Collection of Native Entomopathogenic Nematodes and Evaluation its Efficiency for Controlling of *Phyllotreta striolata* (Coleoptera: Chrysomelidae) on Crucifera Field

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Abstract

There are six kinds of entomopathogenic nematodes namely: PT-729, PT-825, PT-119, PT-210, PT-211, PT-212 collected from Pingtung and Kaohsiung areas. Among them, PT-729 was the best species used as material in this experement. For the mass production of PT-729, the mixture of soybean powder + yeast extract + vegetable oil was the best artificial diet. It was storaged at room temperature in vermiculite (No.2) mixing with the soil moisture agent ASP diluted with distilled water 30 times for 20 days being 100% survival rate. The PT-729 suspension, sprayed at both 3 days before land preparation and sowing day, had a good efficiency, proximately 71-84% of control rate against *Phyllotreta striolata.* The control rate in December was higer than in April due to temperature raising after April in southern Taiwan. PT-729 suspension with B. T. did not increase the control rate of *P. striolata.* The native entomopathogenic nematode PT-729 served as microbiological control agent for soil's insect pests has a great potential in the future.

Key words: Native entomopathogenic nematode, *Phyllotreta striolata* , Vitro culture

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