

Minutes of the 61st Research Council Meeting held on 11.09.2018 at CSRTI-Mysuru

The 61st meeting of Research Council of CSRTI-Mysuru was held on 11th September, 2018 to review the new project proposals/concept notes, progress of on-going project/programmes and concluded research projects of the Main Institute and its nested units. The list of the participants is appended at Annexure - I.

Dr. V. Sivaprasad, Director, CSRTI-Mysuru welcomed Dr. K. Vijayan, Sc-D, RCS, CSB, Bangalore on behalf of the institute and scientists for the RC meeting. He also welcomed all the participant scientists of the Institute and nested units. Director in his opening remarks informed that, CO has issued a circular about conducting auditing of concluded projects by external committee, in this regard the PIs/Co-PIs were advised to get ready with the presentations.

CONFIRMATION OF THE MINUTES OF THE 60th MEETING HELD ON 28th OCTOBER 2017

As no comments were received from any of the member, the minutes of the 60th RC meeting were confirmed.

REVIEW OF FOLLOW UP ACTION TAKEN ON DECISIONS OF PREVIOUS MEETING

Dr. Vineet Kumar, Sc-D, PMCE presented the follow up action taken on the decisions of previous meetings of RC and RAC and committee made following observations.

Demonstration and popularization of Pheromone trap against silkworm Uzifly, *Exorista bombycis* (TOT)

Decision: The Committee discussed the status and suggested to revise the proposal as per CO observations and send the proposal to CO for coding within a week's time.

[Action: Mr. J.B. Narendra Kumar, Sc-D, PML]

Evaluation of the efficacy of *Trichomalopsis uziae* as a bio-control agent against Uzifly and development of mass production technology

Decision: The Committee discussed the results of preliminary works conducted by PML and agreed to drop the proposal as the parasitoid does not have so much of potential and it might not be feasible and also that parasitoid cannot be multiplied on housefly pupae.

[Action: Mr. J.B. Narendra Kumar, Sc-D, PML]

Identification of potential parasitoids of *Maconellicoccus hirsutus* (Green, 1908) (Hemiptera: Pseudococcidae) and augmentation for Biological control on mulberry (In collaboration with NBAIR-Bangalore)

Decision: The Committee discussed the status of proposal and PI was suggested to send the full pledged proposal after finalizing with NBAIR, Bangalore to CO for clearance within a week's time.

[Action: Dr. S. Mahiba Helen, Scientist-C, RSRS, Salem]

Comprehensive analysis of molecular epigenetic mechanisms associated with silk production and immune responses in silkworms

Decision: The Committee discussed the status of the proposal as CSB has suggested keeping the concept note on hold and taking up projects related to field problems. The committee suggested to submit the proposal to DBT for funding as the proposal was prepared based on the thrust areas of R & D.

[Action: Dr. Ranjini M S, Sci.-B, BBL]

Surface sterilization of Silkworm seed through Vaporization Technique

Decision: The Committee suggested to take up the proposal as pilot study utilizing new chemicals which are non-pungent, environment-friendly and non-toxic to humans with vaporizing properties.

[Action: Dr. Mary Josepha, Sc-D, S.W. Path]

Validation of a Phenolic Compound for effective Sanitation in Sericulture (Industry sponsored project)

Decision: The committee noted that, CO has cleared the concept note and suggested to place before RAC along with referee comments.

[Action: Dr. Mary Josepha, Sc-D, S.W. Path]

Comparative genomic analysis of transovarially and non transovarially transmitted Pebrine causative agents

Decision: Since it is a field problem, the Committee suggested that the PI should initiate screening of various *Nosema* species and culture for undertaking shallow whole genome sequencing to differentiate transovarial & non-transovarial ones. The results should be presented in the next RC for considering the proposal and monthly progress of the work should be reported separately.

[Action: Dr. G.Mallikarjuna, Sc-B, S.W. Path]

Popularization of G4 mulberry variety in South India

Decision: The Committee noted that CO has suggested to undertake it as a ToT activity. Accordingly, the PI was suggested to chalk-out plan of action for implementation under ToT. Further, it was suggested to collect data on existing G4 acreage state wise on regular basis in coordination with DoSs and ROs.

