



The Impacts of
China and United States
Trade and Tariff Actions
on Georgia Agriculture

THE PERSPECTIVES OF UGA AGRICULTURAL ECONOMISTS

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EXTENSION

Trade negotiations between the United States and China have been ongoing during the writing of this paper. On May 19, 2018, the White House released what was called a “Joint Statement of the U.S. and China Regarding Trade Consultations.” This statement indicated that some trade agreements between the U.S. and China had been reached. Both sides agreed on meaningful increases in U.S. agriculture and energy exports to China, and the U.S. will send a team to China to further refine the details of this agreement. This announcement has been interpreted by the general public as a sign of ease over the trade disputes between the U.S. and China. On May 29, 2018, the White House released another announcement: “President Donald J. Trump is Confronting China’s Unfair Trade Policies.” According to this announcement, the U.S. will impose a 25% tariff on \$50 billion of goods imported from China containing industrially significant technology, including those related to the “Made in China 2025” program. The final list of covered imports will be announced by June 15, 2018. This paper documents what has occurred in the negotiation process and the potential impact if no agreements can be reached to remove the bilateral trade tariff on import products.

This paper discusses the recent changes in trade policy between the U.S. and China. Last year, the total U.S. exports to China were worth over \$130 billion and the total imports from China were approximately \$506 billion, leaving the U.S. with a \$375 billion trade deficit (U.S. Census Bureau, 2017). With the goal of reducing the trade deficit, the Trump Administration proposed and implemented a series of tariffs on imported products from China, which led to retaliatory actions by the Chinese government.

Exports are an important component of U.S. agriculture. During fiscal year 2017, the U.S. exported a total of \$140.5 billion worth of agricultural products with a \$21.3 billion trade surplus (USDA Press, 2017). Exports are responsible for 20% of U.S. farm income that supports more than 1 million American jobs, both on and off the farm (USDA Press, 2017). According to the U.S. Department of Agriculture (USDA) Economic Research Service (ERS), China is the U.S.'s second-largest agricultural trading partner (Foreign Agricultural Trade of the U.S., or FATUS, 2017a). Last year, around \$22 billion of U.S. agricultural products were exported to China (FATUS, 2017a), while the U.S. only imported \$4.5 billion of agricultural products from China (FATUS, 2017b). This resulted in a \$17.5 billion U.S. agricultural trade surplus with China. Soybeans, coarse grains (excluding corn), hides and skins, pork, and cotton are the top five U.S. agricultural products exported to China (USDA FAS, 2017).

Due to low prices, U.S. agriculture has been struggling in recent years. According to the USDA ERS (2018), net farm income in 2018 is expected to fall to the lowest level in nominal terms since 2006. The price reduction caused by the Chinese tariff could lead to greater risk and vulnerability of the agriculture sector. The uncertainty in trade policy between China and the U.S. creates concerns among the agricultural community about lengthening the period of stagnant farm incomes.

Timeline of tariff actions

President Trump signed an order on March 23, 2018, to impose non-country-specific tariffs, with 25% tariffs on steel and 10% tariffs on aluminum. By the end of March 2018, several countries, with the exception of China, had successfully been granted exemption from the tariff (Shurley, 2018). In response to the steel and aluminum tariffs imposed by the U.S., China suspended tariff reduction obligations on 128 products of U.S. origin on April 2, 2018, effective immediately. These products include fruit and nut products, wine, ginseng, pork, and ethanol. On April 3, 2018, the U.S. formally proposed \$50 billion worth of 25% tariffs on 1,333 Chinese products. China responded with \$50 billion worth of tariffs on 106 U.S. products on April 4, 2018. The products, which will be facing an additional 25% tariff, include soybeans, corn and corn products, wheat, sorghum, cotton, and beef and beef products.

China's tariffs on 128 products of U.S. origin

China suspended tariff reduction obligations on 128 products of U.S. origin on April 2, 2018, in retaliation for the U.S. 232 Trade Action. This was the first move made by China in response to President Trump's tariffs on steel and aluminum. More than \$3 billion of U.S. exports to China were affected by this suspension (Inouye, 2018).

