Table 27. China: Soybean Meal Prices, CY2019 - CY2021**

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Dec/Jan Change
2019	2,933	2,790	2,596	2,798	3,005	2,862	2,971	3,060	3,184	3,114	2,958	2,958	+0.9%
2020	2,818	2,869	3,054	3,168	2,842	2,779	2,976	2,968	3,092	3,341	3,298	3,232	+14.7%
2021	3,899	3,854	3,480	3,484	3,628	3,543	3,631	3,698	3,814	3,678	3,457	3,524	-9.6%

**Table 28. China: Soybean Oil (Grade 4) Prices, CY2019 - CY2021**

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Dec/Jan Change
2019	5,433	5,678	5,622	5,354	5,261	5,232	5,268	5,895	6,016	6,054	6,536	6,677	22.9%
2020	7,024	6,257	5,436	5,596	5,638	5,880	6,190	6,876	7,352	7,479	7,920	8,408	19.7%
2021	8,728	8,959	9,940	9,356	9,656	9,325	9,354	9,532	9,830	10,576	10,300	9,693	11.1%

**Table 29. China: Rapeseed Oil Prices, CY2019 - CY2021**

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Dec/Jan Change
2019	6,438	6,600	6,968	7,086	7,135	7,132	7,073	7,339	7,565	7,487	7,818	8,010	24.4%
2020	8,179	8,154	7,513	7,297	7,408	7,900	8,690	9,260	9,492	9,899	10,418	10,267	25.5%
2021	10,729	10,824	11,172	11,086	11,152	10,738	10,684	10,500	11,153	12,494	12,893	12,910	20.3%

**Table 30. China: Palm Oil Prices, CY2019 - CY2021**

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Dec/Jan Change
2019	4,588	4,682	4,492	4,440	4,344	4,329	4,278	4,729	4,919	4,995	5,542	6,111	+33.2%
2020	6,573	5,828	4,934	4,923	4,868	5,302	5,626	6,105	6,458	6,641	6,926	7,079	+7.7%
2021	7,304	7,534	8,286	8,162	9,011	8,448	8,900	9,004	9,434	10,360	10,195	9,662	+32.3%

**Table 31. China: Comparison of Prices for Grade 4-Soy Oil and Palm Oil in CY2021**

Unit: RMB Yuan/MT; 2021 Exchange Rate: RMB6.45 =US\$1.0												
CY2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Soybean Oil	8,728	8,959	9,940	9,356	9,656	9,325	9,354	9,532	9,830	10,576	10,300	9,693
Palm Oil	7,304	7,534	8,286	8,162	9,011	8,448	8,900	9,004	9,434	10,360	10,195	9,662
Diff % Palm vs Soy Oil	-16.3%	-15.9%	-16.6%	-12.8%	-6.7%	-9.4%	-4.9%	-5.5%	-4.0%	-2.0%	-1.0%	-0.3%

Average palm oil price is 7.8% lower than G4 soy oil in CY2021 compared to the 11% lower in CY2020 and the 18% lower in CY2019.

Source: All prices are based on China JCI Consulting Co.

