

George Miller Armstrong, 1893-1986

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George Miller Armstrong, plant pathologist, professor of botany, and department head, emeritus, Clemson University, died at his home at Clemson, SC, on March 4, 1986, after a career of over 60 years in the field of plant pathology.

George was born at Appleton, SC, in Barnwell County on November 13, 1893. He attended Clemson College on an agricultural scholarship and received a B.S. degree there in 1914. He later received an A.M. degree at the University of Wisconsin in 1917



and a Ph.D. under the guidance of Dr. B. M. Duggar at Washington University (St. Louis) in 1921. Between 1914 and 1921 he held several positions, including a graduate assistantship at Clemson College (1914-15), a teaching assistantship at the University of Wisconsin (1915-17), instructor of botany at Clemson College (1917-18), and extension plant pathologist at Auburn University (1918-19).

Dr. Armstrong served briefly in the United States Army in 1918 but was released soon after the armistice was signed on November 11, 1918. After he received the Ph.D., he remained at Washington University in the Shaw School of Botany as an instructor (1921-22) and as an assistant professor (1922-24). In the summers of 1920-22 he served as an inspector with the Bureau of Entomology and Plant Quarantine of the U.S. Department of Agriculture.

In 1924, he returned to South Carolina as head, Division of Boll Weevil Control, Pee Dee Experiment Station, Florence. In 1928 he was named head, Division of Botany and Bacteriology at Clemson College. The Division became a Department in the School of Agriculture in 1933. Dr. Armstrong held this position for 28 years.

His early research was concerned with cotton, which, at that time, was the leading cash crop in the southern United States. Early in his career he began to study Fusarium wilt of cotton in an effort to explain why wilt-resistant cultivars developed by private breeders in South Carolina were highly susceptible on certain farms in other parts of the State. He found that the various isolates of the wilt *Fusaria* were not as host-specific as previously thought, that all cotton isolates would cause wilt of burley tobacco, and that some cotton isolates would cause wilt of flue-cured tobacco. Similarly, some flue-cured tobacco isolates caused wilt of sweet potatoes. These early discoveries led to a lifetime of study of the wilt *Fusaria* and their host relationships. During World War II, he was joined in his research by his wife, Dr. Joanne Karrer Armstrong, who had also received her Ph.D. degree at Washington University under Dr. Duggar.

Just before his retirement, Dr. Armstrong suffered a serious

illness that ultimately resulted in the amputation of one leg. Even with this severe handicap he continued research for about 20 years after retirement.

After his retirement from Clemson in 1959, Drs. G. M. and J. K. Armstrong continued their work at Clemson for about 10 years, at times supported by grant funds and often with no support. When overcrowding at Clemson resulted in the loss of research space, they moved to the Georgia Experiment Station at Griffin, GA, where space was available. They continued their work there until early 1982 when they finally retired and moved back to Clemson. This research of more than 60 years resulted in the publication of many scientific papers, the clarification of the host relationships of most of the known wilt *Fusaria*, and an almost complete classification of these *Fusaria*.

In addition to his research contributions he was a dedicated teacher of introductory plant pathology and plant physiology for over 25 years. During this time he inspired an interest in plant pathology in a number of undergraduate students. He encouraged them to pursue a career in plant pathology, assisted them in obtaining fellowships or assistantships, and followed their careers with interest throughout his life.

Under his leadership, the plant pathology research and extension program at Clemson College developed from a one-man operation, almost entirely limited to work with cotton, to a well-balanced program that involved all the major crops of the state and 12 staff members at the time of his retirement. The teaching in plant pathology developed from a single undergraduate course to a program offering graduate degrees. Plant pathology was selected by the Graduate School as one of two departments to initiate the doctoral program at Clemson. Dr. Armstrong served as director to the first doctoral candidate to receive the Ph.D. at Clemson, although he retired before the awarding of the degree.

Dr. Armstrong was active in the American Phytopathological Society. He served as councilor (1939-41) and as president, Southern Division (1939). He was voted an APS Fellow in 1973. He continued as a member of the American and International societies long after his retirement. He and Mrs. Armstrong attended the International meetings in Munich just before his 85th birthday. He was also a member of the following professional organizations: South Carolina Academy of Science (president, 1955), American Association for the Advancement of Science, American Society of Plant Physiology, Botanical Society of America, Acacia, Phi Kappa Phi, Alpha Zeta, Tobacco Workers' Conference (chairman, 1952-53), and Cotton Disease Council (chairman, 1936-38); he was also a member of the Rotary Club. Dr. Armstrong was active as an adult leader in the Boy Scouts of America for many years and received the Silver Beaver Award in recognition of his work.