China - Peoples Republic of

Post: Beijing

Corn Prices Rise Amid Unprecedented Supply and Demand Shocks

Report Categories:
Grain and Feed

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Report Highlights:

Current corn prices have recovered from lows in MY2016/17 as mounting pressures from supply shocks weigh on historic shifts in demand. MY2019/20 corn production is forecast to fall more than 9 percent from USDA’s June forecast due to lower area and yield. Feed demand is projected lower as African Swine Fever-related declines in the hog sector are partly offset by rising poultry production. The MY2019/20 corn feed use forecast is lowered 11 percent from USDA’s official forecast to 170 MMT, the lowest feed use estimate since MY2015/16. The MY2018/19 corn feed use estimate is also lowered to 177 MMT, or about 8 percent.
Executive Summary:

**MY2019/20 Grain for Feed Use Situation and Outlook**
High corn prices reflect a tightening supply situation for feed grains across China. As a result, some feed manufacturers have turned to competitively priced government stocks of wheat and rice. Industry sources project that state-owned grain inventories are between 50 and 100 MMT—a significant reduction from just one year ago.

MY2019/20 corn production is forecast at 230 MMT, down 9.4 percent from USDA’s June forecast, and the lowest corn production forecast since MY2012/13, due to lower harvested area, lower yields, and government policies favoring soybeans. This spring, key corn-producing provinces in China experienced adverse planting and growing conditions, and are imminently threatened by the rapid spread and impact of the Fall armyworm (FAW).

MY2019/20 corn consumption is forecast lower at 259 MMT, a 7 percent decline from USDA’s June figure, and the lowest consumption forecast in nearly four years, due to weakening demand for feed and FSI use. The MY2019/20 corn feed use forecast is largely driven by the impact of African Swine Fever (ASF). Feed demand for hog production is projected lower as ASF-related declines are partly offset by rising poultry production. MY2019/20 corn feed use is forecast at 170 MMT, down about 11 percent from USDA’s latest forecast, and the lowest feed estimate since MY2015/16. See GAIN report CH19041 for more information.

MY2019/20 corn imports are forecast at 6 MMT, down 1 MMT from USDA’s June forecast, on slowing demand. In South China, sorghum buyers have returned to the market despite additional tariffs on U.S. sorghum. While sprouting and quality issues channeled significant volumes of China’s MY2018/19 wheat crop towards feed use, high corn prices are primarily driving feed markets to substitute wheat for corn in feed formulations.

**MY2019/20 Grain for Food Use Situation and Outlook**
The MY2019/20 wheat production forecast remains at 132 MMT. China’s demand for Canadian wheat remain resilient despite rising political tensions. Wheat stocks are estimated at 150 MMT, an increase of 4 MMT from the official forecast, and up 10 MMT from the previous year, as large carry-in volumes outpace government efforts to drawdown stocks.

The MY2019/20 rough rice production estimate remains at 208.6 MMT. As China continues to negotiate formalized imports with neighboring South Asian trading partners, it has rapidly expanded exports and in-kind food assistance shipments abroad. MY2019/20 rice imports are forecast at 3.5 MMT. MY2019/20 exports are forecast at 3 MMT, down 300,000 tons from USDA’s official forecast on the pace of shipments to date.

**MY2019/20 Grain for Industrial Use Situation and Outlook**
From 2016 to 2018, Heilongjiang province, China’s top corn producer, nearly doubled its corn processing capacity to 20 MMT. As high corn prices erode margins and China’s policy interest in biofuels wanes, growth in China’s corn processing sector is also projected to slow in MY2019/20.
**Seasonal Outlook**

The China Meteorological Administration forecasts that from May to September 2019 drought conditions in North China will be more intense than in 2018. Over the winter, a lack of snow led to dry conditions and exposed dormant winter crops to freezing temperatures. In early Spring, farmers in North China struggled to plant summer crops on time due to drier than normal conditions. Across the North China Plain, cloud seeding successfully induced rains to aid planting progress in late April and early May. In late May and June, timely and beneficial rains promoted summer crop development across North East China, as well as the North China Plain. However, severe drought conditions have taken hold in central and western Jilin province as well as Shandong province.

Soil moisture levels in South and Central China have been highly variable. Excessively wet and overcast conditions in South China have delayed crop development for early and mid-to-late season indica rice. In Yunnan and Guangxi provinces, extremely dry conditions and irregular rainfall have reportedly affected more than 1.6 million hectares. Meanwhile, in other parts of the Guangxi province, inundating rains have flooded more than 623,000 hectares of crops.

### China Planting Intentions (Percent Change between MY2018/19 and MY2019/20)

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Soybean</th>
<th>Rice</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>-3.1%</td>
<td>16.4%</td>
<td>National</td>
<td>0.2%</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>- 15.8%</td>
<td>28.4% Early Rice</td>
<td>Winter Wheat</td>
<td>4.3%</td>
</tr>
<tr>
<td>Jilin</td>
<td>-2.7%</td>
<td>37%</td>
<td>Mid and Single-Crop Rice</td>
<td>1.9%</td>
</tr>
<tr>
<td>Liaoning</td>
<td>-2.2%</td>
<td>14.2%</td>
<td>Late Double-Crop Rice</td>
<td>- 4.2%</td>
</tr>
<tr>
<td>Inner Mongolia</td>
<td>N/A</td>
<td>14.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: MARA

### Domestic Support

Industry sources report that North East China farmers, cooperatives, or companies planting corn, soybeans, and rice are eligible for direct payments starting in October and November 2019.

