

Irving E. Melhus, 1881-1969

Jack R. Wallin



Dr. Irving E. Melhus was born on April 2nd, 1881, at Creston, Illinois, and died November 10, 1969 at Ames, Iowa. He grew up in Ellsworth, Iowa, and was granted the B.Sc. degree in 1906 at Iowa State College. After teaching high school science at Burlington High School for 1 year, he accepted an assistantship in botany at the University of Wisconsin, where he remained for 4 years, the last 3 as an assistant in the Department of Plant Pathology. He received the first Ph.D. degree granted in Plant Pathology at Wisconsin in 1912. After leaving Wisconsin, he accepted the post of Plant Pathologist in the Office of Vegetable Crop Diseases in the Bureau of Plant Industry to work on potato diseases.

In 1916 Dr. Melhus became the first plant pathologist in the Agricultural Experiment Station and Botany Department of Iowa State University, Ames. Between 1930 and 1946, he served as Head of the Department of Botany and of the Botany and Plant Pathology Section of the Agricultural Experiment Station. Under his leadership, the Department grew and developed into national prominence. In 1946, he resigned to organize and direct the Iowa State University-Guatemala Tropical Research Center. He was active in this project until 1953.

Dr. Melhus' career was one of continued progress and leadership through the years. His research interests ranged from corn, oat, onion, potato, sugar beet, and watermelon diseases to tracing the ancestors of corn in Central America. His research was primarily concerned with the broad field of plant disease control, and he made many valuable contributions, especially in the application of plant disease control principles to crop improvement. While with the Bureau of Plant Industry, he investigated potato diseases, especially late blight, silver scurf, and powdery scab. His early work on blight led to the establishment of a disease forecasting service in the North Central States during World War II that enabled growers to protect thousands of dollars worth of potatoes from destruction. Ultimately this service became a part of the USDA. Under his leadership the work on breeding for resistance to crown rust of oats originated which led to the development by Dietz and Murphy of resistant cultivars such as Clinton. One of his strong research interests was in the root pathogens of Iowa crops. He was also instrumental in the inauguration of a nationwide program of control of wheat stem rust through barberry eradication. His work led to the successful control of onion yellows and the development of watermelons resistant to wilt. He demonstrated the destructive nature of root parasites on many crops, and pointed the way to protective

seed treatment measures basic to a great chemical industry.

Dr. Melhus did not confine his energy to research alone. His leadership and vision was felt by the entire Iowa State community. He was among the small group of men who discerned the need for further avenues of publication of research on the campus. Their efforts led to the establishment of the Iowa State College Journal of Science now in its 45th volume. He was a charter member of the Osborn Research Club on the University campus, and served as its first president. He also was a leader in encouraging high school science students to visit the campus, resulting in the establishment of Science Day.

Professor Melhus initiated and encouraged the development of the group conference method of teaching Botany later carried to national recognition by S. M. Dietz. Dr. Melhus' book with G. C. Kent, published in 1939, was a standard text in plant pathology for many years.

Sensing the need for new germ plasm in the corn development program of Iowa and the United States, he established in 1946, with the financial aid of the late Earl E. May, the Iowa State College Guatemala Research Center to provide more favorable opportunities for the study of corn improvement.

Dr. Melhus was extremely sensitive to the poverty and hunger that he encountered among the Guatemalan Indians. Hence, not long after he moved to Guatemala, his corn program included the selection of corns that would increase Guatemalan corn production and thus, the country's food supply. He accomplished this objective before he left Guatemala.

In 1953, Dr. Melhus went to Indonesia as an Agricultural Advisor for the U.S. Government. He took with him the Central American corn lines he had developed in Guatemala, and as a result, influenced the course of corn production in Southeast Asia. One line he had selected in Guatemala, Tiquisate Golden Yellow, became the foundation of corn production in Thailand, which now exports corn.

Dr. Melhus joined The American Phytopathological Society in 1911 and was active in its affairs, serving as Vice-President in 1919, Councilor-at-Large in 1922 and 1923, and President in 1926. He was among the first of several distinguished phytopathologists to be elected a Fellow of the Society in 1965. He also took active interest in the Iowa Academy of Science, the Iowa State Horticultural Society, and the Botanical Society of America, and was a fellow of the American Association for the Advancement of Science. He was honored by membership in Alpha Zeta, Sigma Xi, Phi Kappa Phi, and Gamma Sigma Delta. He received the Chicago Alumni Citation for research achievement, and was made an honorary professor of the University of San Carlos, Guatemala.

Dr. Melhus' wife, Elizabeth, preceded him in death in 1968. He is survived by a daughter, Janet M. Wallin.