

# Black History Month and Agriculture

I was thinking about my column for Friday and realized that Dr. George Washington Carver would fit the bill of being important to agriculture in the US in conjunction with Black history month. Most of us learned in school that Dr. George Washington Carver had a lot to do with peanuts. I thought I would shed some light on that area and maybe some that you didn't know about Dr. George Washington Carver.

George Washington Carver was born a slave in about 1864 on the Moses Carver plantation in Diamond Grove, Missouri. His father died in an accident shortly before his birth. When he was still an infant, Carver and his mother were kidnapped by slave raiders. The baby was returned to the plantation, but his mother was never heard from again. Moses and Susan Carver reared George and his brother as their own children. Because he was not strong enough to work in the fields, he helped with household chores and gardening. He gathered and cared for a wide variety of plants from the land near his home and became known as the "plant doctor," helping neighbors and friends with ailing plants.

He began his formal education at the age of twelve, which required him to leave the home of his adopted parents. Schools segregated by race at that time with no school available for black students near Carver's home. He moved to Newton County in southwest Missouri, where he worked as a farm hand and studied in a one-room schoolhouse. He went on to attend Minneapolis High School in Kansas. College entrance was a struggle, again because of racial barriers. At the age of thirty, Carver gained acceptance to Simpson College in Indianola, Iowa, where he was the first black student. Carver had to study piano and art and the college did not offer science classes. Intent on a science career, he later transferred to Iowa Agricultural College (now Iowa State University) in 1891, where he gained a Bachelor of Science degree in 1894 and a Master of Science degree in bacterial botany and agriculture in 1897. Carver became a member of the faculty of the Iowa State College of Agriculture and Mechanics (the first black faculty member for Iowa College), teaching classes about soil conservation and chemurgy.

As a member of the faculty of Iowa State College of Agriculture and Mechanic Arts in charge of the school's bacterial laboratory work in the Systematic Botany department. His work with agricultural products developed industrial applications from farm products, called chemurgy in technical literature in the early 1900s. His research developed 325 products from peanuts, 108 applications for sweet potatoes, and 75 products derived from pecans. He moved to Tuskegee, Alabama in 1896 to accept a position as an instructor at the Tuskegee Normal and Industrial Institute and remained on the faculty until his death in 1943. His work in developing industrial applications from agricultural products derived 118 products, including a rubber substitute and over 500 dyes and pigments, from 28 different plants.

Carver has become revered for his focus on the poorest southern farmers and his creative chemistry which served to revitalize the economy of the South after the Civil War. He encouraged Alabama farmers to practice plant rotation and soil building techniques using nitrogen producing legumes like sweet potatoes and peanuts. To encourage this practice he developed over 400 products from the sweet potato and peanut. These and other products from pecans, cotton, and waste products virtually changed the economy of the South. Throughout his life he revered nature and felt his discoveries were from divine revelation and so belonged to everyone.

## *Discoveries*

- From peanuts, over 300 products including: milk, cheese, cream, coffee, plastics, paper, wood stains, flour, soap, linoleum, cooking oils, cosmetics, and medicinal massaging oils.
- From sweet potatoes over 118 products including: starch, tapioca, mock coconuts, molasses, breakfast foods, feed for livestock, dyes, flour, vinegar, ink, and synthetic rubber.
- From soybeans: flours, coffee, cheese, sauce, bisque for ice cream, oil, chick food, soup mixtures, bran, and stock food.
- From waste and native materials: rugs, table runners, table mats, scarves, fuel briquettes, floor mats, synthetic marble, wallboard, wood veneers from yucca and Florida palm, vegetable dyes, etc.
- From cotton: paving blocks, cordage, paper, fiber for rope, and many other products.
- From the clays of Alabama: face powder, pigments for paints, wood stains, wall papers, and calcimines.

## *Patents*

- Carver only patented three of his 500 agriculture-based inventions, reasoning, "God gave them to me, how can I sell them to someone else?"

- Cosmetic and process of producing the same, 1925, US Patent 1,522,176 (first peanut-derived cosmetics).
- Paint and stain and process of producing the same, 1925, 1,541,478
- Process of producing paints and stains, 1927, 1,632,365
- The full-text of these patents may be viewed at: <http://www.uspto.gov/patft/> by entering the patent number.

### *Recognition*

- Three U. S. postage stamps bear the name of George Washington Carver, a monument, a coin, a submarine was named in his honor, he has been inducted into the National Inventors Hall of Fame, and he is recipient of the NAACP Spingarn Medal and the Theodore Roosevelt Medal. In 1938, Carver was featured in *Life of George Washington Carver*, a Hollywood film. Dr. Carver was also an accomplished artist, painter and musician.
- His name will always be synonymous with the peanut but also with the legend of a slave who became one of the great men of the world.
- He was responsible for the invention in 1927 of a process for producing paints and stains from soybeans, for which three separate patents were issued.
- U.S. 1,522,176 *Cosmetics and Producing the Same*. January 6, 1925. George W. Carver. Tuskegee, Alabama.
- U.S. 1,541,478 *Paint and Stain and Producing the Same* June 9, 1925. George W. Carver. Tuskegee, Alabama.
- U.S. 1,632,365 *Producing Paints and Stains*. June 14, 1927. George W. Carver. Tuskegee, Alabama.

