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# A 150-Year Journey: Agricultural Evolution from Slavery to Modernity in the State of Georgia

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#### Abstract

Over 150 years, Georgia's agricultural story weaves through slavery, emancipation, and a shift to modern practices (e.g., hydroponics). In pre-Civil War era, the state's agrarian economy thrived on slave-driven cultivation of cotton, tobacco, and rice, while in post-Civil War period, the end of slavery led to sharecropping and tenant farming, sparking diversification into peaches, peanuts, and poultry. The mid-20th century witnessed mechanization and synthetic fertilizers enhancing productivity. In recent decades, Georgia embraced advanced technologies, notably hydroponics, offering precise control over nutrients, mitigating water scarcity and soil degradation. This paper aims to highlight twists and triumphs in this process.

Keywords: Slavery, African American, Plantation, Cash Crops, Contract Labor System, Convict Lease System and Peonage

#### Introduction

Georgia relied on rice and indigo plantation cash crops and cotton for domestic use during the 18th century. However, Eli Whitney's invention of the cotton gin in 1793 not only promised the growth of cotton as a beneficial cash crop but also created demand for agricultural slave labor in Georgia. Several cities in Georgia—Altana, Augusta, Columbus, Macon, Milledgeville, and most prominently Savannah operated slave markets during the Federalist Era (1788-1801). The number of enslaved persons in Georgia grew exponentially from 29,264 in 1790 to 59,699 in

1800, and then to 105,218 in 1810, despite the fact that the importation of captive Africans was legally prohibited in Georgia since 1798, and Congress banned the African slave trade in 1808 (Young 2020). The enslaved population kept increasing in Georgia to 149,656 in 1820 and to 280,944 in 1840. By 1860, they accounted for 44 percent of the state's population (n=462,198) and ranked #1 among states in the Lower South and #2 (next to Virginia) in the South as a whole with the largest number of slaveholders (Young 2020). Table 1 shows how the slave population kept increasing in each census year from 1790-1860.

Table 1: Percent increase of the slave population of the Slave States in Census Years: 1790-1860

State/Territory	1790-1800	1800-1810	1810-1820	1820-1830	1830-1840	1840-1850	1850-1860			
Delaware	30.8	32.1	7.9	27.0	20.9	12.1	21.5			
Maryland	4.5	6.8	2.7	3.9	13.4	1.1	3.9			
Virginia	18.6	13.7	8.3	10.4	4.5	4.9	3.9			
North Carolina	32.3	26.7	21.4	19.9	0.1	17.4	14.7			
South Carolina	36.5	34.4	31.6	22.0	3.7	17.7	4.5			

Georgia	100.0	77.1	42.2	45.4	29.2	35.9	21.1
Florida					65.9	52.9	57.1
Kentucky	224.6	99.7	57.3	30.4	10.3	15.8	6.9
Tennessee	297.5	227.8	79.9	76.8	29.3	30.8	15.1
Alabama		419.2	1,532.7	180.7	115.7	35.2	26.9
Mississippi		384.9	125.9	100.1	197.3	58.7	40.9
Louisiana			99.3	58.7	53.7	45.3	35.5
Arkansas			1,069.0	183.0	335.6	136.3	135.9
Texas					-		213.9
Missouri			255.5	145.5	132.1	50.1	31.5

Source: U.S. Bureau of the Census.1909. A Century of Population Growth from the First Census to the Twelfth, 1790-1900. Table 61, p.134. Washington, D.C.: U.S. Government Printing Office. Retrieved 1/24/2015 [http://www2.census.gov/prod2/decennial/documents/00165897ch14.pdf]

Charles Ball (1858) in his autobiography Fifty years in Chains: Or, The Life of an American Slave described how the slaveholders used the "task system" of labor among the enslaved for farming purposes—a system that allowed to assign a specified amount of work for the day to each slave, and when it was completed, the slave was allowed to use the remaining time of the day as he/she wished to spend. Work routines varied from estate to estate each season based on selection of crops [1]. This seemed to be less brutal than the prominent gang system in some neighboring states, which involved continuous work at the same pace throughout the day, i.e., never letting up or slowing down. In general, gangs were divided into three tiers. The first tier, known as "great gang," consisted of those with high physical strength, was given the hardest work. The second tier, consisting of less able slaves (teenagers, pregnant women, nursing mothers, old people, or the sick), was assigned to perform lighter work. The third tier, consisting of children, was given the easiest work [2]. Although it appeared to be proportional to their ability and physical condition, that was not always the case.

