

## CENTRAL SERICULTURE RESEARCH & TRAINING INSTITUTE, MYSURU

### MINUTES OF 44<sup>th</sup> RESEARCH ADVISORY COMMITTEE MEETING HELD ON 22<sup>nd</sup> July 2019 AT CSRTI, MYSURU

The 44<sup>th</sup> Research Advisory Committee meeting of CSRTI-Mysuru was held on 22<sup>nd</sup> July 2019 at CSRTI-Mysuru for reviewing the progress of R&D activities of the Institute and its nested units (November 2018 to June 2019) and new project proposals for consideration. The meeting was presided over by the Research Advisory Committee (RAC) Chairman, Prof. S.R. Niranjana, Retd. Vice Chancellor, Gulbarga University and Chairman, Dept. of Biotechnology, University of Mysore, Mysuru. The list of members and participants attended the meeting is appended herewith in **Annexure -I**.

Dr. N. Balachandran, Scientist D welcomed RAC Chairman and members including Dr. K. Vijayan, Sci-D, RCS, CSB, Bengaluru (CSB representative), farmer and reeler members on behalf of CSRTI-Mysuru for the meeting. He also welcomed the Scientists/RAs/JRFs/SRFs and research scholars of CSRTI-Mysuru and its nested units for the meeting.

Dr.R.S.Teotia, Director CSRTI, extended warm welcome to the RAC Chairman and all the members to the meeting and requested the Chairman to take up the agenda. Prof. Niranjana, RAC Chairman in his opening remarks mentioned about the reports appeared in media about the infestation of leaf roller and thrips in Maddur and Kanakapura area and sought actions taken from the Institute for which Director, CSR&TI informed that actions have already been initiated by the expert team of scientists of pest management lab in consultation with officials of REC, Maddur and DOS, Karnataka. Awareness programmes were organized to take up control measures for leaf roller and thrips. Further parasite breeding laboratory, Department of Agriculture, Mandya was contacted and requested for supply of sufficient bio control agents to the farmers in the affected areas. All remedial actions has already been taken to produce biocontrol agents at the institute also. Chairman suggested publishing a write up on control measures for thrips in local languages for information of the farmers. He opined that time to time awareness/demonstration programmes should be organized for the benefit of the farmers in the infested areas.

The Chairman expressed that the time between the RAC meetings is too long as against the prescribed interval of six months which may be avoided in future. Director informed to the committee that the RAC meeting was delayed due to changes in project scientists effected by transfer during May -June, 2019. The suggestions of the Chairman is

noted and shall be complied in organizing future meetings. Thereafter, Director presented the highlights of achievements made by the institute during the reporting period. Chairman appreciated the achievements made by the institute and congratulated the Director and his team for effective contribution towards development of sericulture by the institute.

Chairman suggested to invite RAC members for the major events conducted by the institute in future. He informed the house that publication with NAAS rating of 7-8 is considered good and hence the scientists should aim to publish their findings with higher NAAS ratings journals.

### **1. CONFIRMATION OF THE MINUTES OF 43<sup>rd</sup> RAC MEETING HELD ON 5<sup>th</sup> NOVEMBER 2018**

The RAC confirmed the minutes of the 43<sup>rd</sup> RAC meeting as no comments were received from any of the members.

### **2. REVIEW OF FOLLOW-UP ACTION TAKEN ON DECISIONS OF 43<sup>rd</sup> RAC MEETING**

The follow-up actions taken on decisions taken in the previous meeting was presented by Dr. N. Balachandran, Scientist D. The committee expressed satisfaction regarding the follow up action taken on the decisions/suggestions of previous RAC.

Chairman advised the scientists to prepare a two page synopsis on the concluded project and circulate in advance to the committee along with agenda notes to know the status and interact more effectively in the future meetings.

(Action: All the Scientists)

### **3. REVIEW OF CONCLUDED PROJECTS**

**3.1. AIB-3534:** Development of improved Crossbreeds of Silkworm suitable to south India.

**Decision:** The committee suggested to analyze the data using Duncan's Multiple Range Test (DMRT) in the final report.

(Action: Dr. K.B. Chandrashekhar, MBL)

**3.2. AIB 3509:** Development of productive bivoltine silkworm breeds/ hybrids tolerant to BmNPV.

**Decision:** The committee suggested to incorporate comparative analysis of the selected BmNPV breeds under the projects with similar existing breeds tolerant to BmNPV in the concluded project report.

(Action: Dr. S. Manthira Moorthy, BBL)

**3.3. AIB 3561:** Identification of Robust bivoltine silkworm hybrids suitable for high temperature and high humidity conditions.

