

**MINUTES OF THE 41st RESEARCH COUNCIL MEETING HELD ON 15th & 17th
NOVEMBER, 2014 AT CSR&TI, BERHAMPORE, WEST BENGAL**

The 41st Research Council meeting of CSR&TI, Berhampore was held on 15th & 17th November, 2014 to review the progress of on-going and concluded research projects/programmes of the Main Institute & its nested RSRs' besides considering new research project/ programme proposals submitted by the scientists. The meeting was presided over by Dr. S. Nirmal Kumar, Director of the Institute and the Chairman, Research Council (RC). The list of the participants is enclosed in **Annexure - I**.

Dr. S. Roy Chowdhuri, Scientist-D (PMCE) welcomed Dr. S. Nirmal Kumar, Director, and the Chairman, RC, CSR&TI, Berhampore, Members and all participant scientists of the Institute & nested units for attending the 41st RC meeting. At the outset, he expressed sincere thanks to the Director for his guidance and inspiration to the scientists for their involvement in projects/programmes for the development of sericulture industry in the region. Thereafter, he requested the Chairman to address the scientists and initiation of the meeting.

Dr. S. Nirmal Kumar, Director congratulated the scientists, officers and staff of the Institute and its networking units for their appreciable efforts in scoring 97% in the RFD of the Institute. He reminded the responsibility of each one to maintain the R&D standards at high level in the coming years so that Institute may score 100% in RFD. He narrated that the DoT(Seri), West Bengal expressed their satisfaction over scientists activities in different research activities and field problems among the farming community. He stressed upon that scientists should come-up with new line of research and concentrate specifically on budget expenditure of the projects. He urged that gap between the technologies developed and percolated among the farming community and constraints if any, should be bridged so that economic gain by the farmers will increase.

Further, he emphasized that RSRs' should come forward to install Biometric attendance immediately and cover their financial expenditure on their projects /programme within schedule time. They were also advised that they should think over to uplift their work activities within the available resources. The chairman advised the scientists for their active participation and interaction to come out with suggestions to make the RC meeting more meaningful.

Agenda-wise discussions were held as follows:

**ITEM NO. 1: CONFIRMATION OF THE MINUTES OF THE 40th MEETING
HELD ON 6th & 7th May, 2014.**

Since no comments received from any corner, the minutes were confirmed.

**ITEM NO.2: REVIEW OF THE FOLLOW UP ACTION TAKEN ON THE
DECISION OF THE RESEARCH COUNCIL MEETING HELD ON
6th & 7th May, 2014.**

Regarding commercialization of biofertilizers (Nitrofert and Phosphofert), it was suggested that possibilities may be explored for commercialization of the products. Moreover, market survey is necessary to find out the availability of other alternative biofertilizers and complete the comparative study on the efficacy of the bio-fertilizers. Dr. S. Rajaram, Sci-D, Agronomy Section should fix up the time schedule, initiate the study by December, 2014, complete the work and submit the progress in the next RC meeting. Besides, bio capsules may also be tried on improvement of mulberry leaf productivity.

[Action: Dr. S. Rajaram, Sci-D Agronomy Section]

Regarding the Programme “**Validation trial a fumigant room disinfectant**”, (Ghar Sodhan), the Chairman enquired about the mode of application of the room fumigant room disinfectant in the farmers’ rearing house. Dr. S. Chakrabarty, Sci-C need to justify that no other disinfectant is required after application of “Ghar Sodhan” and to inform about the adaptability percentage at farmer’s level.

[Action: Dr. S. Chakraborty, Sci-C, Sw Pathology Section]

Regarding the project **PPA: 3499 “Evaluation of field level performance of Vishala mulberry variety in different locations under irrigated condition in West Bengal”**, the Chairman advised the PI to collect the detailed information on incidence of pests and diseases on Vishala mulberry variety at farmers’ field and compare with S-1635.

