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Georgia Farm Gate Value 20-Year Trends – Row and Forage Crops

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Cotton, peanuts, and corn have consistently been top commodities by production value in Georgia over the past twenty years. Georgia's row crop production is a cornerstone of the state's agricultural industry with cotton and peanuts reliably ranking among the top five Georgia agricultural commodities and corn typically landing in the top ten. This publication discusses the trends regarding the farm gate value (FGV) of these major row crops in Georgia from 2001, when the farm gate project's data collection began, up until 2022.

See Figure 1 for normalized, inflation-adjusted FGV of the major row crop commodities. The grey bars represent the 2008 recession and the Covid-19 pandemic. Inflation adjustments were made using the U.S. Inflation Calculator, an online inflation calculation tool that uses Consumer Price Index (CPI) data published by the Bureau of Labor Statistics. Real FGV are calculated by multiplying the nominal annual FGV of crop production by the CPI inflation factor for each year relative to 2020. Relative normalization allows us to compare acreage trends more easily, as scales of production differ. To normalize the values in the figures, each crop's real annual FGV and acreage are divided by the base year 2020. Therefore, values in 2020 equal one, and all other annual values are a ratio that represents their value relative to their 2020 value.

All three of these crops have grown in inflation-adjusted production value since 2001, especially corn, which has nearly quadrupled since data collection began. The strongest values were 2011 for cotton and 2012 for corn and peanuts. Cotton FGV in 2011 was 142% higher than its 2020 value. Corn and peanut FGVs in 2012 were 61% and 50% higher than their 2020 values, respectively. Coming out of the 2008 financial crisis, commodity prices rose globally, starting at the end of 2010 and lasting until 2014; after that, commodity prices fell until the prices rose following the COVID-19 pandemic when the global economy experienced recovery and high inflation.

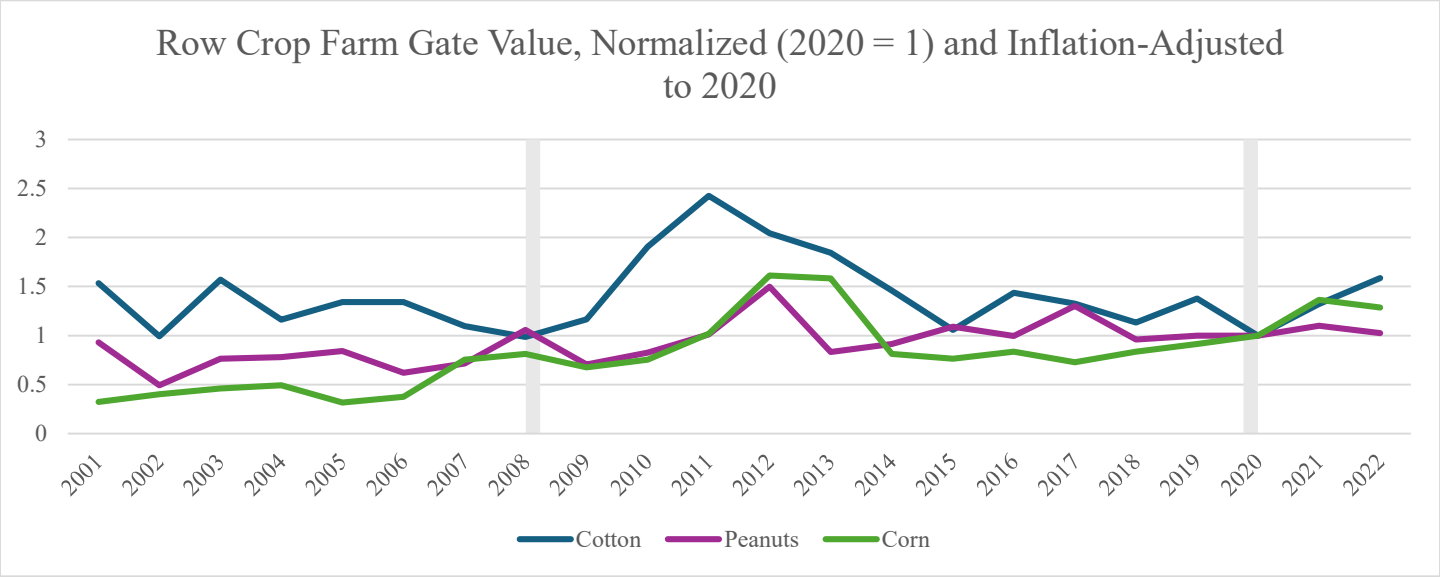

Figure 1. Normalized and inflation adjusted (to 2020) row crop sector farm gate values.

