



The Costs to Agriculture from Recent Trade Disputes: A Georgia Perspective

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Understanding the impact of ongoing trade disputes between the United States and some of its major trade partners is high on the agenda of agricultural communities throughout the country. Many domestic and international institutions/groups have outlined the immediate impacts of the tit-for-tat tariffs which have emerged during these disputes. When a country imposes tariffs, its economy faces the following impacts:

- Consumers of goods subjected to tariffs typically face increases in prices (although countries have ways to mitigate the impact on select consumers by granting exemptions or direct procurement by public agencies).
- Producers of goods impacted by tariffs also typically realize an increase in the prices received.
- Imports of goods subjected to tariffs decline.
- The government generates revenue from these taxes collected at the border.
- The net effect of tariffs on the whole economy largely tends to be negative.

Unfortunately, American agricultural and food producers have been caught in the recent tariff crossfire. Most trade partners - China, Mexico, Canada and others – facing section 232, 301 and other tariffs by the United States have chosen to retaliate against American agricultural exports. For instance, 107 of the 234 products that China chose to impose tariffs as retaliation to U.S. actions in 2018 are agricultural and/or related products.

Last year, American agriculture lost overseas markets and revenues, some of which have been partly compensated by the Trade Mitigation Programs and exports to new sources. However, as the U.S.-China trade dispute gets reignited in May 2019, American agriculture faces several critical questions:

- Can U.S. agriculture recover from the original and continued loss of overseas markets? Overall U.S. agricultural exports in fiscal 2018 (\$143.4 billion) were higher than in 2017 (\$140.2 billion), aided partly by weather issues in South America and robust global demand for meat and feed products (USDA, ERS-FAS, February 2019 Agricultural Trade Outlook). However, some commodities have been stockpiled as the search for markets is ongoing. The May USDA forecast indicates agricultural exports for 2019 would total \$137 billion, down \$4.5 billion since the February forecast due in part to proposed additional tariffs by China. So, what factors would stem the decline and aid the expansion of U.S. agricultural export volumes and values in 2019? When and how to unwind accumulated stocks of specific commodities? What will be the cost of adjustment to access new markets?
 - While attempting to recover lost markets and opportunities, what methods can objectively capture losses arising from these trade disputes? Does the primary focus on market price change by the 2018 Trade Mitigation Program capture the true losses to agricultural and food producers?

- Multi-lateral or regional or bilateral agricultural trade reform has been one of the greatest challenges in recent decades. Global agricultural trade has not grown on par with that of non-agricultural products and services since 1994, and hard-earned agricultural market access is often threatened by other domestic support policies. Will the tit-for-tat tariffs cloud the current and future prospects of agricultural trade reform to open up new markets for American agriculture?
 - With other major agricultural producing and consuming countries entering into economic partnership agreements, e.g. TPP minus-US, EU-Japan, can American agriculture compete from the outside?

- Incentives for energy production and manufacturing in non-urban areas (e.g. tariffs and tax reforms) have created direct competition with agriculture for resources (labor and capital). Does the recent rise in farm wages and decline in farm solvency ratios (USDA-ERS) point to tightening farm labor and credit markets and in turn, farm financial stress?
 - How will emerging macroeconomic forces, e.g. dollar appreciation, rising interest rates, and high inflation, in combination with agriculture-specific factors noted above affect agriculture’s profitability and viability?¹

This brief examines how the issues above are likely to impact the state of Georgia, which exports a diverse set of agricultural products to many countries including China.

Table 1: Georgia’s top 5 agricultural cash receipts and exports, 2017

Rank	Commodity	Cash Receipts (mil\$)	Value of Exports (mil \$)
1	Broiler Meat	4376	455
2	Cotton	850	660
3	Peanuts and Products	721	535
4	Misc. Horticultural Products	411	248
5	Tree Nuts	348*	241

Source: ERS/USDA (accessed on ERS website); * includes fruits

Cotton is Georgia’s top commodity export in 2017 value terms. Even though U.S. cotton faces additional increase in tariffs to China due to the on-going trade dispute, monthly U.S. exports (in raw-fiber equivalents) remained about 140 million pounds in March 2018 and 2019 as per the latest Cotton and Wool Outlook of USDA. Exports to Asia (including China) are slightly down, offset by expansion into Central American countries. However, world and U.S. upland cotton prices in March 2019 are 10% lower than that in March 2018 (WASDE, USDA, April 2019). Expanding world supplies over demand has increased the global stock-to-use ratio, which is often accompanied by a fall in prices. Nevertheless, exports to China as expected are down and these additional tariffs, shown in table 2 below, make U.S. cotton less competitive in the Chinese market, which accounts for the largest mill-use in the world (Liu, Robinson and Shurley 2018; Liu et al., 2018).

