



## The role of biotechnology in plant disease and pest control

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Three additional papers address the role of biotechnology in plant disease and pest control. The first (Schickler and Chet) discusses the introduction of heterologous chitinase genes into plants to protect them from phytopathogenic fungi. In discussing a variety of combinations of genes, promoters, plants and pathogens, the authors highlight the importance of evaluating each combination in order to achieve the highest level of resistance without affecting the plant's viability and productivity. The second paper (Prieto-Samsónov *et al*) reviews the most important recent findings in research into *Bacillus thuringiensis* insecticidal toxins. Despite some negative reports on the effectiveness of trans-

genic crops expressing *B. thuringiensis*, this remains the most important method of biological control of insect pests yet developed. The third paper (Eckwall and Schottel) presents data on an antibiotic-producing strain of *Streptomyces diastatochromogenes* which is active against *S. scabies*, a pathogen of potato tubers. The extreme specificity of this antibiotic could make it an ideal candidate for biological control of potato scab disease. Although these papers present only limited aspects of the use of biotechnology for disease and pest control they serve to highlight the importance of the need for safe alternatives to chemical pesticides.