

MINUTES OF 73nd RESEARCH COUNCIL MEETING HELD ON 12.12.2023 AT CSRTI, MYSORE

The 73nd meeting of Research Council of CSRTI-Mysuru was conducted on hybrid mode on 12.12.2023 to review the new concept notes, concluded research projects, progress of on-going projects, Extension Communication Programmes and Capacity Building Programmes of the Institute and progress of nested units. Scientists from main institute and nested units attended the meeting. The list of the participants is appended at **Annexure - I**.

Dr. S. Gandhi Doss, Director CSR&TI, Mysuru chaired the meeting and Dr. S. Balasaraswathi, Scientist-D, Scientist-D and Head PMCE welcomed Director, all the Heads of Divisions/sections, scientists and SRFs, JRFs, PAs of the main Institute and all Scientists from RSRs, RECs and REC sub units, who attended the meeting physical and on line.

Director and Chairperson of RC, Dr. S. Gandhi Doss, in his opening remarks said that, new projects need to be focused on field oriented problems, global warming and climate change, byproduct utilization, technology transfer to the farmers through OST/OFT etc. He also insisted the PI's to submit the concluded reports in time. Simultaneously, research publication also needs to be made based on the outcome of the concluded projects immediately after submission of the project reports. Further, Director welcomed the newly recruited scientist-B's on behalf of scientists and staff of CSRTI, Mysuru posted at the main institute and its nested units and requested to introduce them selves in the meeting.

CONFIRMATION OF THE MINUTES OF THE 72nd MEETING HELD ON 05.09.2023.

The minutes of the 72nd meeting of RC were circulated among all the members, since no comments were received from any of the member, minutes were confirmed.

REVIEW OF FOLLOW UP ACTION TAKEN ON DECISIONS OF PREVIOUS MEETINGS OF RC/ RAC

Dr. S. Balasaraswathi Sci-D, Head, PMCE presented the follow up action taken on the decisions of last RC/RAC/special RC. The meeting continued as per the agenda.

CONCEPT NOTES OF RESEARCH PROJECTS FOR APPROVAL

1. Characterization of Virome of mulberry silkworm, Bombyx mori and development of Bacteriophage and Mycophase consortia for productivity improvement.

Decision: Dr. Y. Thirupathaiah, presented the concept note and the committee approved the concept note, subjected to following suggestions are incorporated. The methodology to be elaborated in accordance with the objectives of the study, extensive review of literature and the expected outcome should be clearly mentioned. The committee further suggested to refer the similar kind of work carried out in CMERTI, Lahdoigarh also.

(Action: Dr.Y. Thirupathaiah, Sci-C, Silkworm Physiology)

2. Evaluation of mulberry genotypes for resistance to soilborne diseases and higher leaf yield under PYT

Decision: Dr. Arunkumar, G.S, presented the concept note and the committee approved it with the following suggestions. While focusing on the developing disease resistant mulberry varieties prime importance should be given to maintain the palatability of leaf to silkworms. It is also advised to assess the quality parameters of mulberry leaf in the study by following moulting test, biochemical and anatomical characteristics.

(Action: Dr. Arunkumar, G.S, Sci-C, Mulberry Pathology)

3. Development of smart, active and edible biodegradable packaging materials from cellulose extracted from rearing waste

Decision: Dr. K.N. Madhusudhan, presented the concept note. The committee suggested to submit the proposal to NTTM, through RCS, CO Bangalore and asked the PI to reconsider the title to avoid duplication of the works.

(Action: Dr. K.N. Madhusudhan, Sci-D, MB-II)

4. Insitu bioremediation of pesticide residues in soil using beneficial microbes.

Decision: Dr. K. Sowmiya presented the concept note. The committee approved the concept and advised to discuss with Dr. L. Satish, Sci-C working on the same line and fine-tune the concept. Further, it was suggested to incorporate bioassay in the study.

(Action: Dr. K. Sowmiya, Sci-B, Mulberry Pathology)

5. Effect of Methyl Salicylate (MeSA) Lures on Pest control in mulberry

Decision: Dr. A. Megaladevi, presented the concept note. The committee approved the concept note subjected to the outcome of a preliminary work to find any adverse effect on silkworm by *Methyl Salicylate (MeSA)*. Further, few more attractants may also be included in the study. Accordingly she is advised to conduct a preliminary work to test *Methyl Salicylate (MeSA)* on silkworm growth and include the findings before submitting the final concept.

(Action: Dr. A. Megaladevi, Sci-B)

6. Enriched bioactive non protein nutritive for food supplement extracted from cocoon shell of silkworm *Bombyx mori* and mulberry fruit.

Decision: Dr. Ravindra presented the concept note. The concept doesn't have detailed methodology, review of literature, details of the bioactive products extracted from the cocoon and mulberry leaves and its techno economics. Hence after incorporating all the suggestions the concept note may be presented in the next RC.