[Action: Dr. S. Mandal, Sci-D, Farm Management Section]

Regarding the project **AIB 3501 “Development of multivoltine silkworm *Bombyx mori* L breeds with high shell percentage and high neatness of silk filament”**, it was observed that silkworm breeds to be studied are of CSR&TI, Mysore. The PI was advised to pursue for early collection of breeds from CSR&TI, Mysore and initiate the work as per milestone of the project.

[Action: Dr. A. K. Verma, Sci - C, SBG Section]

Regarding the programme **B-KPG (RP)-028 “Elimination of diapauses expression from eggs in improved multivoltine silkworm breeds”**, it was informed that the dfls produced did not show any hibernating characters during spring (April-May) crop rearing. Therefore, it was decided to drop the programme.

[Action: Shri S. Catterjee, Sci - C, RSRS, Kalimpong]

ITEM No.3: CONSIDERATION OF NEW PROJECTS/ PROG./PILOT STUDY :

The following 3 (three) project proposals were discussed by the house and project / prog.-wise decisions are as follows:

Title of the Programme: “**Studies on quality status and leaf yield of the short listed early sprouter and late senescence mulberry accessions**”, by Dr. P. K. Tewari, Scientist-D, Mulberry Physiology Section.

Duration: 2 years (Jan, 2015 to Dec., 2016)

Observations / Suggestions: The prog. was discussed at length and it was observed that the short listed mulberry accessions will be used in breeding programme for development of high yielding mulberry variety(s).

Decision: Approved. The concerned scientist was advised to submit the programme in RMIS format, obtain code No. and initiate the work.

[Action : Dr P.K.Tewari, Scientist-D, Mulberry Physiology Section]

2. Title of the Project: “**Construction of molecular linkage map, validation of QTLs for important agronomic traits and development of promising mulberry cultivar**” by Dr. R. Banerjee, Scientist-D, Biotechnology Section.

Duration: 3 years

Observations/ Suggestions: The project was discussed. It was observed that the title of the project needs a change as mulberry cultivars have already been developed by the concerned scientists. Since the study is evaluation of mulberry genotypes, the title of the project need to be changed as “**Construction of molecular linkage map, validation of QTLs for important agronomic traits and evaluation of promising mulberry cultivar**”. The house also enquired about the MAS breeding approach in the project. Besides, the PI was advised to clearly spell out the role of the institute and CCMB, Hyderabad in the project proposal.

Decision: **Approved as project** The PI was advised to submit the full project, obtain comments from the referees and present in the RAC meeting.

[Action: Dr. R. Banerjee, Scientist-D, Biotechnology Section]

3. Title of the Project: “**Development of Post cocoon sector of West Bengal**” - by Shri M. K. Majumdar, Scientist-E, Reeling and Spinning Division.

Duration 5 years

Observations/ Suggestions: Modified the project proposal as per suggestion of RAC in the 41st meeting held on 12.09.2014 was presented along with budget details.

Decision: **Approved as project.** The PI was advised to submit the full project for obtaining comments from the referees and present in the next RAC meeting for approval.

[Action: Shri M.K. Majumdar, Scientist-E, Reeling and Spinning Division]

ITEM No.4: REVIEW OF CONCLUDED PROJECTS/ PILOT STUDY:

The following 4 Projects were concluded during the period. Only one Pilot study **BAR (PS)-004** was presented in the 40th RAC meeting held on 12th September,2014.

Sl. No.	Title of the Project / Programme / Pilot Study	Decision / Suggestion
Project :4		
1.	PIP-3469: Screening of early sprouters and late senescence mulberry variety with better leaf yield and quality under low temperature condition (Nov., 2011 to Oct., 2014) [Shri P. K. Tewary, Sci-D, Mulberry Physiology Section]	Submit the concluded report in RMIS format. To prepare a separate programme to study the quality performance of the short listed germplasm accessions.
2.	AIP 3472: Standardization and determination of temperature tolerance potentiality in different developmental stages of silkworm, <i>Bombyx mori</i> L. (Sept., 2011 to Aug., 2014) [Dr. A.K. Saha, Sci-D, SBG Section]	Submit the concluded report in RMIS format.
3.	MOE 3459: Yield gap in mulberry sericulture – A study in N.E. region of India (Oct., 2011 to Apr., 2014) [M. Pamehgam, Sci-C, RSRS, Jorhat]	Final report presented in the 40 th RAC meeting held on 12/09/2014. The concerned scientists were advised to provide the finding to the DoS, Assam and organize State Level Workshop and Extension Communication programmes to make aware of the findings for minimizing the yield gaps at farmers’ level.

