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Required Report - public distribution

Date: 4/8/2016

**GAIN Report Number:** CH16027

# **China - Peoples Republic of**

# **Grain and Feed Annual**

# China's Decision to End Corn Floor Price Shakes Grain and Feed Market

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#### **Report Highlights:**

On March 28, 2016, the government announced an end to the floor price for corn. The resulting fall in corn prices following this announcement is still rippling throughout China's agricultural sector. MY 2016/17 corn production is forecast to fall, while wheat and rice production are expected to remain strong. Imports of feed ingredients, such as sorghum, barley, and DDGS, will be the most immediate casualty of this policy change.

# **Executive Summary**

2016 is shaping up to be a pivotal year in Chinese agricultural policy. On March 28, 2016, Liu Xiannan, Director of the Economy and Trade Office of the National Development and Reform Commission (NDRC), announced that the temporary reserve policy in Northeastern provinces and Inner Mongolia will be replaced by a new mechanism of "marketized purchases" (市场化收购). Unspecified new subsidies will be created to help support corn farmers. This surprise announcement came after planting started and leaves growers and traders guessing on what will happen next.

The government has now abandoned price support policies for all commodities except wheat and rice. The government says it will retain and "improve" support price policies for wheat and rice, but these grains face the same challenges as corn. Mounting surpluses, pressure from cheaper imports, and concerns about lagging productivity and environmental deterioration are forcing China to overhaul the agricultural subsidy model that developed over the past decade.

MY 2016/17 corn production is forecast at 218 million metric tons (MMT) based on average yields and three percent decline in acreage. The corn planting season has already begun. According to contacts in northeast China, most farmers have already made planting decisions and cannot easily change plans based on the cancellation of the temporary reserve program. MY 2016/17 corn consumption is forecast at 225 MMT, up seven MMT as lower corn prices and subsidies to corn processors boost feed and industrial demand. MY 2016/17 corn imports are forecast at 1 MMT, 1.5 MMT lower than MY 2015/16, as falling corn prices will make imports less attractive.

MY 2016/17 wheat production is forecast to increase slightly to 130.5 MMT on slightly higher acreage and average yields as attractive prices encourage production. Wheat total consumption in MY 2016/17 is forecast to decrease to 110.5 MMT due to falling feed wheat usage and weak demand for food and industrial use. MY 2016/17 wheat imports are forecast at 3.2 MMT, up 200,000 metric tons (MT) from MY 2015/16 on higher demand for premium quality wheat for making high and low gluten flour.

MY 2016/17 rough rice production is forecast to remain flat at 208.3 MMT. MY 2016/17 rice consumption is forecast at 147.4 MMT, down 600,000 MT as Chinese consumers are eating more meat and dairy and eating less rice, wheat and other staple grain. Higher rice prices have also hurt industrial and feed demand. Rice imports are forecast to remain stable in MY 2016/17. Domestic rice prices continue to stay far above international prices due to China's floor price, sustaining demand for imported (and smuggled) rice.

Imports of barley, sorghum and distillers dried grains with solubles (DDGS) for feed increased rapidly after 2012 as a result of high domestic corn prices. This trend is reversing now that corn prices are falling. MY 2016/17 sorghum and barley imports are forecast to fall to 5 MMT and 6 MMT respectively as falling corn prices reduces demand for imported feed ingredients. Estimated MY 2015/16 sorghum and barley imports are also lowered to 6 MMT and 6.9 MMT respectively as traders are already responding to falling corn prices by reducing imports.

The government is working openly and behind the scenes to accelerate these trends and reduce competition for domestic corn. The Ministry of Commerce (MOFCOM) is currently conducting an antidumping (AD) and countervailing duty (CVD) investigation against DDGS originating from the United States. A preliminary determination in the AD CVD case is expected sometime this summer,

after which MOFCOM may impose preliminary duties. The timing of the decision is subject to change. DDGS imports fell 39 percent in February 2016 from the month before as importers worry about potential duties.

According to industry sources, the government is also trying to discourage sorghum imports through customs inspections. Importers have already experienced delays in clearing customs for sorghum imported from the United States. CIQ offices in coastal provinces are privately warning local importers to limit sorghum imports and that there will be increased inspections and delays. Many traders report that they are reducing sorghum purchases in response to government warnings and pressure.

# **Policy**

2016 is shaping up to be a pivotal year in Chinese agricultural policy. On March 28, 2016, Liu Xiannan, Director of the Economy and Trade Office of the NDRC, announced that the temporary reserve policy in Northeastern provinces and Inner Mongolia will be replaced by a new mechanism of "marketized purchases" (市场化收购). Unspecified new subsidies will be created to help support corn farmers. This surprise announcement came after planting started and leaves growers and traders guessing on what will happen next. The estimates in this report are based on what limited information was available at the time of writing, and may change significantly over the next few months as the government releases more information.

While the announcement was a surprise, the tensions that led to the change have been visibly growing. The support price system for corn, wheat and rice has resulted in excessive stocks, unsustainable farming practices, suppressed demand, and a growing financial burden on the government. It also artificially elevated domestic grain prices as much as 30% above the CIF price of imported grain, creating a strong incentive to import rather than purchase domestic grains.

Now that the floor price has been halted and corn prices are falling, the government, including Sino Grain, will need to reassess the value of their corn stocks. A 600 RMB per MT write down on corn stocks would result in a paper loss of over \$10 billion. The total cost is likely to be even higher as this does not account for storage costs, estimated at RMB 60 billion by one Chinese government economist in a recent speech. Some corn stocks may have lost their entire value as they are too deteriorated to sell.

There reportedly was strong opposition in parts of the government to making drastic changes to farm support policies. Many farmers have become dependent on high government support prices to stay profitable. The overall economy in northeast China is currently struggling, limiting job opportunities in urban areas. Given these challenges, the cancelling of the corn floor price in the northeast can be seen as a bold reform.

The government has now abandoned price support policies for all commodities except wheat and rice. The government says it will retain and "improve" support price policies for wheat and rice, but these grains face the same challenges as corn. Mounting surpluses, pressure from cheaper imports, and concerns about lagging productivity and environmental deterioration are forcing China to overhaul the agricultural subsidy model that developed over the past decade.