[Action: Dr. B.T. Srinivas, Sc-D, FMS]

Development of multivoltine breeds with improved silk quality utilizing bivoltine breeds

Decision: The Committee noted that CO has allotted a project code during September 2018 and suggested the PI to call for a meeting of all PIs and Co-PIs to discuss the plan of action to initiate the project systematically.

[Action: Dr. K.B. Chandrashekar, Sc-D, MBL]

On the incidence of non-spinning larvae at the field level

Decision: The committee discussed the progress on EM studies on spinnerets in non-spinning larvae. It was suggested to complete the EM studies within one month by collecting minimum of 10 field samples. In this regard, Director advised all the RSRs to collect the field samples, wherever the incidence is reported and the sample should be in live condition and to be sent by hand for EM testing. Further, he also advised all the units to create awareness to farmers on effect of the spraying of pesticides in and around mulberry garden and rearing houses to avoid the incidence of non-spinning larvae and crop loss.

[Action: SW Pathology, EM unit, CSRTI-Mysuru & all RSRs]

Regarding Developing silkworm rearing house models suitable for all seasons, the committee suggested the Sericulture Engineering Division to take up the work involving the engineering students who register for dissertation work.

[Action: Executive Engineer, CSRTI-Mysuru]

The Committee discussed regarding involvement of KVKs, in conducting extension communication and farmers training programmes and suggested SEEM to prepare the proposal as per CO letter in consultation with all RSRs.

[Action: Sc-D, SEEM, CSRTI-Mysuru]

Committee also discussed the project on improvement of filament length in silkworm breeds/hybrids as suggested in last RAC. In this regard the committee advised Dr. Hukkeri, Sc-D to take up the work and list out the breeds and hybrids developed including germplasm for the last 5 years and document the filament length.

[Action: Dr. Hukkeri, Sc-D., BBL, CSRTI-Mysuru]

Committee reiterated the suggestion of last RAC and advised all the investigators should properly compile and statistically analyze the data to improve the project presentations.

[Action: All the Scientists]

Regarding the ToT project on demonstration and popularization of pheromone trap against silkworm uzi fly, *Exorista bombycis* (In Collaboration with NBAIR-Bangalore), RC suggested the PI to finalize Uzi trap with NBAIR-Bangalore for commercialization and ToT activity. After finalization of the trap, the same should be installed in all rearing houses of the institute and RSRs for observation and data recording. Further, regarding the incidence of leaf roller in Tamil Nadu, the Committee advised PML to provide traps and collect the feedback.

[Action: Mr. J.B. Narendra Kumar, Sci-D]

The committee suggested Silkworm Pathology section to find out an agency who can take up complete installation of Automatic disinfection units developed for disinfection of rearing houses.

[Action: Dr. Mary Josepha, Sc-D, S.W. Path]

REVIEW OF NEW CONCEPTS/PROJECTS PROPOSED FOR CONSIDERATION

As per agenda, the review of concept notes was taken up and PIs presented the concept notes and the project wise decisions taken by the committee are as follows:

1. Assessment of persistence of Chlorantraniliprole (Coragen 18.5% SC) sprayed to the crops prior to cultivation of mulberry and its residual toxicity to silkworm

Decision: The Committee discussed the concept note critically and approved the proposal with a suggestion to modify the title as Bio-remedial measures and one of the objective as finding remedial measures for chemical effect on silkworm crops in filed. Further, the investigator was suggested to prepare the full proposal within a week's time.

[Action: Dr. N. Sakthivel, Scientist - D, RSRs, Salem]

2. Large Scale Testing and Training of Modified Loop Mediated Isothermal Amplification (M-LAMP) Assay

Decision: The Committee discussed the concept note critically and approved the proposal as a ToT project. Further, the PI was suggested to prepare the full proposal within a week's time.

[Action: Dr. L. Satish, Sci-B]

3. Evaluation of probiotic consortium to improve the productivity in mulberry silkworm, *Bombyx mori*

Decision: The Committee discussed the concept note and approved the same with a suggestion to change the proposal title as identification of consortium instead of evaluation and prepare the full proposal within two week's time and send for CO clearance.