4.	AIE 3454: Evaluation of elite silkworm germplasm under different agro climatic conditions: All India Silkworm Germplasm Evaluation Programme Phase-II. (Coordinated project with CSGRC, Hosur) (Sep., 2011 to Aug., 2014) [Dr. M. K. Singh, Sci-D, PMCE Division]	Rearing performance data of elite silkworm germplasm have been submitted to CSGRC, Hosur for assessment of breeds and final report.
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Item No. 5: REVIEW OF THE PROGRESS OF THE ONGOING RESEARCH PROJECTS/ PROGRAMMES OF THE MAIN INSTITUTE :

Progress of ongoing research projects/ prog./ pilot study of different sections at the Institute was reviewed critically and suggestions/ recommendations made are as follows

MAIN INSTITUTE:

MULBERRY BREEDING & GENETICS SECTION:

Progress of following 5 ongoing research projects and 2 programmes namely (1) **PIB 3424:** “Development of low temperature stress tolerant mulberry genotypes for sub-tropical plains”, (2) **PIB3479 :** “Development of high yielding mulberry varieties using physiological growth parameters as markers for selection”, (3) **PIB 3481:** “Evaluation of mulberry varieties suitable for low input soils” , (4) **PIB 3505:** “Drought tolerant Mulberry variety for rainfed sericulture” , (5) **PIB 3515 :** “ Evaluation of newly developed triploid mulberry varieties under irrigated condition”, (1) “**All India Coordinated Experimental Trial on Mulberry (AICEM) (Phase-III)**” and (2) **BPI(P)025:** “Maintenance of Mulberry Germplasm bank at CSR&TI, Berhampore”, were reviewed and progress was as per the milestone. Regarding the programme **AICEM (Phase-III)**, the house suggested the PI to collect meteorological data, season wise and total leaf yield and correlate the yield potential.

[Action: Dr M. K. Ghosh, Scientist-D, Mulberry Breeding & Genetics Section]

AGRONOMY & FARM MANAGEMENT SECTION:

Progress of following 1 ongoing research project, 8 programmes, and 1 Pilot study namely, (1) **PPA 3499** “Evaluation of field level performance of Vishala mulberry variety in different locations under irrigated conditions in West Bengal”, (2) **BPP(VP) 012 :** “Real time spatio temporal validation trial for mulberry yield weather model”, (3) **BPP(RP) 012 :** “Optimum resource utilization through vermiculture for generating on farm value added compost.”, (4) **BPP(P) 027:** ”Studies on improvement of mulberry productivity through foliar supplement”, (5) **BPP (VP) 015:** “Validation of E3 WM @ SH/PM [Efficient, economic & eco-friendly Weed Mower cum Shoot Harvest / Pruning Machine] in nested units and farmers’ field”, (6) **BPP(RP) 001:** “ Maintenance of *Azotobacter chroococcum*, mother culture and mass production of Nitrofert bifertilizer ”, (7) **BPP(RP) 002:** “Maintenance of *Glomus mosae* [Arbascular Mycorrhizal Fungus (AMF), mother culture and mass production of phosphofert bio-fertilizer:”, (8) **BPP(P) 035:** “Integrated effect of certain proven technologies for crop productivity improvement and cost reduction in mulberry cultivation under West Bengal condition”, (9) **BPP(P) 036:** “ Development of protocol for mulberry cultivation for organic silk- a new approach” and (10) **BPP (PS) 008:** “Evolving growing Degree Day based integrated sericulture crop calendar” were reviewed and progress was as per the milestones.

