

## Minutes of 54<sup>th</sup> Meeting of Research Council (7<sup>th</sup> July 2020 at CSRTI-Berhampore, West Bengal)

54<sup>th</sup> Research Council meeting of CSRTI-Berhampore was held on 7<sup>th</sup> July 2020 under the Chairmanship of Dr. V. Sivaprasad, Director, CSRTI-Berhampore.

At the outset Dr. D. Pandit, Scientist-D, PMCE welcomed Chairperson of the 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 53<sup>rd</sup> meeting of Research Council (RC) held on 13<sup>th</sup> March 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 53<sup>rd</sup> meeting of Research Council (RC) held on 13-03-2020**

The progress of new form of Morizyme-B, the scientist was advised to continue the work on continuous basis and present the evaluation results in RC meetings.

[Action: Dr. Deepika, K. U, Sci-B, MBG]

Regarding approved concept note titled **Final Yield Trial of newly identified mulberry genotypes**, the PI was advised to present in the Next RAC as referees comments already obtained.

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

With regard to concept note **CSB/BER/RCN017: Identification of superior Bivoltine foundation cross as a male component to improve productivity in E & NE India**, the PI was advised to wait for the CO response and accordingly take necessary action.

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

Concept note titled **CSB/BER/RCN018: Biology and feeding efficacy studies of *Cheilomenes sexmaculatus* and *Chrysoperla zastrowi sillemi* predator for the eco-friendly management of mulberry whitefly**, the PI was advised to wait for the CO response and accordingly take necessary action.

[Action : Smt. Radha, MB, Sci-B, Entomology]

Regarding concept note **CSB/BER/RCN020: Development of an Aptamer based technique for the detection of *Nosema bombycis* infection in *Bombyx mori* L**, and the proposal titled **Silkworm disease monitoring of seed and commercial crop rearing of E & NE states**, the PIs were advised to wait for the response of CSB to take further necessary action.

[Action: Dr. Rabha M, Sci-B /  
Dr. K. Rahul, Sci-C, SW. Pathology]

A need based concept entitled **Development of Seri-entrepreneurship in Murshidabad**, the PI was advised to finalize the proposal as discussed with the competent authority & submit to NABARD for funding.

[Action : Dr. Shafi Afroz, Sci-C, Extension]

Regarding revised concept note entitled **Development of Integrated Farming System Model for Livelihood Security of Farmers in the hilly regions of Kalimpong District**, the house observed the following points to re-revise the concept note appropriately:

- Not covered all the suggestions directed in the 52<sup>nd</sup> RC held on 6<sup>th</sup> Dec 2019
- Submitted concept note is not in the proforma of RMIS-01
- Proposed of project assistant in the concept is not appropriate/feasible, since the implementation of IFS at nine farmers level is not an enormous task
- Nowhere, it has been highlighted on the budget sharing & roles between collaborators (CSB & KVK)
- Concept should be for 3 years not for 5 years

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



Concluded pilot study titled **studies on the effect of preservation of dried cocoon on reeling efficiency and yarn quality parameters**, the PI was advised again to submit the concluded report in RMIS-10 format to PMCE for needful action.

**[Action : Mr. G. Mitra, Sci-D, PCT]**

The concluded projects during 2019-20 like **ARP-3590, PPS-3600, PPA-3622, AIB-3614, PPA-3613, AIB-3616, PIB-3505 and AIB-3617 and pilot studies**, the PIs were advised to publish their output project information in peer reviewed Journals on priority basis (within a month).

**[Action : Concerned Scientists]**

**Routine programme** on mulberry pest & disease survey, the incharge(s) are/were advised to send letters to the concerned units on regular basis to submit the incidence (pest/disease) report.

**[Action : Dr. Anil P, Sci-B, Mulberry Pathology & Smt. Radha M B, Sci-B, Entomology]**

### **ITEM NO. 3: Review of Concluded Projects/ Activities**

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

**1. AIB 3617:** Identification of region specific bivoltine hybrids suitable for highly fluctuating and seasonally variable climatic conditions of E & NE India,

**Suggestions:** The PI was advised to re-look into improving reelability of BHP-DH for on farm trials through the directional selection with regard to filament length, as reelability & filament length of breeds are highly correlated generally. Further, the PI was advised to record the number of defective cocoons while reeling the cocoons. Present the project outcome in 52 RAC for review & recommendation.

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

**2. AIB 3619:** Development of silkworm congenic breeds from a gene pool with higher genetic plasticity

**Suggestions:** The PI was suggested to conduct one more rearing of developed Multi & Bi congenic lines with ruling breeds to know its performance and accordingly obtain suitable logical conclusion. Besides, Bivoltine congenic line developed may not be suitable for utilization in the field. Expenditure made in project observed to be lower side (<50%). Further, advised to submit the concluded report in RMIS-10 format at the earliest. Present the project outcome in 52 RAC for review & recommendation.