Eighty-four products on the list were food and agricultural products (Inouye, 2018). For more details about the list of products, see Inouye (2018). Roughly \$2 billion of U.S. food and agricultural exports to China will be impacted by these tariffs (Inouye, 2018). There is an additional 25% tariff on pork and pork products and an additional 15% tariff on fruit (fresh and dried) and nut products (shelled and in-shell), wine, ginseng and denatured ethanol (Inouye, 2018). It is important to note that peanuts are not included in the list of nut products.

China's tariffs on 106 products of U.S. origin

On April 4, 2018, just 11 hours after the Trump administration proposed a 25% tariff on 1,333 Chinese products, China responded with a list of an additional 25% tariff on 106 products of U.S. origin. The total trade value of these products matches the \$50 billion of 1,333 Chinese products announced by the Trump administration. This action taken by China is in response to the recent U.S. 301 Trade Action, an investigation into the forced transfer of U.S. technology and intellectual property (USDA FAS, 2018a).

Thirty-three products on the list are food and agricultural products, which are worth approximately \$16.5 billion (USDA FAS, 2018a). Details about the list of products are available at USDA FAS (2018a). The majority of agricultural and food products that the U.S. exports to China are on this list, which includes soybeans, corn and corn products, wheat, sorghum, cotton, beef and beef products, cranberries, orange juice, and tobacco and tobacco products (USDA FAS, 2018a).

China's announcement on April 4, 2018, did not indicate a specific date of implementation (USDA FAS, 2018a). It stated that the date of the Chinese tariff will be announced later, depending on when the U.S. tariff actions will take effect (USDA FAS, 2018a). The U.S. allows 60 days for public feedback on the proposed tariffs of 1,333 Chinese products. The fact that these trade tariffs were not carried out immediately indicates that there may be room for negotiation. If the two countries are unable to reach an agreement to settle the dispute, a full-scale trade war could occur. The 25% Chinese import tariff on major U.S. agricultural products could have a long-term negative impact on U.S. agriculture. This would destabilize U.S. and Chinese commercial ties and impact the economy of the two countries as well as the global economy.

Impacts on Georgia agriculture

The recent trade tariffs implemented between the U.S. and China would have a definite impact on overall agricultural trade. According to economic trade theory, there would be no winners for either the U.S. or Chinese economies. For both countries, some sectors protected under the trade tariffs may gain while others may lose. However, there will be more losers than winners, and the loss to the overall economy will outweigh the gain. In particular, where U.S. agriculture runs a significant surplus in trade, there are limited (if any) opportunities to increase the sale of exported goods within the domestic market. If Chinese tariffs on major agricultural products stay in place, we anticipate fewer U.S. exports, which will lead to higher ending stocks, especially for soybeans, pecans, and sorghum. Lower domestic prices for these products will be anticipated in the U.S. over the long run. The loss of a price advantage for U.S. agricultural products will make global suppliers like the European Union and South America more attractive to Chinese buyers. It also encourages these suppliers to add more acres to meet the demand of Chinese buyers, creating increased supply in the world market and a further reduction in the price that U.S. farmers are likely to receive for their crop.

In 2016, Georgia's food and fiber production and related industries represented \$73.3 billion in output and contributed to more than 383,600 jobs (Center for Agribusiness and Economic Development, 2017). Georgia agriculture produces many of the items targeted by Chinese tariffs, including nuts, fruits, soybean, corn, wheat, sorghum, cotton, pork, beef, and tobacco. The Chinese retaliatory trade tariff on products of U.S. origin would have a negative impact on Georgia's agriculture and economy. However, the magnitude of the impact of these new tariffs on Georgia's agricultural industry is unclear. Some industries, like the pecan industry, will be impacted more than others.

Fruits, Nuts, and Vegetables

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In the past few years, Georgia pecans, one of many nuts grown in the state, became a novelty for the Chinese market, especially due to the health benefits of the nut and the fact that prices for walnuts escalated exponentially in 2007 to an insupportable level (Hargreaves, 2013). Pecan exports to China increased by 64% in the same time period. The U.S. produces 80% of the world's pecans and Georgia remains the No. 1 producer of pecans with a record 50-70% exported to China for almost a decade (Hargreaves, 2013). The high demand for pecans has also triggered a market distortion from the traditional distribution channel (grower-processor-consumer) to direct marketing and sales. Chinese buyers are willing to pay for a proportion of the pecan crop up front and pay the rest at, or after, delivery. This Chinese business model has provided a cushion and an additional safety buffer to U.S. pecan growers.