Regarding the project **PPA 3499**, the PI was advised to collect leaf yield data before harvesting by the farmer for comparative assessment of quality and productivity of the variety with the S-1635.

[Action: **Dr. S. Mandal, Scientist-D, Farm Management Section**]

Regarding the programme **BPP(P) 027**, it was decided the in place of Dr. M. S. Rahman, Scientist-C, who has retired from Board's service in the month of September, 2014, Dr. S. Rajaram, Scientist-D, Agronomy Section may be included as Co-I in the programme.

[Action: **Dr. S. Roy Choudhuri, Sci-D, PMCE Division**]

SOIL SCIENCE & CHEMISTRY SECTION:

One ongoing research project namely **PPS 3452**: "Terrestrial carbon sequestration for sustained high productivity of quality mulberry" and two programmes (1) "**BPP(P) 020**: "Evaluation of soil fertility for sustained production of quality mulberry leaf in Eastern India under long-term fertilization" and (2) **BPP(VP) 010**: "Multilocational validation trial for application of cationic micronutrients" were reviewed and progress found as per the milestones.

MULBERRY PHYSIOLOGY SECTION:

Progress of one ongoing research programme **BPI(P)-026**: "Popularization of water logged tolerant mulberry variety C-2008" was reviewed and progress was as per the milestone.

MULBERRY PATHOLOGY SECTION:

Progress of two ongoing research projects (1) **CSS-2107**: "Forewarning of mulberry diseases of Eastern and North Eastern India" and (2) **PPS-3504**: "Study on root rot disease of mulberry in the Gangetic plains of West Bengal and development of its control measure" were reviewed and progress found as per the milestones. Regarding the project, **CSS-2107**, Shri S. K. Misro, Scientist-C, RSRs, Koraput and Co-I of the project was advised to discuss with the PI and check the data before preparation.

SILKWORM BREEDING AND GENETICS SECTION:

Progress of 6 research projects, (1) **AIB 3466**: "Development of region specific bivoltine breeds suitable for highly fluctuating and seasonally variable climatic conditions of Eastern and North-Eastern India", (2) **AIB 3480**: "Development of silkworm *Bombyx mori* L. breeds from a gene pool with higher genetic plasticity", (3) **AIB 3496**: "Development of high temperature and high humidity tolerant bivoltine breeds of silkworm (*Bombyx mori* L.)", (4) **AIB 3491**: "Post Authorization trials of silkworm hybrids in Eastern and North Eastern India", (5) **AIB 3501**: "Development of multivoltine silkworm (*Bombyx mori* L.) breeds with high shell percentage and high neatness of silk filament" and (6) **AIB 3514**: "Development of multivoltine based Congenic /Nil breed of silkworm *Bombyx mori* L through introgression of Id gene and its uses" and 1 programme **BAI(RP) 003**: "Maintenance of multivoltine and bivoltine germplasm" were reviewed and progress found as per the milestones.

However, regarding the project **AIB 3466**, the Chairman expressed his concern on the variations of the breed characters in all the centers. It was advised that the Co-Is at collaborative centers should take more care on low performance of the breeds. Crude protein and carbohydrate in leaf to be fed to silkworm larvae need to be analyzed. Crop performance report to be send through hard copy & e-mail.

[Action: **Dr. A. K. Verma, Sci-C, and Dr. A. K. Saha, Scientist-D, Seri. Division**]

Regarding the project **AIB 3491**, the concerned scientist was advised to maintain the financial progress of the project at the Main Institute.

[Action: Dr. N. Suresh Kumar, Scientist-D, Seri. Division]

SILKWORM PHYSIOLOGY & REARING TECH. INNOVATION SECTION:

Progress of one research project **APS3497**: “Studies on the environmental effect on P1 rearing, its’ grainage performance followed by commercial rearing of silkworm *Bombyx mori* L. during unfavorable seasons of West Bengal (Collaboration project with NSSO)” were reviewed and progress found as per the milestones. It was suggested to conduct all rearing in mass form, compare the data and also compare in the subsequent seed production. For grainage purpose, equal population should be kept in controlled condition. Moreover, melting % during rearing should also be quantified.

