Focus

Compiled by Thor Kommedahl

White spruce embryonic tissues were transformed using disarmed Agrobacterium strain EHA105 to produce transgenic spruce trees containing insecticidal genes from Bacillus thuringiensis, report V. Q. Le and associates at University of Laval, Quebec, Canada. (J. Exp. Bot. 52:2089-2095, 2001)

Flecks that mimic leaf spot lesions on wheat plants (mutant C591) from boot to leaf stage represent a stable, developmentally programmed, dominant trait under monogenic control, report S. K. Nair and S. M. S. Tomar, Indian Agricultural Research Institute, New Delhi, India. (Euphytica 121:53-58, 2001)

The 3-dimensional structure of Rice dwarf virus was determined to 6.8 Å resolution by single particle electron cryomicroscopy, report Z. Hong Zhou and associates at University of Texas, Houston, Baylor College of Medicine, Houston, and Peking University, Beijing, China. (Nat. Struct. Biol. 8:868-873, 2001)

A wheat endophyte Fusarium proliferatum, present in wheat grain, causes seedling necrosis when plants are stressed, report S. Kwon and associates at Utah State University, Logan. (Can. J. Bot. 79:1115-1121, 2001)

Jasmonate family cyclopentone regulates gene expression to fine-tune expression of defense genes in arabidopsis to Alternaria brassicicola and Bradysia impatiens, report A. Stintzi and associates at Washington State University, Pullman, and the University of Lausanne, Switzerland. (Proc. Natl. Acad. Sci. U.S.A. 98:12837-12842, 2001)

Multiple resistance genes are required to ensure resistance of spring wheat to all races of Pyrenophora tritici-repentis according to S. D. Duguid and A. L. Brûlé-Babel at Agriculture and Agri-Foods Canada, Morden, and the University of Manitoba, Winnipeg, Canada. (Can. J. Plant Sci. 81:527-533, 2001)

Prohexadione-Ca reduced shoot growth, enhanced fruit weight, and controlled incidence and severity of fire blight in pear according to G. Costa and associates at the University of Bologna, Italy, and BASF Agricultural Center, Limburgerhof, Germany. (HortScience 36:931-933, 2001)

Developing biocontrol agents or management strategies that target seeds of exotic plants without negatively affecting some native species is difficult, according to C. S. Blaney and P. M. Kotanen of the University of Toronto, Mississauga, Ontario, Canada, in tests using congeneric pairs. (J. Appl. Ecol. 38:1104-1113, 2001)

Alternaria leaf spot, powdery mildew, and rust reduce oil yields 8% in Japanese mint grown in India according to A. Kalra and associates at the Central Institute of Medicinal and Aromatic Plants, Lucknow, India. (J. Hortic. Sci. Biotechnol. 76:546-548, 2001)

Changes in wheat root enzymes (peroxidase, esterase, and superoxidase dismutase) is correlated with resistance to the cereal cyst nematode according to M. F. Andres and associates at CSIC and UPM, Madrid, Spain, and Istituto di Nematologia Agraria, Bari, Italy. (New Phytol. 152:343-354, 2001)

The PDE1 gene implicates a new class of enzymes in plant infection by fungal pathogens, as shown with Magnaporthe grisea on rice, according to P. V. Balhadère and N. J. Talbot, University of Exeter, Exeter, UK. (Plant Cell 13:1987-2004, 2001)

Publication no. D-2001-1120-01O