



FACULTY OF AGRICULTURAL SCIENCES & ALLIED INDUSTRIES

ENT -321 Management of Beneficial Insects 2 (1+1)

Lecture-11 Rearing Equipments and Types of Silkworm:

Rearing house:

- A separate house is ideal for rearing of silkworms
- It should be in north and south direction and have proper ventilation
- It should be free from dampness and stagnation of water
- It should have proper humidity and exposure to bright sun light

Rearing appliances:

The following equipments needed for rearing of silk worms

1. **Rearing stands:** These are made up of wood used for placing the rearing trays containing silk worms
2. **Feeding basin:** Used for transporting chopped leaves
3. **Ant wells:** The legs of the rearing stand are kept in ant wells to protect from ants
4. **Rearing trays:** These are made up of bamboo and used for rearing of early instars
5. **Paraffin paper:** Use to cover the rearing trays to maintain humidity
6. **Foam rubber strips:** These are kept around rearing bed to maintain humidity
7. **Chop sticks:** These are used to pick up younger stages of larvae
8. **Feathers:** These are used for brushing together newly hatched worms
9. **Leaf chamber:** These are used to store the mulberry leaves
10. **Chopping boards, knives and mats:** These are used for cutting the mulberry leaves into small pieces
11. **Cleaning nets:** These are used for changing different instars from rearing beds
12. **Mountages (Chandrikes):** These are used for mounting last instar larvae for spinning the cocoons on to them

Breeds of Silkworm:

1. **Bivoltine:** Bivoltine silkworms go through alternating life cycles of hibernating and non-hibernating eggs and complete only two life cycles in a year. The silk obtained from bivoltine is superior with high silk content and possess longer filament length, higher neatness, cleanness, less size deviation, low boil-off ratio, higher tensile strength and less variation in evenness. Culturing bivoltine races is therefore more profitable and generally done by sericulturists. Bivoltines races such as Kalimpong, KA, NB7, NB4D2, NB18 are commonly reared in India. Five bivoltine.

2. **Multivoltines:** Multivoltines races of silkworms are of great importance since they complete 5- 6 life cycles in a year and develop non-hibernation eggs. Multivoltines cocoons are hard however, their yield is poor in comparison to bivoltines. Mysore multivoltines race is reared in

Karnataka, Tamil Nadu and Andhra Pradesh. Nistari multivoltines race is reared in West Bengal. Nowadays, hybrids of multivoltines and bivoltines breeds are popular in India and other silk producing countries.