

**MINUTES OF THE 56<sup>th</sup> MEETING OF RESEARCH COUNCIL HELD ON 30 - 31,  
JULY 2014 AT CSR&TI, MYSORE**

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The 56<sup>th</sup> meeting of the Research Council of CSR&TI, Mysore was held on 30-31<sup>st</sup>, July 2014 to review the new project proposals submitted by the scientists, out come of concluded research and to take stock of the progress of on-going project/ programmes of the Main Institute and its nested units. The meeting was presided over by Dr. V. Sivaprasad, Director of the Institute and the Chairman, Research Council (RC). The list of the participants is appended at Annexure-I.

Dr. S. K. Ashwath, Scientist-D (DC, PMCE) welcomed Dr. V. Sivaprasad, Director and the Chairman, RC and all participant scientists of the Institute & nested units attending the meeting. He also welcomed the invitees, Dr. P. Jayaramaraju, Sc-D, RCS, CSB, Dr. A.K. Awasthi, Sc-D, SBRL, Dr. Ravindra Singh, Sc-D, SSTL, Bangalore, Dr. M.M. Borpuzari, Sc-D, Dr. N.Balachandran, Sc-C, Dr. K. Jhansilakshmi, Sc-D and Dr. S. Nivedita, Sc-D from CSGRC, Hosur. He requested the Chairman, RC for his opening remarks and sought permission to take up the agenda points.

Dr. V. Sivaprasad, Director & Chairman RC while welcoming all the invites and participants, informed the house that as per the RFD target of the Institute, 16 new projects have to be initiated before March 2015. In this regard he advised the scientists to prepare the new projects which need to be sent to CO for clearance prior to seeking the referees' comments and placing before the newly constituted RAC.

Thereafter, agenda-wise discussions were held as follows:

**ITEM NO. 1: CONFIRMATION OF THE MINUTES OF THE 56<sup>th</sup>  
MEETING HELD ON 25<sup>th</sup> NOVEMBER, 2013**

As no comments were received from any of the members, the minutes of the 55<sup>th</sup> RC meeting were confirmed.

**ITEM NO. 2: REVIEW OF THE FOLLOW UP ACTION TAKEN ON THE  
DECISIONS OF PREVIOUS MEETINGS**

**A. Follow up action taken on the decision of the 55th meeting of research council  
held on 25 – 26th, November 2013.**

Regarding preparation of a pamphlet on ready reckoner for fertilizer recommendation to the mulberry soils of southern states, it was suggested that the same needs to be made in all languages.

**[Action: Head, Soil Science Lab & Sc-D (Publicity)]**

With reference to the quality tests of the products of the Institute, all the nested units were advised to send the samples for quality check to the Institute whenever bulk purchases are made from the distributor/manufacturer. Further the Chairman suggested constituting an IPR committee in the Institute to review the patent and commercialization activities on quarterly basis by inviting Dr. Lakshminarayan, from NRDC.

**[Action: DC, PMCE and All RSRsSs]**

Regarding the new project proposal on “Analysis of inbreeding depression on fitness and quantitative traits in near isogenic lines of silkworm *B. mori*”, Dr. K.K. Sharmila and Dr. Kishore Kumar were advised to submit the proposal by including all the authorized breeds

**[Action:Dr.K.K.Sharmila,Sci-D,SW Genetics & Dr.Kishore Kumar, Sci-D,BBL]**

The Chairman suggested the scientists of breeding laboratory to prepare new projects on development of new ICBS for Southern States as well as improvement of Pure Mysore.

**[Action: Dr.Dayanada,Sci-D, SW Lab-II]**

While discussing on importance of knowing the level of adoption of various technologies, it was suggested to prepare a common format to be circulated to all nested units for assessing the impact in terms of mulberry yield, cocoon production and income.

**[Action: DC (Extension) & RSRs]**

Regarding ISDS training programmes conducted at main institute and RSRs, the chairman suggested to collect feed back on placement and self employment records which will be evaluated by the third party. Further, it was advised to submit a proposal for enhancement of the conveyance charges to C.O. for approval as many of the ISDS trainees are from far off places.

**[Action: DC (Trg) & RSRs]**

The Chairman informed that, during last HAC meeting held at Bangalore it was suggested that the authorized hybrids developed from CSRTI, Mysore needs to be tested for large scale trials in Himachal Pradesh U.P., and Jammu and Kashmir in consultation with DOS's. It was suggested that the hybrids developed at SSBS Coonoor also needs to be tested with farmers in temperate climate and accordingly, the scientists of breeding laboratory were advised to prepare a project proposal .

