

Focus

Sunflower plants produce weed-suppressing allelopathic chemicals in soil, reports G. R. Leather of the USDA/ARS, Frederick, MD. Moreover, breeding for allelochemical enhancement is possible because sunflower cultivars were more active than the native biotype. (Weed Sci. 31:37-42, 1983)

Zoospores of Polymyxa betae transmitted beet necrosis yellow vein virus from sugar beets to aseptically grown seedlings of sugar beets and spinach, report L. Giunchedi of the University of Bologna, Italy, and W. G. Langenberg of the USDA/ARS, University of Nebraska, Lincoln. Because conditions were aseptic, P. betae was established unequivocally as the vector. (Phytopathol. Mediterr. 21:5-7, 1982)

Passage of single-spored isolates of Septoria nodorum from wheat to wheat or barley and from barley to barley or wheat resulted in changes in pathogenicity and culture morphology, according to W. Fitzgerald and B. M. Cooke of University College, Dublin, Ireland. Passage through the source host increased pathogenicity on that host. The barley isolate lost some pathogenicity to barley after passage through wheat, but the wheat isolate was not affected by passage through barley. (Plant Pathol. 31:315-324, 1982)

Heterodera medicaginis has been redescribed by K. Gerber and P. W. T. Maas of the Plant Protection Service, Wageningen, Netherlands. It belongs in the H. schachtii group, and alfalfa (Medicago sativa) is the only host. (Nematologica 28:94-100, 1982)

A new Fusarium species, F. crookwellense, isolated from potato tubers in Australia has been described by L. W. Burgess of the University of Sydney, Australia, and P. E. Nelson and T. A. Toussoun of Pennsylvania State University, University Park. Determination was based on examination of more than 1,000 isolates from five continents; isolates were associated with tuber lesions, stalk rot of corn, stub dieback of carnation, and other disorders. (Trans. Br. Mycol. Soc. 79:497-505, 1982)

Alfalfa-wilting and alfalfa-nonwilting strains of Verticillium albo-atrum were hybridized through the parasexual cycle and recombinants were found that caused either mild or severe disease in both alfalfa and tomato, report F. M. McGeary and A. C. Hastie of the University of Dundee, Scotland. Differences in pathogenicity were not due to a single gene. (Physiol. Plant Pathol. 21:437-444, 1982)

Urd bean (Vigna radiata) drenched with benomyl (Benlate) before inoculation with the urd bean leaf crinkle virus did not develop disease symptoms, according to S. V. Bhardwaj, G. S. Dubey, and I. Sharma of Solan, India. Results were the same for mechanical and aphid transmission of the virus. (Phytopathol. Z. 105:87-91, 1982)

Fusarium nivale and other Fusarium species were found in mildewed lesions of wheat, report H. R. Forrer, F. H. Rijdsijk, and J. C. Zadoks of Agricultural University, Wageningen, Netherlands. Fusarium species may use lesions or bruises to enhance damage to plants by pathogens such as Erysiphe graminis on leaves. (Neth. J. Plant Pathol. 88:123-125, 1982)

Allelopathy interpreted strictly as the effect on one plant of a toxic substance produced by another has little if any significance to agriculture, according to E. I. Newman of the University of Bristol, England. If other effects of natural toxic substances are included, however, controlling toxin production in decomposing crop residues holds some promise for research. (Pestic. Sci. 13:575-582, 1982)