¹ A side effect that is receiving limited attention is the fall in China’s (foreign direct) investments in the United States to about \$10 billion in 2018, the lowest of the current decade according to the American Enterprise Institute (<http://www.aei.org/china-global-investment-tracker/>).

Several other issues make cotton profitability challenging. In Georgia, the cotton basis since the implementation of Chinese tariffs has been lower than previous years due to the smaller shipments to China. Before the tariff on cotton was implemented, China made purchases in large quantities, and often large shipments were sent to the same destination/port. However, after the tariffs on cotton were implemented, the large shipments to China were replaced by smaller shipments to other importers. The change in the size of the shipments has increased transaction costs for merchants and reduced the local basis for cotton.

The other issue here is that China accounts for about 40% of apparel imported by the United States, of which 30% is made of cotton. The 25% U.S. tariff on Chinese apparel makes it more expensive for U.S. consumers to buy cotton apparel, which reduces the demand for apparel. The latest data again show that apparel imports (raw-fiber equivalent) from China are down by about 20% between March 2018 and 2019. That may work its way back down the supply chain to reduce Chinese demand for cotton in general and thus, affect U.S. cotton demand and price. The price of U.S. cotton declined after the U.S. imposed tariffs on Chinese apparel. In the short run, this price uncertainty due to the trade dispute will persist if no agreement can be reached between the U.S. and China. In the long-run, other countries might produce more apparel and export to the U.S.

Table 2: China Tariffs on Cotton Products

Category	Before Trade Dispute with China	Effective July 6, 2018	Effective August 23, 2018	Effective September 24, 2018	Effective June 1, 2019
Cotton Linters	4%	29%	-	-	29%
Cotton, Not Carded or Combed					
In-Quota	1%	26%	-	-	26%
Out-of-Quota	40%	65%	-	-	65%
Yarn Waste Of Cotton	10%	-	35%	-	35%
Garnetted Stock Of Cotton Waste	10%	-	35%	-	35%
Other Cotton Waste	10%	-	35%		35%
Cotton, Carded or Combed					
In-Quota	1%	26%	-	-	26%
Out-of-Quota	40%	65%	-	-	65%
Cotton-Seed Oil (Excl. Crude) & Fractions Thereof	10%	-	-	15%	20%

USDA-FAS, GAIN Report Number: CH18017; CH18034; CH18047; CH18052; CH18061; CH19030

Pecans, another key export of Georgia, faces an additional tariff of 25% on June 1, 2019:

