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Pulse Demand for Food and Feed Use Shoots Higher

Report Categories:
Grain and Feed
Food Processing Ingredients

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Report Highlights:
China's total pulse production from Marketing Year 2018/19 (October 2018 until September 2019) is forecast at 4.4 million tons, down about five percent from MY2017/18 due to lower harvested area. Pulse demand for feed use, as well as food use is rapidly expanding. MY2018/19 dried pea imports are forecast at 2.1 million tons, up about 10 percent from MY2017/18 due to growing feed demand. MY2018/19 kidney bean exports are forecast at 250,000 tons, up about five percent from MY2017/18 due to lower competition in the European Union (EU).

Executive Summary:
China's total pulse production is forecast at 4.4 million tons in marketing year (MY) 2018/19 (October-September), down about five percent from MY2017/18 due to lower harvested area.

China predominantly processes kidney, mung, and adzuki beans into starch, starch-based products, and sweetened bean paste. Starch-based noodles remain one of the fastest growing market segments for food use. For more information about food processing ingredients, please refer to the FAS GAIN report CH17002.

At-home preparations of pulses are commonly incorporated into soups, porridges, sauces, and, dumplings. Kidney and black beans as well as dried mung beans are incorporated into soups, porridges, sauces, and snacks.

MY2018/19 dried pea imports are forecast at 2.1 million tons, up about 10 percent from MY2017/18 due to growing feed demand.

MY2018/19 kidney bean exports are forecast at 250,000 tons, an approximately five percent increase from previous year as a result of the European Union (EU)'s 25 percent tariffs on U.S. products. However, China's share of global kidney bean exports continues to dwindle. In the long-term, China may shift from a net exporter to a net importer.

Production:

Overview

MY 2018/19 total pulse production is forecast at 4.4 million tons, down about five percent from MY2017/18 due to slightly lower harvested area. Pulse production accounts for less than 1 percent of China's row crop output.

As profits are lower than other crops, pulse production in China continues to decline, following historical trends. Pulse producers have limited access to quality seeds and no new and improved varieties in the research pipeline. Access to specialized planting and harvesting equipment for pulse production is also limited. As a result, rising rent and labor costs have narrowed producer margins.

Pulse producers are offered no other subsidies besides land rotation incentives, and face disadvantages relative to other crops. High prices and higher profit margins for corn production have incentivized growers to plant corn rather than soybeans or pulses. See GAIN report CH18068 and CH19002 for more information.

Kidney Beans

MY2018/19 kidney bean production is forecast at 450,000 tons, down 15 percent on lower harvested area. MY2018/19 kidney bean area in North East China fell 20 percent from MY2017/18 as growers seeking higher returns switched to planting corn or soybeans. Industry sources report that Heilongjiang,

Inner Mongolia, Jilin, and Liaoning provinces in North East China account for about 80 percent of total kidney bean production. Kidney beans are commonly planted in April or May and harvested from August or September.

Dried Peas

MY2018/19 dried pea production is estimated at 180,000 tons, down approximately 10 percent from MY2017/18 on lower harvested area. Dried pea production faces strong competition for cultivated area from alternative crops such as potatoes and broad beans, which have higher returns.

Industry sources report that steadily rising import volumes have pressured domestic pea prices lower and diminished producer margins further. Ningxia, Gansu and Qinghai provinces in West China account for about 60 percent of national dried pea production. Dried peas are mostly planted in March or April and harvested from July or August.

Mung Beans

MY2018/19 mung bean production is estimated at 600,000 tons, down about 25 percent from MY2017/18 on expectations for lower prices and incentives to plant soybeans. Post forecasts harvested area to fall 30 percent from MY2017/18. Jilin, Inner Mongolia, Anhui and Shanxi provinces account for over half of China's total mung bean production. In China, mung beans are mostly planted in late April to early June and harvested from August to September.

Adzuki Beans

MY2018/19 adzuki bean production is estimated at 300,000 tons, down about 20 percent from the previous year as higher yields partly offset lower harvested area. MY2018/19 adzuki bean harvested area fell about 25 percent from MY2017/18 on low prices during the first half of 2018, slumping 20 percent from 2017 over the same period. Heilongjiang, Inner Mongolia, Jiangsu, Yunnan and Shaanxi provinces account for about 60 percent of national adzuki bean production. Adzuki beans are mostly planted in May and harvested from August to September.

