

Review Paper

IMPACT OF MAJOR BIOTIC FACTORS ON TROPICAL SILKWORM REARING IN INDIA AND MONITORING OF UNFAVOURABLE ELEMENTS: A REVIEW

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ABSTRACT

In India, the different genres of silkworms are reared on mulberry, castor, som, soalu and arjun leaves. The quality of leaves, number of broods/year, host plants and their varieties and environmental factors contribute largely towards their growth and development. Silkworm mortality has often been caused by feeding on foliage treated with chemical pesticides and due to attack of predators, parasitoids and entomopathogens. On the contrary, application of phytoecdysteroids, vermiwash or plant-derived products has shown favourable effects on larva leading to improvements in cocoon weight, shell percentage, cocoon yield and reeling parameters (filament length, denier value etc.). Both bivoltine and multivoltine races have extensively been exploited for better quality and quantity of silk production. In this review, the impact of biotic factors on silkworm rearing is critically discussed and measures for enhancing commercial production of raw silk are suggested.

Key words: Chemical pesticides, commercial silk production, natural enemies, plant-derived products, plant varieties, silkworm rearing.