केन्द्रीय रेशम उत्पादन अनुसंधान एवं
प्रशिक्षण संस्थान
केन्द्रीय रेशम बोर्ड
वस्त्र मंत्रालय, भारत सरकार
गालंदर, पाम्पोर - 192 121

CENTRAL SERICULTURAL RESEARCH &
TRAINING INSTITUTE
CENTRAL SILK BOARD
Ministry of Textiles, Govt. of India
Galander, Pampore - 192 121

सं: केरेबो CSB / केरेउअवप्रसं पां CSR&TI /09(TECH-08) /2023-24/

दिनांक Date: 04.11.2023
(e-mail only)

परिपत्र / CIRCULAR

Sub: Meeting Minutes of 46th Research Advisory Committee (RAC) meeting-reg

With reference to the subject and communication above, please find enclosed herewith a copy of approved Minutes of 46th Research Advisory Committee (RAC) meeting of CSR&TI, Pampore held on 10th & 11th November, 2023 for information and reference.

As such, all the concerned are advised to initiate necessary follow up action on the recommendations / decisions of the said meeting and furnish the action taken report to this office within 01 week.

Encl.: As above.

निदेशक /Director

सूचना व आवश्यक कार्रवाई हेतु प्रति **Copy for information & needful action to:**

1. All the Members of RAC.
2. The Scientist-D, SEEM Division, CSR&TI, Pampore.
3. The Scientist-D & In charge, RSRS, Sahaspur, Dehradun.
4. The Scientist-D, PMCE Division, CSR&TI, Pampore.
5. The Scientist-D, Sericulture Division, CSR&TI, Pampore.
6. The Scientist-D, P4,BSF-Manasbal.
7. The Scientist-D & In charge, RSRS, Miransahib, Jammu.
8. The Scientist-C, Biotechnology Division, CSR&TI, Pampore.
9. The Scientist-C, Host Plant Division, CSR&TI, Pampore.
10. The Scientist-C, Training Division, CSR&TI, Pampore

MINUTES OF THE 46th MEETING OF RESEARCH ADVISORY COMMITTEE (RAC) OF CSR&TI, PAMPORE HELD ON 10th& 11th October, 2023 THROUGH HYBRID MODE

Dr. N. K. Bhatia, Director, CSR&TI, Pampore extended a warm welcome to Prof. (Dr.) Nazeer Ahmed, Chairman (Former-Vice Chancellor, SKUAST-K) & Members of the RAC and other participants to the 46th RAC meeting of the Institute. After the welcome address, RAC Chairman in his opening remarks congratulated scientists of CSR&TI, Pampore for obtaining patent in collaboration with Forest Research Institute (FRI), Dehradun and impressed upon the scientist for delivering the outputs of the research to its stakeholders through sericulture extension department and also asked for reorienting R&D programmes as per the needs of the regions. Thereafter, the agenda wise items were taken:

AGENDA NO. 1: CONFIRMATION OF LAST RAC MEETING MINUTES

As no comments were received, the house confirmed the minutes of 45th RAC.

AGENDA NO. 2: FOLLOW-UP ACTION ON THE GENERAL RECOMMENDATIONS/ DECISIONS OF THE LAST RAC MEETING

Dr. Muttanna, Scientist-C, PMCE Division presented the follow-up actions on the general recommendations/decisions of the last RAC Meeting. House expressed satisfaction over the follow-up made by the institute on the general recommendations of RAC committee.

AGENDA NO. 3: FOLLOW UP ACTION TAKEN ON THE PROJECT SPECIFIC RECOMMENDATIONS/ DECISIONS OF THE LAST RAC MEETING

Dr. Muttanna, Scientist-C, PMCE Division presented the follow up action taken on the project specific recommendations/decisions of the Last RAC Meeting. House expressed satisfaction over the follow-up made by the Institute.

AGENDA NO. 4: REVIEW ON CONCLUDED PROJECTS: NIL

AGENDA NO. 5: NEW PROJECTS PROPOSALS FOR APPROVAL: NIL

AGENDA NO. 6: REVIEW OF THE PROGRESS OF ON-GOING PROJECTS INSTITUTE AS PI:

