

TAMIL NADU AGRICULTURAL UNIVERSITY

Directorate of Research
TNAU, Coimbatore

Date: 06.11.2020

PROCEEDINGS

A review meeting was conducted at the ARS, Bhavanisagar, under the Chairmanship of Dr.K.S.Subramanian, Director of Research, TNAU, Coimbatore on **16.10.2020** to assess the progress of work done in various research projects and activities of the station. All the projects were reviewed and the remarks are given for necessary action by all scientists in ARS, Bhavanisagar. The following Scientists of ARS, Bhavanisagar attended the review meeting.

1. Dr. A. Christopher Lourdraj, Professor and Head
2. Dr. Sangeetha Panicker, Professor (Pl.Path.)
3. Dr. D. Muthumanickam, Professor (SS&AC)
4. Dr. R. Jegathambal, Professor (SST)
5. Dr. S. Eawaran, Asso.Prof.(Hort.)
6. Dr. K. Malarkodi, Asso.Prof.(SST)
7. Dr. A. Valliammai, Asst.Prof.(SWCE)
8. Dr. V. Vakeswaran, Asst.Prof.(SST)
9. Dr. S. Utharasu, Asst.Prof.(PBG)
10. Dr. K. Ganesan, Asst.Prof. (Agrl.Ext.)

I. Vice Chancellor's Review

The Vice Chancellor, TNAU has reviewed the activities of ARS, Bhavanisagar on **27.08.2020**. There were **61 recommendations** (General 11; Specific 24 (related to farms); Scientist specific remarks 25; office 1) made of which most of them have been completed or in progress. The detailed Action Taken Report of the Vice Chancellor's remarks is enclosed as **Annexure I**.

II. Director of Research Review

The Director of Research has reviewed the research activities of ARS, Bhavanisagar on **19.02.2020** and there were **33 review remarks** (Improvement : 16; Management 13; Protection 4) for which the detailed Action Taken Report is enclosed as **Annexure II**. Almost all remarks have been addressed satisfactorily.

III. Cropping Program

The approved Cropping Program is strictly adopted without any deviation. The Crops viz., Rice, Turmeric and Groundnut are well maintained. Follow up of the Cropping Program of ARS, Bhavanisagar, is enclosed as **Annexure III**.

IV. Follow up of Crop Scientist Meet 2020

The work done on Projects of individual scientists pertaining to Crop Scientists Meet 2020 was reviewed by Director of Research and the details are enclosed as **Annexure IV**

V. Action Taken report on the Proceedings of 2nd Interim Review Meeting of SWC 2019 held on 11.03.2020

The subject pertaining to exploring the possibility of notification of BSR 1 to bring in the seed chain and Ecofriendly method of driving away wild boar menace were furnished in **Annexure V**.

VI. General Remarks

1. The progressing / pending works on the remarks made by the Vice Chancellor is to be completed without any deviation.
2. The visibility of the station should be well projected. The name boards and field boards may be repainted/ Flex printing may also be used for seasonal experiments.
3. As the Agricultural Research Station, Bhavanisagar caters to the need of Western Zone farmers, all efforts should be made to produce and supply seed and other inputs required by farmers. The quality of seed should be maintained.
4. The mandate of the station may be suitability changed deleting the diploma programme and get approved.
5. The research work undertaken in URP, OFT, MLT, Action plans etc., need to be carried out diligently.
6. The cropping programme is to followed without any deviation
7. All the experimental plots and seed/bulk crops should be properly labeled.
8. Crop varieties released from ARS, Bhavanisagar should be cultivated in demonstration plots, in the entrance field of the Northern Block and also Horticultural crops in Thoppampalayam Block.
9. Efforts should be made to increase the income of research station.
10. Efforts should be made to places the key technologies in the website.

11. Data on cost of cultivation in mechanized rice farming and conventional farming be prepared from the mechanized rice farming of South block.
12. Pending credit bills be addressed to the Director of Agriculture and if required details may also given to the undersigned with required back papers to address the Director of Agriculture from this Directorate.
13. Brochure should be prepared indicating the activities & achievements.
14. All the scientists are instructed to submit the completion reports of their completed projects promptly (Action : All Scientists)
15. All the scientists are emphasized to propose new externally funded projects.
16. All the farms in ARS, Bhavanisagar need to be converted into smart farming. For this, information on inventory of things available, machineries and sensors required, soil health status etc. need to be collected. Besides information on seed production for the last 10 years, varieties and technologies delivered to farmers also need to be collected. With the above information, a project is to be formulated. Given his expertise in remote sensing and GIS, Dr.D.Muthumanickam, Professor (SS&AC) was nominated as the station co-ordinator for collecting all the above information and formulating the rough draft of the project, which will be fine tuned by the Director of Research for sending to suitable funding agency for sanction.
17. Publication in >6 NAAS rated journal / impact of the reviewed journal

VII. Individual Scientists Research Project Review

Progress made by individual scientist was reviewed and remarks made are furnished in **Annexure VI**. In addition, the following remarks were made on the other items of work by the individual scientists:

Dr. A.Christopher Lourduraj, Professor & Head.

- Head of the station – Administration works
- Having one URP
- To prepare a proposal for complete farm mechanization.

Dr. Sangeetha Panicker, Professor (Plant Pathology).

- Having two ongoing URP's
- One VCS
- Basic studies on Silica may be taken to determine mechanisms involved in resistance to pathogens.

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- Nano Silica can be biologically done involving the expertise of the department of Nano Science and Technology.
- Efforts may be taken on "Sugarcane Doctor" – Web based content for sugarcane cultivation and plant protection activities as a technology release.
- Information on diagnostic solution made to the farmers may be furnished in monthly report every month.

Dr. D. Muthumanickam, Professor (SS&AC)

- Conducting one URP.
- Soil digital mapping of entire ARS, Bhavanisagar involving RS & GIS to be prepared.
- Proposal to be finalized on smart farming.

Dr. R. Jegathambal, Professor (SST)

- One ongoing URP.
- Seed quality assurance to be ensured.
- Additional work as Block Officer for South Block.
- Exhibition hall should be updated with released varieties and technologies developed by ARS, Bhavanisagar.

Dr. S. Easwaran, Associate Professor (Horticulture)

- Two URP's
- He should use the word "formulation" instead of hexanal in the project title.
- Smart farming proposal with respective Horticulture is to be prepared.
- Proper farm board and experimental fields.
- Demo plot on all ARS, Bhavanisagar released varieties of horticultural crops to be taken up.

Dr. K. Malarkodi, Associate Professor (SST)

- Block Officer for North Block.
- Well maintenance of the seed lab is appreciated.
- A research project to improve shelf life of paddy CO 51 seeds may be taken up.

Dr. A. Valliammai, Assistant Professor (SWCE)

- AICRP on water management scientist – one project
- One URP.
- Vehicle incharge.
- Water storage in LBP and Budgeting of water using model is to be developed.
- Update the webpage of ARS, Bhavanisagar to include photos/Videos on farm mechanization, released varieties and technologies etc.,

Dr. V. Vakeswaran, Assistant Professor (SST)

- Two URP's.
- Farm Manager of South Block
- TNIAMP scientist for Lower Bhavani Project.
- In charge of on VCS.
- Demo plot on mulching may be taken up at ARS, Bhavanisagar.

Dr. K. Ganesan, Assistant Professor (Agri. Ento.)

- Coordinating scientist of one URP.
- Having two VCS.
- To prepare a project proposal to study the toxicity and residual effect of celphos on turmeric rhizome storage.
- Fall Army Worm update of Erode District is to be made regularly.
- Follow up of Drone spray is to be reported.
- Information on diagnostic solution made to the farmers may be furnished in monthly report every month.

Dr. S. Utharasu, Assistant Professor (PBG)

- Farm Manager of Pungar Farm.
- One URP.
- To propose an externally funded project involving scientists of CPMB (consulting Dr. M. Raveendran, Professor and Head, Department of Biotechnology, TNAU, Coimbatore)
- A special lecture is to be delivered on his foreign experience as PDF.
- A project on herbicide tolerance may also be proposed.

Dr. N. Satheeshkumar, Assistant Professor (Agron.)

- AICRP – IFS scientist having three projects and two URP's.
- To meet the undersigned with files and records after recovering from CORONA.

Dr. D. Malarvizhi, Associate Professor (PBG)

- Four URP's
- One externally funded
- She has to report the undersigned on completion of her leave with files and records.

DIRECTOR OF RESEARCH

To

The Professor and Head, ARS, Bhavanisagar

Copy to the TPO to the Vice Chancellor, TNAU, Coimbatore

ANNEXURE – I

Action taken on Vice Chancellor's Review on 27.08.2020

S.No	Action plan	Action taken
I	Northern Block	
1.	West Indian cherry available may be used for multiplication and distribution to the nearby schools on cost by writing to the District Collector, Erode and also to the needed farmers.	<ul style="list-style-type: none"> ➤ Cuttings were made from the west Indian cherry shrub available at N-Block farm and planted in poly bags at T-Block, ARS, Bhavanisagar. ➤ After establishment they will be supplied to the nearby schools and farmers on cost basis.
2.	Pruning of sapota trees available in F.No.NC 28 is to be done at third tier level	<ul style="list-style-type: none"> ➤ Side pruning of the sapota trees at field no. 28, N-Block was completed. ➤ Top pruning just above the third layer will be completed during first fortnight of October, 2020.
3.	About ten acres of area in F.No. NB 2 to 4, NC 21 to NC 26, NC 29 to NC 32 along with New area, presently covered with <i>Prosopis juliflora</i> and unwanted shrubs and bushes may be cleared including its boundaries and the land be brought back into cultivation with coconut or any other suitable crop and proposal may be sent accordingly.	<ul style="list-style-type: none"> ➤ Proposal for clearing of <i>Prosopis juliflora</i> bushes at N-Block farm was sent to the Registrar, TNAU, Coimbatore for approval. ➤ Permission was obtained vide proc. no. R5 / 11583 / ARS / Bhavanisagar / 2020 dt. 11.9.2020 of the Registrar, TNAU, Coimbatore. ➤ As per the guidelines, the Dean, FC & RI, Mettupalayam has been contacted for the establishment of Agro-forestry in association with TNPL.
4.	Considering the shortage of labour, the composting pit presently meant for doing vermicomposting may be tried with biomineraliaser.	<ul style="list-style-type: none"> ➤ Five kg biomineralizer was purchased from the Dept. of Environmental Sciences, TNAU, Coimbatore. ➤ The biomineralizer was applied on the tree litters for composting at 'N' Block.
II	Southern Block	
1.	Large areas at the entrance of the block and 13.50 acres in A3, A10, B 1 to B7, M3 area needs to be cleared. Detailed proposal may be submitted to meet the expenditure and the land can be brought under rice cultivation. The Vice - Chancellor also witnessed use of power weeder in rice and use of drum seeder. A comprehensive proposal with full justification and pay back schedule may be submitted for use of machinery from field preparation up to post harvest, as there is scope for in increasing seed production in rice.	<ul style="list-style-type: none"> ➤ The proposal for land cleaning was submitted and received the fund. Quotations called for JCB machine for hourly hiring basis. ➤ Proposal for farm mechanization with the budget of Rs.63 lakhs was submitted on 31.08.2020.