#### Wheat

#### **Production**

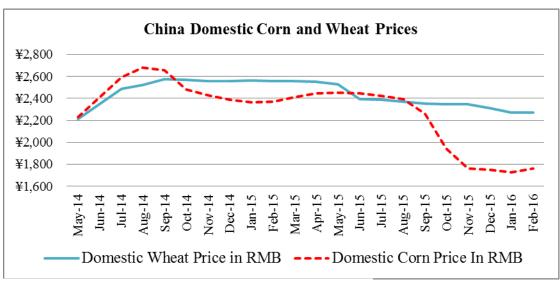
MY 2016/17 wheat production is forecast to increase slightly to 130.5 MMT on slightly higher acreage and average yields as attractive prices encourage production. The NDRC announced in October 2015 that the minimum purchase price for wheat will remain unchanged in 2016 at RMB 2,360 per MT. In contrast, the government has removed support prices for cotton and rapeseed, cut the corn support price in fall 2015 and announced on March 28, 2016 that the corn temporary reserve system will end this spring. A small percentage of corn farmers are expected to switch to wheat this seeding season because of the guaranteed high price. Estimated MY2014/15 production is unchanged at 130.2 MMT.

Wheat prices have remained relatively stable compared to other crops. The market price fluctuated around RMB 2,400 per MT in 2015 before the new crop season, just above the floor price. MY 2015/16 wheat yields averaged between 5.37~5.42 MT per Hectare (Ha) according to recent industry surveys in Jiangsu, Henan and Anhui province. The surveys also found that the average cost of production for wheat was RMB 7,125 per Ha based on limited or no mechanized equipment.

# Consumption

Wheat total consumption in MY 2016/17 is forecast to decrease to 110.5 MMT due to falling feed wheat usage and weak demand for food and industrial use. Estimated MY 2015/16 total wheat consumption is revised lower two MMT to 112 MMT due to these same trends.

MY 2016/17 wheat feed consumption is forecast at 9.5 MMT, down 1 million from post's revised MY 2015/16 estimate as wheat is increasingly economically uncompetitive as a feed ingredient. Estimated MY 2015/16 wheat feed use is cut to 10.5 MMT. The 2015 corn floor price was cut by 11 percent in November 2015. Corn prices proceeded to fall as low as RMB 1,710 per MT from an average RMB 2,200 per MT. The recent cancellation of the temporary reserve system in the northeast will drive corn prices even lower. Wheat feed use in China has been limited over the past two years by the widening price gap between wheat and corn. Alternative feed ingredients, such as distillers dried grains with or without solubles (DDGS), barley and sorghum have replaced wheat and corn feed usage due to their significant cost advantage. High levels of corn stocks are expected to keep driving corn prices further below wheat prices, which will limit wheat feed use in the near future.



Source: China National Grain and Oil Information Center

MY 2016/17 wheat food, seed and industrial (FSI) consumption is forecast at 101 MMT, down 0.5 MMT from MY 2015/16. According to the China National Grain and Oils Information Center (CNGOIC), industrial wheat consumption (including liquor, ethanol, maltose, and soy sauce production), will drop 0.5 MMT in MY 2016/17 to 11 MMT. Wheat processors have struggled to remain profitable in the face of high domestic wheat prices and intensified competition. Falling prices for wheat bran have also squeezed profit margins for flour mills.

Changing urban dining preferences and an aging population have hurt flour demand. Industry analysts believe average flour mill capacity utilization will remain low at 50 to 55 percent, with small and medium sized flour mills operating at only 20 to 40 percent capacity. Flour mill margins have been hurt by overcapacity, high input cost and continuing weak demand. The lack of high quality domestic wheat is a constraint on consumption. Sino Grain cannot supply enough high quality wheat for mills to meet demand for specialty flours. The economic slowdown has resulted in the closure of many labor intensive manufacturing businesses in southeast China. The closing down of tens thousands of large cafeterias has hurt business demand for flour and rice.

These trends also hurt wheat food and industrial demand in MY2015/16. As a result, estimated MY 2015/16 FSI consumption is lowered 0.5 MMT to 101.5 MMT

# **Trade**

MY 2016/17 wheat imports are forecast at 3.2 MMT, up 200,000 MT from MY 2015/16 on higher demand for premium quality wheat for making high and low gluten flour. Chinese government silos continue to pay farmers based on the weight received regardless of protein level. Farmers are incentivized to focus on production quantity instead of meeting consumer demand for high quality wheat. As a result, imports play an important role in servicing demand for premium quality and specialty wheat.

Wheat imports are still tightly controlled by the government through tariff rate quotas (TRQ). The annual TRQ for wheat is set at 9.64 MMT, but only 10 percent of the quota is given to the private sector.

In some years the government has used public sector quotas to import wheat for feed use, but it is not expected to do so in 2016 or 2017 due to high wheat and corn stocks.

Estimated MY 2015/16 wheat imports are revised up 500,000 MT to 3 MMT on import trends. Exports are forecast to remain stable at one MMT in MY 2016/17. Traditional export destinations include North Korea, South Korea, and Hong Kong.

# **Marketing**

The government intervenes in the wheat market by purchasing and storing wheat whenever the market price falls below the government set floor price. In most years, a substantial portion of domestically produced wheat is purchased and stored by Sino Grain, a state owned company that manages grain and edible oil reserves, or by grain companies commissioned to purchase on its behalf. The government announces a floor price each fall before the seeding season to guide price expectations. The minimum procurement price for non-durum wheat in 2016 is set at 2,360 RMB, unchanged from 2015. This equals roughly \$10.05 per bushel at current exchange rates, compared to an average season farm price of \$4.80 to \$5.20 per bushel in the United States in MY 2015/16. Sino Grain is reported to have purchased 20.8 MMT of wheat at the floor price from the 2015 crop. The floor price system has exerted heavy financial pressure on government finances. The government announced that it will continue the floor price policy for wheat and rice with unspecified "improvements" during its 2016-2020 five-year plan as it wants to maintain self-sufficiency goals in these basic food grains.

#### **Stocks**

Wheat stocks are forecast to increase by 22.2 MMT in MY2016/17 to 118.5 MMT due to falling consumption and forecast record production driven by high support prices. Estimated MY 2015/16 ending stocks are raised 2.5 MMT to 96.3 MMT due to high production and falling feed use.

