George Henry Hepting, 1907–1988

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After 58 years of distinguished service as a scientist and scholar in forest disease research, George Hepting died in Asheville, North Carolina, on April 29, 1988. George was born in Brooklyn, New York, on September 1, 1907. He received his B.S. degree in forestry in 1929 and his Ph.D. in forest pathology, both from Cornell University. Under the guidance of H. H. Whetzel, Hepting discovered how fascinating it can be to study the processes by which fungi and other pathogens induce disease in forest trees.

Even before finishing his Ph.D. at Cornell in 1933, Hepting joined a tiny cadre of scientists in the U.S. Department of Agriculture who were charged to protect the forests of America against disease. He rose through the ranks of the U.S. Forest Service from Field Assistant in 1931, through Chief of the Division of Forest Disease Research at the Southeastern Forest Experiment Station from 1953 to 1961, to Principal Research Scientist affiliated with the Forest Service's Washington office from 1962 to 1971. He retired from the Forest Service as Chief Plant Pathologist in 1971. From 1967 through 1984 he served as visiting professor and advisor to more than 30 graduate students in the Department of Plant Pathology and the School of Forest Resources at North Carolina State University.

Hepting's first research was on the heartrot diseases of forest trees. He determined the impact of fire scars, basal wounds, and stump sprouts on infection and spread of decay in many species of trees. He was the first to describe the remarkable mechanisms by which trees restrict the development of decay and discoloration in tree stems to "tissues extant at time of wounding."

He studied the Fusarium wilt disease of mimosa and developed wilt-resistant genotypes. Discovering the role of mating types in the oak wilt fungus was his most personally satisfying intellectual achievement. Before and during World War II, he studied fungal discolorations in felled timber and lumber of southern pines. He also quantified the impact of discolorations and decay on the strength of wood veneers used in military aircraft.

He pursued research on many rust, twig, and foliage blights, and he also discovered the pitch canker disease of southern pines. His research contributed to understanding sweetgum blight. He blew the whistle on the ineffectiveness of actidione as a control for white pine blister rust. He provided leadership for development of practical controls for annosus root rot and for management of nursery diseases with fumigant chemicals. He resolved uncertainty about the major cause of a serious dieback disease of pines in New Zealand.

Littleleaf disease of southern pines proved to be his greatest challenge. He organized research teams to investigate different aspects of the problem and stimulated both industry and government to provide support for these efforts. Success in the research for causal factors and management practices were his reward for the many years of research it took to understand the many possible but elusive causal agents that were involved: a complex interaction between certain soil conditions, feeder-root pathogens, land-use practices, and stand density; and a progressive deficiency of nitrogen that developed in many pine stands as the trees increase in age.

He directed pioneering research on the role of ozone and other photo-chemical oxidants as causes of disease in forests. His 1963 paper on climate and forest diseases is a classic in both climatology and in forestry.

He developed the first computerized system for information retrieval in forestry. His 1971 book "Diseases of Forest and Shade Trees in the United States" provides a comprehensive encyclopedia of knowledge on these topics. He wrote a definitive history of efforts to control both chestnut blight and the so-called Dutch elm disease after they were introduced on the North American continent.

Long before the concepts of integrated pest management became fashionable, Hepting emphasized the need to integrate disease hazard evaluations and knowledge of disease development processes into economically and biologically sound forest management systems. He also championed the need for basic research as a foundation for practical understanding and management of disease in forests. His role in the Timber Resources Review of 1953 permanently altered scientific understanding of the nature and magnitude of disease losses in forests.

Hepting was an effective leader among research scientists. He was cofounder of the Southwide Forest Disease Workshop. Hepting had a remarkable way of stimulating other people to do their best, to see the larger picture, to share their ideas with others, and to help "make forest pathology pay."

A complete file of his nearly 200 scientific publications, his library of nearly 2000 reprints and books, and an intriguing autobiographical resume of the first half of his career are maintained by the Department of Plant Pathology at North Carolina State University.

Hepting's achievements in science were recognized by many honors and awards. In 1969, he became the first forester elected to the National Academy of Sciences. He also received the Superior Service Award of the U.S. Department of Agriculture in 1954 and the Barrington Moore Award for outstanding achievements in forestry research in 1963. He was elected a Fellow of the Society of American Foresters in 1965 and of the American Phytopathological Society in 1966. He received the Weyerhaeuser Award for Outstanding Historical Writing from the Forest History Society in 1974.

Dr. Hepting was one of the most creative scientists America has produced in the field of forest disease research. He became an international leader and spokesman for forest disease problems worldwide. He traveled extensively and pursued research assignments in Europe, Puerto Rico, Haiti, and St. Croix. He also served as a consultant to the forest products industries of New Zealand and Australia.

In 1936, George Hepting married Anna Love Hepting, who predeceased him on May 13, 1986. Both are buried in the Lewis Memorial Cemetery, Asheville, North Carolina. Dr. Hepting is survived by six family members: his sister, Aimee Hepting of Syosett, New York; two sons, George Carleton Hepting of New York City and John Bartram Hepting of Sudbury, Massachusetts; and three grandchildren. John Bartram Hepting was named for John Bartram, a distinguished horticulturalist and botanist of Philadelphia, who was a direct ancestor of Anna Love Hepting.