Focus

Compiled by Thor Kommedahl

A new strain of Agrobacterium tumefaciens produces tumors on at least 10 plant species, forms large tumors on soybean, and is insensitive to agrocin 84, report A. L. Bush and S. G. Pueppke of the University of Missouri, Columbia. (Appl. Environ. Microbiol. 57:2468-2472, 1991)

Soilborne pathogens, especially Stagonospora meliloti, markedly reduced populations of alfalfa plants, report C. G. Summers and D. G. Gilchrist of the University of California, Berkeley. This is the first report of association of S. meliloti with reduction in plant populations. (J. Econ. Entomol. 84:1353-1363, 1991)

Extracts of Meloidogyne spp. on tobacco show peroxidase activity, but only in contact with plant cells, suggesting that peroxidase is a plant defense mechanism against nematode invasion, reports S. K. Ibrahim, University of Newcastle upon Tyne, England. (Rev. Nematol. 14:335-344, 1991)

ELISA showed that seed of soybean and peanut did not transmit cowpea mild mottle virus, contrary to current views that this virus is seed-transmitted, report N. Horn and associates at the Malang Research Institute for Food Crops, East Java, Indonesia. (Neth. J. Plant Pathol. 97:125-127, 1991)

Bacteria in cambium of beech disturb activity in the xylem, giving rise to radially oriented tissue containing dark cells resembling those seen in wound tissue, report L. J. Kucera and K. J. M. Bonsen of Eidgenössichen Technischen Hochschule, Zurich, Switzerland. (Eur. J. For. Pathol. 21:172-178, 1991)

Phytophthora macrochlamydospora, a new species isolated from the rotted roots and stems of soybean in Australia, is distinguished from P. megasperma mainly by the production of large, thick-walled chlamydospores, reports J. A. G. Irwin of the University of Queensland, Australia. (Mycologia 83:517-519, 1991)

Patterns of phenolic compound accumulation and long-term stem colonization are accurate criteria for identifying alfalfa genotypes resistant to Verticillium wilt, report Y. A. Papadopoulos and associates at the University of Guelph, Ontario, Canada. (Can. J. Bot. 69:1275-1283, 1991)

Fusarium oxysporum forms heterokaryons with F. redolens, indicating conspecificity of these taxa, according to M. Rataj-Guranowska and associates at the Polish Academy of Sciences in Poznan and Warsaw, Poland. (J. Phytopathol. 132:294-302, 1991)

Fumigation with phosphine can retard fungal spoilage in short-term storage of high-moisture wheat, report A. D. Hocking of the CSIRO Division of Food Processing, North Ryde, and H. J. Banks of the CSIRO Division of Entomology, Canberra, Australia. (J. Stored Prod. Res. 27:115-120, 1991)

Two of 37 isolates of Pythium sylvaticum from beans and sugar beets behaved as male and female strains, and the remaining were female or male homothallic or female or male heterothallic, report K. Kageyama and associates at Gifu University, Institute of Hokkaido Plant Protection Association, Sapporo, and Nippon Tensaiseitou Company, Obihiro, Japan. (Trans. Mycol. Soc. Jpn. 32:283-289, 1991)

Acid rain poses only slight risk to citrus and avocado in Florida and is a potential problem only when accompanied by extremely high ozone concentrations, according to D. M. Eissenstat and associates at the University of Florida, Gainesville and Orlando, and the USDA-ARS, Orlando. (J. Am. Soc. Hortic. Sci. 116:838-845, 1991)