# Corn

# **Production**

MY 2016/17 corn production is forecast at 218 MMT based on average yields and a decline in acreage. On March 28, 2016, Liu Xiannan, Director of the Economy and Trade Office of the National Development and Reform Commission (NDRC), announced that the temporary reserve program in Northeastern provinces and Inner Mongolia will be replaced by a new mechanism of "marketized purchases" (市场化收购). The government did not disclose any details on how the "marketized purchases" would operate after the cancellation of the floor price in these regions. Other officials suggested that enterprises designated by the government may receive subsidies to purchase corn if farmers have difficulty selling their grain. On March 29, 2016 the new crop future price "CORN-1701" plunged to RMB 1,425 per MT (\$ 5.5 per bushel) from RMB 1,590 (\$6.21 per bushel) in the Dalian Commodity Exchange market. Unspecified new subsidies will be created by provincial governments in corn-producing regions to help support farmers' incomes.

Overall MY2016/17 acreage is forecast to fall 3 percent. The corn planting season has already begun. According to contacts in northeast China, most farmers have already made planting decisions and cannot easily change plans based on the cancellation of the temporary reserve program. Some corn farmers will have already planned on reducing MY2016/17 corn acreage following the government's

announcement in September 2015 that it would cut the 2015 support prices for corn to RMB 2,000 per MT from a peak of RMB 2,250 in 2014. Reform of the corn market was promised in the Chinese Communist Party's "No. 1 Document" in January 2016. Some farmers have responded to the policy change by trying to renegotiate land rental rates which are commonly RMB 500 per mu (15mu = 1 Ha) or more in northeastern provinces. Contacts report that land rents are already dropping 35 to 40 percent compared to last year. This will allow larger farms to stay viable even with sharply lower corn prices, but smaller farmers will struggle. Corn acreage could fall more next year if corn farmers see lower profits this year. MY 2015/16 production is estimated unchanged at 224.6 MMT.

#### Feed and Residual

MY 2016/17 feed and residual is forecast at 158 MMT, up 4 MMT from MY 2015/16. China is the second largest consumer of corn after the United States, but consumption has been restrained by high prices in recent years. The reduced corn floor price has allowed prices to fall to RMB 1550~1650 per MT outside the northeast region. As old corn is auctioned from reserves, prices could fall enough to give feed mills an incentive to switch back to corn from sorghum, barley and DDGS. Lower quality corn from reserves will reportedly be heavily discounted. With the cancelation of the corn floor price, corn prices may drop even lower in MY 2016/17. The government subsidizes transportation costs to encourage feed mills in the south to purchase domestic corn.

Estimated MY 2015/16 feed and residual is raised two MMT to 154 MMT. The elimination of corn floor price is causing corn prices to fall, which will boost corn feed use in the remaining second half of MY2015/16. The Ministry of Agriculture reported CY 2015 feed industry output at 200 MMT, up 4.1 percent from the previous year due to a rebound in poultry feed production. However, many industry experts believe this figure may be overly optimistic. At mid-year 2015, the swine herd was down 6 percent according to the National Bureau of Statistics and 10 percent according to the Ministry of agriculture, yet the Ministry reported only a 3 percent decline in swine feed production in CY 2015. In addition, industry reports have found that swine and poultry producers have responded to rising production costs by turning to lower cost feed concentrate and premixes in recent years. In China institutional producers normally use compound feed, while smaller household operations often utilize concentrate. Based on available information, post estimates that feed production likely contracted slightly in 2015 to approximately 191 MMT.

Feed Production in China by Type (MMT)									
	Total	Compound	Concentrate	Premix					
2009	148	115	26.9	5.9					
2010	162	130	26.5	5.8					
2011	181	149	25.4	6.1					
2012	194	164	24.7	6.2					

2013	193	163	24	6.3					
2014	192	161	24	6.3					
2015	200	168	25.1	6.9					
Source:	Source: Ministry of Agriculture								

#### Food, Seed and Industrial Use

MY 2016/17 FSI use is forecast at 67 MMT, up 3 MMT from the previous year on higher industrial usage due to falling corn prices and government subsidies. Estimated MY 2015/16 FSI consumption is unchanged at 64 MMT. The government is subsidizing industrial corn use as a way to address excess government stocks. The subsidies have increased from a current average RMB 28 per MT to RMB 40 per MT in the northeast, including, Heilongjiang and Inner Mongolia according to industry contacts. Jilin Province is offering a much higher subsidy to processors of RMB 150 yuan per MT between January and June 2016. The subsidies are paid for by provincial governments. Eligible processors use corn as input material to produce starch, sweeteners and ethanol. Margins for corn processors have already begun to improve due to lower corn prices and increased subsidies.

According to an industry contact, Sino Grain will liquidate an unspecified large quantity of aging corn (MY 2012/13 crop) at RMB 1400 per MT in in the second quarter of 2016. Some industry analysts estimate that over 20 MMT of corn reserves are so moldy or deteriorated that they are no longer suitable for human consumption or feed use. Northeast provinces are lobbying the government to subsidize the use of moldy grain for biofuel production. However, the central government has not indicated whether it will consider expanding domestic E10 gasoline coverage to support higher ethanol production.

#### **Trade**

MY 2016/17 corn imports are forecast at 1 MMT, 1.5 MMT lower than MY 2015/16. Falling corn prices will make imports less profitable. The government has responded to excessive corn stocks by aggressively promoting the consumption of domestic corn and tightening restrictions on imports. Estimated MY 2015/16 corn imports are unchanged at 2.5 MMT as they are limited by the existing TRQ system. Ukraine is still the number one supplier of corn to China due to its stated non-GMO production, but the inconsistent quality of Ukrainian corn has been a challenge for importers. U.S. corn exports to China are still small due to the perceived risk of importing U.S. corn following large scale rejections of U.S. corn in 2014 by Chinese port officials.

MY 2016/17 exports are forecast at only 50,000 MT as Chinese corn is internationally uncompetitive even with the lower prices. However, exports might increase if the government aggressively discounts corn in state reserves to reduce stockpiles.

#### **Marketing**

Corn prices fell sharply in late 2015 after the government slashed the temporary reserve program price for corn to 2,000 RMB per MT starting from November 2015 (procurement season). The market corn price in Heilongjiang, Jilin, Liaoning, and Inner Mongolia fell below the temporary reserve price, to as low as RMB 1750 yuan in 2015. Prices fell even lower in other corn-producing regions. MY 2015/16 temporary reserve purchases in northeast China exceeded 100 MMT by March 2016 according to news reports. Industry analysts believe that discounted sales from state reserves may drive corn prices as down to as low RMB 1,400 in summer 2016.

