

Effect of Varietal Feeding on Larval Duration and Cocoon Parameters of Six Strains of Eri Silkworm *Samia ricini* Donovan in Nagaland, India

Authors : Lakhminandan Kakati, Merenjungla Jamir

Abstract : Rearing of six strains of *Samia ricini* (eri silk worm) i.e. Yellow plain (YP), Yellow spotted (YS), Yellow Zebra (YZ), Greenish blue plain (GBP), Greenish blue spotted (GBS) and Greenish blue zebra (GBZ) was conducted on *Ricinus communis* (Castor), *Heteropanax fragrans* (Kesseru), *Evodia fraxinifolia* (Payam) and *Manihot utilissima* (Tapioca) to evaluate the effect of seasonal pattern on larval duration and cocoon parameters in Nagaland, India. Larval duration during spring season was maximum in all strains in all food plants; however minimum for all strains was recorded during summer season on Castor, Kesseru and Tapioca. Cocoon weight was recorded to be minimum (2.8 ± 2.055 gm) in YP on Kesseru and maximum (4.06 ± 0.68 gm) in GBZ on Castor during spring season; shell weight fluctuated between 0.34 ± 0.08 gm during spring in GBS on Kesseru and 0.58 ± 0.09 gm during summer in YZ on Castor and percentage of silk ratio was found to be minimum and maximum in YP on Payam during spring (11.37 ± 1.29) and in GBS on Castor during summer (16.05 ± 1.59) respectively. The variation in larval duration and cocoon parameters reflected variation in nutrient composition of food plants and dynamic environment conditions prevailing in different seasons of the year. Payam and Tapioca plants could be fed either singly or alternately with Castor or Kesseru to attain the commercial advantage to ensure more value added production. While there were differences in the productivity parameters with respect to strains and seasons, the present study shows that all the strains on four host plants expressed adaptability and suitability for commercial rearing under Nagaland climatic condition.

Keywords : alternative food plants, Larval and cocoon parameters, Nagaland Inia, six strains of *Samia ricini*

Conference Title : ICE 2016 : International Conference on Entomology

Conference Location : Penang, Malaysia

Conference Dates : December 01-02, 2016