



Georgia Farm Gate Value 20-Year Trends – Vegetables

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Bell peppers, onions, sweet corn, and watermelons are significant to Georgia’s agricultural industry and economy. This publication discusses the trends regarding the farm gate value (FGV) farm gate value of these vegetable crops in Georgia from 2001, when the farm gate project’s data collection began, up until 2022.

See Figures 1 for inflation-adjusted FGV of the major vegetable crops. Inflation adjustments were made using U.S. Inflation Calculator, an online inflation calculation tool which uses Consumer Price Index (CPI) data published by the Bureau of Labor Statistics. Real farm gate values are calculated by multiplying the nominal annual FGV of crop production by the CPI inflation factor for each year relative to 2020.

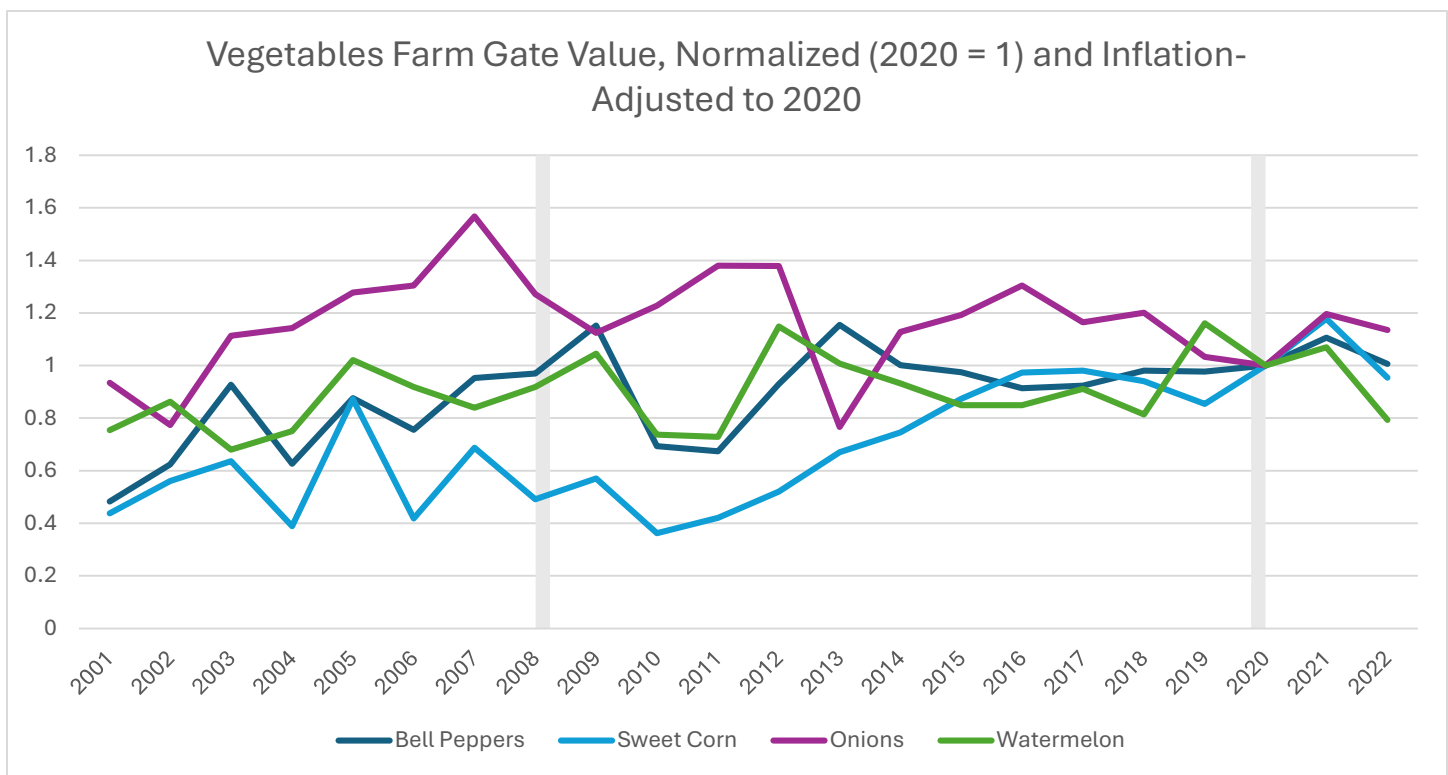


Figure 1. Normalized and inflation adjusted (to 2020) vegetable sector farm gate values.