**[Action: Dr. Mal Reddy, Sc-D & Dr. R. Gururaj, Sc-D, SSBS Coonoor]**

The Chairman suggested to workout the requirement, multiplication and expansion of new varieties like G2, G4, Vishala, Anantha, RC1, RC2, S13 etc. and the progress needs to be reviewed on monthly basis. RSRs,Ananthpur was advised to send to status report on the popularization of Anantha mulberry variety.

**[Action: Dr. T. Tippeswamy DC(Host plant) and Sc-D, RSRs,Ananthpur ]**

RSRs, Kodathi, and RSRs, Salem were suggested to send fresh proposals for the purchase of photo flame meter and atomic absorption meter by calling fresh quotations.

**[Action: Sc-D, RSRs, Kodathi and Salem ]**

With regard to the concluded project on Development of database of mulberry diseases, the PI was asked to refer the material hosted in other websites on the same subject and update the content so that there is no redundancy.

**[Action: P. M. Pratheesh Kumar, Sc-C, Mulberry pathology]**

While reviewing the concluded programme on Long-term effect of mulberry cropping system on soil biology, the Chairman suggested the PI to formulate a new project proposal in consultation with Dr. V.Gunashakar and Dr. Girish Naik.

**[Action : Dr. V. Nishita Naik, Sci-C, Mulberry Pathology]**

Regarding the Programme on Development of alternate techniques in loose egg preparation for improvement of grainage operations, the Chairman suggested to conduct the trials on large scale in SSPCs of NSSO.

[Action: Mr. S.B. Kulkarni, Sci-C, Grainage]

## **B. FOLLOW UP ACTION TAKEN ON THE DECISION OF THE 37th MEETING OF RAC HELD ON 28.02.14**

With regard to evaluation of reproductive fitness of authorized silkworm breeds, the Chairman suggested the breeders to formulate a collaborative project with CSGRC, Hosur and SSTL, Kodathi to analyze the reproductive efficiency and grainage parameters.

[Action: Scientists of breeding laboratory]

Regarding the daily calendar of operations prepared by RAC member Sri Gurumurthy Setty, Chittoor, Sc-D, RSRS, Ananthapur was advised to review the same and refine the calendar of operations.

[Action: Sc-D, RSRS, Ananthapur]

While discussing the issue of higher renditta of bivoltine hybrids in the field pointed out by Mr. Ahmed Sab, Reeler of Anantapur, the Chairman suggested to constitute a team of CDFs in CPP clusters to analyze the renditta by collecting samples crop wise in different clusters and data compared with the state's average on quarterly basis.

[Action: Sci-D, Extension]

## **C. NEW PROJECTS/PROGRAMMES PROPOSED FOR CONSIDERATION DURING 56<sup>TH</sup> RC**

- 1. Development of bioformulations of identified endophytic bacteria for the growth promotion of mulberry (Morus spp.)– by V.Gunasekhar and V.K. Yadav.*
- 2. Field validation of effective bioformulations of endophytic bcas for the control of root rot disease of mulberry in selected farmers' gardens. (OFT) – by V. Gunasekhar, Nishita Naik (CI).*

**Decision:** It was advised to combine both projects and take up the study as a large scale OFT programme at RSRSs. Also to incorporate the earlier works done at mulberry pathology and molecular biology labs.

[Action: V. Gunasekhar Sci-C, Agronomy]

- 3. Development of modified spacing with special reference to plant geometry for sustainable leaf production in mulberry – by V. K. Yadav and Dasappa*

**Decision:** It was suggested to take up as a field study by identifying the gardens with wider spacing in southern states and the Co-investigators may be included from respective RSRSs/RECs.

[Action: Sri.V.K. Yadav, Sc-C, Agronomy and DC (Host plant)]

- 4. Development of package of practices for production of exclusively organic silk- a Multi-disciplinary project – by Dasappa*

**Decision:** Suggested to finalize the components and incorporate packages for disinfection, silkworm rearing and reeling, to have a compact package for organic silk and economics to be worked out for producing silk from one acre of mulberry garden. It was advised to contact Mr.Tandon, Sericare, Bangalore who is maintaining organic mulberry garden and also to obtain guidelines from European consortium or other sources about the procedure, parameters to obtain the quality certificate for organic silk.