#### Stocks

MY 2016/17 stock forecasted at 103.4 MMT, down six MMT from MY 2015/16. Falling corn prices and government subsidies to corn processors for buying domestic corn are expected to increase consumption. If this drop is realized, it would be the first time that China's corn stocks have decreased in the last six years. Estimated MY 2015/16 corn stocks are lowered two MMT to 109.49 MMT. As discussed above, the sudden drop in corn prices in the middle of MY2015/16 is expected to help increase consumption and slow growth in stocks.

#### Rice

#### **Production**

MY 2016/17 rough rice production is forecast to remain flat at 208.3 MMT. The government continues to prioritize and support rice production as part of its food security strategy as reiterated in the Communist Party's 2016 "No. 1 Document." On February 2<sup>nd</sup>, 2016, the government announced the new rice floor prices for MY 2016/17. The floor price was lowered 1.5 percent for early indica rice from RMB 2670 to RMB 2660 per MT. The floor price for mid-early indica and japonica rice was kept at RMB 2760 and RMB 3100 respectively. By the end of February 2016, government MY2015/16 rice procurement at minimum prices had reached a record of 32 MMT, including 2 MMT of early indica, 10 MMT of mid-late indica and 20 MMT of japonica rice across nine provinces. Estimated MY 2015/16 rice production is unchanged at 208.2 MMT.

# Consumption

MY 2016/17 consumption is forecast at 147.4 MMT, down 600,000 MT from the revised MY 2015/16 estimate due to changing consumer behavior and the economic slowdown. Chinese consumers are eating more meat and dairy and eating less rice, wheat and other staple grain. At the same time, rice purchases by company cafeterias have been impacted by the closure of many labor intensive factories in southern China. Use of rice in feed is expected to drop as well as smaller sized producers are going out of business and large feed mills focus on other feed ingredients to minimize costs. These same factors are causing rice consumption to stay flat in MY 2015/16. As a result, estimated MY 2015/16 consumption is revised down 2.3 MMT to 148 MMT, unchanged from MY2014/15.

#### **Trade**

Rice imports are forecast to remain steady at five MMT in MY 2016/17. Estimated MY 2015/16 rice imports are unchanged at 5 MMT. Low international rice prices and high support prices in China have resulted in a large and consistent gap between domestic rice prices and prices in regional exporters, such as Thailand and Vietnam. According to trade statistics, Thai 100% B rice averaged \$382 per MT in fall 2015, while Chinese domestically produced rice of the same class averaged \$440 to \$450 per MT. Vietnam 10 percent broken rice averaged \$365 per MT in fall 2015, while domestically produced rice of the same class sold at \$405 to \$417 MT.

In addition, Chinese rice processors are increasingly seeking high quality imported rice as the quality of rice from state reserves can be inconsistent.

Both these trends have contributed to strong import demand. However, the government continues to tightly monitor and control rice imports as part of its food security strategy to maintain self-sufficiency in this politically sensitive crop. The government has tightened TRQ controls in an attempt to protect

domestic farmers from cheaper imports, including preventing the TRQ for japonica rice to be used to import less expensive indica rice.

These conflicting pressures have made rice smuggling profitable in southwest China. Industry analysts and contacts estimate that 1.2 to 1.5 MMT of rice were smuggled from Southeast Asian countries into China in 2015. The central government has responded by carrying out targeted crackdowns on rice (and sugar) smuggling in Yunnan, Guangxi and Guizhou provinces with assistance from local border inspectors. The government publicized seizures of smuggled rice and claimed these operations have significantly reduced rice smuggling. However, the large price gap makes halting smuggling a difficult and long term challenge.

# **Marketing**

The government continues to provide a floor price for domestic rice in major producing provinces. The floor price system for rice is not likely to change significantly in the near term as maintaining self-sufficiency in rice continues to be a high priority for the government. According to industry contacts and reports, middle and late indica rice purchases under the program totaled 10.2 MMT and early indica purchases totaled 2.1 MMT in MY 2015/16. Japonica rice purchases at minimum price totaled 20.1 MMT. Together, purchases of rice at minimum prices totaled 32 MMT, less than 16 percent of rice produced, but 43 percent of rice procured by all kinds of enterprises.

#### **Stocks**

MY 2016/17 rice ending stocks are forecast at 52.9 MMT, up 2.9 MMT from MY 2015/16 as production remains at record levels and import demand remains strong due to high support prices. Estimated MY 2015/16 ending stocks are raised 2.2 MMT to 50 MMT due to a lack of growth in demand.

# **Barley**

#### **Production**

China's MY 2016/17 barley production is forecast at 2 MMT, up 200,000 MT from MY 2015/16 due to slightly higher acreage. A small portion of corn farmers are expected to switch to alternative crops such as barley, sorghum, potatoes, and fodder crops as a result of lower corn prices and a crop adjustment program launched by agricultural officials this year. Estimated MY 2015/16 barley production is raised 100,000 MT to 1.8 MMT based on stronger barley production estimates by CNGOIC.

Barley is only subsidized in a few provinces and it does not have a floor price. In most regions where barley is grown, producers favor corn or wheat production over barley. With government reducing subsidies to corn, this will cause some farmers to reconsider planting barley. A campaign to reduce corn planting in marginal production regions will encourage planting alternative crops like barley over the next few years.

#### **Trade**

MY 2016/17 imports are forecast at 6 MMT, down 900,000 MT from MY 2015/16 as falling corn prices make barley less competitive as a feed ingredient. Estimated MY 2015/16 imports are also lowered 600,000 MT to 6.9 MMT due to the cancelation of the corn floor price. Falling corn prices have made feed mills reconsider using corn rather than other feed substitute like sorghum and barley.

Beer production is expected to expand in the medium and long term as China continues to develop and urbanize, which will expand the market for malting barley imports. China has no import quotas for barley and the tariff is only three percent. Before 2012, the majority of imported barley was used for brewing. Imports of barley for feed increased rapidly along with other feed substitutes such as sorghum, DDGs after 2012 as a result of high domestic corn prices. Australia and France are China's largest suppliers, accounting for 42 percent and 41 percent of imports in 2015 respectively.

