



Sericulture, its type and Silkworm Rearing Technologies

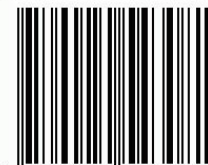
A review

¹Nirvik Banerjee, ²Dr Ravinder Pal Singh,

Research Scholar, Assistant Professor, Department of Zoology, OPJS University

Abstract : Sericulture also known as silk farming where the silkworms are reared to produce silk. There are varieties of silk produced all over the world. Different types of silk such as mulberry silk, non-mulberry silk, anaphe, fagara, coan, mussel, spider etc. silks. One of the rarest silk producer is- Assam that introduces three natural wild silks- golden muga, white pat and warm eri silk. This article throws an insight into the cultivation of silkworm and creation of the beautifully refined silk. It is not only considered as a tradition but also a living culture of Assam. Many cottage and small scale textile industries engages in such farm-based, labour intensive commercial economic activity providing employment to the rural farmers and attracts profit seeking entrepreneurs as it requires low investment with relatively higher returns.

ISSN 2454-308X



Key words: Sericulture, silkworm, employment etc

Introduction

Sericulture , the production of raw silk by means of raising caterpillars (larvae), particularly those of the domesticated silkworm (*Bombyx mori*).

The production of silk generally involves two processes:

1. Care of the silkworm from the egg stage through completion of the cocoon.
2. Production of mulberry trees that provide leaves upon which the worms feed.

The silkworm caterpillar builds its cocoon by producing and surrounding itself with a long, continuous fibre, or filament. Liquid secretions from two large glands within the insect emerge from the spinneret, a single exit tube in the head, hardening upon exposure to air and forming twin filaments composed of fibroin, a protein material. A second pair of glands secretes sericin, a gummy substance that cements the two filaments together. Because an emerging moth would break the cocoon filament, the larva is killed in the cocoon by steam or hot air at the chrysalis stage.

Silk is a continuous filament within each cocoon, having a usable length of about 600 to 900 metres (2,000 to 3,000 feet). It is freed by softening the binding sericin and then locating the filament end and unwinding, or reeling, the filaments from several cocoons at the same time, sometimes with a slight twist, forming a single strand. Several silk strands, each too thin for most uses, are twisted together to make thicker, stronger yarn in the process called throwing, producing various yarns differing according to the amount and direction of the twist imparted.

Silk containing sericin is called raw silk. The gummy substance, affording protection during processing, is usually retained until the yarn or fabric stage and is removed by boiling the silk in soap and water, leaving it soft and lustrous, with weight reduced by as much as 30 percent. Spun silk is made from short lengths obtained from damaged cocoons or broken off during processing,