[Action: Dasappa, Sc-D, Agronomy and DC (Host plant)]

5. *Investigation on effect of biofumigation with Brassica plants to control root knot disease of mulberry and to improve soil health and mulberry productivity – by P.M. Prateesh Kumar, V. Nishitha Naik and S. Sen*

**Decision:** Suggested to explore the use of other nematicidal plants also which are utilized in other agricultural crops and to study the feasibility of using brassica plants as intercrop which may entail new pests and diseases.

[ Action: Dr. P.M. Prateesh Kumar, Sc-D, Mulberry Pathology]

6. *Investigation on pathogens associated with root rot disease complex of mulberry & development of a multiple pathogen targeted formulation to control the disease – by P.M. Pratheesh Kumar*

**Decision:** The project may be deferred till the results of the field study of Dr. Gunasekhar on the use of bacterial consortium and screening by Dr. Girish Naik on the pathogens causing root rot are completed.

[Action: Dr. P.M. Prateesh Kumar, Sc-D, Mulberry Pathology]

7. *Drought management practices on Mulberry Seri-culture – by A. Mahima Santhi*

**Decision:** The committee approved the project for 3 years with a suggestion to include critical parameters associated with drought and the mechanism to be worked out for providing incentives to farmers using new hybrids suitable for drought situation.

[Action: Mahima Santhi A, Sc-C, Extension Division]

8. *A Study on the impact of pest and disease management practices among the farmers under cluster promotion programme in South India – By B. Gangadhar*

**Decision:** The committee approved the project for a period of two and half years.

[Action: B. Gangadhar, Sc-D, Extension Division ]

9. *Popularization of bivoltine single and double hybrids suitable to rear on semisynthetic diet in Karnataka and Tamilnadu through Private diet Chawki rearing Centers- by M. Munirathnam Reddy, Scientist –D.*

**Decision:** The committee suggested to conduct in-house large scale trials with the diet at TVDC and CRC of the Institute and depending on the results, decision can be taken to initiate the project. It was also suggested to hand over the breeds developed for artificial diet to CSGRC, Hosur and the same need not be maintained in the Institute.

[Action: Munirathnam Reddy, M. Sc –D, Silkworm Physiology]

10. *Development and refinement of shoot racks and mountages – by S. Purushotham (PI) and D.S. Somprakash (CI)*

**Decision:** The committee did not approve the study as the proposed refinements of rearing racks are not user friendly and practically not feasible.

11. *Evaluation and refinement of different types of rearing houses in Mysore and Hassan District - by D.S. Somprakash (PI), S. Purushotham and Satish Verma*

**Decision:** The committee suggested to revise the project by incorporating the innovative design and fabrication of rearing houses and come out with 2-3 models.

[Action: D.S. Somprakash, Sci-D, RTI]

12. *Studies on the causative organism and biotic and soil abiotic factors influencing the root rot diseases in mulberry at RSRS Kodathi farm - by Ambika P.K*

**Decision:** The committee did not agree with the proposal as the study is already completed at the Main Institute.

13. *Evaluation of new mulberry varieties under the semi arid condition of RSRS Kodathi by Philomena K.L.*

**Decision:** As mulberry varieties are already evaluated under AICEM trials, this study need not be taken up as a project and only demonstration plots can be maintained at RSRS, Kodathi.

[Action: Sci-D, RSRS, Kodathi]

14. *Improvement of Pure Mysore race with reference to reproductive efficiency, hybrid vigor and silk quality – by Dayananda, Sc-D.*

**Decision:** The committee agreed to take up the work as it is one of the thrust area suggested by CSB. It was advised that various sub-lines can be developed for post-cocoon parameters for improved fibre quality by directional selection while retaining all the Pure Mysore traits.

[Action: Dayananda, Sc-D ]

15. *Studies on diversity of natural enemies in relation to the incidence of major pests of mulberry in Tamil Nadu, conservation and feasibility of their utilization in bio-control measures – by N. Sakthivel, REC, Srivilliputtur*

**Decision:** The Chairman informed that the above study will be covered under the proposed project of the main institute on survey and surveillance of pests and diseases in which all the RSRS units will be involved.

[Action: N. Sakthivel, Sc-D REC, Srivilliputtur]

16. *Studies on impact of adoption of different organic farming strategies in Tamil Nadu on soil health, yield parameters of mulberry and cocoon productivity – A pilot study – by N.Sakthivel,.*

**Decision:** It was suggested that instead of a pilot study, the work can be taken up as a project. The PI was advised to focus on effects of organic farming verses normal recommended package of practices, to have a comparison, to know the parameters which are fixed and collect the data, based on which the project can be formulated.