**Decision:** The committee suggested to include the relative humidity and temperature data during spinning in the concluded report.

(Action: Dr. S. Purushottam, RTI)

**3.4. AIP 3568:** Development of value added product from spent pupae of mulberry silkworm

**Decision:** The committee suggested to include the techno-economics of the technology for utilization by the entrepreneurs in order to take up commercialization.

(Action: Dr. Y. Thirupathaiah, SW Physiology)

**3.5. PRP 3567:** Assessing the efficacy of recommended chemicals in insect/disease/weed management and their impact on soil biota of mulberry ecosystem in mulberry.

**Decision:** The members informed that most of the chemicals used in the study shall be banned by 2022, hence alternative chemicals may be identified for control of pests /diseases in future.

(Action: Dr. S. Balasaraswathy, RSRS-Salem/PML/Mulberry Pathology)

**3.6. MOE 3621:** Impact of CPP on Socio-Economic and Communication aspects of Women Beneficiary

**Decision/Observations:** The committee observed that the most effective ECP component was farmer's day and group discussion and these may be given priority in the future action plans.

(Action: Dr .S. Geetha, SEEM)

**3.7. PPA 3552:** Development of Technology for Production of Organic Silk

**Decision:** The committee suggested popularizing the organically produced silk package in the field.

(Action: Agronomy section)

**3.8. PPS 3553:** Carbon sequestration in mulberry cultivation and strategies to enhance carbon sequestration

**Decision:** The committee suggested to include the findings of the study in the recommended package of practices.

(Action: Agronomy section)

#### **4. New Projects**

##### **4.1. Identification of probiotic consortium to improve the productivity in mulberry silkworm, *Bombyx mori*.**

**Decision:** The committee approved the project with a suggestion to include authorized breeds/ hybrids in the project. Suggested to revise the review of literature after referring to the work conducted at CSR&TI, Berhampore and at CTR&TI, Ranchi on similar lines.

(Action: Dr. Y. Thirupathaiah, SW Physiology)

##### **4.2. Biological control of root rot disease of mulberry using antagonistic rhizosphere bacteria.**

**Decision:** The committee critically reviewed the proposal and suggested recording observation on soil pH, organic carbon, soil moisture and soil temperature as they play important role on soil microbes. Committee approved and advised to submit the proposal by incorporating the above suggestions.

(Action: Dr. Pratheesh Kumar, P.M. Mulberry Pathology)

##### **4.3. Development of a knowledge base on the silkworm diseases and their management.**

**Decision:** The committee approved the proposal with a suggestion to specify the target group in the proposal.

(Action: Mary Josepha A.V. Silkworm Pathology)

#### **5. Review of progress of ongoing Projects**

##### **5.1. PIP 3592: Identification of indices for abiotic stress tolerance in mulberry with special reference to moisture and alkalinity stress.**

**Decision:** The committee observed that the suggestions of previous RAC was partially taken and advised to finalize the selection index for interpretation of observation and present the results accordingly in the next RAC.

(Action: Dr. Gayathri, T., Mulberry Physiology)

**5.2. PRP-3591:** Identification of resistance in mulberry germplasm for root knot nematode disease.

**Decision:** The committee critically reviewed the progress and suggested to clearly indicate the future course of action utilizing the identified accessions.

(Action Dr. Arunakumar G.S, Molecular Biology Lab - I)

**5.3. PIB 3633:** Evolution of highly productive and widely adapted mulberry using exotics and wild germplasm.

**Decision:** The committee noted the progress and advised to change the title of the projects as “Development of highly productive and widely adapted mulberry using exotics and wild germplasm”.

(Action Dr. Arunakumar G.S, Molecular Biology Lab - I)

**5.4. AIB 3537:** Improvement of silkworm breeding in India and Bulgaria

**Decision:** The committee appreciated the improvement in silk ratio percentage and Renditta in the selected hybrids. The selected hybrid should be included in On Station Trials (OST).

(Action: Dr. S. Manthira Moorthy, BBL)

**5.5. AIT 3628:** Assessment of SNP variation in silkworm (*Bombyx mori* L) by genotyping by sequencing and genome-wide association mapping of important commercial traits”.  
(Funded by DBT)- Networking project with RVCE, Bangalore.

**Decision:** The committee suggested to present the data of frequency distribution in histogram instead of bar diagram. Proper grouping of breeds is essential to draw right conclusions.

(Action: Dr. S. Manthira Moorthy, BBL)

**5.6. AIT 3593:** Transcriptome analysis of silkworm for identification of molecular markers for improvement of silk quality.

