IN MEMORIAM WALTER EBELING

Professor Emeritus of Entomology UC Riverside November 26, 1907 – December 17, 2010

Walter Ebeling, world-renowned entomologist and pioneer in the field of Urban Entomology, died 17 December 2010 in a care facility in Bandon, Oregon at the age of 103. "Professor Ebeling was a legendary research entomologist," said Dr. Michael Rust, Professor of Entomology at the University of California, Riverside, who replaced Dr. Ebeling upon his retirement in 1975. "He had tremendous abilities, tireless energy, and a passion for science. He was an expert in so many fields of entomology including agriculture, physiology, and insect behavior. Dr. Ebeling helped develop Urban Entomology into a respected independent area of research."

Ebeling was born in Beaumont, a small town on the edge of the desert east of Los Angeles, CA. An avid outdoorsman throughout his life, he developed an interest in insects at an early age. He attended U.C. Berkeley, receiving his Ph.D. in Entomology in 1929. He began his career as an entomologist the following year at the Riverside Citrus Experiment Station, later to become the University of California, Riverside, developing strategies to control scale and mite insect pests of citrus. In 1946, Dr. Ebeling transferred to UCLA, where he became a tenured professor teaching courses and conducting research affecting citrus, avocado, and other crops and urban ornamental plants. Dr. Ebeling published *Subtropical Entomology* in 1950, soon becoming a recognized expert in the field.

In 1954, Professor Ebeling published the classic book *Subtropical Fruit Pests*, which is still widely used today. As a result of its publication, Dr. Ebeling was recognized as an expert in fumigation and alternative pest management strategies and traveled for years throughout the United States and to Mexico, South America, India, and Africa as a much-desired consultant to independent growers as well as governments that depend on citrus as a vital part of their economies.

Dr. Ebeling spent a year in Egypt in 1958 on a Fulbright Professorship, conducting research on insecticide modes of action. Dr. Ebeling traveled to central Africa for 6 months, where he became fascinated with termites and the damage they cause. Dr. Ebeling twice spent nearly six months in India, having been commissioned by the Food and Agriculture Organization (FAO] to develop practical ways to protect grain during storage. He helped develop strategies using native Indian clays rather than pesticides for protecting bulk grain, one of the first IPM (non-pesticide] approaches to prevent and control insect pests. Based on his contributions, Dr. Ebeling was elected Honorary Fellow of the Indian Academy of Pest Control Sciences. Working with desiccant dusts as novel chemicals with unique modes of action, he began research with termites,

cockroaches, and houseflies, and he soon recognized the need and importance of controlling an array of urban and structural insect pests.

Professor Ebeling was the first academic in the west to research Urban Entomology. He was the first to advocate the use of innocuous dusts and borates for insect control, termite pretreatments, and residual insecticides for controlling insect pests indoors. His observation of insects' ability to learn and relationships between repellency and control were controversial, but are now considered essential elements of all insect control programs. He was also among the first to research the basic and practical aspects of sub-zero cold as well as high heat for controlling urban insect pests, especially termites and wood-destroying beetles. His focused, innovative, and quality research evolved into Urban Entomology, then considered a new area of entomology research. Dr. Ebeling is widely considered one of the "Fathers of Urban Entomology."

Published in 1975, Professor Ebeling's textbook *Urban Entomology* is considered one of the most complete and useful books in urban entomology. Although out of print, it is a classic and remains a treasure to most urban entomologists. As Professor Emeritus, Dr. Ebeling continued to be productive after he retired, publishing two other books: *The Fruited Plain: The Story of American Agriculture*, a comprehensive study of the history of American agriculture, and *Handbook of Indian Foods and Fibers of Arid America*, a look at the essential role of insects and other plants and animals in the development of early America in the West.

Professor Ebeling received numerous national and international awards and recognitions for his outstanding accomplishments in entomology, including being elected Honorary Member of the Entomological Society of America. "Professor Ebeling represents everything grand in terms of society benefiting from science. He was an extraordinary scientist, a wonderful person, and such a strong advocate of the University of California and the pest control industry. He will be sorely missed," said Dr. Rust.

Professor Ebeling was preceded in death by his first wife, Ora Mae, and his second wife, Cora. As he wished, Professor Ebeling's ashes were scattered at sea off the southern California coast.

Professor Michael K. Rust (Chair), Professor Bradley A. Mullens, and Staff Research Associate Donald A. Reierson