Consumption:

China's annual per capita consumption of pulses is about 1.7 kilograms per capita, which is a fraction of monthly consumption levels in South Asia, and about 20 to 50 percent of the annual per capita consumption in many South East Asian nations. However, in terms of growth, China is the most rapidly expanding market for pulse demand in Asia—a trend that encompasses all categories.

Broad beans, predominantly kidney bean varieties, are the largest volume category of pulse consumption in China. In terms of growth, dried peas are the fastest expanding segment of pulse demand in China. Dried beans such as mung and adzuki beans are also widely consumed.

Consumer Trends

Chinese consumers seeking healthier and convenient food options have raised the profile of pulses as a nutritious and convenient meal option. Rising incomes and greater awareness about the health benefits of high fiber and protein diets have promoted pulse demand. See GAIN report SH0032 for more information about consumer market trends in China.

In China, the variety of starch-based noodles, ranging from glass vermicelli noodles to broad noodles, continues to expand in retail markets for at-home preparation as well as becoming a more common offering at restaurants and by food delivery services.

Retail sales for pulse products are divided between ready-to-eat preparations, and dry beans for at-home preparation. High-end retailers offer consumers point-of-sale services to select, roast, and grind a mix of individually selected pulses, nuts, and grains as a nutritious and convenient porridge mix. Consumers then add water to prepare a quick breakfast porridge or snack.

For dry bean at-home consumption, retailers commonly offer dry, unprocessed pulses in 500 gram vacuum-sealed packages. Expanded market penetration of electric pressure cookers have enabled many middle-income customers to expand at-home consumption of pulse and grain porridge.

One of the fastest growing consumer trends in China is the expansion in away-from-home and e-commerce food delivery services. Incorporating pulse ingredients into processed products is a rapidly growing market trend for quick service and e-commerce-based restaurants offering home delivery services, as well as retail sales of convenience food products.

Pulse demand for livestock feed use continues to follow overall demand growth for animal protein products. Pulses are gaining visibility as a partial feed substitute for soybean meal in China.

Kidney Beans

Domestic kidney bean use is predominantly dedicated to processing into starch-based noodles and sweetened bean paste. Industry sources report that canned preparations of beans and porridge are a rapidly growing segment of China's domestic kidney bean consumption.

Dried Peas

In China, dried peas are consumed for food use, and increasingly incorporated into livestock and aquaculture feed formulations.

For food use, dried peas are processed into starch, protein, and fiber for health foods and food ingredients. Dried pea starch is commonly used to produce starch vermicelli and noodles. Dried pea protein and fiber are also processed into nutrition and health food products.

Dried pea demand for livestock feed as a substitute for soybeans is growing.

Dried peas offer slightly lower protein and slightly greater energy compared to soybeans. Due to their high energy content, they can also substitute for corn in many feed formulations. As China's middle class grows, there is a small but growing bird seed market supplying pets, racing pigeons, and other fowl.