# Consumption

Barley consumption is forecast at 8.2 MMT in MY 2016/17, down 400,000 MT from MY 2015/16 due to lower feed use and lower beer sales. Estimated MY 2015/16 barley consumption is lowered 700,000 MT to 8.6 MMT as falling corn prices slash feed demand and beer sales slow.

China is the world's largest beer producer and consumer. Beer consumption has reached 34.7 liters per capita, slightly over the world average of 33 liters per capita based on industry statistics. However, the current economic slowdown is reducing household income and hurting beer consumption. Beer production dropped 5.5 percent in 2015 to 51.81 MMT. Beer consumption is expected to remain weak this year, but should recover and continue to grow in the medium term.

# Sorghum

#### **Production**

MY 2016/17 sorghum production is forecast to expand slightly to 3.1 MMT, up 100,000 MT from MY 2015/16 on expanded acreage. A small portion of corn farmers are expected to switch to alternative crops such as barley and sorghum as a result of the temporary reserve program for corn ending this year. Industry analysts estimated in March 2016 that the average margin on sorghum was RMB 790 per mu excluding land and labor costs, while the margin on corn production was RMB 725 per mu excluding land and labor. Based on their estimated costs and corn prices after the recent policy change the profit margin on corn would fall to RMB 425 per mu excluding land and labor. While this calculation would suggest corn farmers would quickly switch to sorghum, only a small portion of them are expected to do so. The market for corn is larger and more developed than sorghum markets, making corn easier to sell. In addition, transportation costs make sorghum produced in the northeast uncompetitive in southern China.

Estimated MY 2015/16 sorghum production is raised 100,000 MT to three MMT based on higher estimated yields by CNGOIC.

#### Consumption

MY 2016/17 sorghum total consumption is forecast at 8.26 MMT, one MMT lower than in MY 2015/16 as falling corn prices hurt feed demand for sorghum. Feed mills are reacting to lower corn prices by reducing usage of alternative ingredients such as sorghum. If the government starts to aggressively discount its excess corn reserves as expected, more feed mills will start to switch to corn. Estimated MY 2015/16 sorghum consumption is lowered 750,000 MT to 9.25 MMT on lower feed demand. Feed mills are still using imported sorghum from their stock, but sorghum feed use is expected to drop significantly in the remaining six months of MY 2015/16.

FSI consumption is forecast to increase slightly in MY 2016/17 to 2.26 MMT as the domestic liquor market continues to recover. Estimated MY 2015/16 liquor production is raised 50,000 MT to 2.25 MMT on high liquor production. Domestic hard liquor production increased 5.7 percent in 2015 as liquor producers cut prices to boost sales. Liquor producers have started to focus more on volume and less on maintaining high margins. Hard liquor production had fallen in 2013 and 2014 following the government's crackdown on public spending on banquets and events. Industry experts believe recovering liquor demand will help drive demand for high quality domestic sorghum.



Source: National Bureau of Statistics

#### **Trade**

MY 2016/17 imports are forecast at 5 MMT, down one MMT from MY 2015/16 as falling corn prices dampen demand for imported sorghum for feed. Estimated MY 2015/16 sorghum imports are lowered one MMT to 6 MMT, also on lower corn prices and less feed demand. According to industry sources, the government is also trying to actively discourage sorghum imports in order to reduce competition for domestic corn. Importers have already experienced delays in clearing customs for sorghum imported from the United States. CIQ offices in coastal provinces are warning local importer to limit sorghum imports and that there will be increased inspections and delays. Traders report that there is an unannounced government policy to make importing sorghum more difficult. Many traders report that they are limiting purchases of sorghum in response to government warnings and pressure.

# **DDGS** and Cassava Imports

DDGS imports reached a record of 6.8 MMT in 2015, up 26 percent from the previous year. DDGS is a byproduct of ethanol production that can be used in animal feed. It has become popular in China as a price competitive and high protein alternative to corn, and is used primarily in swine and poultry feed. With no quota requirement for DDGs importation and a tariff of just 5 percent, this product became widely accepted and easy to import for Chinese feed mills and traders.

Domestic ethanol producers in China have complained that the US product has an unfair competitive advantage in the Chinese market. On December 15, 2015, MOFCOM formally accepted petitions from Chinese distiller's DDGS producers for an AD and CVD investigation against DDGS originating from the United States. DDGS imports fell 39 percent in February 2016 from the month before as importers worry about potential duties. MOFCOM is currently expected to issue a preliminary determination in the AD CVD case sometime this summer, after which it may impose preliminary duties. The timing of the decision is subject to change.

Cassava imports reached a record 9.37 MMT in 2015, up 8.3 percent from the previous year. Industry sources estimate that 55~65 percent of imported cassava is used for ethanol production, starch and animal feed. Cassava imports are expected to continue to expand in 2016, but growth will be limited due to falling corn prices.

Wheat	2014/20	015	2015/2016		2016/2017		
Market Begin Year	Jul-14	1	Jul-15	5	Jul-16	5	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested	24,069	24,064	24,140	24,140		24,300	
Beginning Stocks	65,274	65,274	76,105	76,105		96,295	
Production	126,208	126,208	130,190	130,190		130,500	
MY Imports	1,926	1,926	2,500	3,000		3,200	
TY Imports	1,926	1,926	2,500	3,000		3,200	
TY Imp. from U.S.	326	326	0	300		400	
Total Supply	193,408	193,408	208,795	209,295		229,995	
MY Exports	803	803	1,000	1,000		1,000	
TY Exports	803	803	1,000	1,000		1,000	
Feed and Residual	16,000	16,000	12,000	10,500		9,500	
FSI Consumption	100,500	100,500	102,000	101,500		101,000	
Total Consumption	116,500	116,500	114,000	112,000		110,500	
Ending Stocks	76,105	76,105	93,795	96,295		118,495	

(1000 HA) (1000 MT) (1000

Total Distribution	193,408	193,408	208,795	209,295	229,995	(1000
						MT)
Yield	5.2436	5.2447	5.3931	5.3931	5.3704	(MT/HA)