[Action: Dr. Y. Thirupathiah, Sci-B]

4. Gene silencing of the *Nosema bombycis* germination related genes

Decision: The Committee discussed the concept note critically and approved proposal as a pilot study for six months and PI was suggested to present the pilot study results in next RC for consideration. **[Action: Dr. G. Mallikarjuna, Sc-B]**

5. Biological control of root rot disease of mulberry using antagonistic rhizosphere bacteria

Decision: The Committee discussed the concept note critically and approved proposal. Further, the PI was suggested to explore the possibility to include materials identified by Dr. V. Gunashekar of this institute as well as other CSB institutions and prepare the full proposal within 15 days time and submit to CO for clearance.

[Action: Dr. Pratheesh Kumar P.M, Sc-D]

6. Utilization of chitin and chitosan isolated from spent pupae and pupal shell for different biomedical application

Decision: The Committee discussed the concept note and approved the proposal for external funding as the proposal might not under the mandate of the institute. Further, the PI was suggested to provide materials to the collaborators and the collaborative institutes may also send the proposal for external funding.

[Action: Dr. Madhusudhan K.N., Sci.-C]

7. Impact of technological interventions of CSRTI-Mysuru for promotion of Sericulture in South India

Decision: The Committee discussed the concept note and approved the proposal and found it is very useful to get feedback on the impact of technologies developed by the institute. Further, the PI was suggested to prepare the full proposal within a week's time to CO for clearance.

[Action: Smt. Joycy Rani D,Sci -B]

8. Empowerment of women sericulturists through climate resilience mulberry sericulture practices

Decision: The Committee discussed the concept note critically and approved the proposal for submission to DST. The RC also suggested incorporating important climate resilient technologies and identifying 2-3 clusters in each state in consultation with RSRs for implementation. Further, the PI was suggested to prepare and submit the full proposal within two week's and to CO for clearance.

[Action: Dr. M.S. Ranjini, Sc-B]

REVIEW OF CONCLUDED AND ONGOING PROJECTS

The committee also reviewed the progress of the following projects to be concluded and few on-going projects.

1. ARP 3519: Silkworm disease monitoring of seed & commercial crop rearing of South Indian States. (Oct. 2014 to Mar. 2018)

Decision: The Committee discussed the results of project and suggested the PI to send the proposal to CO as Phase-II for further continuation for 5 years as per the last RAC decision and 10th meeting of pebrine monitoring committee.

[Action: Marry Josepha Shery. A.V,Sc-D]

2. AIB 3524: Improvement of PM race for productivity and silk quality (Jan 2015 - May 2018)

Decision: The Committee discussed the results of the project and suggested the PI to present the data along with control and improvement for the recommended lines.

[Action: Dr. K.B.Chandra shekar, Sc-D]

3. AIB-3561: Identification of Robust bivoltine silkworm hybrids suitable for high temperature and high humidity conditions (Feb. 2016 - March 2019)

Decision: The Committee discussed the results of the project and suggested to discuss with Dr. Kishor Kumar, Sc-D, BBL to prepare an action plan for hybrids testing in the next summer season.

[Action: Dr. S. Purushaotham, Sc-D]

4. MOE-3595: Development of Seri-business models for enterprises in pre-cocoon sector (Oct. 2016 - Sept. 2018)

Decision: The Committee discussed the results of the project and suggested to the PI to finalize the seed production model in consultation with NSSO within a month and also to indicate the capital requirement with subsidy and without subsidy component in all models.

[Action: Ms. Joycy rani, Sc-B]

5. AIP-3594: Feed supplementation studies for improving young age silkworm rearing in Chawki Rearing Centres. (Apr. 2017 - Sep 2018)

Decision: The Committee discussed the results of the project and suggested to the PI to check the data of final feed formulations in terms of larval growth, feed response and survival.

[Action: Ms. E. Bhuvaneshwari, Sc-B]

6. AIB 3509: Development of productive bivoltine silkworm breeds/hybrids of *Bombyx mori* tolerant to nuclear polyhydrosis virus (July 2014 - Dec 2018)

Decision: The Committee discussed the results of the project and suggested to the PI to present season wise data on hybrid performance and initiate trials of double hybrids at farmers level.

