

Minutes of 57th Meeting of Research Council

(27th July 2021 at CSRTI-Berhampore, West Bengal)

57th Research Council meeting of CSRTI-Berhampore was held on 27th July, 2021 under the Chairmanship of Dr. V. Sivaprasad, Director, CSRTI-Berhampore.

At the outset, Dr. Dipesh Pandit, Scientist-D, PMCE welcomed Chairperson-RC, Scientists and other participants. Later, agenda-wise items were discussed. List of participants is appended in **Annexure - I**.

ITEM NO.1: Confirmation of the minutes of 56th meeting of Research Council (RC) held on 8th December, 2020 at CSRTI-Berhampore

As no comments were received from any of the members, the minutes were confirmed.

ITEM NO.2: Review of follow-up action taken on the recommendations / decisions of 56th meeting of Research Council (RC) held on 08th Dec 2020

ITEM NO.3: Review of Concluded Projects/ Activities

The following research projects / activities which have been concluded during the period were discussed.

PIB 3627: Development of superior mulberry genotypes through Polyclonal Seed Orchard

The PI is advised to take necessary steps to maintain and conserve the established polyclonal seed orchard for future exploitation. Project expenditure should include apportionate costs of regular activities. It is further advised to submit the concluded project report in the specified format for onward transmission to CO and present the same in the forthcoming RAC.

[Action: Mr. Yallappa Harijan, Sci-B, MBG]

PRP 02003SI: Studies on the management of mulberry root rot disease in Eastern and North Eastern India.

The PI is advised to perform a comparative analysis of differences in ITS regions between the pathogenic isolates of *Fusarium* of Southern and Eastern India in consultation with Dr. Anil Pappachan and present the same in the forthcoming RAC.

[Action: Mr. Khasru Alam, Sci-B, Mul. Protection]

AIB 3602: Development of thermotolerant Bivoltine Breeds / Hybrids of Silkworm, through Marker Assisted Selection

The PI is advised to present the results pertaining to presence of thermo-tolerance marker in the hybrid and FC populations including the copy number. Submit the concluded project report in the specified format for onward transmission to CO and present the same in the forthcoming RAC.

[Action: Dr. N. Chandrakanth, Sci-C, SBG]

ARP 3630: Evaluation of new room and silkworm bed disinfectants

The PI is advised make a comprehensive presentation of data obtained including the benefit: cost ratio of the two products developed. It is further advised to explore possible entrepreneurs for commercialization of developed disinfectants; to file IPR of Seri-Win and submit the concluded project report for onward transmission to CO and present the same in the forthcoming RAC.

[Action: Dr. K. Rahul, Sci-C, and Dr. Mihir Rabha SWP]

ITEM NO. 4: Approval of New Research Projects/Concepts for CSB Funding

The following concept note was presented and critically reviewed by the house. The decisions are as follows:

- 1. Title:** A comprehensive analysis of non-coding RNA mediated epigenetic mechanisms that modulate immune responses against flacherie in silkworms

Observation/Suggestion: The concept is approved by the House as a networking project with all the mulberry R&D institutes of CSB. The PI is advised to prepare a full length proposal as per the prescribed format and submit the same to CO

[Action: Dr. A.R. Pradeep, Sci-D, Biotechnology]

ITEM NO.5: Review of Progress of On-Going Projects/Pilot Studies/ Activities:

Following on-going projects/pilot studies/ TOT/ other R&D activities of the main institute were discussed and the suggestions are:

PIB 02007 SI: Improvement of mulberry leaf longevity in E & NE states of India

The PI is advised to hasten the work so as to meet the milestones. It is further advised to explore other options for scoring senescence based on color intensity. Pictures related to visual scoring have to be represented in the presentation.

[Action: Dr. Deepika Kumar Umesh, Sci-B, MBG]

PRP 08002MI: Identification of candidate genes based powdery mildew resistance for utilization in disease resistance breeding in mulberry [Coll. of SBRL, Kodathi]

Progress found was as per the milestones.

PIE 02002SI: Evaluation of performance of mulberry genotypes C-9 under red and laterite

The PI is advised to discuss with counterpart (Koraput) about the ambiguities in data collection. Possible reasons for reduction in leaf yield have to be indicated.

All India Co-ordinated Experimental Trial for Mulberry Varieties (AICEM): Phase IV

Progress found was as per the milestones.

OST: Evaluation of high yielding and low temperature stress tolerant genotypes (C-1 & 11)

Progress found was as per the milestones.

OST: Low cost drip fertigation for mulberry

The PI is advised to follow up with the respective centers, where the Low cost drip fertigation system hasn't been installed and take necessary measures for installation of the same.

OFT: Popularization of newly authorized mulberry variety C-2038 and others

The PI is advised to explore farmers across Arunachal Pradesh, Sikkim and Chattisgarh for popularization of C-2038.