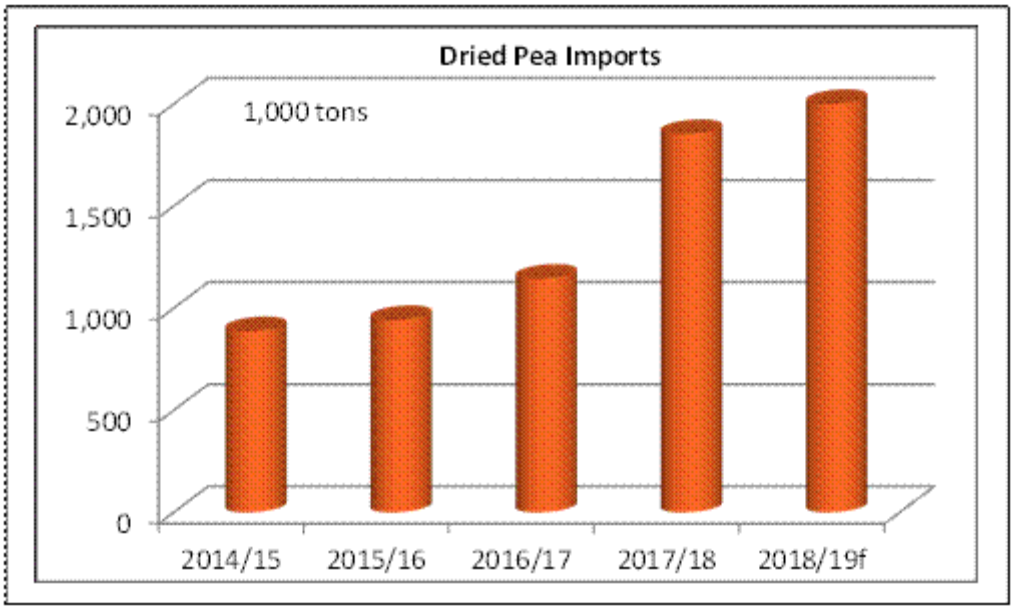
Comparative Crude Protein in Common Feed Ingredients in China				
Commodity	Crude Protein %	Delivered Quotes ($ per ton)	Origin	Destination
Dried peas	25%	$253*	Canada	China
Dried Distiller's Grains with Solubles	29%	$347	U.S.	China
Soybean Meal	43-49%	$478	China	Guangdong
Rapeseed Meal	40%	$330	China	Zhengzhou

Source: Industry Sources. Note: Dried peas quote is from August 2018. All other quotes are from November 2018.

Mung and Adzuki Beans

Mung bean and adzuki beans are traditionally used to prepare local porridge, and to produce bean sprouts. Processed adzuki and mung bean products are also processed into bean paste, either for domestic use or for export. Domestic consumers incorporate sweetened mung and adzuki bean paste as a filling for rice-based confections, flour-pastries, and baked goods.

Trade:



Source: Global Trade Atlas. Note: MY2018/19 is Post's forecast.

MY2018/19 dried pea (HS code: 07131090) imports are forecast at two million tons, up about 10

percent from MY2017/18 due to growing feed demand. MY2017/18 dried pea imports totaled 1.85 million tons, about 62 percent increase from the previous year. Industry sources attribute rising imports to strong demand and competitive pricing in comparison to domestically produced dried peas.

Dried Pea Exporters Shift to China

India is one of the largest dried pea buyers in the world. In November 2017, India raised import duties to 50 percent, and implemented additional market access restrictions on imports of yellow peas. (Please refer to GAIN report IN8049 for more information.) As a result, major dried pea exporters, such as Canada and Australia, have shifted their focus to new markets, including China. According to Global Trade Atlas, the export price of Canadian dried yellow peas (H.S. code: 07131095) to China fell to $253 per ton in August 2018, down $54 per ton, or more than 17 percent from October 2017, one month before the implementation of higher duties for shipments to India.

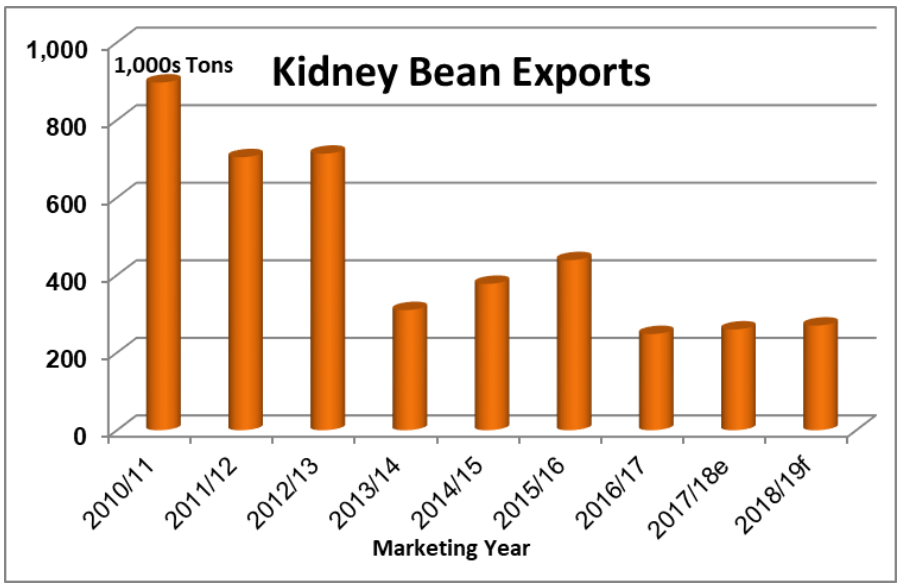
U.S. dried pea exports to China have fallen due to strong competition from Canada and Australia. A rising U.S. dollar foreign exchange rate weakened U.S. competitiveness. Canada remains the largest dried pea exporter to China, accounting for about 90 percent of China's total dried pea imports. According to Global Trade Atlas, the average quote for Canadian and Australian dried peas from January to August 2018 was $265 per ton. U.S. quotes were significantly higher at $545 per ton.