**Taxes & Duties Tables (Jan 01-Dec 31, 2022)**

**Table 32. China: Oilseeds**

HS Code	Description	M.F.N. (%)	Additional Duty for U.S.	VAT Rate%	ED Rate %
Seed					
12011000	Soybeans, seed	0	5	9	
12019011	Yellow soybean non-GMO	3	30.5	9	
12019019	Yellow soybean others	3	30.5	9	
12019020	Black soybean	3	28	9	
12019030	Green soybean	3	8	9	
12019090	Other soybean	3	8	9	
12023000	In shell peanut, seed	0	5	9	
12024100	In shell peanut, other	15	25	9	
12024200	Shelled peanut	15	40	9	
12040000	Linseed	5	40	9	9
20081110	Peanut kernels, in airtight containers	5	27.5	13	13
20081120	Roasted peanuts	5	20	13	13
20081130	Peanut butter	5	20	13	13
20081190	Other processed peanuts	5	30	13	9 or 13*
12051010	Low erucic acid rape seed, seed	0	5	9	
12051090	Low erucic acid rape seed, other	9	14	9	
12059010	Other rapeseed, seed	0	5	9	
12059090	Other rapeseed, other	9	14	9	9
12060010	Sunflower seeds, seed	0	0	9	9
12060090	Sunflower seeds, other	15	40	9	9
12072100	Cottonseeds for cultivation	0	5	9	9
+12072900	Cottonseeds, other	15	20	9	9
12074010	Sesame seeds for cultivation	0	5	9	9
12074090	Sesame seeds, other	10	15	9	9

Note: Note: VAT – Value Added Tax Rate; ED – Export Drawback Rate (full or partial VAT refund upon export)

**Table 33. China: Oils**

HS Code	Description	M.F.N. (%)	Additional Duty for U.S.	VAT Rate%	ED Rate %
Oil					
15071000	Crude soybean oil	9	34	9	
15079000	Other soybean oil	9	34	9	
15081000	Crude peanut oil	10	35	9	
15089000	Other peanut oil	10	35	9	
15092000	Extra virgin olive oil	10	35	9	
15093000	Virgin olive oil	10	35	9	
15094000	Other virgin olive oils	10	35	9	
15099000	Olive oil, other	10	35	13	
15111000	Palm oil, crude	9	14	9	
15119010	Palm oil, liquid	9	14	9	
15119020 01	Stearin (50-56 °C)	8	7	9	
15119020 02	Stearin (44-50 °C)	8	13	9	
15119090	Palm oil, other	9	14	13	
15121100	Crude sunflower seed oil	9	34	9	
15121900	Other sunflower seed oil	9	34	13	
15122100	Crude cottonseed oil	10	15	9	
15122900	Other cottonseed oil	10	20	13	
15131100	Crude coconut oil	9	34	9	
15131900	Other coconut oil	9	34	9	
15132100	Crude palm kernel oil	9	14	9	
15132900	Other palm kernel oil	9	14	13	
15141100	Crude low erucic acid rape or colza oil	9	34	9	
15141900	Other crude low erucic acid rape oil	9	14	9	
15149110	Crude rape or colza oil	9	14	9	
15149190	Crude mustard oil	9	14	9	
15149900	Other rape oil	9	34	13	

Note: Note: VAT – Value Added Tax Rate; ED – Export Drawback Rate

**Table 34. China: Meals**

HS Code	Description	M.F.N. (%)	Additional Duty for U.S.	VAT Rate%	ED Rate %
Meal					
12081000	Soy flour	9	14	13	
12089000	Other	15	20	13	13
23012010	Fish meal	2	0	0	
23025000	Legume sweepings	5	10	9	
23040010	Soy meal, oil cake	5	0	9	
23040090	Soy meal, other	5	30	9	
23050000	Peanut meal	5	0	0	
23061000	Cottonseed meal	5	0	0	9
23062000	Linseed meal	5	0	0	9
23063000	Sunflower seed meal	5	0	0	9
23064100	Low erucic acid rapeseed meal	5	0	0	9
23064900	Other rapeseed meal	5	5	0	9
23065000	Cake of coconut or copra	5	5	9	9
23066000 10	Oil residue cake and solid residue of endangered palm fruit or kernel	5	5	9	0
23066000 90	Other palm fruit or kernel oil cake and solid residue	5	5	9	9
23069000	Other oilseed cakes	5	25	9	0 or 9 or 13*
23080000	Vegetable materials and waste, vegetable residues	5	5	9	0 or 9 or 13*

Note: VAT--Value Added Tax Rate; ED--Export Drawback Rate

\* Different rates apply to sub-HS codes with 10 digitals; Additional Note: Additional duty for U.S. can be excluded upon application by traders

**Attachments:**

No Attachments