(Action: Dr. Ravindra Sci-C, SSC)

2. REVIEW OF CONCLUDED PROJECT/PILOT STUDY

1. *ARP-01019SI: Screening of drugs to inhibit the PI3K-AKT pathway in Bombyx mori for controlling nuclear polyhedrosis virus infection.*

Decision: Dr. Mallikarjuna, G, presented the concluded project and committee noted the outcome and the concluded report in RMIS 10 format was submitted to CO. Necessary arrangements should be made to publish the findings of the projects in reputed journal.

(Action: Dr. Mallikarjuna, G, Sci-C, Silkworm Pathology)

2. *PRP-01015 SI ; Identification, evaluation and inclusion of potential antagonistic microbes in Integrated Root Rot Disease Management in Mulberry*

Decision: Dr. Arunkumar, G.S, presented the concluded project and committee noted the outcome and the concluded report in RMIS 10 format and was submitted to CO. Efforts should be taken for patenting and commercialization of the technology.

(Action: Dr. Arunkumar, G.S, Sci-C, Mulberry Pathology)

3. *AIC 01023 SI: Development of Spectroscopic Tests for insecticide resistant biomarkers in silkworm, Bombyx mori*

Decision: Dr. Satish L presented the findings of the concluded project. Committee noted the outcome of the project. Efforts should be taken for patenting and commercialization of the technology. Advised to submit the concluded report in RMIS 10 format immediately for forwardal to CO.

(Action: Dr. Satish. L., Sci-C, S.W. Pathology)

3. *MOE01021 SI (Component-9): Impact of drip fertigation technology on mulberry productivity*

Decision: Dr. R. Mahesh presented the findings of the concluded project. Committee noted the outcome and future course of action. Advised to submit the final report in RMIS 10 format immediately. Further, the technology is to be popularised.

(Action: Dr. Mahesh R., Sci-C, Agronomy)

PROGRESS OF ON-GOING PROJECTS

1. *PIB-3632: Evaluation of superior triploid genotypes for yield and adaptability under varied agro-climatic conditions*

Decision: Dr. M.K. Raghunath, Sci-D, presented the progress and the committee noted the progress and the work is as per milestone.

(Action: Dr. M.K. Raghunath, Sci-D, MBG)

2. *PIE 13001 MI: All India Coordinated Experimental Trials for Mulberry (AICEM) –Phase-IV*

Decision: Dr. Manjappa, Sci-C presented the progress and the committee noted the progress.

(Action: Dr. Manjappa, Sci-C, MBG)

3. PIE01022SI: Evaluation of promising mulberry genotypes for higher leaf yield and resistance to root rot and root knot diseases in Primary Yield Trial

Decision: Dr. Manjappa, Sci-C, presented the progress and the committee noted the progress.

(Action: Dr.Manjappa, Sci-C, MBG)

4. PIE 01036 SI: Final yield evaluation of mulberry genotypes for leaf yield under optimal and sub-optimal input conditions

Decision: Dr. Tanmoy Sarkar, Sci-C, presented the progress and the committee noted the progress. The process for construction of rainout shelter to be expedited to achieve the milestone stipulated in the project.

(Action: Dr.Tanmoy Sarkar, Sci-C, MBG)

5. PPA01034 SI: Development of customized fertilizer for higher mulberry productivity

Decision: Dr. Mahesh R., Sci-C, presented the progress and the committee noted the progress.

(Action : Dr. Mahesh R., Sci-C, Agronomy)

6. PPA01035SI: Studies on natural farming in mulberry for sustainability

Decision: Dr. C.M. Babu, Sci-D, presented the progress and the committee noted the progress.

(Action : Dr. C.M. Babu, Sci-D, Agronomy)

7. PIP 01037SI: Identification of promising mulberry genotypes for physiological efficiency and their relationship with yield and quality under sub-optimal conditions

Decision: Dr. Gayathri T, presented the progress and the committee noted the progress.

(Action : Dr. Gayathri T, Sci-C, Mul. Physiology)

8. MTL01025MI -Life cycle assessment of mulberry silk: A National Assessment

Decision: Dr.V. Sobhana, Sci-C presented and committee noted the progress. The committee advised the PI to finalize the procurement of GC MS or outsourcing the GHG analysis of samples under the project to achieve the set milestone.

(Action : Dr. Amit Kumar, Sci-D, SSC)

9. AIB 01024 MI: Development of productive, auto sexing silkworm breeds/ hybrids of *Bombyx mori* L. in egg stage and separation of male silkworm population by optical sorting

Decision: Dr. Kusuma L, Sci-C presented and committee noted progress. The committee advised to speed up the procurement of optical egg sorting machine.

