

PROCEEDINGS OF THE 26th SUGARCANE SCIENTISTS' MEET CONDUCTED ON 26.4.2018

The 26th Scientists' Meet on Sugarcane was held on 25th and 26th April, 2018 at TNAU, Coimbatore. The technical group wise sessions on crop improvement, crop management and crop protection were held under the chairmanship of the concerned Technical Directors in charge on the first day of the meet. The Director of Research while addressing the individual session, briefed the objectives of conducting the annual review of the University Research Projects and the need for reorientation of the same according to the need of the different stakeholders of the crop. He emphasized that, the action plan for each technical group should be drawn to address the issues of the farmers, stakeholders and suitable research projects should be formulated involving scientists from varied disciplines at different centres.

The plenary session was held on 26th April, 2018 under the Chairmanship of the Vice-Chancellor, TNAU, Coimbatore. The Director of Research welcomed the participants. The highlights of the research achievements and action taken on the recommendations of the previous meet in the technical groups of crop improvement, crop management and crop protection were presented by the respective Lead centre scientists. The action plan for the year 2018-2019, with respect to the above three disciplines were presented by the Directors of CPBG, DCM and CPPS respectively. The Vice-Chancellor, in his remarks offered suggestions and improvement in the action plan and technical programmes drawn for the year 2018-2019. At the end, the Director of Research, TNAU, Coimbatore proposed vote of thanks. The following general recommendation were made during the Meet.

General recommendations:

1. The drought indices like proline, RWC, chlorophyll stability index and cell membrane integrity have to be studied in the sugarcane clones for variety release.
(Action: SRS, Cuddalore, Sirugamani and Melalathur)
2. In the chewing canes evaluation programme, importance may be given for the estimation of fructose with low fibre content.
(Action: SRS, Cuddalore and Sirugamani)
3. Quality enhancement can be made in jaggery preparation.
(Action: SRS, Melalathur)

4. Identification, collection and multiplication of “**Nama karumbu**” may be done during the ensuing season.
(Action: SRS, Sirugamani)
5. Identification of crop stimulants present in press mud have to be assessed.
(Action: SRS, Cuddalore and Sirugamani)
6. Optimum soil tilth for establishing sugarcane under Sustainable Sugarcane Initiative method may be assessed
Tilth requirement for budded seedlings till harvest may be ascertained along with extent of possible water savings.
(Action: SRS, Cuddalore and Sirugamani)
7. Pesticides / herbicides usage may be reduced in future experiments.
(Action: SRS, Cuddalore, Sirugamani and Melalathur)
8. Awareness should be created among the farmers on the management of emerging insects and diseases of sugarcane.
(Action: SRS, Cuddalore, Sirugamani and Melalathur).
9. Large scale area demonstration of latest/newly released TNAU varieties for easy visit by farmers, extension and department officials.
Demonstrations are to be conducted with newly released sugarcane variety (CoC 25) and technologies in the sugar factories and also in farmers’ field.
(Action: SRS, Cuddalore)
10. Action may be taken to supply 300 MT of seed cane and 50,000 tissue culture seedlings of CoC 25 to the sugar factories in Tamil Nadu during the ensuing season.**(Action: SRS, Cuddalore).**
 - In the *Metarizhium* culture used for the management of white grubs, sporulation level and spore load has to be studied.
 - Impact of trash burning on nematode incidence and subsequent development may be studied.
 - Care may be taken to confirm the viability level of *Trichogramma*, when used continuously and also Male: Female ratio must be verified.
 - ICAR - SBI materials with high sugar content may be tested at TNAU.
 - Research on chewing cane has to be intensified.
 - Mini tractor/mini tiller for mechanization in sugarcane cultivation may be developed.

- Scientists should hand over the breeding materials to their successor through proper official procedure in the event of transfer (Director, CPBG).
- Steps may be taken to establish crop cafeteria in all research stations with latest released varieties and crops of local importance (All Research Stations)
- Field visit can be arranged during October 2018 to inspect the performance of MLT/OFT/ART cultures by all Technical Directors (Director, CPBG)
- Submission of URP completion report along with RPAC remarks for final approval on time (Technical Directors/Deans/Prof. and Heads)

Proceedings of the 26th Sugarcane Scientists' Meet are in the following order.

1. Staff Pattern
2. Remarks on the individual University Research Projects
3. Decisions made on entries for Varietal release/ART/MLT evaluated by the breeders and OFTs from Crop Management and Crop Protection Scientists.
4. Action plan for 2018-2019.

1. Staff pattern

Station	Designation	Discipline									Total
		PBG	AGR	AGM	PHY	SST	SAC	ENT	PAT	NEM	
Cuddalore	Professor	-	2	-	-	-	-	1	-	-	3
	Asst.Professor	1	1	1	1	-	-	-	1	1	6
Sirugamani	Professor	-	-	-	-	-	1	-	-	-	1
	Asst.Professor	1	1	-	-	-	-	1	-	-	3
Melalathur	Professor	-	-	-	-	1	-	1	-	-	2
	Asst.Professor	1	-	-	-	-	-	-	-	-	1
	Total	3	4	1	1	1	1	3	1	1	16

Of the above 16 scientists, two scientists (Breeder and Pathologist-one in each) are working under AICRP in sugarcane at SRS, Cuddalore.

