

S. H. Ou



Keh Chi Ling was born on September 19, 1924 at Foochow, China. On February 12, 1982, he died suddenly of a heart attack at the International Rice Research Institute (IRRI) Staff Housing, Los Baños, Laguna, The Philippines. He is survived by his wife, Sophia, and three daughters, Shirley, Susie, and Stella.

Dr. Ling obtained the B.S. degree in 1947 with a major in Plant Pathology from Nanking University, Nanking, China. He earned the M.Sc. degree at Louisiana State University in 1960

and the Ph.D. in Plant Pathology from the University of Wisconsin at Madison in 1964.

In his senior year at Nanking University, he was assigned a position as an assistant in the Department of Plant Pathology. Immediately after graduation, he worked under C. T. Wei as a research assistant in the Institute of Botany, Academia Sinica, Shanghai, China.

Dr. Ling moved to Taiwan in 1948 and worked for 1 yr under Dr. T. Matsumoto in the Department of Agricultural Biology at the National University of Taiwan. In the period 1949–1964, he worked at the Taiwan Sugar Experiment Station in the successive positions of assistant, assistant plant pathologist, associate plant pathologist, and plant pathologist. During these 15 years, he worked on red rot, leaf scorch, ratoon stunting, and white leaf diseases of sugarcane. Dr. Ling and his wife were the first to identify *Physalospora tucumanensis* Speg. [≡ *Glomerella tucumanensis* (Speg) von Arx & Müller], the perfect stage of the causal organism of red rot of sugarcane, in Taiwan. He also reported the new sugarcane disease, leaf scorch, with T. T. Lo, and identified the causal organism as *Stagonospora sacchari* Lo & Ling.

Dr. Ling received the Best Service Award from the Taiwan Sugar Experiment Station in 1952 and the Outstanding Service Award from the Minister of Economics, Republic of China, in 1960 for his contributions to the study of sugarcane diseases.

After receiving his Master's degree, Dr. Ling studied another unknown sugarcane epidemic—white leaf disease. He studied its symptomology, transmission, and control methods; results suggested a viral pathogen but he was unable to prove it. In 1968, S.

C. Lin reported that white leaf is caused by a mycoplasma. This investigation stimulated his interest in viruses. In 1963, he began further advanced studies at the University of Wisconsin at Madison, and completed his Ph.D. under the direction of Glenn S. Pound. After completing his dissertation on the sulfur nutrition of tobacco in relation to the multiplication of tobacco mosaic virus, Dr. Ling decided to concentrate his research in plant virology.

Soon after receiving his doctorate in 1964, Dr. Ling joined the IRRI in The Philippines as an associate plant pathologist and later as a plant pathologist in the Department of Plant Pathology. During the last 17 years of his life, he concentrated on the study of virus diseases of rice.

At IRRI, Dr. Ling studied the insect vectors that transmit tungro and grassy stunt viruses. He developed methods to screen rice cultivars for resistance to those diseases and determined the time relationships of the length of vector feeding, infection, and expression of disease symptoms. He was among the first to report that rice leafhoppers transmitted tungro virus in a nonpersistent manner.

One of Dr. Ling's most significant contributions was the identification of the wild rice, *Oryza nivara*, as a source of genetic resistance to grassy stunt virus. *O. nivara* is still the only known source of resistance that has been incorporated into all grassy stunt-resistant cultivars grown today.

Dr. Ling helped determine that the penyakit merah disease in Malaysia and the mentek disease in Indonesia were both the same as tungro.

In 1977, Dr. Ling worked with scientists of the Philippine Bureau of Plant Industry (BPI) to identify rice ragged stunt, a previously unreported virus attacking rice in The Philippines and Indonesia. He studied the nature of the disease, its transmission by vectors, and screening methods for resistance, in collaboration with scientists of BPI, Central Research Institute of Agriculture in Indonesia, and Hokkaido University, Japan.

Dr. Ling published numerous research articles in scientific journals, and thoughtfully and carefully guided many students through their M.S. and Ph.D. programs.

He was, indeed, a stalwart figure in the study of virus diseases of rice. This was acknowledged by the Philippine Phytopathological Society in a posthumous award for his remarkable contributions to studies of rice diseases and for invaluable services and unflinching support to the Society.