Focus

Leaf rust is one of the most widespread diseases of wheat in Kansas (although severity is low), and traces of rust have been noted in Minnesota and North Dakota nurseries. Races UN-2, UN-3, UN-6, and UN-14 have been identified from limited collections. (Cereal Rust Bull., Rep. No. 4, 8 June 1983)

Pitch canker of southern pines was found for the first time in Arkansas by C. E. Affeltranger and D. A. Starkey of the USDA Forest Service, Pineville, LA. The causal organism, Fusarium moniliforme var. subglutinans, was isolated from loblolly pine in 1980 and from shortleaf pine in 1982, in widely separated geographic areas. Pitch canker occurs in 10 southeastern states but not in Kentucky, Oklahoma, or Texas. (Personal communication)

Spring black stem is the most prevalent and damaging disease of alfalfa in Kansas, being observed on 100% of plants in fields of 10 counties surveyed. Leaf loss was estimated at 5 to 40%. (Kans. Plant Dis. Surv., Rep. No. 9, 6 June 1983)

Rotating soybean cultivars can reduce damage from the soybean cyst nematode, according to V. D. Luedders and V. H. Dropkin of the USDA and University of Missouri, Columbia. Appropriate deployment of soybean genes holds nematode populations to below damage thresholds. (Crop Sci. 23:263-264, 1983)

Resistance to a necrotic strain of bean yellow mosaic virus and to a severe strain of tobacco ringspot virus in Phaseolus vulgaris was conditioned by independent single recessive genes, reports J. C. Tu of Agriculture Canada, Harrow, Ontario. Independence of genes for resistance was determined by consecutive inoculations of F_2 seedlings. (Can. J. Plant Pathol. 5:34-35, 1983)

The three anamorph genera Drechslera, Bipolaris, and Exserohilum were reevaluated and justified as valid in a study of generic characters by J. L. Alcorn of the Department of Primary Industries, Indooroopilly, Queensland, Australia. No single character served to separate genera. New combinations of Bipolaris and Exserohilum were proposed. (Mycotaxon 17:1-86, 1983)

The ability of Pseudomonas solanacearum to infect roots of many nonhost plants may account for a high inoculum concentration in soil and the failure of rotations to reduce inoculum, according to G. A. Granada and L. Sequeira of the University of Wisconsin, Madison. Only root infection--not bacterial multiplication in soil or rhizosphere--could account for long-term survival in soil. (Can. J. Microbiol. 29:433-440, 1983)

Broomrape (Orobanche spp.) capsules are invaded naturally in the field by the larvae of Phytomyza orobanchia in west Turkey, according to Y. Nemli and H. Giray of Aegean University, Izmir, Turkey. This insect damaged 94% of the capsules of broomrape plants parasitic on broad beans in the field, indicating its biocontrol potential. (J. Turk. Phytopathol. 12:39-44, 1983)

A strain of Agrobacterium tumefaciens (D286) producing agrocin with a broader host range than that produced by strain 84 was isolated by M. Hendson, L. Askjaer, and J. A. Thomson of the University of Witwatersand, Johannesburg, South Africa, and M. van Montagu of Rijksuniversiteit Gent, Belgium. Strain D286 was active against A. tumefaciens strains harboring nopaline, octopine, or agropine Ti plasmids and grew faster than strain 84, favoring its use in biological control. (Appl. Environ. Microbiol. 45:1522-1532, 1983)