Focus

A new leaf streak disease observed on corn in Transvaal by T. A. Coutino and F. M. Wallis of the University of Natal in Pietermaritzburg, South Africa, is caused by Xanthomonas campestris and is restricted to intercellular spaces. (Phytophylactica 18:46, 1986)

Recently introduced dwarf and semidwarf cultivars of rice have become susceptible to sheath rot caused by Sarocladium oryzae, according to K. Manibhushanrao and associates at the University of Madras, India. The pathogen is seedborne and perhaps soilborne, and insect occurrence is correlated with disease severity. (Z. Pflanzenkr. Pflanzenschutz 93:319-329, 1986)

A specific antigen for Erwinia amylovora was found by M. Larouche and M. Verhoyen of the Catholic University of Louvain in Belgium. The specific antigen fraction is a lipopolysaccharide. (J. Phytopathol. 116:269-277, 1986)

Among more than 100 isolates of Agrobacterium tumefaciens and Pseudomonas species stored in sterile distilled water at 10 C, 90-92% were still alive after 20 or 24 years, report N. S. Iacobellis and J. E. DeVay of the University of California, Davis. The cells retained genetic stability and pathogenicity. (Appl. Environ. Microbiol. 52:388-389, 1986)

Greenhouse evaluation of soybean cultivars for resistance to brown stem rot correlated highly with field evaluation, report S. A. Sebastian, C. D. Nickell, and L. E. Gray of the University of Illinois, Urbana-Champaign. Selection based on greenhouse leaf symptoms identified lines with field resistance. (Crop Sci. 26:665-667, 1986)

The genetics of race specificity (gene-for-gene interactions) in Xanthomonas campestris pv. malvacearum appeared to be identical to that found in pathogenic fungi, according to D. W. Gabriel, A. Burges, and G. R. Lazo of the University of Florida, Gainesville. Some avirulence genes in the bacteria may have the equivalent of virulence alleles. (Proc. Nat. Acad. Sci. 83:6415-6419, 1986)

Chitin applied to soil in which beans and tomatoes are planted and root-knot nematodes are present is as effective as a nematicide and a fertilizer, report Y. Spiegel, E. Cohn, and I. Chet of the Volcani Center in Bet Dagan and Hebrew University in Jerusalem, Israel. (Plant Soil 95:87-95, 1986)

A root washer designed by S. J. Carlson and W. W. Donald of North Dakota State University, Fargo, separates plant roots larger than 1.3 mm in diameter from cohesive clay soil with 96% or greater efficiency. Washing action does not damage the root systems. (Weed Sci. 34:794-799, 1986)

Neither modified composition nor altered localization of sterols seems to be the prime cause of resistance of Ustilago avenae mutants to triazole fungicides, according to S. Hippe of the Institut für Biologie III at Aachen and W. Köller of Bayer AG in Leverkusen, West Germany. Resistance therefore is not related to the site of action of the C-14 demethylation inhibitors. (Pestic. Biochem. Physiol. 26:209-219, 1986)

Insect damage decreased alfalfa yields by 19% and fungal stresses reduced alfalfa dry weight yield by 50%, report L. D. Godfrey, D. E. Legg, and K. V. Yeargan of the University of Kentucky, Lexington. Fungi decreased stand density and height of surviving plants. (J. Econ. Entomol. 79:1055-1063, 1986)