

Control of beet armyworm with entomopathogenic fungi-metarhizium anisopliae¹

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summary

The most serious insect pest on onion in I-Lan has been the beet armyworm *Spodoptera exigua* in recent years. Since the beet armyworm larva feed inside the green onion without eating throughout of the tube, they are well protected from any insecticide spray or natural enemies. For the past several years, many insecticides were tested in the field, and none of them had ever provided satisfactory control. However, *Metarhizium anisopliae*, a newly developed entomopathogenic fungi was found to be an effective control agent to the beet armyworm in our recent tests for green onion. To further test the effect of this agent, the field experiment was conducted and 9 treatments consists of spraying 10 spores of entomopathogenic fungi-*Metarhizium anisopliae* at intervals of 0, 1, 2, 3, 4, 5, 6, 7days and control were randomly arranged in 3 blocks. The green onion sprayed with entomopathogenic fungi in different interval days were each fed with beet armyworm in 10 succession days, and the accumulated death percentages of beet armyworm were counted daily until 10 days feeding. The results indicated that spraying of *Metarhizium anisopliae* in every day and 1-day interval gave 73.3 70.0 and 78.9 73.3 death percentage in the first and second tests, respectively. The death percentage of beet armyworm was only 1.1 1.7 for control, indicating the *Metarhizium anisopliae* control beet armyworm effectively in green onion.

(Key words: Entomopathogenic fungi, Beet armyworm, Green onion)

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