AWARDS AND HONORS PROGRAM
73rd Annual Meeting · The American Phytopathological Society

Fellows

Eight members of the American Phytopathological Society were elected Fellows of the Society at the 1981 Annual Meeting in New Orleans, Louisiana. Election as a Fellow of the Society is a reflection of the high esteem in which a member is held by his colleagues. The award is given in recognition of outstanding contributions in extension, research, teaching, or other activity related to the science of plant pathology, to the profession, or to the Society.

John Basil Bancroft

John Basil Bancroft was born December 31, 1929, in Vancouver, British Columbia. He received a B.A. degree under F. Dickson at the University of British Columbia in 1952, and a Ph.D. degree in plant pathology under G. S. Pound at the University of Wisconsin in 1955. He has had a distinguished career as a professor in the Department of Botany and Plant Pathology at Purdue from 1955 to 1970, as head of the Virus Research Department, John Innes Institute, Norwich, England, and as chairman of the Department of Plant Sciences, and dean of the Faculty of Sciences, University of Western Ontario.

Dr. Bancroft's research has been primarily in basic areas of plant virology, but not exclusively so. He did research on maize dwarf mosaic virus when it first became serious in Indiana, and he has also investigated viruses in soybeans, forage legumes, and fruit trees.

A hallmark of Dr. Bancroft's research is persistent attention to a problem until everything fits a consistent picture. No discrepancy is allowed to rest. Thus, in their investigations of alfalfa mosaic and cowpea mosaic viruses, he and his students noted a slight increase in specific infectivity of samples collected between nucleoprotein components separated by density gradient centrifugation. It was a slight discrepancy but could not be explained by contamination of an uninfective middle component by an infective bottom component. This was the first step on the road to realization by virologists that these viruses had multicomponent genomes.

Dr. Bancroft is perhaps best known as the first to reassemble a "spherical" virus from protein and nucleic acid. This accomplishment proved that viral protein contains sufficient information by itself to encapsidate nucleic acids and that the virus requires no additional "assembly proteins." This work did more than extend what was previously demonstrated with tobacco mosaic virus (TMV), for reassembling "spherical" viruses is a more difficult and subtle process than reassembling TMV. It also has broader implications since "spherical" plant viruses are more common than TMV-like viruses and many bacterial, fungal, and animal viruses are spherical. Moreover, the physical principles identified are relevant to the assembly of other biological macromolecules. Consequently, the significance of Bancroft's reassembly studies is widely appreciated beyond the plant pathology community.

In recent years, Dr. Bancroft has turned his attention to the in vitro assembly of plant viruses with flexuous rod-shaped virions particularly in the potato virus X family. As in his investigation of the assembly of spherical viruses, he and his colleagues used diverse techniques to probe the chemistry of virus assembly, but the biological significance was always kept in mind. They have found with the long flexuous viruses, as they did earlier with the bromovirus, that assembly mechanisms differ appreciably from that of TMV. This research has made it clear that different viruses reassemble by different strategies.

Interspersed in his experiments on assembly, Dr. Bancroft has found time for investigations on multiplication of brome mosaic and cowpea chlorotic mottle viruses in protoplasts, and on pseudorecombinants and mutants of these viruses. His continually productive research program has been the basis for an outstanding record of graduate student training and a powerful stimulus to collaborators. Among other contributions to the profession, he has served as associate editor for *Virology*, the *Journal of General Virology*, and *Phytopathology*, and on several committees. He was the recipient of the Sigma Xi Research Award (Purdue Chapter) in 1968, the Ruth Allen Award of the APS in 1970, and the Herbert Newby McCoy Bequest Award from Purdue University in 1971. He was elected a Fellow of the Royal Society of Canada in 1979.

Joseph A. Kuć

Joseph A. Kuć, distinguished alumni professor of plant pathology at the University of Kentucky, was born in New York, NY, November 24, 1929. He received his B.S., M.S., and Ph.D. degrees from Purdue University in 1951, 1953, and 1955, respectively. He continued at Purdue as assistant professor of biochemistry from 1955 to 1959, associate professor of biochemistry from 1959 to 1963, and professor of biochemistry and professor of botany and plant pathology from 1963 to 1974. In 1974, he became professor of plant pathology at the University of Kentucky, and in 1978, was named distinguished alumni professor. In 1960–1961, Dr. Kuć spent a year at the Agricultural University, Wageningen, on a Fulbright Travel Grant and a Netherlands Research Council Fellowship. In 1966, he received a Fulbright Fellowship to initiate a program of biochemical research at the University of the Republic, Montevideo, Uruguay, where he was named honorary professor of chemistry. On fellowships from the State of São Paulo, he went to the Biological Institute, São Paulo, in 1969 to lecture and aid in the development of a host/parasite research program and in 1971 to work on coffee rust. In 1972, he received a fellowship from the Coffee Rust Institute to lecture and consult on research at the Coffee Rust Research Center in Lisbon.

