

*Objective*

## **II OBJECTIVE**

### **2.1. TO KNOW THE SEASONAL INCIDENCE OF COMMON THRIPS, GREEN FLY AND APHID IN DARJEELING SLOPES AND THEIR ALTERNATE HOST, IF ANY**

Though these pests are known to occur in Darjeeling tea at elevations of 1500 to 2000 m (amsl) for last several decades, systematic study on their seasonal occurrence and influence of weather factors on their population incidence were not studied. This is an important prerequisite to forecast the time and the conditions for the pest occurrence and adopt control measures against any pest. Alternate hosts also play an important role in maintaining the life cycle of a pest. Hence, studies were conducted to know their population dynamics on tea, influence of weather factors and existence of alternate host, if any at those altitude, so that the information generated could be utilized in future management of these pests.

### **2.2. TO KNOW THE FEEDING AND COLONIZING IMPACT OF THRIPS AND GREENFLY, ON THE QUALITY OF DARJEELING TEA AND THE CHANGES OCCURRING IN "MADE TEA" DUE TO THEIR FEEDING**

There is a common belief amongst the tea planters that Green fly and thrips improve quality, particularly flavour, by infesting shoots in the field. But, it is not an established fact and it is often debated whether there is really any improvement in quality of made tea and if so, can this improvement compensate the loss incurred due to reduction in crop ! Therefore, the present study was conducted with an objective to verify this belief.

## **2. 3. TO STUDY THE NATURAL ENEMIES ASSOCIATED WITH PEST-INFESTED TEA PLANTATION**

At present bio-organic farming is a global concept in general agriculture and tea is no exception. Being an export commodity, the demand for organic tea from Darjeeling is increasing day by day in importing countries. There are already more than 20 tea gardens in Darjeeling running under bio-organic cultivation at the moment and the trend is upward.

Under organic farming the concept of pest management is changing towards Integrated Pest Management (IPM) from sole dependence on pesticide. Rather pesticides are being phased out making room for other pest management tools. In an IPM system, conservation and application of natural enemies of pests, namely predator, parasitoids and pathogen play a vital role in keeping the pest population below the economic injury level. Hence, a preliminary survey was conducted to know the natural enemies that are actively associated with pest-infested Darjeeling tea at higher elevations, so that information generated could be of use in future IPM schedule of the pests under study.