

JOHN A. MILBRATH - 1909-1974

H. R. Cameron and Roy A. Young



John A. Milbrath died in a Portland, Oregon, hospital on July 22, 1974 after an extended illness. He was known internationally for his research on fruit tree and ornamental plant viruses. He had been a member of the Oregon State University Department of Botany and Plant Pathology from 1937 until medical retirement in 1968.

John Milbrath was born in Marlin, Washington, on September 23, 1909, was graduated from Walla Walla High School and received a B.S. degree from Washington State College in 1934. In 1938, he received a Ph.D. degree from Oregon State College, one of that college's first doctorates.

John was raised on a wheat ranch in Washington and while in high school he engaged in a certified seed potato project. This won him a \$100 Union Pacific College Scholarship which encouraged him to attend Washington State College. During the summer he worked as an assistant field aide for the U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine and interrupted his college study in 1932 to work full time for the USDA at Twin Falls, Idaho, and Davis, California. After completing his undergraduate training, he accepted a graduate research assistantship at Oregon State University with Dr. Frank P. McWhorter to investigate a virus disease of tomato.

Dr. Milbrath was invited to join the faculty at Oregon State College after completing his Ph.D. thesis. His early research covered a broad spectrum of pathogenic and physiological problems in vegetable, orchard, and ornamental crops. He collaborated with Dr. McWhorter on studies of vegetable virus diseases and investigated the effect of ethylene gas on defoliation of rose and holly with Professors Elmer Hansen and Henry Hartman of the O.S.U. Department of Horticulture. At that time he also began work on stone fruit viruses with Dr. S. M. Zeller of the O.S.U. Department of Botany and Plant Pathology. He identified and with Dr. C. M. Tacher described *Phytophthora lateralis*, the causal agent of Port-Orford-cedar root rot. This disease has become a limiting factor in reproduction of native Port-Orford-cedar stands in Oregon. His early research on holly and rose diseases was essential for the establishment of these ornamental plant industries in the state. In the late 1940's he published on three potato viruses and helped develop the Oregon seed potato certification program.

Dr. Milbrath's undergraduate training and practical experience in horticulture made his approach to solving disease problems acceptable to both research horticulturists and industry and enabled him to develop the concept of "virus-free" nursery stock into one of the early nursery certification programs in the country. John introduced the technique of budding into *Prunus serrulata* Lindl. 'Shirofugen' in order to detect latent

stone fruit viruses. The localized reaction of this test permitted several hundred trees to be indexed for prunus ringspot on a single tree. He then convinced tree fruit growers in the Pacific Northwest that they needed and should request virus-indexed trees. Finally, he worked closely with many nurseries to help them develop, maintain, and produce virus-indexed trees. He was so successful that many nurseries would now refuse to use anything except virus-indexed propagating material. To make the program work, he personally trained nurserymen, propagators, state nursery inspectors, and orchard managers. He was a strong advocate of interstate cooperation and was an original and active member of Western Regional Project W-64, the "Identification, Etiology and Control of Virus Diseases of Deciduous Fruit Trees".

In 1960, he presented papers at the Scottish Horticultural Research Institute, Dundee, Scotland, and the International Symposium on Fruit Tree Virus Disease at Lyngby, Denmark. He prepared parts of nine sections of U.S. Department of Agriculture Handbook No. 10, "Virus Diseases and Other Disorders with Virus-like Symptoms of Stone Fruits in North America" and published over 100 research articles.

During his investigations on virus diseases of fruit trees, he maintained an interest in ornamental plants and studied the etiology of diseases of dahlia, camellia, daphne, and rose. His later research years were spent in separating and identifying the viruses found in rose as well as heat-treating numerous cultivars to supply "virus-free" propagating material to the rose industry.

John was an outstanding field plant pathologist who saw each new disease problem as a personal challenge. He had unusual ability to diagnose plant diseases with diverse causes, to determine the true cause, and to develop effective control programs. His former students will remember long, vigorous days of field work in orchards and nurseries followed by hours of discussion in the evening.

He thoroughly enjoyed his research work with ornamental plants. Ornamental plant culture was also one of his major advocations. He was an outstanding rose grower and a chrysanthemum enthusiast.

His contributions to the orchard and nursery industry, his early guidance of the seed potato industry, and help in developing the ornamental plant industries of the state were recognized when he received the Hartman Cup from the Oregon Horticulture Society, the highest honor of the Society.

Dr. Milbrath was a member of the American Phytopathological Society, Sigma Xi, Phi Sigma, Alpha Gamma Rho, Alpha Zeta, and a charter member of the Corvallis Men's Garden Club. He served as President of the Pacific Division of American Phytopathological Society in 1962-63 and as councilor for the Pacific Division.

He is survived by his wife, Lucille; a daughter, Judy, who is on the faculty of Idaho State University; and a son, Gene, who is an Assistant Professor of Plant Pathology at the University of Illinois.