AIB-3577: EVALUATION OF MULTIVOLTINE GERMPLASM TO IDENTIFY POTENTIAL PARENTS FOR DEVELOPING CROSS BREEDS FOR SOUTHERN AND EASTERN INDIA

(Collaborative project with CSR&TIs Mysore and Berhampore)

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Introduction:

Though silkworm germplasm constitute the potential raw material and having wide variation in their genotypic expressions, there is always under utilization of silkworm germplasm resources for breeding programmes. Therefore, the silkworm breeding strategy oriented towards involving multivoltine silkworm genetic resources at CSGRC, Hosur in preparation of Improved cross breeds with specific qualitative and quantitative traits. Multivoltine silkworm genetic resources available at CSGRC, Hosur was not explored by the breeders so far and also studies related to pre-breeding involving multivoltine silkworm genetic resources from CSGRC gene bank is not yet attempted. Therefore, one project was taken up to conduct pre-breeding involving promising multivoltine silkworm genotypes.

Objectives:

- To evaluate multivoltine germplasm accessions for the identification of crossbreeds suitable for Southern and Eastern Zones.

Outcome:

- Identified region and season specific superior multivoltine accessions with improved rearing & reeling traits and better combiners with CSR2.
- Among the top performing multivoltine accessions as parental breeds, the accessions viz. BMI-0025, BMI-0079 and BMI-0048 recorded their superiority in all seasons under all the test centers proving their utility as potential parents for region specific crop improvement.

CSR&TI, Berhampore	CSR&TI, Mysore	CSGRC, Hosur
BMI-0080, BMI-0025, BMI-0079, BMI-0048 & BME-0068	BME-0048 , BMI-0054, BMI-0001, BMI-0025 and BMI-0079	BMI-0025, BMI-0076, BMI-0074, BMI-0079 and BME-0048

Recommendations/Utilization:

- ✓ The top performing hybrid combinations of each region can be recommended for large-scale multi-location trials (MLT). After MLT, the best combination with improved traits can be utilized for commercial exploitation.