George Washington Carver was honored by U.S. President Franklin Delano Roosevelt in July 14, 1943 dedicating \$30,000 for a national monument to be dedicated to his accomplishments. The area of Carver's childhood near Diamond Grove, Missouri has been preserved as a park, with a bust of the agricultural researcher, instructor, and chemical investigator. This park was the first designated national monument to an African American in the United States. George Washington Carver was bestowed an honorary doctorate from Simpson College in 1928. He was made a member of the Royal Society of Arts in London, England. He received the Spingarn Medal in 1923, which is given every year by the National Association for the Advancement of colored People. The Spingarn Medal is awarded to the black person who has made the greatest contribution to the advancement of his race. Carver died of anemia at Tuskegee Institute on January 5, 1943 and was buried on campus beside Booker T. Washington.

Some of the synthetic products developed by Dr. Carver: \*

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|-------------------|--------------------|------------------------|
| • Adhesives       | • Instant Coffee   | • Soil Conditioner     |
| • Axle Grease     | • Insulating Board | • Shampoo              |
| • Bleach          | • Linoleum         | • Shoe Polish          |
| • Buttermilk      | • Mayonnaise       | • Shaving Cream        |
| • Cheese          | • Meal             | • Sugar                |
| • Chili Sauce     | • Meat Tenderizer  | • Synthetic Marble     |
| • Cream           | • Metal Polish     | • Synthetic Rubber     |
| • Creosote        | • Milk Flakes      | • Talcum Powder        |
| • Dyes            | • Mucilage         | • Vanishing Cream      |
| • Flour           | • Paper            | • Wood Stains          |
| • Fuel Briquettes | • Rubbing Oils     | • Wood Filler          |
| • Ink             | • Salve            | • Worcestershire Sauce |

\* Source: Hattie Carwell. *Blacks in Science: Astrophysicist to Zoologist*. (Hicksville, N.Y.: Exposition Press), 1977. p. 18.

For more information on Dr. George Washington Carver check out the following websites. The websites include one for a coloring book for children.

- <http://www.tuskegee.edu/Global/story.asp?S=1107203>
- <http://www.lib.iastate.edu/spcl/gwc/bio.html>
- <http://inventors.miningco.com/science/inventors/library/weekly/aa041897.htm>
- <http://www.nal.usda.gov/outreach/carver2.pdf>
- Coloring book website: <http://www.usda.gov/oo/colorbook.htm>

### ***WVDA Ag Safety Days February 22 – 25, 2010***

The West Virginia Department of Agriculture will provide free safety training to anyone attending the Ag Safety Days certification training classes at the WVU Tree Fruit Research & Education Center, Kearneysville, WV February 22 – 25, 2010 You must register before February 13, 2010 for this training. For more information contact Kathy Martin, Telephone 304-558-2209.

### ***Winchester Area Fruit Production School February 19, 2010***

The Winchester Area Fruit Production School will be held February 19, 2010 at the Best Western Lee-Jackson Inn Banquet Convention Center, Winchester from 8:00 am to 3:00 pm. There is a \$9.00 registration fee, payable at the door. Please call the Frederick Office at 540-665-5699 and let them know if you will be attending, so they have an accurate count to provide lunch. You must sign in by 8:30 am and sign out at the end to receive re-certification credit for attending. If you have questions contact Cyndi Marston [cmarston@vt.edu](mailto:cmarston@vt.edu) or by telephone 540-432-6029.

### ***2010 West Virginia Small Farm Conference March 1 – 4, 2010***

The 2010 WV Small Farm Conference is scheduled for March 1 – 4 at the Lakeview Resort and Conference Center in Morgantown, WV. This year's event features seven learning tracks:

- Fruit and Vegetable Production
- Value-adding
- Beginning Farmers
- Agri-tourism
- Energy
- Farmers Market Management
- Animal Production and Marketing

There are several special events scheduled during the week of the conference:

- Winter Blues Farmers Market – Monday evening, March 1st
- Better Process Control School – Monday and Tuesday, March 1&2
- Community Food Security Workshop and Seminar
- 2010 Agritourism Media Awards
- WV Specialty Crops Block Grant Poster Session

The conference tracks are designed to accommodate the diverse mix of experience, age, crop enterprise and interests of the region's small farmers. For more information and a registration form go to the following website: <http://smallfarmcenter.ext.wvu.edu/events/conference>

### ***Gardening 101 Program***

The Berkeley-Jefferson Master Gardener Association will be conducting a free gardening seminar on Saturday, March 13, 2010 from 9:00 AM until 2:30 PM at the Berkeley County Youth Fairgrounds. Participant check-in begins at 8:30 AM. The seminar, called Gardening 101, will cover the following topics:

- Setting up a Garden
- Seed Choices
- Starting Plants from Seeds
- Container Gardening
- Pests and Weeds
- Composting
- Rain Barrels

Participants are asked to bring a brown bag lunch. The Master Gardener Association will provide drinks and desserts. For more information or to register for Gardening 101, please contact the Berkeley County Extension Service office at (304) 264-1936 or go to <http://www.berkeleyextension.com>

### ***Garden Tips***

- Seed head-lettuce, cauliflower and celery (indoors)
- Clean dust from houseplants with a damp cloth

### ***Until next time ...Happy Gardening, and Farming!***

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