#### The Short-lived Promise of 40 Acres and a Mule

Immediately after the Civil War and emancipation, in 1865, General Sherman convened 20 prominent Black Baptist and Methodist leaders and urged the Lincoln Administration to allot 40 acres of land to each of the formerly enslaved families in compensation, thereby they could own farms and begin a fair start to lead their individual and family lives. President Lincoln signed the Special Field Order No. 15 on January 16, 1865, authorizing the redistribution of 400,000 acres of former plantation farmland along the coastline, including Georgia's Sea Islands. Later on, Sherman ordered the Army to lend mules to the new farmers. By June, 1865, over 40,000 formerly enslaved Blank landless farmers were able to work these 400,000 acres [3]. However, it turned out to be the short-lived promise, because Andrew Johnson, a Confederate sympathizer, who became president following Lincoln assassination overturned Order 15 in the fall of 1865 and instructed the Freedmen's Bureau to arrange "mutually satisfactory" agreements between the former enslavers and freed people to resolve their competing claims to coastal properties. As result, the former plantation owners who had fought against the Union acquired large holdings of land, but were burdened to hire and pay labor to farm their land [3]. This scenario led to the

failed contract labor system and neo-plantation model of share-cropping and tenant farming.

### The Failed Contract Labor System

General Davis Tillson, who served as Assistant Commissioner for the Bureau in Georgia in September 1865, issued fair contracts and compensation guidelines on December 22, 1865, that both planters and freedmen were expected to honor. These guidelines required monthly payments of \$12-\$13 for men and \$8-\$10 for women in upper and middle Georgia; and \$15 for men and \$10 for women in coastal and southwestern Georgia, where good crops could be raised. Freedmen were to provide for their own clothing and medicines Should the planters prefer to pay a share of the crop instead of monthly money payments, they are required to pay from one-third the gross to one-half of the net proceeds [4]. However, the Tilson ideology was not appealing to many white Georgians. Even Tilson's citizen agents continued to think like their white neighbors [5]. When Tilson retired in January 1867, Colonel Caleb C. Sibley assumed the control of the efforts of the Freedmen's bureau in Georgia. He reorganized the state agency into 10 subdistricts to improve efficiency and accountability and appointed salaried army officials to oversee the agency's work in each subdistrict [6]. Despite these structural changes and good intentions, the Bureau failed because: (1) it was unable to provide freedmen with necessary skills and resources to become free laborers; (2) planters continued to dictate the terms of freedmen labor contracts with a large amount of leeway and little oversight or intervention from the federal government or the Bureau itself; and (3) white southerners fiercely resisted change [7, 8].

#### **Sharecropping and Tenant Farming**

The failed labor system following emancipation left poor whites and Blacks in a precarious condition during the Great Depression of the 1930s. Hence, sharecropping and tenant farming became their viable options to fee themselves and their families. Sharecroppers had, in general, no house, land, seeds, equipment, tools, or mules but they had the skill of farming by which they could feed their families. On the other hand, tenant farmers had some equipment, livestock, and in some cases a house, but had no land to farm. Therefore, they rented the land and provided their own tools and mule, and received one-half (or the negotiated portion) of the crop as payments. This period saw crop rota-

tion, terracing and other landscape modifications for increase in productivity of their lands.