[Action: N.Sakthivel, Sc-D REC, Srivilliputtur]

17. *Studies on efficacy of new biocontrol agents for the management of pink mealy bug in mulberry – by J.B. Narendra Kumar*

**Decision:** The full fledged project needs to be prepared in consultation with NBAII, Bangalore. First year may be lab study and in second year NBAII may train our scientists for mass production and maintenance of cultures of biocontrol agents for popularization.

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

18. *Studies on pheromones and kairamones for the uzi management – by Dr. Vinod Kumar.*

**Decision:** The project can be taken up to develop the pheromone trap for the uzifly in collaboration with NBAII who have the expertise and equipments. Dr. M.N. Morrison, Sc-D, REC, Madivala may be associated with the study for evaluation of the traps.

**[Action: Dr. Vinod Kumar, Sc-D, PML]**

It was also suggested that PML can take up a pilot study for management of Thrips and white fly by using entomophagous fungi in collaboration with NBAII, Bangalore, involving Dr. M.N. Morrison from REC, Madivala and Dr. Mahiba Helen from RSRS, Salem.

**[Action: Dr. Vinod Kumar, Sc-D, PML]**

19. *Studies on oviposition stimulators – by R. Bhagya, Sc-D*

**Decision:** It was suggested to discuss with Dr. Ravikumar, Sc-D, SBRL, Bangalore who is working on this area on Tasar. Silkworm Physiology and grainage section can work together and the project may be prepared on similar lines for mulberry silkworm in collaboration with SBRL

**[ Action: Dr. R. Bhagya, Sc-D, Grainage and Dr. Munirathnam Reddy, Sc-D, SW Physiology]**

20. *Validation of new disinfection method – by Narasimha Naik*

**Decision:** It was suggested that the study can be taken as TOT programme for 2 years by installing demo units in RSRS/RECs, collect the data for one year and subsequently can be tested at farmers level during the next year.

#### **D. PROJECTS APPROVED IN 55<sup>TH</sup> RC AND TO BE PLACED BEFORE 38<sup>TH</sup> RAC WITH REFEREES COMMENTS**

1. *Development of drought tolerant productive mulberry genotypes by introgression of genes from transgenic lines through conventional breeding techniques – by S. Gandhi Doss (PI), Rajashekar, K..*
2. *Identification of mulberry genotypes for deficit irrigation practices through physiological and biochemical approaches – by M.G. Sabitha, S. Gandhi Doss and M. Munirathnamreddy*
3. *Enhancement of soil organic matter (SOM) in mulberry gardens through intensive manuring technologies for enhanced quality mulberry leaf and cocoon production – by P. Sudhakar and Hanumantharayappa, K. L.*

4. *Molecular genetic diversity evaluation among authorized silkworm breeds to develop robust silkworm breeds and hybrids for higher productivity with quality silk through molecular breeding approach – by Virendra Kumar.*

The Director informed that all projects needs to be sent to CO for clearance prior to sending to the referees and placing before the RAC.

[Action: PMCE]

## **E.DISCUSSION ON COLLABORATIVE PROJECTS WITH OTHER CSB INSTITUTES**

Dr. Borpuzari, Sc-D, CSGRC, Hosur briefed about the proposed projects to be carried out in collaboration with CSRTI, Mysore on drought tolerance in mulberry, pre-breeding in multivoltine genetic resources for combining ability, silk quality and productivity, development of improved multivoltine lines for silk quality using marker assisted selection and proteomics of silk quality in mulberry silkworm. He requested to identify the investigators from the Institute. Dr. Nivedita, Sc-D, explained about the collaborative project with post-cocoon unit of the Institute to develop products using waste silk, like decorative paper with silk finish, dyeing with mulberry, etc.

Dr.A.K. Awasthi, Sc-D, SBRL explained about the breeds developed for NPV resistance through SSR marker assisted selection. He wanted the breeds to be evaluated in the Institute and the breeds will be supplied during the II week of August 14. Further he briefed about the collaborative project on transcriptome analysis for silk quality.

Dr. Ravindra Singh, Sc-D, SSTL agreed to associate with the collaborative project on analysis of reproductive efficiency of improved lines of Pure Mysore and also the newly developed silkworm breeds of the Institute.

## **E. CONCLUDED PROJECTS/PROGRAMMES:**

The following concluded projects were reviewed.

