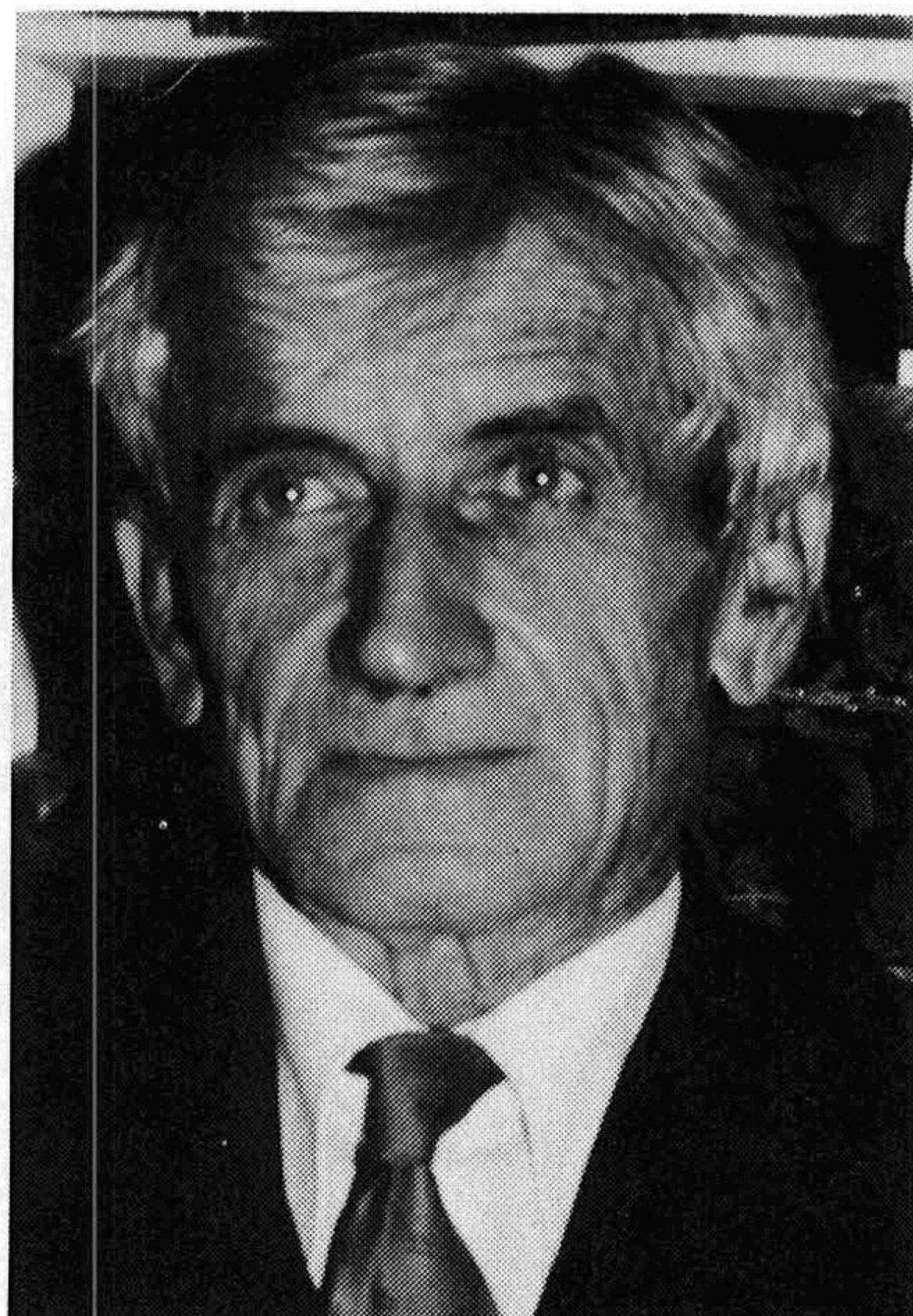


# Ruth Allen Award

The Ruth Allen Memorial Fund was established in 1965 by means of gifts from the estate of Dr. Ruth Allen through the generosity of her heirs: Sam Emsweller, Mabel Nebel, Hally Sax, and Evangaline Yarwood. The award, consisting of a certificate and income from the invested fund, is given for outstanding contributions to the science of plant pathology.

## J. E. Vanderplank



**J. E. Vanderplank** is awarded the Ruth Allen Award for his intellectual, philosophical, and practical contributions to the understanding of epidemiology, disease resistance, and the infection process. Much of his work is incorporated in four books: "Plant Diseases: Epidemics and Control," Academic Press, 1963; "Disease Resistance in Plants," Academic Press, 1968; "Principles of Plant Infection," 1975; and

"Genetics and Molecular Basis of Plant Pathogenesis," Springer-Verlag, 1978.

Dr. Vanderplank's creativity, innovations, and ability to synthesize and articulate principles have touched all aspects of plant pathology and have greatly influenced the direction of research and the corpus of information taught in classrooms. He pioneered new methods of epidemiological analysis based on infection rates and on the relation between inoculum density and disease incidence. He has demonstrated how epidemiological analysis contributes to making plant pathology a quantitative science, and he has brilliantly shown the value and necessity for using the mathematical approach in qualitative epidemiology.

Subjects such as the relation between the amount of inoculum and the amount of disease it produces, time and distance as dimensions affecting epidemics and disease, and genetics of host-parasite relations all bear the indelible imprint of Dr. Vanderplank's thinking and analysis. His contributions to understanding disease resistance have been stimulating and provocative. His theories of vertical and horizontal resistance have been studied and debated throughout the world, as have his concepts on progress of

disease in relation to resistance in the host. Dr. Vanderplank's most recent work discusses information on the genetic and molecular background of plant disease and examines host-parasite interactions in terms of thermodynamics of host protein-parasite protein polymerization.

There is no question that the study, debate, and application of Dr. Vanderplank's many contributions have immensely influenced the profession of plant pathology and clearly merit the recognition provided by the Ruth Allen Award.

J. E. Vanderplank was born in Zululand in 1908. He received degrees of Ph.D. in plant physiology from the University of London, D.Sc. in chemistry from the University of South Africa, and D.Sc. *honoris causa* in agriculture from the University of Natal and from the Justus-Liebig-Universität Giessen. He was awarded the Captain Scott Memorial Medalion in 1948 from the South African Biological Society and the South African Association for the Advancement of Sciences Medal for scientific research in 1964. He retired as director of the plant protection section in 1973 after 43 years of service in the South African Department of Agriculture.