The challenges for sharecroppers as well as tenant farmers, however, were: (1) the way their contracts were written and administered; (2) the sharecroppers and tenant farmers were illiterate and signed the contracts without knowing the details therein. Typically, these predatory agreements included cash advancements and other stipulations tried to the crop, and failure of meeting any of the contractual obligations resulted in reduction of their shares. In many cases, this practice kept them in perpetual debt and trapped them in the "crop-lien" credit system—a method used to obtain credit to purchase supplies from local country merchants and landowners, contingent to be paid back at the end of the season. This system was evidently an effective of method to control these farmers from getting ahead or to break even, while keeping the land and capital in the hands of white landlords.

#### **Convict Lease System and Peonage**

The Black Codes in Georgia (as in other Southern states) enabled the convict lease system for offenders, while the everlasting debt burden among sharecroppers/tenant farmers resulted in peonage—two forms of involuntary servitude from Elbert County explained how these two systems coexisted in his autobiography: A great big chimney, with a wide, open fireplace, was built at one end of it, and on each side of the house, running lengthwise, there was a row of frames or stalls just large enough to hold a single mattress. The places for these were fixed one above the other; so that there was a double row of these stalls or pens on each side. They looked for all the world like stalls for horses. ... one bright day when about forty able-bodied negroes, bound in iron chains, and some of them handcuffed, were brought out to the Senator's farm in three big wagons. They were quartered in the long, low shanty, and it was afterward called to stockade. This was the beginning of the Senator's convict camp. These men were prisoners who had been leased by the Senator from the State of Georgia at about \$200 each per year, the State agreeing to pay for guards and physicians, for necessary inspection, for inquests, all rewards for escaped convicts, the costs of litigation and all other incidental camp expenses. When I saw these men in shackled, and the guards with their guns, I was scared nearly to death. I felt like running away, but I didn't know where to go. And if there had been any place to go to, I would have had to leave my wife and child behind. We free laborers held a meeting. We all wanted to quit. We sent a man to tell the Senator about it. Word came back that we were all under contract for ten years and that the Senator would hold us to the letter of the contract or put us in chains and lock us up--the same as the other prisoners. It was made plain to us by some white people that in the contracts we had signed we had all agreed to be locked up in a stockade at night or at any other time that our employer saw fit; further, we learned that we could not lawfully break our contract for any reason and go and hire ourselves to somebody else without the consent of our employer; and, more than that, if we got mad and ran away, we could be run down by bloodhounds, arrested without process of law, and be returned to our employer, who, according to the contract, might beat us brutally or administer any other kind of punishment that he though proper. In other words, we had sold ourselves into slavery--and what could we do about it? The white folks had all the courts, all

the guns, all the hounds, all the railroads, all the telegraph wires, all the newspapers, all the money, and nearly all the land--and we had only our ignorance, our poverty and our empty hands. We decided that the best thing to do was to shut our mouths, say nothing, and go back to work. And most of us worked side by side with those convicts during the remainder of the ten years.

Though Georgia General Assembly abolished the convict lease system, it opened doors for the state-run chain gangs so that prisoners (both men and women) can be used to public roads projects—to improve county roads and highways, that gave a jump start to tourist economy and modern transportation system in an economic way. The chain gang was abolished in 1943, yet prisoners continued to work on farms, roads, and construction projects throughout the state of Georgia until 1960s, which called for early prison reform movements. In 1963, Carl E. Sanders, then governor of Georgia authorized the State Division of Vocational Rehabilitation Center for young adult public offenders at the Georgia Industrial Institute (GII) at Alto the Georgia Department of Transportation (DOT) stopped using road gangs in 1973 and, protests outside the Stat Capital in 1978 demanded that prisoners should be paid wages for their labor [9-11].

Farming below depicts slaves working on rice fields near Savannah's Ogeechee River, being supervised by a white man. Vignettes surrounding the main illustration show the stages in rice cultivation—ditching, flooding, reaping, and threshing [12]. The peak of this activity was in 1860 with a recorded 1.6 million ponds of rice shipped from Bryan Neck plantations along the river. Subsequent challenges of labor shortage (following Civil War), destructive hurricanes in 1880s caused the end of rice cultivation in Ogeechee in 1900.

