

## **NORMS FOR REGISTRATION OF HOST PLANT AND SILKWORM GERmplasm**

Outstanding varieties of silkworm and host plants are released for commercial exploitation after authorization. However, all germplasm does not get authorized due to one or the other limitations in spite of their outstanding performance for remaining traits. Additionally, many germplasms are developed having unique characters. Registration of such germplasm is essential to give due recognition to the scientists who have developed this germplasm. Further, lack of formal recognition of such useful materials will prove as deterrents for their utilization or may even be lost. Moreover, documentation of such materials and their performances is essential keeping in view their potential use and Intellectual Property Rights. In light of the above, promising germplasm of silkworm and host plants (mulberry as well as non-mulberry) are to be registered under the purview of the Germplasm Registration Committee constituted by Central Silk Board at CSGRC Hosur. The norms for registration of host plant and silkworm registration are enumerated as follows:

### **Nature of material to be registered**

- The material will comprise genetic stock / germplasm and parents of hybrids of authorized silkworm and host plants which possess traits that have scientific / commercial value or may have value in future.
- The germplasm material proposed for registration should have superior expression for one or more traits, special characteristic features, unique traits, academically important, mutant, molecular markers etc. either collected or developed as well as characterized, evaluated and relevant data systematically recorded as per the criteria for registration.
- In case of parents of hybrids, the hybrid should be authorized.

### **Silkworm and host plants to be covered**

- The following germplasm materials will be covered under the registration

<b>SN</b>	<b>Host plant</b>	<b>Silkworm</b>
1	Mulberry	Mulberry silkworm
2	Arjun and Asan	Tropical tasar silkworm
3	Oak	Oak tasar silkworm
4	Som and Soalu	Muga silkworm
5	Castor and Tapioca	Eri silkworm
6	Any other material not listed above and of sericultural value may be considered at the discretion of the Registration Committee	

### **Eligibility Criteria for registration**

- All claims concerning the material submitted for registration would be subject to one or more of the following validation criteria:

Publication in peer reviewed journal (a copy of reprint to be submitted)

AND / OR

Evaluation data under multi-locational trial supported by relevant extracts of the documents

AND / OR

Publication of information on potential value of germplasm in institute annual report or any other such reports may also be considered depending on importance.

AND / OR

Certification of the validation test of the claimed attribute by any institution as per the advice of Registration Committee

#### **Submission of application for registration of material**

- The material to be registered would be proposed using **Form A [Annexure 1]** accompanied by complete description of the material using standard descriptors as per concerned crop.

#### **Registration Committee**

- The constitution of the Germplasm Registration Committee is as follows:
  1. Director (Technical), Central Silk Board, Bengaluru - Chairman
  2. Director CSR&TI Mysuru - Member
  3. Director CTR&TI Ranchi - Member
  4. Director CMER&TI Lahdoigarh - Member
  5. Director, CSGRC Hosur - Member-Convenor

#### **Terms of Reference of the Germplasm Registration Committee:**

- To review the overall merit of lines and make recommendations regarding the suitability of candidate germplasm for registration
- To provide expert input regarding proposed or existing legislation and regulations governing silkworm or host plant germplasm breeding and production.
- To act as a forum for exchange of information relevant to the development / utilization of the candidate germplasm
- The tenure of the **committee shall be for three years**, the committee will meet as per requirement for one day
- The applicant / the first author in case of more than one applicant / application will be a special invitee when his / her application is considered.
- At least **three members** should be present for the quorum
- The Committee will convene meeting as per requirement.

#### **Submission and processing of application**

- The application will be submitted to the Member-Convenor (Director, CSGRC Hosur) through the head of the concerned institute who will forward the application after required verification to the following address:

The Director,  
 Central Sericultural Germplasm Resources Centre  
 Central Silk Board, Govt. of India, Ministry of Textiles  
 P.B.No.44, Thally Road,  
 HOSUR – 635 100, TAMIL NADU

Ph. No. 04344 22013

email: csgrchosur@gmail.com; csgrchos.csb.gov.in; Website: csgrc.res.in

- The applicant institute must give an undertaking to maintain the material (registered host plant / silkworm) and supply the same to various institutes for research on demand. The date of receipt of the application would be duly acknowledged by the Member-Convenor (Director, CSGRC, Hosur) within two weeks of its receipt.
- The Member-Convenor (Director, CSGRC, Hosur) will examine the proposal with respect to information supplied particularly the eligibility criteria. Incomplete application will be sent back to the concerned applicant and only the applications which qualify will be placed before the Committee for consideration.

#### **Nodal Agency**

- CSGRC Hosur would be the nodal agency for registration of the germplasm material. CSGRC Hosur will maintain a **permanent register** in which the materials approved for registration would be listed.

