

Focus

A virus new to the United States has been reported on peanut germ plasm imported from the People's Republic of China, according to J. W. Demski and G. Sowell, Jr., of the University of Georgia, Experiment. The potyvirus is serologically distinct from peanut mottle virus and is seed-transmissible. Twelve commonly grown U.S. peanut cultivars are susceptible to the virus. (Personal communication)

The first release of a recombinant DNA-modified microorganism into the natural environment has been approved for Steven Lindow, plant pathologist at the University of California, Berkeley, who will see if genetically altered bacteria can retard frost damage to crop plants. (Genet. Eng. News 3(5):1, 30, 1983)

The drought of 1983 in Missouri caused severe losses in corn, complicated by ear rots from Fusarium spp. and contamination by Aspergillus flavus, report J. Wallin and colleagues at the University of Missouri, Columbia. Aflatoxin monitoring has become necessary. (Univ. Mo. Coop. Ext. Serv. Spec. Rep., 26 September 1983)

A 2-year rotation of soybeans with corn coupled with nematicide application resulted in the greatest yields of soybeans in soil infested with the soybean cyst nematode, reports R. A. Kinlock of the University of Florida, Jay. Results were poorer and about equal with a 2-year rotation alone or soybean monoculture with nematicide application. (J. Nematol. 15:398-405, 1983)

Bladex (cyanazine), an herbicide for corn, beans, and potatoes, was toxic to most soil fungi for at least 40 days but for no longer than 80 days, according to H. M. Abdel-Fattah, M. I. A. Abdel-Kader, and S. Hamida of Assiut University, Egypt. Fusarium counts, however, increased significantly after 2 days. (Mycopathologia 82:143-151, 1983)

Fewer than 1,000 of the approximately 250,000 plant species known have C₄ physiology, but 146 of the 2,000 weed species listed by the Weed Science Society of America are C₄ plants, report C. D. Elmore and R. N. Paul, USDA-ARS, Stoneville, MS. (Weed Sci. 31:686-692, 1983)

Trichoderma viride treatments protected bean seeds from seedborne Colletotrichum lindemuthianum and soilborne Rhizoctonia solani and Fusarium roseum 'Culmorum,' reports T. Sesan of the Institutul de Cercetari Pentru Protectia Plantelor, Bucharest, Rumania. T. viride also was compatible with three fungicide seed treatments. (Stud. Comun. Stiint., 1983, pp. 249-254)

Durum wheat seedlings were very resistant, but mature plants were very susceptible, to Septoria nodorum, according to E. J. Mullaney, A. L. Scharen, and M. D. Bryan of Montana State University and the USDA-ARS, Bozeman. Genes for resistance should be incorporated into wheat cultivars where seedling resistance is essential. (Can. J. Bot. 61:2248-2250, 1983)

Three isolates of Fusarium graminearum produced deoxynivalenol and zearalenone on solid corn substrate and two produced the toxins on rice, report R. Greenhalgh, G. A. Neish, and J. D. Miller of Agriculture Canada, Ottawa, Ontario. Temperature, moisture content, pH, O₂ and CO₂ concentrations, and flask size affected mycotoxin production. (Appl. Environ. Microbiol. 46:625-629, 1983)

Systemic translocation of barley yellow dwarf virus is not a useful measure of host plant resistance or tolerance, according to L. L. Carrigan, H. W. Ohm, and J. E. Foster of Pioneer HiBred International Inc., Willmar, MN, and the USDA-ARS and Purdue University, West Lafayette, IN. Translocation was studied in two wheat and three oat cultivars. (Crop Sci. 23:611-612, 1983)