(Action : Dr. Kusuma L., Sci-C, BBL)

10. AIB 01032 SI: Validation of silk regulators - ubiquitin and mannosidase among silkworm breeds

Decision: Dr. Kusuma presented the progress and committee noted the progress.

(Action : Dr. Kusuma L., Sci-C, BBL)

11. AIE 01026 MI: Evaluation of new bivoltine double hybrid, BFC1xBFC10 at farmers level for authorization for commercial exploitation

Decision: Dr. K. B. Chandrashekar, Sci-D, presented and committee noted progress.

(Action : Dr. K. B. Chandrashekar, Sci-D)

12. AIB 01009 MI: Evaluation of new bivoltine silkworm double hybrid TT21xTT56 at farmers level for authorization and commercial exploitation

Decision: Dr. K.N. Madhusudhan, Sci-D, presented and committee advised to achieve the set target as per the milestones proposed in the project. The concluded report in RMIS 10 format should be submitted by January 2024.

(Action : Dr. K.N. Madhusudhan, Sci-D, BBL)

13. BPS 01027 CN: Immunomodulatory and Adjuvant effects of Chitosan Nanoparticles Extracted from Bombyx mori

Decision: Dr. Madhusudhan K.N presented and committee noted the progress.

(Action : Dr. Madhusudhan K.N, Sci-D, BBL)

14. BPS 01028 CN: Value Addition of Cellulose and Chitin Isolated from Sericulture Waste for Advanced Packaging Applications

Decision: Dr. Madhusudhan K.N presented and committee noted the progress.

(Action : Dr. Madhusudhan K.N, Sci-D, BBL)

15. ARP 01033CN: Mulberry Silkworm Disease Monitoring and Management in Southern States of India.

Decision: Dr. Mallikarjuna, G, Sci-C presented the progress and committee noted the progress.

(Action : Dr. G. Mallikarjuna, Sci-C, S.W. Pathology)

16. ARE01029MI : Recommendations of novel fungicidal and insecticidal applications for mulberry

Decision: Dr. S. Mahiba Helen, presented and committee noted progress.

(Action : Dr. S. Mahiba Helen, Sci-D, PML)

17. PRE01030CN : Development of an integrated management package for the broad mite, *Polyphagotarsonemus latus* (Acari: Tarsonemidae), in mulberry

Decision: Dr. S. Mahiba Helen, presented and committee noted progress.

(Action : Dr. S. Mahiba Helen, Sci-D, PML)

18. MOE01031CN Technology Demonstration and Evaluation of Rearing Performance of Bivoltine

Decision: Dr. Jadhav Ashok Limbaji, presented the progress. The committee observed that no progress made towards construction of rearing house and also the milestone of activities are not achieved as per the project document. Director advised to expedite the construction of rearing house in consultation with the NGO (Real Silk Farmers Federation) immediately. He may consult and seek the support from Dr. Siddique Ahemad, Sci-D/Nodal Officer for Gujarat, CO immediately to complete the above work and to achieve the milestone of activities framed in the project. Director also reiterated that there will not be any extension for the project hence the PI has to complete the target within the stipulated project period.

(Action : Dr. Jadhav Ashok Limbaji, Sci-C, REC Parbhani)

PILOT STUDIES

1. Development of process for production of Biorefineries from silkworm rearing waste

Decision: Dr. Y. Thirupathaiah presented and committee noted the progress.

(Action : Dr. Y. Thirupathaiah, Sci-C, SWPhysiology)

SEEM division

Dr.R. Bhagiya, Sci-D, presented the progress and the committee noted the progress.

Training division

Dr.R. Meenal, Sci-D, presented the progress and the committee noted the progress.

PROGRESS OF RSRS/ P4 HASSAN/ SSBS CONOOR/ SALEM/ ANANTHPUR/ KODATHI/ MULUGU

RSRS Kodathi

Dr. V. Lakshmanan, Scientist-D presented the progress of activities of CBT, ECPs and CPP activities and committee noted the progress.

RSRS Salem

Dr. N. Dhahira Beevi, Scientist-D presented the progress of activities of CBT, ECPs and CPP activities and committee noted the progress.

RSRS Ananthapur

Dr. K.P. Kiran kumar, Scientist-D presented the progress of activities of CBT, ECPs and CPP activities and committee noted the progress.

RSRS Mulugu

Shri. Ragavendar, FA, presented the progress of activities of CBT, ECPs and CPP activities and committee noted the progress.

RSRS P4 Hassan

Dr. Dayanadha, Scientist-D presented the progress of activities of P4, Hassan.

SSBS Conoor

Dr. V. Vijay, Scientist-C presented the progress of activities of the station. The committee noted wide gap between the silkworm crops, which needs to be streamlined and advised to expedite the completion of repair of the compound wall of the office.

