the University Scholars Program (1980–1987).

Because of Dr. Merrill's outstanding teaching, he was awarded The Christian H. and Mary L. Lindback Award for distinguished undergraduate teaching in 1975. This is Penn State's most prestigious teaching award, and it carries the title, “Master Teacher.” In addition, he was awarded the Penn State Chapter of Gamma Sigma Delta Award of Merit for undergraduate teaching in 1976 and the Northeast Division, APS, Award of Merit for distinguished teaching in 1984.

In 1965, Dr. Merrill designed and conducted a highly productive program of research in forest pathology. In recent years, these activities have focused on the diseases of Christmas trees, an economically important industry in Pennsylvania. He has published more than 290 papers, popular articles, and abstracts, including books, book chapters, and major text revisions. He is an internationally recognized forest pathologist and is nationally recognized as an authority on Christmas tree diseases. He received a Certificate of Appreciation and cash award in 1987 from the USDA. He is a member of several honorary and fraternal organizations, including Phi Kappa Phi, Sigma Xi, Xi Sigma Pi, Alpha Zeta, and Gamma Sigma Delta.

Dr. Merrill is dedicated to education and has given outstanding service to science and to his profession through teaching and research. He has been recognized locally, regionally, nationally, and internationally for his contributions, and those he has taught have carried on his high ideals.

## Extension Award

This award was established in 1988 by the APS Council in recognition of excellence in extension plant pathology. The award is presented to those involved in formal plant pathology extension with recognized superior contributions in developing or implementing leadership roles in local, regional, or national honor societies or professional organizations.

### Helene Roberts Dillard

Helene Roberts Dillard was born in San Francisco, California, on March 22, 1955. She received a B.S. degree from the University of California, Berkeley, in 1977 and an M.S. degree in soil science from the University of California, Davis, in 1979, where in 1984 she completed her Ph.D. degree in plant pathology under the direction of Raymond Grogan. She joined the faculty of the Department of Plant Pathology at Cornell University at Geneva, New York, as an assistant professor in 1984. She was promoted to associate professor in 1990. Her appointment at Cornell is 50% extension and 50% research with emphasis on biology, ecology, and control of fungal and bacterial pathogens of vegetables. She has demonstrated an exceptionally keen ability to combine research and extension responsibilities. Her excellent extension program is based on a solid applied research program that gives her firsthand knowledge and confidence when she helps growers. In her own words, her 50:50 split between extension and research gives her “the flexibility to determine a need, respond quickly with current knowledge, and conduct research where information is lacking.”

Dr. Dillard exemplifies the modern day extension researcher. She interacts with extension and research faculty, extension field staff, and specialists in Integrated Pest Management (IPM). Her ability to respond to and interact with county extension personnel was recently recognized when she received a special citation from the New York Association of County Agricultural Agents for “her distinguished performance and outstanding contributions to the well being of the people and the agriculture of New York State, and with appreciation for the help and cooperation given to programs of Cooperative Extension.” The award also recognized “her willingness to work as a close partner on research and extension projects, and her accessibility and responsiveness to growers and agents’ needs.” She has a knack for identifying key areas needing research, and her well-balanced program has successfully helped many commercial vegetable growers to manage diseases in the most efficient, economical, and environmentally sound manner.

Dr. Dillard’s mission-oriented research has dealt with solving problems encountered in her extension function. Her research often includes short-term projects that address solutions to disease control problems for immediate implementation in extension programs and fundamental projects for use in long-term disease management efforts. There are many examples of what she has accomplished with her unique approach to extension research.

Her work on anthracnose of tomato provided growers with information on the biology and ecology of the causal organism as well as timely information on control of the disease.

When studies on aerial applications of mancozeb for control of common maize rust of sweet corn indicated information was needed to improve timing of the fungicide applications, she initiated studies on action thresholds. She and colleague, Robert C. Seen, determined that 80% incidence of six uredinia per leaf was the disease level at which applications should be made. This work ultimately resulted in well-timed pesticide use on that crop without loss of disease control efficacy.

Dr. Dillard determined that a brown discoloration of lima beans that made them unacceptable to the processing industry was caused by Rhiococtonia solani. In the absence of registered fungicides to control this disease, she initiated studies on cultural practices that might reduce the disease. On the basis of these studies, she recommended that growers rotate with grain crops and use varieties of upright growth habits that keep the bean pods off the soil surface, thereby escaping infection by R. solani.

In 1988, a serious outbreak of Stewart’s bacterial wilt of corn occurred in sweet corn in western New York. This was the first outbreak in 55 years, and at first the symptoms were thought to be caused by drought. Dr. Dillard’s rapid and correct diagnosis of the problem allowed dissemination of information on the disease in a timely fashion. Growers now use a forecasting system for Stewart’s wilt, available through the IPM program, and take appropriate measures to control the vector.

Although Dr. Dillard’s research and extension efforts have contributed much information on the use of fungicides to control diseases such as root rot of peas, Cercospora leaf spot of table beets, common maize rust of sweet corn, and anthracnose and early blight of tomatoes, her research and extension recommendations go beyond strictly chemical options and include information on varietal susceptibility and cultural practices to reduce disease. She uses a truly integrated approach to disease.
control, and through her efforts IPM is not just an idea but a practical approach to disease management.