[Action: Dr. S. M.Moorthy, Sc-D]

AIP – 3568: Development of value added products for spent pupae of mulberry silkworm, *Bombyx mori* (April 2016 - March 2019)

Decision: The Committee discussed the results of the project and suggested the PI to inform the collaborator for presenting the results in the next RAC.

[Action: Dr. Y. Thirupathiah, Sc-B]

6. PRP-3591: Identification of resistance in mulberry germplasm for root knot nematode disease. (Sep 2016 - Oct. 2019)

Decision: The Committee discussed and noted the results of the project and suggested to continue the good work to achieve the proposed objectives as per milestones.

[Action: Dr. Arun Kumar, Sc-B]

PIP-3592: Identification of indices for abiotic stress tolerance in mulberry with special reference to moisture and alkalinity stress. (Oct. 2016 - Sept. 2019)

The Committee discussed the results of the project and suggested to achieve the proposed objectives as per milestones without any delay.

[Action: Dr. T.S. Gayathri, Sc-B]

AIT-3593: Transcriptome analysis of silkworm for identification of molecular markers for improvement of silk quality (Oct. 2016 - Sept. 2019)

Decision: The Committee discussed the results of the project and suggested to continue the identification of markers for silk quality as proposed in the project.

[Action: Dr. L. Kusuma, Sc-B]

Training

The RC noticed that the training programmes have been initiated only during the second quarter consequent to approval of the action plan during the last week of June 2018, except at the main Institute where NBT programmes have been organized prior to approvals. The units under RSRS, Salem have achieved 50% of annual target during II quarter and REC, Aurangabad has exceeded the target for the first two quarters. The Chairman-RC requested the heads of RSRSs to initiate necessary action to achieve annual targets before December 2018.

[Action: Training Division, Heads of RSRSs and RECs]

The Chairman-RC also requested the Heads of RSRSs and RECs to record profile of trainees as per the formats prescribed for reporting (i) Direct Benefit Transfer and (ii) Data base of persons trained under CBT. The information in both the formats should invariably accompany monthly progress report. The reports prepared in *MS Office Excel* should be sent to the Training Division for compilation and reporting to CSB Bengaluru.

[Action: Heads of RSRSs and RECs]

The Head of RSRS, Kodathi was requested to furnish the data base information of 251 persons trained during 2017-18 immediately, which is pending since July 2018.

[Action: Head, RSRS, Kodathi]

The Institute would be organizing a two day training programme in Mulberry and Silkworm crop protection for the benefit of technical staff. The Heads of RSRSs and RECs should depute them for training.

[Action: Heads of RSRSs and RECs]

General Decisions:

Regarding follow up action taken on the decisions of RC and RAC, the committee suggested that concerned scientist/head of the section should submit the action taken report (ATR) every two months to PMCE and same needs to be monitored and updated by PMCE in consultation with the concerned.

[Action: All the Concerned Scientists; PMCE]

Since use of DDVP is banned, the committee suggested PML to identify alternative insecticide/pesticide for control of mulberry pests for filed recommendation by December 2018.

[Action: Sc-D, PML]

The Director informed that next RAC meeting will be scheduled during October 2018 in consultation with RAC chairperson and advised the scientists for making necessary presentations/arrangements.

[Action: Sc-D, PMCE]

The meeting ended with vote of thanks.

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Director & Chairman, Research Council

Annexure-I

List of participants attended the Research Council meeting held on 11th September 2018 at CSRTI-Mysore

