

For His People: George Washington Carver and Organic Agriculture

Most people probably first learned about George Washington Carver in elementary school, when they read one of the many children's books published about the "Peanut Man." More recently, interest in Carver has centered on another aspect of his life's work—the promotion of farming methods that would be considered "organic" today. Black activists in the urban gardening movement have highlighted Carver to convince young African Americans that growing their own food isn't going back to slavery, but is an act of resistance and freedom.

Several recent narratives of Carver portray him not just as an advocate of organic farming methods, but as the founder of the organic system. Sociologist Monica White calls Carver the "father of sustainable agriculture" in her 2018 book *Freedom Farmers: Agricultural Resistance and the Black Freedom Movement*. In her 2018 book *Farming While Black: Soul Fire Farm's Practical Guide to Liberation on the Land*, urban farmer/activist Leah Penniman goes one step farther and claims that "'organic farming' was an African-indigenous system developed over millennia and first revived in the United States by a Black farmer, Dr. George Washington Carver."

While the theory that Carver either invented organic farming or brought it to the United States from Africa is intriguing, the reality is much more complicated. As environmental historian Mark Hersey argues in his 2011 book *My Work Is That of Conservation: An Environmental Biography of George Washington Carver*, "Carver merits a place in discussions of the conservation movement not because he articulated an original and profound environmental philosophy, but because he was the most important influential African American conservationist of his day and because his work highlights a neglected aspect of the larger movement."

So what *is* Carver's connection to organic farming?

Overcoming Prejudice

George Washington Carver (1864?-1943) was born to a slave woman owned by a Missouri couple named Moses and Susan Carver, probably just before the end of the Civil War. He and his mother, Mary, were kidnapped when he was a baby, and Moses Carver hired a man named George Bentley to rescue them. Bentley was unable to locate Mary but brought baby George back to Moses and Susan, who paid him a racehorse for his services. The Carvers adopted George and his older brother Jim and raised them like they were their own children.

As a boy, George was weak and sickly, so his adopted parents exempted him from field work and other hard labor. He spent much of his childhood roaming the woods and fields, collecting plant, insect, and mineral specimens. Schoolwork fascinated George, too; he did most of his studying from books at home because there was not a school for African Americans in his hometown. At age twelve he moved to a nearby town with a Black school, but the quality of education there was so poor that he already knew more than the teacher.

Carver moved to Kansas in the late 1870s, working various jobs doing laundry and other domestic work. He kept up with his school studies and easily passed the entrance exams to Highland College in Kansas in 1885, but was refused admittance when he arrived because he was Black. With hopes for a higher education dashed for the time being, Carver tried his hand at homesteading in Kansas, then moved to Iowa. He enrolled in Simpson College in Iowa in 1890 and this time was able to attend and was treated well by the other students, though he had to live in an abandoned shack because no one would board him because of his skin color.

In 1891, Carver transferred to the Iowa Agricultural College in Ames to pursue a degree in scientific agriculture. He was the first African American student in the college and again had trouble finding a family to room with, so his advisor, Louis Pammel, arranged for him to live in an empty office in return for doing janitorial service. Within a year, Carver was accepted by the other students, was active in campus organizations, and was able to devote time to collecting botanical specimens and painting, his two favorite hobbies. By the time he graduated, he had been accepted by the community and was boarding in a home like the other male agricultural students.

At Iowa Agricultural College, Carver learned the most up-to-date information about modern agricultural methods and theories. His advisor, Louis Pammel, was one of the leaders of a new scientific discipline in the United States—ecology, the study of the relationship between organisms and their environment. Carver was a gifted student and kept a 3.9 grade point average in his plant science classes. After getting his bachelor's degree in agriculture in 1894, Carver studied as a botany graduate student under Pammel and earned his master's degree in the fall of 1896.

With his academic talent and acceptance by the community, Carver could easily have gone on to get a PhD in botany, becoming a professor and staying at the cutting edge of plant science research as the twentieth century dawned. But Carver hadn't studied agriculture for his own personal prestige. From the time that he first left Simpson to start at IAC, Carver had another goal in mind—to help his own people learn better farming methods and work their way out of poverty. “He was to be a missionary to the impoverished Black farmers of the South, bringing them a gospel of scientific agriculture that promised a better life,” Hersey explained.

