

Study about various Diseases of silk worm, their occurrence and management : A Review

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Abstract : Silkworm Diseases and Pest Control Diseases are the behavioral and physiological changes induced by pathogens in an organism. All diseases have specific symptoms and characteristics. Similarly, silkworms are also affected by various types of diseases caused by protozoa, fungi, bacteria and viruses. Since they cause substantial financial loss to the industry, their prevention and control assumes utmost importance. Pebrine: Pebrine is caused by a protozoan called Nosema bombycis. In the initial stages the larvae appears to be healthy, but when observed under a microscope we can see oval, shining spores of Nosema. Pebrine disease is infected to the silkworms in two methods; peroral and transovarial infection. In advanced stages of infection, silkworms stops feeding resulting in unequal size larvae, they become sluggish, and die. The dead larvae turn black in colour due to secondary bacterial infection. If infection occurs in late V instar, the larvae spin the cocoons, and the moth may also emerge. Infected female moths lay pebrine contaminated eggs in lumps one above the other. The number of eggs per laying is also drastically reduced.

ISSN : 2348-5612 © URR



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Types of Diseases :

1. GRASSERIE:

Causative agent: Bombyx mori Nuclear Polyhedrosis Virus

Occurrence: The disease prevails all through the year but its severity is more during Summer and Rainy seasons.

Source of infection: Silkworm gets infected when it feed on contaminated mulberry leaves. The milky white fluid released by the grasserie larvae, contaminated silkworm rearing house and appliances are the sources of infection.

Predisposing factors: High temperature, low humidity and poor quality mulberry leaves.

Symptoms:

- The skin of infected larvae becomes shining before moult and fails to moult.
- Inter segmental swelling appears and the colour of the body becomes yellowish.
- The infected larvae move restlessly in the rearing bed/ along the rim of the trays.
- Infected larval body ruptures easily and turbid white haemolymph oozes out.

Management:

- Practice thorough disinfection of rearing house, its surroundings and appliances with any recommended disinfectant.
- Conduct an optional disinfection with 0.3% slaked lime solution when high incidence of disease noticed in the previous crop.