### North East China Provincial Subsidy Programs

<table>
<thead>
<tr>
<th></th>
<th>Heilongjiang</th>
<th>Jilin</th>
<th>Liaoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop</td>
<td>MY18/19</td>
<td>MY19/20</td>
<td>MY18/19</td>
</tr>
<tr>
<td>Corn</td>
<td>$56 (25)</td>
<td>$152-$217 (70-100)</td>
<td>$203 (93)</td>
</tr>
<tr>
<td>Soybean</td>
<td>$716 (320)</td>
<td>$587-$652 (227)</td>
<td>$494 (27)</td>
</tr>
</tbody>
</table>
Rice Surface irrigated

<table>
<thead>
<tr>
<th></th>
<th>(270-300)</th>
<th>(265-269)</th>
<th>(350-500)</th>
<th>(200-270)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>$289 (132.8)</td>
<td>N/A</td>
<td>N/A</td>
<td>$174 (80)</td>
</tr>
<tr>
<td>Rice Groundwater irrigated</td>
<td>N/A</td>
<td>$202 (92.79)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

CORN

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Harvested</td>
<td>USDA Official</td>
<td>New Post</td>
<td>USDA Official</td>
</tr>
<tr>
<td></td>
<td>42399</td>
<td>42399</td>
<td>42129</td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>223017</td>
<td>223017</td>
<td>222525</td>
</tr>
<tr>
<td>Production</td>
<td>259071</td>
<td>259071</td>
<td>257330</td>
</tr>
<tr>
<td>MY Imports</td>
<td>3456</td>
<td>3456</td>
<td>5000</td>
</tr>
<tr>
<td>TY Imports</td>
<td>3456</td>
<td>3456</td>
<td>5000</td>
</tr>
<tr>
<td>TY Imp. from U.S.</td>
<td>308</td>
<td>308</td>
<td>0</td>
</tr>
<tr>
<td>Total Supply</td>
<td>485544</td>
<td>485544</td>
<td>484855</td>
</tr>
<tr>
<td>MY Exports</td>
<td>19</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>TY Exports</td>
<td>19</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Feed and Residual</td>
<td>187000</td>
<td>187000</td>
<td>192000</td>
</tr>
<tr>
<td>FSI Consumption</td>
<td>76000</td>
<td>76000</td>
<td>83000</td>
</tr>
<tr>
<td>Total Consumption</td>
<td>263000</td>
<td>263000</td>
<td>275000</td>
</tr>
<tr>
<td>Ending Stocks</td>
<td>222525</td>
<td>222525</td>
<td>209835</td>
</tr>
<tr>
<td>Total Distribution</td>
<td>485544</td>
<td>485544</td>
<td>484855</td>
</tr>
</tbody>
</table>

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

Production

MY2019/20 corn production is forecast to reach 230 MMT, down 24 MMT due to policies aimed at lowering area and pest pressure which will drag down yields.

MY2019/20 harvested corn area is forecast at 40 million hectares, 1 million hectares lower than USDA’s June forecast, due to provincial policies favoring soybean production, and FAW impacts. Post estimates for MY2018/19 soybean harvested area is higher than USDA’s June forecast and MY2018/19 estimate.

Current Crop Condition

North East China’s corn development is progressing well. Farmers in North East China typically start planting corn in mid-to-late April, and rarely later than early May. Dry conditions delayed planting by 10 days in two major corn-producing provinces. In late June, North East corn progressed to the jointing stage of development.

<table>
<thead>
<tr>
<th>Province</th>
<th>Planting Start Date</th>
<th>Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liaoning</td>
<td>April 15</td>
<td>Up to 10 days</td>
</tr>
<tr>
<td>Jilin</td>
<td>April 22</td>
<td>Up to 10 days</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>April 30</td>
<td>On time</td>
</tr>
</tbody>
</table>

Source: Industry Sources
State-owned farms account for about one-quarter of total farmland in Heilongjiang province. State-owned farms and some independent farms are likely to follow provincial and central government directives and transition from corn to soybean planted area. Independent growers are seeking lower price risk by switching from corn to soybeans.

Subsidy policies tied to expanded soybean production vary greatly. Across the North China Plain, corn producers plant following the wheat harvest in mid-to-late June. High corn prices have incentivized many growers in this region to continue planting corn despite risks due to FAW.

Pest and Disease Pressure

On July 17, MARA reported official detections of FAW in 19 provinces. FAW has established itself in South China impacting more than 1 million hectares in Yunnan, Guangxi, Guizhou, and Henan provinces (See GAIN reports CH19025 and CH19033). In May 2019, the China Academy of Agricultural Sciences (CAAS) reported estimated FAW losses between 20 and 72 percent of corn production in affected regions. MARA’s National Agricultural Technology Extension Service Center aims to limit national production losses to 8 percent.

As the pest continues northward, corn producers in the North China Plain region faces the greatest risk from FAW-related crop loss. FAW will be entrenched and well established on the North China Plain when the majority of the corn crop emerges and begins vegetative development, exposing as much as one-third of China’s total corn crop to the pest. In North East China, crop progress this year will be further along and better able to withstand pest pressure. MARA projects that overall pressure from Asian corn borer, rust, and leaf spot will also be more severe in MY2019/20 than in MY2018/19.

Rising Crop Protection Costs Undercuts Producer Margins

In March 2019, the relative margins for planting corn in North East China on self-owned land were higher than planting soybeans, even accounting for additional subsidies favoring soybeans. With the rapid spread of FAW, the economics of producer planting decisions now favor soybeans. Rising crop protection costs in North China will undercut corn producer margins.

