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Brief Note

IMPACT OF MIXED INFECTION OF *BACILLUS SUBTILIS* AND OTHER MICROORGANISMS ON LARVAL PARAMETERS OF SILKWORM, *BOMBYX MORI* L. (PM × CSR_2)

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ABSTRACT

Infection due to combinations of pathogenic organisms cause a type of bacterial flacherie disease in silkworm characterized by flaccid condition, vomiting and dysentery. The disease is common during summer and rainy seasons in all the sericultural areas of India and it is caused by different species of bacteria, viruses or their mixed population. Per oral inoculation of different pathogenic bacteria *viz., Lysinibacillus sphericus*, *Alcaligenes faecalis* and *Bacillus subtilis* and virus, NPV revealed significant reduction in larval weight and per cent larval weight reduction since end of the third instar through subsequent instars. Altered larval duration (days) and moulting hours (hours) were noticed in third instar inoculated batch which indirectly affect the silk productivity. The larvae of PM × CSR_2 inoculated during third instar, recorded higher reduction in larval weight in respect of treatment, *B. subtilis* + *L. sphaericus* + NPV (35 %). Further, maximum extension in larval and moulting durations (23.98 days and 78.77 h) were noticed when administered with *B. subtilis* + *L. sphaericus* + *A. faecalis*, followed by dual inoculation with *B. subtilis* and *A. faecalis* (22.93 days and 72.67 h) and the least was recorded in *B. subtilis* inoculated batch (21.66 days and 57.96 h) whereas, the control batch recorded 14.42 days and 52.30 h, respectively.

Key words: Bacterial isolates, larval parameters, mixed infection, silkworm.