SILKWORM PATHOLOGY SECTION:

Progress of one research projects and 3 programmes, (1) **ARP-3516** “Studies on symbiotic (Combination of pro biotic and prebiotic) induction for control of common diseases of silkworm *Bombyx mori* L.”, (2) **BAR(RP)005**: “Survey and surveillance of silkworm diseases in traditional sericultural districts of West Bengal”, (3) **BAR(RP)006** “Silkworm disease monitoring of Seed and commercial crop rearing of West Bengal” and (4) **BAR(VP)009** “Ghar Sodhon” a fumigant room disinfectant for silkworm disease management” were reviewed and progress was as per milestones.

Regarding the programme **BAR(RP)005**, the Chairman advised the PI to take necessary measures to boost the yield and also to study the crop loss percentage. Regarding the program **BAR(RP) 006**, the PI is advised to incorporate the numerical data during graphical presentation of the progress. For **BAR(VP) 009**, PI was advised to inform the concentration range of microsporidia and to study in the open rearing house.

Action: Dr. S. Chakrabarty, Sci-C, Sw. Patho. Section]

ENTOMOLOGY SECTION:

Progress of 2 research projects and one programme (1) **PRE-3508**: “Studies on standardization of the mass multiplication and field efficacy of *Scymnus pallidicollis* (Mulsant) for the eco-friendly management of Tukra”, (2) **PPE-3517**: “Population interactions of pests and natural enemies in mulberry ecosystem” and (1) **BPR(P)021**: “Development of weather based forecasting models for mulberry pests”, were reviewed and progress was as per milestones.

Regarding project **PRE3508**, Chairman suggested the PI to identify the entrepreneurs for multiplication at a first rate for getting the predators.

[Action: Dr. M. V. Santha Kumar, Sci-D, Entomology Section]

Regarding project **PPE-3517**, Chairman advised to indicate the month of data recording.

[Action: Smt. N. Lalitha, Sci-C, Entomology Section]

BIOTECHNOLOGY SECTION:

Progress of one programme and one pilot study namely (1) **BPI(P)034**: “Development, characterization and validation of expressed sequence tag derived microsatellite markers for mulberry (*Morus spp.*)”, and (2) **BPR(P)022**: “Identification of DNA markers associated with bacterial leaf spot resistance in mulberry (*Morus spp.*) were reviewed and progress was found satisfactory.

REELING & SPINNING DIVISION:

Progress of one programme, **BAI(VP)014**: “Field level testing of the efficacy of surface active agent and wetting agent for the improvement of reel-ability of cocoons during adverse and favourable climatic seasons” was reviewed and progress was as per milestones.

EXTENSION DIVISION:

Progress of one Prog., **BMO(P)-032**: “**Institute Village Linkage Programme (Phase IV)**” was reviewed and found satisfactory.

TRAINING DIVISION:

The activities of Training Division in organizing various training prog. under **Structured and Non-Structured** courses were reviewed and suggested to incorporate Chawki rearing training programme for the farmers awareness.

REGIONAL SERICULTURAL RESEARCH STATIONS:

RSRS, Kalimpong, West Bengal:

Progress of own 5 programme and 2 Pilot study namely (1)**B-KPG(RP)028**: “Elimination of diapause expression in eggs from improved multivoltine silkworm breeds”, (2) **B-KPG(RP)010**: “Survey & Surveillance of mulberry and silkworm diseases and pests in Kalimpong hills”, (3) **B-KPG(RP)008**: “Maintenance of bivoltine silkworm germplasm”, (4) **B-KPG(RP)011**: “Multiplication and supply of SK6 x SK7 Dfls to Sikkim and plains area”, (5) **B-KPG(VP)011** : “Validation of test based doses of fertilizers and line application in soils of Kalimpong hills to increase the leaf yield and quality of mulberry (*Morus spp*) leaves”, (6) **B-KPG(PS)006**: “Diagnosis of nutrient constraints and its management in mulberry field at farms and farmers level at Kalimpong hills” and (7) **B-KPG(PS)007**: “An integrated approach to study the effect of potassium humate on soil health, yield and quality of mulberry leaves to promote sustainable sericulture in Sub-Himalayan region of Eastern and North Eastern India” were reviewed.

