Focus

Maize dwarf mosaic virus (MDMV) continues to be the most widespread corn disease in Kansas, especially in the central part of the state. MDMV was reported in 11 counties by T. Sim IV, with prevalence ranging from trace to 20%. MDMV was also reported in 12 counties of Nebraska, as of mid-June, with a prevalence of up to 20%, according to S. Poe. (Coop. Plant Pest Rep. Vol. 5, No. 22, 1980)

Wheat leaf rust (Puccinia recondita f. sp. tritici) was found in trace severity throughout Kansas by 10 June, but severity was up to 40% in northern Kansas and southern Nebraska by 24 June, according to A. Roelfs and D. Long. The pathogen was first reported in South Dakota in late May, and a trace was found in southern and west-central Minnesota in nursery plots. Widespread but light infection was found in Missouri by A. Foudin. This was less rust than in 1979 in the same areas. Little yield loss is expected because of the light infection and the late appearance of rust. (Coop. Plant Pest Rep. Vol. 5, No. 23, 1980)

Tobacco mosaic virus on sugar maple (<u>Acer saccharum</u>) was reported for the first time by A. F. Lana, O. T. Thomas, and J. F. Peterson of McGill University, Montreal, Canada. Symptoms of chlorotic spotting were observed on several seedlings (2 to 3 yr old) in residential areas of Ste. Anne de Bellevue in Quebec. (Phytopathol. Z. Vol. 97, No. 3, 1980)

Glyphosate completely controlled broomrape (Orobanche crenata) in broad beans in fields of Morocco, according to U. Schmitt of the University of Bonn, Federal Republic of Germany, who worked with K. Schlüter and P. A. Boorsma in Rabat. Two applications of the systemic herbicide at 60 ml a.i. in 500 L of water per hectare are recommended. (FAO Plant Prot. Bull. Vol. 27, No. 3, 1979)

Acremonium strictum and Fusarium oxysporum were isolated from eggs within females or cysts of the sugar beet nematode (Heterodera schachtii) in 20 of 25 nematode-infested fields, report E. A. Nigh, I. J. Thomason, and S. D. Van Gundy of the University of California, Riverside. The fungi parasitized eggs in females in agar and in soil and may be useful biocontrol agents against H. schachtii. (Nematropica Vol. 10, No. 1, 1980)

Virulence of the black rot fungus, <u>Thielaviopsis basicola</u>, to True Hubbard squash was enhanced by an isolate of <u>Agrobacterium</u> sp., as measured by an increase in chlamydospore number and a decrease in wet weight of infected plants, report K. C. Srivastava and J. R. Keller of Seton Hall University, South Orange, NJ. The filtrate enhanced pathogenicity of <u>T. basicola</u> more than the bacterium did, suggesting some interference of fungal infection by the bacterium. (Mycopathologia Vol. 71, No. 1, 1980)

When introduced at seeding time of sunflower into soil infested with Sclerotinia sclerotiorum sclerotia, the hyperparasite Coniothyrium minitans decreased the incidence of sclerotinia wilt and reduced yield losses in 3 yr of field trials, according to H. C. Huang of the Morden Manitoba Research Station in Canada. The hyperparasite's effectiveness as a biocontrol agent apparently is due solely to ability to kill sclerotia. (Can. J. Plant Pathol. Vol. 2, No. 1, 1980)

By the year 2000, no-tillage practices may be used for as much as 65% of the crop acreage in the United States, predict R. E. Phillips and colleagues at the University of Kentucky. The practice virtually eliminates soil erosion and, compared with conventional tillage, reduces energy input 7% in corn production and 18% in soybean production. (Science Vol. 208, No. 4448, 1980)