Source: University of Georgia College of Agricultural and Environmental Sciences Farm Gate Value Report, calculations made by authors

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Figure 2 shows normalized and inflation-adjusted cotton FGV and acres over time. There is not a clear trend of up or down in cotton planted acres in Georgia. For the most part, cotton FGV goes down when planted acres go down and vice versa, as favorable cotton prices attracted more planted acres in Georgia. However, there are some years of note where there is a larger rate of increase in FGV as compared to the rate of increase in planted acres. Cotton FGV peaked in 2011 because that was one of the few times in recent history when cotton prices exceeded $1 per pound. This was a result of policy changes in China of price supports for cotton farmers, which resulted in Chinese state-owned enterprises purchasing cotton above market rates. The cotton purchased by China was moved out of the global market. The direct result of this policy was the sharp rise of cotton prices globally. We also saw cotton FGV increase a couple of years after the Covid-19 pandemic. This was a period where the global economy saw rapid recovery and growth due to eased monetary policy by central banks across the globe and increased fiscal policy through stimulus checks and other programs. The savings from consumers during the lockdown combined with the post-pandemic money provided through the stimulus resulted in an increase in consumer confidence and spending on textile and apparel products. To add to this, the disruption of the global supply chain made it challenging for U.S. cotton to reach textile mills overseas. High demand for cotton and cotton products and low supply due to supply chain disruptions led to high cotton prices globally.

Cotton FGV decreased during the 2008 recession and Covid-19 pandemic. Prices were down and planted acres were down as well. Cotton FGV decreased in 2018 despite an increase in planted acres because Hurricane Michael hit when cotton was ready to harvest and significantly lowered yields. The year 2002 shows a rate of decrease in FGV that is greater than the change in planted acres. This may have been a result of changes to agricultural policy that resulted from the 2002 Farm Bill being signed into law in May that year, after planting decisions had already been made.

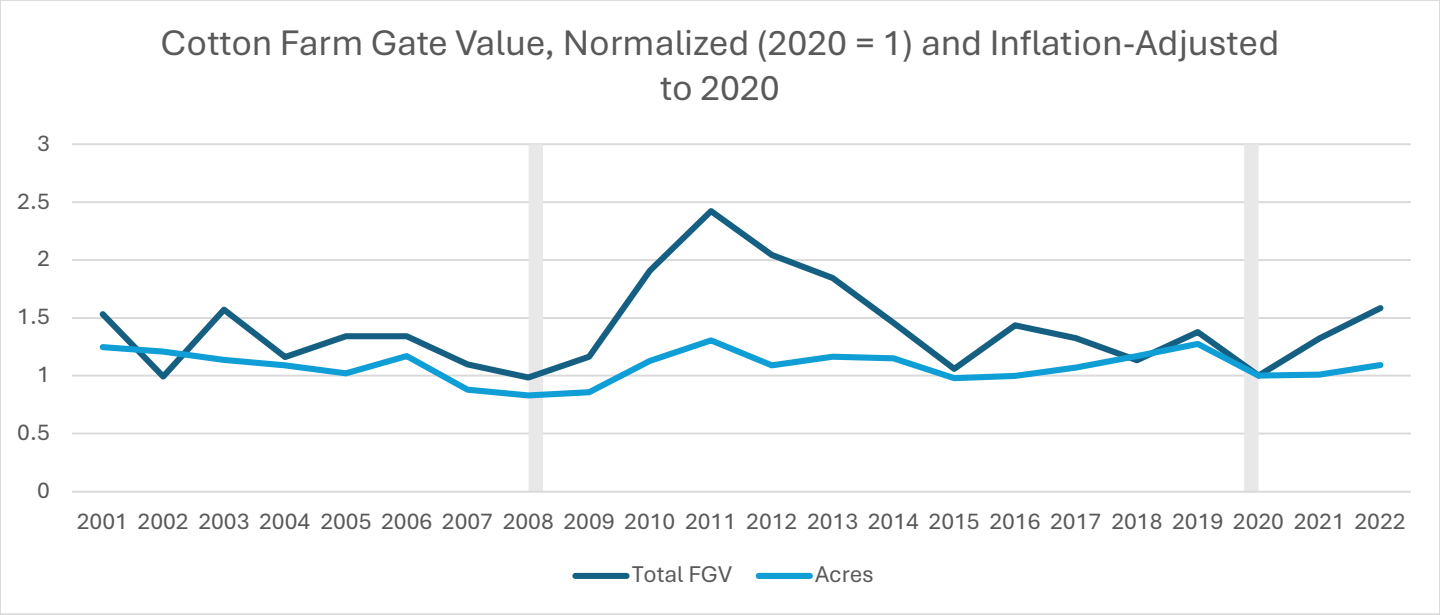

Figure 2. Normalized and inflation adjusted (to 2020) cotton farm gate values and acreage.