**[Action: Dr. A.K. Verma, Sci-D, SBG]**

**3. PIB 3610:** Preliminary evaluation of newly evolved mulberry genotypes for mulberry improvement,

**Suggestions:** The PI was advised to identify top two genotypes in the project using new multi trait evaluation/PCA index procedure (in consultation with statistician Dr. Manjunatha G R, Sci-C, CSRTI-BHP) across all growth-yield-physio-biochemical traits of mulberry. Take appropriate measures since the budget utilized in project was observed to be lower side. Submit the final report in RMIS-10 format at the earliest. Present the project outcome in 52 RAC for review & recommendation.

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

### **ITEM NO. 4: APPROVAL OF NEW RESEARCH PROJECTS/CONCEPTS**

The following concepts were critically re-reviewed. The decisions are as follows:

**1. Title:** Identification of high yielding mulberry genotypes suitable for different agro climatic conditions

**Observation/Suggestion:** the PI was advised to re-present the entire proposal in forthcoming RC/monthly meeting by attending the suggestions as given below:

- Modify the title as "FYT of high yielding mulberry genotypes for E & NE India"
- Identify top most genotypes from concluded projects PIB-3505 & PIB-3610 through new multi trait evaluation/PCA index procedure by considering all growth/yield/physiological traits of mulberry across season/years
- Plan the final yield trials at two locations @ CSRTI-BHP & RSRS-KPT

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



## 2. Title: Development of mutants resistant to sucking pests in mulberry

**Observation/Suggestion: Approved;** the PI was advised to attend following suggestions and submit the CN to CSB for approval.

- Modify the title as "Development of *Morus* Mutants for Resistant to Thrips & Whiteflies"
- Mention the means of characterizing mulberry mutants (i.e., cytology/markers/protein etc)
- Data regarding % loss of mulberry by Thrips & Whiteflies is missing
- The detailed review on development of mutants for resistant to sucking pests in other Agri/Horti crops is still necessary including methodology
- Consider only popular mulberry varieties for the study
- Before submission to CO, consult Dr. Mogili, Sci-D (Rtd. CSRTI-Mysore)/ BARC collaborator regarding methodology proposed in the concept

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

## 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 & its nested unit were discussed and the suggestions are:

The progress of following projects/activities was observed to be as per milestones:

- **PIE 02002SI:** Evaluation of performance of mulberry genotypes C-9 under red and laterite soil
- **PIB 02007 SI:** Improvement of mulberry leaf longevity in eastern & north eastern states of India
- **PRP 02003SI:** Studies on the management of mulberry root rot disease in E & NE India
- **AIB-3602:** Development of thermotolerant Bivoltine Breeds / Hybrids of Silkworm, through Marker Assisted Selection
- **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)
- **AIT 08005MI:** Development and evaluation of Bidsenovirus resistant silkworm hybrids developed from marker assisted breeding lines-Phase II (Coll. of SBRL- Kodathi)
- **Pilot study:** Development of mulberry crop schedule for optimal silk productivity in WB
- **TOT/OFT:** Mass multiplication and maintenance of biocontrol agent – *Scymnus pallidicollis* and its popularization at farmers' level / Demonstration of BCA
- **OFT:** Popularization of newly authorized mulberry variety C-2038
- **OFT:** Evaluation of BHP double hybrids along with check
- **OFT:** Popularization of new silkworm hybrids
- **OFT:** Popularization of Collapsible Plastic Mountages & shoot feeding
- **OFT:** Popularization of chawki rearing
- **OST:** Evaluation of Thermo-tolerant Double hybrids along with check
- **OST:** Evaluation of high yielding & bacterial leaf spot resistant varieties along with check
- **OST:** Validation of eco-friendly disinfectant NIRMOOL
- **OST:** Low cost drip fertigation for mulberry

**PIB 3576:** Evaluation of new mulberry GRs for improvement in productivity & quality, the PI was advised to present with all/pooled data as concluded in forthcoming meeting.

**Pilot Study:** Development of mulberry crop schedule for optimal silk productivity in West Bengal, the PI was advised to include rearing expert (Dr. Raviraj V S, Scientist-B) from SBG for the study.

**PRP 08002MI:** Identification of candidate genes based powdery mildew resistance for utilization in disease resistance breeding in mulberry [Coll. of SBRL-Kodathi], the PI was advised to apprise the competent authority with MBG team for ways of achieving the milestones of the project.

**PIB 3627:** Development of superior mulberry genotypes through Polyclonal Seed Orchard, the PI was advised to present results of seed germination and viability test. Further, present the protocol for selection of mulberry seedlings raised from the seeds.

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

**AICEM-Phase IV,** the PI/co-ordinator was advised to make drip irrigation facility in all test centres plantation as per the guidelines of AICEM without any deviation. Further, a meeting has to be called with all investigators to know its status.

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



**AIB 02006 MI:** Improvement of Nistari lines for survival and Silk productivity, the PI was advised to present all the results progressed in the project in co-ordination with all investigators/facilitators. Further, re-sequence of Nistari lines should be conducted at the earliest.

