

# GEORGE WASHINGTON CARVER

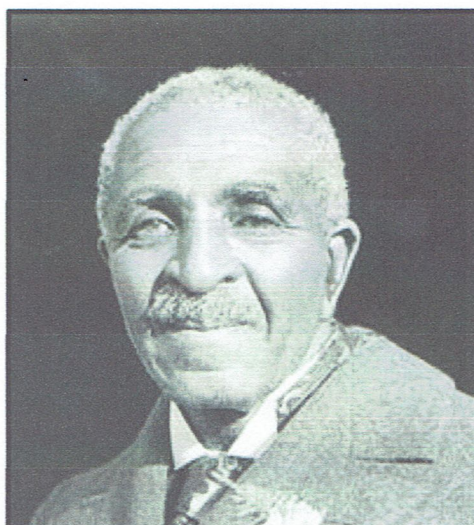
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(1) Do you like peanuts or peanut butter? If you do, then you have me, an agricultural scientist, to thank for that. In the late 19<sup>th</sup> century, I began solving agricultural problems and then began encouraging and teaching farmers how to grow crops that were different from the ones they were used to. I did this in the hopes of restoring the fertility of soils depleted by decades of intensive cotton farming. I also wanted to provide sustainable agricultural and economic practices for communities in the southern parts of the United States.

(2) I was born into slavery between 1861 and 1864 in Diamond, Missouri. No one has records of my exact date of birth. My parents were Mary and Giles and they were both purchased by a German American immigrant named Moses Carver on October 9<sup>th</sup>, 1855 for \$700. When I was just one week old my mother, my sister and I were kidnapped by slave raiders. Moses Carver hired a man to find us but was only able to locate me. Carver paid a ransom for my return. When slavery was abolished in 1865, I was no longer a slave, but I was still a motherless child. Carver and his wife, Susan, decided to keep me and raise me. Susan taught me basic writing and reading skills.

(3) I left the Carvers when I was around 10 years old because I wanted to go to school and Diamond did not allow blacks to attend public schools. I walked ten miles south to a town called Neosho where there was a school that taught black children. When I went to rent a room in town, I identified myself as "Carver's George" and the lady who owned the rental apartment called me George Carver and that's how I got my full name. The lady's name was Mariah Watkins and she said "You must learn all you can, then go back out into the world and give your learning back to the people". Those words were inspiring and I dedicated the rest of my life to this. Eventually I was ready to attend college, but none would accept me except Highland College in Kansas. However, when I stepped onto the campus and they saw that I was black, they took back their offer.

(4) I decided to get a piece of land in Beeler, Kansas and began growing various crops and picked up odd jobs to make money. In 1888, I got a \$300 loan from a bank to fund my education and in 1891, I became the first black student in Iowa State Agricultural College. I had a great interest in plants by this time so I



**George Washington Carver**  
Agricultural Scientist (1864-1943)

decided to study botany. After I obtained my bachelors degree, two of my professors encouraged me to stay to get my masters degree as well. I began to do research in plant pathology (diseases in plants) and mycology (the study of fungi). My research into these fields earned me a growing reputation as an up and coming botanist. I became a professor at Iowa State. At this point, you shouldn't be surprised to know that I was the first black lecturer the College ever had.

(5) In 1896, I was invited by Booker T. Washington to be the head of the Agriculture Department at the Tuskegee Institute in Alabama. Booker was the principal and president of the all black private school and was also a well known black leader. Booker wanted to gather a strong group of black economic, religious and educational leaders who could build strength and pride within the black community. I accepted Booker's offer and taught at Tuskegee for the next 47 years.

(6) My teaching and research at Tuskegee centered on different methods of agriculture. The focus was on preserving and increasing the fertility of soils, as well as innovations in crop growing. Most of the soils of the southern states had been drained of their nutrients due to many years of extensive cotton farming. Making matters worse, the boll weevil (an insect) began to infest cotton plants and



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destroyed large cotton crop harvests. I proposed planting alternative crops that would return fertility to the soil, be nutritious to farmers as well as become important cash crops that could put money in their pockets. I spread the idea that the peanut was the miracle crop everyone needed, and it was indeed miraculous!

(7) Most farmers did not know much about how to keep their soils fertile. Every year they would grow the same types of crops which would suck up nutrients from the soil, leaving the soil with less nutrients after each harvest. I knew that what was required was a method of crop rotation which involved alternating planting their traditional crops, with other crops that could return nutrients to the soil. Nitrogen-fixing plants, like legumes, could do

this but farmers weren't growing them; no one knew they should or could until I came along. I taught farmers that peanuts were the legumes that could solve their problems. Legumes have bumps on their roots called root nodules. Within the nodules are huge populations of symbiotic, nitrogen-fixing bacteria. They help create nitrates essential for plant growth. When peanuts are harvested, the peanut provides a nutritious as well as profitable crop for the farmer. The unharvested part of the peanut plant can then be plowed back into the soil where it will decompose and release its nitrates. When legumes are used this way, they are called "green manure". I am most well known for creating the peanut industry, but I think my most important contribution to science has been helping to create sustainable agriculture.