Consumption

MY2019/20 corn consumption is forecast at 259 MMT, a difference of 20 MMT from USDA’s June forecast as lower feed use for China’s hog sector is partly offset by higher feed use in the poultry sector.

MY2019/20 feed and residual use is forecast at 170 MMT, down 20 MMT as China’s hog herd declines face a long road to recovery. See GAIN Report CH19035 and CH19041.

MY2018/19 feed and residual use is estimated at 177 MMT, down 15 MMT mainly due to ASF impacts. Due to stark differences between several affected regions, it is difficult to project the rate of recovery for China’s hog sector. Local analysts project that ASF-related impacts in MY2019/20 will lower China’s feed demand between 5 and 15 percent from MY2018/19. ASF-related declines in hog feed use are partly offset by growing poultry production. Although greater substitution of corn for soybean protein continues, high corn prices have led feed millers in the poultry sector to begin feeding wheat and rice.
On the North China Plain, rising corn prices have narrowed the gap with wheat prices over the past two weeks (See Appendix 1). In late June, corn spot and futures prices rose to their highest levels since January 2019. Corn futures on the Dalian Commodity Exchange peaked at above $290 per ton (2,007 RMB), the highest level since November 2018. This is supported by market speculation due to higher reserve prices at government auctions (See Stocks section below), ongoing trade tensions with the United States, and the spread of FAW. MY2019/20 FSI consumption remains at 89 MMT due to continued expansion in the corn processing and ethanol sectors. Sources report that China’s corn processing capacity will expand beyond 100 MMT, rising between about 5 to 15 MMT from MY2018/19. China’s provinces continue to expand the E10 mandate area for ethanol-gasoline fuel blends. Recent reported announcements have outlined plans by Zhejiang, Shanghai, Shanxi, and Hebei provinces to implement E10 fuel blend mandates, raising overall national corn for ethanol use.

Prospective Additions to Corn Processing Capacity

<table>
<thead>
<tr>
<th>Company</th>
<th>Province</th>
<th>Corn Processing Capacity</th>
<th>Corn Use for Fuel Ethanol</th>
<th>Total Volume Throughput</th>
<th>Date Announced</th>
<th>Date On Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE</td>
<td>Inner Mongolia</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Feb 2019</td>
<td>N/A</td>
</tr>
<tr>
<td>SOE</td>
<td>Jilin</td>
<td>5 MMT</td>
<td>--</td>
<td>7 MMT</td>
<td>April 2018</td>
<td>2021</td>
</tr>
<tr>
<td>SOE</td>
<td>Liaoning</td>
<td>5 MMT</td>
<td>2 MMT</td>
<td>7 MMT</td>
<td>April 2018</td>
<td>2021</td>
</tr>
<tr>
<td>SOE</td>
<td>Inner Mongolia</td>
<td>--</td>
<td>350,000</td>
<td>350,000</td>
<td>April 2018</td>
<td></td>
</tr>
<tr>
<td>MNC</td>
<td>Jilin</td>
<td>2 MMT</td>
<td>--</td>
<td>2 MMT</td>
<td>June 2018</td>
<td>2020</td>
</tr>
<tr>
<td>Joint Venture</td>
<td>Tianjin</td>
<td>--</td>
<td>--</td>
<td>300,000</td>
<td>May 2019</td>
<td>2020</td>
</tr>
</tbody>
</table>

Source: Industry Sources and Post Estimates. Note: State Owned Enterprise (SOE), Multinational Trading Corporation (MNC), and Joint Venture (MNC and domestic private industry).

MY2018/19 FSI consumption is estimated at 85 MMT, up 2 MMT due to continued expansion of corn processing and ethanol production. Although capacity expansion continues, the pace of growth is slowing as input costs climb, and end-product prices remain largely unchanged. In MY2018/19, total corn processing capacity utilization rates average about 60 percent, down by 5 percent from MY2017/18 due to high corn prices.

Trade

The MY2019/20 corn import forecast is lowered to 6 MMT, 1 MMT less than USDA’s June estimate, as lower feed demand across China relieves market pressure to import feed-quality grains to South China.

Market demand is high, but China’s Tariff Rate Quota (TRQ) administration policies continue to restrict corn imports to 7.24 MMT.

Corn Quotes by Origin and Destination as of May 21

<table>
<thead>
<tr>
<th>Origin</th>
<th>Destination</th>
<th>$ per ton</th>
<th>RMB per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Guangdong</td>
<td>$298</td>
<td>RMB 2,030</td>
</tr>
<tr>
<td>Country</td>
<td>Origin</td>
<td>Unit</td>
<td>Price</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>United States</td>
<td>Guangdong</td>
<td>$313</td>
<td>RMB 2,126</td>
</tr>
<tr>
<td>Ukraine</td>
<td>Guangdong</td>
<td>$243</td>
<td>RMB 1,650</td>
</tr>
</tbody>
</table>

Source: Industry Sources

MY2018/19 corn imports are estimated at 4 MMT, 1 MMT lower than USDA’s June estimate. Trade data indicate that, from October 2018 to May 2019, corn imports totaled nearly 3.1 MMT, of which nearly 92 percent originated from Ukraine. As of mid-June, the pace of Ukrainian corn deliveries to China is about 21 percent ahead of those from the same period in MY2017/18.

U.S. quotes have risen following reports of delayed planting in the Midwest, as well as additional Chinese tariffs of 25 percent. Industry sources report that trade uncertainty continues to weigh on market confidence in executing purchases of U.S.-origin consignments.

MY2019/20 and MY2018/19 corn exports remain unchanged at 20,000 tons.

Stocks

MY2019/20 stocks are forecast at 198.8 MMT, 7 MMT larger than USDA’s June estimate on lower consumption.