Figure 3 shows the normalized and inflation adjusted peanut FGV and acres over time. There is a strong relationship between FGV and planted acres in peanuts. An increase in planted peanut acres often reflects an increase in FGV and vice versa. In general, there has been a slight rise in peanut acres in Georgia since 2001. Two years stand out as larger increases in FGV than the increase in planted peanut acres, 2008 and 2012. Both

Source: University of Georgia College of Agricultural and Environmental Sciences Farm Gate Value Report, calculations made by authors

of these were dry years in Georgia. This drove concern about supply during harvest and caused prices to increase. Furthermore in 2008, there was an economic recession. Demand for peanut products, particularly peanut butter, tends to increase during periods of recession because consumers see it as a more affordable protein source. This can increase the price of peanuts as manufacturers of peanut butter and peanut products want to make sure they are able to meet consumer demand. In contrast, peanut FGV did not increase during the COVID-19 pandemic at a higher rate than planted acres. The pandemic did not create the same economic uncertainty for consumers as that which occurred during the 2008 recession because consumers saved money by staying home and received financial stimulus by way of the fiscal policy mentioned earlier. Following the pandemic, there was not a large increase in peanut acres planted because producers planted more acres into cotton due to favorable cotton prices. In 2021 and 2022, during the recent peak of U.S. inflation rates, peanut prices, together with other food-related commodity prices, saw a sharp rise. The increased peanut prices in 2021 contributed to a higher rate of increase in peanut FGV despite a decrease in planted acres. The year 2017 also saw an increase in FGV at a rate higher than the increase in planted acres. This was likely a result of the impact of Hurricane Irma on peanut yields during 2017. There was a significant decrease in peanut FGV relative to the change in planted peanut acres in 2002. The 2002 Farm Bill made a big change to peanut policy by ending the quota program and changing it into a marketing loan program for peanuts.

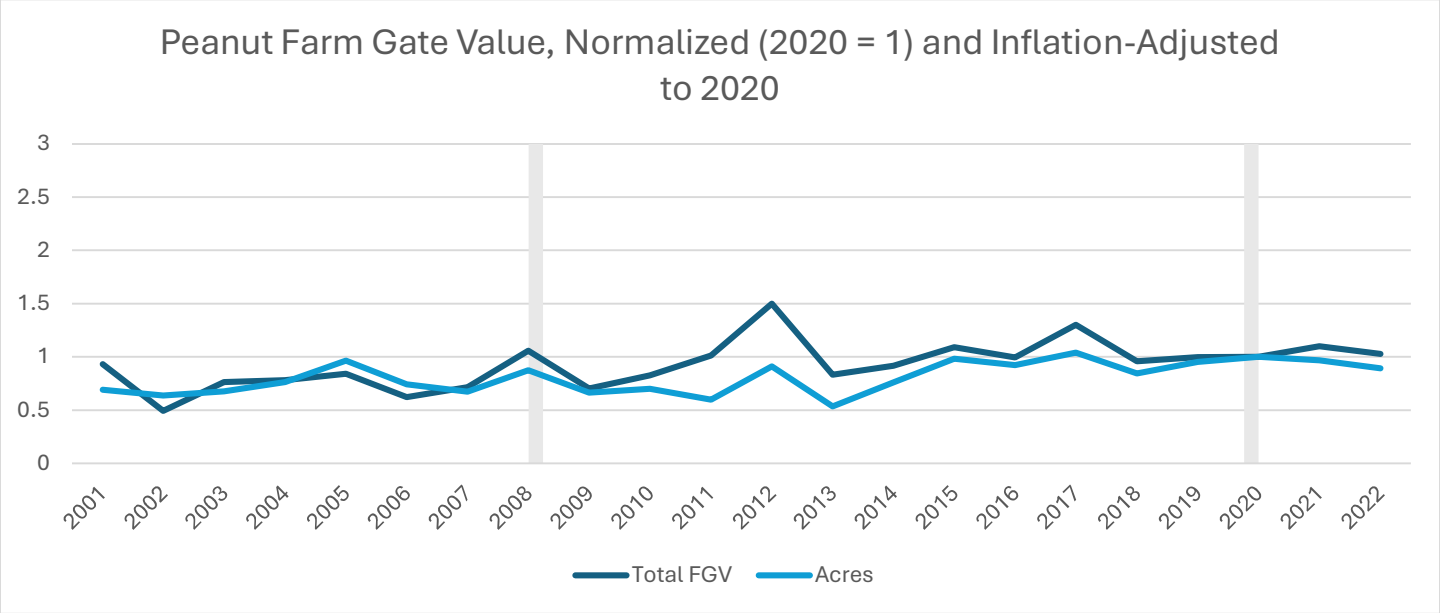

Figure 3. Normalized and inflation-adjusted (to 2020) peanut farm gate values and acreage.

