Effect of intercropping on the incidence of Jassid (*Amrasca biguttula biguttula* Ish.) and

Whitefly (*Bemesia tabaci* Guen.) in Okra (*Abelmoschus esculentus* L. Moench)

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Okra is one of the most important summer vegetables in South Asian countries including Nepal. However, the damage by insects like Jassid (*Amrasca biguttula* Ish.) and whitefly (*Bemisia tabaci* Guen) has resulted in significant reduction of its production. An experiment was conducted based on intercropping taking okra (*Abelmoschus exculentus* L. Moench) as the main crop in Arghau, Lekhnath-27, Kaski, Nepal from March 4 to May 24, 2018. The intercrops used were coriander (*Corriander sativum),* carrot (*Daucas carota),* fennel (*Foeniculum vulgare*) and parsley (*Petroselinum crispum)*. The population of jassid and whitefly was recorded from three leaves representing the different strata (bottom, middle and top) of the vegetative parts; and related yield parameters were also observed to correlate with the level of population incidence of these pests. Least numbers of jassids (5.50±0.29, 6.94±0.43, 8.00±0.41 and 3.69±0.76) were observed respectively at 30, 40, 50 and 60 days after sowing (DAS) in okra+ coriander. Likewise, okra + coriander intercropping was effective in inhibiting the population of whitefly (7.50±0.59, 8.56±0.19, 10.25±0.66 and 7.06±0.42) at 30, 40, 50 and 60 days after sowing (DAS) respectively. In contrary, the highest number of jassids and whiteflies were observed in okra + parsley and control (okra only). Both pod length (cm) and yield (t/ha) were the highest (17.92±0.57 and 28.20±0.49 respectively) in okra + coriander and were the lowest (16.42±0.21 and 27.58±0.39 respectively) in okra + carrot. The benefit-cost ratio was in order okra + coriander > okra + carrot > okra + fennel > okra + parsley > control (okra only). Among the different intercrop combinations, the okra + coriander was found most effective that could be suggested as one of the alternative strategies to limit the population of pests; jassid and whitefly in okra.

Biography

Ms. Aasma Sharma is Student of Masters degree in Institute of Agriculture and Animal Science. The research finding is from her undergraduate research. The research article is published in Journal of Agriculture and Natural resources.

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