On April 30, the China National Grain Trade Center (CNGTC) reported total procurement volumes from 11 major corn producing areas at 110 MMT, up 12 MMT from MY2018/19. Sinograin disclosed that in April 2019, it procured 10.5 MMT; more than 70 percent was procured from January to April 2019.

On May 23, the China National Grain Trade Center (CNGTC) began auction sales of corn from state-owned inventories produced in MY2013/14 and MY2014/15. Reserve prices for auction lots vary according to the condition, age, and volume of state-owned inventories. In late May 2019, CNGTC set reserve prices in North East China about $29 per ton (200 RMB) higher than in 2018 to reflect market prices. Corn processors are bidding quotes higher by $1.40 to $7.20 per ton (10 to 50 RMB).

Source: China National Grain Trade Center

![Cumulative Auction Sales of Corn](image)
Despite a higher reserve price in 2019, quotes for auction corn delivered to South China are at near parity with imported and commercial supplies. Grade 2 corn from Jilin province sold at auction for $245 per ton (1,690 RMB). Accounting for delivery to South China ports and handling fees, this auction lot totaled about $275 per ton (1,900 RMB), about $32 per ton above Ukrainian quotes, and nearly $25 below commercial quotes of MY2018/19 corn from North East China.

**WHEAT**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Jul 2017</td>
<td>Jul 2018</td>
<td>Jul 2019</td>
</tr>
<tr>
<td>USDA Official</td>
<td>New Post</td>
<td>USDA Official</td>
<td>New Post</td>
</tr>
<tr>
<td>Area Harvested</td>
<td>24508</td>
<td>24268</td>
<td>24100</td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>114929</td>
<td>131380</td>
<td>139993</td>
</tr>
<tr>
<td>Production</td>
<td>134334</td>
<td>131430</td>
<td>132000</td>
</tr>
<tr>
<td>MY Imports</td>
<td>4000</td>
<td>3500</td>
<td>3500</td>
</tr>
<tr>
<td>TY Imports</td>
<td>4000</td>
<td>3500</td>
<td>3500</td>
</tr>
<tr>
<td>TY Imp. from U.S.</td>
<td>772</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Supply</td>
<td>253263</td>
<td>266193</td>
<td>275493</td>
</tr>
<tr>
<td>MY Exports</td>
<td>1000</td>
<td>1200</td>
<td>1300</td>
</tr>
<tr>
<td>TY Exports</td>
<td>1000</td>
<td>1200</td>
<td>1300</td>
</tr>
<tr>
<td>Feed and Residual</td>
<td>17500</td>
<td>20000</td>
<td>21000</td>
</tr>
<tr>
<td>FSI Consumption</td>
<td>103500</td>
<td>105000</td>
<td>107000</td>
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<tr>
<td>Total Consumption</td>
<td>121000</td>
<td>125000</td>
<td>128000</td>
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<tr>
<td>Ending Stocks</td>
<td>131263</td>
<td>139993</td>
<td>146193</td>
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<tr>
<td>Total Distribution</td>
<td>253263</td>
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</tr>
<tr>
<td>Yield</td>
<td>5.4812</td>
<td>5.4158</td>
<td>5.4772</td>
</tr>
</tbody>
</table>

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

**Production**

MY2019/20 wheat production is unchanged at 132 MMT, and slightly higher than MY2018/19, as higher yields are projected to offset lower harvested area.

The MY2019/20 wheat harvested area forecast is unchanged at 24.1 million hectares, and down by 168,000 hectares from MY2018/19 due to government plans to implement wide-scale crop rotation and land conservation efforts, as well as producer responses to a minimum support price policy announced in November 2018 (See GAIN report CH18077). Many wheat producers reportedly switched to horticultural crops. Favorable weather promoted winter wheat crop development throughout much of the MY2019/20 growing season, particularly during the emergence and boot stages of development.

MY2019/20 winter wheat harvesting on the North China Plain is nearly complete. On June 25, MARA reported that China’s farmers have completed harvesting about 90 percent of total winter wheat area. Approximately 96 percent of the crop was mechanically harvested.
<table>
<thead>
<tr>
<th>Province</th>
<th>MY2019/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hubei</td>
<td>Complete</td>
</tr>
<tr>
<td>Henan</td>
<td>Complete</td>
</tr>
<tr>
<td>Anhui</td>
<td>Complete</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>80%</td>
</tr>
<tr>
<td>Shaanxi</td>
<td>80%</td>
</tr>
<tr>
<td>Shanxi</td>
<td>60%</td>
</tr>
<tr>
<td>Shandong</td>
<td>60%</td>
</tr>
<tr>
<td>Hebei</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Industry Sources

Wheat harvested from Hubei province entered the market in mid-May with a procurement price of about $290-304 per ton. MY2019/20 wheat quality is expected to improve from MY2018/19 with high-quality wheat varieties accounting for one-third of the total wheat production, up 3 percent from MY2018/19. Hubei wheat is typically the first wheat crop to begin market sales in early May. In MY2019/20, test weights averaged at about 750 to 760g/L, nearly unchanged from MY2018/19. In Hebei province, farm-gate prices are $319 per ton (2,200 RMB) for high protein wheat and $290 per ton (2,000 RMB) for common wheat. Farmers in this region typically plant corn, rice, or soybeans after the wheat harvest. Industry sources report that in MY2019/20 most farmers will plant corn.

Wheat produced at the joint border of Henan, Hebei, and Shandong provinces is reported to have the best quality and the highest yields in China. Producers in this region expect that MY2019/20 production will yield quality premiums of about $30 per ton (0.20 RMB per kg) higher than common wheat.

