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INFLUENCE OF PHYTOECDYSTEROID ON SILK PRODUCING POTENTIAL OF MULTIVOLTINE MULBERRY SILKWORM (*BOMBYX MORI* L.)

PURNIMA PANDEY* and V.B. UPADHYAY

Silkworm Laboratory, Department of Zoology, University of Gorakhpur, Gorakhpur-273009, India

ABSTRACT

Phytoecdysteroids are structural analogs of insect molting hormone ecdysone. Plants comprise high concentration of ecdysteroids with broad structural diversity. In the present study phytoecdysteroid was extracted from *Achyranthes aspera* leaves and sprayed on mulberry leaves in concentration of 40, 50, 60 and 70 % and number of treatment (single, double and triple). Silkworm larvae were fed with treated leaves. Variation in phytoecdysteroid concentration ($P_1 > 0.05$) significantly influenced the weight of silk glands of *Bombyx mori* larvae. It increased to the maximum in case of 60% double treatment of larvae. The weight of cocoon and shell also increased with increasing phytoecdysteroid concentration and number of treatment up to 60% double treatment. The maximum cocoon weight (1.08g) was recorded at 60%, double treatment, and minimum (0.78g) at 70%, triple treatment. The of shell weight increase was maximum (0.198g) at 60%, double treatment.

KEY WORDS: *Bombyx mori*, silk production, phytoecdysteroid *Achyranthes aspera*