

Abstract

Global silk production is not able to meet up the current silk demand. Silkworms feeding is directly associated with the rate of silk production. The purpose of current study was to assess the effect of honey and ascorbic acid supplemented mulberry leaves on larval growth and silk production in *Bombyx mori* L. The silkworm larvae at 5th instar were taken and divided into control and experimental groups. Silkworm larvae were fed with nine different concentrations of honey and ascorbic acid. The results of present study demonstrated that the silkworms fed with 1% Honey + Ascorbic acid fortified mulberry leaves showed significant improvement in larval weight as compared to control group and other experimental groups on day 7 of experiment. The % ratio of silk gland to body weight was also recorded to be highest in group fed with 1% Honey + Ascorbic acid solution followed by the group which received 2% Ascorbic acid treated mulberry leaves. Significant improvement was also noticed in the economic traits of experimental groups ($P < 0.005$). Maximum values of cocoon weight, cocoon length, cocoon width and cocoon shell ratio, fibroin and sericin content were also observed in the group treated with 1% Honey + Ascorbic acid fortified mulberry leaves. Cocoons formed by the same group were more uniform in shape as compared to control and other groups. So, it can be concluded from the present study that 1% Honey + Ascorbic acid had positive impacts on cocoon yield and larval growth of silkworms.