2.	The paddy transplanter available at AEC&RI, Coimbatore be made available at ARS, Bhavanisagar till September 2020 and considering the larger area need to be transplanted. However, a proposal to purchase a paddy transplanter for ARS, Bhavanisagar from Venture Capital scheme on rice funds be submitted after having discussions with the engineers on the type of transplanter that would suit the lands available in Station.	<ul style="list-style-type: none"> ➤ 7 ac of land transplanted using the transplanter on 18.09.2020 and the second nursery was raised on 21.09.2020 for the machine transplanting. ➤ Request for the Principal Approval for the purchase of 6 row walk behind transplanter was submitted on 10.09.2020 with the budget out lay of Rs.4.00 lakhs under venture capital scheme.
3.	Coconut seedlings may be planted in gap areas and on road side.	➤ Coconut seedlings will be planted in gap areas and on road side at the earliest.
4.	Cleaning of 'S' Block fence of unwanted plants and shrubs to be done.	➤ Clearing the fence area is in progress.
III.	Pungar Block	
1.	A detailed proposal with the budgetary requirements for bringing drinking water supply to the block to be submitted.	The preparation of proposal is in progress in consultation with Executive Officer, Town Panchayat, Bhavanisagar.
2.	As there is a need for involving JCB for cleaning the fields, the JCB bought at TNAU, Coimbatore for use in Western Zone will be allotted for ARS, Bhavanisagar for one month during January 2021.	The JCB available at TNAU, Coimbatore will be utilized as per schedule time.
3.	New planting and gap filling of coconut seedlings on road side to be done.	Planned to plant 160 coconut seedlings during first fortnight of November 2020 since, the seedlings at ARS, BSR will be getting ready during the said time.
4.	Vacant land of 1.0 ac of F.No.40 may be planned for planting forest tree species.	<ul style="list-style-type: none"> ➤ For the establishment of woodlot in barren / uncultivable areas in different blocks of ARS, Bhavanisagar, the Dean (Forestry), FC&RI, Mettupalayam was consulted on 16.09.20 and Dean (Forestry) informed that the details on block wise vacant land available may be provided for to consult with TNPL officials. Accordingly, the information was communicated to the Dean (Forestry) on 17.09.2020. ➤ The Senior Manager, TNPL has visited ARS, Bhavanisagar on 26.09.2020 and inspected the field for the establishment of agro forestry.
IV	Bagaduthurai Block	
1.	The uncultivable area of 5.0 ac in Field No. NE 1, NE 2 & NE 3 ^P presently Covered with <i>Prosopis juliflora</i> and unwanted shrubs and bushes may be cleared and the land brought back into	➤ The proposal for special grant for clearing the fields was submitted to the Vice Chancellor through Director of Research on 11.9.2020 and an amount of Rs.2.20 lakhs has been transferred to ARS, Bhavanisagar for clearing the fields. (E-mail received on

	cultivation with <i>Eucalyptus</i> or other suitable tree species after having discussions with the scientists of FC&RI, Mettupalayam,/TNPL.	16.9.2020). ➤ Discussion was made with Dean, FC&RI, Mettupalayam on 16.9.2020 about the development of agro forestry at ARS, Bhavanisagar. The Dean (Forestry) informed that only the area earmarked for agro forestry need to be shown to the TNPL, who will clear the area and take up planting of tree species as per the MoU. Hence, the clearing of the area proposed for agro forestry is not now immediately taken up. ➤ The Senior Manager, TNPL has visited ARS, Bhavanisagar on 26.09.2020 and inspected the field for the establishment of agro forestry.
2.	An article highlighting the mechanized cultivation of various varieties of rice and their economics be sent for publishing in Valarum Velanmani. Machine transplanting of rice may be also disseminated through TNAU 'You tube'.	➤ Article is under preparation. ➤ The content preparation for dissemination of mechanized transplanting of rice through TNAU 'You tube' is in progress.
3.	Possibilities for laying tap system of irrigation for coconut may be explored in consultation with Director, WTC.	➤ Discussed with Director, WTC about the laying tap system of irrigation on 3.9.2020. ➤ Dr.A.Valliammai visited the KSNM drip company on 3.9.2020 and explored the various types of drip system available at the Company. ➤ Based on that, the request was made to the KSNM drip company to visit our farm and will give the estimate for laying the tap type drip system for Coconut Groove. They informed that they will visit our farm during first week of October 2020.
4.	Gap filling of coconut trees and new plantings of coconut seedlings is to be done.	➤ It is planned to gap fill the 50 number of coconut seedlings in between the existing coconut trees. ➤ Digging of pits for planting coconut trees are in progress.
V.	Thoppam palayam Block	
	Considering the acute scarcity for labours, a detailed proposal for purchasing a mini tractor with pay back schedule be submitted.	Proposal has been sent for availing funds from ERDF budget.
	Use of machinery, especially for weeding and earthing up in turmeric needs to be studied in consultation with Head, Farm Machinery, TNAU, CBE Coimbatore.	Action has been initiated for mechanization in turmeric during ensuing season.
	New sprouts in pruned mango trees are to be thinned as	Second thinning was completed and fertilizer was also applied

	demonstrated by the Vice- Chancellor at the earliest and one more top dressing with NPK fertilizer @ 1.5 to 2kg/tree to be given during September, 2020.	during second week of September,2020.
	Tipping to be done in guava trees.	Tipping was completed in guava.
	Proposal for laying of pipeline grid for mango trees may be submitted for consideration.	Proposal is being prepared and will be sent soon.
	Proposal to go for “solar pumping” to be explored in view of heavy cost to get 3 phase from TANGEDCO.	Estimate has been received for the 11.75 lakhs from the reputed solar system company and proposal was submitted for approval.
	Action taken by individual scientist	
A.	General	
	Funds for the farm related activities and other expenditures may be met from various revolving fund schemes being operated at ARS, Bhavanisagar.	Funds for the farm related activities and other expenditures is being met from various revolving fund schemes being operated at ARS, Bhavanisagar.
	Machineries may be evaluated /demonstrated for earthing up and weeding in turmeric.	Weeding and earthing up will be taken by using implements during ensuing season.
	Farm mechanisation is to be implemented for the major crops which are under cultivation in western zone as this is the lead centre for this agro climatic zone.	<ul style="list-style-type: none"> ➤ In paddy, mechanized planting was taken in 18 acres at ‘S’ block and 4 ac in ‘B’ block. ➤ Drum seeded sowing of paddy was done in 4.0 ac. ➤ Harvesting of paddy and sunnhemp is being done by using combined harvester. ➤ Groundnut sowing was done by using groundnut planter in one ac.
	Technical support for the improvement of research activities can be obtained from various Departments in main campus of TNAU, Coimbatore.	Research projects were proposed after obtaining technical support from the concerned directorates. Technical support from various Departments will also be obtained.
	Priority may be given to carry out the research works.	The research works are being carried out as per the approved programme in URP, Action plan, MLT, ART and OFT allotted during Crop Scientist Meet and Scientific Workers Conference.
	This centre has to meet the demand of quality seeds of framers of the entire state.	Every year the target received from the Director (CPBG) and Director (Seeds) was achieved and distributed to farmers, stake holders, State government and GOI.
	Specific proposals may be given for improvement of different blocks of the research station.	<ul style="list-style-type: none"> ➤ The proposal for clearing the thorny fields around 12.0 ac in ‘N’ block was submitted to the Vice Chancellor through Director of Research on 29.08.2020 and approved the proposal stating that

		<p>the fields may be raised with forest sp. Accordingly, the Senior manager, TNPL has visited the fields on 26.09.2020 and awaiting for the reply.</p> <p>➤ In addition, the proposal for special grant to clear the fields in S, B and P blocks were submitted to the Vice Chancellor through Director of Research on 11.9.2020 and an amount of Rs.2.20 lakhs has been transferred from ERDF account to ARS, Bhavanisagar for clearing the fields. (E-mail received on 16.9.2020).</p>
	Proposal may be given to purchase farm machineries for farm mechanisation.	Proposal for purchase farm machineries for farm mechanization was submitted to Vice Chancellor through the Director (seeds) and Director of research on 01.09.2020 with the budget outlay of Rs. 63.0 lakhs
	Special efforts to be taken to take under planting/new planting with coconut seedlings on both sides/one side of the farm road so as to increase the revenue in the long run.	Efforts are being taken for planting with coconut seedlings on road side of the farm and will be planted during first fortnight of November, 2020.
	As TNAU and TNPL has signed a MoU, TNPL has agreed to take up planting of tree species in all vacant lands of all the blocks in ARS, Bhavanisagar. Hence, Consolidated report to be submitted immediately in consultation with Dean, FC & RI, Mettupalayam.	<p>➤ The Dean (Forestry), FC&RI, Mettupalayam was consulted on 16.09.20 to take up planting of tree species in all vacant lands.</p> <p>➤ The Dean (Forestry) informed that the details on block wise vacant land available may be provided to consult with TNPL officials. Accordingly, the information was communicated to the Dean (Forestry) on 17.09.2020.</p> <p>➤ The Senior Manager, TNPL has visited ARS, Bhavanisagar on 26.09.2020 and inspected the field for the establishment of agro forestry.</p>
	JAO, Agricultural Supervisors, AAO's are to be effectively used in the farm as per the earlier proceedings issued by the Registrar. (Proc.No.A4/00813/2020 dt. 24.03.2020).	JAO, Agricultural Supervisors, AAO's are being used in the farm as per the earlier proceedings.
B.	Scientist Specific remarks	
1.	Dr. Sangeetha Panicker, Professor (Pl. Patho.)	
	The production of <i>Pseudomonas</i> may be stopped until further communication from the University.	Production of <i>Pseudomonas fluorescens</i> has been stopped.
	OFT experiment to be conducted at farmers' fields with regard to silica application in turmeric	Since turmeric planting season is over the OFT will be taken up in the next season.
2.	Dr. D. Muthumanickam, Professor (SS&AC)	

	For turmeric URP, the existing high yield turmeric culture (BS 9) has to be tested instead of BSR 2 turmeric variety during next year trial.	Instead of BSR2 turmeric, the new culture BS9 will be tested during 2021-22, for the URP experiment NRM/BSR/SAC/SPC/2019/001 (921) on ‘Optimizing sources, levels and frequency of sulphur application for enhancing rhizome yield and curcumin content of Turmeric grown under Western zone of Tamil Nadu’.
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	The micro nutrient mixture available at the Department of SS&AC, TNAU, Coimbatore need to be tested in large scale demonstration both in research station and at farmers fields by getting technical support from the Director, NRM, TNAU, Coimbatore for turmeric and rice crops.	The micronutrient mixture for turmeric and rice crops was purchased from the Department of Soil Science and Agril. Chemistry, TNAU, Coimbatore. The MN was incubated @ 10 kg / 25 kg FYM per ac for 25 days and applied as a basal dose for rice crop in S block and farmers field. For turmeric the required quantity of Mn mixture @3 kg / ac was applied in B block and farmers field.
	As suggested earlier for decomposition of farm wastes, the Bio mineralizer may be utilised. The vermicompost Venture Capital Scheme may be closed.	After the harvest of crops, the required quantity of biomineralize will be purchased from Department of ENS, TNAU, Coimbatore and the same will be applied. The Venture Capital Scheme on vermicompost will be closed during 2020-2021.
3.	Dr. R.Jegathambal, Professor (SS&T)	
	Proposal may be sent for seed production of newly released rice varieties.	URP Proposal on seed production of newly released paddy varieties was sent. The RPAC remarks received as the URP on seed production may be proposed during march 2021-22 based on the production programme to be finalized for the year 2021-22. Action has been taken for taking up seed production in paddy new variety ADT 53 during Navarai 2020-21.
	To meet the increased recurring cost, the MSP RF ASO may be revised, as increased targets are to be achieved.	As per the discussion with the Director (Seeds), TNAU, Coimbatore the increased production target to be done with the already approved budget.
	Research publications may be strengthened.	The request for permission to publish research article was sent to the Director of Research, TNAU, Coimbatore and permission obtained on 28.09.2020 and research article sent to MASU on 01.10.2020.

4.	Dr. S.Easwaran, Assoc. Professor (Hort.)	
	Rejuvenation process in mango has to be continued.	New sub project has been obtained to study the performance of mango varieties under rejuvenation pruning.
	For the better establishment of tree crops, TNAU rhizo booster consortium released by the Dept. of Nano Science and Technology may be tried.	Action initiated to purchase the rhizobooster from the Department of Nanotechnology.
	Thornless Khejri tree leaves may be promoted as fodder for live stocks.	Removal of side shoots has been completed in Thornless Khejri tree.

5.	Dr. K.Malarkodi, Assoc. Professor (SS&T)	
	In doubling the farmer's income project, the final income may be compared with baseline survey data.	The final income of the farmer will be compared with baseline survey data during March 2022, since the IFS scheme is being continued up to the said period.
	Must undertake the quality seed production in a sizable area.	Seed production of blackgram VBN 8 in 5.0 ac and greengram CO 8 in 2.0 ac will be taken up during ensuing <i>Rabi</i> 2020-21 season.
6.	Dr. D. Malarvizhi, Assoc. Professor (PB&G)	
	New project proposal has to be sent for varietal development and improvement of crops which is suitable for Erode district like redgram and green gram.	Preparation of new varietal development project in moth bean is in progress after having discussion with Director, CPBG.
	In the URP on "Maintenance breeding in redgram BSR 1" the project duration may be reduced to 3 years instead of 5 years in consultation with the Director (CPBG), TNAU, Coimbatore.	The project period is revised to five years to ensure genetic purity in BSR 1 redgram since it is a often cross pollinated crop after having discussion with Director, CPBG.
	Proposal may be sent for the student SRF in DBT scheme for conducting research works at ARS, Bhavanisagar.	Request has been made to Director CPBG for Student to work in DBT scheme.
	Dr. K.Ganesan, Asst. Professor, Agricultural Entomology may be involved in GOI-DBT Mungbean scheme for the study of Bruchids.	Dr.K.Ganesan will be involved whenever phenotyping work is carried out through bruchid bioassay.
	Under the guidance of Dr.N.Senthil, Professor (Biotech), Molecular work of GOI-DBT Mungbean scheme may be carriedout at CPMP lab , TNAU, Coimbatore.	Seed samples were given to Dr.N.Senthil, Professor (Biotech), at CPMB, TNAU, Coimbatore for carrying out Molecular work.

