## Carlyle Wilson Bennett, 1895-1981

J. S. McFarlane



Carlyle W. Bennett, retired plant pathologist with the U.S. Department of Agriculture, was born June 8, 1895, in Narrows, Kentucky, and died March 6, 1981, in Salinas, California. His death brought to a close a long and distinguished career in virus pathology. He received a B.S. degree in agriculture from the University of Kentucky in 1917, and started work on his M.S. degree at Michigan State University that fall. At that time, little research had been done on plant viruses; he later remarked that he had

been able to read most of the world literature on virus diseases of plants in one afternoon. His education was interrupted by service with the U.S. Army between June and November 1918. He was awarded the M.S. degree from MSU in 1919 and received a Ph.D. degree in plant pathology from the University of Wisconsin in 1926.

After completing the M.S. degree, he served as assistant professor and research associate at MSU until 1929. While at Michigan State, he taught courses in plant diseases and was in charge of investigations of diseases of deciduous fruits. This research led to horticultural practices that improved fruit production throughout the state. In 1929, he joined the Ohio Agricultural Experiment Station at Wooster for a year before accepting the position of plant pathologist with Sugar Plant Investigations, Bureau of Plant Industry, U.S. Department of Agriculture, at Riverside, California. He transferred to Salinas, California, in 1954 and continued with the Department of Agriculture until retirement in 1965. At Salinas, he also served as Superintendent of the U.S. Agricultural Research Station.

At Riverside and Salinas Dr. Bennett worked on curly top, yellows, and other virus diseases of sugar beet. His major studies were on the relation of viruses to insect vectors and to plant tissues. He initiated research on the transmission of viruses and on the movement of viruses through different types of plant tissue. He did pioneering work on the correlation between virus movement in the phloem and the transport of carbohydrates, contributed extensively to the literature on plant viruses, and earned an international reputation in his field of research.

In 1939, the U.S. Department of Agriculture sent him to Argentina to investigate sugar beet diseases in the province of Tucumán and in the Río Negro Valley. During this assignment, he found an extremely destructive disease that was caused by an agent transmitted by a previously undescribed leafhopper. This disease was called yellow wilt and later caused great damage to the sugar beet industry of central Chile. In 1946, he was temporarily assigned to Brazil to investigate the tristeza disease of citrus that had destroyed over 7 million orange trees in 10 years. In cooperation with Brazilian scientists, this disease was found to be caused by a virus that had probably been transported to Brazil from South Africa. The vector proved to be the oriental citrus aphid.

Resistant root stalks were discovered and their utilization has restored the Brazilian citrus industry to its former importance. After retirement in 1965, he served as collaborator with the U.S. Department of Agriculture and also was a consultant with the Beet Sugar Development Foundation from 1965 to 1971. This assignment took him to Chile where he investigated the yellow wilt disease and started a resistance breeding program. He was also invited to write review papers on plant viruses including Phytopathological Monograph No. 7, "The Curly Top Disease of Sugarbeet and Other Plants," which was published by the American Phytopathological Society in 1971.

Dr. Bennett served as president of the Pacific Division of the American Phytopathological Society in 1937. He was also a member of Alpha Zeta, Phi Sigma, the American Society of Sugar Beet Technologists, the Indian Phytopathological Society, the Botanical Society of America, and the American Association for the Advancement of Science. He received the Meritorious Award from the American Society of Sugar Beet Technologists in 1959, the Superior Service Award from the U.S. Department of Agriculture in 1957, and was made a Fellow of the American Phytopathological Society in 1966. He was also named a Fellow of the American Association for the Advancement of Science and of the Indian Phytopathological Society. The Sugarbeet Investigations Research Unit received two Merit Awards from the U.S. Department of Agriculture, one for developing curly top resistant cultivars and the second for development of monogerm seed. Dr. Bennett was a participant in the research that earned these unit awards. In 1965, he received the Distinguished Alumni Centennial Award from the University of Kentucky.

Outside his chosen field of science, Carlyle Bennett took an active part in community activities at both Riverside and Salinas. He was a member of the Rotary Club and served a term on their Board of Directors. After retirement, he made a thorough study of his family's genealogy. His early ancestors had arrived in America prior to the Revolutionary War and he was able to trace several lines of his American heritage through ten generations. To do this, he and his wife, Yvonne, drove thousands of miles, walked through many cemeteries, interviewed local historians and family members, and pored over records in dozens of county court houses and libraries. Utilizing information gathered on these travels, he wrote and published a genealogy of his mother's family entitled: "Matthias Schultz and His Descendants."

He was married to Marjorie A. Gardner in 1930 and she died in 1954. In 1961, he married Yvonne Bergen, who survives him and still lives in Salinas, California.

Dr. Bennett was highly respected by all who knew him and was an inspiration to his colleagues. He was unselfish, compassionate, and a person of high integrity. Being a modest person, he tended to understate his capabilities and many accomplishments. He had a great sense of humor and a large repertoire of stories which were thoroughly enjoyed by his many friends and associates. He will be greatly missed by his family, friends, and professional colleagues.