Teaching has been a major commitment throughout Dr. Kuć's professional career. At Purdue from 1958 to 1974, he taught a two-semester course in general plant and animal biochemistry primarily for graduate students with an annual enrollment of 200 students from a variety of disciplines. In 1971, he was nominated for the Purdue University Outstanding Teacher Award in agriculture. He has taught a course in plant biochemistry at Kentucky since 1974. He was nominated for the Gamma Sigma Delta Master Teacher Award in 1979. He has served as major advisor for 38 Ph.D. and eight M.S. degree candidates. He is an enthusiastic and inspiring lecturer. He has presented invitational papers at four Gordon Research Conferences in biochemistry as well as symposia and seminars at numerous meetings, universities, and research centers around the world. His efforts in international education in plant pathology and biochemistry have contributed to the esteem in which our Society is held.

Dr. Kuć is a recognized leader in research on host/parasite physiology and biochemistry. Specific contributions include identification of terpenoid phytoalexins from potato and elucidation of their role in the expression of resistance and susceptibility, demonstration of an elicitor-inducer mechanism

in the potato tuber, elucidation of the physiology of resistance and susceptibility in apple to *Venturia inaequalis*, and demonstration of the phenomenon of induced resistance in bean, cucumber, and pears. His work on phytoalexins and his concept of the active nature of the disease response are outstanding contributions to plant pathology. His demonstration that inherent disease resistance mechanisms can be activated by a pathogen or nonpathogen and that this can result in the expression of resistance to an otherwise virulent pathogen has opened a new avenue to understanding the genetic control of resistance and susceptibility. He received the Campbell Research Award in 1976, an Outstanding Research Award from the University of Kentucky Research Foundation in 1977, and a Senior Scientist Award from the Alexander von Humboldt Foundation in 1979.

Dr. Kuć is a Fellow of the American Institute of Chemists and a member of the American Phytopathological Society, American Chemical Society, Phytochemical Society, American Society of Plant Physiologists, Japanese Society of Plant Physiologists, American Horticultural Society, New York Academy of Science, Sigma Xi, Phi Lambda Upsilon (chemistry), Alpha Zeta (agriculture), and Ceres (agronomy). He has served on the editorial boards of *Phytopathology, Plant Physiology, Physiological Plant Pathology,* and the *Journal of Food Safety.*

Curt Leben

Curt Leben was born July 7, 1917, in Chicago, IL. He received a B.Sc. degree in 1940 from Ohio University and a Ph.D. degree from the University of Wisconsin in 1946, where he was a postdoctoral associate and assistant professor. In 1949, he joined the fledgling agricultural division of Eli Lilly and Company and later became head of the Lilly Agricultural Research Center in Greenfield, IN. Dr. Leben was named professor and associate chairman, Department of Botany and Plant Pathology at the Ohio Agricultural Research and Development Center and The Ohio State University in 1959. He served as acting chairman of the new Department of Plant Pathology for a period in 1967. He then elected to devote all his time to research. He spent a year on sabbatic leave in the Department of Plant Pathology at the University of California at Berkeley during 1968–1969.

Dr. Leben has made a wide range of contributions to plant pathology in research, administration, and graduate student training. As a graduate student, he took part in the *Venturia* program led by G. W. Keitt, his major professor. While a student, he became interested in antibiotics for plant disease control, a subject he continued to pursue after joining the faculty of the University of Wisconsin. From this work came four antifungal antibiotics: antimycin A, helixin (later shown to be the same as endomycin), toximycin, and antibiotic B74. For various reasons, none proved to be of practical use for controlling plant diseases. However, antimycin A still is used in studies of the terminal oxidase system and for a time seemed to hold promise for limiting unwanted fish in small lakes.

At Eli Lilly and Company, Dr. Leben began a program for developing bactericides and fungicides for plant disease control. His group was soon enlarged to include plant physiology (mostly herbicides) and insecticides. He later was given administrative responsibility in animal nutrition and veterinary science.