7.	Dr. A.Valliammai, Asst. Professor (SWCE)	
	Machineries available in Dept. of Farm Machinery, TNAU may be evaluated for farm mechanisation in different crops at ARS, Bhavanisagar.	<p>Machineries available at Dept of Farm Machinery, TNAU is being evaluated for the rice, groundnut, turmeric, sunnhemp and banana.</p> <p>Rice:- Transplanting was done by machine transplanter and harvesting was done by combined harvester. Drum seeder and power weeder was also used.</p> <p>Groundnut:- Sowing was done by using groundnut planter. Power weeder was used, but needs rectification in spacing of wheels. Harvesting will be done by using groundnut digger and stripping will be done by TNAU model stripper.</p> <p>Sunnhemp:- Harvesting was done by using combined harvester.</p> <p>Turmeric:- Earting up will be taken by using implements in ensuing season.</p> <p>Banana:- Harvesting will be done by using tractor operated banana harvester in ensuing season.</p>
	Water release from the dam vs ground water recharge pattern may be studied considering the farm and farmers holdings.	Data on water release from the dam is being collected from the PWD, Bhavanisagar.
8.	Dr. N.Satheeshkumar, Asst. Professor (Agron.)	
	OFT on organic rice experiment field should be free from inorganic source for the cropping period.	Organic rice treatments are imposed as per approved programme.
	If possible, considering the conditions laid out, a block of fields (say 1-2 acre) may be converted as organic block for undertaking research in various crops.	One acre of land (NA 8, 15) at 'N' block was identified to convert as organic block for undertaking research in various crops.
9.	Dr. V.Vakeswaran, Asst. Professor (SS&T)	
	Proposal may be sent for increasing sunnhemp seed production target in place of Daincha, as it was reported that harvesting is easy for sunnhemp and there is local demand.	Proposal submitted and got the approval from the Director, Seed Centre for increasing the sunnhemp seed production (Final target of 4.5 tonnes for the year 2020 -2021) in place of daincha.
	Under TN-IAMP project, success stories with farmers feedback may be documented and published in Valarum Velanmai.	Success stories will be submitted at the earliest.
	Seed production studies in fodder cowpea is to be initiated.	Fodder cow pea seed production with different spacing has been initiated.

C.	Office review	
	Proposal for repairing the staff quarters of the supporting and non teaching staff may be sent for consideration.	For repairing the staff quarters of the supporting and non teaching staff the proposal will be sent during October, 2020.

ANNEXURE – II

Action taken on Director of Research review on 19.02.2019

S.No	Action plan	Action taken
I	Research	
1.	All the externally or internally funded research projects under various schemes DBT, AICRP, VCS, RFS, NADP, IAMWM and others are to be numbered properly in accordance with the numbers assigned by the office of the Directorate of Research, TNAU, Coimbatore. The detailed review report is attached.	All the externally or internally funded research projects were numbered properly in accordance with the numbers assigned by the office of the Directorate of Research, TNAU, Coimbatore.
2.	All project leaders should maintain field notebooks, basic records and project file for on-going and completed projects.	Field notebooks, basic records and project file for on-going and completed projects are being maintained.
3.	Submit completion reports in prescribed formats for those projects that were officially closed. In case the period is lapsed already, the projects required to be extended with specific reasons and closed with a stipulated time period.	Completion report was submitted for the closed projects in prescribed format.
4.	The completed projects must result in publications in peer reviewed national or international journals besides in regional language. As per the instructions of the Vice - Chancellor, all the manuscripts that are to be submitted for publications should get number from the Director of Research Office. A set of already published ones (soft and hard copies) need to be given to the DR's office.	The number has been obtained from the Director of Research Office for the manuscripts to be submitted for publications by the concerned scientists before sending of article for publication. The list of articles published from sub projects were given in Annexure I.
5.	The outcome of the completed projects should be presented in the upcoming Crop Scientist Meet 2019.	The outcome of the completed projects has been presented in the Crop Scientist Meet 2019 and 2020.
6.	Projects that were found unproductive, inconsistent or irrelevant to the agro-climatic zones were suggested to be closed.	The unproductive projects were closed.
7.	Each scientist should possess at least one research project relevant to the requirement of the agro-climatic zone.	All scientists are having one or more than one research project.
8.	Scientist were strongly suggested to get project from externally funding agencies and advised to take advantage of Grantsmanship Workshops to be organized in the month of March 2019 by the Directorate of Research, TNAU, Coimbatore.	Grantsmanship Workshops was attended by Dr. Sheela Venugopal, Asst. Prof. (Agrl. Ento.) on 10-12 June 2019 and prepared a project proposal on "Trap and terminate- an Innovative pest management strategy of stored pulses". But could not get approval for external funding, hence converted as URP, awaiting numbering approved in RPAC.

II	Seed Production	
1.	Bhavanisagar being the major seed production hub, both breeders and seed scientist must bestow utmost care to produce and supply quality seeds. Proper rogueing and removal of off-types are to be done periodically to ensure maintenance of genetic purity.	The scientists involved in seed production are bestowing their attention in maintaining the quality of seeds. Rogueing is being done periodically in seed crops to maintain the genetic purity of varieties.
2.	All records and periodical inspection reports are to be maintained and the same have to be monitored by the HOD.	The records and periodical inspection reports are being maintained and monitored.
3.	Seed Quality Lab carries a set of sophisticated equipments but not properly maintained and used. The pH and EC meters were kept unattended for a long time. Dr. V. Manomani, Professor (SS&T) is requested set tight the lab and action taken may be intimated to the undersigned.	Action has been taken up to set right the Seed Testing Laboratory at Agricultural Research Station, Bhavanisagar for effective utilization of the equipments by the scientists of various disciplines and the same was intimated to the Director of Research on 06.03.2020.
III	Farms	
1.	Ensure all the fields are properly utilized for conducting experiments or seed production. Ensure a cropping intensity of >200.	The fields are properly utilized. The cropping intensity for 2019-2020 is 240 % and 2020-2021 is 252%
2.	All the field experiments are to be properly labeled with field boards and labels.	The field experiments are being properly labeled with field boards and labels.
3.	Cropping programme and cropping calendars are to be maintained and get it approved periodically.	Approval is being obtained from the Director of Research for the cropping programme every year.
4.	In order to overcome the labor shortage, HOD is requested to send proposal for hiring contractual labourers and farm mechanization. It is intended to take up a joint Demo between TNAU and TAFE.	Proposal of engaging contractual labour and has been sent and got approval for the year 2019-2020 and 2020-2021.
5.	A proposal may be sent for the construction of retention wall and raising of the pump shed in Pungar Block.	The Vice Chancellor instructed to plant vetiver during his visit to ARS, Bhavanisagar on 27 & 28.03.2020 to avoid soil erosion near river bank. Accordingly, the vetiver plantation was done on 18.07.2019, 29.07.2019 and 03.12.2019. Also, he suggested to purchase submersible pump for pumping river water which is in progress.
IV	Administration	
1.	Office records are updated, well maintained and deserve a bountiful of appreciation.	Maintenance of office records is being continued.
2.	Audit objections relating the pending credit bills with the State Government may be submitted to the Director of Research for onward transmission to the Vice Chancellor to derive solution to unresolved issues.	The pending credit bills with the State Government has been submitted to the Director of Research on 27.02.2019.

V. URP/ Externally funded projects/VCS/ RFs/Core projects / Others

S. No.	Project Leader	Scheme No. & Title	Date of Start & Closure	Status	Director of Research/ Technical Director	Action taken
1.	Dr.D.Malarvizhi Asst. Prof. (PBG)	CPBG/BSR/PBG/MAI/2017/001 Breeder seed production in Maize	June 2017 to May 2020	Male parental line UMI 1230 was sown on 31.12.2018 and female line UMI1200 was sown on 08.01.2019. The crop is at vegetative stage.	The project may be continued as per the schedule.	The project was completed and completion report has to be submitted.
	Dr.D.Malarvizhi Asst. Prof. (PBG)	CPBG/BSR/PBG/GGR/2016/001 Breeder seed production in greengram, blackgram varieties and evaluation of pre released cultures under multi location trial testing	June 2016 to May 2021	The production programme was completed and target achieved.	The project may be continued as per the schedule.	The project is continued as per the schedule.
	Dr.D.Malarvizhi Asst. Prof. (PBG)	DBT/CPBG/BSR/PBG/2017/R004 Introgression of Bruchid Resistant Gene(s) from <i>Vigna</i> genotypes into popular Mung bean (<i>Vigna radiata</i> L.) variety through Marker Assisted Backcross Breeding.	June 2017 to June 2020	Backcross population (BC1F1) was raised on 09.02.2018. Molecular work is in progress.	Study related to seed coat texture may be carried out using advanced techniques like IR technology.	Study related to seed coat texture was carried out.
	Dr.D.Malarvizhi Asst. Prof. (PBG) Dr. R. Vigneshwari Asst. Prof. (SS&T)	AICRP/STR/BSR/SEP/002 ICAR Partly financed NSP (crops) Breeder Seed Production	April 1994 to till date	The production programme was taken up as per the communication given by the Director (CPBG), TNAU, Coimbatore.	The project may be continued as per the schedule.	The project is continued as per the schedule.
	Dr.D.Malarvizhi Asst. Prof. (PBG)	RF/ARS-BSR/002	April 1994 to	The production programme was taken up	The project may be continued as	The project is continued as per

	Dr. B.Meenakumari, Asst. Prof. (PBG)	Revolving fund for the Breeder Seed production in Agricultural crops under ICAR National Seed Project	till date	as per the communication given by the Director (CPBG), TNAU, Coimbatore.	per the schedule.	the schedule.
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2.	Dr. B.Meena Kumari Asst. Prof. (PBG)	CPBG/BSR/PBG/GNT/2015/002 Evolving Spanish bunch groundnut (<i>Arachis hypogaea</i> L.) genotypes with superior yield and evaluation of pre-release cultures of oilseed crops under MLT	September 2015 to August 2018	The culture BSG 0912 was released as Groundnut variety BSR 2 by SVTRC during Jan. 2019. The completion report was submitted.	DNA finger printing may be completed at the earliest and notification may be done. Samples must be sent to NPBGR. The variety may be promoted by giving a wide publicity through social networks and mass media.	Project work was completed. DNA finger printing completed and notification obtained. This variety is included in the seed production chain for breeder seed production.
	Dr. B.Meena Kumari Asst. Prof. (PBG)	CPBG/BSR/PBG/GNT/2017/001 Breeder seed production in ruling varieties of groundnut in Tamil Nadu.	July 2017 to June 2020	The production programme was taken up as per the communication given by the Director (CPBG), TNAU, Coimbatore.	The project may be continued as per the schedule.	The project is continued as per the schedule.
	Dr. B.Meena Kumari Asst. Prof. (PBG)	CPBG/BSR/PBG/SES/2017/ 001 Development of white seeded sesame genotypes suitable for western zone of Tamil Nadu.	July 2017 to June 2020	Evaluation in station trial is in progress	The status regarding white seeded sesame may be reported. Artificial inoculation	The project has been completed. The completion report preparation is in progress.

					study may be conducted to assess the resistance potential of the crop. Fatty acids (Omega 3 & 4) and protein evaluation may be done.	
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	Dr. B.Meena Kumari Asst. Prof. (PBG)	CPBG/BSR/PBG/RIC/2016/001 Nucleus and Breeder seed production in popular rice varieties of Tamil Nadu	June 2016 to May 2021	The production programme was taken up as per the communication given by the Director (CPBG), TNAU Coimbatore.	Care may be taken for maintaining the genetic purity. Record maintenance and digitalization may be done for all the breeder seed supply.	Utmost care has been taken for maintaining the genetic purity. The project is being continued as per the target received from the Director (CPBG), TNAU Coimbatore.
3.	Dr. N.Satheeshkumar, Asst. Prof. (Agron.) Dr. K.M. Sellamuthu, Asst. Prof. (SS&T)	DCM/ADT/AGR/2016/001 Comparative performance of different crop establishment methods for Rice-Rice-Blackgram cropping system	June 2016 to June 2019	Rice var. Co 50 was transplanted on 05.12.2018	The water saving percentage may be quantified	The water saving percentage was quantified and included in the report.