**1. PIB 3268:** Development of superior mulberry varieties suitable for moisture stress environments (Phase-I).

It was suggested that future course action may be finalized for evaluating the identified genotypes in drought prone areas of West Bengal and J & K through multi-locational trials.

**2. PRE-3467:** Evaluation of available management strategies of giant African snail, *Achatina fulica* Bowdich in mulberry eco-system.

The committee noted that the technology is ready for effective management of giant African snail in mulberry which can be utilized as a firefighting mechanism whenever the incidence is reported.

**3. PPE-3455:** Habitat studies:- Impact of crop diversity on the conservation and performance of natural enemies in mulberry eco-system.

It was suggested to clearly indicate the outcome of the study and future course of action with relevant data for presentation in the RAC.

- 4. AIP 3478:** Studies of mulberry leaf nutrition on intermediary metabolism of silkworm *Bombyx mori* L.

It was noted that the work is only a basic study and the PI was advised to complete the correlation studies and submit the concluded report with the outcome for presentation before the RAC meeting.

- 5. MOE 3458 :** A study on adoption of pest and disease management strategies in sericulture.

It was suggested that the adoption of technologies can be shown through graphs instead of % for CB and bivoltine hybrids separately. The committee suggested the need of increasing the adoption level of IPM through ECPs in CPP areas.

The following concluded institute coded programmes were reviewed.

- 1. MPT- 0046:** Long-term ecological research – Effect of mulberry cropping system on soil biology and productivity
- 2. SEM 0050-** Demonstration of uzi fly management strategies in an adopted village of Srirangapatna taluk..
- 3. MPT(S)-0054(Pilot Study):** Standardization of Thermal Weeding techniques for mulberry garden.

## **F. REVIEW OF ONGOING PROJECTS/ PROGRAMMES**

The Chairman informed that the Projects / Programmes taken up by the Institute have already been reviewed on 7<sup>th</sup> & 8<sup>th</sup> July 2014 and hence these need not be presented.

The following projects/ programmes of nested units were reviewed.

### **P4 Basic Seed Farm, Hassan**

#### ***SIM 0015: Bivoltine silkworm race maintenance and multiplication***

The Chairman advised that P4, BSF, Hassan should focus only on maintenance of popular silkworm breeds like CSR2, CSR4, CSR6, CSR26, CSR27 and as a back up, CSR16 and CSR17 and maintenance of other breeds can be discontinued. The main thrust should be given for quality of dfls produced, especially disease status and henceforth not to take up supply P2 or P1 dfls and excess cocoons can be marketed.

Further it was advised to rear the silkworm breeds in separate rooms and isolate pebrine free batches with a target of zero % pebrine.

**[ Action: Dr. G.V. Kalpana, Sc-D, P4, BSF, Hassan]**



## **Setellite Silkworm Breeding Station Coonoor**

*SIM 0016: Maintenance of bivoltine silkworm breeder's stock / germplasm*

*SIM 0017: Bivoltine Shuttle breeding for development of silkworms with better plasticity*

It was suggested that SSBS, Coonoor will formulate a project on evaluation of hybrids developed by SSBS, Coonoor and CSRTI, Mysore in the northern region. The hybrids will be short-listed by the main institute and CSRTI, Pampore for different states. The parents of the selected hybrids should be maintained and hybrid dfls have to be produced and supplied to meet the requirement of northern states.

Further, it was suggested that SSBS, Coonoor can also function as a back up centre for maintenance of pebrine free P4 layings of CSR2, CSR4, CSR6, CSR26 and CSR27.

The eight lines developed at SSBS, Coonoor may be sent to Pampore for validation at temperate regions and promising lines if any can be maintained at Pampore. With regard to maintenance of other germplasm breeds, decision has to be taken to cut down the number of breeds taking into consideration the pedigree and performance.

[ **Action: Sc-D, SSBS, Coonoor**]

## **RSRS, Chamrajnagar**

*PPF 3500: Development of Seri-lac culture model for income augmentation (Inter Institutional Project with Indian Institute of Natural Resins and Gums, Ranchi)*

The committee noted the progress of the project which was as per the milestones.

## **RSRS, Ananthapur**

*MIP(A) 5001: Evaluation of elite mulberry varieties under semi-arid agro climatic conditions*

It was advised that the actual names of the varieties can be shown in the presentation instead of mentioning them as MV1, MV2 etc.

