SCOPE OF THE PRESENT INVESTIGATION

The introductory chapter presented would reveal the availability of extensive information on the effect of neem products on biological activities of insects. The impact of AZA, on the growth and reproduction in relation to biochemical and histological changes with special reference to male *Atractomorpha crenulata* need indepth investigation. Hence, the present investigation was carried out to examine the effect of AZA on feeding, nutritional efficiency measures, growth and development in relation to biochemical and histological changes during the gonadotropic period of male *Atractomorpha crenulata*.

The diverse aspects discussed in this investigation essentially relate the following:

1. Impact of AZA on the antifeedant, mortality, longevity, growth and reproductive programming of *A. crenulata*.

2. Studies on the effect of AZA on feeding, food utilization efficiency measures as well as faecal pellet production and body weight of male *A. crenulata*.

3. Effect of AZA on midgut digestive enzymes, acid and alkaline phosphatases, ATPase in the gut, as well as histological and ultrastructural changes in the midgut of male *A. crenulata*.
4. Effect of AZA on qualitative protein, lipid and amino acid profiles in the haemolymph, fat body and accessory reproductive glands during the reproductive phase of male *A. crenulata*.

5. Studies on the histological pictures of male reproductive organs as well as changes in quantitative biochemical profiles such as protein, carbohydrate, lipid, fructose, cholesterol and amino acids during reproductive phase of *A. crenulata* after the AZA treatment.