Regarding programme, **B-KPG(RP)028**, the house suggested to discontinue the programme due to the observations that the layings of M.Con.1, M.Con.4 and M6DP(C) breeds did not show diapause characters. Moreover, in RRAC meeting on 02.08.14 at RSRS, Kalimpong had also suggested to drop the programme. Regarding **B-KPG(RP)028**, the house suggested the PI to collect cocoon yield from the farmers and inform the reasons of crop loss. On the programme **B-KPG(RP)008**, Dr. Suresh Kumar, Scientist-D, SBG Section was advised to visit RSRS Kalimpong and test the performance of all 81 accessions maintained as germplasm stock at RSRS, Kalimpong. On the prog, **B-KPG(RP)011**, Chairman advised Smt. C. Maji, Scientist-D, to maintain proper aestivation schedule for layings preservation to get better performance. Regarding the Pilot study **B-KPG(PS)006**, the house advised the PI to increase the number of farmers’ from 2 to 5 and collect the soil samples for soil analysis. On the Pilot study, **B-KPG(PS)007**, Chairman suggested to submit the modified copy of the Pilot study mentioning one year duration. Further, soil samples analysis data should be done critically and present the progress.

Progress of collaborative 2 projects and 7 prog., (1) **CSS2107**: “Forewarning of mulberry diseases of Eastern and North Eastern India”, (2) **AIB3466**: “Shuttle breeding of selected Bivoltine breeds” (Co-ordinate prog. with CSR&TI, Berhampore), (3) **B-KPG(P)006**: “Muga Seed Multiplication Prog”(with MSSO, Guwahati), (4) **BPR(P)021**: “Development of weather based forecasting models for mulberry pests”(Coordinated with CSR&TI, Berhampore), (5) **BAI(RP)006**: “Silkworm Disease monitoring of seed and

commercial crop rearing of West Bengal”, (6) **BAR(VP)009**: “Testing of Ghar Shodan at RSRS, CSB, Kalimpong” (Co-ordinated programme with CSR&TI, Berhampore), (7) **BPP(VP)010**: “Multilocal validation trial for application of cationic micronutrients”, (8) **BAI(P)029**: “Testing of new Hybrids at RSRS, Kalimpong” (Co-ordinated programme with CSR&TI, Berhampore), (9) **Scheme Code : 9402** “All India Co-ordinated Experiment in Mulberry (AICEM)” (Coordinated programme with CSGRC, Hosur), were reviewed and progress was found as per milestone. The Scientist-D, RSRS, Kalimpong was advised utilize the budget (2014-2015) as envisaged in the projects/ programmes and pilot studies and utilize within March, 2014.

[Action: Smt. C. Maji, Sci-D and all concerned scientists, RSRS, Kalimpong]

RSRS, Jorhat, Assam:

Progress of own 1 project and 1 programme (1) **PRE-3511**: “Studies on predatory efficacy of coccinellid predator, *Scymnus posticalis* Sicard for management of whitefly on mulberry” and (2) **B-JRH (RP)-009**: “Survey and surveillance of mulberry and silkworm pests & diseases of N.E. States” were reviewed. Regarding the project **PRE-3511**, Chairman advised to match the disease data with the disease calendar of this Institute and specify the co-relation. Scientist- D, Mulberry pathology section is advised to update the calendar.

