Focus

Overwintering stem rust of wheat has been found in Texas, Louisiana, and Georgia. In north Texas, according to USDA surveys, the amount is greater than the mean of the 1970-1985 period but less than in 1986. (Cereal Rust Bull., Rep. 2, 5 May 1987)

Velvetleaf exudates reduced root and shoot growth of cucumber, soybean, tomato, and sweet corn in laboratory tests, report T. M. Sterling, R. L. Houtz, and A. R. Putnam of Michigan State University, East Lansing. (Am. J. Bot. 74:543-550, 1987) According to Sterling and Putnam, however, the exudates were ineffective in the field and greenhouse, possibly because of detoxification by soil microorganisms. (Weed Sci. 35:308-314, 1987)

Zoospore cysts of Pythium graminicola adhered more firmly to roots of graminaceous plants than to roots of nongraminaceous plants, report R. T. Mitchell and J. W. Deacon of the School of Agriculture, Edinburgh, Scotland. Host differences were less apparent with P. aphanidermatum. (Trans. Br. Mycol. Soc. 88:401-403, 1987)

Complete regeneration of functional vascular tissues next to infected xylem is involved in resistance of carnation to Fusarium wilt, reports R. P. Baayen of the Willie Commelin Scholten Phytopathological Laboratory in Baarn, Netherlands. (Neth. J. Plant Pathol. 92:273-285, 1986)

Mechanically injured crown tissue in 10 cultivars of six Medicago species tended to develop more Colletotrichum crown rot than uninjured crown tissue, according to S. C. Lamprecht of the Plant Protection Institute, Stellenbosch, South Africa. (Phytophylactica 18:183-185, 1986)

In soil or vermiculite, nodulation of certain soybean cultivars can occur despite root infection with bean pod mottle virus, report R. G. Orellana, S. L. Reynolds, and P. van Berkum of the USDA Agricultural Environmental Quality Institute and the Plant Physiology Institute, Beltsville, MD. The virus reduced nodulation and growth of most cultivars tested. (J. Phytopathol. 118:193-202, 1987)

The frequency of crown gall in progeny in a poplar nursery varied from 3 to 67%, indicating the feasibility of improving resistance, report X. Nesme, M. Michel, and B. Digat of the National Institute of Agronomic Research, Angers, France. All but one of 129 tumor isolates were pathogenic and of biotype 1 or 2. (Appl. Environ. Microbiol. 53:655-659, 1987)

Increased nitrate concentrations in plant tissue were correlated with increased common root rot severity in two barley cultivars tested at three sites, report R. J. Goos, B. E. Johnson, and B. M. Holmes of North Dakota State University, Fargo. Fertilization with KCl significantly reduced root rot severity of both cultivars at all sites. (Can. J. Plant Sci. 67:395-401, 1987)

Cyst number in the field was helpful in selecting soybean cultivars resistant to the nematode but not in recommending a specific management practice, according to E. E. Hartwig of the USDA in Stoneville, MS, L. D. Young of the West Tennessee Experiment Station in Jackson, and N. Buehring of the Mississippi Agriculture and Forest Experiment Station in Verona. Cyst number varied greatly and did not correlate strongly with seed yield. (Crop Sci. 27:576-579, 1987)

Two benzoxazinones present in rye inhibited emergence of barnyardgrass, cress, and lettuce in soil, indicating a potential for allelopathic activity, report J. P. Barnes, Arco Plant Cell Research Institute, Dublin, CA, and A. R. Putnam, Michigan State University, East Lansing. (J. Chem. Ecol. 13:889-906, 1987)