A. CROP IMPROVEMENT

List of projects reviewed

S.No	Discipline/Station	University Research Projects	AICRP project	Externally Funded Project	Total
1.	SRS, Cuddalore	1	1	-	2
2.	SRS, Sirugamani	3	-	-	3
3.	SRS, Melalathur	2	-	-	2

Remarks on the individual University Research Projects

S.No	Project Number & Title	Remarks
1.	CPBG/ CDL/ PBG/ SUG/ 2017/ 001 Dr. S. Ganapathy , Asst. Professor (Plant Breeding) Evaluation and identification of high sugar varieties with red rot resistance for Tamil Nadu. (April 2017 – March 2020)	To be continued. High sugar clones identified by the SBI may be repeatedly involved in the crossing programme.
2.	CPBG/SGM/PBG/SUG/2014/001 Dr.M.Shanmuganathan , Asst. Professor (PB & G) Evolving mid-late maturing sugarcane varieties with high yield, quality and in-built resistance for red rot disease to cater the needs of Cauvery delta zone. (Oct.2014 – Sept.2019)	To be continued
3.	CPBG/SGM/PBG/SUG/2014/002 Dr.M.Shanmuganathan , Asst. Professor (PB&G) Evolving sugarcane varieties suitable for early season with high yield, quality coupled with resistance for red rot disease. (Oct 2014 to – Sept 2019)	Drought is very well pronounced in the delta. All the clones need to be screened for drought with suitable parameters. The project to be continued.
4.	CPBG/SGM/PBG/SUG/2014/003 Dr.M.Shanmuganathan , Asst. Professor (Plant Breeding) Hybridization, fluff study, individual seedling selection and early stage selection in sugarcane (<i>Saccharum</i> spp. hybrid) (Dec 2014 – Nov 2019)	Crossing and seed set may be assessed at Sirugamani to initiate crossing programme in future. The project may be continued.
5.	CPBG/MLT/PBG/SUG/2014/ 002* Dr. N. A. Saravanan , Asst. Professor (Plant Breeding) Evolving high yielding and high quality sugarcane clones with red rot resistance for early season. (March 2014 to Feb 2018)	Involve the crop physiologist to screen the clones for drought with suitable parameters.
6.	CPBG/MLT/PBG/SUG/2014/ 003* Dr. N.A. Saravanan , Asst. Professor (Plant Breeding) Evolving high yielding and high quality sugarcane clones with red rot resistance for mid late season. (March 2014 – Feb 2018)	To be completed.

7.	AICRP/PBG /CUD/SUG /025 Dr. S. Ganapathy, Asst. Professor (Plant Breeding) AICRP on Sugarcane 1. Initial Varietal Trial (Early) 2. Advanced Varietal Trial (Early) Plant I 3. Advanced Varietal Trial (Early) Plant II 4. Advanced Varietal Trial (Early) Ratoon 5. Initial Varietal Trial (Mid-late) 6. Advanced Varietal Trial (Mid-late) Plant I 7. Advanced Varietal Trial (Mid-late) Plant II 8. Advanced Varietal Trial (Mid-late) Ratoon	To be continued. The Director, SBI and the Project Coordinator (AICRP-Sugarcane) may be addressed to include the scientists of Sirugamani and Melalathur in crossing programme at SBI. These two centres may also participate as voluntary centres so as to include their cultures in the AICRP trials.
----	---	--

*** Submit completion report**

Decisions made on entries for Central Release/State Release/ART/MLT/AICRP trials

a. Culture Proposed for National release for East Coast Zone (AICRP)

Nil

b. Cultures identified and recommended for release (state)

Nil

c. Cultures identified for conducting ART

Sl. No.	clones	Maturity Group	Cane yield (t/ha)	CCS (%)	Proposed centre
	Early				
1.	C 31 098	Early	139.25	12.95	Cuddalore
2.	Si 10 001	Early	136.30	12.95	Cuddalore
3.	Si 10 002	Early	138.00	13.00	Sirugamani
4.	G 08 028	Early	133.20	13.01	Melalathur
5.	Co 11 015	Early	119.73	14.97	SBI, Coimbatore
6.	Co 13 003	Early	128.48	14.39	SBI, Coimbatore
	Standards				
7.	Co 86032		117.55	12.85	
8.	CoC (Sc) 24		121.60	12.50	
	Mid-late				
1.	C 30 010	Mid late	140.75	13.05	Cuddalore
2.	C 30 042	Mid late	138.30	12.92	Cuddalore
3.	Si 10 012	Mid late	136.50	12.95	Sirugamani
4.	Si 10 027	Mid late	138.00	12.90	Sirugamani
5.	G 08 019	Mid late	132.00	13.06	Melalathur
6.	G 08 041	Mid late	131.20	13.12	Melalathur
7.	Co 06 031	Mid late	139.57	14.65	SBI, Coimbatore
8.	Co 14 016	Mid late	140.71	13.58	SBI, Coimbatore
9.	Co 15 007	Mid late	106.28	15.05	SBI, Coimbatore

