Focus

Red spruce decline in the northeastern United States can be attributed to abiotic stress imposed during the dry years of the 1960s, according to A. H. Johnson of the University of Pennsylvania, Philadelphia. No clear evidence links spruce decline with acid rain. (J. Air Pollut. Control Assoc. 33:1049-1054, 1983)

Elytroderma torres-juanii was reported for the first time in Portugal on pine needles by D. W. Minter of the Commonwealth Mycological Institute, Kew, England, and N. Fonseca of Quinta do Marquês-Oeiras, Portugal. Isolates in Portugal differ appreciably from the type specimen. (Nova Hedwigia 37:181-190, 1983)

The witchweed seed germination stimulant dl-strigol can eradicate Striga asiatica, according to A. I. Hsiao of Agriculture Canada, Regina, A. D. Worsham of North Carolina State University, Raleigh, and D. E. Moreland of the ARS-USDA, Raleigh. Applied to the soil surface, strigol leaches down to 30 cm and persists in wet soil for 21 days. (Weed Sci. 31:763-765, 1983)

A new disease in yam is described as Dioscorea alata ring mottle virus by A. Porth and F. Nienhaus of Rheinischen Friedrich-Wilhelms-Universität, Bonn, West Germany. This potyvirus, found in Togo, produces mottling, stunting, vein necrosis, and leaf malformation. (J. Plant Dis. Prot. 90:352-362, 1983)

Barley yellow dwarf virus has been found on barley in Japan by M. Kojima, A. Matsubara, and S. Yanase of Niigata University and S. Toriyama of the University of Tokyo. Isolates infected 12 cereals and grasses, and aphid vectors were common. (Ann. Phytopathol. Soc. Jpn. 49:338-346, 1983)

Midseason application of aldicarb (Temik 10G) or oxamyl (Vydate 10G) for stem nematode control increased onion yields 45-78% the year of sowing, but midseason application the second year had no effect on yield, report D. Gentzsch and H. Böttcher of Martin-Luther Universität, Halle-Wittenberg, East Germany. (Arch. Phytopathol. Pflanzenschutz 19:317-324, 1983)

Hyphae of three Trichoderma species parasitized hyphae of Rhizoctonia solani on or in the soil and in soybean rhizospheres, reports W. S. Wu of National Taiwan University, Taipei. The incidence of soybean disease was significantly lower when antagonistic Trichoderma species were present than in untreated soil. (Int. Congr. Plant Prot., 10th, Vol. 2, 1983, p. 794. Lavenham Press, Suffolk, England)

Biologically significant concentrations of ferrichrome-type siderophores occur in soil, according to P. E. Powell and P. J. Szaniszlo of the University of Texas, Austin, and C. P. P. Reid of Colorado State University, Fort Collins. Escherichia coli (K-12 strain) was used as a specific bioassay. (Appl. Environ. Microbiol. 46:1080-1083, 1983)

Inoculation of corn mesocotyl with Helminthosporium maydis prevents formation of resistant-type lesions and accumulation of anthocyanins associated with resistance, report S. F. Pasholati and R. L. Nicholson of Purdue University, West Lafayette, IN. With H. carbonum inoculation, however, restricted lesions form and anthocyanin accumulates in surrounding tissues. (J. Phytopathol. 107:97-105, 1983)

Fungicides that control disease rather than kill the pathogen are being developed, according to M. Wade of Shell Research Ltd., Kent, England. An example is aluminum tris o-ethyl phosphonate, a systemic that stimulates defense reactions and synthesis of phytoalexins in grape and tomato against Oomycetes. (Int. Congr. Plant Prot., 10th, Vol. 1, 1983, p. 284. Lavenham Press, Suffolk, England)