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## **Isolation of an insecticidal compound oxalicine B from *Penicillium* sp. TAMA 71 and confirmation of its chemical structure by X-ray crystallographic analysis**

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### **Abstract:**

An insecticidal compound was isolated from *Penicillium* sp. TAMA 71 and showed 82% mortality against green peach aphid (*Myzus persicae*) at 100 ppm. The chemical structure of the compound was determined by X-ray crystallographic analysis to be identified as oxalicine B, and its NMR data were compatible with the chemical structure. A part of the known <sup>1</sup>H NMR assignment was incorrect and was corrected. Insecticidal, miticidal and fungicidal tests were conducted at 500 ppm using three different insects, a mite and two plant pathogenic fungi besides the aphid to show 32% mortality and weak antifeeding activity against only western flower thrips (*Frankliniella occidentalis*) larvae.

### **Keywords:**

*Penicillium* sp., oxalicine, insecticidal activity, green peach aphid, western flower thrips

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