Dr. Leben probably is best known for his studies on the epiphytic microflora of the phyllosphere. Of particular interest was the antagonism of some bacterial residents to fungal pathogens. Biological control of fungal diseases by one of these isolates was demonstrated in the greenhouse. It was found that plant buds of some species carried rich populations of nonpathogenic bacteria, and the subsequent isolation of pathogenic bacteria from buds and from other apparently healthy plant parts led to the hypothesis that some pathogens had a resident phase in the disease cycle. Each year, evidence mounts for the existence of a resident or epiphytic phase in the disease cycles of additional bacterial pathogens, and the resident phase has been demonstrated to be of significance in inoculum increase and incidence of some diseases.

Dr. Leben and his associates have published many papers on the bacterial blight disease of soybean, including studies of the resident phase of the pathogen, its survival on seed, its dissemination by storms, and its potential control by seed treatment. Similar studies have been completed with *Pseudomonas lachrymans*, which incites cucumber angular leaf spot. More recently, basic studies have been undertaken on the survival of plant pathogenic bacteria and on the adherence of various types of bacteria to leaf surfaces.

Dr. Leben has written reviews on epiphytic bacteria, antibiotics for plant disease control, and survival of plant pathogenic bacteria. He has presented invitational papers at symposia and at various institutions. His innovative and imaginative research and international reputation have attracted graduate students and postdoctoral associates to his program.

Dr. Leben is a member of a number of professional societies and has served APS as a member of the Chemical Control and Bacteriology Committees. He has served as an associate editor of *Phytopathology*, and contributed to APS by helping to raise money from industry for the headquarters building of the Society in St. Paul.

George Nyland

George Nyland was born April 3, 1919, in Alberta, Canada. He received his B.S. degree at Washington State University in 1940, his M.S. degree at Louisiana State University in 1942, served in the U.S. Navy from 1942 to 1946, and then received his Ph.D. degree at Washington State University in 1948. He became assistant professor of plant pathology at the University of California at Davis in 1948.

Dr. Nyland has made many significant contributions to the fruit industry and is recognized as a world expert on virus and viruslike diseases. His research on the development of pathogen-free stock has had an immense impact on agriculture. His early efforts were directed toward finding virus-free sources. This necessitated the development of techniques to detect virus infections and the innovation of methods to eliminate them in cultivars for which no clean source could be found. He pioneered thermotherapy, using constant dry heat for extended periods to inactivate viruses to obtain clean source material for a nursery improvement program and for research purposes. He also used heat treatment and the differential tolerance of viruses to heat to separate different viruses from mixtures. Pure cultures that were obtained this way and by other methods were inoculated into selected hosts to assess the effects of the viruses singly and in controlled combinations to identify the different disease complexes that were found in commercial orchards.

Upon recognition of the nature and importance of mycoplasmalike organisms, Dr. Nyland quickly made major contributions to their understanding and control. He showed that a mycoplasmalike organism was associated with peach X disease, and by serial cross and longitudinal sections, first demonstrated the elongate tubelike morphology of these organisms in situ. Mycoplasmalike organisms were also associated with several other fruit tree diseases, and practical

control procedures were pioneered that included tree injection with tetracycline. The feasibility of the injection method was demonstrated, and approximately 300,000 pear trees are treated annually for pear decline control in California.

He also has been active in elucidating the nature of spiroplasma-caused diseases. In his laboratory, spiroplasma organisms have been isolated in pure culture from plant tissue showing symptoms of several different yellow-type diseases including aster yellows, peach X disease from cherry and peach, pear decline, clover phyllody, and rice yellow dwarf. Distinct morphological characteristics distinguish several of the spiroplasma isolates.

Research on rose diseases in Dr. Nyland's laboratory has distinguished several different components of disease complexes. Rose spring dwarf, rose leaf curl, and rose ring pattern were characterized and shown to be caused by distinct disease agents. Through his demonstration he showed that rose leaf curl, which resembles the quarantined rose wilt and dieback that is present in some other countries, was already present in other areas of the United States, primarily in Antique roses. The California multimillion dollar rose industry may have been spared a potentially disastrous quarantine.

Dr. Nyland has served APS and his profession well. He has been a reviewer of *Phytopathology* and an associate editor for *Plant Disease Reporter* and PLANT DISEASE. He has served on many professional committees and participated in numerous symposia. His leadership in state, regional, national, and international efforts for nursery stock improvement has been invaluable. He was President of the Pacific Coast Division of APS in 1970.

