

# 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 contribution 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. Seem, determined that 80% incidence or six uredinia per leaf was the disease level at which applications should begin. 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 *Rhizoctonia 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.