Indigo was a popular commercial crop, used for blue dye, in late 1700s. It was viewed profitable as two to three productive crops could be harvested in a year. It required the intense labor from July through September for harvesting and fermenting in large open vats and extracting the dye see the illustration below). However, this was a noxious processing (fermentation, oxygenation, and precipitation) and toxic to the enslave indigo workers, reducing their ability to work indigo processing to merely five to seven years.

Indigo and rice complemented each other as agricultural crops since indigo grew in upland settings and had to be worked during a different season than rice, although indigo never reached the importance of rice. Corn and other crops were also grown in the uplands, and livestock were pastured on unused swamp or uplands [13].

Cotton became primary commercial crop in the early 19th century, especially in the eastern portion of central Georgia. It allowed diversified economy from farming and handcrafts to a regime of commercial plantations [14]. The downside of cotton growing was that it was extremely exhaustive of soil nutrition, as result, most cotton fields were used for only a period of three to five years. As cotton fields became exhausted, new lands were cleared and new fields were established, and new slave villages were built alongside. See the illustration below from [15].

In later 19th century, the middle and southern Georgia farmers sought sugarcane to replace cotton, and the production of sugarcane tripled in acreage between 1875 and 1890. This period also saw the introduction of several varieties of peaches that are attractive, large and solid and the Georgia Department of Agriculture reported that E.W. Hiley of Fort Valley owned the largest peach orchard of over 2,000 acres that accommodated nearly 350,000 trees and required over 800 seasonal pickers. Wiregrass county championed in growing strawberries and watermelon. Coastal farmers in Georgia grew Irish potatoes, cabbage and beets. Pecans, though started in small scale near Savannah in 1886, its production increased dramatically by 1910 and over 30,000 commercial pecan trees spanning over several thousand acres appeared throughout Georgia [16].

The soil depletion, combined with the dramatic reduction in agricultural labor force after civil war (1861-65), depression in cotton prices after World War I (1917-18) and the yield losses associated with the pest "boll weevil" since 1915 as well as the outdated and damaging farming practices (e.g., plowing furrows without paying attention to the land's contour and intertilling) forced farmers to crop rotation, crop diversification, soils management, reversible plows, and federal initiatives (e.g., Agricultural Adjustment Act of 1933; Soil Conservation and Domestic

Allotment Act of 1936; and, Bankhead-Jones Farm Tenant Act of 1937) to acquire distressed farmland for the purposes of rehabilitating them and using them for such purposes like forestry and other civic activities; and, to reward/subsidize farmers for leaving land fallow for soil conservation and erosion prevention [17]. Around the same time, the Bankhead-Jones Act was enacted (in 1935) to provide increased federal funding to land grant colleges to advance knowledge by experimental inquiries.

By 1940s, Georgia farmers began growing soybeans, cowpeas, corn, wheat, rye, barley, and sorghum, which helped to bolster the livestock. Two crops, tobacco and peanuts, were proved to replace cotton, primarily in South Georgia. Tobacco success was restricted to some extent by a shortage of warehouses and re-drying plants combined with legal restrictions stemming from the Kerr-Smith Tobacco Control Act of 1934. Peanuts, because of the demand for vegetable oils, became profitable to Georgia farmers, who devoted 1.5 million acres for peanuts by 1942. Since then, Georgia produced and harvested most of any State. The USDA's National Agricultural Statistics Service (NASS), Georgia produced 2.9 billion pounds, accounting for more than 50% of all peanut production in the nation (5.57 billion pounds) in 2022, as shown in Fig. 1.

