

Focus

Leaf rust is severe in central and north Texas but is developing slowly in Kansas owing to warm, dry weather. Traces have been found in eastern Arkansas, southern Illinois, eastern Virginia, and central Pennsylvania. Stem rust is also widespread in central and north Texas, but only in trace amounts, so losses are expected to be light. (Cereal Rust Bull. Rep. 2, 6 May 1986)

Twenty of 24 chemicals known to induce phytoalexin production in plants when used to soak seeds protected wheat seedlings from Helminthosporium sativum, according to G. N. Hait and A. K. Sinha of the University of Kalyani, West Bengal, India. (J. Phytopathol. 115:97-107, 1986)

The knapwood nematode, introduced from the Soviet Union and released in Canada as a biocontrol agent for Russian knapweed, produced galls consistently only when knapweed was grown in a cool, moist, infertile environment, reports A. K. Watson of Agriculture Canada, Saskatchewan. No galls formed on any crop tested in restricted field trials, and the nematode has potential as a biocontrol agent. (J. Nematol. 18:149-154, 1986)

Ergot alkaloids are ubiquitous in tall fescue pastures infected with the endophyte Sphacelia typhina, report P. C. Lyons of the University of Georgia; R. D. Plattner of the USDA Northern Regional Research Center in Peoria, IL; and C. W. Bacon, USDA-ARS, Athens, GA. These alkaloids may account for toxicity to cattle caused by fungi other than Claviceps spp. (Science 232:487-489, 1986)

Laetisaria arvalis, a biocontrol agent effective against Pythium and Rhizoctonia, secretes an allelopathic agent that causes rapid lysis of root-infecting fungi, according to W. S. Bowers and P. H. Evans of the University of Arizona, Tucson; H. C. Hoch of the New York State Agricultural Experiment Station, Geneva; and M. Katayama of Nagoya University, Japan. The agent has been identified as a previously unknown hydroxy fatty acid. (Science 232:105-106, 1986)

Moniliformin is produced by Fusarium proliferatum and F. anthophilum as well as by F. moniliforme, report W. F. O. Marasas of the South African Medical Research Council in Tygerberg, South Africa, and associates there and at Pennsylvania State University. Thus, all four species in the section Liseola produce moniliformin. (Mycologia 78:242-247, 1986)

Pythium dimorphum causes a root rot of rhododendron, reports H. H. Ho of the State University of New York, New Paltz. This is the second report of the species since it was first isolated from loblolly pine in 1971. (Mycopathologia 93:141-145, 1986)

Monographella nivalis, widely regarded as a seedborne or soilborne pathogen of wheat and barley, may behave more often as an endophyte, reports D. A. Perry of the Scottish Crop Research Institute, Dundee. The fungus was isolated from healthy host tissues and did not cause symptoms. (Trans. Br. Mycol. Soc. 86:287-293, 1986)

Gramine content in barley may confer resistance of seedlings to the aphid Rhopalosiphum padi, according to G. E. Zuniga and L. J. Corcuera of the University of Chile, Santiago. Susceptible cultivars lack gramine, an indole alkaloid. (Entomol. Exp. Appl. 40:259-262, 1986)

Infection of peach trees with Cytospora species was prerequisite to infestation by the lesser peachtree borer, reports F. C. Swift of the New Jersey Agricultural Experiment Station, New Brunswick. Larvae enter wounds and feed in the cambium, enlarging the canker area until the stem is girdled and killed. (J. Econ. Entomol. 79:537-540, 1986)