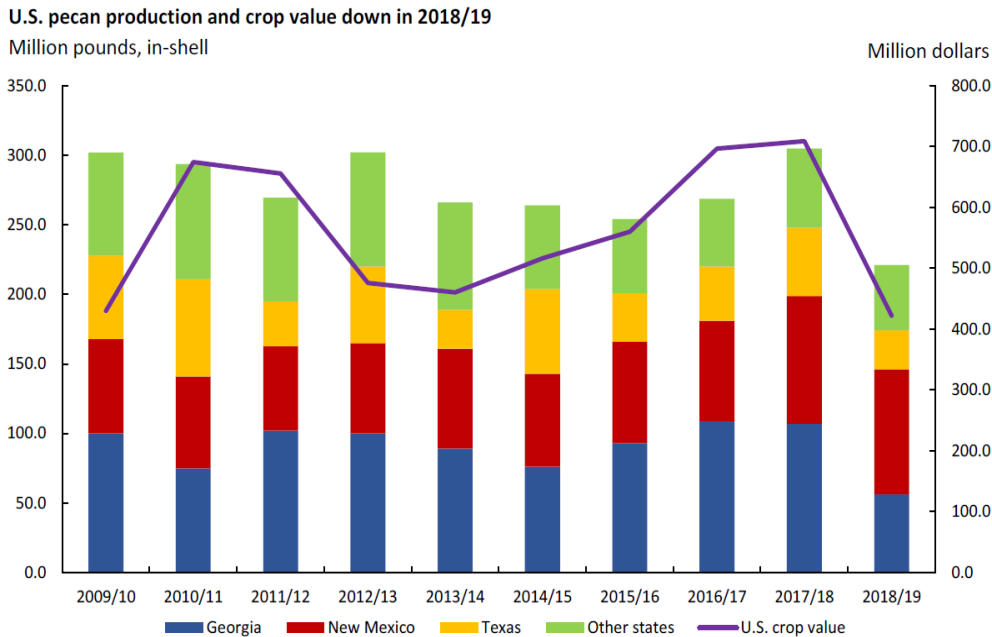
Table 3: China Tariffs on Pecans

Pecans	Base rate	Section 232	Section 301	Total Applied Tariff
Implementation Date	Jan 1, 2019	Apr 2, 2018	Jun 1, 2019	Jun 1, 2019
Pecans (fresh or dried, whether or not shelled or peeled.) (HTS 0802909040)	7%	15%	25%	47%

Source: USDA-FAS GAIN report

The chart below shows that U.S. pecan production was down significantly in 2018/19 as a result of natural disasters (USDA-ERS, March 2019 Fruits and Tree Nuts Outlook). While Mexican imports have grown to fill the gap in U.S. production, pecan grower prices have fallen by nearly 18 percent between 2017/18 and 2018/19. To quote USDA-ERS, "...a sharp decline in the cumulative volume of in-shell pecan exports during the first 3 months of 2018/19 compared with same period the previous season has outweighed gains in shelled pecan exports, driving down overall exports (both shelled and in-shell) thus far for the season." Among the top foreign markets for U.S. pecans, overall export volumes to date are significantly down to Hong Kong, Vietnam, and China (Fruit and Tree Nut Export and Import Data, USDA-ERS). Exports to Hong Kong, Vietnam and China during January-March 2019 were only \$10 million compared to over \$75 million in the corresponding quarter of 2018 (GATS Online Database, USDA-FAS). Major European importers of pecans, potentially facing section 232 tariffs over automobiles, include Netherlands, Germany and the UK.

Figure 1: U.S. Pecan Production and Value



Source: USDA, National Agricultural Statistics Service, *Pecan Production*, March 2019.

Overall U.S. exports of peanut and peanut products have held steady between 2017 and 2018, with over 45% going to Canada and Mexico. However, U.S. exports to China have been declining since a peak in 2016 (over 200,000 metric tons) to barely a few metric tons in the first quarter of 2019. Price competitiveness has been cited as a key reason for this decline. Prior to the trade dispute, tariff rates were 15% for in-shell (farmer stock) peanuts. All other peanuts and peanut products had a 5% tariff rate imposed. While the initial trade dispute with China started in the spring of 2018, no additional tariffs were placed on peanut or peanut products until September 24, 2018. China’s additional tariffs on U.S. peanut and peanut products makes them more expensive and thus, less attractive even as the price paid to the farmer has declined since the 2017 harvest. Thus, tariff rates ranging from 20% for peanut butter to 40% for peanut oil have reversed progress that was being made in building a market for U.S. peanuts and peanut products in China.

Table 4. China Tariffs on U.S. Peanut and Peanut Products

Category	Before Trade Dispute with China	Effective September 24, 2018	Effective June 1, 2019
In-Shell Peanuts	15%	25%	35%
Shelled Peanuts	5%	10%	30%
Peanut Oil	5%	15%	40%
Peanut Butter	5%	10%	20%
Canned Peanuts	5%	10%	30%
Prepared/Preserved	5%	15%	40%

There is also a value added tax of 11% for all peanut categories.

