## John Rishbeth, 1918-1991

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On June 1, 1991, Great Britain lost a noted forest pathologist, the world of forest pathology lost a leading authority on root diseases of forest trees, and the teaching profession lost an extremely able teacher who had an impact on many. Dr. John Rishbeth of Cambridge University died after a brief illness at the age of 73.

John Rishbeth was born on July 10, 1918, in Cambridge, U.K., and received his education at St. Lawrence College, Ramsgate, and Christ's College, Cambridge, where he obtained

his first degree in natural sciences. He went on to obtain his Ph.D. in 1949 and Sc.D. in 1960, both from Cambridge University.

Dr. Rishbeth held a variety of positions, all in research and in teaching. His five years' war service included three years (1940-1943) as a Chemist with the Royal Ordinance Factories, two years (1943-1945) as a Bacteriologist in the Scientific Advisor's Division, Ministry of Food. After the war he joined Cambridge University as a research student and served as a Demonstrator in Botany from 1947 to 1949. From 1950 to 1953 he spent three years in Jamaica investigating "Panama disease of banana." In 1953 he returned to Cambridge and worked as a Lecturer until 1973. He served as a Reader in Plant Pathology from 1973 to 1984, and Emeritus from 1984 to 1991. He was a Life Fellow in Corpus Christi College. He was the author or coauthor of over 60 scientific publications, including several chapters of various books. After his retirement in 1984 from the Readership in the Department of Botany, Cambridge University, Dr. Rishbeth maintained an active association with the Department and continued his research and publication. He moved into a new home in Cambridge, which he enjoyed for only eight weeks before his death.

After the war, as a research student in the Botany School of Cambridge University, John Rishbeth investigated Fomes root rot (Heterobasidion annosum = Fomes annosus) that was ravaging the Forestry Commission's young pine plantations near and around Thetford, East Anglia, in England. Through a series of studies on this root disease, Dr. Rishbeth provided a better understanding of the epidemiology of the disease and biology of the pathogen. He studied the role of H. annosum in causing serious damage to forest trees and its spread from tree to tree in plantations through aerial infection of stumps by airborne spores. As a result, he recommended protection of the stump surface with creosote after the felling of trees. John Gibbs believes that Dr. Rishbeth's insight into the behavior of H. annosum provided a scientific stimulus to forest pathologists investigating other forest diseases, and intellectual cross-fertilization between Drs. John Rishbeth and S. D. Garrett at Cambridge stimulated several other investigators working on diseases of cereals, rubber, and tea. Dr. Rishbeth's research contributions on Armillaria root rot (from the early 1960s), particularly his work on spore infections of stumps, and the ecology and impact of Armillaria species are held in very high esteem. His investigations to control these diseases through the use of biological agents rather than chemicals were initiated in early 1960s; his approach was practical and cost

effective. His pioneering work on the use of spores of a benign fungus, *Peniophora gigantea*, to treat freshly cut stumps and prevent the development of Fomes root rot in a U.K. Forestry Commission's pine plantation near Thetford is considered as a classic example of forest disease control through biological means. As a result, for the past twenty years, the Forestry Commission has used commercial preparations of *P. gigantea* in its major pine-growing areas to reduce the incidence and damage of this disease.

Dr. Rishbeth was recognized as an international authority for his contributions on root diseases of forest trees and was often looked up to for his practical point of view, which lead to the solution of field problems or for ideas for innovative research. His ideas and inspiration for research came straight from his observations and investigations "in the field." He was known for suggesting apparently simple but workable ideas for complex problems. Not being a gregarious person, he preferred and enjoyed discussions on diseases and their research problems in field settings rather than in large formal meetings.

The scientific community of Great Britain bestowed several honors on him. Some of the most prestigious ones included being elected Fellow of the Corpus Christi College of Cambridge University in 1964, Fellow of the Royal Society (FRS) in 1974, being awarded an honorary doctorate at Copenhagen in 1976, and being honored with the Order of the British Empire (OBE) in 1985. I understand that Dr. Rishbeth probably gained most pleasure from the 100-acre "Rishbeth's Wood," a plantation of pine, larch, and beech named after him by the Forestry Commission to commemorate his retirement from Cambridge University. John and his wife Barbara enjoyed walking through these woods during different seasons.

As a teacher, Dr. Rishbeth always exhibited a positive attitude and benevolence towards his students and colleagues in the University. He guided research programs of several students from Britain and from around the world, investigating aspects of the root rots caused by Heterobasidion, Armillaria, Rhizinia root rots, and bacterial diseases of poplar.

Besides his academic and professional attainments, his remarkably amiable temperament and extremely helpful attitudes towards colleagues, fellow professionals, and students endeared him to all who came in his contact. I understand that John owed much of his character and qualities to his mother, a daughter of a well-known Cambridge anthropologist. Apparently, he beautifully combined the strength of character and dedication to duty with his personal charm and helpful attitude. The role that Dr. Rishbeth played in leading the research on root diseases in Great Britain and stimulating investigations elsewhere in the world is well realized by the fondness and respect with which people talk about him and his research contributions.

He was an unusually active person both mentally and physically; he always cycled to work, enthusiastically enjoyed tennis, and loved hiking.

John Rishbeth married Barbara Sadler in 1946 and is survived by her and by a son and a daughter.

(I thank Dr. J. Gibbs who published much of this information in two articles, one in The Independent of June 8, 1991, and the other in the European Journal of Forest Pathology 21:257-259. Additional information is from The Times of June 13, 1991.)