Pest and Disease Pressure

MARA reports that control efforts have successfully managed the spread of wheat scab in MY2019/20. After a cool, wet spring, government financial support expanded pest management efforts to 21.3 million hectares (320 million mu), up nearly 30 percent from MY2018/19. Additionally, lower planted area in MY2019/20, about 133,000-hectare (2 million mu) less than MY2018/19, partially limited the scope of the disease this year. As a result, scab impacts were limited to 1.2 million hectares (17.3 million mu), a nearly 70 percent drop from MY2018/19. This effort also contained production or quality issues to a small share of the overall production area.

New Varieties

In Henan province, farmers planted new high-quality specialty wheat varieties on about 800,000 hectares (12 million mu), up 43 percent from MY2018/19. Industry sources report that a greater number of producers are adopting high-quality, high protein wheat varieties for cultivation on the North China Plain. Note: Low-protein varieties account for about 10 percent of China’s total wheat production.

Luyuan 502 is a new high yielding wheat variety that was planted on over 3.6 million hectares across all of China’s wheat production area, up 3 percent from MY2018/19. This new variety reportedly yields 5.8 to 6.0 tons per hectare, or about 11 percent more than traditional varieties.

Production Costs
A typical wheat producer on the North China Plain cultivates less than 0.13 hectare (2 mu) of their own land. Due to thin returns, a growing share of wheat farmers lease their land to cooperatives and work as migrant laborers in major cities. In MY2018/19, they face rising input costs of about $1,203 to $1,323 per hectare (RMB 500 to 600 per mu), including planting costs for seed, fertilizer, diesel fuel, and harvesting services. Land rental costs average about $2,205 per hectare annually (1,000 RMB per mu). Government subsidies, totaling about $234 per hectare annually (100 RMB per mu), are distributed to farmers directly through electronic banking cards. In 2019, farmers can benefit from a wheat planting subsidy of $0.20 per hectare. Some provinces in the North China Plain offer direct payments to growers totaling $265 per hectare (120 RMB per mu).

**Consumption**

MY2019/20 wheat consumption is forecast to increase to 124 MMT, 4 MMT lower than USDA’s June estimate, due to a return to normal wheat quality and lower feed and FSI use. The outlook for MY2019/20 winter wheat quality is better than average.

MY2019/20 FSI use is forecast at 106 MMT, 1 MMT lower than the latest USDA forecast. Industry contacts estimate that overall flour demand is about 80 MMT, and that China’s current supply of high-quality wheat varieties outpace milling demand.

Overall milling capacity is estimated at more than 240 MMT. Despite trade tensions and widespread industry consolidation, China’s capacity utilization rates remain largely unchanged, because larger mills have expanded capacity as smaller facilities have shut down their operations. At this time, China’s demand for low-protein wheat for specialty cake flours far outstrips domestic supplies. From April to May 2019, most mills have relied on auction lots of MY2016/17 from state-owned inventories. Meanwhile, wheat use for baijiu is expanding.

| Wholesale Wheat Spot Prices in Major Markets (Early June 2019) |
|------------------|------------------|------------------|------------------|------------------|
|                  | Common Wheat     |                  | High Protein Wheat |
|                  | --RMB per ton--  | --$ per ton--   | --RMB per ton--  | --$ per ton--   |
| Hebei            | 2,396            | 352              | 2,620            | 385              |
| Shandong         | 2,387            | 351              | 2,600            | 382              |
| Henan            | 2,436            | 358              | 2,470            | 363              |
| Jiangsu          | 2,427            | 356              | --               | --               |
| Anhui            | 2,400            | 353              | --               | --               |

Sources: SCI, Foreign exchange rate is 6.8 RMB per $1

*Feed Use Returns to Normal*

The MY2019/20 feed use forecast is lowered to 18 MMT, 3 MMT lower than USDA’s June estimate, on scarcer supplies of feed-quality wheat. Although high corn prices are driving buyers to seek alternative feed grains including competitively priced wheat in MY2019/20, the scale of wheat feed use this year is projected to be a fraction of feed use in MY2018/19, due to a scarcity of feed-quality wheat supplies and pricing premiums for better quality wheat. In MY2018/19, high incidences of sprouting and quality issues lowered wheat prices, and attracted feed users to take advantage of plentiful supplies of cheap sprouted wheat.
Trade

The MY2019/20 wheat import forecast remains at 3.5 MMT, unchanged from MY2018/19.

<table>
<thead>
<tr>
<th>Origin</th>
<th>Class</th>
<th>Destination</th>
<th>$ per ton</th>
<th>RMB per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>SRW</td>
<td>Guangdong</td>
<td>$351</td>
<td>RMB 2,390</td>
</tr>
<tr>
<td>China</td>
<td>Common Wheat</td>
<td>Guangdong</td>
<td>$360</td>
<td>RMB 2,440</td>
</tr>
<tr>
<td>United States</td>
<td>HRW</td>
<td>Guangdong</td>
<td>$348</td>
<td>RMB 2,372</td>
</tr>
<tr>
<td>China</td>
<td>Hard Wheat</td>
<td>Guangdong</td>
<td>$374</td>
<td>RMB 2,540</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>14% protein</td>
<td>Henan</td>
<td>$235</td>
<td>RMB 1,655</td>
</tr>
<tr>
<td>Russia</td>
<td>12% protein</td>
<td>Henan</td>
<td>$398</td>
<td>RMB 2,750</td>
</tr>
</tbody>
</table>

Sources: Industry Sources and Post Estimates

Chinese Mills Compromise to Adapt to Rising Costs

Industry sources report that due to trade tensions, buyers seek to expand imports from Black Sea-origins; however, they report that the quality of deliveries to date are considerably lower than purchases from the United States, Canada, and Australia. At this time, Kazakhstan is China’s second major wheat supplier accounting for about 480,000 tons, or 20 percent of total deliveries from July 2018 to May 2019.