	Dr. N.Satheeshkumar, Asst. Prof. (Agron.) Dr. K.M. Sellamuthu, Asst. Prof. (SS&AC)	DCM/TNJ/AGR/RIC/2016/001 Oilseeds as a component in ricebased cropping sequence in canal command area (Upland)	June 2016 to June 2019	Rice var. Co 50 was transplanted on 28.12.2018	The data may be presented in sequence. The water saving percentage may be quantified	The final data was prepared as rice-oilseeds sequence and presented in crop scientist meet. The water saving percentage was quantified and included in the report.
	Dr. N.Satheeshkumar, Asst. Prof. (Agron.)	AICRP/DCM/CBE/AGR/001 AICRP- Integrated Farming Systems on Farm Research Experiment I- On-Farm crop response to plant nutrients in rice-gingelly cropping systems and their interaction with human continuum	Apr 2017 to Mar 2020	Rice crop was harvested and yield has been recorded. Soil and plant sample preparation for analysis is under progress. Gingelly yet to be sown	Specific task may be addressed in consultation with Director (Crop management) for the AICRP project. Additional treatments suitable for the region may also be included. Nutrient budgeting related projects may be proposed.	As per the mandate of AICRP project the assigned work has been completed. Nutrient budgeting project will be proposed.
		Experiment II- Diversification of Existing Farming Systems under Marginal household conditions		Rice crop was harvested and yield has been recorded. Turmeric and tapioca yet to be harvested.	The value of animal component to be taken up for working out economics.	The value of animal components also included in the gross return for data sheet preparation.
		Experiment III- On-farm evaluation of farming system modules for improving profitability and livelihood of		Rice crop was harvested and yield has been recorded.	Success story has to be prepared and a video	Success stories were prepared and sent to IIFSR, Modipuram for compilation, The video documentation

		small and marginal farmers		Turmeric and tapioca yet to be harvested. Cotton yet to be sown	documentation has to be made	will be made after the impact study period.												
4.	Dr. D.Muthumanickam Professor (SS&AC)	NRM/PKM/SAC/001 Spatial variability analysis of available nutrient status in the soils of Western block of HC&RI, Periyakulam	April 2016 to May 2019	The project work as per the mandate was completed and the completion report has to be submitted	To be completed. The results of the project may be presented in non-crop scientist meet. The soil profile status of ARS Bhavanisagar may be studied	<ul style="list-style-type: none"> ✓ This project work was presented in the Non crops Scientist meet - 2019. ✓ The completion report was approved as per the Ref.No. DR/P1/RAC Approval/ 2019 dated 27.08.2019. ✓ The soil series identified in the different blocks of ARS, Bhavanisagar are: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Block</th> <th style="width: 90%;">Soil series</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>Irugur and Chikkarasampalayam</td> </tr> <tr> <td>B</td> <td>Sathyamangalam and Kodiveri</td> </tr> <tr> <td>S</td> <td>Sathyamangalam and Irugur</td> </tr> <tr> <td>T</td> <td>Irugur and Bhavanisagar</td> </tr> <tr> <td>P</td> <td>Chickarasampalayam and Kodiveri</td> </tr> </tbody> </table>	Block	Soil series	N	Irugur and Chikkarasampalayam	B	Sathyamangalam and Kodiveri	S	Sathyamangalam and Irugur	T	Irugur and Bhavanisagar	P	Chickarasampalayam and Kodiveri
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	Dr. D.Muthumanickam Professor (SS&AC)	New Project Optimising sources and levels of sulphur for enhancing rhizome yield and curcumin content of turmeric grown under Western zone of Tamil	June 2019 to July 2022	Project was submitted for approval. Number awaited.	The projects treatments may be revised and submitted for approval	<ul style="list-style-type: none"> ✓ The project was resubmitted as indicated by the Technical directors. ✓ The project was approved as per
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		Nadu				the Ref. No. DR/P1/URP/ New Project approval / 2019 dated 24.09.2019. ✓ First experiment was completed and the second experiment is in progress.
5.	Dr. K.M. Sellamuthu Asst. Prof. (SS&AC)	New Project Effect of rice husk ash as a source of silica for rice-based cropping systems of TamilNadu	April 2019 to march 2022	Project proposed	New number will be allotted after receipt of proposal with RPAC recommendation from Director (NRM)	The project was not approved.
6.	Dr. V. Manonmani Professor (SS&T)	SEED/CBE/SST/GNT/2016/001 Study on seed priming treatments for improving seed vigour and yield in groundnut	June 2016 to May 2019	The project work as per the mandate was completed and the completion report has to be submitted	Project to be completed. Hydro priming for drought to be studied.	The completion report was submitted and approved as per Lr.No.DR/P1/RAC Approval/2019 dt. 27.08.2019
7.	Dr. V. Manonmani Professor (SS&T) Dr. K. Malarkodi Asst. Prof. (SS&T) Dr. R. Vigneshwari Asst. Prof. (SS&T)	RF/ARS/BSR/001 Foundation and TFL seed component	Apr 2007 onwards	Seed production carried out as per the production programme communicated by the Director, Seed Centre, TNAU, Coimbatore	The project may be continued as per the schedule	The project is being continued as per the seed production plan and achieved the target every year.

8.	Dr. K. Malarkodi Asst. Prof. (SS&T)	SEED/BSR/SST/GGR/2017/001 Study on impact of weed	June 2017 to May 2019	Two-year trial with four seasons was completed. Storage study is in progress	The interaction study of seed priming and bruchid infestation may be taken up.	The interaction study of seed priming and bruchid infestation was taken up and found that
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		priming and seed coating techniques on resistance to water stress in greengram			The project may be completed. Externally funded projects may be proposed.	no bruchid infestation was found in primed seeds. The project was completed and submitted the completion report on 20.01.2020.
9.	Dr.R.Vigneshwari Asst. Prof. (SST)	SEC/BSR/SST/RIC/2018/001 Evaluating the influence of seed priming on crop growth and yield of direct seeded rice	Dec. 2018 to Nov. 2020	Field trial has to be raised during June 2019	Midterm correction for treatments to be submitted through Director, Seeds Centre for approval.	Deletion proposal was submitted for the project as per the Proc. No. DSC/Field Visit/ARS-BSR/2019 dt: 12.10.2019 of the Director, Seed Centre, TNAU.
	Dr. R. Vigneshwari Asst. Prof. (SS&T) Dr.Sheela Venugopal, Asst.Prof.(Agrl.Ent o.)	SEED/BSR/SST/RIC/2017/001 Evaluating an integrated management approach against Angoumois grain moth (<i>Sitotroga cerealella</i>) infestation to improve rice seed storability	Dec. 2016 to Dec. 2018	One field experiment and storage study were completed. Sample was sent for toxicity analysis	Promote botanicals of TNAU formulations.	The project was completed and the completion report was sent for approval on 29.05.2019.
10.	Dr. P. Hemalatha Asst.Prof. (Hort.)	HCRI/BSR/HOR/SPC/2015/003	July 2015 to June 2018	The turmeric culture BS 9 is under MLT II. The crop is under rhizome maturation phase	Large scale demonstration may be done before releasing the culture. Calculate curcumin yield and actual yield/ha. Rhizome harvester can be used and performance may be reported.	The project is continued as per the schedule. Seed rhizome has been sent for conducting ART to Salem, Dharmapuri, Krishnakiri, Erode and Coimbatore. Rhizome harvester will be used during ensuing harvesting season.

10.	Dr. P. Hemalatha Asst.Prof. (Hort.)	GOI- DASD/HCRI/PKM/SPC/2 015/ D001 MIDH- Seed & Planting material production, distribution and transfer of technology in spices	2018-19	The crop is under rhizome maturation phase to achieve the target of 33 tonnes seed rhizomes. FLD on organic farming of turmeric was taken up. Farmers training on 'Recent trends in turmeric cultivation has been programmed on 26 th February, 2019.	The project may be continued as per the schedule	The project is continued as per the schedule.
		RF/ARS/BSR/003 Seed production in Horticultural crops.	Dec. 2009 to till date	The seed rhizome of turmeric and soft wood grafts of mango and amla are being produced and distributed.	The project may be continued as per the schedule	The project is continued as per the schedule.
11.	Dr. A. Valliammai Asst.Prof. (SWCE)	AICRP/WTC/CBE/IWM/0 01 Optimization of depth of placement of lateral using HYDRUS for different soil types	Sep. 2016 to Aug. 2019	Two years of experiments completed. In the current year simulation work has been taken up and optimization of lateral depth and wetting pattern has to done.	Wetness spread of the soil to be recorded	Wetness spread of the soil was recorded horizontally and vertically. The final report was submitted to ICAR.

11.	Dr. A. Valliammai Asst.Prof. (SWCE)	AICRP/WTC/CBE/IWM/0 01 Application of Soil and Water Assessment Tool (SWAT) model for estimation of surface water resources and temporal water demand for sustainable water management in a selected watershed of Bhavani river basin	Sep. 2018 to Aug. 2019	Digitalization of boundary map of LBP basin completed. Mechanization of micro watershed has been completed. Preparation of thematic map completed. Hydrological parameters were simulated.	The DCM may be consulted for modeling on climate study. An on -station trial at Thoppamaplayam block of ARS, Bhavanisagar need to be taken up. Suggested to purchase soil moisture meter from ICAR-SBI, Coimbatore for study purpose	Discussed with DCM for modelling study. The modelling work of LBP basin is carried out as per suggestion provided by DCM. Thematic maps are prepared for estimating Runoff at T block. Consulted with the Scientist of ICAR-SBI for purchasing the Soil moisture meter. Discussion was made with the supplier of the soil moisture meter. The current version of the meter has not given the quantitative of soil moisture. Hence, it is planned to purchase the updated version which is under testing stage.
		AECRI/BSR/SWC/2017/0 01 Identification of Water Harvesting Structures for Groundwater Recharge Using Geo-Spatial Techniques	Nov. 2017 to Oct. 2018 (completed)	Runoff potential map was prepared for Bhavani watershed. Runoff volume was estimated. Various thematic layers were prepared and overlay analysis was done in GIS. A suitable location was identified using geospatial techniques for constructing the rain water harvesting structure in the study area.	Completion report to be submitted with RPAC approval	Completion report was submitted on 09.01.2020 and awaiting for approval.

12.	Dr.Sangeetha Panicker Professor (Pl.Patho.)	New Project Effect of silicon on the control of leaf spot, leaf blotch and rhizome rot of turmeric	April 2019 to May 2022	Project submitted and presented in RPAC meeting. Comments were carried out and resubmitted for approval	New project number will be allotted after the receipt of the proposal with RPAC approval from Director (CPPS). Take up a trial at Thalavadi area under natural condition. Give a cost effective package from this project. The treatment with different dose of Potassium silicate and Silicic acid alone may be taken up for study.	New project has been proposed to RPAC and approved and number allotted viz., CPPS/BSR/PAT/SPC /2019/001. First season trial was concluded and planting of second season trial has been taken up. Work in progress.
13.	Dr. Sheela Venugopal Asst.Prof.(Agrl. Ento.)	CPPS/BSR/ENT/RIC/2016 / 001 Evaluation of eco -friendly methods against rice yellow stem borer (YSB)	Sep. 2016 to Aug. 2019	Second trial crop was transplanted on 10.02.2019	The findings of this project may be shared with other entomologists of the University. Technology capsule for controlling rice pest may be submitted in CSM on rice.	The findings when shared during CSM 2019 were remarked as being repetition in the already existing recommendation and hence the URP suggested for deletion and now deletion proposal submitted.

