

Emmanuel Johnson, PhD (1943-Present)

Associate Professor, Plant Physiologist
Bowie State University (retired)

"Get involved where policies and decisions are made." Emanuel Johnson, 2006.

Overview

Emanuel Johnson loves working with plants. As a plant physiologist with the United States Department of Agriculture (USDA) for thirty-four years, Johnson worked primarily with plants that contain controlled substances. An expert on the physiology, biochemistry and environmental growth of plants that contain the cocaine alkaloid, Johnson has also worked with marijuana and opium poppies. Though he is now retired from his position at the USDA, Johnson continues to teach earth science, genetics, and courses on plant physiology and drug plants at Bowie State University. His love for plants and his ability to be of service to the community are the main reasons why he is dedicated to the environmental field. "I work with plants that are causing problems within the black community," Johnson says.

Early Life and Career

Johnson knew he wanted to work with plants ever since he discovered he had a knack for gardening as a child. After graduating from Oakland State University in Lowman, Mississippi with a bachelor's degree in biology in 1964, Johnson became a junior high school science teacher to avoid the draft. For the next four years, he taught general science there. Johnson then went back to school, earning a doctorate from North Carolina State in plant physiology. "I was drafted out of grad school," Johnson explains, "and I was out of state and couldn't get deferment. I had to go to Vietnam, where I served one year in the combat infantry and then went to Germany for 7 months."

After Johnson got out of the army, he worked as a lab technician for the USDA. As a graduate student, Johnson's studies concentrated on the effects of ozone on the biochemical properties of plants; after joining the USDA, he dealt primarily with issues of air pollution and plant science before later moving to controlled substances.

Importance of Mentorship to Career

Johnson received valuable guidance that aided in the development of his future career from one of his college professors. "He was instrumental in my recruitment to NC State," Johnson remembers, "and he supported me throughout my academic career there. My mentor insisted that I stay with the Department

of Agriculture because the number of minorities who specialized in plant science were so few.” Johnson, in turn, mentors other minorities in the field on a regular basis by assisting graduate students with doing research and writing dissertations, doing laboratory trainings, and through programs at the USDA.

Though Johnson spent 34 years working for the USDA, he considers his time spent there to be one of the lower points of his career. Johnson explains, “They tend to have poor record of maintaining minorities once recruited, and I would be one of the only minorities around. There was always a lack of communication between minorities and whites because they were so far apart. We were always told that ‘we can’t find minorities’ which was not true—the USDA didn’t have any intention of recruiting them. I worked there for 34 years, and it only got worse. I was the last black scientist in my area when I left.”

Contributions

Johnson’s experiences at the USDA did not dampen his fascination with plants, and he continues to share his passion with students at Bowie State. The highlight of Johnson’s career has been the process of learning how the mechanisms within plants actually work, physiologically and biologically. For minorities who seek careers in the environmental field, Johnson says, “Go out there and look for high positions in the environmental science field, because that is the only way you will have an impact. Get involved where policies and decisions are made.”