#	Project Code and Title	Decision / suggestion of RAC
1.	**AIB03006CI:** Indo-Uzbekistan Collaborative Research Project on Improvement of Mulberry and Silkworm Breeding in Temperate Regions of India and Uzbekistan	➢ Expressed satisfaction on the invitation of SRIS Uzbekistan for collection of genetic material and steps taken to clear Govt. regulation for import & export of genetic resources. ➢ Chairman suggested to speed up the work on quarantine procedures and other necessary

		clearance for sharing and procuring the genetic material. (Action: Dr. N. K. Bhatia, Director, PI)
2.	**AIB03007SI:** Development of autumn specific Bivoltine silkworm (*Bombyx mori* L.) hybrids suitable for temperate region of Jammu and Kashmir	➢ House expressed satisfaction on the OST data of autumn specific hybrid ASH-14. ➢ Advised thePI, to submit the concluding report of the project by February 2024. (Action: Sh. Bharath Kumar Neelaboina, PI)
3.	**AIB03008SI:** Development of Nutrigenetic Hybrids of Bivoltine silkworm, *Bombyx mori* L. under Subtropical condition of North West India.	➢ House expressed satisfaction on the progress of the project. ➢ The OST performance of Nutrigenetic Hybrids conducted during autumn season at three locations i.e., CSR&TI, Pampore, RSRS, Jammu &RSRS, Sahaspur was found satisfactory. (Action: Dr. Kiran R., PI)
4.	**PIE03009SI:** Evaluation of mulberry genotypes for improvement in productivity and quality under sub-tropical conditions of Jammu.	➢ The house expressed satisfaction over the progress the project and suggested the PI to conduct the experiment as per the set milestone. (Action: Dr. Santosh Kumar Magadum, PI)
5.	**MOE03010SI:** Evaluation of improved mulberry silkworm hybrids and technologies for North & North West India.	
Component-I:*Large scale farmer trial of summer crop and its impact on autumn crop in selected areas of North West India (outcome of MOE-03001SI)*		➢ The house expressed satisfaction over the progress of the project and suggested the PI to compile the results in time. (Action: Dr. Sardar Singh, PI)
Component-II: *Cocoon production improvement during Autumn rearing through fortification of mulberry leaf (outcome of PIN-3608)*		➢ The house expressed satisfaction over the progress of the project and suggested the Co-PI to submit report in time (Action: Sh. Bharath Kumar Neelaboina, Co-PI)
Component-III: *Revalidation of induction of water stress tolerance in mulberry under rainfed condition by application of triazole compound (Paclobutrazol) [outcome of PIP-3543]*		➢ Concluded project report may be submitted in time (Action: Dr. Santosh Kumar Magadum, Co-PI)
Component-IV:*Evaluation of identified Bivoltine Silkworm hybrids for temperate region of North West India (outcome of AIB-3626)*		➢ House suggested submitting the concluded report as per the project document. (Action: Sh. Bharath Kumar Neelaboina, Co-PI)
Component-V: *Soil health based fertilizer recommendation for DOS farms in North India (Outcome of PPS-3603)*		➢ House suggested to analyzing the soil samples data and submitting the final report in time. (Action: Dr. Santosh Kumar Magadum, Co-PI)

Component-VI: *Popularization of CRC concepts & its strengthening at selected DoS CRC locations in North India.*		➢ House suggested completing the remaining surveys at the left over locations and compiling the data in time. (Action: Dr. Sardar Singh, PI)
Component-VII: *On farm trial of BmNPV tolerant silkworm hybrids in North & North West India (outcome of AIB-3569)*		➢ House expressed satisfaction on the outcome of the trail conducted in UP and suggested to compile the data to prepare the final report. (Action: Dr. P. Kumaresan, Co-PI)
6.	**MOT03011MI:** Popularization of mulberry sericulture in Kargil. (Ladakh U.T)	➢ House expressed satisfaction on silkworm rearing demonstration at Batalik sector of Kargil ➢ Advised to conclude the project on time and submit the concluding report by February 2024. (Action: Dr. Muttanna, PI)
7.	**PIE03012SI:** Evaluation of mulberry somatic hybrids.	➢ House expressed satisfaction on the progress of the project and suggested for Post cocoon analysis of the cocoon samples harvested during bioassay studies at STSC, Dehradun & CSTRI, Bangalore. (Action: Dr. Gulab Khan Rohela, PI)
8.	**PIB03013SI:** Development of high yielding quality mulberry (*Morus* spp.) genotypes under sub-tropical conditions of Northern India.	➢ Progress of the project was found satisfactory. ➢ Nursery may be maintained properly so that maximum number of seedlings could be raised for better screening & selection under PRT. ➢ The Chairman suggested to conduct the experimental trails as per the set mile stones. (Action: Dr. Santosh Kumar Magadum, PI)
9.	**PIC03014SI:** Evolving superior mulberry varieties for temperate region through *in vitro* mutagenesis.	➢ Progress found satisfactory and the Chairman suggested conducting the experimental trails as per the set experimental protocol of the project. (Action: Dr. Gulab Khan Rohela, PI)
➢ **INSTITUTE AS CI**		
10.	**PIE03001MI:** All India Coordinated Experimental Trials for Mulberry (AICEM) –Phase-IV	➢ Progress was found satisfactory ➢ House advised to make proper data recording for all the experimental sites. (Action: Zonal Coordinator, Co-PI & CI's)
11.	**MOE02015MI:** Evaluation of promising mulberry varieties, Bed disinfectant and low cost drip fertigation system for Eastern & North Eastern India *[Component II: Evaluation of high yielding and low stress tolerant*	➢ Progress was found satisfactory as per the set milestones. ➢ The Chairman suggested for proper data recording as per the experimental protocol of the project at all the locations and present data during next RAC. (Action: Dr. Santosh Kumar Magadum, CI &