14.	Dr. M. Rajavel Asst. Prof. (CRP)	DCM/BSR/CRP/RIC/2015 / 001	Aug. 2015 to July 2017	Project completed	Completion report to be submitted through Director, Crop Management with RPAC approval. New URP should be proposed. The web page of ARS, Bhavanisagar need to be updated.	Completion report preparation is under progress. The web page of ARS, Bhavanisagar was updated.
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VCS Scheme

S. No.	Project Leader	Scheme No. & Title	Date of Start & Closure	Status	Director of Research/ Technical Director	Action taken
1.	K.M.Sellamuthu Asst. Prof (SS&AC) & D.Muthumanickam Professor (SS&AC)	V60 ED Commercial production and distribution of vermicompost	Aug. 2006 onwards	6.5 tonnes of vermicompost sold. 2 tonnes of ready for sale	Central farm unit need to be visited with PUSM for training and future improvement. Product may be sold through Central farm, TNAU. Super impose other bioinoculants and bring out enriched vermicompost product	Dr. K.M. Sellamuthu has visited the central farm unit and accordingly the vermisheds and production technologies were restructured. The vermicompost produced in ARS, Bhavanisagar was sold here itself based on the demands received from the farmers, Research stations and various government departments. During the review meeting on 27.08.2020, the Vice Chancellor instructed to close the vermicompost venture capital scheme based on cost benefit

						ratio analysis.
2.	Dr. R. Vigneshwari Asst. Prof. (SS&T)	V60BI Production of foundation seeds of popular rice varieties through System of rice intensification.	Sep. 2003 onwards	11 tonnes of seed sold. 16 tonnes of seed ready for sale	The project may be continued as per the schedule	The project is continued as per the schedule.
3.	Dr. P. Hemalatha, Asst.Prof. (Hort.)	V 60 AT Clonal Propagation of BSR 1 Amla (<i>Emblca officinalis</i>) for commercial outlet	Aug 2003 onwards	3000 soft wood grafts of mango and 2000 soft wood grafts of amla were produced and being supplied	The project may be merged with ICAR MSP (RF) horticulture scheme.	The project has been merged with ICAR MSP (RF) horticulture scheme.
		V60 EB Commercial production and distribution of Banana suckers, fruits and leaves	Sep 2006 onwards	10,000 suckers, 9.4 ton bunches and 1000 leaves were produced and supplied.	The project is continued as per the schedule.	The project has been merged with ICAR MSP (RF) horticulture scheme.
4.	Dr. Sangeetha Panicker Professor (Plant Patho.)	V60DM Mass production of <i>Tricoderma viride</i> , <i>Pseudomonas fluorescens</i> and <i>Pleurotus</i> Spp	Oct 2018 onwards	360 kg <i>Tricoderma</i> and 240 kg <i>viride</i> , <i>Pseudomonas</i> sold. 300 kg and 100 kg respectively ready for sale.	Consultation with Prof. and Head (Plant Pathology) may be done to assess the possibility of liquid formulation production.	Consultation has been done with Director (ABD), Director (CPPS) and Prof. and Head (Plant Pathology) and based on that project has been continued.

5.	Dr. Venugopal Asst. Prof. (Agrl.Ento)	Sheela	V60EM Production and distribution of popular varieties/hybrids coconut seedlings	Aug 2008 onwards	1600 seedlings sold. Sand curing of nuts was completed and sown for next batch production.	More number of seedlings may be produced to meet the requirement of delta farmers	170 Mother palms identified at station and nuts are being collected and nursery being raised.
5.	Dr. Venugopal Asst. Prof. (Agrl.Ento)	Sheela	V60IG Commercial production of <i>Beauveria</i> and <i>Metarhizium</i>	Oct 2018 onwards	Production to be initiated. Unit establishment was completed.	The production need to be started at the earliest.	100 kg of <i>Beauveria bassiana</i> produced, 9 kg sold. Due to lack of demand from farmers as Dept. of Agriculture is also producing them, the produced formulation got expired and lost its action. Currently some marketing strategy has to be devised to sell the product as this is highly useful for management of pests like fall army worm, coconut red palm weevil, rhinoceros beetle, banana rhizome weevil, pseudostem borer, white grubs <i>etc.</i>

NADP Scheme

S.No.	Project Leader	Scheme No. & Title	Date of Start & Closure	Status	Director of research/ Technical Director	Action taken
1.	Dr. V. Manonmani Professor (SS&T) Dr. K. Malarkodi Asst. Prof. (SS&T) Dr. R. Vigneshwari	M-NADP-28 Farmer's participatory seed production and popularization of	2018-2019	FLD (10 Nos.) was completed. Field day was conducted. Seed procurement	Status of genetic purity of paddy variety CO 52 may be addressed	Genetic purity was assessed by Dept. of Rice, TNAU, Coimbatore.

	Asst. Prof. (SS&T)	MGR 100 rice in Tamil Nadu.				
	IAMWARM II					
1.	Dr.M.Rajavel Asst.prof.(CRP)	TNIAMP - Phase I Tamil Nadu Irrigated Agriculture Modernization Project	17.11.2017 to 31.03.2023	Interventions viz., GM, SRI, SSI, PF - Vegetables target has been completed	The project may be continued as per the schedule	The project is being continued as per the schedule.

Student Research

S.No.	Project Leader	Scheme No. & Title	Date of Start & Closure	Status	Director of Research/ Technical Director	Action taken
1.	M.Rajasekar III Ph.D (Agronomy) Chairman: Dr.N.K.Prabhakaran Professor and Head ARS, Bhavanisagar	Moisture stress Management in Different Irrigation Regimes of Maize	Aug.2017 to June 2019	First year experiments have completed (Two seasons) and II year experiments are in progress.	The report regarding PPFM spray in maize may be submitted to CSM on millets.	The report regarding PPFM spray in maize has been submitted to CSM on millets.

General recommendations

1.	Director (CPPS)			
	Scientists are instructed to propose an externally funded project.	The following schemes were proposed.		
S.No.	Title of the scheme	Proposed funding authority	Name of the Scientist	Budget (Rs.in lakhs)
I	Externally funded scheme			
1.	Centre of Excellence	GOI, Ministry of Agriculture	Dr. V.Manonmani Prof.(SST)	647.00
2	Science Technology and Innovation Hub in Byannapuram Village, Thalavadi Block, Erode District, Tamil Nadu State (19.08.2019)	GOI, Ministry of Science and Technology under the SIT Hubs for SCST	Dr. K.Malarkodi Assoc.Prof.(SST) Dr.R.Vigneswari	26.70

			Asst. Prof.(SST)	
3.	Science Technology and Innovation Hub in T.N.palayam Block, Erode District, Tamil Nadu State (19.08.2019)	GOI, Ministry of Science and Technology under the SIT Hubs for SCST	Dr.V.Vakeswaran Asst.Prof.(SST) Dr.K.Ganesan Asst.Prof.(Agrl.Ento.)	75.00
4.	Demonstration of micro irrigation and fertigation techniques for Coconut in Agricultural Research Station, Bhavanisagar	Coconut Development Board	Dr.A.Valliammai Asst.Prof.(SWCE) Dr.S.Easwaran Asso. Prof.(Hort.)	10.50
II	Training			
4	Advanced farming Technology on Quality Seed Production and automated seed processing (02.08.2019)	Tamil Nadu State Council for Science and Technology (TNSCST)	Dr. K.Malarkodi Assoc.Prof.(SST) Dr. V.Manonmani Prof.(SST)	0.50
5.	Technology transfer on Organic Seed Production (02.04.2019)	NABARD	Dr.V.Vakeswaran Asst. Prof.(SST)	2.24
6.	Recent trends on Seed production, Quality maintenance and enhancement (20.12.2019)	ICAR, New Delhi	Dr. K.Malarkodi Assoc.Prof.(SST) Dr.R.Vigneswari Asst. Prof.(SST)	3.50
2.	Director (NRM)			
	STCR based fertilizer prescription for ARS, Bhavanisagar soils may be prepared with a cc to NRM.		STCR based fertilizer prescription for ARS, Bhavanisagar soils was prepared and furnished hereunder.	

S.No.	Crop	Soil Series	Target yield (t ha ⁻¹)	Equation
1	Rice (Kharif)	Irugur	7	FN = 5.19 T - 0.89 SN - 0.98 ON FP ₂ O ₅ = 2.27 T - 4.50 SP - 1.09 OP FK ₂ O = 3.11 T - 0.59 SK - 1.02 OK
2	Rice (Rabi)	Irugur	8	FN = 4.88 T - 0.68 SN - 0.72 ON FP ₂ O ₅ = 2.06 T - 2.91 SP - 2.27

				OP FK ₂ O = 2.89 T - 0.47 SK -0.59 OK
3	Rice (Rabi)	Chickarasampalayam	8	FN = 2.80 T - 0.29 SN - 0.89 ON FP ₂ O ₅ = 1.35 T -1.28 SP -1.78 OP FK ₂ O = 2.50 T - 0.42 SK -1.14 OK
4	Maize	Sathyamangalam	10	FN = 3.96 (T)-0.62 (SN) F P ₂ O ₅ = 0.57 (T)- 5.21 (SP) PK ₂ O = 0.83 (T)-0.50 (SK)
5	Black gram	Irugur	0.9	FN = 25.07 T - 0.71 SN F P ₂ O ₅ = 15.44 T - 5.48 SP FK ₂ O = 11.00 T - 0.19 SK
6	Groundnut	Irugur	2.0 to 2.5	FN = 6.54T-0.56 SN-0.69 SN F P ₂ O ₅ = 3.80T-3.32 SP-0.77 OP FK ₂ O = 8.35T-0.65SK-0.87 OK
7	Sugarcane	Irugur	100 - 125	FN = 3.42 T-0.56 SN-0.93 ON F P ₂ O ₅ = 1.15T-1.94 SP-0.98 OP FK ₂ O = 3.16T-0.73SK-0.99 OK

	Soil database for ARS, Bhvanisagar need to be updated.	Soil data base for the all the five blocks are updated. The soils are mostly falls under the Irugur, Chikarasampalayam, Kodiveri, Sathyamangalam soil series.
3.	Director (DCM)	
	Externally funded project with multidisciplinary aspects may be proposed.	Four projects were submitted for external funding as listed against S.No.1 of general recommendations.
4.	Director (WTC)	
	Existing TNAMP basins can be used as a launching pad for evaluating and popularizing the TNAU technologies and varieties.	The assigned interventions for Lower Bhavani sub basins have been taken up.
5.	Director of Research	
	Emphasis may be given to product/technology oriented research projects supported by externally funding.	Four projects were submitted for external funding as listed against S.No.1 of general recommendations.

S.No.	Project Number and Title	Articles published	NAAS rating
1.	AECRI/BSR/SWC/2017/001 Identification of Water Harvesting Structures for Groundwater Recharge Using Geo-Spatial Techniques	Valliammai. A, G.Thiygarajan and Balaji Kannan. 2019. Identification of Groundwater recharge zones of Bhavani watershed using geo spatial techniques. <i>International Journal of Current Microbiology and Applied Sciences</i> , 8(10):1574-1579.	5.38
2.	SEED/BSR/SST/RIC/2017/ 001 Evaluating an integrated management approach against Angoumois grain moth (<i>Sitotroga cerealella</i>) infestation to improve rice seed storability	Vigneshwari, R and Sheela Venugopal. 2019. Influence of seed treatments and storage containers on Angoumois grain moth (<i>Sitotroga cerealella</i>) infestation in rice seed storability. <i>International Journal of Chemical Studies</i> , 8(1): 1528-1532.	5.32
3.	NRM/PKM/SAC/001 Spatial variability analysis of available nutrient status in the soils of Western block of HC&RI, Periyakulam	Muthumanickam. D. 2020 . Spatial Variability Mapping of Available Nutrient Status in Vegetable Grown Soils Using GIS Techniques. <i>International Journal of Current Microbiology and Applied Sciences</i> , 9(5): 3227-3236.	5.38
4.	SEED/BSR/SST/GGR/2017/001 Study on impact of weed priming and seed coating techniques on resistance to water stress in greengram	Malarkodi. K. 2020.Impact of seed priming and seed coating techniques on resistance to water stress in greengram cv. CO 8. <i>International Journal of Agriculture Sciences</i> , 12 (2). Pp 9431-9435.	4.20

ANNEXURE - III
Cropping Programme

Abstract

S.No.	Particulars	Area proposed for <i>Kharif</i> 2020 (ac)	Area covered <i>Kharif</i> 2020 (ac)	Area to be covered (ac)
1.	N Block	64.28	60.86	3.42
2.	S Block	108.82	76.78	32.04
3.	P Block	75.77	70.19	5.58
4.	B Block	34.26	34.26	0.00
5.	T Block	93.25	89.68	3.57
	Total	376.38	331.77	44.61

Block wise activities

S.No.	Crop	Action Plan (ac)	Action Taken (ac)	Remarks
I	NORTHERN BLOCK			
1.	Sugarcane	10.82	10.82	Harvesting was completed
2.	Banana	3.46	3.46	Harvesting is under progress
3.	Redgram	0.96	2.07	Crop is at vegetative stage
4.	Blackgram	1.43	2.25	Harvesting was completed & seed cleaning is under progress.
5.	Greengram	1.51	2.49	Harvesting was completed & seed cleaning is under progress.
6.	Fodder sorghum	-	1.68	The crop is at maturity stage
7.	Maize	1.15	1.15	Harvesting was completed in 0.40 ac. Crop is at vegetative stage in 0.75 ac.
8.	Paddy	5.76	7.11	Crop is at milking stage in 3.5 ac. Crop is at vegetative stage in 2.26 ac. Nursery sowing was done for 1.35 ac.
9.	Small millets	-	2.00	Crop is at vegetative stage.
10.	Sorghum	-	0.75	Crop is at vegetative stage
11.	Cotton	-	0.70	Crop is at vegetative stage
12.	Groundnut	1.31	1.31	Crop was harvested
13.	Coconut	2.4	2.4	Harvesting stage
14.	Sapota	0.86	0.86	Harvesting stage. Pruning was done.
15.	Turmeric	1.90	2.96	Crop is at vegetative stage
16.	Tapioca	0.94	-	Field preparation is under progress

