Focus

Stem rust of wheat appeared in northwest Oregon and eastern Washington for the first time this season in mid-July; the disease has been reported in the Pacific Northwest in only 5 of the last 11 yr. Stem rust was also reported in east central Illinois for the first time in 1981 in mid-July but was widespread in eastern North Dakota and western Minnesota in trap plots of a susceptible spring wheat. Also in North Dakota, stripe rust was reported for the first time since 1958. (Cereal Rust Bull., Rep. No. 7, 21 July 1981)

Corn kernels containing aflatoxin and Aspergillus flavus in 1972 still contained A. flavus in 1981, report C. W. Hesseltine and R. F. Rogers of the Northern Regional Research Center, Peoria, IL. The number of A. flavus propagules was reduced by 7.8-73%. (Mycological Society of America Annual Meeting, 19 August 1981)

The downy mildew fungus Peronospora parasitica grew when infected radish tissue was placed on modified Knop's medium, according to Y. Asada and T. Ohguchi of Ehime University, Matsuyama, Japan. Hyphae grew from infected tissue onto the medium, and haustoriumlike bodies that were produced penetrated deeply into the medium. (Ann. Phytopathol. Soc. Jpn. Vol. 47, No. 1, 1981)

A wet-harvested spore is not a native or dormant spore, report K. W. Nickerson, S. N. Freer, and J. L. Van Etten of the University of Nebraska, Lincoln. Wet-harvested spores differ from dry-harvested spores by losing viability when stored at room temperature, by requiring other nutrients for germination, by containing polyribosomes, and by incorporating tricarboxylic acid-soluble and tricarboxylic acid-insoluble materials. (Exp. Mycol. Vol. 5, No. 2, 1981)

Sclerotia of Aspergillus flavus and Penicillium pedemontanum develop within corn kernels, often replacing the contents, report D. T. Wicklow, B. W. Horn, and R. J. Cole of the Northern Regional Research Center, Peoria, IL, and the National Peanut Research Laboratory, Dawson, GA. This is the first report of sclerotia of any species of these two genera developing within seeds of vascular plants. (Mycological Society of America Annual Meeting, 19 August 1981)

Crosses and subsequent segregation between inbred lines of one cucumber cultivar resistant to and one cultivar sensitive to acute exposure to SO_2 indicated that resistance is dominant and apparently controlled by a single gene, report R. A. Bressan and colleagues of Michigan State University, East Lansing. (HortScience Vol. 16, No. 3, 1981)

Applying Trichoderma harzianum to strawberry plots reduced severity of disease caused by Rhizoctonia solani by 18-46%, according to Y. Elad, I. Chet, and Y. Henis of Hebrew University, Israel. Early yield of strawberries increased 21-37% when plants treated with T. harzianum were transferred to a commercial field. (Plant Soil Vol. 60, No. 2, 1981)

Of 26 tomato cultivars exposed to SO_2 in the greenhouse, six proved to be resistant and five to be susceptible, based on the amount of SO_2-induced foliar necrosis, report T. K. Howe and S. S. Woltz of the University of Florida, Bradenton. The remaining 15 cultivars were intermediate in sensitivity. (American Society for Horticultural Science Annual Meeting, 13 August 1981)

A new method for detecting spindle tuber viroid in potato tubers was developed by R. A. Owens and T. O. Diener of the U.S. Department of Agriculture, Beltsville, MD. The method is based on hybridization of radioactive recombinant DNA to viroid RNA. (Science Vol. 213, No. 4508, 1981)