Albert O. Paulus

Albert O. Paulus was born February 28, 1927, in Glendo, WY. He received a B.S. degree in 1950 and an M.S. degree in 1951 from the University of Wyoming. Dr. Paulus did graduate work at the University of Wisconsin under Glenn S. Pound and received a Ph.D. degree in 1954. He accepted a position at the University of California at Riverside as one of only two Cooperative Extension plant pathologists for the state. Dr. Paulus' responsibilities included all crops in southern California. In addition to his work as Extension plant pathologist, Dr. Paulus is involved in the teaching program at U.C.R., advising graduate students, and serving on qualifying and dissertation committees.

Dr. Paulus is described by his colleagues as a quality scientist and a valued friend. As an Extension plant pathologist, his primary interests have focused on the practical control of plant disease. His many contributions to the profession of plant pathology and to commercial agriculture are well known to his colleagues and to California farmers. He grasps ideas and concepts quickly in all fields of biological and agricultural sciences and has a working knowledge of the physical sciences. His investigations on diseases of Easter lily, virus and fungal diseases of strawberries, foliar and soilborne diseases of southern California vegetable crops, bacterial diseases of vegetable crops of southern California, fungicidal control of foliar and soilborne diseases of strawberries and vegetable crops, and the control of soilborne pathogens through fumigation, attest to his ability to handle a wide range of plant diseases incited by or associated with fungi, viruses, and bacteria, as well as chemotoxins and environmental factors. His ability to cover many areas in plant pathology is an accomplishment not common to many plant pathologists, especially when it is faddish and simpler to become identified as a specialist in a very narrow field. His deliberately paced, albeit rigorous, thorough, and explicit attention to detail has gained him respect among his colleagues.

Dr. Paulus' service to his profession has been excellent. He has served as associate editor of *Phytopathology,* on the Editorial Advisory Board of PLANT DISEASE, feature editor of PLANT DISEASE, member of steering committee for the Western Regional Conference on Control of Soilborne Fungi, member of National Pesticide teams for various chemicals, consultant to various central South American countries for agriculture, and keynote speaker at several conferences.

Dr. Paulus' expertise as a plant pathologist, his willingness to share his knowledge with others, and his personal integrity have brought him the respect of his colleagues, students, and growers alike and have earned him a position of leadership in plant pathology.

Clayton O. Person

Clayton O. Person was born in 1922 in Aylesbury, Saskatchewan, Canada. He attended the University of Saskatchewan where he received B.A. and M.A. (genetics) degrees in 1950 and 1951, respectively, and the University of Alberta where he earned the Ph.D. degree (cytogenetics) in 1953. He received two NRC (Canada) fellowships for postdoctoral studies at the University of Lund, Sweden, in 1954 and the John Innes Institute, England, in 1955. His first job was as a research officer with the Canada Department of Agriculture at the Dominion Rust Research Laboratory, Winnipeg. During this time (1956–1961), he was also appointed honorary research professor by the University of Manitoba, Winnipeg. In 1961, he became professor and head of the newly formed Department of Genetics at the University of Alberta, a post he retained until he moved to the University of British Columbia in 1966 as professor of botany. In 1971–1972, he was a visiting professor at the Punjab Agricultural University, India, and at the University of Adelaide, Austrailia.

Dr. Person played an active role in organizing the Genetics Society of Canada and was one of its founding members, serving as director (1961–1963) and president (1968–1969). He was chairman of the Panel of Genetics of the Survey of Basic Biology in Canada (1968–1969) and chairman of the Committee for Plant Biology of NRC (Canada) (1974–1978). Since 1978, he has served on the Canadian National Committee for the International Union of Biological Sciences. In 1970, he was elected a Fellow of the Royal Society of Canada.

Dr. Person's earlier research was in the field of cytogenetics. In a study of chromosome behavior in haploid wheat, he established that regular distribution of paired chromosomes to opposite poles of the cell at first meiotic anaphase did not depend on chiasma formation. He also studied chromosome behavior in wheat monosomics and discovered, among the progeny of crosses between disomic and monosomic plants, monosomic individuals that were deficient for a chromosome other than that lacking in the monosomic parent. To describe this phenomenon, he introduced the term "univalent-shift," which is now in standard usage in genetic literature. He showed that univalent-shift and other irregularities occur as a consequence of the random distribution of unpaired meiotic chromosomes in the semi-asynaptic monosomic parental individuals. His studies of chromosome behavior in wheat also showed that the recovery of homozygosity through backcrossing proceeds much more slowly than would be predicted on the basis of genetic theory.