Development of Mulberry crop schedule for optimal silk productivity in WB

The PI is advised to present comprehensive data including temperature and relative humidity details of each crop season and reeling parameters.

PIB 02010 SI: Final Yield Trial of high yielding mulberry genotypes for E & NE India

Progress found was as per the milestones

[Action: Dr. K. Suresh, Sci-C, MBG]

Final Yield Trial of newly identified mulberry genotypes

Progress was found to be as per the milestones. The proposal of RCS, CO-Bangalore to take up two FYTs at a time under PIB 02010 SI to be submitted for reconsideration as time gap between the two FYTs are more than one year and further request CO-Bangalore for separate FYT programme.

[Action: Mr. Yallappa Harijan, Sci-B, MBG]

PPA 02005SI: Optimization of spacing and nutrient dose for the newly developed high yielding mulberry variety (C2038) under irrigated condition

The PI is advised to represent the data following standard units of representation.

[Action: Mr. Yallappa Harijan, Sci-B, MBG]

Dr. Satadal Chakrabarty, Sci-D is advised to formulate a concept in disciplines of seed technology / farm management or allied sectors and present in the next RC.

[Action: Dr. Satadal Chakrabarty, Sci-D, Farm Management]

Recommendation of novel fungicidal & insecticidal applications for mulberry crop protection

The PI is advised to consult Dr. Anil Pappachan regarding the proposal and communicate to the CO

Biology and feeding efficacy studies of *Cheilomenes sexmaculatus* and *Chrysoperla zastrowi sillemi* predator for the eco-friendly management of mulberry whitefly (*Aleroclava pentatuberculata*, *Dialeuropora decempuncta*)

As per the discussions held in the RCC meeting regarding the concept, it was opined that the predators were general biological agents and not effective in the management of white fly. Hence, the proposal may not be taken up for further studies.

OFT prog.: Demonstration of Bio-control agents (*Scymnus* & *Chrysoperla*)

The PI is advised to continue the programme as per the milestones

Routine Programme: The PI is advised to communicate and in touch with the nested units of CSRTI-Berhampore and obtain the data on disease and pest incidence regularly.

[Action: Mr. Khasru Alam, Sci-B, Mul. Protection]

Identification of superior Bivoltine foundation cross as a male component to improve productivity in E & NE India

The PI was appreciated for progress made although the concept was under consideration at CO-Bangalore.

OFT: Evaluation of double hybrid. BHP-DH (3.2x8.9) in E&NE Region

The PI is advised to represent the data using relevant graphs (instead of percentile graph) along with CV.

[Action: Dr. V. Lakshmanan, Sci-D, SBG]

AIB 02009 MI: Authorization trials silkworm hybrid, 12Y x BFC1 in E & NE India [Coll. Project with NSSO & CSTRI-Bengaluru]

The PI is advised to represent the Mean performance of the data graphically.

[Action: Dr. N. Chandrakanth, Sci-C, SBG]

AIB 02006 MI: Improvement of Nistari lines for survival and silk productivity

The PI is advised to plan and execute the experiments in consultation with the collaborating CIs; compile the progress of the same and present in the forthcoming review meetings. It is further advised to rear all the Nistari lines on a mass scale and evaluate the reeling traits. Wherever possible, data should be displayed graphically. It is also advised to obtain data of all the five seed crop seasons in a year from SSPC-Berhampore and compare with the results obtained in the project. LLD data has to be presented and marker analysis has to be initiated. Marker analyses for thermo tolerance, humidity tolerance and LLD have to be performed in the improved Nistari lines being maintained with the PI.

[Action: Dr. Th. Ranjita Devi, Sci-B, SBG]

AIT 08005MI: Development and evaluation of Bidsenovirus resistant silkworm hybrids developed from marker assisted breeding lines-Phase-II (Coll. Of SBRL-Kodathi)

The PI is advised to discuss with the collaborator regarding the ambiguity in the results that have been submitted. It is further advised to obtain the Bidsenovirus resistant breeds from the collaborator and challenge by viral inoculation studies.

Silkworm disease monitoring of seed and commercial crop rearing of Eastern & North Eastern states

The PI is advised to communicate and in touch with the respective RSRs/RECs for obtaining reports in time

OST: Validation of new eco-friendly bed disinfectant (SERIWIN)

&

OFT: Demonstration of SAMPOORNA for improved cocoon quality

The PI is advised to distribute the material of both the OSTs to the respective test locations at the earliest enabling the usage of the same in the forthcoming crops.

[Action: Dr. K. Rahul, Sci-C, SWP & Dr. Mihir Rabha, Sci-B, SWP]

Prototype for developing biodynamic preparation using silkworm feculae

The PI is advised to send the complete proposal to the referees and obtain comments and present the same in the forthcoming RAC.

[Action: Dr. Mihir Rabha, Sci-B, SWP]

Microbial Technology for Management of mealy bug in mulberry ecosystem

The PI is advised to identify the isolated bacterial cultures by 16S rRNA gene sequencing analysis.