	mulberry varieties C-01 & C-11]	Sh. Chattarpal, CI
12.	**MTL01025MI:** Life cycle assessment of Mulberry silk	➢ Progress was found satisfactory. The Chairman suggested expediting the process of procurementof instruments and consumables. (Action: Dr. Kiran R, CI)
13.	**ARE01029MI:** Recommendations of novel fungicidal and insecticidal applications for mulberry	➢ Progress was found satisfactory as per the set milestone. The Chairman suggested expediting the process of procurement of instruments and consumables in time bound manner. ➢ The plots selected for treatment may be maintained properly. ➢ (Action: Dr. Pawan Saini, CI/ Sh. Chattarpal, CI)
14.	**AIB02019MI:** Development of bivoltine hybrids with higher productivity and high temperature & humidity tolerance through Marker assisted selection.	➢ The Progress of the project was found satisfactory. The Chairman suggested to conduct the further experiment as per the set mile stone. (Action: Dr. Kiran R, CI)
15.	**MTS13002MI:** Impact assessment of mulberry sericulture technologies in India	➢ The Chairman suggested to expedite the data collection process as per the project documents for its onward submission to the concerned PI. (Action: Dr. K. Ashok Kumar, CI)

AGENDA NO. 7: R&D HIGHLIGHTS OF THE INSTITUTE UPTO SEPTEMBER 2023

Dr. N. K. Bhatia, Director, CSRTI, Pampore presented the R&D highlights of the institute for the period, March, 2023 to September, 2023. The Chairman appreciated the R&D activities initiated by the Institute, especially for the upcoming of new silkworm single and double hybrid suitable for the Northwest India.

AGENDA NO. 8: Trial of Technologies (OSTs/ OFTs)

The suggestions/recommendations related to OSTs/OFTs have been mentioned under ongoing research project entitled "Evaluation of improved mulberry silkworm hybrids and technologies for North & North West India (**MOE03010SI)**" at Item No. 6.

AGENDA NO. 9: EXTENSION (ECP) AND OTHER PROGRAMMES

- Impact of Extension Communication Program (ECP) may be assessed as per the set schedule.
- Target for the year 2023-24 may be completed as per action plan.

(Action: Incharge, SEEM Division and RSRS Jammu/Sahaspur)

AGENDA NO. 10: TRAINING (CBT) AND OTHER PROGRAMMES:

- Impact of training programmes may be assessed as per the set schedule.
- Target for the year 2023-24 may be completed as per action plan.

(Action: In charge, Training Division and RSRS Jammu/Sahaspur)

AGENDA NO. 12: CONCLUDING REMARKS FROM RAC MEMBERS

1. **Dr. M. A. Khan, Ex-Director, Central Silk Board.**
   - Sericulture extension mechanism, especially through CSB RECs and by SDD and DoS may be further strengthened.
   - RSRS should be provided with sufficient scientists.
   - A sericulture model may be developed at P4 Farm Manasbal to demonstrate to various stake holders.

2. **Sh. Nazeer Ahmad Saheb, Scientist-D, RCS, CSB, Bangalore.**
   - All the approved project proposals must be forwarded to the Central office for coding to start the work in time.
   - All the scientist of CSR&TI, Pampore are requested to initiate process of uploading their projects on e-SubMIS.

3. **Dr. A.K. Roy RAC, Member**
   - Suggested to go for strategic and applied research.
   - It is advised to take entrepreneurship related training programme in sericulture
   - There should be Green Cocoon Marketing facilities for the sericulture farmers.