Major Chinese Wheat Suppliers in MY2018/19

<table>
<thead>
<tr>
<th>Origin</th>
<th>Jul-May MY2018/19</th>
<th>Jul-May MY2017/18</th>
<th>YTD % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>1,600</td>
<td>970</td>
<td>65%</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>480</td>
<td>301</td>
<td>59%</td>
</tr>
<tr>
<td>Russia</td>
<td>72</td>
<td>39</td>
<td>85%</td>
</tr>
<tr>
<td>United States</td>
<td>229</td>
<td>839</td>
<td>-73%</td>
</tr>
<tr>
<td>Australia</td>
<td>72</td>
<td>1,054</td>
<td>-93%</td>
</tr>
<tr>
<td>Total</td>
<td>2,400</td>
<td>2,876</td>
<td>-17%</td>
</tr>
</tbody>
</table>

Source: General Administration of China Customs (GACC), Global Trade Atlas

Specialty Applications Drive Demand for Imports

Exports from Kazakhstan and Russia cannot substitute for specialty classes of U.S. and Canadian wheat. Chinese wheat millers seek to substitute domestic supplies of common wheat for specialty wheat classes of imported high- or low-protein wheat for specialty applications. They seek specific and reliable
milling characteristics for flour color and quality at more competitive prices. Private millers are actively bidding for quota allocations from public TRQ holders with existing quota allocations.

To date, Canada is the largest exporter to China in MY2018/19, accounting for nearly 64 percent of total deliveries, more than doubling its market share since MY2017/18. Industry sources attribute Canada’s strong pace of shipments to China due to a short harvest in Australia and ongoing trade tensions with the United States. Traders reportedly seek U.S. wheat consignments when there are no other substitutes for specialty milling requirements. On June 16, 2018, China announced a 25-percent additional tariff on U.S. wheat imports, raising the duty-paid cost for U.S. HRW shipped to South China by at least $78 per ton (500 RMB) from $312 per ton (1,995 RMB) to $390 per ton (2,495 RMB).

**Stocks**

MY2019/20 ending stocks are forecast to jump to 150 MMT, 4 MMT tons larger than USDA’s June estimates for MY2018/19.

China administers its procurement program according to a price band system. Before harvest, China sets a predetermined Minimum Support Price (MSP). In any given year, when market prices falls below the MSP for three consecutive days, then the provincial-level procurement program is triggered. The program ends when market prices exceed the MSP price.

On May 15, the National Food and Strategic Reserves Administration (NFSRA) announced procurement purchases of domestic wheat from Hebei, Jiangsu, Anhui, Shandong, Henan and Hubei provinces from June 1 to September 30. NFSRA has set the 2019 Minimum Support Price (MSP) at $329 per ton (2,240 RMB), and seeks to procure a total of 67.5 MMT in MY2019/20, up slightly from MY2018/19.

On June 12, local prices triggered the launch of the MSP program in Jiangsu province. As of late June, based on current pricing trends, industry sources project that Hubei and Anhui provinces will soon launch MSP procurement programs. In Shandong and Hebei provinces strong local prices appear to support commercial markets, delaying the launch of the MSP program in these provinces.

On May 21, China National Grain Trade Center began auction sales of state-owned wheat inventories at a reserve price of $341 per ton (RMB 2,290), about $9 to $18 per ton (RMB 60-120) lower than 2018 with pricing determined by production year, indicating the central government’s resolve to unload state-owned inventories. Typically, auction sales from June to September slow due to seasonal demand.

**RICE**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Begin Year</td>
<td>USDA Official</td>
<td>New Post</td>
<td>USDA Official</td>
</tr>
<tr>
<td>China</td>
<td>Jul 2017</td>
<td>Jul 2018</td>
<td>Jul 2019</td>
</tr>
<tr>
<td>Area Harvested</td>
<td>30747</td>
<td>30747</td>
<td>30189</td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>98500</td>
<td>98500</td>
<td>109000</td>
</tr>
<tr>
<td>Milled Production</td>
<td>148873</td>
<td>148873</td>
<td>148490</td>
</tr>
<tr>
<td>Rough Production</td>
<td>212676</td>
<td>212676</td>
<td>212129</td>
</tr>
<tr>
<td>Milling Rate (.9999)</td>
<td>7000</td>
<td>7000</td>
<td>7000</td>
</tr>
<tr>
<td>MY Imports</td>
<td>5500</td>
<td>5500</td>
<td>3500</td>
</tr>
<tr>
<td>TY Imports</td>
<td>4500</td>
<td>4500</td>
<td>3500</td>
</tr>
<tr>
<td>TY Imp. from U.S.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Production

The MY2019/20 rough rice production remains unchanged at 208.6 MMT.

MY2019/20 harvested area is estimated at 30 million hectares.

Indica rice accounts for about three-quarters of China’s rice planted area. Harvest progress is underway in Central and South China for MY2019/20 early indica rice planted in early spring. MARA projects that pest damage will likely affect early indica rice production more severely in MY2019/20 than MY2018/19, impacting about 16.6 million hectares (250 million mu) of total area. Note: The MARA estimate includes double counting for production of double cropping systems of early and mid-to-late indica rice production where applicable.

