➔DOI : 10.15740/HAS/AJBS/9.2/220-223
e ISSN-0976-8343 | ■ Visit us : *www.researchjournal.co.in*

Asian Journal of Bio Science, Volume **9** | Issue 2 | October, 2014 | 220-223
Received : 02.06.2014; **Revised :** 23.08.2014; **Accepted :** 03.09.2014

RESEARCH **P**APER

Silkworm breeds and their hybrids of *Bombyx mori* L. to *bm*npv stress

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*Bm*NPV (*Bombyx mori* nuclear polyhedrosis virus) causes nuclear polyhedrosis in silkworms. This paper reports on the relative susceptibility of silkworm pure breeds and their hybrids reared under *Bm*NPV stress condition. Infection during fourth and fifth instar silkworm *Bombyx mori* L., with nuclear polyhedrosis virus caused reduction in larval weight and revealed significant results. However, maximum larval weight of 3.67 and 3.98g/10 was noticed in fourth instar inoculated batches (10^{-1} and 10^{-3}) of CSR_2. Among hybrids, CSR_4xCSR_{16} and CSR_2xCSR_4 have recorded (5.34 and 5.35 g/10) and (4.77 and 5.47g/10) compared to other hybrids. On the other hand, fourth instar inoculated batches of fifth instar also recorded maximum larval weight in CSR_2 (13.88 and 14.18g/10 and 11.68 and 11.74g/10). Further among hybrids of same instar inoculated, CSR_4xCSR_{16} recorded (19.06 and 19.90g/10 and 20.21 and 21.63g/10) which was found maximum than other hybrids. Effective rate of rearing (ERR) of fourth instar inoculated batches were realized differently due to the administration of *Bm*NPV. However, the maximum ERR (59.33 and 64.00%) and (62.00 and 62.00%) was recorded in PM which exhibited more survival percentage followed by CSR_4 (58.67 and 56.00%) and (58.67 and 59.33%) compare to other two breeds. Among hybrids, PMxCSR_4 was recorded highest ERR (60.67 and 58.00%) and (58.67 and 57.33%) when administered with 10^{-1} and 10^{-3}, respectively. The same trend has been noticed even in control lots. The results clearly indicated that, bivoltine breeds and their hybrids reflected low ERR percentage values inturn more sensitive to *Bm*NPV stress.

Key words : Larval weight, ERR, *Bm*NPV, Silkworm breeds

How to cite this paper : Asha, M.H. and Bhaskar, R.N. (2014). Silkworm breeds and their hybrids of *Bombyx mori* L. to *bm*npv stress. *Asian J. Bio. Sci.*, **9** (2) : 220-223.