

One of the early steps in the evolution of heterotrophy from autotrophy in plants was shown by the replacement of neoxanthin by lutein-5,6-epoxide involved in light-harvesting complexes in dodder, report R. A. Bungard and associates at the Robert Hill Institute and the University of Sheffield, Sheffield, UK. (Proc. Nat. Acad. Sci. USA 96:1135-1139, 1999)

Ralstonia solanacearum, designated race 1 biovar 1, was isolated from diseased pothos cuttings imported to Florida from Costa Rica, report D. J. Norman and J. M. F. Yuen of the University of Florida, Apopka. (Can. J. Plant Pathol. 20:171-175, 1998)

The widespread use of soybean cultivars Williams or Asgrow A3127 in breeding programs may have contributed to the increased prevalence of *Sclerotinia* stem rot, according to H. S. Kim and associates at the National Crops Experiment Station, Suwon, Korea; University of Arkansas, Fayetteville; and University of Illinois, Urbana. (Crop Sci. 39:64-68, 1999)

Agents that induce systemic acquired resistance, e.g. saccharin, can be identified on cultured parsley cells, report J. Siegrist and associates at the University of Hohenheim, Stuttgart, Germany. Saccharin induces resistance to fungi and viruses in bean, cucumber, and tobacco. (Physiol. Mol. Plant Pathol. 53:223-238, 1998)

The number of vegetative compatibility groups within 38 formae speciales of Fusarium oxysporum ranged from 1 to 24, according to T. Katan of The Volcani Center, Bet Dagan, Israel. (Phytoparasitica 27:51-64, 1999)

Two types of annual strip cankers were found on European beech trees, one associated with Biscogniauxia nummularia and one with Eutypa spinosa, following seasons of low water availability, report S. J. Hendry and associates at the Forestry Commission Research Agency in Midlothian and Farnham; and the University of Wales, Cardiff, UK. (New Phytol. 140:549-565, 1998)

The site of tomato spotted wilt virus particle morphogenesis was determined to be the Golgi system, according to M. Kikkert and associates at Wageningen Agricultural University, Wageningen, The Netherlands. (J. Virol. 73:2288-2297, 1999)

Of 44 moldy corn samples, 32 were contaminated with both B and C series of fumonisins and 6 with only the B series, report J.-A. Seo and Y.-W. Lee of Seoul National University, Suwon, Korea. This is the first report of the C series and B₄ on corn. (Appl. Environ. Microbiol. 65:1331-1334, 1999)

Erwinia chrysanthemum secretes 8 isoenzymes of pectic lyases with an endo-cleaving mode, report V. E. Shevchik and associates at INSA, Villeurbanne Cedex, France; and Wageningen Agricultural University, The Netherlands. The 2 exo-degrading enzymes found are complementary and act on the ends of the polymeric chain. (J. Bacteriol. 181:1652-1663, 1999)

Marchandiomyces corallinus infects lichens (*Lasallia* spp.) only when a *Fusarium* sp. is present and neither fungus is inhibited by lichen compounds, report J. D. Lawrey and associates at George Mason University, Fairfax, Virginia. (Am. J. Bot. 86:184-189, 1999)

Annosus root rot of conifers can be reduced by minimizing tree thinning before 15 years, by cutting only during wet seasons, and by cutting only trees that are less than 10 cm in diameter, report D. J. Morrison and A. L. S. Johnson, Pacific Forestry Centre, Victoria, BC, Canada. (Eur. J. For. Pathol. 29:1-16, 1999)