

## Award of Distinction

Through its Award of Distinction, The American Phytopathological Society formally recognizes exceptional productivity in research, inspiring leadership, and effective application of plant pathology for the benefit of humanity. This rarely bestowed honor has been presented four times previously in the history of the Society—in 1967 to E. C. Stakman, in 1969 to J. C. Walker, in 1972 to J. G. Horsfall, and in 1980 to Harold H. Flor.

### Arthur Kelman



Our society presents the Award of Distinction only on extremely rare occasions to persons making truly exceptional contributions to plant pathology. Such a person is **Arthur Kelman**. He, like those few who have preceded him in receiving this unusual honor, has been a tower of strength to the departments and universities where he has served and to the profession of plant pathology as a whole. He is a superb teacher, a gifted researcher, and a most effective administrator. In addition, he has had

a major role in the national and international development of our profession.

Arthur Kelman was born in 1918 in Providence, RI. Although he had originally planned to become a chemist when he entered the University of Rhode Island in 1937, he soon became interested in botany because of the influence of an outstanding instructor, Dr. Vernon I. Cheadle. His interests then focused on plant pathology as a result of contacts with Dr. Frank L. Howard, whose infectious enthusiasm influenced young Kelman to study plant pathology at North Carolina State University at Raleigh. World War II interrupted his career and he served for three years as a member of a Signal Intelligence Unit and saw action in Italy. He returned to graduate school at North Carolina in 1946, and, except for an extramural semester at the University of Wisconsin at Madison, he remained there to complete the Ph.D. degree and to accept a position as assistant professor of plant pathology in 1949.

His Ph.D. work marked the beginning of a life-long interest in bacterial diseases of plants, and, specifically, on the causal agent of Granville wilt of tobacco, *Pseudomonas solanacearum*. He soon became the recognized expert on this pathogen. His research had far-reaching impact because of the worldwide importance of the diseases caused by this bacterium. Studies with *P. solanacearum* had been hampered for decades by rapid loss of pathogenicity in culture. Dr. Kelman discovered that the appearance of bacterial colonies on a tetrazolium medium was related to their pathogenicity. This led to the development of a simple method for recognizing pathogenic colonies in culture, permitted the identification and study of factors that govern pathogenicity, and greatly accelerated the development of disease-resistant varieties of tobacco, tomato, potato, banana, and other important crops.

The strength of Dr. Kelman's research contributions was not limited to phyto bacteriology. In the early 1960s, he developed a program of graduate education and research in forest pathology at

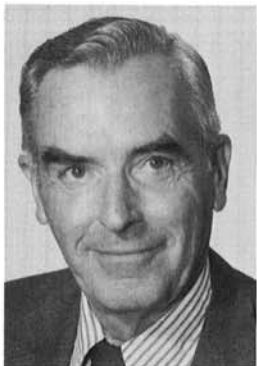
North Carolina State University. He and the students that he attracted to this program studied major diseases of southern pines, and added to our knowledge of the biochemistry of lignin degradation. In addition to his achievements in research, his skills as an educator and his charismatic influence on students were recognized early in his career. He received the award of Outstanding Instructor in the School of Agriculture in 1956. In 1961, he received a Distinguished Teacher Award, and, in the same year, the University recognized the value of his contributions when he was named William Neal Reynolds Distinguished Professor of Plant Pathology.

Yet another aspect of Dr. Kelman's versatility became apparent when he moved to the University of Wisconsin at Madison to assume the chairmanship of the Department of Plant Pathology in 1965. He became an efficient and widely respected administrator. Good judgement on difficult issues, impartiality in decision-making, and great capacity for reconciling divergent opinions were the characteristics of his ten-year tenure as chairman at Wisconsin. Above all, he provided leadership by demanding excellence in all operations of the department. As a member of the influential University Committee, he was involved in the policy-making process on many difficult issues on campus. Notwithstanding an extremely demanding schedule, he taught the basic undergraduate course in plant pathology for many years. He maintained his interest in phyto bacteriology and turned his attention to the ecology and physiology of the soft-rotting Erwinias. As a result of studies that he and his students carried out on environmental factors that affect these organisms on potato tubers, effective measures were implemented to reduce post-harvest losses. In 1975, he was named L. R. Jones Distinguished Professor of Plant Pathology, in recognition of his distinguished record of service to the University and the profession.