(Action : Dr. V.Vijay, Sci-C, SSBS Conoor)

Concluded remarks by Director

- Advised all the scientists to undertake need based research projects.
- To achieve target of the number projects (14) to be initiated during the year 2023-24 by CSRTI Mysuru, all scientists should propose research projects.
- Presentations should have graphical representation apart from the numerical data
- Each scientist should work minimum of two sections.

The meeting ended with the vote of thanks proposed by Dr.S. Balasaraswathi, Sci-D, PMCE


18/12/23
DIRECTOR
CHAIRMAN-RC

Annexure-I

List of participants attended Research Council meeting held on 05.09.2023

#	Name & Designation		Name & Designation
1	S. Gandhi Doss, Director and Chairperson RC	28	
2	K.B.Chandrashekar, Sci - D, CSRTI Mysore	29	H.M. Munikrishnappa, AD, CSRTI Mysuru
3	S. Balasaraswathi, Sci-D, CSRTI, Mysore	30	Madolombika, PA, CSRTI Mysuru
4	Raghunath M.K. Sci-D, CSRTI, Mysore	31	Nandini D.R. PA, CSRTI Mysuru
5	Dayanandha, Sci-D, P4 Hasan	32	Keerthana Varshini S. PA, CSRTI Mysuru
6	Babu C.M, Sci-D, CSRTI, Mysore	33	Harshitha R. PA, CSRTI Mysuru
7	R. Bhagya, Sci-D, CSRTI, Mysore	34	Prarthana M.S. JRF, CSRTI Mysuru
8	M. Muthulakshmi, Sci-D, CSRTI, Mysore	35	Varsha G.S. PA, CSRTI Mysuru
9	R. Meenal, Sci-D, CSRTI, Mysore	36	Sindhu B.C. PA, CSRTI Mysuru
10	S. Mahiba Helen, Sci-D, CSRTI, Mysore		
11	K.N. Madhusudhan, Sci-D, CSRTI, Mysore	37	Shruthi R. PA, CSRTI Mysuru
12	Ravindra Sci-C CSRTI, Mysore	38	Nisarga N.R, JRF, CSRTI Mysuru
13	Dhaneswar Padhan Sci-C CSRTI, Mysore	39	Jashwanth S, PA, CSRTI Mysuru
14	Manjappa, Sci-C CSRTI, Mysore	40	Shananth D.H, CSRTI Mysuru
17	Kusuma L. Sci-C, CSRTI, Mysore		On-line participation
18	Bhuvaneswari E. Sci-C CSRTI, Mysore	1	Dhahira Beevi, Sci-D, RSRS Salem
19	Thirupathaiah Y. Sci-C, CSRTI, Mysore	2	Sreenivasulu. Sci-D, REC Chitradurgha
20	Satish L Sci-C CSRTI, Mysore	3	S. Rajadurai, Sci-D, REC Vikarabad
21	Mahesh R. Sci-C, CSRTI, Mysore	4	Narendra Kumar JB, Sci-D, REC Madivala
22	Mallikarjuna G, Sci-C, CSRTI Mysuru	5	Vijay V, Sci-C, SSBS Conoor
23	Arun kumar, Sci-C CSRTI, Mysore	6	Jadhav Ashok Limabaji, Sci-C, REC Parbhani
24	Tanmoy Sarkar. Sci-C CSRTI, Mysore	7	Kulkarni, Sc-D, RSRS, Kodathi
25	Divya Singh Sci- C CSRTI, Mysore	8	V. Lakshmanan, Sci-D, RSRS Kodathi
26	Sowmiya K Sci-B, CSRTI, Mysore	9	K.P. Kiran Kumar, Sci-D, RSRS Ananthpur
27	Revappa M R Sci-B, CSRTI, Mysore	10.	N. Balachandran, Sci-D, RSRS, Kodathi
28	Meghaladevi A Sci-B, CSRTI, Mysore	11.	Sivasubramanian, Sci-D, REC, Gobi
29	Kartik kumar Sci-B, CSRTI, Mysore	12	Saratha, Sci-B, REC, Gobi
30	Boggala Vajramma, Sci-B, CSRTI, Mysuru	13	Umesha, Sci-D, REC, Koppal
31	Kartik kumar, Sci-B, CSRTI, Mysuru	14	Humayun Sherief, Sci-D, REC, Baramathi
32	Prashant Nair Sci-B, CSRTI, Mysore	15	Ramprakash, Sci-D, REC, Aurangabad
		16	Pasumarthi Venkata dineshkumar, Sci-B, Hoshangabad
		17	A.G.K. Daniel, Sci-D, REC, Udumalpet
		18	A. Mahima Shanthi, Sci-D, REC, Samayanallur