

Donald Stuart Welch

March 12, 1894 — January 27, 1972

Professor Donald S. Welch taught the science and practice of plant pathology for thirty-seven of the fifty years of his association with Cornell. He was a nationally recognized and widely sought authority on arboriculture and diseases of shade and forest trees.

Dr. Welch's birth and early experiences in the lumber-oriented town of Norway, Maine, led to his sustained interest in forestry and tree diseases. Cornell had a highly regarded program for the training of professional foresters when he was appointed assistant professor of plant pathology in 1925, and he soon developed a course in forest pathology. He also taught the introductory course in plant pathology and the course in plant disease control for several years.

The Dutch elm disease arrived in New York State in the mid-1930s, the third lethal tree disease of foreign origin to spread widely in North America from a point of introduction in New York. This disease was to be a major focus of his attention for the next thirty-five years, for his position involved resident teaching, research and extension work on diseases of forest, shade and ornamental trees and shrubs. Annually he diagnosed hundreds of diseased tree and shrub specimens that came to his laboratory from foresters, arborists, horticulturists, nursery inspectors, woodlot owners, and rural and urban residents. He authored the Cornell recommendations for disease control on trees and shrubs as well as many research and extension publications on tree diseases.

In 1934 he was chosen to direct a joint research project on Dutch elm disease involving Cornell's Departments of Plant Pathology and Entomology and Limnology, and the Boyce Thompson Institute for Plant Research. The resulting information on the biology of the fungal pathogen and its vectors still forms the basis of municipal programs for control of the disease.

Professor Welch was largely self-taught in forestry and arboriculture. His formal education, at a time when plant pathology was predominantly concerned with diseases caused by fungi, emphasized botany and mycology. He received the Bachelor of Science degree from the University of Maine in 1917, the Master of Arts degree from Harvard University in 1921, and the Doctor of Philosophy degree from Cornell in 1925.

Before entering Cornell for graduate work he was a scientific aide for two years at the Station for Experimental Evolution, Carnegie Institution of Washington. In 1933-34 he served as technical adviser on emergency conservation

work with the U.S. Division of Forest Pathology. He was advanced to associate professor in 1939 and to professor in 1941. In 1947, supported in part by a grant from the School of Forestry, University of Idaho, he served as collaborator with the U.S. Forest Service in research on the pole blight disease of western white pine in the Coeur d'Alene National Forest in Idaho. From 1954 until the late 1960s he served as consultant on forest pathology for the Maine Forest Service. After retiring in June 1962, he spent two years as consultant with the U.S. Forest Service, Division of State and Private Forestry, developing problem analyses for use in suppression of disease losses in northern hardwood forests. He also advised municipalities on problems related to the suppression of Dutch elm disease and the management of shade tree resources. He served as technical adviser to the Elm Research Institute in 1970-71.

Former students, especially those who were advised by Dr. Welch during graduate studies, recall that he gave them great latitude to work out research problems. A quiet, gentle person, given more to listening than to talking, he preferred to serve as a source of advice rather than as director of a student's research project.

Professor Welch was a past president of the International Shade Tree Conference and a former member of the Board of Governors of Region 2 of that organization, a member and then honorary member of the Northeastern Forest Pest Council, a former member of the Council of the American Phytopathological Society, and a fellow of the American Association for the Advancement of Science. He was also a member of the Society of American Foresters, the Mycological Society of America, the American Institute of Biological Sciences, the New York State Arborists Association, the Association of New York State Bird Clubs, Sigma Xi, Phi Kappa Phi, Alpha Zeta, and Phi Sigma.

Professor Welch married Catherine Graham of Guelph, Ontario, in 1925. He is survived by Mrs. Welch, their daughter Catherine and their son James.

Richard P. Korf, George C. Kent, Wayne A. Sinclair