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Diversity in susceptibility of *Botrytis cinerea* to biocontrol products inducing plant defence mechanisms

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The development of plant defence stimulants to increase host resistance represents an attractive alternative to fungicides for the protection of crops against plant pathogens. Various biotic and abiotic agents have been shown to induce defence mechanisms to various plant pathogens in different plant species. In this study we evaluated the efficiency of various biocontrol products (microorganisms, plant extracts and organic products) presumed to induce plant defence mechanisms against *Botrytis cinerea* on tomato and lettuce.

Two days after the application of the products, tomato and lettuce leaves were inoculated with *B. cinerea* and incubated in conditions conducive to disease development. The resulting lesions were photographed two days after inoculation and their surface was assessed with the help of image analysis software. Out of 9 products tested, Serenade Max (*Bacillus subtilis* QST713) proved to have a significant protective efficacy against the mildly aggressive strain of *B. cinerea* BC21 on both plants.

To assess the presence of low susceptibility to Serenade Max in populations of *B. cinerea*, the protective efficacy of this product was evaluated against 20 strains differing in their geographic origin, host of isolation and level of aggressiveness. To this end, tomato and lettuce leaves were treated with two concentrations of Serenade Max (0.2% and 0.8%), two days before inoculation. The efficiency of the product was significantly influenced by the isolate of *B. cinerea* tested (ANOVA, $p < 0.01$ at both concentration of Serenade Max). It was more efficient when applied at a concentration of 0.8%, providing protection levels ranging from 45% to 85% on tomato leaves. No correlation was observed between the level of aggressiveness of *B. cinerea* strains and the protection provided by the biocontrol agent. Possible implications of these findings will be discussed.