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PSYLLID PESTS OF HORTICULTURAL AND FORAGE CROPS: TAXONOMY, BIOLOGY AND THEIR MANAGEMENT

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ABSTRACT – Psyllids are phloem feeding insects resembling minute cicadas belonging to series Sternorryncha of suborder Homoptera. These sternorhynchous homopterans are commonly known as jumping plant lice and lerp insects. The taxonomy of psyllids is based on the morphological characters like shape of the head, particularly genal cone and antennae, wing venation, metathoracic leg, modifications of genitalia and nymphal setae. Life cycle of psyllids involves an egg stage, five nymphal instars before becoming adult, all psyllids are dioecious and at emergence the sexes normally occur in a ratio of 1:1. Psyllids are economically important as pests of several crops and also as biocontrol agents of weeds. Pestiferous species includes Asian citrus psyllid, *Diaphorina citri* (Kuwayama); African citrus psyllid, *Trioza erytrae* (Del Guercio); Mango shoot gall psyllid, *Apsylla cistellata* (Buckton); Common pear psyllid, *Cacopsylla pyricola* (Foerster); Apple psyllid, *Cacopsylla mali* (Schmidberger); Subabul psyllid, *Heteropsylla cubana* (Crawford) and Potato psyllid, *Bactericera cockerelli* (Sulc.). They cause damage not only by direct feeding but also as vectors of deadly diseases like citrus greening and pear decline. Apart from pests, a few species of psyllids, *Arytinnis hakani* (Loginova) and *Arytainilla spartiophila* (Foerster) are exploited as biocontrol agents of weeds. The options available for management of psyllids includes constant monitoring of pysllid population; tending and caring of trees to encourage healthy growth, thus enabling them to be better able to withstand and recover from damaging attacks; use of indigenous and exotic predators, parasitoids and pathogens in limiting pest populations; selection of genetically resistant genotypes for plantings as well as the genetic manipulation of biological control agents to increase their efficacy against the target pest and use of pesticides. A brief account of economically important psyllid pests of horticultural and forage crops their taxonomy, biology and management is reviewed and presented in this paper.

Key words : Psyllids, biology, fruit/ horticultural crop, forage crop, taxonomy, management.