Focus

Borde blanco, a new basidiomycete-caused disease of corn in Mexico, Nicaragua, and Costa Rica, has been described by F. M. Latterell and A. E. Rossi, USDA Plant Disease Research Laboratory, Frederick, MD. Symptoms include white border lesions of concentric zones extending from the leaf margin inward, often to the midrib. With severe foliage infections, stalk lesions and stalk rot are extensive, especially where foliage is dense and humidity high. (APS Potomac Division Meeting, March 1980)

In the fall of 1979, the pinewood nematode (Bursaphelenchus lignicolus) caused sudden death of red and eastern white pines in southeast Iowa. The nematode was isolated by D. C. Norton, Iowa State University, on 4 December 1979 and identified by D. J. Williams, APHIS, USDA, Des Moines, on 27 February 1980. The first report in the Western Hemisphere was made on 12 April 1979 in Missouri by A. Foudin, APHIS. The nematode is now reported to occur in at least 15 states: Arkansas, California, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Missouri, Ohio, Pennsylvania, South Carolina, and Tennessee. The following species of Pinus have been reported as hosts: P. banksiana, cembra, clausa, echinata, elliotii, mugo, nigra, palustris, ponderosa, resinosa, strobus, sylvestris, taeda, thunbergiana, and virginia. (Coop. Plant Pest Rep. Vol. 4, 1979; Vol. 5, 1980)

Early detection of Dutch elm disease was possible with thermal imagery with an AGA Thermovision 680 system in work by L. A. Alger and associates at the Virginia Polytechnic Institute, Blacksburg. The disease was detected within 24 hr of artificial inoculation of trees. Inoculated branches on three of four trees had elevated leaf temperatures at 24, 48, and 144 hr after inoculation. (APS Potomac Division Meeting, March 1980)

Apples pressure-infiltrated with a 4% calcium chloride solution for 2 min at 15 psi had 50% less decay caused by Penicillium expansum than apples not treated, reports W. S. Conway, USDA Horticultural Crops Quality Laboratory, Beltsville, MD. Immersing apples for 3 min in the solution without pressure infiltration reduced decay only 10%. All apples tested were inoculated with P. expansum. (APS Potomac Division Meeting, March 1980)

Such behavioral clues as differences in leaf canopy color may be used to avert alighting of aphid vectors of viruses on crops, according to M. E. Irwin, R. M. Goodman, and G. A. Schultz of the University of Illinois. Field experiments were designed to test whether the spread of the nonpersistent, aphid-borne soybean mosaic virus (SMV) could be altered by planting soybean phenotypes differing in dark or light green leaves, then roguing unwanted phenotypes. Three times as many aphids of Rhopalosiphum maidis and Macrosiphum euphorbiae landed on transparent sticky traps and transmission of SMV was twice as great in the dark green as in the light green plots. Myzocallis asclepiadis, Therioaphis trifolii, and Aphis craccivora showed no differential alighting response.

An endoparasitic nematode-destroying hyphomycete (Harposporium arcuatum) found in Ontario farmyard soils is described as a new species by G. L. Barron, University of Guelph, Ontario, Canada. The conidia are easily swallowed by the nematode but cannot be evacuated through the anal orifice; they accumulate in the gut and germinate, infecting the host. Occasionally, conidia become lodged in the esophagus. The possible role in biocontrol was not mentioned. (Can. J. Bot. Vol. 58, No. 4, 1980)

In black rot of cotton caused by Thielaviopsis basicola, the browning or blackening of tissues is induced by methyl acetate, a phytotoxin produced by T. basicola, hypothesize M. Tabachnik and J. E. DeVay of the University of California, Davis. (Physiol. Plant Pathol. Vol. 16, No. 1, 1980)