[Action: Dr. U. C. Barua, Sci-C and all concerned and Dr. S. K. Dutta, Scientist-D, CSRTI, Berhampore]

Progress of collaborative 4 projects and 2 programmes (1) **CSS2107**: “Forewarning of mulberry diseases of Eastern and North Eastern India”, (2) **AIB3466**: “Development of region specific bivoltine breeds suitable for fluctuating and seasonally variable climatic conditions of Eastern and North Eastern India”, (3) **PIB3481**: “Evaluation of Mulberry varieties suitable for low in- put soils”, (4) **PPE3517**: “Population interaction of pests and natural enemies”, (5) **BPR(P)021**: “Development of weather based forecasting models for mulberry pests” (Coordinated with CSR&TI, Berhampore) and (6) **Scheme Code: 9402** “All India Co-ordinated Experiment in Mulberry (AICEM)” (Coordinated programme with CSGRC, Hosur) were reviewed and progress was found as per milestone.

The Scientist-D, RSRS, Jorhat was advised utilize the budget (2014-2015) as envisaged in the projects/ programmes and utilize within March, 2014.

[Action: Dr. S. N. Gogoi, Scientist-D & In-charge & all concerned scientists of RSRS, Jorhat]

RSRS, Ranchi, Jharkhand:

Progress of own 2 programme, (1) **B-RNC(RP)004** : “Survey and surveillance of disease and pest of mulberry and silkworm”, (2) **B-RNC(P)031**: “Screening and identification of bivoltine hybrids suitable for Jharkhand” and collaborative 3 projects and 1 program (1) **CSS2107**: “Development of weather based forewarning system of mulberry diseases”, (2) **PIB3481**: “Evaluation of mulberry varieties suitable for low in put soil”, (3) **AIB 3491**: “ Post authorization trial of silkworm hybrids in Eastern and North Eastern India”, and (4) **Scheme Code : 9402** “All India Co-ordinated Experiment in Mulberry (AICEM)” (Coordinated programme with CSGRC, Hosur) were reviewed were reviewed and found satisfactory.

Regarding **B-RNC(P)031**, the PI was advised to submit the crop-wise data for all the hybrids to the Institute for assessment of hybrid performance.

The Scientist-C (I/C), RSRS, Ranchi was advised utilize the budget (2014-2015) as envisaged in the projects/ programmes and utilize within March,2014.

[Action: Mr. M. Alam, Scientist-C, RSRS, Ranchi]

RSRS, Koraput:

Progress of own 4 programmes and 1 pilot study (1) **B-KPT(RP)013**: “Survey and surveillance of disease and pest of mulberry and silkworm”, (2) **B-KPT(RP)014**: “Silkworm Disease monitoring of seed and commercial crop silkworm rearing of Non-Traditional district of Odisha”, (3) **BPP(P)030**: “Studies on high bush and tree type mulberry plantation under rainfed condition of Odisha”, (4) **B-KPT(P)037**: “Verification of predicted lime requirement for the acid soils of Koraput region under mulberry vegetation in eastern ghat highland zone of Odisha” and (5) **BKPT(PS)009**: “Effect of irrigation scheduling on yield and water economy in mulberry by use of Hydro-gels-poly acrylic acid based water insoluble polymers” were reviewed and activities were as per milestone.

Progress of collaborative 3 projects and 3 programmes (1) **AIB3491**: “Post authorization trial of silkworm hybrids in Eastern and North Eastern India”, (2) **CSS2107**: “Development of weather based forewarning system of mulberry diseases”, (3) **PIB3481**: “Evaluation of mulberry varieties suitable for low inputs soils”, (4) **Scheme Code: 9402** “All India Co-ordinated Experiment in Mulberry (AICEM)” (Coordinated programme with CSGRC, Hosur), (5) **BPR(P)021**: “Development of weather based forecasting models for mulberry pests”, (6) **BMO(P)032**: “Institute Village Link Programme (IVLP-IV) under ToT” were reviewed and found satisfactory.

The Scientist-C (I/C), RSRS, Koraput was advised utilize the budget (2014-2015) as envisaged in the projects/ programmes and utilize within March, 2014.

