Focus

Compiled by Thor Kommedahl

A new tobacco mosaic virus RNA vector developed by H. Hamamoto and associates at Kanebo Ltd., Odawara, and Teikyo University, Utsunomiya, Japan, systemically produces an angiotensin-I-converting enzyme inhibitor peptide in tobacco and tomato plants. (Bio/Technology 11:930–932, 1993)

Bacillus subtilis has an antiphytoviral effect when sprayed on plants infected with tobacco rattle virus, tobacco mosaic virus, Prunus ringspot virus, or cucumber mosaic virus, report H. Kegler and associates at the Institut für Phytopathologie Aschersleben, Aschersleben, Germany. The bacteria appear to inhibit the infection process, not the viruses. (Arch. Phytopathol. Pflanzenschutz 28:115–124, 1993)

Discula umbrinella occurs in dormant buds of beech and can infect newly formed leaf tissue from twigs as well as by airborne inoculum, according to L. Toti and associates at the Swiss Federal Institute of Technology, Zurich. (Eur. J. For. Pathol. 23:147–152, 1993)

A single application of calcium sulfate alone or with calcium dihydrogen phosphate reduced the incidence of gray mold in greenhouse-grown pepper and eggplant that had been inoculated with Botrytis cinerea, report Y. Elad and associates at The Volcani Center, Bet Dagan, Israel. (Can. J. Bot. 71:602–608, 1993)

Durable resistance of wheat to leaf rust was explained by H. A. Saione and associates at the Instituto Nacional de Tecnología Agropecuaria, Castelar, Argentina, as a combination of several specific disease reaction genes for which the pathogen population has not been able to accumulate all the corresponding alleles for virulence. (J. Phytopathol. 138:225–232, 1993)

Among 707 isolates of fungi and actinomycetes recovered from 488 cysts of Heterodera trifolii on clover, actinomycetes predominated, report F. S. Hay and R. A. Skipp of the New Zealand Pastoral Agriculture Research Institute Ltd., Palmerston North. Moreover, multiple infestation of cysts was much more common than in species such as H. glycines. (Nematologica 39:376–384, 1993)

A mycoplasmalike organism that causes malformed flowers of garlic was reported for the first time by K. Arai, K. Mori, and T. Etoh of Kagoshima University, Kagoshima, Japan. (Ann. Phytopathol. Soc. Jpn. 59:192–195, 1993)

A chemotaxonomic classification of 60 species of mushrooms that combined amino acid patterns with statistical methods resulted in 90% agreement with order and 67–89% agreement with family, according to H. Laatsch and L. Matthies of the Georg-August University of Göttingen, Germany. (Z. Mykol. 59:99–112, 1993)

Bacterial blight of deciduous magnolias is caused by Pseudomonas syringae, group Ia of fluorescent pseudomonads, report M. Arsenijevic and M. Veselic of the Institute for Plant Protection, Novi Sad, Serbia. (J. Plant Dis. Prot. 100:203–210, 1993)

Increasing soil nitrogen ameliorates infection of corn with Striga hermonthica by enhancing dry matter partitioning to the ear over vegetation, report L. M. Mumera and F. E. Below of the University of Illinois, Urbana. (Crop Sci. 33:758–763, 1993)

Salicylic acid is essential to development of systemic acquired resistance in tobacco, according to T. Gaffney and associates at Ciba-Geigy, Research Triangle Park, North Carolina, and Basel, Switzerland. Tobacco plants were transformed with a gene for a Pseudomonas enzyme and infected with tobacco mosaic virus. (Science 261:754–756, 1993)