17.	Onion	-	0.35	Crop is at bulb formation stage
18.	Castor	4.25	-	Field preparation is under progress for 1 ac. 2 acres replaced with small millets experiment. 1.25 acres replaced with sorghum and green gram.
19.	Sunnhemp	6.18	3.0	In-situ incorporation was done for paddy cultivation
20.	Demo Crops	0.30	0.30	Crop is at vegetative stage
21.	Mango	3.71	3.71	Harvesting was completed
22.	Tamarind	3.71	3.71	At fruiting stage
23.	Fallow	5.85	3.42	All the areas are bring under cultivation
24.	Forest Sp.	7.78	7.78	Perennial
	Total	64.28	60.86	
II	SOUTHERN BLOCK			
1.	Rice ADT 37	5.80	5.80	Crop is in seed development stage. Roguing of seed crop is in progress. Rice transplanter crop.
2.	Rice ADT 43	17.11	9.00	Crop is in vegetative stage
			8.00	Drum seeded crop. Crop is vegetative stage.
3.	Rice ADT(R) 45 FS	12.10	10.00	5.0 ac machine transplanted crop is in establishment stage. 2.5 ac Transplanting is in progress and 2.5 drum seeding – field preparation is in progress.
4.	Rice ASD 16 FS	14.27	4.00	Crop harvested. Seed drying and pre cleaning is in progress
			7.00	Crop is in maturity stage. Final rouging is in progress.
5.	Rice CO 51 FS	16.12	5.00	Crop harvested. Obtained 8450 kg of unprocessed and 7650 kg of processed seed. Sample was taken on 19.10.2020.
			5.00	Crop harvested. Seed drying and pre cleaning is in progress.
6.	Rice I.W.Ponni FS	23.98	18.00	10.0 ac machine transplanted. Crop is in vegetative stage. 8.0 ac manual transplanting. Crop is in vegetative stage.
7.	Rice Bhavani TFL	3.30	0.0	Nursery will be raised during I FN of September 2020

8.	Castor YTP 1 TFL	6.57	0.0	Marked for Agroforestry
9.	Cumbu napier CO 5	1.01	1.01	-
10.	<i>Casuarina</i>	1.97	1.97	-
11.	Bamboo wood lot	6.59	2.00	Crop is in establishment stage
	Total	108.82	76.78	
III	PUNGAR BLOCK			
1	Amla -BSR 1	1.03	1.03	Perennial
2	Groundnut - BSR 2 (NS)	1.50	1.50	Crop is at maturity stage
3	Groundnut – BSR 2 (BS)	1.50	1.50	Crop is at maturity stage
4	Paddy ADT (R) 45 (BS)	5.00	5.00	Crop is at flowering stage
5	Paddy CO 51 (BS)	5.30	5.30	Crop is at flowering stage
6	Paddy ADT 43 (BS)	3.00	3.00	Crop is at booting stage
7	Blackgram (BS) CO 6	1.50	1.50	Crop is at seedling stage
8	Redgram CO(Rg) 7 (BS)	2.20	2.20	Crop is at seedling stage
9	Fruit Trees	2.32	2.32	Perennial
10	Forest-Neem	0.69	0.69	Perennial
11	Grow Out Test	1.10	1.10	Crop is at seedling stage
12	Green gram (BS) CO 8	1.50	1.50	Crop is at seedling stage
13	Castor DPC 9 (BS)	0.56	0.63	Crop is at seedling stage
14	Melia dubia plantation	1.23	1.23	Perennial
15	Maize UMI 1200	0.60	0.60	Crop is at maturity stage
16	Tamarind Local	4.00	4.00	Perennial
17	Teak Plantation	1.10	1.10	Perennial
18	Sericulture	13.56	13.56	Perennial
19	Forest Tree species	3.00	3.00	Perennial
20	Paddy IR 20 (BS)	3.35	-	BSP centre was changed to TRRI
21	Paddy IR 50 (BS)	1.90	-	BSP centre was changed to TRRI
22	Paddy IR 50 (NS)	0.50	0.50	Field preparation is under progress
23.	Paddy IR 20 (NS)	0.80	0.80	Field preparation is under progress

24.	Paddy ADT 39 (BS)	2.50	2.50	Nursery raised on 16.10.2020
25.	Paddy CR 1009 sub1(BS)	1.50	1.50	Nursery preparation is under progress
26.	Paddy CO 53 – Demo plot	1.20	1.20	Sowing was taken on 24.09.2020 and transplanted on 15.10.2020
27.	Sunnhemp (SP)	5.25	5.25	Field preparation is under progress
28.	Daincha (SP)	2.50	2.50	Field preparation is under progress
	Total	75.77	70.19	
IV	BHAGADUTHURAI BLOCK			
1	Coconut (West Coast Tall)	5.14	5.14	Perennial
2	Eucalyptus	0.49	0.49	Perennial
3	Neem	0.64	0.64	Perennial
4	Greengram	1.65	1.65	Sowing was taken on 22.6.2020
5	Turmeric	1.75	1.75	Sowing was taken on 25.6.2020
6	Paddy ADT 37	4.30	4.30	Transplanted on 30.7.2020
8	Groundnut -BSR-2-Machine sowing	0.89	0.89	Sowing was taken on 25.6.2020
9	Groundnut -BSR-2-Ridges and Furrows	0.57	0.57	Sowing was taken on 17.7.2020
10	Redgram BSR-1	0.44	0.44	Sowing was taken on 30.7.2020
11	Sunnhemp	2.74	2.74	Sowing was taken on 24.7.2020
12	Paddy Bhavani	4.79	4.79	Transplanted on 24.8.2020
13	MLT	0.89	0.89	Sowing was taken on 19.8.2020
14	Paddy VGD-1	0.67	0.67	Transplanted on 30.9.2020
15	Castor	0.44	0.44	Sowing was taken on 9.9.2020
16	Fodder Cowpea	2.20	2.20	Sowing was taken on 28.9.2020
17	Blackgram-VBN 8	0.05	0.05	Sowing was taken on 14.10.2020
		34.26	34.26	
V	THOPPAM PALAYAM BLOCK			
1	Mango	30.70	30.70	Perennial
2	Amla	5.95	5.95	Perennial
3	Tamarind	9.11	9.11	Perennial
4	Banana	3.60	3.60	Perennial
5	Sapota	10.00	10.00	Perennial

6	Cashew	0.12	0.12	Perennial
7	Acid lime	2.37	2.37	Perennial
8	Guava	3.80	3.80	Perennial
9	Bamboo	11.23	11.23	Perennial
10	Arid zone fruit trees	3.43	3.43	Perennial
11	Arecanut	0.29	0.29	Perennial
12	Turmeric	3.55	2.10	Vegetative stage
13	MLT – Vegetable crops	2.44	0.02	Reproductive stage
14	Manathakkali TFL SP	-	0.30	Crop is in maturity stage. Five picking was completed. Remining picking is in progress at 0.30 ac.
15	Coconut	2.47	2.47	Perennial
16	Nursery	0.24	0.24	-
17	Forest tree species	3.95	3.95	Perennial
	Total	93.25	89.68	

ANNEXURE – IV

Work done on Projects of individual scientists pertaining to Crop Scientists Meet 2020

i) 39th Rice Scientists' Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I.	On Farm Trials - Agronomy			
1.	OFT 2	Evaluation of response of different rice varieties suitable for organic farming	Dr. N. Satheesh Kumar Asst. Prof. (Agron.)	Transplanting was taken up on 25.09.2020. The crop is at establishment stage.
II.	Action Plan (2019-21) - Agronomy			
1.	Action plan 1	Documentation of weed biology and assessing crop weed competition in Direct seeded rice ecosystem	Dr. N. Satheesh Kumar Asst. Prof. (Agron.)	Sowing was taken up on 26.09.2020. The crop is at establishment stage.
2.	Action plan 3	Standardization of Drip Fertigation techniques in rice based cropping systems of Tamil Nadu.	Dr. A. Christopher Lourduraj, Prof & Head Dr. A. Valliammai Asst. Prof. (SWCE)	<ul style="list-style-type: none"> ➤ Sowing of Onion was taken up on 23.9.2020. ➤ Maize was harvested on 11.9.2020. Field is under preparation and Paddy crop will be taken during last week of October 2020.
3.	Action Plan 4	Rice mechanisation for different soil types of Tamil Nadu for higher rice productivity and profitability	Dr. N. Satheesh Kumar Asst. Prof. (Agronomy)	Machine transplanting was taken up on 09.09.2020. The crop is at early tillering stage.
II	Action Plan (2020-21) - Entomology			
1.	Action Plan 1	Prediction of changing insect pest scenario	Dr. K.Ganesan Asst.Prof. (Agrl. Ento.)	<ul style="list-style-type: none"> ➤ Each one of electric and solar light trap was installed at S-Block Block Farm, trapped insect pests and their natural enemies are being monitored regularly. ➤ Fixed plot survey was made in fortnightly intervals at ARS, BSR. ➤ Roving survey was completed in four farmer's holdings.

2.	Action Plan 2	Exploring insect resistance mechanisms	Dr. K.Ganesan Asst. Prof. (Agrl. Ento.)	<ul style="list-style-type: none"> ➤ The 22 pre-released cultures identified for the study was sown in the nursery on 25.9.2020. ➤ First batch of transplanting was done on 9.10.2020 at field no. ND6, N-Block, ARS, BSR. ➤ The second batch transplanting was done on 17.10.2020.
3.	Action Plan 4	Species complex, population dynamics, yield loss and refined IPM capsule for rice stem borer and leaf folder	Dr. K.Ganesan Asst. Prof. (Agrl. Ento.)	<ul style="list-style-type: none"> ➤ The rice variety CO 51 (susceptible) and Seeraga samba (aromatic) was collected for the study. ➤ Field preparation is under progress. ➤ Nursery sowing was done on 16.10.2020. ➤ Transplanting will be done during last week of October 2020.

ii) 38th Pulses Scientists' Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I	On Farm Trials - Seed Science & Tech.			
1.	OFT 9	Mitigation of water stress by hydrophilic polymer seed coating in blackgram	Dr. K.Malarkodi Assoc. Prof.(SST)	Sowing was taken on 29.08.2020. the crop is in pod formation stage.
II	Action Plan (2019 – 2022) -Plant Breeding & Genetics			
1.	Action plan Theme 2	Fast track release of bold seeded greengram varieties suitable for sprout.ART/OFT (June-Sep);ART/OFT (Sep-Oct)	Dr.D.Malarvizhi Assoc.Prof.(PB&G)	Seed multiplication of VGG18002 and CO7 bold seeded greengram was carried out during Kharif 2020 and the harvested seeds were sent for seed quality testing to NPRC, Vamban.