AIC 02004CN: Molecular characterization and assessment of the efficacy of low molecular weight peptides isolated from mulberry leaf against flacherie disease of silkworm (in coll. with UNB Siliguri)

The PI is advised to hasten the work related to purification of low molecular weight leaf peptides by Ion exchange chromatography.

[Action: Dr. Pooja Makwana, Sci-C, Biotech]

OST: Evaluation of high yielding & bacterial leaf spot resistant genotype C7 with C-2038 as check variety

Progress found was as per the milestones.

[Action: Mr. Yallappa Harijan, Sc-B, MBG]

AIT 02008 SI: Identification of high humidity tolerant silkworm breeds/hybrids for Eastern & North-Eastern India

The PI is advised to follow up with the procurement of the equipments proposed in the project and continue the bio-informatic analysis in consultation with Dr.A.R. Pradeep.

[Action: Dr. Raviraj V.S., Sci-B, Biotech]

OFT: Demonstration of modified charka (Suvarna) + Souroneer

The PI is advised to find suitable entrepreneurs for manufacturing the requisite units of Suvarna and Souroneer. It is further advised to visit Krishi Vigyan Kendra, Sargachi for discussion on the same.

[Action: Dr S.Sarkar, Sci-D, Training]

NABARD Funded Project: Development of Seri-Entrepreneurship in Chawki rearing (MDB-WB)

Project is just initiated after obtaining the fund (1st Installment) and procured few items as per milestone. The PI is advised to distribute the purchased materials to the respective entrepreneur and plan & procure other necessary rearing materials. Also implement the project according to the milestones

OFT: Popularization of chawki rearing

&

OFT: Popularization of Collapsible Plastic Mountages & shoot feeding (shelf rearing)

The PI is advised to hasten the progress of the aforementioned popularization programmes.

[Action: Dr Shafi Afroz, Sci-C, SEEM]

Analysis on Challenges & Opportunities mulberry & silk value chain in West Bengal

The house opined that the concept is not feasible in the prevailing sericulture scenario in West Bengal. The PI is further advised to propose new concept.

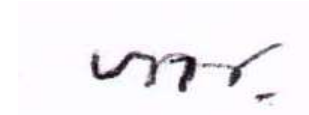
[Action: Dr. P. Naik, Sci-B, Training]

Development of Integrated Farming System Model for Livelihood Security of Farmers in the hilly regions of Kalimpong District

The PI is advised to revise the project thoroughly. Instead of development of new model, PI is advised to identify the best existing model and determine the income generation from that model. Accordingly, the methodology needs to be modified in consultation with Dr. G. Srinivasa, Sci-D and submit the concept note by 31-07-2021.

[Action: Dr. S. Harish Babu, Sci-B, RSRS-Kalimpong]

The meeting ended with vote of thanks.



Date: 06.08.2021

(Dr. V. Sivaprasad)
Director & Chairperson
Research Council

ANNEXURE-I**LIST OF SCIENTISTS/PARTICIPANTS IN THE 57TH MEETING OF RESEARCH COUNCIL (RC)
HELD ON 27.07.2021 AT CSRTI-BERHAMPORE, WEST BENGAL**

#	Name	Designation
1.	Dr. V. Sivaprasad	Director
2.	Dr. V. Lakshmanan	Scientist-D, SBG
3.	Dr. Soumen Chattopadhyay	Scientist-D, Biotech
4.	Dr. G. Srinivasa	Scientist-D, SEEM
5.	Dr. A.R. Pradeep	Scientist-D, Biotechnology
6.	Dr. Dipesh Pandit	Scientist-D, PMCE
7.	Dr. Satadal Chakrabarty	Scientist-D, Farm Management
8.	Dr. Sukabrata Sarkar	Scientist-D, Training
9.	Dr. K. Suresh	Scientist-C, MBG
10.	Dr. N. Chandrakanth	Scientist-C, SBG
11.	Dr. Shafi Afroz	Scientist-C, SEEM
12.	Dr. Pooja Makwana	Scientist-C, Biotechnology
13.	Dr. K. Rahul	Scientist-C, Silkworm Protection
14.	Mr. Yallappa Harijan	Scientist-B, MBG
15.	Dr. Parameswara Naik J.	Scientist-B, Training
16.	Mr. Khasru Alam	Scientist-B, Mulberry Protection
17.	Dr. Thangjam Ranjita Devi	Scientist-B, SBG
18.	Dr. Deepika Kumar Umesh	Scientist-B, MBG
19.	Dr. Raviraj V.S.	Scientist-B, Biotechnology
20.	Dr. Mihir Rabha	Scientist-B, Silkworm Protection
21.	Dr. S. Harish Babu	Scientist-B, RSRS-Kalimpong
22.	Ms. T. Naga Teja Shirisha	Stenographer, PMCE
23.	Ms. Suravi Ghosh	JRF, Biotechnology