On June 16, 2018, China's Ministry of Finance, State Council Tariff Commission announced a list of U.S. products subject to an additional 25-percent tariff in response to the U.S. 301 Investigation. Certain pulse products are included on this list. Please refer to GAIN report CH18034 for more information.

Exports

MY2018/19 kidney bean (H.S. code 07133390) exports are forecast at 250,000 tons, up about five percent from MY2017/18 on greater competiveness in the EU market. Chinese exports to the EU rose to take advantage of lower U.S. export competition after the EU implemented additional duties of 25 percent on U.S. kidney beans in late June 2018.

In the past, China was the world's largest kidney bean exporter. China's exported a record high volume of kidney beans in MY2010/11 of nearly 900,000 tons, accounting for more than 50 percent of global kidney bean exports. However, as global prices have adjusted lower, high production costs and high prices have undercut surplus production for exportable supplies. In MY2016/17, China's market share has slowly fallen to just 18 percent of global exports.



Source: Global Trade Atlas. Note: MY2017/18e is based on Post estimates, MY2018/19f is based on Post forecast

According to Global Trade Atlas, China's average export price for kidney beans from January-March 2018 was $1,129 per ton. Argentina and the United States, China's principle competitors, have quoted far lower prices, $851 per ton and $1,086 per ton, respectively. A small quantity of mung beans and adzuki beans are exported to neighboring countries, such as South Korea and Japan.

Although China raised the export value-added tax (VAT) rebate for kidney beans to six percent on November 1, 2018, up from five percent, industry sources report that a single percentage point difference cannot offset rapidly rising production costs.

Appendix 1: Chinese Applied Tariff Rates on U.S. Pulse Exports

HS Code	Product Name	MFN Rate	Additional 301 Rate	New Applied Rate
	Entered Force on:	**July 1**	**July 6**	**July 6**
07131010	Seed Peas, Dried, Shelled	0	25	25
07131090	Other Dried Peas, Shelled	5	25	30
07132010	Seed Chickpeas, Dried, Shelled	0	25	25
07132090	Other Dried Chickpeas, Shelled	7	25	32
07133110	Seed beans, dried, shelled	0	25	25
07133190	Other Dried Beans, Shelled	3	25	28
07133210	Other seed adzuki beans, dried shelled	0	25	25
07133290	Other dried adzuki beans, shelled	3	25	28
07133310	Seed Kidney Beans, Incl. White Pea Beans, Dried	0	25	25
07133390	Other Dried Kidney Beans, Incl. White Pea Beans	7.5	25	32.5
07133400	Bambara beans, dried, shelled	7	25	32
07133500	Dried Cow Peas, Shelled	7	25	32
07133900	Dried Beans (Vigna Spp./Phaseolus Spp.), Nesoi, Shelled	7	25	32
07134010	Seed Lentils, Dried, Shelled	0	25	25
07134090	Other Dried Lentils, Shelled	7	25	32
07135010	Seed Broad Beans And Horse Beans, Dried, Shelled	0	25	25
07135090	Other Dried Broad Beans And Horse Beans, Shelled	7	25	32
07136010	Seed pigeon peas, dried	0	25	25
07136090	Other pigeon peas, dried	7	25	32
07139010	Dried Leguminous Vegetables Seed Nesoi, Shelled	0	25	25
07139090	Dried Leguminous Vegetables, Shelled, Nesoi	7	25	32