See Figures 2, 3, 4 and 5 for normalized, inflation-adjusted farm gate value and acreages of sweet corn, bell peppers, onions, and watermelons respectively. Normalization gives a visualization of their farm gate value and acreage over time relative to their own historical production. Relative normalization allows us to more easily compare farm gate trends over time relative to 2020, which is a point of interest due to the large economic impact of Covid-19 both within and outside of the agricultural economic sector. Relative normalization also allows us compare acreage trends more easily, as scales of production differ. To normalize figures relative to 2020, each crop’s real annual farm gate value and acreage is divided by the base year 2020. Therefore, values in 2020 equal one and all other annual values are a ratio which represents their value relative to its 2020 value.

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

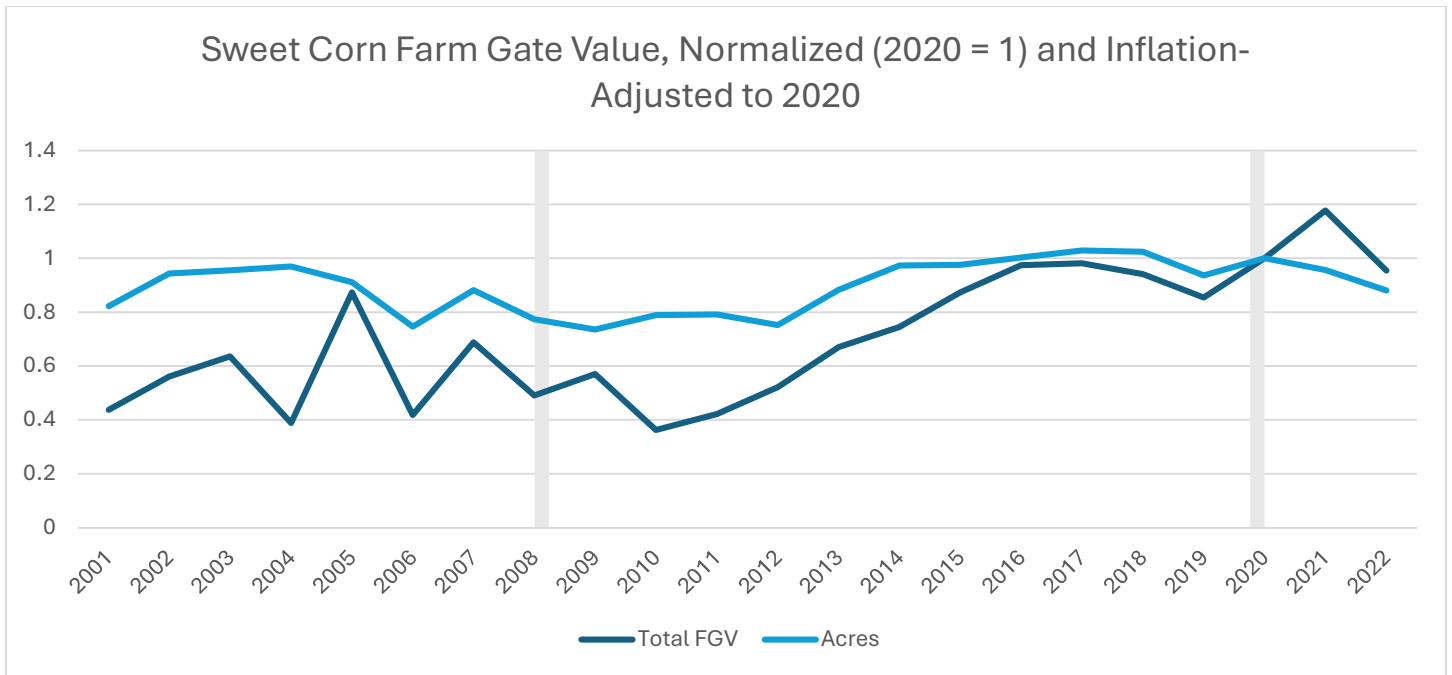


Figure 2. Normalized and inflation adjusted to (2020) sweet corn gate values and acreage.

