

## Predatory action of *Cheilomenes sexmaculata* (Family Coccinellidae) on *Aphis craccivora* on different host plants

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Bean aphid, *Aphis craccivora* is reported as one of the major predators on food legumes. Coccinellid predator, *Cheilomenes sexmaculata* is found to be effective in biological control of bean aphids. Therefore, it is important to evaluate the predatory action of *C. sexmaculata* on *A. craccivora*.

*Aphis craccivora* was collected separately from different host plants, food legumes (T1), Citrus (T2) and Gliricidia (T3) were used as the treatments of the experiment. The experimental design was Completely Randomized Design (CRD) with ten replicates. One of 3 - 4 days old adults of *C. sexmaculata* mass cultured under laboratory conditions were kept in each petri dish. Hundred of *A. craccivora* aphids collected from food legumes, Citrus and Gliricidia were introduced to the relevant petri dishes daily. The numbers of remaining *A. craccivora* in each dish were recorded daily (24 h intervals) to evaluate the predatory action. To study the incubation period and the characteristics of eggs, six adult egg-laying females of *C. sexmaculata* were fed with *A. craccivora* collected from food legumes, Citrus and Gliricidia separately.

*C. sexmaculata* consumed more *A. craccivora* collected from food legumes than that from Gliricidia and Citrus. But it consumed significantly a lower number of *A. craccivora* collected from Gliricidia than that from Citrus and food legumes. The difference between the consumption of *A. craccivora* collected from citrus and food legumes was not significant. Incubation period of *C. sexmaculata* depends on aphids on food legumes was shorter (1-2 days) than that of Citrus (2-3 days) and Gliricidia (3-4 days) aphids. Size of the egg was larger when fed with aphids on food legumes (0.7-1 mm) and Citrus (0.6 -1 mm) than the aphids on Gliricidia (0.5-0.7 mm).

*C. sexmaculata* prefers *A. craccivora* depends on food legumes than the aphids depend on Citrus and Gliricidia. Therefore *A. craccivora* depends on citrus has a higher possibility to use to feed *C. sexmaculata* when there is a shortage of *A. craccivora* depends on food legumes in the mass culturing of *C. sexmaculata*.