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

**AIT 02008 SI:** Identification of high humidity tolerant silkworm breeds/hybrids for E & NE India, the PI was advised to shortlist the existing breeds/hybrids/GRs (Multi & Bi) in the institute for HH (high humidity) & HT (high temperature) on continuous basis. Also advised to show the susceptible breeds identified/tested.

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

**ARP3605:** Validation of the DNA markers in silkworm breed developed by introgression of DNA markers associated with NPV resistance using MAS breeding and large-scale field trial of the breed [DBT funded Coll. SBRL-B'lore, CSRTI-Mysore & Pampore], the PI was advised to plan for executing crops at farmers level after the relaxation of COVID-19, as the project scheduled to close during July 2020.

**[Action: Shri G. C. Das, Sci-D & Dr. A.K. Verma, Sci-D, SBG]**

**ARP 3630:** Evaluation of new room and silkworm bed disinfectants, the PI was advised to focus the results of ERR% by performing ANOVA for arriving at concrete conclusion across various bed-disinfectant formulations.

**[Action : Dr. Rahul K, Sci-C, Silkworm Pathology]**

**OFT:** Demonstration of modifies charka (Suvarna) + Souroneer, the concerned was advised to arrange for procurement of these units at the earliest by following due purchase procedure with Dr. Soumen Chattopadhyay, Sci-D (Chairman, PSC) for initiating the OFT.

**[Action : Mr. G. Mitra, Sci-D, PCT]**

**Training,** in-charge was advised to conduct intensive bivoltine training programme with institute staff as discussed with competent authority in the current month. Further, advised to act with PGDS prog. (current & new batch) as per the guidelines of UGC/Kalyani university.

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

**Extension & CPP activities,** the in-charge was advised to make detailed action plan for extension & CPP activities from approved action plan of the institute (2020-21) and circulate into the concerned extension/DoS centres appropriately.

**[Action : Dr. T D Biswas,  
& Mr. GC Das, Sci-Ds, Extension]**

#### **General Points:**

- Shoot the 3-min videos on their ToT/R&D activities and upload in the institute website/facebook through PMCE Division.
- A third party evaluation committee as to be formed for collection of data at field levels and the committee has to visit surprisingly to fields and data has to be submitted to the Competent Authority confidentially.
- The Co-investigators should involve in the project activities/roles actively and so that individual contributions in the form of output significantly reflected.

**[Concerned Scientists]**

Dr. V. Sivaprasad, in his closing remarks, appreciated the efforts of scientists and their supporting staff in achieving the significant outputs during the period even under the outbreak of COVID-19. Further, Chairperson stressed for scientists to publish the research articles as an output of concluded projects/ other R&D works.

The meeting ended with the vote of thanks.

Date: 10<sup>th</sup> July 2020

Dr. V. Sivaprasad  
Director & Chairperson  
Research Council  
CSRTI-Berhampore

**ANNEXURE -I****LIST OF SCIENTISTS/PARTICIPANTS IN THE 54<sup>TH</sup> MEETING OF RESEARCH COUNCIL (RC) HELD ON 07.07.2020 AT CSRTI-BERHAMPORE, WEST BENGAL**

#	Name	Designation
1.	Dr. V. Sivaprasad	Director
2.	Dr. T. Dutta (Biswas)	Scientist-D, Extension
3.	Dr. V. Lakshmanan	Scientist-D, SBG
4.	Dr. S. Chattopadhyay	Scientist-D, Biotechnology
5.	Dr. A K verma	Scientist-D, SBG
6.	Dr. Dipesh Pandit	Scientist-D, PMCE
7.	Mr. Gautam Mitra	Scientist-D, PCT
8.	Dr. S. Sarker	Scientist-D, Training
9.	Dr. Manjunatha, G. R	Scientist-C, PMCE
10.	Dr. N. Chandrakanth	Scientist-C, SBG
11.	Dr. Suresh K	Scientist-C, MBG
12.	Dr. V. Vijay	Scientist-C, Agronomy & Soil Science
13.	Dr. P. Makwana	Scientist-C, Biotechnology
14.	Dr. K. Rahul	Scientist-C, Silkworm Pathology
15.	Dr. Anil Pappachan	Scientist-B, Mulberry Pathology
16.	Dr. Mihir Rabha	Scientist-B, Silkworm Pathology
17.	Dr. Raviraj V.S.	Scientist-B, SBG
18.	Dr. Thangjam Ranjita Devi	Scientist-B, SBG
19.	Dr. Deepika Kumar Umesh	Scientist-B, MBG
20.	Mr. Yallappa Harijan	Scientist-B, MBG
21.	Mrs. Radha MB	Scientist-B, Entomology
22.	Ms. Shirisha T N	Steno, PMCE
23.	Mr. Sahadeb Roy	JRF (SBG)
24.	Ms. Suravi Ghosh	JRF (Biotech)