4. **DOS, Uttar Pradesh (Representative)**
   - Requested for early sprouting mulberry varieties and season specific silkworm hybrids.
   - Climate change affecting silkworm rearing which needs immediate intervention

5. **DOS, Uttarakhand (Representative)**
   - Requested for heat tolerant varieties and CRC training.
   - DOS requested chairperson and Director CSR&TI, Pampore to visit Uttarakhand sericulture area.

6. **DOS, Himachal Pradesh (Representative)**
   - Requested CRC training programme for DOS officials.

7. **Sh. Shukbir Singh,DOS, Punjab (Representative)**
   - Requested for CRC training programme.
   - Scientific intervention are required to increase productivity from 30-40kg/100 dfls to the level of 65kg/100dfls

8. **Prof. (Dr.) Nazeer Ahmed, Chairman, RAC**
   - Chairman appreciated online presence of all the DOS Directors/ representative in the meeting but desired the participation on physical mode for meaningful discussion.

- Chairman expressed dissatisfaction on fund utilization and non-procurement of equipment's and essentials in time. Chairman, Impression upon Director and concerned scientists for speeding up the process for timely completion of the projects activities.
- The suitable extension model may be worked out along with state DoS/SDD for entire north-west India in wake up of shrinkage of extension services/manpower.
- Chairman suggested to develop model sericulture village involving 20-25 sericulture farmers to show and demonstrate improved technologies for increasing cocoon productivity and income.
- Chairman strongly suggested for compiling Package of Practices (POP) of sericulture and publishing the same by end of financial year 2023-24.
- Chairman Suggested to conduct maximum CB&T/ECP programmes from first quarter itself and advise to take especial financial approval from the central office for the same.
- Chairman Advised to take up project on forage crop/medicinal/aromatic plant as intercrops with mulberry to enhance fodder availability & income of farmers.
- Assess the region for prevailing yield gap and high mortality during rainy season and provide immediate technological intervention to overcome.
- Public Private Partnership (PPP) may be promoted to improve chawkie rearing by linking Self Help Group (SHG) with department of sericulture and Community rearing may also be promoted.
- Chairman advised for documentation of success stories from selected farmers of North-west India.
- Chairman and members advised Sh. P. Kumaresan, Scientist-D, to submit the full length research proposal on "*Development of adaptive Bivoltine silkworm (Bombyx mori L.) Hybrid through introgression of wild gene for temperate sericulture*" for approval from the central office Bangalore in view of highly encouraging results.

Prof. (Dr.) Nazeer Ahmed,
Chairman, RAC
CSR&TI, Pampore

Annexure-I

List of participants attended 46th RAC meeting of CSR&TI, Pampore

1. Prof. (Dr.) Nazeer Ahmed, Chairman & Former VC, SKUAST-Kashmir.
2. Sh. Manzoor Ahmad Qadri, Director General, SDD, J&K.
3. Dr. M.A. Khan, Ex-Director, CSB, Bengaluru.
4. Dr. N.K. Bhatia, Director & Member Convener, CSR&TI Pampore.
5. Dr. A. K. Roy, Principal Scientist-IGFRI, UP(Online)
6. Dr. R. K. Gupta, Professor,SKUAST-Jammu(Online)
7. Smt. Shivani Chagti, Representative, DoS, Punjab(Online)
8. DOS,UP Representative(Online)
9. DOS, Uttarakhand Representative(Online)
10. Smt. Inderjeet Kour, Representative (Online)
11. Sh. Avtar Singh Raina, Representative (Online)
12. Dr. Sardar Singh, Scientist-D&Incharge, RSRS, Sahaspur (Online)
13. Dr. Ashok Kumar Kasukurthi, Scientist-D, CSR&TI, Pampore
14. Dr. Irfan Illahi, Scientist –D, CSR&TI, Pampore
15. Shri. P Kumaresan, Scientist-D, CSR&TI, Pampore
16. Dr. Santosh Kumar Magadum, Scientist-D &Incharge, RSRS, Jammu (Online)
17. Dr. Pawan Saini, Scientist-C, CSR&TI, Pampore
18. Dr. Gulab Khan Rohela, Scientist-C, CSR&TI, Pampore
19. Sh. N. Bharath Kumar, Scientist-C, CSR&TI, Pampore
20. Dr. Muttanna, Scientist-C, CSR&TI, Pampore
21. Dr. Kiran R., Scientist-C, CSR&TI, Pampore.
22. Smt. Jameela Akhther, Field Assistant, CSR&TI, Pampore.
23. Smt. Nida Mushtaq, Field Assistant, CSR&TI, Pampore.