Dr. Person's main area of research has been the genetic aspects of host/parasite interactions. His studies on the effect of benzimidazole showed that detached wheat leaves floated on

solutions containing 30–100 ppm of benizmidazole would remain green for up to one month. During this time, they continued to support growth and reproduction of leaf and stem rusts, thus facilitating race identification. The benzimidazole technique is used in many laboratories for studying disease reactions of cultures of rusts and mildews on living leaves. He is best known for his series of outstanding papers on the genetics of host/parasite interaction. After the discovery of the gene-for-gene relationship by H. H. Flor, he published an innovative paper on the theoretical implications and practical aspects of the gene-for-gene hypothesis. He showed how its inherent mathematical properties can be used to understand the complexities of resistance genes and physiologic races in many parasitic systems. His ideas are widely used for analyzing systems in which genetic studies of host or parasite either cannot be conducted or are difficult. His mathematical approach to the problem of microevolutionary change in host/parasite coevolution played an important part in the development of the population genetics of host/parasite interaction. In his sustained program of research on the barley/*Ustilago hordei* association, he demonstrated the convenience of *Ustilago hordei* as an organism for fundamental genetic research. Investigators in Europe and Australia, as well as North America, are now using it for studies of the genetics of virulence and the polygenic control of aggressiveness.

Dr. Person has had much to contribute by way of help, advice, and suggestions to those who have sought his guidance. His lively mind and constructive criticism are widely acknowledged. He is an outstanding teacher, and many of his students are well established in research and teaching in plant pathology and genetics.

Syama Prasad Raychaudhuri

Syama Prasad Raychaudhuri was born in India, December 31, 1915. He received his B.Sc. and M.Sc. degrees in Calcutta in 1935 and 1937, respectively. From 1939 until 1941, he was an associate of the Indian (then Imperial) Agricultural Research Institute, where he received the degree "Government Scholar & IARI Associate" in 1941. In 1949, he received the Ph.D. degree from Calcutta University.

Dr. Raychaudhuri's professional career began in 1938, when he became demonstrator in botany at Dacca University (1938–1939). From 1939 until 1941, he was at the Indian Agricultural Research Institute (IARI) in New Delhi, then returned to Dacca College as lecturer for two years (1941–1943). The following three years were spent as agricultural officer of the Bombay government. In 1946, Dr. Raychaudhuri became assistant plant pathologist at IARI in New Delhi, advanced to assistant virologist (1947–1955) and virus pathologist-in-charge at Kalimpong (1955–1961). In 1961, he became a professor of plant pathology, and from 1965 until 1975, head, Division of Mycology and Plant Pathology, IARI, New Delhi. From 1975 until 1976, Dr. Raychaudhuri served as adviser, Harayana Agricultural University, Hissar.

Dr. Raychaudhuri has held numerous visiting professorships. He worked from 1950 to 1952 as visiting investigator and Fulbright Scholar at the Plant Pathology Department, Rockefeller Institute, New York City, with L. O. Kunkel. In 1964, as a grantee of the Rockefeller Foundation, he worked for four months at the Boyce Thompson Institute in Yonkers, NY. He joined APS in 1950.

In 1974, he was invited to Germany as visiting professor at the Justus Liebig University for four months. The Japan Society for Promotion of Science invited him as a senior visiting scientist in 1976. In 1977, he was visiting professor at Rutgers, The State University of New Jersey, and in 1978, visiting professor at the Hohenheim University at Stuttgart, Germany. He is currently visiting professor at Kashmir University.

Dr. Raychaudhuri is best known for his research on diseases caused by viruses and mycoplasmas. He has been the author or coauthor of more than 350 publications dealing with fundamental and applied aspects of plant pathology. In addition, he has written two books and edited three others. About 70 graduate students have received their M.S. or Ph.D. degrees under his guidance. He has been the chairman of the Organizing Committee of two international plant pathology symposia in New Delhi in 1966 and 1971. Jointly with Paul Neergaard, he acted as convener of the 11th Seed Pathology Workshop, held for the first time in Asia (New Delhi) in 1967. He became chairman of the International Union of Forestry Research Organization Working Party on Mycoplasma Diseases in 1977 and has organized four international symposia on mycoplasma diseases of trees and shrubs.

