

Focus

Foreign DNA has been propagated successfully in plants using cauliflower mosaic virus as a vector, in research by B. Gronenborn, R. C. Gardner, and S. Schaefer of the University of Cologne, West Germany, and R. J. Shepherd of the University of California at Davis. The size of foreign DNA that can be propagated through virus particles has an upper limit of approximately 250 base pairs. (Nature Vol. 294, No. 5843, 1982)

Methyl bromide fumigation eradicated more than 99% of the oak wilt fungus (Ceratocystis fagacearum) from infected red and white oak logs in trials by E. L. Schmidt, M. M. Ruetze, and D. W. French of the University of Minnesota. The treatment was designed to prevent introduction of infected logs into oak-importing nations. (For. Prod. J. Vol. 32, No. 2, 1982)

Bayleton to control leaf and stripe rust of wheat was sprayed by air on more than 100,000 acres of irrigated wheat in the Pacific Northwest during 1981, and yield increases of approximately 20 bushels per acre resulted. To be effective, the fungicide should be applied when rust is first seen and by heading time. (Agrichem. Age Vol. 26, No. 1, 1982)

Fusarium lateritium is a potential biocontrol pathogen for malvaceous weeds, according to H. L. Walker, USDA plant pathologist at Stoneville, MS. The fungus causes stem cankers and kills plants of velvetleaf, Venice mallow, prickly sida, and spurred anoda in the field. Cotton, soybean, and cereals are nonhosts. (Weed Sci. Vol. 29, No. 6, 1981)

Sixteen isolates of Fusarium roseum 'Graminearum' or 'Culmorum' produced vomitoxin and zearalenone in cracked corn at 28 C, report R. F. Vesonder, J. J. Ellis, and W. K. Rohwedder of the Northern Regional Research Center, Peoria, IL. These strains pose a threat to swine because of the two toxins and their possible synergistic activity. (Appl. Environ. Microbiol. Vol. 42, No. 6, 1981)

Among six blueberry cultivars, those growing in peat soil inoculated with ericoid mycorrhizal fungi had an 11 to 92% increase in fruit yield over those growing in nonmycorrhizal peat the first season, according to C. L. Powell and P. M. Bates of the Ruakura Soil and Plant Research Station, Hamilton, New Zealand. This is the first report of a successful field inoculation and practical application of ericoid mycorrhizae. (HortScience Vol. 16, No. 5, 1981)

Growing Pleurotus ostreatus with Erwinia carotovora on autoclaved wheat straw significantly improved digestibility of straw fed to livestock, according to C. L. Streeter, K. E. Conway, and G. W. Horn of Oklahoma State University. The action was synergistic, and neither organism was effective alone. (Mycologia Vol. 73, No. 6, 1981)

A serious disease of Amaranthus spp., widely grown in the tropics, is associated with Choanephora cucurbitarum, reports F. E. O. Ikediugwu of the University of Benin, Nigeria. Young shoots are destroyed, leading to crop failure. (J. Hortic. Sci. Vol. 56, No. 4, 1981)

A new device for tissue culture has 33 round stainless-steel disks stacked 3 mm apart on a metal rod enclosed in a cylindrical case. The disks have growth surfaces on both sides, and the unit is rotated slowly while nutrients are fed onto the growth surface. H. H. Lee of the University of Toledo invented the device. (Genet. Eng. News Vol. 1, No. 5, 1981)