Since 2001, the annual farm gate value (FGV) of sweet corn has exceeded \$180 million, even in the face of declining U.S. per capita consumption and various other market challenges. Domestic consumption of sweet corn has significantly decreased, from 27.16 pounds in 2001 to 16.34 pounds in 2022. Sweet corn producers have encountered additional challenges, including labor issues, and pest resistance to insecticides. In recent years, resistance to insecticides by the corn earworm has compelled producers to modify their pest management strategies, incorporating more costly products and increasing application frequency. Despite these adversities, the FGV of Georgia sweet corn has experienced only a slight decline in recent years.

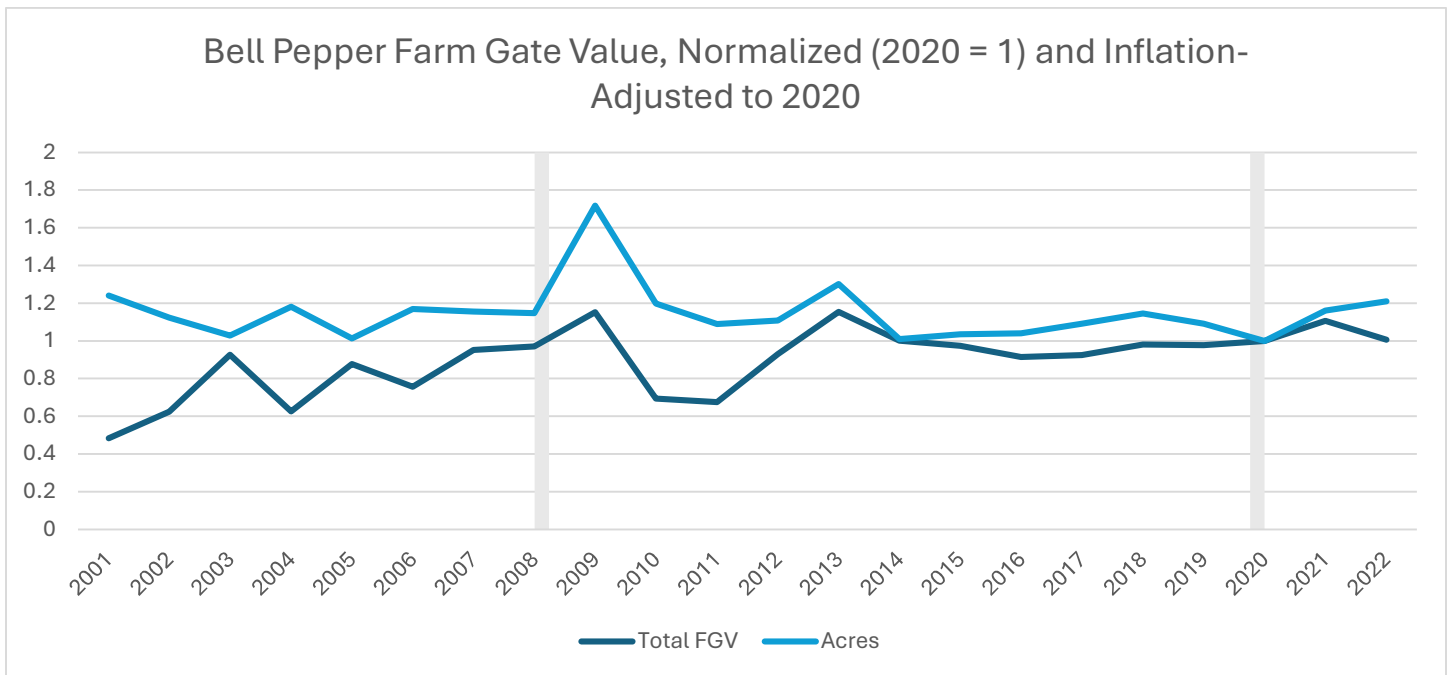


Figure 3. Normalized and inflation adjusted to (2020) bell pepper values and acreage.