In North East China, single-crop Japonica rice planting typically spans from June to July, and accounts for about one-third of total production. North East China’s rice production is irrigated and unaffected by drought conditions. The crop is progressing into the early tillering stages of development.

Consumption

The MY2019/20 rice consumption forecast is unchanged at 145 MMT.

Early indica rice will enter the market in July. Early indica rice, which does not meet national quality standards, is commonly processed to produce consumer-oriented food and beverages.

Trade

MY2019/20 rice imports are forecast at 3.5 MMT as China continues to formalize market access for rice from neighboring countries.

MY2018/19 rice import estimates are also unchanged at 3.5 MMT. From July 2018 until May 2019, China imported 2.3 MMT of rice, down 1.1 MMT from MY2017/18. Industry reports that internal estimates for China’s overall informal border trade includes as much as 10 MMT of paddy rice, divided among Myanmar, Vietnam, and Thailand. China’s border trade is not consistently referenced in official trade statistics.

China Continues to Diversify Origins for Rice Imports

China’s Tariff Rate Quota (TRQ) administration policies continue to restrict rice imports to 5.32 MMT, equally divided between public and private sector access.
As part of the negotiations for Phase-II of the China-Pakistan Free Trade Agreement, signed on April 28, 2019, China granted Pakistan 200,000 tons of TRQ quota allocations for in calendar year 2019. Rice remains designated as a concession-free product for the latest round and subject to the same Most-Favored Nation tariffs as all other exporters to China. The out-of-quota tariff remains 65 percent. The in-quota tariff rate remains 1 percent. China typically buys long grain, non-basmati rice from Pakistan.

In April 2019, China granted Myanmar market access to ship as much as 100,000 tons of rice via maritime shipping channels. However, significant deliveries of rice from Myanmar to China have yet to materialize. In June 2019, media reports announced that Chinese and Myanmar officials signed a Memorandum of Understanding to export as much as 100,000 tons of rice from Myanmar to China through cross border trade. The agreement seeks to expand the number of mills in Myanmar registered to export to China to 100 facilities, a nearly 9-fold increase. In exchange, Myanmar will import an equivalent value of rice milling and processing equipment from China.

<table>
<thead>
<tr>
<th>Date</th>
<th>Thailand</th>
<th>Vietnam</th>
<th>India</th>
<th>Rough Rice MSP per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/21/19</td>
<td>$383-$405</td>
<td>$340</td>
<td>$380-$385</td>
<td>Early indica $358</td>
</tr>
<tr>
<td>3/1/19</td>
<td>$383-$398</td>
<td>$345</td>
<td>$378-$383</td>
<td>Mid-to-late indica $376</td>
</tr>
<tr>
<td>3/8/19</td>
<td>$380-390</td>
<td>$355</td>
<td>$383-$386</td>
<td>Japonica $388</td>
</tr>
</tbody>
</table>

Source: SCI

In January 2019, China agreed to increase its import quota for Cambodian milled rice to 400,000 tons. In May 2019, a Chinese state-owned company, unveiled plans to build a 1-MMT warehouse, drying, and storage facility to facilitate its exports of Cambodian rice to international markets, including China.

MY2019/20 exports are unchanged at 3.3 MMT. MY2018/19 exports are forecast at 2.8 MMT, 200,000 tons higher than USDA’s June estimates on the pace of shipments to date. As China has deployed a global marketing team to market its aging inventories to Africa, Latin America, and parts of the Near East, MY2018/19 exports have more than doubled from MY2017/18. The General Administration of China Customs reports that, from July 2018 to May 2019, China exported 2.5 MMT, up 1.3 MMT over the same period in MY2017/18.
China also continued exporting rice in the form of food assistance:

<table>
<thead>
<tr>
<th>Date</th>
<th>Aid Recipient</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 2018</td>
<td>North Korea</td>
<td>Unknown</td>
</tr>
<tr>
<td>November 2018</td>
<td>Philippines</td>
<td>10,000 tons</td>
</tr>
<tr>
<td>February 2019</td>
<td>Mozambique</td>
<td>5,700 tons</td>
</tr>
<tr>
<td>February 2019</td>
<td>South Sudan</td>
<td>9,660 tons</td>
</tr>
<tr>
<td>March 2019</td>
<td>Malawi</td>
<td>2,000 tons</td>
</tr>
<tr>
<td>March 2019</td>
<td>Mozambique</td>
<td>200 tons</td>
</tr>
<tr>
<td>March 2019</td>
<td>Kenya</td>
<td>11,835 tons</td>
</tr>
<tr>
<td>March 2019</td>
<td>Yemen</td>
<td>1,200 tons</td>
</tr>
<tr>
<td>April 2019</td>
<td>Democratic Republic of Congo, Somalia, &amp; South Sudan</td>
<td>8,700 tons</td>
</tr>
<tr>
<td>May 2019</td>
<td>The Gambia</td>
<td>2,734 tons</td>
</tr>
<tr>
<td>May 2019</td>
<td>Zimbabwe</td>
<td>10,165 tons</td>
</tr>
<tr>
<td>June 2019</td>
<td>Afghanistan</td>
<td>3,012 tons</td>
</tr>
<tr>
<td>June 2019</td>
<td>El Salvador</td>
<td>3,000 tons</td>
</tr>
</tbody>
</table>

In June 2019, China pledged to ship an additional 100,000 tons of in-kind food assistance to North Korea; however, the exact share of rice in this commitment is unknown.
Stocks

MY2019/20 ending stocks are estimated at 114.3 MMT, 1.7 MMT lower than USDA’s June estimates.

In November 2018, China announced that it would continue its MSP procurement program for rice in 2019. For early indica rice, the MSP procurement program will launch on August 1. For mid-to-late indica rice, procurement will launch on October 10.

