

**PROCEEDINGS OF THE 37TH RESEARCH ADVISORY COMMITTEE MEETING OF CSGRC
HOSUR HELD ON 10TH OCTOBER 2018**

The 37th meeting of the Research Advisory Committee [RAC] of CSGRC, CSB, Hosur was convened on 10th October 2018 in the august presence of Shri K.Hanumantharayappa, Hon'ble Chairman, CSB, Bengaluru. The meeting was chaired by Dr.Chandish R. Ballal, Director, National Bureau of Agricultural Insect Resources [NBAIR], Bengaluru with participation of Members of RAC - Dr.Modhumita Dasgupta, Dr.Sarat Babu and Dr.R.K.Mishra, Member-Convenor of RAC - Dr.Satish Verma, Director I/C, CSGRC Hosur, Dr.K.Vijayan, Scientist-D, RCS, CO, CSB, Bengaluru and scientists of CSGRC Hosur. Due to other important pre-occupation, Dr.Varaprasad, Member sought leave of absence.

At the onset, Dr.Satish Verma welcomed the Hon'ble Chairman, CSB, Bengaluru and the Chairperson of RAC Dr.Chandish R. Ballal followed by welcoming of Members and other participants of the meeting (list of participants enclosed as Annex). Thereafter, Dr.Satish Verma requested the Hon'ble Chairman, CSB, Bengaluru to address the participants. At the onset, Shri Hanumantharayappa opined that, on his visits to several sericulture practicing regions / countries he has observed that several varieties of mulberry and silkworm breeds have been developed. He also opined that, today sericulture provides great opportunity for the marginal and poor farmers to earn good remuneration as it has been proved to be more profitable than several other crops. On his visit to the state of Uttarakhand especially to see the oldest mulberry tree at Joshimath which is revered as a holy tree and people make offerings, he had the opportunity to interact with several sericulture farmers. However, he observed that, the farmers are not well aware of the benefits of sericulture and hence, a meeting was held with the officers of the region to discuss on spreading awareness among the sericulturists so as to earn better remuneration. The Hon'ble Chairman, CSB, Bengaluru appreciated the maintenance of such a large variety of mulberry and silkworm genetic resources by CSGRC Hosur. Further, he concluded his address emphasizing that, scientists should focus their research on the utility of these genetic resources for the benefit of farmers which alone will be the success of such RAC meetings.

Subsequently, Dr.Satish Verma thanked the Hon'ble Chairman, CSB, Bengaluru for his appreciation and guidance and assured that, the R&D activities of the Centre will focus on outcomes for the benefit of farmers. Dr.Satish Verma then invited the Chairperson, Dr. Ballal for offering opening remarks. Dr. Ballal assured the Hon'ble Chairman, CSB, Bengaluru that the research activities of the centre are towards benefitting the farmers and expressed that the RAC is proud to be a part of this Centre which is the largest repository of mulberry and silkworm genetic resources. She congratulated the scientists for their efforts and welcomed the new Director I/C Dr.Satish Verma. She welcomed recruitment of new scientists which is good to solve manpower crunch. However, she opined that, the centre is in need of global visibility and scientists should focus on the same for the progress of the centre. With these words she concluded inaugural address and invited the other participants for self-introduction as many of the scientists were newly posted to CSGRC Hosur. After the introductions, Dr.Satish Verma presented a brief report on the activities of the institute and related problems. With regard to laying down Standard Operating Procedures specifically for conservation of germplasm, the

RAC suggested to fine tune available procedures and bring out the same in the form of a brochure for the benefit of successors of the centre. Thereafter, the agenda points were discussed and deliberated and decisions taken are as follows:

ITEM NO. I: CONFIRMATION OF MINUTES OF THE 36th RAC MEETING HELD ON 14th FEBRUARY, 2018

The Chairperson confirmed the minutes of the 36th RAC meeting by the committee as no comments were received.