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

Bell pepper is also one of the top ten important crops in the Georgia vegetable and pulses category. For the past two decades, bell peppers farm gate value has been increasing steadily. For instance, from \$58 Million in 2002 to \$154 Million in 2021 with a slight fall in 2022 to \$153 Million, thus, classifying the crop as the 3rd most important in that period and category. Bell pepper’s 2022 farm gate value was equivalent to 11.70% of the total vegetable farm gate value of \$1.31 Billion over 6,157 harvested acres. In 2012, bell pepper value was \$109 million equivalent to 11.63 of the total vegetable farm gate value of \$936 Million on 5,634 acres harvested and 3rd ranked after onion, and watermelon respectively. Similar 3rd ranking scenarios occurred in 2007 with the value of \$100 Million compared to \$164 Million onion (1st) and 2nd place watermelon with \$105 Million respectively.

It is worth mentioning that bell pepper was at its relative peak of \$87 Million in 2003 while tomato ranked 1st with \$122 Million and Onion ranked 2nd with \$104 Million respectively. In 2006, the study of the impact of farm profitability and yield efficiency of the Methyl Bromide (MeBr) Phase-out program was to determine which soil fumigant would be a better replacement to MeBr that would also control both the yellow and purple nutsedge was conducted on Georgia bell pepper. The study of the three alternative fumigants and herbicides to determine which provide superior yields, overall marketable quality and profitability of Georgia bell pepper depicted that “using combined average yields and prices showed that C-35 and KPAM had the highest combined yield of 1,298 cartons per acre. Telon II and Chloropicrin had the lowest yield of 1,119 cartons per acre”.

For the past two decade, three states, i.e., California, Florida and Georgia have the largest harvested bell pepper acreages in the Nation. Chronologically, California averages almost 16,000 acres, Florida over 12,000 acres and Georgia over 3,000 acres respectively. However, overall production acreages are declining due to several factors such as challenging unpredictable weather, volatile prices, exponential rising bell pepper imports from Mexico and Canada.