Dr. Dillard's clientele of growers, county agents, industry representatives, and professional colleagues appreciate the fact that she promptly provides data and information from research trials or diagnoses of disease specimens. Results of her many research projects have not only been published in *Phytopathology*, *Plant Disease*, and *HortScience*, but in many extension publications. She is a regular contributor to *Fungicide and Nematicide Tests, Biological and Cultural Tests for Control of Plant Diseases*, Cornell Cooperative Extension Fact Sheets, and to proceedings of numerous conferences and various trade journals.

Dr. Dillard is in great demand for speaking to grower groups, and during the last five years she has given more than 50 oral presentations on vegetable diseases to growers and extension agents. Her dedication to the science, her rapport with growers, and her effective communication skills are the ingredients that have resulted in an effective and highly productive extension program.

## Lee M. Hutchins Award

The Lee M. Hutchins Fund was established in 1979 by gifts from the estate of Dr. Lee M. Hutchins. The award, consisting of a certificate and income from the invested fund, is made for the best contribution to basic or applied research on diseases of perennial fruit plants (tree fruits, tree nuts, small fruits and grapes, including tropical fruits but excluding vegetables). The results of the research must have been published in an official journal of the Society.

### Jerry K. Uyemoto

Jerry K. Uyemoto was born in Fresno, California, on May 27, 1939. He earned a B.S. degree in agronomy in 1962 and M.S. and Ph.D. degrees in plant pathology in 1964 and 1968, respectively, all from the University of California, Davis. He was an associate professor at Cornell University, New York State Agricultural Experiment Station, Geneva, during 1968–1977 and professor at Kansas State University, Manhattan, from 1977 to 1981. While in Manhattan, Kansas, he worked at the biotechnology firm, Advanced Genetic Sciences, as a senior staff scientist for two years. From 1984 to 1986, he was a visiting scientist at the University of California, Davis. He is now a research plant pathologist with the USDA, Agriculture Research Service (ARS), in the Department of Plant Pathology, University of California, Davis, where he has a courtesy appointment as lecturer and associate plant pathologist in the Agriculture Experiment Station.

Since receiving his doctorate, Dr. Uyemoto has held various academic and research positions, as indicated above, and conducted research on a variety of crop plants. During his tenure in New York State, he and his associates demonstrated that two nepoviruses (tobacco ringspot [YRSV] and tomato ringspot [TMRSV]) initiated a severe decline of French hybrid grapevines. Through a series of pathogenicity tests, he determined that susceptibility to the virus among various French hybrid cultivars was from at least two Vi ria species, and he further observed that susceptibility to TRSV and TMRSV was apparently independently inherited. Vineyard control of these soilborne viruses was by careful selection and use of resistant fruiting cultivars or rootstocks. Research contributions were also made on virus diseases of apple and annual crop plants.

While at Kansas State University, Dr. Uyemoto and a graduate student learned that although several grass species were hosts of maize chlorotic mottle virus (MCMV; a component of the corn lethal necrosis disease complex), none appeared to serve as an overwintering virus source. Later, he and another student showed that the virus inoculum source was the infected corn residue and that control was mediated by crop rotation with a non-MCMV host (e.g., sorghum).

As a visiting scientist in California, Dr. Uyemoto worked mostly on the epicarp lesion disorder of pistachio. He and his associates showed that a number of hemipterous insects were involved and that the onset of symptoms was the direct result of a wounding response involving the enzyme peroxidase.

As an ARS scientist, Dr. Uyemoto and associates have developed data on the incidence of larviruses in young *Prunus* orchards and have begun a long-term assessment of their influence on tree performance. The research results here have produced an immediate impact on the fruit and nut tree industries; major revisions were implemented in the statewide nursery certification program and current operational practices of nurseries in California. For example, the California Department of Food and Agriculture, a regulatory agency, has adopted the ELISA protocols tested and/or established by Dr. Uyemoto for the serological indexing of all *Prunus* tree sources used for scion buds and seeds.

Dr. Uyemoto has determined that the agent responsible for almond brownline and decline (ALBD) is graft-perpetuated. This finding, in conjunction with results of orchard surveys, suggests that the disease is introduced into orchards through the planting of infected trees. More recently, Dr. Uyemoto has induced ALBD-like symptoms by using inoculum of peach yellow leafroll mycoplasma. In sweet cherry, on the basis of a five-year epidemiology effort towards the control of western X-disease, a revised integrated control program employing leafhopper vector control and tree sanitation practices is being implemented by orchardists. Also, a new procedure for the rapid field diagnosis of X-diseased trees on mahaleb rootstocks was developed. Last, a new stem pitting disease of cherry was identified. Evidence to date indicates the absence of TMRSV, the cause of Prunus stem pitting. Although the etiological agent is unknown, dslRNA analysis of symptomatic, but not healthy, tissues demonstrated the presence of a novel nucleic acid species of about 4.7 kb, to which a probe was recently made and is currently being used in the research effort.