

Efficacy of *Beauveria bassiana* and *Metarhizium anisopliae* to control *Pieris rapae* on cabbage in the field

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Abstract:

The efficacies of a *Beauveria bassiana* (Bals.-Criv.) Vuill. native strain (BbPM) and *B. bassiana* (Bea-Sin™) and *Metarhizium anisopliae* (Metchnikoff) Sorokin (Meta-Sin™)-based commercial products were evaluated against the imported cabbageworm, *Pieris rapae* (L). Three concentrations (1.2×10^{12} , 1.2×10^9 , and 1.2×10^6 conidia per hectare) of BbPM, Bea-Sin™, and Meta-Sin™ were applied to commercial cabbage, *Brassica oleracea* var. *capitata* L., to evaluate larval mortality during 2005 and 2006. Sampling was done weekly during a 28-day period. Native strain BbPM (92.7%) and Bea-Sin™ (91.8%) killed significantly more larvae than did Meta-Sin™ (62.6%) during both years. The bioinsecticides were most effective early (on sampling days 7 and 14). In general, viability of *B. bassiana* conidia ranged between 90 and 93% while that of Meta-Sin™ was 52%. The native strain BbPM provided similar control as Bea-Sin™, and both killed significantly more imported cabbageworm larvae than did Meta-Sin™.