#### **Submission of material for registration**

- The samples of germplasm material registered would be sent directly to various institutions for conservation as follows:

<b>Mulberry and Silkworm</b>	<b>Tropical and Oak tasar</b>	<b>Muga and Eri</b>
The Director, Central Sericultural Germplasm Resources Centre Central Silk Board, Govt. of India, Ministry of Textiles P.B.No.44, Thally Road, HOSUR – 635 100, TAMIL NADU	The Director, Central Tasar Research and Training Institute, Central Silk Board, Govt. of India, Ministry of Textiles Piska Nagri, Ranchi – 835 303 JHARKHAND /	The Director, Central Muga and Eri Research and Training Institute, Central Silk Board, Govt. of India, Ministry of Textiles P.B.No.131, Lahdoigarh, Jorhat – 785 701 ASSAM /
	The Incharge, Regional Sericultural Research Station, Central Silk Board, P.O.Mantripukhri, Imphal - 795002 MANIPUR	The Incharge, Regional Sericultural Research Station, Central Silk Board, Ministry of Textiles, Govt. of India Boko - 781123 Kamrup dist., ASSAM

- The concerned institutes will conserve the material received and acknowledge receipt of the same within two weeks indicating the steps taken for conservation of germplasm with a copy to the Director, CSGRC Hosur in case of non-mulberry germplasm.
- A minimum of 10 disease free layings for silkworm and 25 cuttings / saplings or 400 seeds from freshly harvested crop, well cleaned without any obvious physical change with potential viability must be submitted.

### Time Schedule

- The decision of the Committee must be finalized within six months of submission of the proposal.

### Allotment of registration number for registered materials

- In order to bring out the clarity in registration, separate registration numbers will be allotted for host plant and silkworm registered material
- The registration number will start with three characters representing the institute [as approved for authorization of varieties] followed by the type of registered material i.e. host plant / silkworm, then Indian Sericultural Germplasm Registration (ISGR) number starting with 01 onwards and year of registration.

SN	Host plant	Silkworm
1	Mulberry [ML]	Mulberry [MS]
2	Tasar	Tasar [TS]
3	Arjun [AR]	
4	Asan [AS]	
5	Oak tasar [OT]	Oak tasar [OS]
6	Muga	Muga [MU]
7	Som [SO]	
8	Soalu [SL]	
9	Castor [CA]	
10	Tapioca [TP]	
11	Eri [ER]	Eri [ES]
12	Any other [OP]	Any other [OR]

### Example:

Institute	Material	CSR&TI Mysore	Mulberry	Regn no.	Year
CSR&TI Mysuru	Mulberry	CMY	ML	ISGR01	2020
	Mulberry silkworm	CMY	ML	ISGR01	2020

**Registration No. – Mulberry = CMYMLISGR012020**

**Mulberry Silkworm = CMYMSISGR012020**

**Notification of registered materials**

- All materials approved for registration would be notified along with brief description (atleast 1000 words) in the subsequent issue of Indian Journal of Sericulture, Indian Silk, Newsletter, Annual Reports / websites of CSGRC Hosur and other concerned institutes.
- Further details required may be obtained by the concerned institute / agency by contacting the Director CSGRC Hosur.
- The details about registration will be recorded in the register to be maintained by the Member-Convenor (Director CSGRC Hosur).

**Maintenance and supply of registered material**

- The registered material will be conserved on long term basis by CSGRC Hosur and by respective non-mulberry institutes.
- Working stock for supply to users would be maintained by the Institution associated with the development of the material.
- CSGRC Hosur will supply the germplasm of mulberry and its silkworm, while, supply of non-mulberry and its silkworm will be effected by respective institutes i.e. Tasar by CTR&TI Ranchi, Oak tasar by RSRS Imphal, Muga by RSRS Boko, Eri by CMER&TI Lahdoigarh.

## Form-A

## Application for registration of host plant / silkworm germplasm

SN	Particulars	Details [Fill in capital letters]
1	Application status [New / Revised]	
2	Host plant <sup>1</sup> / Silkworm <sup>2</sup> [indicate English or Hindi name and local name if available with language or dialect in which this name is used]	
3	Binomial name	
4	Species code	
5	Biological status of the material to be registered <sup>3</sup>	
6	Criteria for registration [Unique feature (s)]	
7	Nature of genetic material <sup>4</sup>	
8	Quantity deposited [actual]	
9	Value referred to <sup>5</sup>	
10	Basis of eligibility <sup>6</sup>	
11	Validation test suggested [Y / N]	
<p><sup>1</sup> = ML – Mulberry; Tropical tasar - AR = Arjun, AS = Asan; OT – Oak tasar; Muga - SO = Som, SL = Sualu,; Eri - CA = Castor, TP = Tapioca OF – Other food plants</p> <p><sup>2</sup> = MS – Mulberry; TS – Tropical tasar; OS – Oak tasar; MU – Muga; ES – Eri; OR – Others</p> <p><sup>3</sup> = GP – Germplasm collection; GS – Genetic stock; RE – Recombinant; MT – Mutant; OG – Others</p> <p><sup>4</sup> = Host plant; SD – Seed; VP – Vegetative propagule; WP – Whole plant; OP – Any other plant Silkworm – EG – Egg; CO – Cocoon; OS – Others</p> <p><sup>5</sup> = SC – Scientific; CM – Commercial; AC – Academic</p> <p><sup>6</sup> = PR – Published with peer reviewed journal; MLTD – Multi-locational trial Data; IAR – Institute Annual Report; AOR – Any other report</p>		