Corn	2014/20	15	2015/2016		2016/1	2016/17	
Market Begin Year	Oct-14	4	Oct-1	5	Oct-1	6	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested	37,123	37,123	38,120	38,120		37,000	
Beginning Stocks	81,315	81,315	100,464	100,464		109,494	
Production	215,646	215,646	224,580	224,580		218,000	
MY Imports	5,516	5,516	2,500	2,500		1,000	
TY Imports	5,516	5,516	2,500	2,500		1,000	
TY Imp. from U.S.	604	478	0	50		0	
Total Supply	302,477	302,477	327,544	327,544		328,494	
MY Exports	13	13	50	50		50	
TY Exports	13	13	50	50		50	
Feed and Residual	140,000	140,000	152,000	154,000		158,000	
FSI Consumption	62,000	62,000	64,000	64,000		67,000	
Total Consumption	202,000	202,000	216,000	218,000		225,000	
Ending Stocks	100,464	100,464	111,494	109,494		103,444	
Total Distribution	302,477	302,477	327,544	327,544		328,494	
Yield	5.8090	5.8090	5.8914	5.8914		5.8919	

(1000 HA) (1000 MT) (MT/HA)

Rice, Milled	2014/20	15	2015/2016		2016/20	2016/2017	
Market Begin Year	Jul-14		Jul-15	5	Jul-16	5	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested	30,310	30,310	30,210	30,213		30,210	
Beginning Stocks	46,802	46,802	47,636	47,636		49,956	
Milled Production	144,560	144,560	145,770	145,770		145,800	
Rough Production	206,514	206,514	208,243	208,243		208,286	
Milling Rate (.9999)	7,000	7,000	7,000	7,000		7,000	
MY Imports	4,700	4,700	5,000	5,000		5,000	
TY Imports	5,150	5,150	5,000	5,000		5,000	
TY Imp. from U.S.	0	0	0	0		0	

(1000 HA) (1000 MT) (1000 MT) (1000 MT) (1000 MT) (1000 MT) (1000 MT) (1000 MT)

Total Supply	196,062	196,062	198,406	198,406	200,756	(1000
						MT)
MY Exports	426	426	350	450	450	(1000
						MT)
TY Exports	262	300	350	450	450	(1000
						MT)
Consumption and	148,000	148,000	150,300	148,000	147,400	(1000
Residual						MT)
Ending Stocks	47,636	47,636	47,756	49,956	52,906	(1000
						MT)
Total Distribution	196,062	196,062	198,406	198,406	200,756	(1000
						MT)
Yield (Rough)	6.8134	6.8134	6.8932	6.8932	6.8946	(MT/HA)

Barley	2014/2015		2015/20	016	2016/20	2016/2017		
Market Begin Year	Oct-14	4	Oct-1:	5	Oct-16			
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post		
Area Harvested	469	469	470	480	0	500		
Beginning Stocks	634	634	703	703	0	803		
Production	1,810	1,810	1,700	1,800	0	2,000		
MY Imports	9,859	9,859	7,500	6,900	0	6,000		
TY Imports	9,859	9,859	7,500	6,900	0	6,000		
TY Imp. from U.S.		0	0	0	0	0		
Total Supply	12,303	12,303	9,903	9,403	0	8,803		
MY Exports	0	0	0	0	0	0		
TY Exports	0	0	0	0	0	0		
Feed and Residual	7,500	7,500	5,100	4,500	0	4,200		
FSI Consumption	4,100	4,100	4,200	4,100	0	4,000		
Total Consumption	11,600	11,600	9,300	8,600	0	8,200		
Ending Stocks	703	703	603	803	0	603		
Total Distribution	12,303	12,303	9,903	9,403	0	8,803		
Yield	3.8593	3.8593	3.6170	3.7500	0.0000	4.0000		

(1000 HA)
(1000 MT)

Sorghum	2014/2015		2015/201	6	2016/2017	
Market Begin Year	Oct-14		Oct-15		Oct-16	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	619	619	610	620		625
Beginning Stocks	568	568	706	705		445
Production	2,885	2,885	2,900	3,000		3,100

(1000 HA) (1000 MT) (1000 MT)

MY Imports	10,162	10,162	7,000	6,000	5,000	(1000
TTX 1	10.162	10.162	7,000	6,000	5,000	MT)
TY Imports	10,162	10,162	7,000	6,000	5,000	(1000 MT)
TY Imp. from U.S.	8,711	8,389	0	5,500	4,500	(1000
T . 10 1	12.615	12.615	10.000	0.705	0.545	MT)
Total Supply	13,615	13,615	10,606	9,705	8,545	(1000 MT)
MY Exports	9	10	25	10	10	(1000
TY Exports	9	10	25	10	10	MT) (1000
Feed and Residual	10,700	10,700	7,800	7,000	6,000	MT) (1000
FSI Consumption	2,200	2,200	2,200	2,250	2,260	MT) (1000
Total Consumption	12,900	12,900	10,000	9,250	8,260	MT) (1000
Ending Stocks	706	705	581	445	275	MT) (1000
Total Distribution	13,615	13,615	10,606	9,705	8,545	MT) (1000
Yield	4.6607	4.6607	4.7541	4.8387	4.9600	MT) (MT/HA)

China Wheat Import by Origin, MY 2014/15, MY 2015/16 (in 000' MT)									
	MY 2014/15 MY 2015/16								
	OCT- JAN-								
	JUL-SEP	DEC	MAR	APR-JUN	Total	JUL-SEP	OCT-DEC	JAN-FEB	

Canada	94.83	4.43	121.84	397.87	618.96	280.65	192.14	121.62
United States	91.84	31.52	57.58	130.05	310.99	137.51	278.57	2.62
Australia	86.55	54.78	166.12	474.75	782.20	398.46	221.42	172.86
Kazakhstan	13.41	43.05	7.69	36.96	101.12	36.70	37.26	51.15
Italy	4.45	3.90	4.35	4.54	17.24	4.77	5.19	3.45
Russia	3.04	3.26	6.02	2.77	15.09	0.87	6.14	3.82
Taiwan	2.28	2.61	1.73	1.82	8.44	2.04	2.14	1.00
Korea, South	1.76	2.26	2.32	2.09	8.43	2.74	3.27	1.67
Ukraine	1.07	2.68	3.10	3.09	9.94	1.50	0.09	-
Hong Kong	1.00	0.44	0.81	0.74	2.99	0.92	1.22	0.53
Thailand	0.76	0.71	0.67	0.70	2.84	0.88	1.05	0.37
Turkey	0.74	0.92	0.99	0.68	3.33	0.75	0.95	0.33
Greece	0.70	0.81	0.54	0.06	2.11	0.04	0.26	0.18
Spain	0.47	0.23	0.61	0.41	1.73	0.47	0.61	0.28
France	0.30	0.06	5.03	0.07	5.46	0.08	0.24	0.02
Singapore	0.27	0.28	0.34	0.43	1.32	0.46	0.47	0.26
Japan	0.21	0.36	0.23	0.28	1.09	0.45	0.67	0.20
Indonesia	0.13	0.15	0.13	0.17	0.58	0.26	0.24	0.07
Malaysia	0.10	0.10	0.06	0.08	0.35	0.15	0.43	0.20
China	0.04	0.05	0.02	0.02	0.14	0.04	0.11	0.02
Germany	0.03	0.07	0.03	0.07	0.19	0.06	0.11	0.01
Vietnam	0.03	0.07	0.01	0.06	0.17	0.02	0.04	0.03
Poland	0.02	0.02	-	0.00	0.04	0.00	0.00	-
Belgium	0.00	0.01	0.01	0.04	0.06	0.03	0.05	0.03