With this goal in mind, Carver jumped at the opportunity when Booker T. Washington offered him a professorship at Tuskegee Institute in Alabama—to head the entire agricultural department. He accepted the position in 1896, and as soon as he completed the work for his master's degree, Carver left Iowa and headed farther south than he had ever been before, to the very different physical and social environment of Macon County, Alabama.

Tuskegee

Tuskegee Institute was established in 1881 by Booker T. Washington (1856-1915), who described the struggles he faced in the Institute's early years in his 1901 autobiography, *Up From Slavery*. When he first arrived in Macon County, Washington was appalled at the living conditions of the average Black sharecropper. Many families lived in one-room cabins and ate mostly “fat pork and corn bread,” which they bought at the store instead of growing food for themselves. Washington reported that “the one object seemed to be to plant nothing but cotton; and in many cases cotton was planted up to the very door of the cabin.”

Starting with nothing but an abandoned plantation, Washington and his students literally built Tuskegee Institute from scratch. “From the very beginning, at Tuskegee, I was determined to have the students do not only the agricultural and domestic work, but to have them erect their own buildings,” Washington explained. “My plan was to have them, while performing this service, taught the latest and best methods of labour.” With “no money and no experience,” Washington and his students even learned to make their own bricks for the buildings.

Considering that he had started with literally nothing only fifteen years earlier, Washington had made a lot of progress at Tuskegee by the time Carver arrived. But the college's buildings and equipment were still quite primitive compared to the facilities that Carver was used to at Iowa Agricultural College. Despite the fact that he was head of the college's entire

agricultural program, Carver's request for two private rooms—one for living in and one for his botanical collections—was dismissed as arrogant and selfish. Like all other single men on the Tuskegee staff, Carver was expected to share a room with someone else.

The initial workload seemed overwhelming to Carver, too. As head of the college's agricultural program, Carver was expected to oversee the entire agricultural experiment station, grow crops, feed animals, maintain buildings, analyze soil samples, keep detailed records, be self-sufficient as far as funding was concerned, and teach six classes a semester. Carver was often at odds with Washington and the other agricultural leaders at Tuskegee, who saw no practical value in collecting botanical specimens or other typical scientific pursuits and felt like he had an attitude of superiority because he had more education than anyone else.

Despite these unfavorable circumstances, Carver still managed to shape the agricultural program at Tuskegee into something respectable and practical, if not quite as sophisticated as the agricultural programs at typical land grant universities. At first, as Hersey notes, "much of what Carver taught in the classroom and demonstrated in the fields was fairly conventional." Carver conducted typical experiments using chemical fertilizers on cotton, sweet potatoes, and other crops, publishing the results in bulletins like the 1898 *Experiments with Sweet Potatoes* that recommended phosphate and potash fertilizers.

Faced with a lack of funding, Carver soon found it impossible to purchase enough commercial fertilizers to continue these types of experiments. Besides, most of the impoverished Black farmers that he was trying to help couldn't afford them, either. Purchasing fertilizers, along with buying food instead of raising it themselves, kept them beholden to their landlords and made it nearly impossible for them to break out of the cycle of tenancy and sharecropping and purchase their own agricultural land.

Gradually, over the next decade, the information that Carver offered to the farmers of Macomb County shifted from standard lists of purchased inputs to an emphasis on self-sufficiency—growing and preserving vegetables, diversifying farm operations, and making use of wild plants for food, feed, and fertilizer. Mixed with the ecological principles he had learned from Pammel and heavily influenced by the nature study movement of the Progressive era, Carver helped develop a farming system that he believed could help African American farmers in Macomb County work their way out of poverty and tenancy into success and, eventually, land ownership.

Nature's Bounty

Like other agricultural experiment stations, one of Carver's responsibilities at Tuskegee was to publish agricultural bulletins. The information in these bulletins was similar to what was being published by other institutions at the time. In his first bulletin, published in 1898 and entitled *Feeding Acorns*, Carver acknowledged that he had "freely used the ideas and, in some cases, without especial reference their language" of other experimental station publications.

