

Economic entomology is a field of entomology, which involves the study of insects that are of benefit or those that cause harm to humans, domestic animals, and crops. Only a few insects are pests, many insects are beneficial to man.

Economic importance of insects:

- a. collect, elaborate and store plant products e.g. honey bee
- b. spin cocoon e.g. silkworm
- c. secrete resinous substances called 'lac' used in the manufacture of gramophone records, paints, varnishes and for colouring toys e.g. lac insects
- d. Some dyes such as cantharidin and cochineal are collected from certain insect bodies
- e. Used as fish baits
- f. Produce galls on the plants; the galls contain tannic acid and used for tanning leather
- g. Help in improving soil fertility
- h. Scavengers
- i. Food source
- j. Pollinators
- k. Natural enemies of crop pests
- l. Aesthetic and entertainment value
- m. Scientific experiments e.g. *Drosophila melanogaster*

Harmful insects: attack

- a. Growing crops
- b. Stored produce
- c. Household structures
- d. Man and animals

Management of harmful insect

- To increase food production
- To improve health
- For aesthetics
- Social reasons

Definition of Pest

A pest is any form of plant or animal life or any pathogenic agent injurious or potentially injurious to plant, plant products, livestock, and man

Principles of insect pest management

- a. Exclusion:
- b. Avoidance:
- c. Protection:
- d. Resistance:
- e. Therapy

History of pest management

Chemical pesticides date back 4,500 years, when the Sumerians used sulfur compounds as insecticides. The Rig Veda, which is about 4,000 years old, also mentions the use of poisonous plants for pest control. It was only with the industrialization and mechanization of agriculture in the 18th and 19th century, and the introduction of the insecticides pyrethrum and derris that chemical pest control became widespread. In the 20th century, the discovery of several synthetic insecticides, such as DDT, and herbicides boosted this development. Chemical pest control is

still the predominant type of pest control today, although its long-term effects led to a renewed interest in traditional and biological pest control towards the end of the 20th century.