[Action: Shri R. Sahu, Scientist-C (I/C) and all concerned scientists of RSRS, Koraput]

At the end, the Chairman expressed satisfaction on the R&D progress made and advised the scientists of main Institute and RSRSs to take need based projects/ prog. within the resources and identified R&D thrust areas and achieve the RFD targets set for them for the year 2014-15.

The meeting ended with a vote of thanks to the chair.

Sd/-
Director & Chairman,
Research Council
CSR&TI, Berhampore

Annexure-I**List of the participants attended the Research Council meeting held on 15th & 17th November, 2014 at CSR&TI, Berhampore**

1. Dr. S. Nirmal Kumar, Director, CSR&TI, Berhampore – **Chairman, Research Council**
2. Shri M. K. Majumdar, Scientist-E, CSR&TI, Berhampore
3. Dr. A. K. Saha, Scientist-D, CSR&TI, Berhampore
4. Dr. M. K. Ghosh, Scientist-D, CSR&TI, Berhampore
5. Dr. S. Roy Chowdhuri, Scientist-D, CSR&TI, Berhampore
6. Dr. S. K. Mukhopadhyay, Scientist-D, CSR&TI, Berhampore
7. Dr. U. K. Bandyopadhyay, Scientist-D, CSR&TI, Berhampore
8. Dr. N. Suresh Kumar, Scientist-D, CSR&TI, Berhampore
9. Dr. S. K. Mondal, Scientist-D, CSR&TI, Berhampore
10. Dr. S. Rajaram, Scientist-D, CSR&TI, Berhampore
11. Dr. (Mrs.) Jalaja S. Kumar, Scientist-D, CSR&TI, Berhampore
12. Dr. (Mrs.) Rita Banerjee, Scientist-D, CSR&TI, Berhampore
13. Dr. R. Kar, Scientist-D, CSR&TI, Berhampore
14. Dr. M. V. Santha Kumar, Scientist-D, CSR&TI, Berhampore
15. Shri D. Chakravarty, Scientist-C, CSR&TI, Berhampore
16. Dr. P. K. Tewary, Scientist-D, CSR&TI, Berhampore
17. Dr. S. K. Dutta, Scientist-D, CSR&TI, Berhampore
18. Shri N. B. Kar, Scientist-D, CSR&TI, Berhampore
19. Smt. C. Maji, Scientist-D, RSRS, Kalimpong
20. Dr. M D. Maji, Scientist-C, RSRS, Kalimpong
21. Shri S. Chatterjee, Scientist-C, RSRS, Kalimpong
22. Shri S. T. Lepcha, REC, Rangpo, Sikkim
23. Dr. R. L. Ram, Scientist-C, RSRS, Kalimpong
24. Dr. S. N. Gogoi, Scientist-D, RSRS, Jorhat
25. Dr. Y. Debaraj, Scientist-D, RSRS, Jorhat
26. Dr. M. Alam, Scientist-C, RSRS, Ranchi
27. Dr. Ghanshyam Singh, Scientist-D, REC (SU), Bhandra
28. Shri Sunil Kumar Misroo, Scientist-C, RSRS, Koraput
29. Shri Gopal Chandra Das, Scientist-C, CSR&TI, Berhampore
30. Shri D. Das, Scientist-C, CSR&TI, Berhampore
31. Dr. A. K. Verma, Scientist-C, CSR&TI, Berhampore
32. Dr. J. Sarkar, Scientist-C, CSR&TI, Berhampore
33. Dr. P. K. Ghosh, Scientist-C, CSR&TI, Berhampore
34. Dr. (Mrs.) M. Chaudhuri, Scientist-C, CSR&TI, Berhampore
35. Shri Zakir Hossain, Scientist-C, CSR&TI, Berhampore
36. Dr. S. Chakraborty, Scientist-C, CSR&TI, Berhampore
37. Smt. N. Lalitha, Scientist-C, CSR&TI, Berhampore
38. Shri T. N. Sreekanth, Asstt. Director (Stat.), CSR&TI, Berhampore