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## **Fungicidal Activity of Benthiavalicarb-isopropyl against *Phytophthora infestans* and Its Controlling Activity against Late Blight Diseases**

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### **Abstract:**

Benthiavalicarb-isopropyl, a novel member of the amino acid amide carbamate group of fungicides, is effective against all Oomycete fungal plant pathogens except *Pythium* spp. Our results demonstrate that this fungicide effectively controls potato and tomato late blight caused by metalaxyl-sensitive and -resistant strains of *Phytophthora infestans*. Experiments *in vitro* demonstrated that benthiavalicarb-isopropyl was ineffective in stopping the discharge of zoospores from zoosporangia and suppressing their motility; but strongly inhibited mycelial growth, sporulation, and the germination of sporangia and cystospores. Experiments in a greenhouse showed that benthiavalicarb-isopropyl has not only a strong preventive, but also a curative effect; its translaminar properties are effective along with its rainfastness and residual activity. In field trials, it was effective in controlling tomato and potato late blight at 25–75 g a.i./ha. © Pesticide Science Society of Japan

### **Keywords:**

benthiavalicarb-isopropyl, Oomycete, late blight, *Phytophthora*



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