[**Action: Sc-D, RSRS, Ananthapur**]

## **RSRS, Salem**

*PRE 3512: Identification the pest status and eco-friendly management of mulberry thrips*

*Monitoring the spread of papaya mealybug in Tamil Nadu and mass production of its parasitoid (New programme to be coded)*

*MPR(S) 8009: Comparative study on the effect of split application of fertilizers in solid and liquid form on mulberry leaf yield, fertilizer saving, reduction in weed and pest incidence and rearing performance*

*MPR(S) 8008: Impact of plant protection strategies on mulberry ecosystem in important sericultural areas of Tamil Nadu*

With regard to the collaborative project PRE 3512 of RSRS, Salem with NBAIL, Bangalore, the Chairman suggested to release the I year grant to NBAIL, Bangalore from R & D funds of the Institute.

**[Action: Dr. S.K.Ashwath, Sci-D,PMCE]**

Regarding the Programme No. MPT(S) 8008 on impact of plant protection strategies on mulberry ecosystem, the Chairman suggested the PI to take up the study by formulating a new project including all RSRSs.

**[Action: Mr. J. Ravikumar, Sc-D, RSRS, Salem]**

**General points:**

The Chairman suggested that the research should be done only through project mode and henceforth only projects coded by CSB will be taken up. The programmes on technologies generated from concluded projects can be taken up under TOT for popularisation. Any pilot study can be taken up to generate information to improve the project proposal which has been conceptualized and the results can be presented before RAC justifying the feasibility of taking up a new project.

It was informed that utilization of the outcome of each project is very important and this needs to be submitted in the format suggested by C.O and the same may be presented before the next RAC.

Chairman informed that hereafter there are no Pre or post authorization trials, only authorization trials with 5 lakh of dfls to be tested in the field and if found promising, the selected hybrid will be authorized.

The Chairman informed the house that it is proposed to conduct brainstorming sessions at CSRTI, Mysore on silkworm and at CSB, Bangalore on mulberry to come out with new research projects for DBT funding.

The Chairman advised all the scientists to submit the concept notes to PMCE and after analyzing the feasibility, the projects can be prepared and sent to C.O. for clearance.

**[Action : For all the concerned ]**

The meeting ended with vote of thanks.

**Sd/-  
Director and Chairman,  
Research Council**

**Annexure-I**

**List of participants attended the Research Council meeting held on 30<sup>th</sup> & 31<sup>st</sup> July  
2014 at CSRTI, Mysore**

#	Name	Designation	Section/Unit
1.	Sivaprasad. V. (Dr.)	Director, CSRTI, Mysore	Chairman, Research Council
2.	Jayaramaraju. P. (Dr.)	Scientist-D	RCS, CO, Bengaluru
3.	Ravindra Singh (Dr.)	Scientist-D	SSTL, Kodathi
4.	Borpuzari M.M.(Dr.)	Scientist-D	CSGRC Hosur
5.	Awasthi A.K. (Dr.)	Scientist-D	SBRL
6.	Chikkanna (Dr.)	Scientist-D & I/C	RSRS,Salem
7.	Rajanna.K.L (Dr.)	Scientist-D & I/C	RSRS, Kodathi
8.	Satyanarayana Raju Ch.	Scientist-D & I/C	RSRS, Ananthapur
9.	Srikantaswamy K.S. (Dr.)	Scientist-D & I/C	RSRS, Chamrajanagar
10.	Ashwath, S. K. (Dr.)	Scientist-D & DC (PMCE/SW)	CSRTI, Mysore
11.	Vindhya, G. S (Dr.)	Scientist-D & DC (Extension)	CSRTI, Mysore
12.	Satish verma (Dr.)	Scientist-E & DC ( SED)	CSRTI, Mysore
13.	Thippeswamy, T. (Dr.)	Scientist-D & DC (Host Plant)	CSRTI, Mysore
14.	Sharma, S. D. (Dr.)	Scientist-D & DC (Training)	CSRTI, Mysore
15.	Ambika P.K.. (Dr.)	Scientist-D	RSRS Kodathi
16.	Anbazhagan	Scientist-C	REC Udumalpet
17.	Arjun S.B.	TA	REC SU Bijapur
18.	Babu A.M. (Dr.)	Scientist-D	REC SU Avinashi
19.	Babu C.M. (Dr.)	Scientist-C	REC Udumalpet
20.	Balachandran N	Scientist-C	CSGRC Hosur
21.	Balasaraswathi, S. (Dr.)	Scientist-D	REC, Krishnagiri
22.	Balavenkatasubbaiah,M(Dr)	Scientist-D	CSRTI, Mysore
23.	Bhagya, R. (Dr.)	Scientist-D	CSRTI, Mysore
24.	Chandrasekhar, K. B.	Scientist-D	P4 BSF, Hassan
25.	Choudary, N. B. (Dr.)	Scientist-D	REC, SU, Giddalur
26.	Dahira Beevi, N.	Scientist-D	REC, Gobichettipalayam
27.	Dasappa (Dr.)	Scientist-D	CSRTI, Mysore
28.	Dayananda (Dr.)	Scientist-D	CSRTI, Mysore
29.	Gandhi Doss, S. (Dr.)	Scientist-C	CSRTI, Mysore
30.	Gangadhar, B. (Dr.)	Scientist-D	CSRTI, Mysore
31.	Geetha, G. S.	Scientist-C	CSRTI, Mysore
32.	Girish Naik, V. (Dr.)	Scientist-D	CSRTI, Mysore
33.	Gnanakumar Daniel, A.	Scientist-D	REC, Samayanallore
34.	Gopinath, O. K.	Scientist-C	REC, SU, Vaniyambadi
35.	Gunasekhar,V. (Dr.)	Scientist-C	CSRTI, Mysore
36.	Gururaj, R.	Scientist-D	SSBS,Coonor
37.	Humayun Sharief Y	Scientist-C	REC SU Berigai
38.	Isac Joseph	Scientist-C	REC Avinashi
39.	Ishwar	Scientist-C	REC, SU, Bidar
40.	Jayaram, H. (Dr.)	Scientist-D	REC, SU, Shimoga
41.	Jhansilakshmi K. (Dr.)	Scientist-D	CSGRC Hosur
42.	Kalpana, G. V. (Dr.)	Scientist-D	P4 BSF, Hassan
43.	Karande, A. J.	Scientist-C	REC, Parbhani
44.	Kariyappa (Dr.)	Scientist-D	CSRTI, Mysore

