

Focus

The phaseolin gene from bean has been transferred to sunflower by means of tumor-inducing plasmid vectors, according to N. Murai of the University of Wisconsin, Madison, and colleagues at Agrigenetics Advanced Research Laboratory, Madison. This confirms evidence that eukaryotic genes can be detected as proteins in alien plant cells. (Science 222:476-482, 1983)

Seed-transmitted bacterial blight of peas has been found for the first time in Israel by Y. Bashan and R. Kenneth of Hebrew University, Rehovot. Whether the pathogen is indigenous is not known. (Phytoparasitica 11:113-115, 1983)

Production of cerato-ulmin in trees infected with Ceratocystis ulmi has been confirmed by S. Takai and W. C. Richards of the Canadian Forestry Service, Sault Ste. Marie, Ontario, and K. J. Stevenson of the University of Calgary, Alberta, Canada. This toxin is considered to be involved in Dutch elm disease. (Physiol. Plant Pathol. 23:275-280, 1983)

Stress on forest vegetation in Austria is at least partly attributable to ozone at higher elevations and to nitrogen oxides in overcrowded areas, as well as to other air pollutants, according to S. Smidt of the Institut für Forstschutz, Vienna. The phytotoxic effect of SO₂ is increased especially by ozone and nitrogen oxides in overpopulated areas. (Eur. J. For. Pathol. 13:133-141, 1983)

Rainbow trout refused to eat diets containing 20 µg or more of vomitoxin per gram of Fusarium-infected corn, report B. Woodward, L. G. Young, and A. K. Lun of the University of Guelph, Ontario, Canada. Trout appeared to be as sensitive as pigs to this toxin. (Aquaculture 35:93-101, 1983)

A soft red winter wheat cultivar and several other lines resistant to the cereal leaf beetle have been developed by J. A. Webster of the USDA-ARS, Stillwater, OK, and D. H. Smith, Jr., of the USDA-ARS, Beltsville, MD. Resistant barley germ plasm is also available, but not oats. (U.S. Dep. Agric. Tech. Bull. 1673, 1983)

The mycorrhizal fungus Glomus fasciculatus reduced severity of Sclerotium rolfsii on peanut, report K. R. Krishna and D. J. Bagyaraj of the University of Agricultural Sciences, Bangalore, India. The pathogen reduced parasitism by the fungus, and the fungus reduced the number of sclerotia produced by the pathogen. (Can. J. Bot. 61:2349-2351, 1983)

Rain sampled at seven sites near a coal-fired power plant in Minnesota during a 4-year period showed no trend in concentration of the hydrogen ion or other ions, according to G. C. Pratt and associates at the University of Minnesota, St. Paul. Sulfate and nitrate anions were more closely associated with metallic and ammonium ions than the hydrogen ion. (Atmos. Environ. 17:347-355, 1983)

Erwinia nulandii, a newly described species pathogenic to bean (Phaseolus vulgaris), is seed-transmitted and causes yellow spots that become irregular in shape, report M. L. Schuster, A. M. Schuster, and D. S. Nuland of the University of Nebraska, Lincoln. (HortScience 18[4]:50, 1983)

Beijerinckia was the predominant nitrogen-fixing microorganism isolated from the phyllospheres of sugarcane, sorghum, ragi, bamboo, and mulberry, according to M. G. Murty of the Indian Institute of Science, Bangalore, India. Nitrogen fixation occurred on the leaf surfaces of all five crops, and rate of fixation did not correlate with C₄ or C₃ species. (Plant Soil 73:151-153, 1983)