The imposed 15% increase in import tariffs would raise the walnut tariff to 40% for in-shell walnuts and 35% for shelled walnuts. Comparatively, the imposed 15% increase would raise the pecan tariff to 22% for in-shell or shelled pecans (Inouye, 2018). An additional 15% tariff on pecans will create a major impact to the Georgia pecan industry, as it will increase the price of pecans for Chinese consumers and reduce the quantity exported to China. Reduced exports to China would, in turn, increase domestic quantities, since the bulk of Georgia pecans destined for China would be floating in the domestic market. So far, China remains the main market for U.S. pecans, although a small quantity goes to India, South Korea, Turkey, and Vietnam (Andrew, 2017). With the significant pecan production and acreage expansion going on now, the domestic market might be flooded, which would eventually dampen prices, if the Chinese tariff is implemented.

Note that although overall U.S. agricultural trade has continuously enjoyed positive balances, U.S. horticulture trade balances (fruits, vegetables, and the green industry) have been negative for the past decade. In 2014, the U.S. imported \$40.5 billion and exported \$22.5 billion with a negative horticultural trade deficit of \$18 billion (Fonsah, 2016; 2017). On the brighter side, the trade disputes between the U.S. and China could help hasten the North American Free Trade Agreement (NAFTA) to come up with amicable solutions for the parties involved. Presently, the Georgia fruit and vegetable industry (excluding pecans) may not suffer any negative impact of the Chinese tariffs, because most of our fruits and vegetables are shipped domestically or between the NAFTA countries, such as Canada and Mexico.

Row Crops

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China announced plans to implement a 25% increase in import tariffs on major agricultural commodities from the U.S., including soybeans, corn and corn products, wheat, sorghum, cotton, tobacco and tobacco products. The overall U.S. export value for these agricultural commodities to China are worth around \$44.7 billion (Table 1).

U.S. agriculture produces more than enough to meet the needs of the domestic market. Thus, it relies on export markets to absorb its excess supply in order to support domestic agricultural prices. The U.S. is the largest exporting country for corn, cotton, and sorghum, and the second-largest exporting country for soybeans and wheat (USDA FAS, 2018d). In terms of volume exported, the U.S. exported 15.2% of the corn, 71.3% of cotton, 39.8% of soybeans, 67.3% of sorghum, and 53.1% of wheat produced in the U.S. in 2017 (USDA FAS, 2018d). The U.S. market shares (U.S. exports as a percentage of total world exports) in the global market are 37% for corn, 38.4% for cotton, 81% for sorghum, 30.2% for soybeans, and 13.8% for wheat (USDA FAS, 2018d).

China is the largest trading partner for U.S. sorghum and soybeans and the second-largest trading partner for cotton (USDA FAS, 2018b). It is also the fifth-largest trading partner for wheat and the ninth-largest trading partner for corn (USDA FAS, 2018b). In 2017, China bought 81.4% of U.S. sorghum exports, 57.3% of U.S. soybean exports, 16.7% of U.S. cotton exports, 5.7% of U.S. wheat exports, and 1.6% of U.S. corn exports (Table 1).

Table 1. 2017 U.S. row crops overview.

| Commodity | Value of Production (Thousand Dollars)¹ | Value of Export (Thousand Dollars)² | Value of Export to China (Thousand Dollars)² |
|------------------|---|---|--|
| Corn | 48,465,485 | 9,117,287 | 142,036 |
| Cotton | 7,227,322 | 5,846,131 | 976,417 |
| Sorghum | 1,175,125 | 1,026,657 | 835,656 |
| Soybeans | 41,007,464 | 21,582,206 | 12,355,952 |
| Tobacco | 1,469,307 | 1,007,140 | 162,297 |
| Wheat | 8,142,065 | 6,089,240 | 348,727 |

¹ Data from U.S. Department of Agriculture, National Agricultural Statistics Service, Crop Values 2017 Summary (USDA NASS, 2018b).

² Data from U.S. Department of Agriculture, Foreign Agricultural Service, Global Agricultural Trade System (USDA FAS, 2018b).