Action plan (2020-21) - Plant pathology				
2.	Action plan 5	Integrated management of sterility mosaic disease of redgram	Dr.Sangeetha Panickar Professor (Path.)	Sowing of Redgram was taken up on 01.09.2020 but there was poor germination so resowing was taken up on 29.09.2020.

iii) 38th Millets & Forages Scientists' Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I. On Farm Trials - Agronomy				
1.	OFT 2	Weed management options in irrigated hybrid maize	Dr. N. Satheesh Kumar Asst. Prof. (Agronomy)	Sowing was taken up on 24.09.2020. The crop is at vegetative stage.
II. Action Plan (2020-22) - Agronomy				
1.	Action plan 3	Grain cum Fodder Production in Maize Based Intercropping System under Irrigated Condition	Dr.A.Christopher Lourduraj, Professor and Head	Sowing was taken up on 23.09.2020. The crop is at vegetative stage.
Action Plan (2020-22) - Agrl. Entomology				
1.	Action Plan 2	Extent of damage by avian fauna in millets and measures for management.	Dr. K.Ganesan Asst. Prof. (Agrl. Ento.)	<ul style="list-style-type: none"> ➤ Maize COH (M) 8 was sown in field no. NA1, N-Block, ARS, BSR on 30.9.2020 for assessment of damage by birds. ➤ Purchase / preparation of treatment materials are under progress.
Plant Pathology				
2.	Action Plan 3	Development of decision support system for foliar diseases in maize	Dr. Sangeetha Panicker Prof. (Plant Pathol.)	The spore trap has been designed and installed in the maize field. Crop was sown on 24.09.2020. Observations on spores of leaf blight will be recorded on occurrence.

iv) 38th Oilseed Scientists' Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I	Action Plan (2020-22) - Plant Breeding and Genetics			
1.	Theme No. 1	Identification of high yielding, early duration (90-95 days) groundnut variety	Dr. K. Utharasu Asst. Prof. (PBG)	Sowing was taken up on 19.08.2020. The crop is at flowering stage.
2.	Theme No. 2	Farmers participatory selection of semi spreading groundnut cultures under farmers holdings in Dharmapuri, Salem, Erode, Namakkal and Perambalur districts	Dr. K. Utharasu Asst. Prof. (PBG)	Seed materials yet to be received.
3.	Theme No. 5	Evolution of high yielding, monostem / shy branching sesame varieties	Dr. K. Utharasu Asst. Prof. (PBG)	Seed multiplication of promising cultures will be taken up during Rabi 2020.
I	Action Plan (2019-21) Agronomy			
1.	Action plan 1	Agronomic practices for micro climate modification in groundnut-Redgram intercropping system	Dr.N.Satheesh Kumar Asst. Prof. (Agron.)	The groundnut and redgram sowing was taken on 17.06.2020, 02.07.2020 and 17.07.2020 as per sowing windows. First sowing window groundnut crop is at harvest stage. Second sowing window groundnut crop is at maturity stage.

v) 36th Cotton Crop Scientists' Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I.	Action Plan			
1.	ART	Development of technology capsule for IPDM in cotton under high density planting system	Dr. Sangeetha Panicker Prof. (Plant Pathol.)	Sowing was taken up on 29.09.2020.

vi) 36th Horticultural Crop Scientists' Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I.	Action Plan			
1.	ART	Evaluation of varieties in spices for high yield and quality Sub theme: Evaluation of varieties of turmeric for high yield and high curcumin content through selection	Dr.S.Eswaran Assoc. Prof. (Horti.)	The culture BS 9 sent for ART to the DDH of Salem, Dharmapuri, Erode Coimbatore.

vii) 28th Sugarcane Scientists' Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I.	Action Plan (2020-2021) – Plant Protection			
1.	Action Plan	Surveillance of pests and diseases of sugarcane.	Dr. K.Ganesan Asst. Prof. (Agrl.Ento.)	<ul style="list-style-type: none"> ➤ Roving survey was conducted in six farmer's fields in Erode district. ➤ Weather parameters are being collected from the meteorological observatory at ARS, Bhavanisagar.

vii) 8th Non crop specific project Meet 2020

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
I	On Farm Trail - Nano Science and Technology			
1.	OFT 1	Nano Capsule / Pellet Technology for pulses	Dr.N.Satheesh kumar Asst. Prof.(Agron.)	Sowing will be taken up after receiving nano capsule from lead centre.

**viii) On Farm Trial under NSP(Crops) - STR Experiment component -
Seed Sci. & Tech.**

S.No.	Trial	Title of the Experiment	Scientist In-charge	Action taken
1.	OFT 1	Seed management techniques on seed yield and quality improvement in kodo millet	Dr.V.Vakeswaran Asst .Prof. (SST)	Sowing taken up on 24.09.2020
2.	OFT 2	Seed management techniques on seed yield and quality improvement in little millet	Dr.V.Vakeswaran Asst .Prof. (SST)	Sowing taken up on 24.09.2020

ANNEXURE - V

Action taken report on the proceedings of 2nd Interim Review Meeting of SWC 2019 held on 11.03.2020

S.No.	Crop	Variety	Remarks	Action taken
II.	Review of varieties and seeds			
2.	Pulses			
	Red gram	BSR 1	Explore the possibility of notification of BSR 1 to bring in the seed chain. Action: Director CPBG	<ul style="list-style-type: none"> ➤ Purification of BSR 1 Red gram variety is in Progress at ARS, Bhavanisagar. ➤ Selfing of true to type plants in BSR 1 red gram variety was initiated during 2019-20 based on plant and seed characters. ➤ Twenty eight true to type single plant were selfed and the progenies were raised progeny rows on 21.08.2020. the crop is at seedling stage. ➤ The seeds collected from true to type plants in the progeny rows will be constituted as nucleus seeds for breeder seed production.
III.	Crop Management			
6.	Ecofriendly method of driving away wild boar menace			
	The result of the trial in multiplication with the herboliv wild animal repellent conducted on four locations are to be presented ion the next SWC. Elephant-FC&RI Mettuplalayam; Parrot and wild Boar- ARS, Bhavanisagar; Peacock-AC&RI, Madurai Action: ABD, DR, Dean (FC&RI, MTP)		Spraying of Herboliv 10% concentration for the management of wild boar is in progress in maize and groundnut crops at ARS, Bhavanisagar.	

ANNEXURE – VI - Individual Scientists Research Project Review

No	Project Leader	Project No. & Title	Date of Start & Closure	Status	Director of Research / Technical Director
I	University Research Projects				
1.	Dr.Sangeetha Panicker, Prof.(PAT) Dr. K.Ganesan, Asst.Prof.(ENT)	CPPS/BSR/PAT/SPC/2019/001- Expt I Studies on the Effect of Silicon on the Control of Rhizome rot of Turmeric	March 2019 to April 2022	Experiment 1: Effect of silicon on the control of rhizome rot of turmeric. II season planting has been taken up on 15.06.2020.Work is in progress. Experiment II : Effect of silicon on the control of leaf spot and leaf blotch of turmeric I season planting has been taken up on 22-6-2020. Work in progress.	<ul style="list-style-type: none"> • Since the use of <i>Pseudomonas</i> is not recommended suggested to use of <i>Trichoderma</i> only. • Efforts may be taken for formulation of silicic acid component to control the Rizome rot, leaf spot and leaf blotch.
2.	Dr.Sangeetha Panicker, Prof.(PAT)	CPPS/BSR/PAT/BAN/2019/001: Studies On The Control of Sigatoka Leaf Spot of banana	Sep 2019 to Aug 2022	I season planting has been taken up on 25-11-2019. Spraying has been taken up from 150 days as per schedule.	<ul style="list-style-type: none"> • The project may be continued.
3.	Dr.D.Muthumanicka	NRM/BSR/SAC/SPC/2019/001	June 2019 to	• The turmeric variety BSR 2	• The project

	m Professor (SS&AC)	Optimising sources, levels and frequency of sulphur application for enhancing rhizome yield and curcumin content of Turmeric grown under Western zone of Tamil Nadu	July 2022	<p>was sown on 25.06.2020 at a spacing of 45 x 15 cm.</p> <ul style="list-style-type: none"> • As per the treatment schedule required quantity of S was applied through gypsum and Elemental Sulphur. • The soil and plant samples were periodically collected and analysed. The biometric observations were recorded. 	<p>may be continued.</p> <ul style="list-style-type: none"> • Sulphur use efficiency parameters may be studied . • Instead of BSR 2, the culture BS 9 may be used for evaluation with approval of technical director and the Director of Research. • The performance of Sulphur oxidizing bacteria may be studied.
4.	Dr.R.Jegathambal Prof.(SST) Dr.A.Valliammai Asst. Prof. (SWCE)	SEC/BSR/SST/GNT/2019/001 Influence of mechanical harvester and strippers on seed quality and storability of groundnut seed	Dec. 2019 to Nov. 2021	The sowing was taken up on 23.6.2020. The crop harvested on 16.10.2020. The results revealed that the harvest efficiency was 93.5 % by	<ul style="list-style-type: none"> • The project may be continued. • Cost benefit ratio for

				<p>manual and 87.5 % by machine. The stripping efficiency by manual 100 %, CRIDA model 97.9 % and TNAU model 98.2 %. The per cent of pod damage was 2.3 in machine harvest and 2.7 in strippers and kernel damage was 0.6 in strippers. The undug pod was 6.5 % in manual harvest and 12.5% in machine harvest. Assessment of seed quality in machine harvest is in progress.</p>	<p>manual and stripper methods may be compared.</p> <ul style="list-style-type: none"> • The energy and labour requirement, economics, etc., may be documented in the study.
5.	Dr. S.Easwaran Assoc. Prof. (Hort.)	HCRI/BSR/HOR/FLO/2020/001 Assessing hexanal application techniques for increasing the shelf life of tuberose (<i>Polyanthus tuberosa</i> L.) by pre and post harvest treatment	August 2020 to April 2021	The farmers' field was identified and treatment is to be imposed.	<ul style="list-style-type: none"> • The project may be continued. • Hexanal treatment schedule may be revised.
6.	Dr. S.Easwaran Assoc. Prof. (Hort.)	HCRI/BSR/HOR/FLD/2020/002 Inducing off season flower production jasmine (<i>Jasminum sambac</i>) with special reference to Erode belt	August 2020 to April 2021	The farmers' field was identified and treatment is to be imposed	<ul style="list-style-type: none"> • The project may be continued. • Validation of existing technology may be included.

7.	Dr. P. Hemalatha Asst. Prof. (Hort.)	HCRI/BSR/HOR/SPC/2015/003 Breeding of turmeric for high quality	July 2015 to June 2018	Completion report submitted.	-
8.	Dr.K.Malarkodi Assoc. Prof. (SST)	SEC/BSR/SST/MAZ/2019/001 Study on mitigating the impact of heat stress on flowering phenology, seed yield and quality in maize	Sep.2019 to Aug. 2021	Standardization and confirmation of phytohormone seed treatment at laboratory is in progress.	The project may be continued.
9.	Dr.D.Malarvizhi, Associate Professor (PBG), Dr.S.Utharasu Assistant Professor (PBG)	CPBG/BSR/PBG/RIC/2016/001 Nucleus and Breeder seed production in popular rice varieties of Tamil Nadu	June 2016 to May 2021	<ul style="list-style-type: none"> ➤ Breeder seed crop of three paddy varieties CO 51, ADT 43 and ADT 45 was raised during July 2020. ➤ The crop is at flowering stage for CO51 and vegetative stage for ADT 43 and ADT 45. 	The project may be continued.
10.	Dr.D.Malarvizhi, Associate Professor (PB&G)	CPBG/BSR/PBG/GGR/2016/001. Breeder seed production in greengram and black gram varieties and evaluation of pre released cultures under multi locational testing	June 2016 to May 2021	<ul style="list-style-type: none"> ➤ Sowing of greengram CO 8 was taken up in 1.5 acres on 24.09.2020 and blackgram CO 6 was taken up in 1.5 acres on 25.09.2020. The crop is in vegetative stage. ➤ Sowing of redgram CO (Rg)7 was taken up in 2.0 acres on 29.09.2020. The crop is in vegetative stage. 	-

11.	Dr.D.Malarvizhi, Assoc. Prof.(PB&G)	New project. Maintenance breeding in Redgram vaierty BSR 1	June 2020 to May 2025	<ul style="list-style-type: none"> ➤ True to type Single plant selection was made based on plant and seed traits during <i>Rabi</i> 2019-20 . ➤ New project proposed and presented before RPAC through online on 14.08.2020 and the new project was approved. ➤ Single plant progenies collected during 2019-20 were raised in progeny rows on 21.08.2020. The crop is at vegetative stage. 	-
12.	Dr.S.Utharasu Asst. Professor (PBG)	CPBG/BSR/PBG/ 2020/New. Breeder seed production of Oilseed crop varieties / hybrids released by TNAU	September, 2020 to August, 2023	<ul style="list-style-type: none"> ➤ Groundnut BSR 2 Breeder seed crop was raised on 10.07.2020 in an area of 1.5 ac and crop is at maturity stage. ➤ Groundnut BSR 2 Nucleus seed crop was raised on 08.07.2020 in an area of 1.5 ac and crop is at maturity stage. ➤ Castor DPC 9 Breeder seed crop was raised on 01.10.2020 in an area of 0.63 ac and crop is at seedling stage. 	The project may be continued.