What was most unique about Carver's bulletins was not their content, but their readability. Carver knew that his target audience—the African American farmers of Macon County—would not be familiar with the terminology used in most agricultural publications. He used "but few technical terms" in his bulletins and defined those he did use in clear, simple language.

One established agricultural concept that Carver explained to his readers was "soil improvement." This was an older term, dating back to a movement in the 1840s that emphasized terraces, green manure, integrated livestock and crop farming, crop diversification, and other

sound agricultural practices. In his 1905 bulletin *How to Build Up Worn Out Soils*, Carver explained that he had used only a one-horse plow and other inexpensive equipment to fit the Tuskegee fields “to keep every operation within reach of the poorest tenant farmer occupying the poorest possible soil.”

Much of the soil in Macon County was worn out and gullied, so Carver explained soil improvement or conservation practices in terms that were easily understandable by the layman. He encouraged farmers to build terraces, plow deeply, and, most importantly, “put plenty of vegetable matter into the soil.” Increased soil organic matter would “hold more water by absorbing it like a sponge,” bind “soil particles together,” and retain “the plant food put into the soil in the form of fertilizers, manures, etc.”

Realizing that chemical fertilizers were unaffordable for many farmers, by the 1910s Carver was emphasizing the use of farmyard manure and compost to maintain and improve soil fertility. In many of his bulletins he gave instructions for making compost piles by layering swamp muck and leaves with farmyard manure, ashes, “and any other matter that will decay quickly.” “A year-round compost pile is absolutely essential and can be had with little labor and practically no cash outlay,” he wrote in his 1936 bulletin *How to Build Up and Maintain the Virgin Fertility of Our Soils*.

To improve the health of soils, animals, and people, Carver encouraged farmers to plant a diversity of crops, not just a monoculture of cotton. He wrote bulletins telling people how to grow, harvest, and cook crops like cow peas, sweet potatoes, and peanuts. Carver also encouraged every farmer to have a vegetable garden and wrote bulletins about how to grow vegetables and preserve them by canning, drying, and fermentation.

“There is probably no other section of the country where farmers can live more cheaply, healthily, and happily than here in the South, where choice vegetables of some kind can be had every day in the year, fresh from the garden,” Carver wrote in a 1916 bulletin called *Three Delicious Meals Every Day for the Farmer*. “Fresh fruits and vegetables have a medicinal value, and when wisely prepared and eaten every day will go a long way towards keeping us strong, vigorous, happy, and healthy, which means greater efficiency and the prolonging of our lives.”

Carver also emphasized foraging for wild foods to supplement what was grown in the garden. “Nature endows or blesses each State or section with an indigenous flora and fauna best suited to that particular soil and climatic conditions,” he wrote in a 1917 bulletin called *43 Ways to Save the Wild Plum Crop*. “Applying the above to Alabama, Macon and adjoining counties have been unusually blessed in the quantity, variety and quality of its wild plums.” He even wrote a whole bulletin about edible weeds, published as *Nature’s Garden for Victory and Peace* in 1942.

Carver’s Legacy

Carver’s bulletins and hands-on extension education helped many Black farmers in Macon County improve their farming practices and, in some cases, eventually purchase their own land. Land ownership among African American farmers in Macon County went up from five percent in 1900 to thirteen percent in 1910, thanks largely to the Tuskegee extension program. But the years after World War I were hard for all farmers, and many—both Black and white—lost their land and had to move to the cities. Tenant farmers suffered more than those that owned their land, and the political and economic climate in the South disproportionately disadvantaged Black farmers, especially those that were tenants or shareholders. The educational efforts of one scientist could not change these larger realities.

George Washington Carver's farming ideas were ecologically sound but not necessarily original; the reality is that there was much more interest in what we now call "sustainable" farming methods during the Progressive era than most people realize. But Carver may well be the only scientist of the era who gave up a promising academic career to use that information to help impoverished Black farmers improve their farming methods and living conditions. For his work and writings, he certainly deserves a place in the history of organic agriculture in the United States.

Always humble, Carver probably wouldn't want people to claim that he was the primary founder of the organic farming movement. But he would certainly be encouraged to see growing numbers of African Americans, even those who live in cities, returning to the soil and becoming more self-sufficient by growing their own food. That was the goal to which he devoted his life—to help his people become better farmers and reap Nature's bounty from the land.