

LS-OP 4

A STUDY ON THE INTENSITY OF MEALYBUG INFESTATION ON *Hibiscus rosasinensis* DURING THE SUMMER PERIOD

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ABSTRACT

Mealybugs are one of the most destructive Hemipteran pest causing economic damage to agriculture and horticulture plants. They appear as tiny, soft bodied, white fuzzy mass around the plant parts. Here we have analysed the effect and intensity of Mealy bug Maconellicoccus hirsutus on Hibiscus rosa sinensis during the summer period of April – May 2011. Since the bug mainly feed on plant sap, damage could be observed in almost all body parts like leaves, stem and flowers. Leaves have a curled and a "bunchy top" appearance. Shoots became stunted and distorted with the development of a black sooty mold fungus. Flowers remained unopened and developed yellow patches on the petals. Redness of the flower and size of floral parts were also reduced. The infestation was found to be severe in 5th to 7th week and reduced in 8th week. The parameters used for the study revealed that the infestation exhibited a positive correlation with temperature and negative correlation on rainfall. Rainfall washed out most of the Mealybugs and the return of favor condition for the sprouting of plant.

Keywords: Mealybugs, *Hibiscus rosasinensis*, *Maconellicoccus hirsutus*

INTRODUCTION

Mealybug is a polyphagous pest coming under the family Pseudococcidae of the order Hemiptera. Mealybugs are so called because of a powdery secretions called "Mealy wax" found on their body. Mealybugs occurs in all parts of the world in the Pale arctic ecozone and fewer in Neotropical ecozone. The major host plants infested by the Mealy bug are papaya, citrus, ferns, grapes, sugarcane, ornamental plants.....etc. They appear on the plant as white fuzzy white mass around the stem and leaf nodes. Females are small about 1/10 inch of an insect with Fringes around their bodies and depending on the species twin tails. Male mealybugs are tiny winged insects that rarely seen on plant. Females mealy bug hide their eggs in the fluffy white excretion. Eggs hatch in about 10 days producing crawlers or nymphs. The nymphs relocates themselves to another part of the plant and spend within another 4-8 weeks develop into adult. Mealy bug females feed on plant sap normally in roots or other crevices. They attach themselves to the plants and secrete a waxy layer used for protection. They lay their eggs in the some waxy layer for protection in quantities