DYNAMICS OF BENEFICIAL INSECTS ON VARIOUS ALTERNATE HOSTS IN RICE FARMING AREA AT MERLIMAU, MELAKA

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ABSTRACT

Dynamics of Beneficial Insects on Various Alternate Hosts in Rice Farming Area at Merlimau, Melaka

A study dynamics of beneficial insect on various alternate hosts in rice farming area at Merlimau, Melaka was done from 18 January 2019 until 15 February 2019. The data was collected for 4 weeks with twice sampling in 1 week. The study was aimed to determine the relationship between beneficial insect and alternate host in rice farming. Previous study has shown that insect at paddy field give the different meaning to the farmer. Insects were collected using yellow sticky traps installed on selected alternate hosts such as Billygoat Weed (*ageratum conyzoides)*, Shrubby False Buttonweed (*spermacoce verticillata)*, Fireplant (*euphorbia heterophylla)*, Swollen Finger Grass (*chloris barbata)* and paddy. The result show that alternate hosts plant with beneficial insect has no significant differences ($p>0.05$). Besides that, the result for alternate hosts plant with pest insect was significant ($p<0.05$). Meanwhile, the pest insect was significant compare to beneficial insect with the diversity of host in paddy farming surrounding area. Therefore, farmer should ensure a good balance between the pest insectand beneficial insect and also host plant as unwanted weed during the ripening phases of paddy development without any appreciable loss in yield. An effective way is crucial to conserve, use and enhance biodiversity for sustainable food security.

Keywords: beneficial insect, insect-pest, paddy, host plant