

## A. H. Gold (1911-1984)

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The unexpected death of Professor of Plant Pathology Alma Herbert Gold on June 8, 1984, was a great loss to the University of California and especially to the department he loved and served so long and well. Dr. Gold was an enthusiastic ambassador of plant pathology in many countries of the world where his knowledge was sought and where cooperative research with colleagues was carried on. Dr. Gold was at home in research laboratories and agricultural fields of

Holland, Germany, Italy, Spain, Mexico, Guatemala, and Costa Rica. He spoke the respective languages fluently, read avidly and widely and also mastered reading Russian. On trips abroad he often singled out talented young people and encouraged many to come to Berkeley for graduate studies or postdoctoral research. Ever sensitive to human needs, those of us close to Herb—as he was known—know only somewhat of the personal sacrifices and unselfish generosity that attended his concern for the welfare of students and colleagues from other lands. Students were comfortable in coming to Professor Gold about individual problems no matter what the nature.

Professor Gold was born in Salt Lake City, Utah, on October 10, 1911, to Alma Nephi and Rosa Birch Gold, the oldest of nine children. For young Herb early life was hard; rheumatic fever took its toll on his heart at age 16, and all possibilities for higher education seemed remote. But a high school English teacher saw in Herb a penetrating inquisitiveness and suggested that he consider attending the University. In 1939, 10 years after admission to the University of Utah, and continuing to labor on behalf of the family while a student, Herb received the M.A. degree in botany.

While a student at the University of Utah, Herb met Marian Woodbury in a botany class; they were married in Berkeley in 1940. Ever encouraged by her husband, Marian continues her interest in biology as a staff researcher in the U.C. Department of Human Anatomy and Physiology.

In the late 1940s Herb was in the graduate program in the Department of Plant Nutrition at UC Berkeley where he received his Ph.D. degree in 1950 and joined the faculty of plant pathology

in 1951. He advanced through the ranks to become professor of plant pathology in 1967.

Dr. Gold's principal research emphasis was in the field of plant virology. He pioneered in the use of the electron microscope for the identification, quantification, and classification of plant viruses. His innovative skills also contributed substantially to the purification of viruses in those early days of virology. He experimented with a variety of density gradient, sieving, and electrophoretic techniques long before they became common laboratory procedures. Dr. Gold was also an early advocate of the use of immunology in plant virus research and identification. His plant physiology background prompted him to view diseases caused by viruses in a different light than most of his colleagues. He continually questioned many tightly held perceptions and devised new ways of looking at old questions.

Year after year he explored the devastating curly top disease of sugar beets in collaboration with USDA scientists, believing, but never convinced to his own satisfaction, that he had identified the viral agent responsible for the disease. Reflecting his ingenuity in devising new equipment, Dr. Gold's laboratory combined the diversity of technical glass blowing with delicate membrane construction, simulating plant cells through which insects might feed, to the mass production of intricate cages suitable for insect virus transmission studies. He pioneered and mastered a nutrient fog culture system for growing plants for root studies. He was always pleased to show others root development of extraordinary proportions in bananas, date palm, sugar beets, alfalfa or strawberries. Following his retirement in 1979, Dr. Gold remained active in his profession, and headed a research project on the epidemiology of strawberry virus diseases.

Dr. Gold was a member of many professional and honorary societies, including Sigma Xi, Phi Kappa Phi, Society of Plant Physiology, AAAS, American Phytopathological Society, and the American Botanical Society. He is survived by his wife Marian, a son John Herbert, and a daughter Marian Grace.

What was written of the pioneer plant pathologist J. G. Burrill applies also fittingly to Dr. Gold: "He loved people better than things, education better than science, and others better than himself. We owe him honor not only for what he did but even for what he might have done if he had been a man of less generous mold."