The Chinese tariffs, if implemented, will increase U.S. agricultural prices faced by Chinese consumers relative to other countries, thus reducing demand for U.S. agricultural commodities by Chinese consumers. As a result, the U.S. needs to find alternative foreign markets to export its excess supply in order to sustain current prices. China is the largest importing country for sorghum and soybeans (USDA FAS, 2018d). In 2017, China imported 73.9% of sorghum and 43.5% of soybeans traded globally (USDA FAS, 2018d), and developing alternative markets may prove difficult. The European Union is the second-largest importing region for soybeans, importing 14.8% of global soybeans in 2017 (USDA FAS, 2018d). Although much of the soybeans going to the European Union typically come from Brazil, the European Union can serve as an alternative market for U.S. soybeans. There is a very competitive global supply market for soybeans. China could diversify its suppliers in the long run and purchase more soybeans from Brazil (exports 39.8% of soybeans traded globally) and Argentina (exports 17% of soybeans traded globally) (USDA FAS, 2018d). In the short run, there will not be enough capacity for these countries to increase their production acres. China will still need to buy American soybeans and sorghum to satisfy their domestic consumption.

China is the third-largest importing country for cotton, importing 13.1% of cotton traded globally in 2017 (USDA FAS, 2018d). If Chinese tariffs on U.S. cotton are put into effect, it might provide a near-term opportunity for global cotton suppliers like India, Australia, and Brazil to supply more cotton to China. In the short run, the disruption of the market could create a shock to U.S. cotton futures, particularly if hedge fund speculators sell off their long positions. However, the longer-term situation could involve more of a rerouting of U.S. exports to other cotton importing countries, like Vietnam, Bangladesh, Indonesia, Pakistan, and India, instead of a reduction in U.S. cotton exports. Recent history resulting from the change in China's internal cotton policy has shown that the disruptions of Chinese cotton imports stimulates the importing of duty-free yarn from countries like Vietnam, Indonesia, and the Indian subcontinent (Robinson, 2018; D. Shurley, 2018).

A study conducted at Purdue University found that with a 10% tariff on U.S. soybeans, U.S. soybean exports to China would drop by 33% and would drop all U.S. soybean exports by 18% and production by 8%. A 30% tariff would drop U.S. exports to China by 71% and the total U.S. soybean exports would fall by 40% and production by 17%. The prices of U.S. soybeans would fall by 2% and 5% under the 10% and 30% tariffs, respectively.

Depending on the tariff rate, the study estimated that an annual loss to the U.S. soybean industry ranged between \$1.7 and \$3.3 billion (Pack, 2018). Consequently, the reduction in soybean prices would likely lead to more soybean acres switching to corn acres, as corn and soybean are the typical crop rotation in the Midwest. As a result, lower corn prices would be likely for the near future.

Similar effects of price reduction are expected for the other agricultural commodities. The magnitude of U.S. price reduction for a specific agricultural commodity depends on U.S. and China trade relations, the competition in the global supply markets, and the existence of alternative demand for U.S. agricultural products. The tariff's impact on the sorghum price is expected to be larger than the impact on the soybean price, while the impact on cotton price is expected to be smaller than the impact on soybean price. However, the actual impact of the tariff on U.S. producers and the farming profitability remains to be seen. It depends on U.S. government price support programs; the availability of alternative markets for these crops; the ability to switch to other agricultural commodities; and planting, harvesting, and storage decisions.

The U.S. agricultural industry has been experiencing years of low prices and stagnant farm incomes. Unless there were a substantial fall in input prices, such as fertilizer and seeds, the tariffs could cause even lower prices for agricultural commodities and lower net farm incomes. This is likely to put a lot of farms below their breakeven cost of production for variable inputs. The tariffs will add more financial burden to farmers in an already struggling industry.

