FINAL REPORT

OF

ICAR- EXTRAMURAL PROJECT

ON

Bio-ecology of mango shoot gall psylla, *Apsylla cistellata* Buckton (Pysllidae: Hemiptera) and its management

ICAR-Central Institute for Subtropical Horticulture, Rehmankhera, Lucknow

Ecological niche modelling for mango shoot gall psylla

Ecological niche modelling or climate envelope for mango shoot gall psylla was developed using presence only data with help of DIVA-GIS (Open software for spatial analysis) and MAXENT. Climate envelope of the of shoot gall psylla indicating that ideal annual mean temperature (Bioclimatic variable 1) for its occurrence should be 23.9 to 26.3°C and annual precipitation (Bioclimatic variable 12) for its occurrence should be 912 to 1172.8 mm.

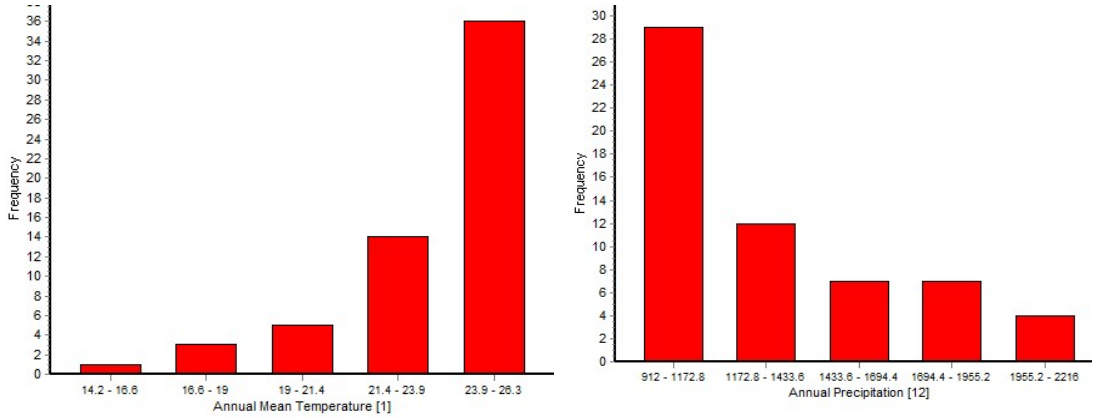

Fig 2. Ecological niche modelling for mango shoot gall psylla

Varietal screening for shoot gall psylla incidence

Response of different mango cultivars for shoot gall psylla incidence was recorded under field conditions (Fig 3). Among the cultivars, Himsagar was recorded lowest incidence of shoot gall psylla with less number of infested shoots (1shoot/5shoots) and gall formation per shoot (3.3 galls/shoot). Highest incidence was recorded in Lucknow Safeda with high number of infested shoots (5shoot/5shoots) and gall formation per shoot (10.5 galls/shoot). However cultivar Langra also registered highest number of gall formation per shoot (12.5).