Focus

Compiled by Thor Kommedahl

A robotic system that applies techniques from artificial intelligence to originate hypotheses, devise and run experiments, interpret results, and repeat the cycle, using yeast gene functions, was devised by R. D. King and associates at University of Wales, Aberystwyth; Robert Gordon University, Aberdeen; Imperial College, London; UMIST and University of Manchester, UK. (Nature 427:247-252, 2004)

Inoculum type does not affect resistance in arbuscular mycorrhizal defective tomato mutant to colonization by Glomus coronatum but does change competitive interaction with wild type tomato, report T. R. Cavagnaro and associates at the University of Adelaide, South Australia. (New Phytol. 161:485-494, 2004)

Leaf scorch in Japanese beech bonsai was associated with Xylella fastidiosa, report Q. Huang and associates at USDA-ARS, Beltsville, Maryland. (Can. J. Plant Pathol. 25:401-405, 2003)

When Cytonaema sp. infects bark of Eucalyptus globulus, new parenchyma cells stain positive for polyphenols at lesion margins, report A. Eyles and associates at Co-operative Research Centre for Sustainable Production Forestry, University of Tasmania, and CSIRO, Hobart, Tasmania. (For. Pathol. 33:317-331, 2003)

Broad bean wilt virus 1 and 2 are both placed in the genus Fabavirus based on double immunodiffusion tests, report Y. O. Kobayashi and associates at the National Agricultural Research Centers at Tsukuba and Hokkaido, Japan. (J. Gen. Plant Pathol. 69:320-326, 2003)

Phylogenetic analyses show that arginine kinases in the soybean cyst nematode evolved from a single gene after divergence of insects and nematodes, report B. F. Matthews and associates, USDA-ARS, Beltsville, Maryland. (J. Nematol. 35:252-258, 2003)

Insertion/deletion events associated with introns account for some polymorphisms detected in Cryphonectria parasitica, report E. Gobbi and associates at the Universitá di Udine, Italy, and University of California, Davis. (Fungal Genet. Biol. 40:215-224, 2003)

Solarization of 40-cm-high piles of soil for 3 weeks can control root-knot nematodes in potting soil for olive nursery production in Spain, report A. I. Nico and associates at CSIC and the University of Cordoba, Cordoba, Spain. (Plant Pathol. 52:770-778, 2003)

A second bZIP protein (RF2b) interacts with RF2a and binds to Box II as homo- or hetero-dimers and is involved in symptom expression in rice tungro disease, report S. Dai and associates at The Donald Danforth Plant Science Center, St. Louis, Missouri, and Chinese Academy of Sciences, Beijing. (Proc. Nat. Acad. Sci. USA 101:687-692, 2004)

Pseudomonas syringae on bean leaves occurs in clusters up to 10^4 cells per cluster, but most are less than 100 cells per cluster, report J.-M. Monier and S. E. Lindow, University of California, Berkeley. (Appl. Environ. Microbiol. 70:346-355, 2004)

Movement protein of Cowpea mosaic virus forms tubules in plasmodesmata to enable transport of virions and can bind both single-stranded RNA and DNA in a non-sequence-specific way, report C. M. Carvalho and associates at Wageningen University, The Netherlands. (J. Virol. 78:1591-1594, 2004)

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