

Arthur Brotherton Burrell

February 20, 1902 — May 5, 1987

Arthur Brotherton Burrell died at his home near Peru, New York on May 5, 1987 at the age of eighty-five. He was born in Cleveland, Ohio, February 20, 1902, the son of George W. and Evelyn A. Burrell. The family moved to east Cleveland where he attended public schools and graduated from Shaw High School in 1920. During the next four years he studied at Ohio State University, Columbus, and received a Bachelor of Science degree in horticulture with the class of 1924. At various times during summers in his undergraduate days at O.S.U. he worked in Ohio orchards and nurseries where he learned much about growing woody perennial fruits and the problems involved in growing apples.

In February 1925 he entered the Graduate School of Cornell University, where he majored in the field of plant pathology with minors in pomology and plant physiology. Dr. H. Earl Thomas, then a professor in the department and specialist on diseases of deciduous fruits, supervised Burrell's graduate studies.

Burrell completed requirements for a Ph.D. in plant pathology at Cornell in June 1931 with a doctoral dissertation entitled, "The Cork and Rosette Diseases of Apple in the Champlain Valley of New York". Shortly afterward in 1931, he was appointed assistant professor in the Department of Plant Pathology and professor in 1938. He retired in 1959 so that he could give full attention to and continue experimental work long in progress in his orchards in the Champlain Valley.

The story of his successful venture in apple growing in the Champlain Valley is briefly given here because it shows what a well-trained individual with courage, desire and determination can accomplish when faced with problems involved in growing apples, especially one known serious problem that awaited investigation.

In 1926 officials of the Champlain Valley Fruit Growers Association offered Cornell funds (fellowship) to support work on a long known apple problem known as "Cork" or Steven's disease which interfered with growth of apple trees and rendered the fruit worthless. Arthur Burrell, because of his experience and desire to investigate the problem, was chosen. In 1927, encouraged by Professor H.H. Whetzel of the Department of Plant Pathology, he rented a run-down orchard near Peru, New York for a period of five years where he was free to carry on necessary experimental work without interference. Working from April to mid-October each year he obtained results which proved to neighboring apple growers that their disease and insect problems could be brought under control. Burrell's tremendously important discovery was that the lack of available boron, at least in some Champlain

Valley soils, resulted in the development of the destructive Cork-Rosette diseases of apples. In addition to the discovery of the importance of boron, his studies concerned the importance of balanced nutrition, available soil moisture, beekeeping and pollination, concentrated spraying of trees for insect and foliage disease control and orchard management in general showing that all were important for success in growing apples. As a result of his research, some of it in collaboration with other researchers in the College of Agriculture and the State Agricultural Experiment Station at Geneva, apple yields in the Peru area were doubled in five years. Burrell's orchards served as a laboratory over the years for demonstrating new scientific findings. These findings were largely responsible for the growth of the apple industry in the Champlain Valley. His discovery of effects of boron deficiencies also led to applications of boron to apple orchards in many parts of the world.

Professor Burrell was highly thought of by his peers. He was a member of the honorary societies of Sigma Xi, Phi Kappa Phi, Phi Delta Gamma, and Sigma Rho. He was a fellow of the American Association for the Advancement of Science.

He was well known for promoting agriculture in New York State for half a century as an investigator, scientist, educator, grower of apples and promoter of innovations in fruit farming. In 1960 he received a citation from the New York State Horticultural Society and in 1973 from the New York State Agricultural Society for his outstanding contributions to the apple producing industry.

He was a member of the American Pomological Society, the American Society of Horticultural Science, an honorary life member of the Quebec (Canada) Horticultural Society and active in the Audubon Society. He was a member and past president of the New York State Horticultural Society and the Northeastern Division of the American Phytopathological Society.

Professor Burrell was a member for several years of the New York State Conference Board of Farm Organizations; a four-year member of the Advisory Council of the New York State College of Agriculture and Geneva Experiment Station; chairman for ten years of a Committee on National Legislation, Clinton County Farm Bureau; member of Governor Rockefeller's Advisory Council on Migrant Labor; member of the Advisory Council on Continuing Education, Plattsburgh State University College; and a member of the Champlain Valley Physicians Hospital Medical Center Corporation.

Burrell was an invited speaker at meetings over the years of the Horticultural Societies of the New England states, New York, New Jersey, Pennsylvania, Virginia and Michigan.

For twenty years, Arthur and his wife, Virginia, took annually, as many as 300 students in the elementary grades of the Peru, New York Central School, on educational tours of the Burrell orchards and controlled atmosphere facilities during harvest. In June 1987 the elementary grades of the school held a memorial ceremony for Arthur Burrell and planted two apple trees on the school campus and placed a granite marker reading: "In Memory of Dr. A.B. Burrell". Also the Clinton County Historical Society in setting up a mobile exhibit for the Bicentennial Year Celebration selected ten people who have made major contributions to the development of the Champlain Valley area, and Dr. Arthur Burrell is one of those ten.

Professor Burrell is survived by his wife of fifty-six years, Virginia (Whiting) Burrell; a son George; a daughter Marjorie; a brother; a sister; two grandchildren, and two nephews.

Leon J. Tyler