Perhaps the most noteworthy aspect of Dr. Kelman's career is his outstanding record of service to professional societies, international agriculture, and to the National Academy of Sciences which elected him to membership in 1976. He served our Society on numerous committees, as councilor-at-large, vice-president, and president. He was a major force in the development of the International Society for Plant Pathology, and he served as its vice-president from 1968 to 1973 and president from 1973 to 1978. He has been a consultant in international agriculture for the United Fruit Company and the Ford Foundation and was a member of the panel to review the International Rice Research Institute in 1975. He has also served recently as chairman of the Division of Biological Sciences and member of the Commission on Life Sciences of the National Research Council and chairman of the Section of Applied Biology and Agricultural Sciences of the National Academy of Sciences. He received The Fellow Award from our Society in 1969, was elected Fellow of The American

Academy of Arts and Sciences in 1977, and received an Honorary Doctor of Science Degree from the University of Rhode Island in 1977. An NSF Senior Postdoctoral Fellow he was a visiting professor in the Department of Biochemistry, Cambridge University, England in 1971–1972. These are but a few additional examples of the many honors that Dr. Kelman has received and that attest to his importance to our Society.

## George A. Zentmyer



**George A. Zentmyer**, a native of Nebraska, received his B.A. degree in 1935 from the University of California at Los Angeles. He then transferred to the University of California at Berkeley and obtained his M.S. in 1936 and the Ph.D. degree in 1938. From Berkeley, he spent a short period (1937 to 1940) with the USDA Division of Forest Pathology in San Francisco. He then joined the Connecticut Agricultural Experiment Station until he returned to California in 1944 to become a member of the

Citrus Experiment Station, University of California at Riverside. He remained on the staff and held the rank of professor and chairman of the Department of Plant Pathology. He retired on July 1, 1981 and is currently an emeritus professor continuing his research on the genus *Phytophthora*.

During Dr. Zentmyer's long and distinguished career he has been recognized by numerous honors and awards. His contributions to the avocado industry have been recognized by the Award of Honor in 1954 and the Special Award of Merit in 1981. In 1965 he was

awarded a Guggenheim Fellowship for study leave in Australia. The University of California recognized him by electing him as an All-University Lecturer in 1964 and also Faculty Research Lecturer in 1964. In 1972 he was awarded a NATO Senior Postdoctoral Fellowship to study in England and the Special Award of Merit by the Caribbean Division of APS. He is a Fellow of the American Phytopathological Society and the American Association for the Advancement of Science. In 1979 he was elected to the prestigious National Academy of Sciences.

Professionally, Dr. Zentmyer was active in APS and the AAAS. In APS he served as councilor-at-large (1952 to 1953), secretary (1960 to 1963), vice-president (1964), president-elect (1965), and president (1966). He has also served on numerous committees of APS. He served on the Executive Council (1964 to 1979) and as president (1974) of the Pacific Division of the American Association for Advancement of Science. He was a member of the Council of the International Society of Plant Pathology (1973 to 1978), is now chairman of the ISPP Committee on *Phytophthora* and was a member of the Visiting Biologists Program of the American Institute of Biological Sciences (1961 to 1964). He has served on several committees of the National Research Council and the National Science Foundation. He has been a member of the Editorial Committee of the "Annual Review of Phytopathology" since 1966 and associate editor since 1972.

Dr. Zentmyer's distinguished research career began with his discovery that the fungal toxicity of 8-hydroxyquinoline was due to its ability to immobilize metals by chelation which has affected many other areas of biological sciences. He went on to pioneer chemotherapy of plant disease and to create a world center for the study of the physiology, sexuality, biochemistry, and control of *Phytophthora*. His comprehensive and productive research on diseases of avocado and the genus *Phytophthora* have established him as a world authority in these aspects of research. An International Symposium on *Phytophthora*, involving participants from 25 countries, was held at Riverside, CA in April 1981 to honor Dr. Zentmyer's retirement.