AIE-3434: COLLECTION, CHARACTERISATION, PRELIMINARY EVALUATION, CONSERVATION AND SUPPLY OF SILKWORM GENETIC RESOURCES

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Introduction:

One of the important mandates of Central Sericultural Germplasm Resource Centre is the collection and conservation of silkworm (*Bombyx mori L)* genetic resources with unique characteristics and new breeds developed by CSRTIs and State sericulture research Institutes of the traditional sericulture states and also the breeds authorized by Central Silk Board. Utilization of the seri-genetic resources depends on the wide genetic variability available in the silkworm genetic resources.

Objectives:

- To collect silkworm genetic resources
- To characterize silkworm genetic resources
- To evaluate silkworm genetic resources for utilization
- To supply silkworm genetic resources for better utilization.
- To conserve silkworm genetic resources for posterity

Outcome:

- ✓ 72 multivoltine, 349 BV and 20 mutants silkworm germplasm accessions were characterized for different descriptors, evaluated for 12 important economic traits.
- ✓ Potential silkworm germplasm accessions identified based on the evaluation data and the same was documented in the SGIS database for usage by the breeders.
- ✓ In order to promote utilization of silkworm genetic resources, CSGRC supplied 159 MV accessions (includes repeat supply) to six indenters in 11 spells and 43 BV accessions (includes repeat supply) to nine indenters in 12 spells for their research purposes
- ✓ Top performing multivoltine and bivoltine accessions were identified for multiple traits and also for individual traits.

Accession Number	No. of traits	Trait No. and Values
BMI-0065	7	1(456.9), 3(25.783), 7(11.55), 9(1.355), 10(0.216), 11(16.089), 12(46.206),
BMI-0073	7	3(26.127), 4(689.2), 7(11.22), 9(1.339), 10(0.221), 11(16.683), 12(44.924),
BMI-0066	6	1(468.7), 3(28.123), 7(12.51), 9(1.462), 10(0.222), 12(49.998),
BMI-0062	6	2(96.37), 3(26.478), 7(11.58), 9(1.334), 10(0.195), 12(46.353),
BMI-0043	6	3(26.104), 7(11.87), 9(1.333), 10(0.208), 11(15.664), 12(47.482),
BBE-0010	8	1(630), 2(98.0), 7(21.5), 8(95.5),(1.71), 10(0.32), 11(19.3), 12(86.0)
BBI-0291	6	1(613), 7(18.4), 9(1.6), 10(0.31), 11(19.5), 12(73.8),
BBE-0035	6	1(638), 3(46.5), 7(20), 9(1.88), 10(0.31), 12(79.8),
BBI-0137	6	2(97.4), 7(18.2), 9(1.64), 10(0.32), 11(19.7), 12(72.9),
BBE-0197	6	3(44.7), 7(17.6), 9(1.63), 10(0.35), 11(22.01), 12(70.6)

Recommendations/ Utilization:

- The promising accessions will be evaluated under AISGEP and hotspot evaluation programmes.
- The top performing accessions identified is recommended for utilization by the breeders in breeding programmes for specific conditions.