13	Dr. V. Vakeswaran Asst.Prof.(SST)	SEC/BSR/SST/2020/001 Seed yield maximisation studies in castor hybrid YRCH 2	Mar.2020 to Mar.2022	The first sowing done on 08.09.2020 and second sowing done on 08.10.20.	The project may be continued.
14	Dr. V. Vakeswaran Asst.Prof.(SST)	SEC/BSR/SST/ 2020/002 Assessment of storage of TNAU rice varieties under seed chain	Jun.2020 to Mar.2023	<ul style="list-style-type: none"> ➤ Seeds of 26 varieties were collected from 6 seed production centres, as base seed material. ➤ Nursery raised for long duration varieties. ➤ Staggered sowing of varieties is planned, in order to get the synchronised harvest to ensure the fresh seeds of all varieties at a time. 	The project may be continued.
15	Dr. N. Satheesh Kumar Asst. Prof. (Agronomy)	DCM/CBE/AGR/RIC/2019/001 Documentation of weed biology and assessing crop weed competition in Direct seeded rice ecosystem	Jul 2019 to Mar.2021	Sowing was taken up on 26.09.2020. The crop is at establishment stage.	-
16	Dr. N. Satheesh Kumar Asst. Prof. (Agronomy)	DCM/KUM/AGR/RIC/2019/001 Rice mechanisation for different soil types of Tamil Nadu for higher rice productivity and profitability	Aug.2019 to Mar.2021	Machine transplanting was taken up on 09.09.2020. The crop is at early tillering stage.	-

17	Dr.A.Christopher Lourduraj, Professor and Head	DCM/VGI/AGR/MAZ/2020/001 Grain cum fodder production in maize based intercropping system under irrigated condition	July 2020 to June 2023	The trial was taken up on 23.09.2020 as per approved programme.	The project may be continued.
18	Dr. SoundaraRajan, Assoc. Prof. (Agrl. Ento.), HC&RI (W), Trichy Co-ordinating centre: ARS, Bhavanisagar Co PI: Dr.K.Ganesan Asst.Prof. (Agrl. Ento.)	CPPS/TRY/ENT/FLO/2020/001 Insecticide Resistant Management of Jasmine bud worm, <i>Hendecasis duplifascialis</i> in Tamil Nadu	Dec 2019- Nov 2021	<ul style="list-style-type: none"> ➤ Three jasmine farmers fields in Erode district were visited. ➤ Bud worm damage in jasmine was studied by following the standard procedure. ➤ The insecticides used by the farmers were also recorded. 	The project may be continued.
19	Dr.A.Valliammai Asst. Prof. (SWCE)	AECRI/BSR/SWC/2017/001- Identification of Water Harvesting Structures for Groundwater Recharge Using Geo-Spatial Techniques	2017-2019	Completion report submitted	-
II	Seed Production Projects				
1.	Dr. K. Malarkodi Assoc. Prof.(SST)	SEC/BSR/SST/SPN/2019/001 Foundation and labelled seed production in pulses	Apr.2019 to Mar.2021	<ul style="list-style-type: none"> ➤ Blackgram VBN 8 in 2.0 ac at 'N' block was harvested. Obtained 480 kg of unprocessed seed. Seed cleaning is in progress. ➤ Greengram CO 8 in 2.0 ac at 'B' block was harvested. Obtained 300 kg of 	The project may be continued.

				<p>unprocessed seed. Seed cleaning is in progress.</p> <ul style="list-style-type: none"> ➤ Redgram BSR 1 in 1.0 ac at 'N' block is at vegetative stage D/s: 16.07.2020. 	
2.	Dr.V.Vakeswaran Asst .Prof. (SST)	SEC/BSR/SST/SPN/2019/002 Foundation seed production in paddy ADT 43, ADT (R) 45 and I.W.Ponni	Apr.2019 to Mar.2021	<ul style="list-style-type: none"> ➤ Paddy ADT 43 in 17.0 ac at S block is in flowering stage. ➤ Paddy I.W.Ponni in 18.0 ac at S block is in vegetative stage. <p>Paddy ADT 45 in 10 ac at S block is in establishment and land preparation stage.</p>	The project may be continued.

3.	Dr. V. Vakeswaran Asst. Prof. (SST)	SEC/BSR/SST/SPN/2019/003 Labelled seed production greenmanure and forage crops	Apr.2019 to Mar.2021	<ul style="list-style-type: none"> ➤ 3200 kg sunnhemp seed was produced against the target of 4500 kg. Sowing will be taken up during Rabi for achieving the balance target. ➤ 2.5 ac fodder cowpea CO (FC) 8 is in vegetative stage at B block to produce 1000 kg of seeds. ➤ Source seed of African tall maize seeds procured from KVK Namakkal and land preparation is in progress for producing 2000 kg of seeds. 	The project may be continued.
4.	Dr. K. Malarkodi Assoc. Prof.(SST)	SEC/BSR/SST/SPN/2019/004 Foundation seed production in paddy ASD 16, ADT 37 &CO 51	Apr.2019 to Mar.2021	<ul style="list-style-type: none"> ➤ Paddy CO 51 in 4.5 ac at 'S' block was harvested. Obtained 7650 kg seed. ➤ Paddy CO 51 in 4.0 ac at 'S' block was harvested. Pre-cleaning is in progress. ➤ Paddy ASD 16 in 3.0 ac at 'S' block was harvested. Pre-cleaning is in progress. ➤ Paddy ASD 16 in 6.5 ac at 'S' block is at maturity stage. Paddy ADT 37 in 5.0 ac at 	The project may be continued.

				<p>'B' block is at maturity stage. D/s:08.07.2020.</p> <p>➤ Paddy ADT 37 in 4.5 ac at 'S' block done by machine planting is at maturity stage. D/s: 18.07.2020</p> <p>➤ Paddy ASD 16 in 2.5 ac at 'N' block is at milky stage. D/s: 22.07.2020.</p>	
III		ICAR partly /fully financed schemes			
1.	<p>Dr.D.Malarvizhi, Associate Professor (PBG)</p> <p>Dr. S. Utharasu, Asst. Professor (PBG)</p>	<p>D32 CO Breeder seed production in Agricultural crops</p>		<p>➤ Nucleus seed production of paddy varieties IR 20, IR 50 and Groundnut variety BSR 2 and breeder seed production of Paddy varieties viz., ADT 43, ADT 39, ADT (R) 45, CO 51, CR 1009 sub 1; Maize UMI 1230, Redgram CO (Rg)7, Greengram CO7 and CO 8; Blackgram CO 6, Groundnut BSR 2; Castor DPC 9 and multicut forage sorghum CSV 33 at ARS, Bhavanisagar is taken up based on the production programme every year.</p>	The project may be continued.
2.	<p>Dr. A.Valliammai Asst. Prof.(SWCE)</p>	<p>AICRP/WTC/CBE/IWM-001 Optimization of depth of</p>	<p>October 2020 to September</p>	<p>Completion report was submitted</p>	-

		placement of lateral using HYDRUS for different soil types	2023		
3.	Dr. A.Valliammai Asst. Prof.(SWCE)	AICRP/WTC/CBE/IWM-001 Application of soil and water assessment tool (SWAT) model for estimation of surface water resources and temporal water demand for sustainable water management in a selected watershed of Bhavani river basin.	October 2020 to September 2023	Simulation of Hydrological parameters are in progress. Results will be communicated to AED.	The project may be continued as per technical programme.
4.	Dr.N.Satheeshkumar Asst. Professor (Agron.)	AICRP/ DCM/ CBE/ AGR/001 OFR Experiment I: On farm crop response to plant nutrients in rice-Gingelly cropping system and their interaction with human continuum.	April 2017 to March 2022	The <i>rabi</i> season paddy transplanting is under progress at farmers' fields.	-
5.	Dr.N.Satheeshkumar Asst. Professor (Agron.)	AICRP/ DCM/ CBE/ AGR/001 OFR Experiment II: Diversification of Existing Farming Systems under Marginal household conditions	April 2017 to March 2022	The experiment is in progress as per the technical programme	-
6.	Dr.N.Satheeshkumar Asst. Professor (Agron.)	AICRP/ DCM/ CBE/ AGR/001 OFR Experiment III: On-Farm Evaluation of Farming System Modules for improving profitability and livelihood of small and marginal farmers.	April 2017 to March 2022	The experiment is in progress as per the technical programme	-

IV Externally funded schemes					
1.	Dr.D.Malarvizhi, Assoc.Prof.(PB&G)	DBT/CPBG/BSR/PBG/2017/R00 4 Introgression of Bruchid Resistant Gene(s) from Vigna genotypes into popular Mung bean (<i>Vigna radiata</i> L.) variety through Marker Assisted Backcross Breeding.	June 2017 to June 2021	Mass multiplication of bruchids is continued for bioassay. Sowing of crossing block, BC ₄ F ₁ generation and resistant lines was taken up on 25.09.2020. The crop is at early vegetative stage	-
2.	Dr. K. Ganesan Asst.Prof.(Ag.Ento.)	GoTN/CPPS/CBE/ENT/2020/D0 06 Developing Integrated Pest Management Module for Maize Fall Armyworm and Validation under Area wide Integrated Pest Management (AWIPM) through Farmer Participatory Approach in Tamil Nadu.	April 2020 to March 2022	<ul style="list-style-type: none"> ➤ Maize COH (M) 8 was sown in field no. NA1, N-Block on 30.9.2020 for fixed plot survey. ➤ One pheromone trap was installed in the centre of the field for monitoring. ➤ Hand weeding was done 15.10.2020. ➤ Roving survey was conducted in four farmer's holdings in Erode district along with State Department Officials. 	Demo plot for Technology on Maize FAW capsule may be taken up in one acre plot.
V Revolving fund schemes					
1.	Dr. R.Jegathambal Prof. (SST) Dr. K.Malarkodi Assoc. Prof. (SST) Dr.V.Vakeswaran Asst. Prof. (SST)	RF/ARS-BSR/001 Revolving fund scheme for the Seed production in agricultural crops	2019-2020	Production of foundation and TFL seed production is under progress as per the target received from the Director, Seed Centre, TNAU, Coimbatore	The project may be continued.

2.	Dr. D. Malarvizhi Assoc. Prof. (PB&G) Dr.S.Utharasu Assistant Professor (PBG)	Breeder Seed production in Agricultural crops under ICAR National Seed Project	2019-2020	Production of breeder seed production is under progress as per the target received from the Director (CPBG),TNAU, Coimbatore	The project may be continued.
3.	Dr. S. Easwaran Assoc. Prof. (Hort.)	RF/ARS-BSR/003 Seed production in Horticultural crops under ICAR Mega Seed project	2019-2020	Production of vegetative propagules is under progress as per the target received from the Director, Seed Centre, TNAU, Coimbatore	The project may be continued.
VI	State/ GOI schemes				
1.	Dr. S. Easwaran Assoc. Prof. (Hort.)	GOI - MIDH	2019-2020	Turmeric is in vegetative stage at 6.0 ac.	The project may be continued.
2.	Dr.V.Vakeswaran Asst. Prof. (SST)	TNIAMP for lower Bhavani Project	2017-2022	<ul style="list-style-type: none"> • 35 ha SRI rice crop of ASD 16 is in vegetative stage. In all the area, <i>insitu</i> ploughing of daincha was ensured. • Identification of pesticide free villages is in progress • Installation of sprinkler irrigation in tube rose was completed in 14 ha and work orders issued for 20 ha. • PF Vegetables - 35 ha drip installation completed and vegetable crop raised. 8.12 ha drip installation is in 	The project may be continued.

				<p>progress.</p> <ul style="list-style-type: none"> • TFL Pulses - 3 ha crop harvested , 3850 kg of quality seeds produced. 12 ha crop is in flowering stage. • Red gram cropping sequence in 10 ha is in vegetative stage • Oil seed crops – Groundnut - 5 ha crop harvested and farmers achieved 2550 kg of average yield per ha. 	
VII	Venture Capital schemes				
1.	Dr. V.Vakeswaran Asst. Prof.(SST) Dr.K.Malarkodi Assoc.Prof.(SST)	Production of foundation seeds of popular rice varieties through System of Rice Intensification		Production of foundation seed in paddy Co 51, ADT 43 in each 5.0 ac is in vegetative stage.	The project may be continued.
2.	Dr. Sangeetha Panicker Prof. (Pl. Patho.)	Mass Production of <i>Trichoderma viride</i> , <i>Pseudomonas fluorescens</i> and <i>Pleurotus spp.</i>		Production of bio control agent is in progress as per the target.	<ul style="list-style-type: none"> • The project may be continued. • <i>Pseudomonas fluorescens</i> should not be produced and instead <i>Bacillus subtilis</i> may

					be produced
3.	Dr. K.Ganesan Asst.Prof.(Agrl.Ento.).	Production and distribution of popular varieties/hybrids coconut seedlings		<ul style="list-style-type: none"> ➤ 1500 seedlings are produced for sale ➤ 1500 seed nuts were sent to the Dept. of Spices & Plantation Crops, TNAU, Coimbatore for seedlings production. ➤ 600 seed nuts were sown in the nursery on 14.10.2020 ➤ Additionally 41 mother palms in N-Block and 48 mother palms in P-Block were identified to enhance the seedlings production and to meet out the increasing the demands of the coconut growers. 	The project may be continued.
4.	Dr.D.Muthumanickam Prof. (SS&AC)	Commercial production and distribution of vermicompost		Production of vermicompost is in progress.	The closure proposal may be submitted.
5.	Dr. K.Ganesan Asst.Prof.(Agrl.Ento.).	Commercial production of <i>Beauveria</i> and <i>Metarhizium</i>		<ul style="list-style-type: none"> ➤ One ton of tapioca talk and 10 kg of yeast was purchased for mass culturing. ➤ Production will be initiated during this month based on the demand. 	The project may be continued.

