



INFLUENCE OF VARIOUS FACTORS ON THE PREVALENCE OF SILKWORM DISEASES AND LOW COCOON PRODUCTIVITY IN THE SELECTED SERICULTURAL AREAS OF ANDHRA PRADESH, INDIA

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ABSTRACT

Prevalence of silkworm diseases causes significant damage to cocoon production. Information on influential factors on the prevalence of silkworm diseases and the resultant low cocoon productivity at farmers' conditions is essential for formulating silkworm disease management strategies. Periodic survey on silkworm diseases, in the affected areas will help to find out the pattern of prevalence of diseases in the field at farmers' conditions and the factors responsible for low cocoon productivity as well. Hence, in the present study, a survey was conducted for two years (October, 2012 to September, 2014) during silkworm rearing (V instar) to find out the point prevalence of silkworm diseases in the selected areas of Andhra Pradesh, India. After cocoon harvest, all the farmers' rearing houses were re-visited to collect the information on cocoon yield and also factors responsible for low cocoon yield (<60 kg/100 DFLs) if any. The average data on the point prevalence of diseases in two years indicated the prevalence of 3.25 % of total diseases with 1.96, 0.92 and 0.22 % of grasserie, flacherie and muscardine diseases, respectively during survey day. There was no incidence of pebrine disease in any of the crops surveyed during the two years period. Prevalence of grasserie was observed comparatively more during summer (2.76 %), followed by rainy (1.67 %) and winter (1.45 %) seasons. In the case of flacherie, the incidence was more during rainy (0.94 %) and winter (0.93 %) seasons followed by summer (0.89 %). However, muscardine disease was more prevalent during winter (0.58 %) and less in rainy and winter seasons. Among 875 farmers' crops surveyed during the period, 697 farmers (79.66 %) harvested >60 kg cocoons / 100 DFLs of rearing and 178 farmers (20.34 %) obtained <60 kg cocoons / 100 DFLs of rearing. The influence of major factors on the prevalence of diseases and low cocoon productivity (<60 kg cocoons / 100 DFLs) were analyzed and discussed.

Key words: Andhra Pradesh, cocoon yield, diseases, point prevalence, silkworm.