**the effect of feed supplementation on the biochemical content of two strains of *Bombyx mori***

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**Abstract**

In this study, an attempt has been made to investigate the effect of feed supplementation on the biochemical content in the tissues of two strains of silkworm, *B. mori,* PMxCSR2 and PM. The impact of feed supplements on total protein, carbohydrate, lipid and total amino acid in the eggs, larvae, pupae and adults of *B. mori* was studied. Feed supplements significantly influenced the biochemical contents in the egg, silk gland, fat body, muscle and haemolymph. The maximum level of protein (24.10±1.13 mg/g) and carbohydrate (20.60±1.64 mg/g) was noticed with albumin in the silk gland of PMxCSR2 and PM respectively. Maximum lipid (12.16±0.16 mg/g) was observed with ghee in the pupae of PMxCSR2 and the total amino acid (492±22.16 mg/g) was recorded in the haemolymph of pupae treated with lysine. The vital biochemical substrates of the eggs and silk glands of F2 *B. mori* were significantly higher than control levels in silk moth raised from F1 groups raised on supplementary feeds. Starvation in the F1 decreased the mobilization of vital substrates in the F2 indicating the importance of larval investment in the previous generation.

**Keywords:** PMxCSR2, haemolymph, mobilization