**Decision:** For validating the markers identified for improvement of silk quality, the committee recommended extension of the project period up to December, 2019. PI to present the concluded project report in the next RAC.

(Action: Dr. Kusuma L., BBL)

**5.7. PIC 3615:** Mapping QTLs for alkalinity tolerance in Mulberry (*Morus spp*).

**Decision:** The committee advised to present all the QTLs projects together in the next RAC.  
(Action: Bhavya, M. R., Molecular Biology Lab - I)

**5.8. PIN 3563:** Evaluation of improved mulberry genotypes for yield potential, nutrient uptake and use efficiency under varied cultivation practices.

**Decision:** The Director informed that the project has not made much progress except raising of the plantations due to resignation of PI and requested RAC to extend the project period up to March, 2022 RAC consented to extend the project period up to March, 2022.

(Action: Dr. Dhaneshwar Padhan, Agronomy)

### General remarks of the Committee

1. The committee appreciated the progress made by institute during the reviewing period and congratulated the Director and his team for excellent presentations.
2. The committee advised to conduct the 45<sup>th</sup> RAC during December 2019 after seeking date from the Chairman.
3. The committee felt that the time gap of 2-3 weeks between RAC and RCC should be ensured for necessary preparations.
4. The committee suggested to document all presentations for future reference.
5. The committee also advised to submit a brief note (2-3 pages) on the status of milestones/ achievements made in the concluded/on-going projects to the committee for reference.
6. The committee advised all the scientists to do sufficient literature survey while proposing new projects.

The meeting ended with vote of thanks to the Chair.



CHAIRMAN  
(Prof. S.R.Niranjana)  
Former Vice Chancellor,  
Gulbarga University  
Prof. & Head Department of Biotechnology  
University of Mysore, Mysuru

  
23/7/19

List of members attended 44<sup>th</sup> RAC Meeting held on 22<sup>nd</sup> July 2019

#	Name of the Member/invitees		
1	Prof. S.R. Niranjana, Professor & V C, Gulbarga University	Chairman	
2	Dr. R.S.Teotia, Director, CSRTI-Mysuru	Member Convener	
3	Dr. Chandrasekharaiah, Director (Rtd.), APSSRDI-Hindupur	Member/ invitees	
4	Dr. A. Ramesh Sundar, Scientist, ICAR, Coimbatore		
5	Prof. Ranganathan Ramani, Dir (Retd.) (IINRG), Chennai		
6	Dr. K. C. Narayanaswamy, UAS, GKVK, Banaglore		
7	Dr. V. Subhas Naik, Director CSTRI, Bengaluru		
8	Dr. K. Vijayan, Sci-D, RCS, CSB, Bengaluru(Rep CSB, Bengaluru)		
9	Mr. Radhakrishna Rai, JDS(I/C), Mysuru (Rep Commissioner DOS, Kar)		
10	Smt. P. Arul Mani, DD (Seed) (Rep DOS, TN)		
11	Sri. Mohammed Anwar, Reeler, Karnataka		
12	Mr. S. Hanumantharayappa, Farmer, Karnataka		
13	Mr. S. Perumal, Farmer, Tamil Nadu		
<b>Members who sought leave of absence</b>			
14	The Commissioner of Sericulture, Govt. of Telanagana, Hyderabad		
15	The Commissioner of Rural Development, Govt. of Kerala		
16	The Commissioner of Sericulture, Govt. of Madhya Pradesh, Bhopal		
17	The Director DOS , Maharashtra, Nagpur		
18	The Commissioner of Sericulture, Govt. of Andhra Pradesh, Guntur		
19	Dr. R. K. Mishra, Director (Tech), CSB, Bengaluru		

List of Participant Scientists CSRTI, Mysuru and its nested units for 44<sup>th</sup> RAC

