Jim Lytle

Marco Nicovich

DEPARTMENT of Entomology and Plant Pathology:

Protecting Mississippi

Research in the Department of Entomology and Plant Pathology emphasizes protecting Mississippi's crops, environment and people.

During the past year, research efforts have been focused on insect pests and plant diseases that have recently moved into the state or that may soon reach the Midsouth.

Sweet potato insect pest management research in the department has resulted in the identification of two types of flea beetles and a white grub species not previously found in Mississippi's sweet potato crop. As a result, insecticides have been evaluated to help provide the best possible recommendations for control of flea beetles and root pests.

Exotic insect species under study in the department include the cactus moth, the citrus leaf miner and an Asian species of ant, Pyramica hexamera, found for the first time in Mississippi during the past year. MAFES plant pathologists also recently completed an extensive survey of nursery stock for Sudden Oak Death disease. The disease, which can damage many species of landscape plants, has not been found in the state, even though Mississippi nurseries have received stock from suppliers in California and other states where the disease is found.

Recent research in the department has demonstrated how forestry practices can protect valuable forest resources from insect pests. One study has documented the ability to reduce the impact of bark beetle infestations in pine stands with proper thinning. Another project has demonstrated the value of proper thinning in hardwood stands, which lead to the development of a prototype for a new integrated pest management computer program to deal with damage caused by the cottonwood leaf beetle.

MAFES scientists in the Department of Entomology and Plant Pathology also are continuing their work with projects to protect cotton, corn, soybeans and other row crops from insects and disease. An important part of that work is research with new varieties, such as Bt cotton varieties, and new production practices, including ultra-narrow-row cotton.

Marco Nicovich

For more about research in the Department of Entomology and Plant Pathology, visit www.msstate.edu/entomology/ENTPLP.html.