

Synergistic Interaction between BABA and Mancozeb in Controlling *Phytophthora infestans* in Potato and Tomato and *Pseudoperonospora cubensis* in Cucumber

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Spray mixtures consisting of the plant activator BABA (DL-3-aminobutyric acid) and the protectant fungicide mancozeb were significantly more effective than BABA or mancozeb alone in controlling late blight (*Phytophthora infestans*) in potato and tomato and downy mildew (*Pseudoperonospora cubensis*) in cucumber. A mixture composed of 5 parts BABA and 1 part mancozeb (w/w, a.i.) exhibited a higher synergy factor than the 1+1 or the 1+5 (BABA + mancozeb) mixtures. No synergistic interaction was detected between BABA plus mancozeb in controlling sporangial or cystospore germination, nor mycelial growth of *P. infestans in vitro*. The results showed enhanced effect of mancozeb in BABA-induced plants, suggesting, therefore, that lower dosages of this fungicide may be sufficient to control late blight or downy mildew under field conditions.

KEY WORDS: Induced resistance; BABA; mancozeb; fungicide; *Pseudoperonospora cubensis*; downy mildew; *Phytophthora infestans*; late blight.

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