On May 21, the NFSRA lowered reserve prices for state-owned paddy rice to attract buyers. Reserve prices of MY2013/14 paddy rice were set starting at $221 per ton (1,500 RMB) for early and mid-to-late indica rice, down $74 per ton (500 RMB). Japonica rice reserve prices were lowered by $118 (800 RMB) to $235 per ton (1,600 RMB).

Lower reserve prices allowed NFSRA to sell about 60 percent of total rice offered for auction, or nearly 2 MMT per week, and further highlighted strong central government intentions to liquidate state-owned inventories. Auction prices for lots of MY2013/14 Japonica rice closed above reserve prices on average. Prices for MY2013/14 mid-to-late indica rice auctions settled near their reserve price. MY2012/13 mid-to-late indica rice prices closed below reserve prices.

MY2018/19 ending stocks are estimated at 113 MMT, down 1.3 MMT from USDA’s June estimates due to expanded ethanol processing of aging rice stocks and greater-than-expected exports to date.

SORGHUM

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>USDA Official</td>
<td>USDA Official</td>
<td>USDA Official</td>
</tr>
<tr>
<td></td>
<td>New Post</td>
<td>New Post</td>
<td>New Post</td>
</tr>
<tr>
<td>Area Harvested</td>
<td>675</td>
<td>720</td>
<td>750</td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>577</td>
<td>370</td>
<td>170</td>
</tr>
<tr>
<td>Production</td>
<td>3200</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>MY Imports</td>
<td>4436</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>TY Imports</td>
<td>4436</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>TY Imp. from U.S.</td>
<td>3922</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Supply</td>
<td>8213</td>
<td>4520</td>
<td>4470</td>
</tr>
<tr>
<td>MY Exports</td>
<td>43</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>TY Exports</td>
<td>43</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>Feed and Residual</td>
<td>5200</td>
<td>1600</td>
<td>1500</td>
</tr>
<tr>
<td>FSI Consumption</td>
<td>2600</td>
<td>2700</td>
<td>2700</td>
</tr>
<tr>
<td>Total Consumption</td>
<td>7800</td>
<td>4300</td>
<td>4200</td>
</tr>
<tr>
<td>Ending Stocks</td>
<td>370</td>
<td>170</td>
<td>230</td>
</tr>
<tr>
<td>Total Distribution</td>
<td>8213</td>
<td>4520</td>
<td>4470</td>
</tr>
<tr>
<td>Yield</td>
<td>4.7407</td>
<td>4.7917</td>
<td>4.8</td>
</tr>
</tbody>
</table>

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

Production
MY2019/20 sorghum production is forecast at 3.4 MMT, down slightly by 200,000 tons from USDA’s official forecast on lower harvested area.

North East China is the principal sorghum production region, accounting for nearly half of national production. Sorghum requires lower input costs and is easier to produce than corn. Sorghum producers began planting in late May following beneficial rains.

MY2019/20 sorghum area is forecast to fall 30 percent from MY2018/19 due high corn and soybean prices, as well as generous subsidies for soybean production. For example, in Heilongjiang province, sorghum area is projected to fall by an estimated 70 to 80 percent due to subsidies to plant soybeans. In Inner Mongolia and Liaoning province, excessive dryness for the second consecutive year has hampered sorghum production. Sorghum planted area in these regions remains unchanged from MY2018/19. Across the North China Plain, corn farmers are switching to sorghum to comply with policies to rotate or fallow land from production.

North East sorghum producers report that they have fully sold their MY2018/19 supplies.

**Consumption**

MY2019/20 consumption is forecast to 5.2 MMT, 1 MMT larger than USDA’s official June forecast as poultry and aquaculture feed manufacturers secure inventory as corn prices rise in South China.

MY2019/20 FSI consumption remains at 2.7 MMT, based on stable sorghum use for liquor production. Industry sources report that demand wanes during the summer months. Most baijiu processors will suspend operations from June to September. In the first quarter of 2019, national baijiu sales via shops and supermarkets fell by nearly 3 percent from 2018. The baijiu industry has started to consolidate as input costs rise faster than the ability for smaller producers to raise prices.

MY2019/20 sorghum feed use is forecast at 2.5 MMT, 1 MMT larger than USDA’s June forecast, as sorghum is more price competitive than corn and wheat. In South China, sorghum is becoming more attractive as corn prices rise above $289 per ton (2,000 RMB).

**Trade**

MY2019/20 sorghum imports are forecast at 2 MMT, 1.3 MMT larger than USDA’s June forecast as sorghum feed users in South China seek imports of competitively priced sorghum.

MY2018/19 sorghum imports are estimated unchanged at 700,000 tons. From October 2018 to June 2019, U.S. exporters shipped a total of nearly 280,000 tons of sorghum, with about 60,000 tons of sorghum outstanding.

**Stocks**

MY2019/20 sorghum ending stocks are forecast at 340,000 tons due to growing speculative holdings by commercial brokers.

MY2018/19 ending stocks are estimated 180,000 tons on lower feed use.
Appendix 1 –
Sources: National Food and Strategic Reserves Administration (NFSRA), China National Bureau of Statistics (NBS), Dalian Commodity Exchange (DCE)

Appendix 2 –
Sources: National Food and Strategic Reserves Administration (NFSRA), China National Bureau of Statistics (NBS), Zhengzhou Commodity Exchange (ZCE)

Appendix 3 –
Sources: National Food and Strategic Reserves Administration (NFSRA), China National Bureau of Statistics (NBS), Zhengzhou Commodity Exchange (ZCE)