FLOWER VISITING INSECTS, ASSOCIATED WITH SELECTED HORTICULTURAL CROPS

J.R.S.R. Jayakody¹, K.S. Hemachandra² and A. Balasuriya¹

¹Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura. ²Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya, Peradeniya.

This study was conducted to identify flower visiting insect species associated with selected horticultural crops during March to September, 2012 in Thalathuoya, Sri Lanka. Four vegetable crops; Capsicum annum (Chilli), Cucumis sativus (Cucumber), Momodica carantia (Bitterguard), Solanum melongena (Brinjal) and two fruit crops; Psidium guajava (Guava) and Averrhoa carambola (Carambola) were selected each from two separate fields. Aspirator and a sweep net were used for sampling insects. The specimens were identified using insect keys, literature records, photo collections and expert knowledge. Twenty two species of bees, two species of ants, one wasp species, three butterfly species and one species of beetle were identified as flower visiting insects in both fruits and vegetables. The most common bees found in the study were Trigona iridipennis (17.49%), Apis cerana (15.01%), Apis dorsata (12.55%) and Ceratinas maragdula (8.17%). There were no relationships between proboscis length of insect and tube length of flower, and between width of flower tubes and the width of head capsule of insects. No significant difference in the flower visiting insects was observed between two locations and among different sampling dates for each crop species, which suggested the uniformity of environment in sampling locations and population abundance. Number of flower visiting insects significantly varied with crop species C. sativus and M. carantia but it was not significant among S. melonge, C. annum, P. guajava and A. carambola.

Key words: Flower morphology, Fruits, Insect visits, Vegetables