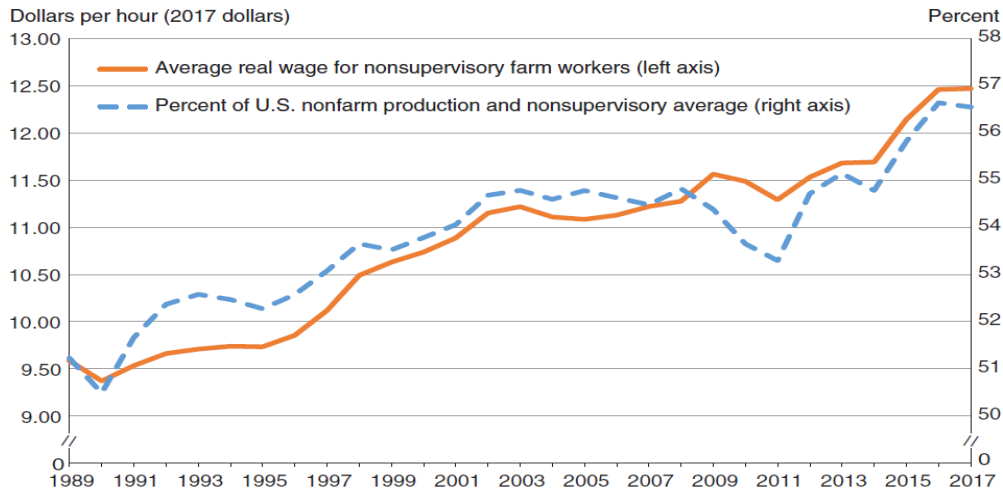
Source: American Peanut Council

Finally, broiler meat is the largest agricultural commodity and the third highest export value in GA. The U.S. exports broiler meat to a variety of destinations with Mexico, Canada and Hong Kong accounting for about 42% of the total (\$4.2 billion in 2018). January – March quarterly exports are down by 11% between 2018 and 2019, driven largely by a fall in exports to East Asia (Hong Kong, Taiwan, Japan, China and Korea). While China is not a major destination for broiler meat, other countries facing Section 232, 301 and other tariffs, e.g. Mexico and Canada, are large export markets for U.S. and Georgia, in particular.

All of these trade issues are compounding the financial stress already present in the agricultural production sector. A recent report by Zahniser et al. (2018) indicates tightening of farm labor markets – labor shortages and rising wages (see chart below). Likewise, the latest farm income data from USDA raises concern about farm financial indicators. For instance, USDA’s Farm Income and Wealth Statistics, March 2019 update, show an increasing trend in the debt-to-asset and debt-to-equity ratios over the past few years. The ratios forecasted for 2019 are the highest in the past decade with the debt-to-equity ratio rising by a full percentage point between 2017 and 2019 (forecast). Not surprisingly, the equity-to-asset ratio has fallen with the 2019 forecast being the lowest ratio over the past decade. At a time when many Georgia farmers are in tough financial conditions following several hurricanes, macroeconomic factors, especially the appreciation of the U.S. dollar, and a trade war add to the financial pain being felt by many producers. Exchange rates should not be overlooked because they play a key role in the ongoing search for new markets due to the significant loss in access to Chinese consumers.

Figure 2: U.S. Farm vs. Non-Farm Wages

Real (inflation-adjusted), nonsupervisory wages in agriculture versus nonfarm average, 1989-2017



Note: Nonfarm wage refers to the average hourly earnings of production and nonsupervisory employees in the private, non-farm sector.

Source: USDA, Economic Research Service calculations using nominal wages for U.S. nonfarm production and nonsupervisory workers from U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics (USDOL, BLS, 2018b) and nominal wages for nonsupervisory farmworkers from USDA, National Agricultural Statistics Service (2018c). Both sets of nominal wages are converted to real wages using consumer price indices from USDOL, BLS (2018a).

Georgia may actually be in a more vulnerable position than the average for American farmers. Producers nationwide face the direct effects of retaliatory tariffs, but the changes in market prices may not fully capture the losses seen in crops that Georgia has large national shares in the production of, notably cotton, peanuts and pecans.² The search and adjustment costs for new and smaller markets may be reflected in a weakening local basis and an average national price for compensation will likely understate Georgia’s loss. More importantly, the opportunity to expand into China and other markets has been significantly affected for Georgia’s producers especially in the context of the major products shown in Table 1. For these crops, which are all significant in Georgia, finding new foreign markets is particularly difficult as there may not be sufficient buyers outside China to maintain the prices from before tariffs were imposed.

