



Tropentag, October 7-9, 2008, Hohenheim

“Competition for Resources in a Changing World:  
New Drive for Rural Development”

## Effect of Mulberry Leaves of Different Varieties on Growth, Development and Cocoon Characters of Silkworm (*Bombyx mori*)

HABIBULLAH BAHAR<sup>1</sup>, SAIDUR RAHMAN<sup>2</sup>, MAHMUD AL PARVEZ<sup>3</sup>, REJAUL ISLAM<sup>3</sup>

<sup>1</sup>University of New England, Agronomy and Soil Science, Australia

<sup>2</sup>Bangladeshi Sericulture Research and Training Institute, Bangladesh

<sup>3</sup>Khulna University, Agrotechnology, Bangladesh

### Abstract

Five mulberry plant varieties viz. BSRM-56, BSRM-57, BSRM-58, BSRM-59 and BSRM-34 were used to evaluate the effects of these varieties on larval and cocoon characteristics of silkworm (*Bombyx mori* L.) at Bangladesh Sericulture Research and Training Institute, Rajshahi during June – July, 2007. Silkworm larvae were under gone five larval instars on leaves of mulberry varieties and different larval characteristics: larval weight, larval length and larval breadth were collected in different growth stages. After rearing period the fifth instar larvae were transferred into mountage (Chandraki) for spinning and producing cocoon. The cocoons were then harvested and different cocoon characteristics like cocoon weight, shell weight and shell percentage and others characters like pupal weight, effective rate of rearing were collected. The results showed statistically significant difference among different varieties on larval and cocoon characteristics. The higher performance was observed by feeding the variety BSRM-34 in respect of 10 mature larval weight (40.500 mg), single mature larval length (7.660 cm) and breadth (0.980 cm), single cocoon weight (1.397 mg), shell weight (0.180 mg) and pupal weight (1.220 gm) while the average performance was recorded by feeding the variety BSRM-57 and BSRM-59 and poor performance was showed by feeding the variety BSRM-56 (in case of larval characters) and BSRM-58 (in case of cocoon characters) in respect of these characters as well as silk yield. These results indicated that the leaves of different mulberry varieties have statistically variable effect on larval and cocoon characteristics as well as silk yield, means silk yield varies with leaves of mulberry varieties.

**Keywords:** Cocoon, larvae, mulberry, pupae, silkworm