

Focus

Tan spot, Septoria leaf spot, and scab have been exceptionally severe on wheat in Nebraska because of the unusually wet weather this season. As a result, grain has a poor appearance and some is of low quality. (Cereal Rust Bull., Rep. No. 6, 7 July 1982)

Because the prevalence of wheat stem rust in the United States has been so low (through the first week of July), virtually no losses are expected in 1982. Leaf rust, however, is severe on winter wheats in Indiana, Minnesota, South Dakota, and Wisconsin and will cause some losses in late-maturing susceptible cultivars. Stripe rust is not severe in the Pacific Northwest. (Cereal Rust Bull., Rep. No. 6, 7 July 1982)

Conventional cropping of corn resulted in high soil populations of Aspergillus flavus and A. parasiticus, both aflatoxin producers, according to J. S. Angle and colleagues at the University of Missouri. Neither species was found in virgin prairie soil, and incorporated corn residues were thought to introduce the Aspergillus spp. into the soil. (Soil Sci. Soc. J. Vol. 46, No. 2, 1982)

Verticillium albo-atrum can penetrate potato leaves directly through cuticle and stomata of both susceptible and resistant cultivars, report K. S. Hung and N. J. Whitney of the University of New Brunswick. In resistant cultivars, however, hyphae are restricted to the epidermis and palisade mesophyll. Leaf tests are an alternative to the root-dip method of evaluating cultivars for resistance. (Can. J. Bot. Vol. 60, No. 5, 1982)

Sweet potatoes can be protected from rotting caused by Botryodiplodia theobromae by good ventilation and lowered temperature during storage, according to A. E. Arinze and I. M. Smith of the Imperial College Field Station, Ascot, United Kingdom. Storage at temperatures below 9 C, however, causes chilling damage and increases susceptibility when tubers are returned to normal temperatures. (J. Stored Prod. Res. Vol. 18, No. 2, 1982)

Spores of the mycorrhizal fungus Glomus fasciculatus occur on weed seeds buried in soil, reports R. A. Taber of Texas A&M University. The weed species are pigweed, chickweed, purslane, and five others and represent a previously unrecognized ecological niche for these beneficial fungi. (Mycologia Vol. 74, No. 3, 1982)

Sunflower residues may be allelopathic to weeds, according to A. B. Hall, U. Blum, and R. C. Fites of North Carolina State University. The residues inhibited germination of pigweed seeds in soil, but this effect was diminished when nutrient solutions were added to the residues. (Am. J. Bot. Vol. 69, No. 5, 1982)

Of 171 samples of corn stored for 8 years, 95% still contained live propagules of Aspergillus flavus, and aflatoxin was found, report C. W. Hesseltine and R. F. Rogers of the Northern Regional Research Center, Peoria, IL. The numbers of propagules, however, were reduced from 73 to 8% during this period. (Mycologia Vol. 74, No. 3, 1982)

Spiroplasmas have been found in 11 new insect hosts, reports T. B. Clark of the USDA Plant Protection Institute, Beltsville, MD. Spiroplasmas can be transmitted when uninfected insects feed on plants contaminated by infected insects. A spiroplasma that infects the digestive tract of the Colorado potato beetle may be spread by this means. (Science Vol. 217, No. 4554, 1982)