



GRAINAGE PERFORMANCE OF ERI SILKWORM, *SAMIA RICINI* (DONOVAN) DURING DIFFERENT SEASONS IN ASSAM

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ABSTRACT

India is considered as the hot spot of seri-biodiversity particularly in the case of eri and muga silkworm. The eri silkworm, *Samia ricini* (Donovan) is a multivoltine, domesticated insect that can be reared on diverse host plants. Eri silk is considered the pride of Assam and eri silkworm rearing is a heritage and prerogative for the tribals in north-east India, since time immemorial. Due to the implementation of various schemes viz., CDP, NERTPS etc., the demand for eri DFLs has increased manifold in native and non-traditional states as well. To ensure supply of quality eri DFLs as per their scheduled dates, stringent planning of grainage operations becomes essential. For effective programming of grainage schedules, one should have the vital information of seasonal influence on grainage performance. In the present study, eri silkworm grainage performance was studied in different seasons as experienced in Assam viz., winter (December - March), summer (April- June), early monsoon (July- August), late monsoon (September) and autumn (October - November) at ambient room temperature during the year 2015-16. The grainage performance during summer revealed significantly higher per cent of unemerged cocoons (27.2 ± 8.76) as compared to other seasons. The percentage of valid moth emergence with effective coupling was significantly high in autumn season (93.87 ± 1.43) followed by late monsoon (87.37 ± 5.35) and winter (71.10 ± 3.74). The DFL to cocoon ratio was observed to be ideal during autumn (1:4) and late monsoon (1:4.6). The DFL recovery was recorded the least (1:8) during early monsoon followed by summer (1:7) with the characteristic high temperature of 30 to 32°C. Temperature and humidity prevailing during seed cocoon rearing, host leaf nutrition and adoption of standard rearing practices were identified earlier as critical factors determining the grainage performance. The study indicated that eri silkworm grainage operations find it the most favourable in Assam during September to November coinciding with late monsoon and autumn seasons.

Key words: Eri silkworm, *Samia ricini*, seed production.