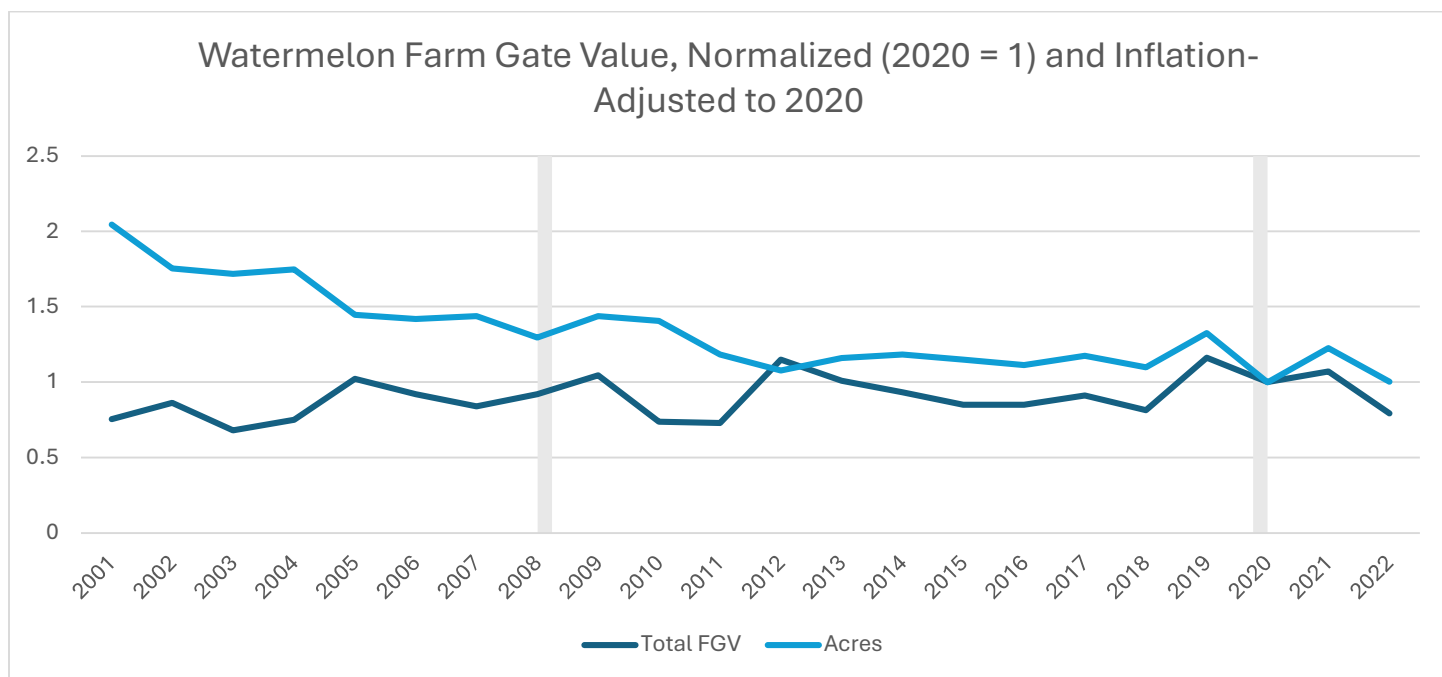


Figure 4. Normalized and inflation adjusted to (2020) watermelon values and acreage.

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

Georgia's watermelon industry has experienced a significant reduction in annual acreage planted since 2001. This notable reduction in watermelon acreage can likely be attributed to several factors, including the governmental phasing out of effective pesticide and fumigation products, farm labor issues, crop disease issues, and volatile market prices. However, increased watermelon market prices over the period reviewed have contributed to the Georgia FGV of watermelons remaining mostly steady over the last two decades and have offset state acreage losses. Producers have been able to receive higher watermelon prices in recent years by increasing investments in practices that enable them to produce fruit at market-optimal times. One notable practice that has enabled producers to market fruit during more market-optimal times is transplanting seedlings into plastic mulch instead of directly seeding into bare ground fields. Additionally, producers have invested in shifting most of the state's watermelon acreage to seedless production instead of traditional seeded melon production, enabling them to receive a higher price for their premium product at harvest. Together, these factors have resulted in watermelons evolving into a more costly crop to produce compared to previous decades. These changes in production standards have resulted in some risk-averse producers shifting acreage away from watermelon production while slightly improving some producers' ability to increase their profitability by receiving higher prices for their seedless melons.

Out of over 35 vegetables produced in the state, watermelon is one of the most important in terms of farm gate value and total planted acreages. Historically, the production of watermelon in Georgia stems back to 1939 where over 60,000 acres were in cultivation from 1939-1942 with yields as high as 343 cwt/acre. In 2002, the beginning of our study period, watermelon was ranked 1st with a farm gate value of \$95 million. Due to multiple tropical storms and hurricanes, watermelon production was at its lowest in 2004. Despite generating a farm gate value of \$85 million, it lost its premium ranking to onion, followed by tomato. Watermelon made a quick come back and ranked 2nd after onion in 2005 with a farm gate value of \$120 million from 24,387 acres. The vegetable and pulse industry are very dynamic and top-ranking position rotates from year to year between different crops such as onion, tomato, sweet corn, pepper and watermelon. It is generally difficult to predict which crops would lead the chart in this category. In 2009, 2013 and 2019, watermelon maintained its number 1 ranking with \$139 million, \$144 million and \$180 million respectively.

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