#	Name	Designation	Section/Unit
45.	Kasi Reddy, B. (Dr.)	Scientist-D	RSRS,Anatapur
46.	Katiyar, R. S.	Scientist-C	CSRTI, Mysore
47.	Khare, R. K.	Scientist-C	REC, Hoshangabad
48.	Khushawa R.V.	Scientist-D	REC Amaravati
49.	Kishore Kumar C.M. (Dr.)	Scientist-D	CSRTI, Mysore
50.	Krishnappa B.M. (Dr.)	TA	REC SU Shahapur
51.	Kulkarni, S. B.	Scientist-C	CSRTI, Mysore
52.	Lakshmanan, V.	Scientist-D	REC, SU, Bidarguppe
53.	Mahalingappa, K. C.	Scientist-C	REC, SU, Kinkanahalli
54.	Maheswari M (Dr.)	Scientist-D	RSRS Kodathi
55.	Mahiba Helen, S. (Dr.)	Scientist-C	RSRS, Salem
56.	Mahima Santhi, A. (Dr.)	Scientist-C	CSRTI, Mysore
57.	Mal Reddy, N. (Dr.)	Scientist-D	CSRTI, Mysore
58.	Malreddy, N (Dr.)	Scientist-D	CSRTI, Mysore
59.	Mani A.	Scientist-D	REC Gobi
60.	Manthira Moorthy, S. (Dr.)	Scientist-D	CSRTI, Mysore
61.	Mary Flora, C. A.	Scientist-C	RSRS, Salem
62.	Mary Josepha, A.V. (Dr.)	Scientist-D	CSRTI, Mysore
63.	Masilamani, S. (Dr)	Scientist-C	REC, Krishnagiri
64.	Mogili, T. (Dr.)	Scientist-D	REC, V. Kota
65.	Mohan B.	Scientist-C	REC Srivilliputtur
66.	Mukund V. Kirsur	Scientist-D	CSRTI, Mysore
67.	Munikrishnappa, H. M.	Scientist-C	CSRTI, Mysore
68.	Muniratnam Reddy, M.(Dr)	Scientist-D	CSRTI, Mysore
69.	Murthy, B. N. (Dr.)	Scientist-D	REC, Madakasira
70.	Nagaraj, S. B.	Scientist-D	CSRTI, Mysore
71.	Narasimha Nayaka, A. R.	Scientist-C	CSRTI, Mysore
72.	Narendra Kumar, J. B.	Scientist-D	CSRTI, Mysore
73.	Niranjana Murthy G.N.	TA	REC CTD
74.	Nishitha Naik, V. (Dr.)	Scientist-D	CSRTI, Mysore
75.	Nivedita S. (Dr.)	Scientist-D	CSGRC Hosur
76.	Noble Morrison, M. (Dr.)	Scientist-D	REC, Madivala
77.	Pallavi, S. N.	Scientist-C	RSRS Chamarajanagr
78.	Paramwshwar C	Scientist-C	CSRTI, Mysore
79.	Philomena K.L.	Scientist -D	RSRS Kodathi
80.	Pradeep Shulka (Dr.)	Scientist -C	Burhanpur
81.	Prasad G.V. (Dr.)	Sicentist-D	Palamner
82.	Pratheesh Kumar, P. M.(Dr)	Scientist-D	CSRTI, Mysore
83.	Punithavathy	Sicentist-D	REC Udumalpet
84.	Purushotham, S.	Scientist-C	CSRTI, Mysore
85.	Radhakrishnan, S.	Scientist-C	RSRS, Salem
86.	Radhalakshmi, Y. C. (Dr.)	Scientist-D	CSRTI, Mysore
87.	Raghunath M.K. (Dr.)	Scientist-C	REC SU Ranebennur
88.	Rahul Singh	Scientist-C	REC, Aurangabad
89.	Rajakumar, S.	Scientist-C	RSRS, Salem
90.	Rajalakshmi, E.	Scientist-C	SSBS, Coonoor
91.	Ramprakash	Scientist-D	REC, Baramati