Source: World Trade Atlas

		MY	2014/15			MY 2015/16			
	JUL-SEP	OCT- DEC	JAN- MAR	APR-JUN	Total	JUL-SEP	OCT-DEC	JAN-FEB	
Hong Kong	46.36	49.28	43.60	44.01	183.26	44.81	49.31	12.71	
Korea, North	19.74	24.72	6.54	6.65	57.65	3.65	4.43	0.59	
Korea, South	16.37	18.22	16.85	16.78	68.22	15.71	17.39	7.14	
United States	12.86	13.39	12.95	14.37	53.57	11.38	13.29	4.87	
Canada	6.04	6.24	5.14	5.97	23.39	5.43	6.36	1.94	
United Kingdom	4.61	4.67	3.54	4.12	16.94	3.44	4.91	1.43	

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Japan	4.61	4.13	4.17	4.38	17.28	4.16	4.18	1.38
Malaysia	4.01	4.41	3.05	4.45	15.92	5.88	3.50	1.27
Germany	3.21	4.19	2.87	4.14	14.41	3.26	4.30	1.08
Netherlands	3.12	3.22	2.16	3.52	12.02	2.80	2.97	0.80
Australia	2.88	2.65	2.48	2.50	10.50	2.32	2.55	0.97
South Africa	2.81	2.20	1.87	1.30	8.18	2.50	1.97	0.42
Philippines	2.36	3.49	2.13	2.36	10.33	3.08	3.21	0.91
Macau	2.29	2.22	1.94	2.08	8.54	2.27	2.24	0.67
Russia	1.94	2.01	1.06	1.61	6.63	1.42	1.70	0.54
Indonesia	1.79	2.55	0.91	1.64	6.89	1.59	1.62	0.42
Vietnam	1.58	1.17	1.51	1.06	5.32	1.75	1.17	0.54
Taiwan	1.42	1.28	0.90	1.10	4.70	1.28	1.34	0.58
	1.35	2.13	1.87	1.69	7.04	1.21	1.94	0.57
France								
Mongolia	1.26	0.78	1.07	0.93	4.05	1.07	0.77	0.35
Singapore	1.12	1.10	0.99	1.11	4.31	0.94	1.04	0.36
Thailand	0.98	1.16	1.50	1.08	4.71	1.13	1.72	0.31
Pakistan	0.91	1.12	0.03	-	2.05	-	0.00	-
Sweden	0.75	0.88	0.75	0.94	3.33	0.84	0.95	0.20
Solomon Islands	0.73	1.01	0.76	0.72	3.23	1.17	0.69	0.11
Italy	0.68	0.62	0.51	0.77	2.59	0.57	0.70	0.34
Myanmar	0.66	0.77	0.44	0.52	2.39	0.41	0.71	0.17
Kazakhstan	0.58	0.35	0.53	0.52	1.98	0.39	0.55	0.15
New Zealand	0.55	0.53	0.42	0.48	1.98	0.55	0.51	0.20

China Corn Import b	y Origin, MY 201	4/15 (000' MT)						
			MY 2014/15			MY 2015/16		
Country	OCT -DEC	JAN-MAR	Total	OCT-DEC	JAN-FEB			
Ukraine	553	1,080	1,241	1,531	Total	0	53	
Bulgaria	128	97	44	9	278	10	0	
Thailand	111	0	0	0	111	0	0	
Laos	83	6	6	12	106	102	4	
United States	52	37	64	325	478	36	2	
Myanmar	30	0	13	2	46	33	2	
Russia	18	13	50	5	86	14	11	
India	3	0	0	0	3	0	0	

Pakistan	1	0	0	0	1	0	0	
Argentina	0	0	0	0	0	0	0	

			MY 2014/15	1	T	MY 2015/16		
Country	OCT -DEC	JAN-MAR	APR-JUN	JUL-SEP	Total	OCT-DEC	JAN-FEB	
Korea, North	3.17	0.24	6.44	1.65	11.49	1.57	0.60	
Laos	0.29	-	-	-	0.29	-	-	
Korea, South	0.15	0.00	0.00	-	0.15	-	-	
Canada	0.12	0.12	-	-	0.24	-	-	
Vietnam	0.12	0.07	-	0.01	0.19	0.19	-	
Kazakhstan	0.02	-	-	-	0.02	-	-	
Angola	0.01	-	-	0.01	0.02	-	-	
Gambia	-	-	-	0.00	0.00	-	-	
Italy	_	-	0.00	-	0.00	-	-	
Pakistan	-	0.01	-	-	0.01	-	-	
Russia	-	-	0.10	-	0.10	-	-	
Trinidad & Tobago	-	0.02	-	-	0.02	-	0.02	
United States	-	_	_	_	_	0.65	_	

China Rice Import by	Origin, MY 2014/15, M	IY 2015/16 (in	000' MT)					
			MY 2014/15				MY 2015/16	
	JUL-SEP	OCT- DEC	JAN- MAR	APR- JUN	Total	JUL-SEP	OCT- DEC	JAN- FEB
Vietnam	318.65	336.15	113.29	710.56	1,478.65	573.47	573.47	573.47
Thailand	167.74	248.58	125.83	220.54	762.69	281.00	281.00	281.00
Pakistan	12.74	107.36	53.24	95.51	268.86	27.34	27.34	27.34
Cambodia	7.87	17.61	36.76	45.14	107.38	7.82	7.82	7.82
Laos	0.59	13.99	4.49	7.83	26.90	5.01	5.01	5.01
Taiwan	0.38	0.05	0.07	0.05	0.55	0.06	0.06	0.06
Korea, North	0.06	-	-	-	0.06	-	-	-
Italy	0.00	-	-	-	0.00	0.00	0.00	0.00
Philippines	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00
France	-	-	-	-	-	-	-	-
India	-	-	-	-	-	-	-	-
Japan	-	0.07	0.07	0.02	0.15	0.04	0.04	0.04
Korea, South								