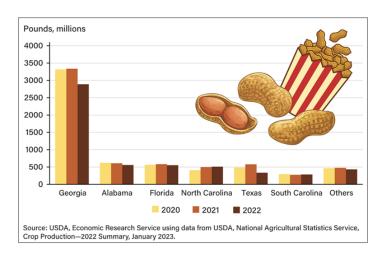


Figure 1: Peanut-producing States, 2020-2022

## **Discussion**

How has the evolution of Georgia's agriculture shaped its social landscape and what roles did convict lease system, abusive contracts, and the passive attitudes of former slaves play? The combination of factors like convict lease system, abusive contracts and passive attitudes of former slaves led to a deeply stratified society in Georgia. The African American (who were called Negro) slaves, men in particular, were viewed to be strong, inexpensive, and worthy to be servants for life. Hence, the convict lease system and abusive contracts ensured a steady supply of cheap labor, while the passive attitude of former slaves allowed these systems to persist with minimal resistance. This created a social order where economic power remained concentrated in the hands of a few, and racial and economic inequalities were perpetuated. Moreover, there were differences between slaves and poor whites, though they both economically disadvantaged. White males frequently engaged in easier jobs and were paid

relatively well. When they worked in the fields, their women and children waited in wagons. On the other hand, black women and children hoed, chopped cotton, weeded and helped clear swamps. While the whites worked during summer and begged in winter, slave men were leased to the railroad in winter and slave women worked as house servants.

After the Civil War, the failed labor system (due to emancipation) and Great Depression led to sharecropping as a compromise between landowners and laborers, which had a profound impact on Georgia's social fabric, particularly in the late 19th and early 20th centuries. It not only trapped African American and poor white farmers in cycles of debt and poverty but also perpetuated racial and social stratification. Despite the hardships, sharecropping also fostered a sense of community among sharecroppers. Families often worked together, and communities formed around shared experiences and mutual support.

However, the constant threat of debt and eviction created instability and insecurity. As a result, several education initiatives, legal reforms, and labor organizations took place to create better working conditions and fair wages. Today, Georgia's agricultural landscape is highly diversified, with significant advancements in technology and sustainable practices. Yet, the legacy of some of these historical practices continues to influence social and economic dynamics in the state.

#### Conclusion

Historical pitfalls in labor treatment and farming practices led to the constant decline in farmland and agricultural labor. Farmers, over time, learned how to manage their risk by relying on contracting, Federal crop insurance, etc. Moreover, the use of technology (e.g., genetically engineered seeds, larger and faster equipment, information and GPS technologies, and precision agriculture tools such as yield monitors to match seed, fertilizer, and pesticide applications) along with soil management practices and crop residue management (ranging from no-till or conservation tillage systems, control of diseases, pests, and weeds to improve soil quality, water resources, and production efficiency) changed the production practices while reducing labor requirements. Wrote that, "there are fewer farms in Georgia than there were a generation ago, yet the value of agricultural products sold in the state shot up \$9.25 billion in 2012...What Georgians grow and how they grow it has changed dramatically as well, whether it's a precipitous drop in cattle and pigs or equally significant spikes in poultry [18]. What's being harvested from the state's famous red dirt, too, is different: Corn is down, and tobacco has plummeted, while cotton remains steady [19, 20]. The most explosive grown in the state, perhaps, has come from blueberries." Recognizing the advantages of technology to large-scale farmers, he illustrated that, "The Coleys have self-driving tractors that can increase their yield by 10 percent, sensors buried throughout the farm to manage irrigation and soil consultants who pinpoint which fields need what kind of fertilizer and when. ... Rather than water or fertilize entire fields, the sensors and consultants allow for exactness that didn't exist when Chuck Coley first started helping his father [21]. In 2013, the top five valuable agricultural commodities produced in Georgia were: chicken broilers, cotton, eggs, timer, and corn; and, the five agricultural commodities with greatest growth in value over the past five years (2008-2013) were: blueberries (413%), barley (338%), hogs and feeder-pigs (281%), okra (178%), and pecans (151%). One small but growing sector in Georgia is the all-natural organic farm.

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