

# BIOCONTROL FUNGUS

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Due to excessive use of pesticides, socioeconomic and environmental pollution issues have been resulted, which demand the alternative method to reduce content of chemical pesticides. Biocontrol and mycotoxins 3. Application of the fungus is by spore suspensions in water which is sprayed on man-made wounds on trunks of healthy trees. Therefore, researchers screened and tested new strains lacking the production of both toxins for the same previously mentioned crops [ 65 , 66 , 67 ]. Most commercial fungal products are formulated as spores, which are easily adapted to existing application technology, such as spray rigs. Another interesting contribution to biocontrol is when host infection and parasitism by relatively avirulent pathogens may lead to biocontrol of more virulent pathogens through the stimulation of host defense systems Cook, Therefore, we evaluated the performance of this fungus in different substrata under greenhouse and practical field conditions. Biological control employs natural enemies of pests or pathogens to eradicate or control their population. Direct interactions that benefit one population at the expense of another also affect our understanding of biological control Cook, However, this technique was abandoned in the s because the price of firecrackers made it too expensive to use and the regulation of such goods as firecrackers and fireworks became stricter. One of the major problems that have caused negative reactions to fungi, as agents of biological control, is the overenthusiastic promises that some researchers have made in the past. Increased numbers of sheath layers and hydrogen peroxide concentrations after B. It is very well known that one fungal pathogen can produce simultaneously several unrelated mycotoxins, as an example F. In: Hornby D ed Biological control of soil borne plant pathogens. Therefore, spreading such a microorganism into the environment may impose an extra burden to food safety and public health. However, the author reported a high level of AFs reduction, and the results were inconsistent between the two seasons [ 58 , 59 ]. The mycoparasitic interaction is mediated through certain gene involved in synthesis of some metabolites mainly chitinases, glucanases, and proteases allowing the parasitic fungi to degrade and invade the host cells [ 24 , 29 , 70 ]. It was also a potentially dangerous means of dispersing the fungus even though there were no reports of accidents involving this method. After two years of observing the Gypsy Moth die off, Hajek was able to obtain funds for release of E. P1 and Bacillus spp. Searching for new BCAs with novel modes of action can assist to effectively control mycotoxigenic plant pathogens. Fengycin, another lipopeptide purified from Bacillus subtilis IB culture showed an inhibitory effect against F. In greenhouse experiments, symptom severity of a typical leaf Blumeria graminis f. However, in field experiments, symptoms caused by the leaf pathogen did not differ in Piriformospora indica-colonized compared with control plants. Upon fungal cell wall degradation by chitinases produced by Trichoderma spp. For example, the mosquito larval stage is found only in an aquatic environment. This entails that for each BCA the mode of action must be documented and their use should be rational [ ]. Cyclopiazonic acid CPA is another mycotoxin produced by certain strains of A. Consequently, it will be more valuable to select a single biocontrol agent able to simultaneously suppress the production of both toxins. From lab bench to field trials Hundreds of BCAs have been tested against different types and strains of mycotoxigenic fungi in vitro. Medicago sativa, alfalfa is mostly used for forage. Most narrowly, biological control refers to the suppression of a single pathogen by a single antagonist, in a single cropping system. Trichoderma spp. The molecule was isolated from Pseudomonas spp. The most effective biocontrol active microorganisms studied appear to antagonize plant pathogens employing several modes of actions Cook,