Forestry - Plant Diseases, also **Horticulture/Specialty Crops - Plant Diseases**

Kentucky Sudden Oak Death Survey

Kentucky's forests and landscapes are vulnerable to *Phytophthora ramorum*, a pathogen that causes sudden oak death and ramorum blight on many other plants. *P. ramorum* is transported on/in nursery stock and soil. Concerned with its spread outside regulated West Coast areas, the USDA funded national *P. ramorum* surveys. University of Kentucky Plant Pathology Department researchers, in collaboration with the Office of State Entomologist and the Kentucky Division of Forestry, conducted the Kentucky forest and nursery surveys in 2005. Thirty forest locations and dozens of nurseries were sampled. Analyses for *P. ramorum* were conducted in a Plant Pathology laboratory set up for molecular diagnostics. No confirmed positive samples were found. Results have been extended to stakeholders. The susceptibility of Kentucky native plants is being tested in collaboration with researchers in other states. Early detection and eradication of diseased plants are important to protect Kentucky's forest resources and the nursery and landscape industries. - P. de Sa and J. Hartman

Horticulture/Specialty Crops – Plant Diseases

Eastern U.S. Sooty Blotch and Flyspeck Survey

In collaboration with plant pathology researchers throughout the eastern United States, diseased apple samples were collected from four Kentucky orchards and sent to Iowa State University for analysis. Apples showing symptoms of sooty blotch and flyspeck diseases, caused by a complex of several different fungi, were chosen for the analysis. The purpose of this research is to use genetic analysis to identify the spectrum of fungi causing these fruit blemishes in each state. Kentucky apple growers will benefit from the results of this work because fungicide-resistant species of disease-causing fungi will be identified, giving growers the opportunity to use other disease management options. - J. Hartman.

Apple and Grape Extension IPM

In collaboration with colleagues in the UK. Horticulture and Entomology departments, Plant Pathology involvement with the apple and grape IPM programs continues to be active. Electronic mail list-serve technology was used to quickly inform growers of rapidly changing disease situations in their crops. For plant disease management, dozens of timely messages were issued advising growers of the need for action to manage diseases. Using weather and tree or vine phenology data obtained from UK. Horticultural Research Stations in Quicksand, Princeton, and Lexington, growers were provided with science-based disease management advice from the fruit pathology specialist. Using computer models and adapting to dynamic situations, the plant pathology specialist sent electronic mail messages as needed to the listserves (one for apple growers and another for grape growers). Growers heeding the advisories benefited from timely fungicide applications or saved money by following advice not to spray when it was not necessary. The apple and grape IPM programs also provided growers the chance to learn more about fruit pest management at periodic on-farm meetings. - J. Hartman