## Lee Milo Hutchins, 1888-1978

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Lee M. Hutchins died April 13, 1978 in San José, Costa Rica, where he resided after retirement from the U. S. Department of Agriculture.

Lee was born on April 21, 1888 on a fruit farm at Ganges, Michigan. His paternal grandfather was the first white settler in Allegan County, Michigan, and was a direct descendant of Thomas Hutchins of London who assisted in establishing the Massachusetts Bay Colony at Salem Massachusetts, in 1730. His grandmother was a direct descendent of Henry Hudson,

the navigator. His boyhood experiences on the fruit farm stimulated his interest in horticulture and fruit tree diseases and his pursuit of a career in science. He graduated from Michigan Agricultural College in 1913 and was employed by the U.S. Department of Agriculture in Washington, D.C., as a scientific assistant in Erwin F. Smith's laboratory in which much fundamental etiological work was being done and he was influenced by and associated with some of the epoch-making contributions. He often recalled the excitement when Clara Hasse announced the cause of citrus canker in 1915. The recognition of bacterial plant pathogenesis represented a great step forward and was followed by much refinement in cultural techniques during that era.

Lee served as a 1st Lieutenant bacteriologist in the sanitary corps in France during World War I. After the war he attended the University of Montpellier in southern France. In 1920, he returned to the U.S. Department of Agriculture to work on fruit tree diseases. In 1924, he studied in Livingston's Laboratory at Johns Hopkins University and obtained a Ph.D. degree. His research dealt with the oxygen-supplying capacity of soil, now recognized as an important factor in the biology of soil organisms and plant growth. He again returned to the USDA and turned his attention and efforts to virus diseases of fruit trees, particularly peach yellows and little peach. In 1930, he studied at the Institute for Plant Pathology, Wageningen, Holland, and at the Sorbonne in Paris, France. He returned to Fort Valley, Georgia, to investigate the, at that time mysterious and still serious, phony disease of peach. Although the spread pattern indicated a virus-like infectious entity, all transmission attempts by conventional techniques failed; also, the disease syndrome did not fit that of known virus diseases. His extensive research, however, proved the infectious nature of the disease with root grafts, and showed that, unlike most viral plant pathogens, the causal agent was not well distributed in the tops of infected peach trees. He organized a roguing control program in which millions of diseased trees were removed and in conjunction with entomologist, William Turner, showed that the vectors were the same larger sharpshooter leafhoppers that transmit Pierce's disease of grapes.

Dr. Hutchins' interest extended to other fruit-growing areas and in 1935 he demonstrated the viral etiology of peach mosaic, a new serious disease of peaches and plums in the southwestern U.S. and Mexico. His cooperation with state and federal pathologists throughout the fruit districts of the U.S. and Canada was important in the rapid progress in establishing the viral etiology of many new diseases of fruit trees, of which over thirty now are recognized.

In 1941, Lee was appointed head pathologist and in 1946 chief of the Division of Forest Diseases in the U.S. Forest Service, a position he held until his retirement in 1955. In this position he brought new concepts to forest pathologists, particularly that of virus etiology. In 1956, he went to Yugoslavia under the FAO of the United Nations to assist with fruit tree virus investigations. In 1958, he was employed by the American Cocoa Research Institute to investigate the gall diseases of the cocoa tree (*Theobroma cacao*) in Central America. In a series of papers he showed these diseases to have a very unusual etiological association with Fusaria and demonstrated graft transmissibility. He continued his research at the Inter-American Institute of Agricultural Research, Turrialba, Costa Rica, until 1976.

Lee was dedicated to his branch of science, but he was more than a plant pathologist. His enthusiasm was contagious and his originality and careful techniques influenced his associates. He insisted on careful planning and comprehensive records. Influenced by his background in plant physiology, he was conservative and required overwhelming evidence on which to form conclusions. In a notebook entitled "New experiments to be performed," he recorded ideas which he said often came to him late at night. He had many axioms, one of which was, "Although we may not understand why, when plants differ from the expected reaction, we must remember the plants are right and we are wrong."

Lee had a magnetic personality and was interested in everything. He was a great admirer of his teachers and associates. He instilled integrity and loyalty in his friends and literally had no foes. He amazed associates with his energy and zeal, even in his later years. During his late seventies, while studying cocoa tree diseases which often required travel into rough and backward areas, through dense forests and tropical downpours and sometimes on small, overcrowded, none-too-safe aircraft, he was always enthusastic and never lagged behind younger colleagues. The fact that such a distinguished scientist would abandon the comforts of a big city hotel to come to study their problems earned a deep appreciation from growers and countermen.

He was a life member of The American Phytopathological Society, and served as vice-president in 1941 and president in 1942. His dedication to plant pathology is exemplified by his gift of an endowment to the society to provide an annual award for the best research on fruit plant viruses published in PHYTOPATHOLOGY during the year. He belonged to many scientific organizations, including the American Association for the Advancement of Science, the American Society for Horticultural Science, the Society of Plant Physiologists, the Society of American Forestry, the American and French Botanical Societies, as well as several scientific honorary societies. He was an accomplished pianist and loved the comforts of home. He did not marry and leaves no survivors, but he will be remembered affectionately by a large family of friends and associates.