



## RESEARCH PAPER

# Impact of antibiotic administration on the growth and development of silkworm *Bombyx mori* L.

Iqra Rafiq\*, Z. I. Buhroo, K. A. Sahaf, N. A. Ganie and S. A. Mir<sup>1</sup>

College of Temperate Sericulture, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir Srinagar (J&K) India

**Abstract :** The present investigation was carried out to assess the rearing performance and total haemocyte count in silkworm *Bombyx mori* L. on antibiotic supplemented feed at various concentrations. The study was conducted on the silkworm breed APS-45. The worms were reared upto 3<sup>rd</sup> moult by feeding on mulberry leaves without any treatment. After 3<sup>rd</sup> moult, three replications were maintained for each treatment and each treatment received different concentration of antibiotics. For each antibiotic three concentrations (0.05%, 0.10% and 0.15%) were prepared and sprayed on the mulberry leaves, a separate batch was also maintained where only distilled water was sprayed and that served as a control. Among the three antibiotics evaluated ceftiofur sodium showed best results followed by oxytetracycline and enrofloxacin which also showed better results in all the parameters and it was found that improved results were obtained with an increase in concentration. The cocoon yield was statistically significant in all the treatments. However, the highest cocoon yield by weight was obtained in ceftiofur sodium. Higher cocoon weight recorded in these antibiotic treated batches indicated a clear difference in their nutrient utilization efficiency. Present investigation reflected that antibiotics have the potential to be used for enhancing the cocoon and raw silk production.

**Key Words :** Administration, Antibiotics, *Bombyx mori*, Development, Growth, Silkworm

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\*Author for correspondence:

<sup>1</sup>Division of Agriculture Statistics, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir Srinagar (J&K) India