

EFFECT OF INTERCROPPING ON THE INCIDENCE OF APHID FLY POPULATION IN MUSTARD AND ITS IMPACT ON POLLINATORS

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Executive Summary

The experiment was conducted to study the effect of intercropping on the incidence of aphid population in mustard and its impact on pollinators during the period from October, 2017 to February, 2018. The experiment consisted of seven different treatments (each treatment was intercropping with mustard, *Brassica napus*) viz T₁ = Mustard intercropped with cabbage (*Brassica oleracea* var. *capitata*); T₂ = Mustard intercropped with onion (*Allium cepa* L.); T₃ = Mustard intercropped with garlic (*Allium stivum* L); T₄ = Mustard intercropped with black seed ; T₅ = Mustard intercropped with coriander (*Nigella stiva*); T₆ = Mustard intercropped with radish (*Raphanus raphanistrum* subsp. *sativus*) and T₇ = sole mustard as Untreated control. Sole trimming of mustard was additionally developed to think about the adequacy of intercropping framework. The design of experiment was randomized complete block design (RCBD) with three replications. When the number of aphid was lower (13.72) at mustard + coriander (T₅) at that time total number of infested plant/plot (1.48), number of aphid infested branch/plant (1.58), percent of Branch infestation (19.65), percent of Flower infestation (44.38), percent of pod infestation (24.74) were decreased; on the other hand at that time total number of pod/branch (19.45), number of different pollinators such as honeybee (*Aphis indica*)/plant (4.28), wasp (2.26), syrphid fly (2.26); the presence of beneficial insects like lady bird beetle/plot (19.63); number of healthy pod/plant (82.99) and grain yield per plot (454.74) was increased. The overall results indicate that the intercropping of mustard with onion, garlic, coriander and black seed/black cumin decreased the incidence of aphid population on mustard and increased the abundance of visiting different pollinators and other beneficial insect populations compared to sole cropping.

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