**FOR USE OF CSGRC HOSUR**

<b>SN</b>	<b>Particulars</b>	<b>Details [Fill in capital letters]</b>
1	Application number	
2	Date of application	
3	Whether new or revised	
4	If revised date of 1 <sup>st</sup> application	
5	If validation test suggested, whether report attached [Y / N]	
6	Action taken	
7	Forwarded for registration [Y / N]	
8	Sent for validation [Y / N]	
9	Incomplete, sent for revision [Y / N]	
10	Whether registered or rejected	
11	Date of registration or rejection	
12	Notified on	
13	Remarks	

**Particulars of the scientists (s) / person (s) who developed germplasm / genetic stock\***

<b>SN</b>	<b>Particulars</b>	<b>Details</b>
1	Name (Dr./Ms./Mr./Mrs.)	
2	Designation	
3	Address	
4	Telephone	
5	Mobile no.	
6	Email	

*(Please attach separate sheet for additional names (s) and address (es) of co-authors / persons responsible; Fill in capital letters; Give names of all persons associated with development of the material)*

**Name and address of the corresponding person**

<b>SN</b>	<b>Particulars</b>	<b>Details (Fill in capital letters)</b>
1	Name (Dr./Ms/Mr./Mrs.)	
2	Designation	
3	Address	
4	Telephone	
5	Mobile no.	
6	Email	

**Passport information of germplasm / genetic stock**

SN	Particulars	Details
1	National Identity [IC] No.*	
2	Other identity	
3	Source	
4	Place of origin (Tehsil / Dist. / Province/State)	
5	Remarks	

*(Fill in capital letters; \* = include National Identity No. given by CSGRC Hosur or other identity number allotted and maintained locally in which case CSGRC Hosur will provide a unique National Identifier Number (IC) based on passport data provided)*

**Pedigree of the germplasm / genetic stock**

SN	Particulars	Details (Fill in capital letters)
1	Pedigree	
2	Breeding method*	

\* = IN – Introduction & Selection; MS – Mass selection; PS – Pedigree Selection; PL – Pure line selection; RS – Recurrent selection; BC – Backcross method; OM – Other Method

**Salient characteristics / chief botanical and morpho-agronomic / morpho-economic description (attach details)**

SN	Trait description
1	
2	
3	

*(Fill in capital letters; Give detailed description of traits and characteristics of the material as per format of variety release application or AIMSGEP data sheets for respective crops; Use separate sheet if needed; Indicate main botanical and morpho-agronomic characteristics in description in case of host plants and morpho-economic traits in case of silkworm including isozyme or DNA profile or other chemical / biochemical characteristics, if available)*

**Details of germplasm availability**

SN	Particulars	Details (Fill in capital letters)
1	Year of seed / cutting / egg available	
2	Location of seed production	
3	Quantity of seed	

Additional information / Remarks if any

**[Note: Write legibly and indicate minimal explanations especially under “Remarks”;**

## UNDERTAKING

*I / We undertake to ensure long term conservation of the aforesaid germplasm / genetic stock at the National Genebank, CSGRC Hosur, Concerned CSB Institutes and also its sustainable use by maintaining appropriate quantity of Active / Working Collection and providing access as appropriate on prior information/consent and on mutually agreed terms.*

*I / We also agree to provide any further information or data pertaining to the description and unique characteristics to CSGRC Hosur and Concerned CSB Institutes in a transparent manner.*

## COUNTERSIGNED

**SIGNATURE (S)**

**SIGNATURE(S) OF:  
THE DEPOSITOR(S)**

**FULL NAME:**

**FULL NAME:**

**DESIGNATION:**

**DESIGNATION:**

**ADDRESS:**

**ADDRESS:**

**SEAL**

## CHECKLIST FOR SCREENING OF APPLICATIONS

The Member Convenor, Germplasm Registration Committee at CSGRC Hosur shall screen all applications and make recommendations to the Committee for the following points:

SN	Particulars	Y / N
1	Whether the application is new or revised?	
2	Whether same or similar material has been registered earlier?	
3	Whether unique or distinguishing characteristics of potential value merit consideration for registration?	
4	Whether documentary evidence or data is provided in support of the claim on potential value of germplasm?	
5	Is there any other economic potential value of germplasm	

## VIEWPOINT OF CSGRC HOSUR ABOUT THE CANDIDATE GERmplasm

SN	Particulars	Y / N
1	Whether the applicant, institution, university or centre has given a commitment for maintenance and supply of germplasm for use?	
2	Whether appropriate size of sample of germplasm for long term storage at National Genebank or for conservation and maintenance at the concerned National Genebank has been sent?	
3	Whether maintainer line has been sent by the applicant to the National Genebank in case of parental lines of hybrids?	
4	Whether acknowledgement receipt of germplasm from concerned National Genebank for conservation and maintenance of germplasm is attached wherever required?	
5	Whether complete address of the corresponding person is given?	