

Microbial Control

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THE IDEA of using insect pathogens as biological control agents is not original to our generation. Agostino Bassi was only one of several nineteenth century scientists who suggested that insect pathogens might be used to control insects (Steinhaus, 1975). In the United States implementation began when F. H. Snow (1891) in Kansas and Steven Forbes (1886, 1895) in Illinois propagated and distributed the fungus *Beauveria bassiana* in an attempt to control the chinch bug *Blissus leucopterus*. We know much more about insect pathogens today than was known then. *Bacillus thuringiensis* has been established as an important commercial microbial agent and many insect diseases are now regarded as significant naturally occurring mortality factors in insect populations (Fuxa and Tanada, 1987); nevertheless, only a relatively small number of insect pathogens have been used to control insect populations.

In this presentation I will cover (1) ways in which pathogens are used to control insects, (2) important research directions in insect pathology, and (3) an evaluation of the issues I consider important in the development of insect pathogens as biological control agents.