Name	Designation	Section/Unit
Dr. Vineet Kumar	Scientist-D	CSRTI, Mysuru
Dr. Sreenivas, B. T	Scientist-D	CSRTI, Mysuru
Dr. N.Dhahira Beevi	Scientist-D	RSRS Salem
Dr. Jalaja S. Kumar	Scientist-D	RSRS Kodathi
Dr. K. Praveen Kumar	Scientist-D	RSRS Shadnagar
Dr. P. Sudhakar	Scientist-D	RSRS Ananthapur
Dr. Girish Naik	Scientist-D	RSRS, Ch.nagar
Dr. Gandhi Doss, S.	Scientist-D	CSRTI, Mysuru
Dr. Mary Josepha, A.V.	Scientist-D	CSRTI, Mysuru
Anuradha H Jingade	Scientist-D	CSRTI, Mysuru
Dr. Santha, P. C.	Scientist-D	CSRTI, Mysuru
Dr. N. Balachander	Scientist-D	CSRTI, Mysuru
P.V.Soudamini	Scientist-D	CSRTI, Mysuru
Dr. Manthira Moorthy, S.	Scientist-D	CSRTI, Mysuru
Dr. N. G. Selvaraj	Scientist-D	CSRTI, Mysuru
J.B.Narendra kumar	Scientist-D	CSRTI, Mysuru
Dr. M. Muthu Lakshmi	Scientist-D	CSRTI, Mysuru
Dr. K. B. Chandrashekar	Scientist-D	CSRTI, Mysuru
Dr. S. Purushotham	Scientist-D	CSRTI, Mysuru
Sri. Shivakumar Hukkeri	Scientist-D	CSRTI, Mysuru
Dr. S. Balasaraswathi	Scientist-D	RSRS Salem
Dr. Nisitha Naik	Scientist-D	BSF, Hassan
B. Vijaya Naidu	Scientist-D	RSRS, Anantapur
Dr. Pratheesh kumar P M	Scientist-D	CSRTI, Mysuru
Dr. Sibayan sen	Scientist-C	CSRTI, Mysuru
Dr. Vinode kumar Yadav	Scientist-C	RSRS, Mulugu
Dr. G. S. Geetha	Scientist-C	CSRTI, Mysuru
Vinod Kumar Yadav	Scientist-C	CSRTI, Mysuru
Y. N. Sanath Kumar	Scientist-C	CSRTI, Mysuru
Dr. Madhu sudhan	Scientist-C	CSRTI, Mysuru
Y.N.Sanath kumar	Scientist-C	CSRTI, Mysuru
Dr. C.M. Babu	Scientist-D	CSRTI, Mysuru
M.N. Chandrashekar	Scientist-D	CSRTI, Mysuru

Dr. Mahibha Helen	Scientist-D	CSRTI, Mysuru
Dr. M.G. Sabitha	Scientist-D	CSRTI, Mysuru
Dr. Ravindra Mattigatti	Scientist-D	CSRTI, Mysuru
Dr. Satish, L.	Scientist-C	CSRTI, Mysuru
Dr. Tanmoy Sarkar.	Scientist-C	CSRTI, Mysuru
Dr. Thirupathiah, Y.	Scientist-C	CSRTI, Mysuru
Dr. Gnanesh, B. N.	Raman. Fell.	CSRTI, Mysuru
Rekha, M.	AD(Stat)	CSRTI, Mysuru
Munikrishnappa, H. M.	AD(SM)	CSRTI, Mysuru
Dr. Gayatri, T.	Scientist-C	CSRTI, Mysuru
Dr. Bhuvaneshwari, E.	Scientist-C	CSRTI, Mysuru
Dr. Ravindra, A	Scientist-C	CSRTI, Mysuru
Dr. Kusuma L.	Scientist-C	CSRTI, Mysuru
Dr. V. Shobhana	Scientist-C	CSRTI, Mysuru
Dr. Ranjini M.S.	Scientist-C	CSRTI, Mysuru
Arunakumar G. S.	Scientist-C	CSRTI, Mysuru
Dr. Mallikarjuna, G.	Scientist-C	CSRTI, Mysuru
Bhavya M.R.	Scientist-B	CSRTI, Mysuru
Vipin kumar	Scientist-B	CSRTI, Mysuru
Dr. Dhaneshwar Pradhan	Scientist-B	CSRTI, Mysuru
Dr. Divya Singh	Scientist-B	CSRTI, Mysuru
Dr. Sumathy, R.	Info. Officer	CSRTI, Mysuru
P. Sowbhagya	SRF	CSRTI, Mysuru
Rajini K.V	JRF	CSRTI, Mysuru
Aswini.N	JRF	CSRTI, Mysuru
Ravindra K. N.	Pro.Asst.	CSRTI, Mysuru
Manju Kumar H.B	RA	CSRTI, Mysuru
Jagadamba M.Y	Proj.Asst.	CSRTI, Mysuru
Supriya M	JRF	CSRTI, Mysuru
Kruthika, H. S.	Res. Scholar	CSRTI, Mysuru
Abhilash H.K.	JRF	CSRTI, Mysuru
Madhri P	Proj.Asst.	CSRTI, Mysuru
Lalitha kumai F	RA	CSRTI, Mysuru
Harshitha M.N	Proj.Asst.	CSRTI, Mysuru