The potential 25% tariff increases for corn, cotton, sorghum, soybeans, and wheat could have a negative impact on Georgia's agricultural industry. Cotton is the largest crop produced in Georgia with more than 1.27 million acres harvested last year, and cotton contributes \$794 million to Georgia's economy (Table 2). Georgia produced 10.6% (2.25 million bales) of the total U.S. cotton production in 2017 and is the second-largest cotton producing state after Texas. It is also the second-largest cotton export state after Texas. Last year, Georgia exported \$441 million of cotton, of which \$26 million was exported to China (Table 2). The Chinese tariffs will have a direct impact on cotton exported from Georgia. It will also have an indirect impact through the prices received by Georgia cotton farmers, because tariffs will impact the entire U.S. cotton market and the prices received by U.S. cotton farmers. Even though Georgia does not export corn, sorghum, soybeans, and wheat directly to China, the lower prices of these commodities due to Chinese tariffs would also impact Georgia farmers.

Table 2. 2017 Georgia row crops overview.

| Commodity | Value of Production (Thousand Dollars)¹ | Value of Export (Thousand Dollars)² | Value of Export to China (Thousand Dollars)² |
|------------------|---|---|--|
| Corn | 178,948 | 917 | 0 |
| Cotton | 794,880 | 441,451 | 26,312 |
| Sorghum | 1,966 | 39 ³ | 0 |
| Soybeans | 61,425 | 15,788 | 0 |
| Wheat | 13,489 | 0 | 0 |

¹ Data from U.S. Department of Agriculture, National Agricultural Statistics Service, 2017 State Agriculture Overview for Georgia (USDA NASS, 2018a).

² Data from U.S. Department of Agriculture, Foreign Agricultural Service, Global Agricultural Trade System (USDA FAS, 2018b).

³ The data used is for coarse grains (excluding corn).

Livestock

Levi Russell

China implemented a 25% increase in import tariffs on U.S. pork and is expected to increase import tariffs on U.S. beef products by 25%. However, unlike many row crops and other agricultural products, China is not a primary destination for U.S. meat products. Beef exports to China only resumed recently and there is not yet a significant amount of U.S.-produced beef exported to China. In 2017, the U.S. was the second-largest pork producer after China, and the largest pork-exporting country (USDA FAS, 2018d). Twenty-two percent of pork produced in the U.S. enters the export market (USDA FAS, 2018d). From January 2013 to January 2018, the USDA ERS reports that mainland China made up 7.5% of total U.S. pork exports, coming behind Mexico (29.3%), Japan (25.1%), Canada (10.4%), and South Korea (8.1%). Pork production is mainly concentrated in the Midwest and North Carolina. Georgia is not a major pork-producing state, so the impact of the tariffs on pork will be minimal on Georgia's agricultural industry. That said, a reduction in pork prices could hurt some of the pork producers in Georgia. For beef and pork (and other meats), the NAFTA trade discussions are a far bigger concern than Chinese tariffs.

Short-term market fluctuations this year in both cattle and hog markets will almost certainly depend more on rising supplies, domestic consumption, and exports to other countries than on Chinese tariffs. A recent report by the USDA FAS indicates that the reductions in exports to China will mostly be offset by the increases in shipments to Japan, Mexico, and the Philippines. Exports of both pork and beef from the U.S. are expected to rise this year, in part due to relatively low U.S. prices (USDA FAS, 2018c).

In the long term, however, these increased tariffs on pork and beef products constitute a missed opportunity, as China is the No. 1 pork-consuming nation in the world. New sources of demand for U.S. producers are hard to come by, and higher tariffs on beef and pork will likely result in increased production by other countries to fulfill China's growing demand. If the tariff increases are put in place on U.S. beef and pork products, the U.S. will be at a competitive disadvantage in the long term.

What's next?

The additional 25% Chinese import tariffs on soybean, corn, wheat, sorghum, cotton, beef, and tobacco that were announced on April 4, 2018, have not been implemented. The implementation date depends on the tariff actions taken by the U.S. on Chinese products. The U.S. allows a 60-day window for public feedback on the proposed list of tariffs on Chinese products. The fact that these trade actions were not carried out immediately indicates that there may be room for negotiation.

Meanwhile, President Trump has instructed the Secretary of Agriculture Sonny Perdue to implement a plan and assistance to protect U.S. farmers and ranchers. The USDA is working on emergency aid programs under the Commodity Credit Corporation to help compensate farmers and ranchers for expected losses due to the proposed new Chinese tariffs. In order for the USDA to make payments to farmers, the actual losses must be evaluated to calculate the necessary amount of assistance. There is still much more information and analysis that is necessary before we can begin to understand what a compensatory program may look like.

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