There appears to be a wider spread in the index for cotton FGV and planted acres than peanuts. This is likely because cotton prices are determined globally, and are more volatile than peanut prices. Cotton prices are more sensitive to global events and economic situations. Planted cotton acres in Georgia do not have a significant impact on global cotton prices. However, Georgia produces over half of the United States crop of peanuts and a large portion of peanuts are consumed domestically. Therefore, planted acres in Georgia can impact peanut prices and peanut FGV.

Figure 4 shows the normalized and inflation-adjusted corn FGV and acres over time. Corn acres in Georgia have remained relatively stable over the last two decades, while FGV has seen more volatility. Corn prices are responsive to total U.S. planted acres and yields; not Georgia planted acres and corn yields. The rise of the

Source: University of Georgia College of Agricultural and Environmental Sciences Farm Gate Value Report, calculations made by authors

Georgia FGV of corn over time is mainly due to increases in corn demand for U.S. ethanol and for feed for the U.S. poultry and livestock sectors. Of note, Georgia corn is primarily utilized by the Georgia poultry industry, but there was some use of Georgia corn for ethanol for a few years following the increase in the Renewable Fuels Standard in 2008. There was a significant drought in the Midwestern U.S. in 2012, which caused high corn prices after harvest that year and those higher prices continued into 2013. Georgia growers, who were not impacted by the drought, were able to capitalize on the high corn prices, which contributed to the higher increase in FGV of corn than the increase in corn planted acres. Corn FGV also rose after the pandemic due to an increase in commodity prices during 2021 and 2022. The Phase One trade agreement with China helped increase demand for U.S. corn exports following the pandemic. This drove corn prices up and resulted in an increase in corn FGV by 28% post-covid.

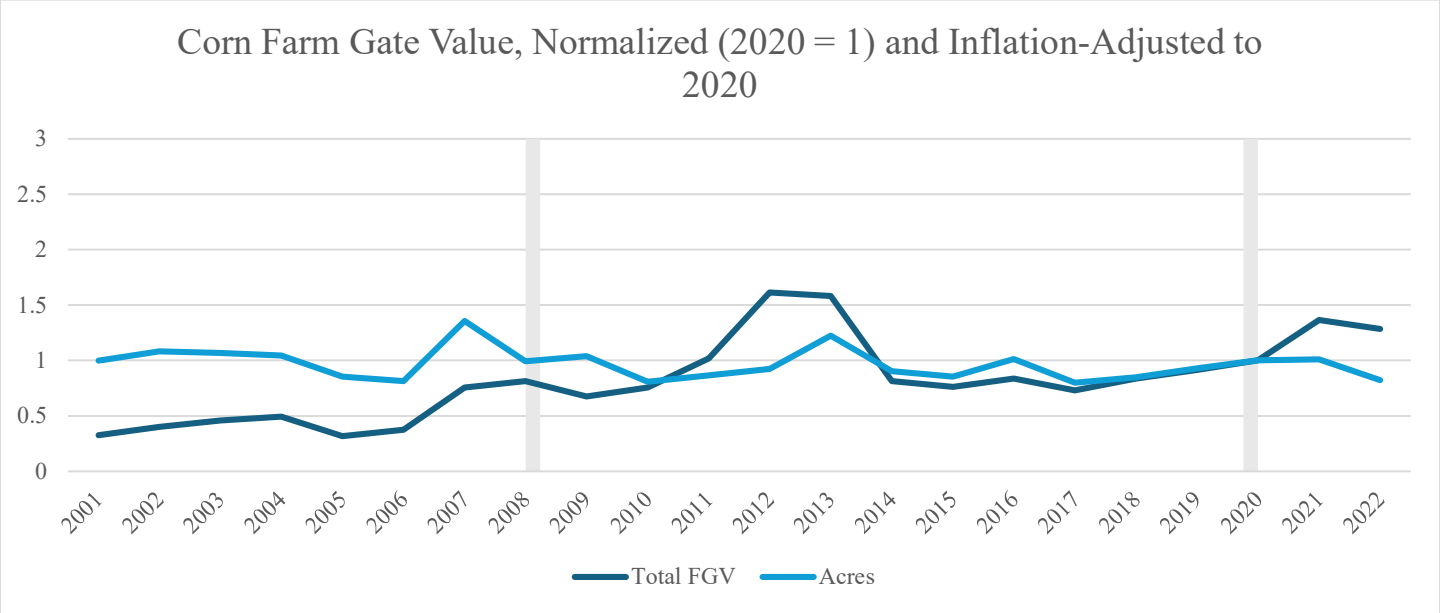

Figure 4. Normalized and inflation adjusted (to 2020) corn farm gate values and acreage.

Source: University of Georgia College of Agricultural and Environmental Sciences Farm Gate Value Report, calculations made by authors