



FACULTY OF AGRICULTURAL SCIENCES & ALLIED INDUSTRIES

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

Unit II

Lecture-7 Sericulture and Silkworms:

- Bave is the silk thread spun by a silkworm. It consists of two filaments spun by gum or sericin.
- Biovoltine are silkworm race with two generation in a year. Egg hatching in 11-12 days.
- Brushing is done to separate larvae attached onto the egg sheets with a paint brush.
- Chandrike is a bamboo moutage used for mounting silkworms for spinning cocoon.
- Croissure is a technique for twisting row silk over itself during the process of reeling.
- Deflossing is a method of removing the floss from the cocoons.
- Disease-free laying are the eggs of silkworms free from disease, especially the perbrine disease.
- Disinfectant is an agent with the ability to kill organisms.
- Disinfection is the method of preventing the occurrence of pests and disease by use of disinfectant.
- Double cocoon is a cocoon built, jointly by two silkworms.
- Fibroin is a protein of raw silk. It is not soluble in boiling water.
- Filament is an individual strand of thread that is continuous in length.
- Floss is the low-grade silk in the outer part of the cocoon.
- Formaline is used as disinfectant.
- Grainage is an establishment where disease-free eggs are produced on scientific lines.
- Hibernating eggs take rest for a period before hatching.
- Univoltin silkworms lay only hibernating eggs.
- The 1st 2nd, 3rd instar of larvae is known as young age silkworm and the 4th and 5th instar are late age silkworms.
- Multivoltines eggs are non-hibernating type of egg.
- Raw silk reeled from cocoon.
- Rereeling is process of removal of defects.
- Sericulture is an art or science of raising silkworms for production of silk.
- Silk is a substance secreted by a labial gland of silkworm.
- Stifling is the heat treatment of cocoons to kill the pupae. It is done for storing cocoons.

Type of Silkworms:

1. **Mulberry Silk Worm: *Bombyx mori* (Bombycidae) Lepidoptera:** *Bombyx mori*, the domestic silk moth, is an insect from the moth family Bombycidae. It is the closest relative of *Bombyx mandarina*, the wild silk moth. The silkworm is the larva or caterpillar of a silk moth. It is an economically important insect, being a primary producer of silk. Feeds on various species of host Mulberry, *Morus* spp.



2. **Tropical Tasar Silk Worm: *Antheraea mylitta*, Saturniidae:** *Antheraea mylitta* is a species of moth in the family Saturniidae known commonly as the Tasar silkworm and vanya silkworm. It is actually one of a number of tasar silkworms, species that produce Tussar silk, a kind of wild silk that is made from the products of saturniid silkworms instead of the domesticated silkworm (*Bombyx mori*). This species is native to India.



3. **Oak Tasar Silk Worm: *Antheraea pernyi*, Saturniidae (Chinese Oak Tasar):**

Antheraea pernyi, the Chinese (oak) tussar moth, Chinese tassar moth or temperate tussar moth, is a large moth in the family Saturniidae.

They are originally from southern China, used for tussar silk production, they have been distributed more widely across subtropical and tropical Asia. Unlike the domestic silk moth which is entirely dependent on human care, tussah silk moths can survive in the wild if they escape from captivity; small local populations of such feral stock may thus occasionally occur



4. **Eri Silk Worms, *Samia cynthia*, Saturniidae:**

Samia cynthia, the ailanthus silk moth, is a saturniid moth, used to produce silk fabric but not as domesticated as the silkworm, *Bombyx mori*. The moth has very large wings of 113–125 mm, with a quarter-moon shaped spot on both the upper and lower wings, whitish and yellow stripes and brown background.



5. **Munga Silk Worm, *Antheraea assama*, Saturniidae (Native to India and Mostly rear in Assam):** the larvae mostly feed on Sam, *Persia bombycina* and Salau, *Litsea polyantha*.