To conclude, total U.S. agricultural exports have trended down during 2017-2019 (including forecasts) with significant commodity shifts and within-commodity reallocations to alternative destinations. The impacts of the May 2019 U.S.-China tariffs have not been fully assessed and potential retaliation by other trade partners seriously challenges reversing of the downward trend in exports.

² Farmdoc examined the case of Illinois, which derives its largest cash receipts from corn and soybeans. Together these two commodities account for 79% of the Illinois’ farm cash receipts and 62% of its exports. Both commodities are facing decade-low prices coincidental with higher year-end stocks (although corn is faring slightly better than soybeans). Latest USDA data indicate nearly 2.5 billion and 1 billion bushels of corn and soybean carry-over nationally at the end of the current marketing year. Farmdoc reported that Illinois agriculture experienced a total 5.5% loss in value (nearly \$1 billion) from expectations for 2018. Soybeans experienced a much larger deviation from expected price than other Illinois commodities and accounted for 73% of the total loss in value for Illinois agriculture. Farmdoc also concluded higher prices in 2019 will require restored export markets, an alternative demand replacement, or some other positive economic influence on demand (Swanson et al. 2019).

Some commodities have been stockpiled, while others have found newer/smaller markets raising transaction costs and impacting local/grower prices. U.S. exports to China of most commodities facing retaliatory tariffs have been trending lower and China appears to have accessed other countries to fill the gap. In some cases, China's retaliatory tariffs have curtailed market opportunities of farms stressed already by natural disasters as in the case of pecans and cotton. On the input side, upward trending farm wages and falling solvency ratios are pointing to emerging farm financial stress. So, American agriculture appears to be buffeted by uncertain markets for products and inputs, and the marginal damage from the latest round of tariffs is likely to be significantly higher than the historical average.

Policymakers in Washington recognize the potential losses to agricultural and food producers, and are currently designing a 2nd round of compensation payments to offset losses. Compensation can cover certain losses in the near term, but in the meantime, other countries are engaging in trade partnership agreements/negotiations, which have direct implications for the volume and value of future U.S. agricultural exports. Whether the resolution of trade disputes will restore not only the original market access but also the foregone growth in American exports during the dispute remains an open question.

References

Liu, Y., J.R.C. Robinson, and W.D. Shurley. China's Potential Cotton Tariffs and U.S. Cotton Exports: Lessons from History. *Choices*. Quarter 2, 2018.

Liu, Y., E.G. Fonsah, L.A. Russell, A.N. Rabinowitz, and W.D. Shurley. The Impacts of China and United States Trade and Tariff Actions on Georgia Agriculture: the Perspectives of UGA Agricultural Economists. *University of Georgia Extension*. Publication No. TP 104. June 2018.

Swanson, K., J. Coppess, G. Schnitkey and C. Zulauf. "The Trade Conflict – Impact on Illinois Agriculture in 2018." *farmdoc daily* (9):75, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 25, 2019.

USDA Trade Mitigation Programs

<https://www.usda.gov/media/press-releases/2018/09/04/usda-launches-trade-mitigation-programs>

USDA- Economic Research Service

Agricultural Trade Outlook, February and May 2019

Cotton and Wool Outlook, May 2019

Farm Income and Wealth Statistics, March 2019

<https://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/>

Oilseeds Outlook, May 2019

Fruits and Tree Nut Outlook, March 2019

Fruit and Tree Nut Export and Import Data

<https://www.ers.usda.gov/data-products/fruit-and-tree-nut-data/data-by-commodity/>

USDA-Foreign Agricultural Service
Various GAIN Reports
GATS Online Database

Zahniser, Steven, J. E. Taylor, T. Hertz, and D. Charlton. Farm Labor Markets in the United States and Mexico Pose Challenges for U.S. Agriculture, EIB-201, U.S. Department of Agriculture, Economic Research Service, November 2018.