Focus

Plasmopara halstedii, which causes downy mildew of sunflower, was grown on sunflower callus tissue and produced aerial mycelium bearing sporangia within 1 month, report A. B. Gray and W. E. Sackston of McGill University, Quebec, Canada. Infected callus tissue was used to successfully inoculate uninfected callus derived from mildew-resistant sunflower plants. (Phytoprotection Vol. 63, No. 1, 1982)

The red root and butt rot fungus (*Inonotus tomentosus*) was reported for the first time in West Virginia, in Pocahontas County, on Norway spruce. Other conifers are highly susceptible to this fungus. (For. Insect Dis. Newsl. Vol. 16, No. 4, 1982)

Conifers were classified for their resistance to *Phytophthora* spp. by P. B. Hamm and E. M. Hansen of Oregon State University, Corvallis. Western hemlock and the true firs were susceptible, ponderosa and sugar pines were less susceptible, and western red cedar was not infected. (Eur. J. For. Pathol. Vol. 12, No. 3, 1982)

Soil texture had a greater effect than temperature or moisture on migration to and infection of tomato by larvae of *Meloidogyne hapla*, according to Z. A. Stephan and R. H. Estey of McGill University, Quebec, Canada. Nematode larvae migrated further and produced more root knots in loamy sand than in sandy loam soil. (Phytoprotection Vol. 63, No. 1, 1982)

Crude extracts from asparagus crop residues delayed germination of seed and reduced root growth of asparagus, reports H. Yang of Washington State University, Prosser. The toxic substances in dead asparagus tissue are water-soluble and stable and persist in old asparagus fields. (J. Am. Soc. Hortic. Sci. Vol. 107, No. 5, 1982)

Tobacco and tomato were equally susceptible to three species of *Orobanche*, a parasitic seed plant, report L. J. Musselman of Old Dominion University, Norfolk, VA, and C. Parker of the Weed Research Organization, Oxford, England. Species studied were not host-specific. (Econ. Bot. Vol. 36, No. 3, 1982)

The major source of airborne bacteria, including ice-nucleation-active bacteria, is plants, not soil, according to J. Lindemann and associates of the University of Wisconsin and the USDA, Madison. Rain is not necessary for generation of bacterial aerosols from plants. (Appl. Environ. Microbiol. Vol. 44, No. 5, 1982)

High rates of manure applied in the field over a 9-year period resulted in large losses of nitrogen, increased amounts of potassium and phosphorus, and increased water uptake during the growing season, report B. Meek, L. Graham, and T. Donovan of the Imperial Valley Conservation Center, USDA, Brawley, CA. (Soil Sci. Soc. Am. J. Vol. 46, No. 5, 1982)

Pseudomonas syringae pv. *glycinea* was reported for the first time on soybeans in Italy by C. Gasperini, U. Mazzucchi, and A. Calzolari of the University of Bologna. This bacterium was apparently introduced into Italy from the United States on infected seeds. (Inf. Fitopatol. Vol. 32, No. 7-8, 1982)

Ammonia is an important but not the only mycostatic volatile in alkaline soil, according to B. Schippers, J. W. Meijer, and J. I. Liem of the Willie Commelin Scholten Phytopathological Laboratory, Baarn, Netherlands. *Trichoderma harzianum* was insensitive and *T. hamatum* was sensitive to ammonia, which may limit *T. hamatum* as a biocontrol agent. (Trans. Br. Mycol. Soc. Vol. 79, No. 2, 1982)