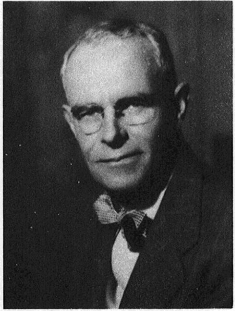


William Dorney Valleau, 1891-1974

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W. D. Valleau, internationally renowned plant pathologist and tobacco breeder and Emeritus Distinguished Professor of Plant Pathology at the University of Kentucky, died at his home in Lexington, Kentucky, December 14, 1974. He was born on February 17, 1891 in Minneapolis, Minnesota and grew up in St.

Paul. He received the B.S.A. degree from the University of Minnesota in 1913 and the Ph.D. degree in plant genetics and cytology from the same institution in 1917. He served as an assistant in fruit breeding in the Agricultural Experiment Station at the University of Minnesota from 1915 to 1917 and as an instructor from 1917 to 1919, on leave to serve in the Medical Corps of the U.S. Army in Europe.

Dr. Valleau came to the University of Kentucky in 1919. He devoted his entire professional life to research, teaching, and public service in the College of Agriculture of the University of Kentucky, from 1919 until he retired in 1961, and as Emeritus Professor, while his health permitted, for several years after his official retirement.

He became interested in corn root, stalk, and ear rots in Kentucky. His studies indicated that much local seed corn carried *Fusarium moniliforme*, and that species of *Alternaria* and *Helminthosporium* also occurred commonly internally between layers of cells in the seed coat. These studies led to the suggestion that corn ears for seed should be harvested early, dried rapidly, and stored under dry conditions to produce seed relatively free of *Diplodia zeae*, *Gibberella saubinetti*, and other organisms.

Dr. Valleau's studies included diseases of forage legumes. In cooperative studies with agronomists, he found that root diseases played an important role in clover failures. With colleagues in the Agronomy Department, he reported that black stem of alfalfa and of red clover was caused by a distinct species of *Phoma* whereas black stem of sweet clover was caused by *Aschochyta lethalis*.

Because tobacco is an important crop in Kentucky, Dr. Valleau devoted a major part of his professional effort to diseases of tobacco. He recognized that black root rot, caused by the fungus *Thielaviopsis basicola*, was the most serious tobacco disease in Kentucky and that long rotations were required for successful production of tobacco. By selection and hybridization he developed Ky 16 and a series of burley cultivars that carried resistance to black root rot. These cultivars became enormously popular and contributed greatly to continued profitable production of burley tobacco in Kentucky. At one time cultivars he had developed, especially Ky 16 and Ky 41A, were growing in almost all the tobacco fields in Kentucky. The President of the University of Kentucky stated that the development and release of tobacco cultivars resistant to black root rot resulted in additional income to

Kentucky farmers that would pay for the operation of the Agricultural Experiment Station for the rest of the twentieth century.

Dr. Valleau's studies convinced him that in addition to tobacco mosaic, several other virus diseases were destructive in tobacco. He recognized etch as a virus disease in burley tobacco in Kentucky. He found vein banding to be spread to tobacco from potatoes. He reported that rugose mosaic in potatoes is caused by a mixture of the veinbanding virus and potato X virus. His work with tobacco ringspot led him to challenge the view that tobacco plants that recover from ringspot symptoms are immune; he persisted in the belief that so-called recovered plants still carry the virus and suffer a high degree of pollen sterility and consequently should not be considered immune or healthy or recovered. His study of numerous tobacco isolates of tobacco mosaic virus and of the rib grass or *Plantago* strain of TMV led him to the hypothesis that the *Plantago* virus probably is the parental virus from which strains of tobacco mosaic virus originated.

Dr. Valleau found that infection of tobacco plants with TMV could be traced primarily to workers who chewed barn-cured tobacco from plants infected with TMV. He showed that inoculation of plants in this way at setting reduced yields and value of burley tobacco. This information led to recommendations for practical control by sanitation. Later, by using Dr. Holmes' derivatives of *Nicotiana glutinosa*, he developed commercially acceptable cultivars of tobacco that were essentially equal in yield and quality to the current standard cultivars. Ultimately nearly all tobacco produced in Kentucky carried resistance to tobacco mosaic virus.

Hosts of Kentucky farmers knew Dr. Valleau and respected and admired him for his talent for solving their problems, for his skill in communicating with them, for his fierce insistence on adherence to demonstrable facts, and for his determination to help them with their problems. As evidence of their appreciation, they singled him out for a citation; they made him a gift of a Cadillac car; they named him Man of the Year in Kentucky Agriculture.

Dr. Valleau served his professional colleagues in many capacities in The American Phytopathological Society and in the Tobacco Workers Conference. He was elected Fellow of The American Phytopathological Society, and served as President of the Society. His colleagues here and abroad knew him for his dedication to his professional work, his productivity, his keen mind and quick wit, his directness of purpose, his incisiveness, for his talent to thrust directly to the central core of an issue, and for his skill and delight in disputation.

Dr. Valleau was very active in affairs of the University of Kentucky. He was named Distinguished Professor of Plant Pathology in 1948 and was awarded an Honorary Degree in 1967 by the grateful University he served so long and so very well. He is missed by his friends and his colleagues in his profession and in his university.