

SYRPHID FLIES (Ischiodon scutellaris (Fabricius)) AS
BIOLOGICAL CONTROLLER OF APHIDS (Myzus persicae
(Sulzer)) IN PECHAY (Brassica campestris ssp
sinensis (Linnaeus))

A Thesis
Presented to the
Faculty of the Graduate School
University of San Carlos

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Biology

by
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July 1985

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APPROVAL SHEET

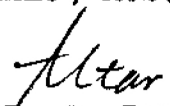
This thesis entitled SYRPHID FLIES (Ischiodon scutellaris (Fabricius) AS BIOLOGICAL CONTROLLER OF APHIDS (Myzus persicae (Sulzer) IN PECHAY (Brassica campestris ssp sinensis (Linnaeus) prepared and submitted by Jesus M. Lanuza Jr., in partial fulfillment of the requirements for the degree of MASTER OF SCIENCES IN BIOLOGY has been examined and is recommended for acceptance and approval for ORAL EXAMINATION.

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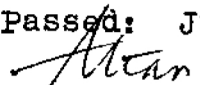

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ABSTRACT

In this biological control method experiment, three organisms were used: pechay plant (Brassica campestris ssp sinensis (Linnaeus), the experimental plant, aphids (Myzus persicae (Sulzer), the selected pests, and syrphid flies larvae (Ischiodon scutellaris (Fabricius), the biological controllers.

The experimental set-up was arranged in this manner: thirteen potted pechay plants in cages were divided into three groups. Group One (Cages 1 to 4). Pechay plants and aphids only. This determined the damage the pests could do to the plants. Group Two (Cages 5 to 8). Pechay plants and syrphid flies only. This determined if syrphid flies would damage the plants in the absence of aphids. Group Three (Cages 9 to 12). Pechay plants, aphids, adult syrphid flies and larvae. This determined the efficiency of syrphid flies larvae in controlling aphids' infestation on pechay.

All plants in Group One died most likely due to aphids' infestation. All plants in Group Two reached maturity but all syrphid flies larvae died of starvation, no aphids in these cages, their food. All plants in Group Three survived, syrphid flies mated and produced larvae that fed on aphids. However, the larvae were not able to kill all the aphids but were able to bring down their infestation to the lower level of the infestation scale used in the experiment. When the number of syrphid flies larvae was high, aphids' infestation was low. When the number of syrphid flies larvae dropped, aphids' infestation tended to increase. From these observations, it can be concluded that syrphid flies larvae could be used to control infestation brought about by aphids on pechay.

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