ITEM NO. II: REVIEW OF FOLLOW-UP ACTION TAKEN ON THE DECISIONS OF THE 36th MEETING OF RAC

ITEM NO.III: REVIEW OF FOLLOW-UP ACTION TAKEN ON SUGGESTIONS / RECOMMENDATIONS OF THE 61st MEETING OF THE RESEARCH COORDINATION COMMITTEE OF CENTRAL SILK BOARD HELD ON 25th & 26th APRIL, 2018 AT CSB, BANGALORE

The RAC observed that, follow-up actions have been taken for the decisions of the RAC and RCC meetings.

ITEM NO. IV: NEW RESEARCH PROJECT CONCEPT

The RAC opined that, since there are set procedures for presentation of new project concepts, the same needs to be routed as per procedures and henceforth all new concepts should first be submitted to CO, CSB, Bengaluru. The Director (Tech) CSB ensured that mulberry and silkworm molecular characterization will be carried out in collaboration with scientists of SBRL Kodathi.

ITEM NO. V: PROGRESS OF ON-GOING RESEARCH PROJECTS

The discussion on progress of ongoing projects was initiated with presentations of projects under Mulberry Division. At the onset, Dr.S.Masilamani, Head Mulberry Division presented the outcome of concluded mulberry conservation project Phase VIII.

PIE-3541: Collection, characterization, evaluation, conservation and supply of mulberry genetic resources (Phase VIII) (Apr.15 – Mar.18)

Recommendations:

- Young scientists to be posted to take up molecular characterization of mulberry genetic resources.
- Posting of young scientists to be taken up with the concerned authorities by RAC Member Director (Tech), CO, CSB.

This was followed by presentations on the progress of ongoing projects.

PIE 3575 - Evaluation of mulberry genetic resources for functional traits for resilience to climate change - Dr.S.Masilamani.

Recommendations:

- Indicate the average rainfall, meteorological data and soil parameters of the experimental site/trial locations in the presentations during next RAC.
- Experimental data to be collected from all the collaborating centres, statistical analysis to be carried out and presented in graphical form for better understanding.
- With respect to biochemical parameters, analyze Ascorbic acid and proline contents.

Collection, characterization, evaluation, conservation and supply of mulberry genetic resources (Phase IX) (Apr.18 – Mar.21) - Dr.S.Masilamani.

Recommendations:

- Revised project to be submitted to CO, CSB for approval and allotment of code.

PIE 3566 - Evaluation of core set of mulberry germplasm for physiological efficiency and leaf quality” - Dr.G.Thanavendan, Scientist B

PIB-3586 - Development of superior mulberry varieties through controlled hybridization for North-West Indian states - Dr.G.Thanavendan, Scientist B

PIB-3505 - Development of drought tolerant mulberry variety for rainfed sericulture - Dr.C.R.Nagaraj, Scientist D.

The RAC opined that all projects are progressing as per milestones.

The subsequent presentation was of ongoing projects of Silkworm Division

AIB-3578 - Evaluation of exotic bivoltine silkworm breeds to identify parental genetic resources - Dr.M.Maheswari, Scientist D

- Project parameter-wise ANOVA analysis and present best performers indicating the parental breeds as best combiners instead of best hybrids.

Continuous program: Collection, Characterization, Preliminary Evaluation, Conservation and Supply of Silkworm Genetic Resources - Dr.M.Maheswari, Scientist D

- Indicate list of low performing accessions along with best performers.
- Try out the technology of conservation developed by SSSL Kodathi for conservation of bivoltine accessions for two years so as to reduce expenditure on manpower and resources.
- Revise the cost of dfls being supplied as is in vogue under NSSO for P1 and P2 silkworm dfls and submit proposal to CO, CSB for approval.
- Refer the protocol in place for maintenance of basic silkworm seed while preparing the SOPs for silkworm germplasm maintenance.
- Discuss the procedures followed in other institutes (post cocoon protocols) where working germplasm is maintained, to fine tune them for inclusion in the SOPs.

- Since silkworm germplasm conservation is one of the major mandates of the centre, the same should be in project mode with allotment of code by CO, CSB instead of continuing it as a routine program. Accordingly, proposal may be submitted to CO, CSB for allotment of code.

AIB-3577 - Evaluation of multivoltine germplasm to identify potential parents for developing cross breeds suitable for southern and eastern zones by Ms.G.Punitavathy, Scientist D.