#	Name	Designation	Section/Unit
92.	Raveendra Mattigatti (Dr.)	Scientist-C	REC SU Kudligi
93.	Ravikumar, J. (Dr.)	Scientist-C	RSRS, Salem
94.	Ravikumat G.M.	TA	REC SU Jamakhandi
95.	Reddy M.P.(Dr.)	Scientist-D	CPC Hindupur
96.	Reddy P.S. (Dr.)	Scientist-C	REC SU Suryapet
97.	Renukeshwarappa J.P.	Scientist-C	CSRTI, Mysore
98.	Sabitha, M. G.	Scientist-C	CSRTI, Mysore
99.	Sakthivel, N. (Dr.)	Scientist-D	REC, Srivilliputtur
100	Samuthiravelu, P. (Dr.)	Scientist-C	REC, Hosur
101	Santha, P. C. (Dr.)	Scientist-C	CSRTI, Mysore
102	Sarala, K.	Scientist-C	REC, Palakkad
103	Selvaraju N.G.	Scientist- D	REC SU Trichy
104	Shanthan Babu, M. A.	Scientist-C	RSRS, Salem
105	Sharief A.A.	TA	CDF
106	Sharmila, K. K. (Dr.)	Scientist-C	CSRTI, Mysore
107	Shivashankar, N.	Scientist-C	RSRS Kodathi
108	Siamala M	Scientist-C	REC Palakkad
109	Sibayan Sen	Scientist-C	CSRTI, Mysore
110	Sivasubramaniyan	Scientist-C	REC Samayanallur
111	Somaprakash, D. S. (Dr.)	Scientist-D	CSRTI, Mysore
112	Soudamini, P. V.	Scientist-C	REC, SU, Kalpetta
113	Srinivas Rao, T.V.S. (Dr.)	Scientist-D	REC SU, Chebrolu
114	Srinivas, B. T.	Scientist-D	CSRTI, Mysore
115	Subrahmanyam, M. R. (Dr.)	Scientist-C	REC, SU, Kanakapura
116	Sudhakar, P. (Dr.)	Scientist-C	RSRS, Kodathi
117	Suma, A. S.	Scientist-C	CSRTI, Mysore
118	Vedavyasa K.	Scientist-C	REC SU Tumkur
119	Venkatachalapathy, M. (Dr)	Scientist-C	REC, Raychoti
120	Venkateswara Rao, M. (Dr)	Scientist-D	REC, Eluru
121	Venugopal A. (Dr.)	Scientist-D	REC SU Penukonda
122	Vidyunmala S. (Dr.)	Scientist-D	REC, SU Penukonda
123	Vijayakumar R	Scientist C	RSRS Salem
124	Vineet Kumar (Dr.)	Scientist-C	CSRTI, Mysore
125	Vinod B. Mathur (Dr.)	Scientist-C	REC, SU, Maddur
126	Vinod Kumar (Dr.)	Scientist-D	CSRTI, Mysore
127	Vinod Kumar Yadav	Scientist-B	CSRTI, Mysore
128	Virendrakumar (Dr.)	Scientist-C	CSRTI, Mysore