In 1965, the Ruth Allen Memorial Fund was established by means of gifts from the executor of the will of Ruth Allen, Cecil Yarwood, and from her heirs: Sam Emsweller, Mabel Nebel, Hally Sax, and Evangeline Yarwood. The award, consisting of a certificate and the income from the invested fund, is to be given for outstanding contributions to the science of plant pathology. The 1973 award was shared jointly by Frances Meehan Latterell and Herbert Hodges Luke; it was announced at the 1973 Annual Meeting in St. Paul, Minnesota.

Frances Meehan Latterell

Herbert Hodges Luke

FRANCES MEEHAN LATTERELL and HERBERT HODGES LUKE are honored by the Ruth Allen Award for their pioneer work which established the toxin, victorin, as the primary causal agent of Victoria blight of oats. Each recipient of the award was senior author of a classic paper; the first published in Science in 1947 and the second in Phytopathology in 1955. In the first paper, Dr. Latterell (nee Meehan) working under the direction of the late Dr. H. C. Murphy, reported that cultures of *Helminthosporium victoriae* produced a toxin which caused disease symptoms typical of Victoria blight on oat cultivars susceptible to the fungus. Oat cultivars resistant to the fungus were also resistant to the toxin; thus the specificity of the disease was related to selective toxicity of a metabolic product of the pathogen.

In the second paper, based on dissertation research directed by Dr. Harry Wheeler, Dr. Luke contributed an essential third line of evidence that the toxin played a primary causal role in disease development. Among strains of the fungus, pathogenicity was correlated with toxin production. In addition, methods for producing very high toxin titers on chemically defined media and a sensitive bioassay for the toxin were described. Reports as early as 1886 and 1913 suggested that toxins play a role in disease development. However, the 1947 (Meehan-Murphy) and 1955 (Luke-Wheeler) papers were the first to present conclusive evidence that toxins produced by phytopathogens cause disease.

The work of these two investigators provided the impetus for, and guided the direction of, much of the research on the role of toxins in plant diseases during the past two decades. Victorin alone has been the subject of more than 100 research reports from several different laboratories. Their work also served as the model for research on many other diseases in which toxins play a role. Laboratory exercises based on the methods developed with victorin are a routine part of plant pathology courses in a large number of institutions. The demonstration that toxins may provide valid substitutes for pathogens led to practical applications in mass screening for disease resistance and in toxin tests for identification of mixtures in seed lots. Clearly, the work of the recipients of this award constituted an innovation which greatly influenced the direction of research in the area of plant disease physiology.

Frances M. Latterell, a native of Kansas City, Missouri, received the BA degree from the University of Kansas City and MS and PhD degrees from Iowa State University. She has served as Research Plant Pathologist, US Army Biological Laboratories, Fort Detrick, Maryland and is currently Plant Pathologist, USDA, ARS, Frederick, Maryland. Her major research interests are in cereal diseases and physiologic specialization in the rice blast pathogen, *Pyricularia oryzae.*

H. H. Luke, a native of Pavo, Georgia, received the BS degree from the University of Georgia and the MS and PhD degrees from Louisiana State University. He served briefly as Plant Pathologist, USDA, ARS, Delta Branch Experiment Station, Stoneville, Mississippi before accepting a similar position at the University of Florida. Currently he is Research Plant Pathologist, USDA, ARS, Florida Agricultural Experiment Station and Professor of Plant Pathology, University of Florida. His major research interests are in plant disease physiology and diseases of cereal grains.

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