- Project parameter-wise ANOVA analysis and present best performers indicating the parental breeds as best combiners instead of best hybrids.

ITEM NO.VII: ANY OTHER POINTS WITH PERMISSION OF THE CHAIR

The Chairperson, RAC requested the members and other participants for their suggestions and the same are as indicated below:


Dr.Sarat Babu, Member – opined that the scientific strength on plant side should be increased. He suggested rejuvenating weak mulberry accessions by grafting on S13 rootstocks. The publication of Dr.Mahajan of NBPGR on minimal descriptor is to be referred for preparing SOPs and opined that, the DUS guidelines may be suitable for registration of varieties rather than for germplasm maintenance. He ensured all assistance from NBPGR for the activities of the Centre. He appreciated the scientists for wonderfully representing predecessors although they have recently taken up the projects and encouraged to continue work in the same spirit.

Dr.R.K.Mishra, Member – He emphasized that, since most of the projects are concluding next year, he opined that the scientists should start proposing project concepts immediately so that by next RAC new projects with referee comments can be presented.

Dr.Modhumita Dasgupta, Member informed that, she also has the same suggestions that other members have given and looked forward to presentations of new projects in the next RAC. She opined to profile the mulberry genetic resources with around 100 SSRs and shortlist 10 SSRs that can be utilized as markers. She suggested considering outsourcing for HRM assay which is PCR based and not very costly.

Dr.Chandish Ballal, Chairperson congratulated the scientists for the work done and presentations and suggested formulation of collaborative projects. She was of the opinion that, the scientists should undergo training, especially advanced training abroad and also participate in international conferences through applications for travel grants (eg.DST, DBT etc.) to obtain global platform to project the activities of the Centre.

The meeting ended with vote of thanks by Dr. Jameela Khatoon, Scientist-D.


**DIRECTOR NBAIR &
 CHAIRPERSON
 RESEARCH ADVISORY COMMITTEE
 CSGRC HOSUR**

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Dr. Chandish R. Ballal
 निदेशक/ Director
 राष्ट्रीय कृषि कीट संसाधन बुजुरो
 ICAR National Bureau Of Agricultural Insect Resources
 डाक पेटी सं २४९१/Post Bag No. 2491
 एच. ए. फार्म पोस्ट/H.A. Farm Post
 बेल्लरी रोड Bellary Road
 बेंगलुरु - ५६००२४ Bangalore-560024

List of participants for the 37th Research Advisory Committee Meeting of CSGRC, Hosur convened on 10/10/2018

1. Shri K.Hanumantharayappa, Hon'ble Chairman, Central Silk Board, Bengaluru
2. Dr. Chandish R. Ballal, Director, NBAIR, Bengaluru, Chairperson RAC.
3. Dr. R.K. Mishra, Director (Tech), Central Silk Board, Bengaluru, Member RAC.
4. Dr. Modhumita Dasgupta, Scientist F, ICFRE, Coimbatore, Member RAC.
5. Dr. Sarat Babu, Principal Scientist, NBPGR, Hyderabad, Member RAC .
6. Dr. Satish Verma, Director I/C, CSGRC, Hosur, Member Convener RAC
7. Dr.K.Vijayan, Scientist-D, Central Silk Board, Bengaluru
8. Dr.D.S.Somaprakash, Head, Silkworm Division, CSGRC, Hosur
9. Dr.S.Masilamani, Head, Mulberry Division, CSGRC, Hosur
10. Dr. Geetha N. Murthy, Scientist D, CSGRC, Hosur
11. Dr. M. Maheshwari, Scientist D, CSGRC, Hosur
12. Dr. Jameela Khatoon, Scientist D (R&S), CSGRC, Hosur
13. Dr. C.R.Nagaraj, Scientist D, CSGRC, Hosur
14. Ms.G.Punitavathi, Scientist D, CSGRC, Hosur
15. Dr. G. Lokesh Scientist C, CSGRC, Hosur
16. Dr. G. Thanavendan Scientist B, CSGRC, Hosur
17. Shri S. Sekar A.D (Comp), CSGRC, Hosur