	-	-	-	-	-	-	-	-
Myanmar	-	5.26	1	2.65	7.90	3.21	3.21	3.21
New Zealand	-	-	-	-	-	-	-	-
Russia	-	0.99	0.10	0.10	1.18	-	-	-

China Rice Exports by Destina	ation, MY 2014	/15, MY 2015	'16 (in 000' MT	)		1		
			MY 2014/15				MY 2015/1	
	JUL-SEP	OCT- DEC	JAN- MAR	APR- JUN	Total	JUL-SEP	OCT- DEC	JAN- FEB
Korea, North	41.26	8.80	0.37	3.50	53.93	8.41	4.85	0.37
Korea, South	36.54	172.38	2.15	52.90	263.97	68.50	39.53	5.00
Mongolia	7.36	5.61	1.70	6.81	21.47	3.79	4.36	0.35
Hong Kong	6.24	5.36	5.18	5.69	22.47	4.74	5.63	2.39
Russia	2.09	2.46	0.10	0.97	5.62	0.80	0.98	-
Philippines	1.17	2.14	1.00	2.52	6.82	1.23	4.90	-
Vietnam	1.05	7.51	0.24	0.74	9.55	0.05	6.18	0.03
South Sudan	1.01	1.06	-	-	2.07	-	-	1.70
Kyrgyzstan	0.52	0.47	0.22	0.25	1.47	0.06	-	-
Bangladesh	0.29	0.84	0.08	0.01	1.22	0.25	0.50	-
Solomon Islands	0.21	-	-	-	0.21	-	-	-
Canada	0.20	0.41	0.33	0.13	1.06	0.14	0.19	0.02
Macau	0.12	0.26	0.10	0.02	0.49	-	0.06	0.04
Vanuatu	0.11	-	0.04	-	0.14	-	-	-
Marshall Islands	0.11	0.05	0.03	-	0.18	-	-	-
Micronesia (Federated States of)	0.08	0.03	0.03	-	0.13	-	-	-
Puerto Rico (U.S.)	0.08	0.04	-	-	0.12	0.02	-	-
United States	0.08	0.28	0.54	0.38	1.27	0.22	0.30	0.04
Angola	0.06	0.03	0.04	-	0.14	-	0.03	-
Iran	0.05	0.02	-	0.00	0.07	-	-	-
Turkey	0.05	0.15	0.10	-	0.30	-	-	-
South Africa	0.03	0.08	-	0.00	0.10	-	-	-
Grenada	0.01	0.01	-	-	0.01	-	-	-
Indonesia	0.01	0.52	0.05	0.01	0.57	0.18	0.36	-
Japan	-	24.30	24.00	0.48	48.78	-	12.00	12.00

China Sorghum Import by Origin, MY 2014/15, MY 15/16 (000' MT)

, <u>g</u> <u>r</u>			MY 2014/15			MY 20	15/16
Country	OCT -DEC	JAN-MAR	OCT-DEC	JAN-FEB			
Argentina	0.00	-	86.45	2.72	89.18	-	-
Australia	146.44	33.54	342.82	1,160.64	1,683.44	107.02	109.53
France	-	0.00	0.00	-	0.00	0.00	0.00
Japan	-	-	0.00	-	0.00	-	-
United States	1,920.15	2,235.00	2,657.84	1,576.16	8,389.14	2,497.50	3,985.81

Source: China Customs

China Sorghum Export by Destination, MY 2014/15, MY 15/16 (000' MT)

		_	MY 2014/15			MY 20	15/16
Country	OCT -DEC	JAN-MAR	APR-JUN	JUL-SEP	MY 14/15 Total	OCT-DEC	JAN-FEB
Australia	0.00	0.00	0.00	-	0.01	-	-
Bulgaria	-	-	0.00	-	0.00	-	0.01
Canada	-	-	0.00	0.00	0.00	-	-
Germany	-	0.00	-	-	0.00	-	-
Hong Kong	-	-	-	0.00	0.00	-	-
Japan	0.01	0.02	0.04	0.03	0.10	-	-
Korea, South	1.30	1.76	0.38	0.50	3.94	0.74	0.56
Malaysia	0.02	0.02	-	0.02	0.06	-	0.02
Netherlands	0.00	0.00	0.00	-	0.01	0.00	-
Panama	0.00	-	-	-	0.00	-	0.00
Portugal	0.00	-	0.00	-	0.01	-	-
Russia	-	-	0.01	-	0.01	-	-
Saudi Arabia	-	-	0.10	0.12	0.22	0.07	-
Singapore	-	-	0.00	-	0.00	-	-
Taiwan	2.93	0.64	0.35	0.78	4.70	2.77	2.67
United States	0.00	0.02	0.01	0.03	0.06	0.01	0.02
Vietnam	-	_	0.00	-	0.00	-	-

			MY 2014/15			MY 2015/16		
Country	OCT -DEC	JAN-MAR	APR-JUN	JUL-SEP	Total	OCT-DEC	JAN-FEB	
France	476.83	429.80	985.24	1,698.47	3,590.34	1,310.25	58.47	
Australia	440.08	1,827.64	1,328.17	916.08	4,511.96	289.53	357.64	
Canada	168.40	314.36	261.50	293.64	1,037.90	172.41	207.99	
Argentina	49.50	-	44.00	0.30	93.80	0.63	-	
Denmark	3.98	22.25	15.63	-	41.86	-	-	
China	0.00	-	-	-	0.00	-	_	

Lebanon	0.00	-	-	-	0.00	-	-
Switzerland	0.00	1	-	-	0.00	1	1
Mongolia	-	-	0.47	0.41	0.87	-	
Sweden	-	-	-	-	-	-	-
Ukraine	-	64.87	69.53	447.21	581.61	238.34	-
United States	-	0.56	-	-		-	-