#	Name	Designation	Section/Unit
1.	Sivaprasad. V. (Dr.)	Director, CSRTI, Mysore	Chairman, Research Council
2.	Dr. K. Vijayan	Scientist-D	RCS, CSB, Bengaluru
3.	Sreenivas, B. T. (Dr.)	Scientist-D	CSRTI, Mysore
4.	Dr. Vineet Kumar	Scientist-D	CSRTI, Mysore
5.	Dr. Jalaja S Kumar	Scientist-D	RSRS Kodathi
6.	Dr. N. Dhahira Beevi	Scientist-D	RSRS Salem
7.	Dr. S. Balasaraswathi	Scientist-D	RSRS Salem
8.	Dr. S. Mahiba Helen	Scientist-D	RSRS Salem
9.	Dr. N. Sakthivel	Scientist-D	RSRS, Salem
10.	Dr. V. girish Naik	Scientist-D	RSRS, Chamarajanagara
11.	B. Vijaya Naidu	Scientist-D	RSRS Ananthapur
12.	Dr. P. Sudhakar	Scientist-D	RSRS Ananthapur
13.	Dr K Praveen Kumar	Scientist-D	RSRS Shadnagar
14.	Dr. Dayaynanda	Scientist-D	P4, BSF, Hassan
15.	Dr. B. Mohan	Scientist-D	SSBS, Coonoor
16.	Dr. A Mahima Shanthi	Scientist-D	CSRTI, Mysore
17.	Dr. R. Meenal	Scientist-D	CSRTI, Mysore
18.	Mary Josepha, A.V. (Dr.)	Scientist-D	CSRTI, Mysore
19.	Anuradha H Jingade	Scientist-D	CSRTI, Mysore
20.	Dr. C. M. Kishore Kumar	Scientist-D	CSRTI, Mysore
21.	Purushotham, S. (Dr.)	Scientist-D	CSRTI, Mysore
22.	Pratheesh Kumar, P. M. (Dr.)	Scientist-D	CSRTI, Mysore
23.	Dr . K. B. Chandrashekar	Scientist-D	CSRTI, Mysore
24.	Sri. Shivakumar Hukkeri	Scientist-D	CSRTI, Mysore
25.	Arunakumar G. S.	Scientist-B	CSRTI, Mysore
26.	Gandhi Doss, S. (Dr.)	Scientist-D	CSRTI, Mysore
27.	Manthira Moorthy, S. (Dr.)	Scientist-D	CSRTI, Mysore
28.	Santha, P. C. (Dr.)	Scientist-D	CSRTI, Mysore
29.	J. B. Narendra Kumar	Scientist-D	CSRTI, Mysore
30.	K. Rajashekar	Scientist-D	CSRTI, Mysore
31.	N. G. Selvaraju	Scientist-D	CSRTI, Mysore
32.	Dr. M. Muthulakshmi	Scientist-D	CSRTI, Mysore
33.	Dr. N. Balachandran	Scientist-D	CSRTI, Mysore
34.	Dr. Gnanesh B. N.	Ramanujan Fellow (DST)	CSRTI, Mysore
35.	Kulkarni, S. B.	Scientist-C	CSRTI, Mysore
36.	Vinod Kumar Yadav	Scientist-C	CSRTI, Mysore
37.	Y. N. Sanath Kumar	Scientist-C	CSRTI, Mysore
38.	Dr. Sibayan Sen	Scientist-C	CSRTI, Mysore
39.	Dr. K. N. Madhusudhan	Scientist-C	CSRTI, Mysore
40.	Munikrishnappa, H. M.	Scientist-C	CSRTI, Mysore
41.	Dr. Kusuma L.	Scientist-B	CSRTI, Mysore
42.	Dr. Ranjiji M.S.	Scientist-B	CSRTI, Mysore
43.	Joycy Rani, D.	Scientist-B	CSRTI, Mysore
44.	Thirupathaiah, Y. (Dr.)	Scientist-B	CSRTI, Mysore
45.	Mallikarjuna, G. (Dr.)	Scientist-B	CSRTI, Mysore
46.	Satish, L. (Dr.)	Scientist-B	CSRTI, Mysore
47.	Dr. P. V. Vyjayanthi	Scientist-B	CSRTI, Mysore
48.	Gayatri, T. (Dr.)	Scientist-B	CSRTI, Mysore
49.	Bhuvaneshwari, E. (Dr.)	Scientist-B	CSRTI, Mysore
50.	Dr. Ravindra	Scientist-B	CSRTI, Mysore
51.	Sumathy, R. (Dr.)	Information Officer	CSRTI, Mysore
52.	V. C. Bindiya	JRF	CSRTI, Mysore
53.	Paramesha, B. P.	JRF	CSRTI, Mysore