

ABSTRACT

The present study has been designed to assess the effect of date fruit (*Phoenix dactylifera* L.) extract fortified mulberry leaves on biological and economic traits of silkworm (*Bombyx mori* L.). 5th instar larvae of control were fed with fresh leaves and experimental groups fed with date fruit extract fortified mulberry leaves 0.5%, 1%, 2% and 0.5% + 1% honey respectively, for seven days. A significant increase ($P < 0.05$) in biological (larval weight and % ratio of silk gland to body weight) and economic traits (cocoon weight, length, width, % shell ratio and % fibroin content) was recorded in silkworms which were fed with 2% date extract treated mulberry leaves. The larval weight and % ratio of silk gland to body weight were maximum in the group fed with 2% date extract fortified mulberry leaves as compared to control. The economic traits of larvae (cocoon weight, length, width and % fibroin content) were significantly higher in the group fed with 2% date extract fortified leaves. Furthermore, the % shell ratio was same in 2% and 1% date fruit extract fortified mulberry leaves treated groups but significantly higher than other groups. It can be concluded that 2% date fruit extract has a positive effect on biological and economic traits of *Bombyx mori* L.

Keywords: *Bombyx mori*, silkworm, *Phoenix dactylifera*, date fruit extract, Fibroin, fortified mulberry leaves.