

To identify heat stress strain of lac insect on fast growing lac bushy host plant *F. semialata*

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Received April 12, 2013 and Accepted July 4, 2013

ABSTRACT: Lac insect, *Kerria lacca* secretes resin on its host plants, which are utilized in food processing industry, cosmetics and toiletries industry, varnish and printing industry, coat of fruit and vegetable, electric industry, leather industry, adhesive industry, pharmaceutical industry, perfumery industry etc. Besides resin lac also yields lac dye and lac wax that also has industrial significance. 70% of Indian lac is exported to foreign countries. Therefore, Lac provides a feasible solution to lac growers of India for additional income and self employment generation. However, due to increase in atmospheric temperature during the past few years lac production has been declined. Therefore, Bioved Research Society BRS has selected and inoculated 5 strains of *Kerria lacca* on 11,250 *F. semialata* host plant grown for experiment at 750 farmer's field to identify a suitable heat stress strain of *K. lacca* insect for increasing lac production in W.B. Total 70.48 Q brood lac was distributed among 750 farmers of five different locations in West Bengal that results in 337.07 Q scrapped lac, with which 750 farmers earned Rs. 3,37,07,000. Maximum income from produced lac was made by the farmers at location 2 from strain 5, whereas minimum income was recorded for the farmers at location 1, with strain 4. It has been concluded from the study that strain 5 showed best lac yield on *F. semialata* host plant in the W.B. Therefore, Strain 5 is recommended for the lac cultivation in W.B. at temperature range of 25-35° C.

Key Words : Kusumi lac, Lac cultivation, Heat stress, *F. semialata*, bushy plant.