Among Dr. Raychaudhuri's many awards and honors are: Fellow of the Indian National Science Academy, the Linnean Society of London, and the Indian Phytopathological Society. He is the past president of the Section of Agricultural Sciences of the Indian Science Congress, the Indian Phytopathological Society, the Society for the Development of Botany, and the Association of Seed Pathologists of India. He was first honorary treasurer of the International Society for Plant Pathology. He serves as executive councilor of the International Society of Citriculture. He has been editor-in-chief of *Indian Phytopathology* and served on the Advisory Board of Horsfall and Cowling's "Plant Disease" treatises. He was awarded a medal from CIMMYT, Mexico, for collaborative work in wheat improvement, and the Rafi Ahmed Kidwai Memorial Prize for outstanding agricultural research for 1966–1967.

Robert E. Stall

Robert E. Stall was born near Leipsic, OH, December 11, 1931. He attended Ohio University at Athens, and Ohio Northern University at Ada, prior to transferring to Ohio State University at Columbus, where he earned a B.S. degree in plant science (1953) and M.S. (1954) and Ph.D. (1957) degrees in plant pathology. He became assistant plant pathologist at the Florida Agricultural Experiment Station at Fort Pierce in 1957 and was promoted to associate rank in 1963. In 1964, he joined the faculty at the University of Florida at Gainesville. He was promoted to professor of plant pathology in 1969. In 1978–1979, at the request of the Argentine Government, he spent a year in Argentina in research on citrus canker, which had become epidemic in Argentina, Brazil, and Paraguay during the 1970s.

In his early research, Dr. Stall made essential contributions to the knowledge of tomato diseases and to the production of fieldgrown tomatoes in Florida. He showed that gray mold could be controlled by application of lime and phosphate to keep the calcium/phosphorus ratio in tomato leaves above 4.0, and pointed out the necessity of relying on leaf tissue analysis rather than soil pH. He demonstrated that bacteria are the primary causative agents of graywall of tomato and that tobacco mosaic is a predisposing factor. He discovered the development of streptomycin-resistant mutants of *Xanthomonas vesicatoria* in the field and developed a copper-maneb spray program to replace streptomycin for controlling bacterial spot. After finding Race 2 of *Fusarium oxysporum* f. sp. *lycopersici* in Florida, he located a resistance gene in wild species of tomato and tranferred it to commercially acceptable cultivars resistant

to Race 1 and Race 2. This I-2 gene is used the world over for control of Race 2 of the tomato wilt pathogen. In 1964, Dr. Stall received the Research Award of the Florida Fruit and Vegetable Association. The integrated control program for foliar diseases of tomato he developed two decades ago is still recommended by the Florida Cooperative Extension Service.

Dr. Stall is recognized in this country and abroad for the high quality of his fundamental research in phytobacteriology. Following his discovery of resistance to *Xanthomonas vesicatoria* that is conferred by a single dominant gene in lines of bell pepper, he used near-isogenic lines to develop a model system for studying the hypersensitive reaction on which this resistance was based. Leakage of electrolytes was correlated with the hypersensitive reaction, and electrolyte-leakage patterns became a basic research tool used to study the progress of this reaction. Other noteworthy contributions include his discoveries that the hypersensitive reaction requires contact between bacteria and host cell walls, that the bacterium and its volatile products disrupt cell membranes, and that induction periods for the hypersensitive reaction vary with different microbial agents. This series of studies has greatly advanced the overall understanding of the basic nature of the hypersensitive reaction. At the same time, Dr. Stall has maintained his involvement with applied pathology. During his one-year assignment in Argentina, he worked out a spray program of fixed copper applied two weeks after each flush of new growth that effectively controlled citrus canker.

During the past 15 years, Dr. Stall has devoted half of his time to teaching. He has developed two new courses at the University of Florida. His course in phytobacteriology has received national acclaim. In 1968, he was invited to participate in the NSF/APS-sponsored workshop on teaching at Cornell University. His course in disease control is a skillful blend of the classic etiological and the modern epidemiological approaches. He has supervised the work of 11 M.S. and six Ph.D. degree students. He served as coordinator of the graduate program for two years.

As an active member of APS, Dr. Stall has chaired the Committee on New Projects and has served on the ATCC Committee and on the editorial board of *Phytopathology*. As chairman of the Committee of Phytobacteriology, he organized and obtained funds for the symposium on "Taxonomic determinations in phytopathogenic bacteria." As councilor, he served on the committee that reorganized APS election procedures and on the Program Review Committee. Dr. Stall has been elected to membership on the honorary societies of Sigma Xi, Gamma Sigma Delta, and Phi Epsilon Phi. In 1977, he was named an Outstanding Alumnus by Ohio State University.