

# Focus

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Agrobacterium tumefaciens induces tumors in plants by transferring and integrating oncogenes (T-DNA) into chromosomes of host plant cells, report R. C. Gardner and V. C. Knauf of Calgene, Inc., Davis, CA. Agrobacterium strains were used to transfer complementary DNA copies of a potato spindle tuber viroid to plant cells at a wound site on tomato stems. (Science 231:725-727, 1986)

Fusarium lateritium as a biological herbicide suppressed growth of velvetleaf and prickly sida, report C. D. Boyette and H. L. Walker of the Southern Weed Science Laboratory at Stoneville, MS. This is the first pathogen to be evaluated as a biocontrol agent for more than one weed species. (Weed Sci. 34:106-109, 1986)

Bacillus subtilis applied as spores to peanut seed colonized root surfaces and improved yield 12% in nonrotated crops, according to P. A. Backman, J. T. Turner, and R. P. Clay of Auburn University in Alabama. Root disease severity from Fusarium and Rhizoctonia was significantly reduced by bacterial seed treatment. (Nematropica 15:115-116, 1985)

Rhizoctonia solani may be the primary cause of crater disease of wheat, according to J. W. Deacon of the School of Agriculture in Edinburgh, Scotland, and D. B. Scott at the Plant Protection Research Institute in Pretoria, South Africa. This stunting disease appears to be associated with root impedance caused by inherent structural defects of soil. (Trans. Br. Mycol. Soc. 85:319-327, 1985)

A low level of powdery mildew infection may considerably reduce the growth rate of winter wheat, according to a simulation model developed by R. Rabbinge, I. T. M. Jorritsma, and J. Schans of the Agricultural University in Wageningen, Netherlands. Mildew infection also increased carboxylation resistance. (Neth. J. Plant Pathol. 91:235-247, 1985)

Brome mosaic virus may sometimes be the cause of yellow dwarf disease of cereals, report M. B. von Wechmar and E. P. Rybicki of the University of Cape Town, Rondebosch, South Africa. Many plants thought to be infected with barley yellow dwarf virus were shown by serological testing to be infected instead with brome mosaic virus. (Phytopathol. Z. 114:332-337, 1985)

Golden nematode populations on potato were reduced 95% by solarization and to nondetectable levels by solarization combined with 1,3-D, report J. A. LaMondia, B. B. Brodie, and M. L. Brucato of the USDA and Cornell University, Ithaca, NY. (J. Nematol. 18:74-78, 1986)

Wood decay fungi, rather than representing just two major groups, show a mosaic of variations, e.g., white rots lacking extracellular phenol oxidases and brown rots with free cellulase activity, conclude S. A. Redhead and J. H. Ginns of Agriculture Canada, Ottawa. The ability to produce brown rot, however, is a highly significant taxonomic feature among the higher basidiomycetes. (Trans. Mycol. Soc. Jpn. 26:349-381, 1985)

Acremonium alternatum is a hyperparasite of the powdery mildew pathogen on cucurbits, reports N. E. Malathrakis of the Plant Protection Institute in Crete. Parasitism occurs above 15 C and with high relative humidity. (J. Plant Dis. Prot. 92:509-515, 1985)

The first to report Pseudomonas agarici as a cause of yellow blotch of Pleurotus ostreatus were A. E. Bessette, R. W. Kerrigan, and D. C. Jordan of Syracuse University, Utica, NY, the University of California at Santa Barbara, and the University of Guelph, Ontario. (Appl. Environ. Microbiol. 50:1535-1537, 1985)