	Standards				
1.	Co 86032	Mid late	120.20	12.87	-
2.	TNAU Si 8	Mid late	124.65	12.70	-

Traits to be observed

1. Number of tillers ('000/ha)
2. Number of Millable Cane ('000/ha)
3. Stalk length (cm)
4. Cane diameter (cm)
5. CCS (%)
6. CCS yield (t/ha)
7. Cane yield (t/ ha)

Allotment of centres for distribution of seed/planting materials for ART

1. SRS, Cuddalore - No. of locations / Sugar Mills – 4.

1. M/s E.I.D. Parry India Pvt. Ltd., Sugar Mill, Nellikuppam,
2. M/s Rajshree Sugar mill Unit- I, Mundiampakkam,
3. M/s Pondicherry Co-operative sugar mill, L. Palayam &
4. M/s Cheyyar Co-operative Sugar mill, Cheyyar & Farmers field.

2. SRS, Sirugamani - No. of locations / Sugar Mills – 5

1. M/s E.I.D. Parry India Pvt. Ltd., Sugar mill, Pettavathalai
2. M/s E.I.D. Parry India Pvt. Ltd., Sugar mill, Pugalur
3. M/s The Salem Co-operative Sugar Mill, Mohanur
4. M/s Kothari Sugars, Kattur
5. M/s V. V. Sugars, Perambalur

3. SRS, Melalathur - No. of locations / Sugar mills – 5

1. M/s Ambur Co-operative mill, Vadapudupattu – **2- locations**
2. M/s Vellore Co-operative mill, Ammundi
3. M/s Thirupathur Co-operative Sugar mills, Kethandapatti
4. M/s Subramaniya Siva Co-operative Sugar mills, Harur
5. M/s Dharmapuri District Co-operative Sugar mills, Palacode

4. Sugarcane Breeding Institute, Coimbatore - No. of locations/ Sugar Mills – 4

1. M/s Bannari Amman sugars, Aluthukombai, Sathayamangalam
2. M/s Sakthi sugars, Appakoodal, Erode
3. M/s Ponni Sugars, Pallipalayam, Erode
4. M/s Amaravathi Co-operative Sugar Mill, Udumalaipettai

Scientists in-charge

- Dr. S. Ganapathy, Asst. Professor (Breeding), SRS, Cuddalore
 Dr. M. Shanmuganathan, Asst. Professor (Breeding), SRS, Sirugamani
 Dr. N. A. Saravanan, Asst. Professor (Breeding), SRS, Melalathur.

d. Cultures proposed for testing under Multi Location Trial

New clones identified for conducting MLT in 2018-19

S. No.	Clones	Maturity Group	Cane yield (t/ha)	CCS (%)	Proposed centre
	Early				
1.	C 32 021	Early	141.64	13.01	Cuddalore
2.	Si 12 062	Early	134.70	13.00	Cuddalore
3.	Si 12 078	Early	139.50	13.05	Sirugamani
4.	G 08 031	Early	129.60	13.20	Sirugamani
5.	G 08 024	Early	124.53	12.96	Melalathur
Standards					
6.	CoC (Sc) 24				
7.	TNAU Si 7				
	Mid-late				
1.	C 32 012	Midlate	140.00	13.06	Cuddalore
2.	Si 12 047	Midlate	136.10	13.06	Sirugamani
3.	Si 12 329	Midlate	135.60	12.81	Sirugamani
4.	G 07 013	Midlate	131.41	13.20	Melalathur
5.	G 10 006	Midlate	128.45	12.98	Melalathur
Standards					
6.	Co 86032				
7.	TNAU Si 8				

Traits to be observed

1. Number of tillers ('000/ha)
2. Number of Millable Cane ('000/ha)
3. Stalk length (cm)
4. Cane diameter (cm)
5. CCS (%)
6. CCS yield (t/ha)
7. Cane yield (t/ ha)

Locations

1. SRS, Cuddalore
2. SRS, Sirugamani
3. SRS, Melalathur

Scientists in-charge

Dr. S. Ganapathy, Asst. Professor (Plant Breeding), SRS, Cuddalore
Dr. M. Shanmuganathan, Asst. Professor (Plant Breeding), SRS, Sirugamani
Dr. N. A. Saravanan, Asst. Professor (Plant Breeding), SRS, Melalathur
Dr. V. Ravichandran, Asst. Professor (Plant Pathology), SRS, Cuddalore
Dr. S. Douressamy, Professor (Agrl. Entomology), SRS, Cuddalore
Dr. A. Thirumurugan, Professor and Head, SRS, Melalathur
Dr. V. Baskaran, Asst. Prof (Agrl. Entomology), SRS, Sirugamani
Tmt. A. Anitha, Asst. Professor (Crop Physiology), SRS, Cuddalore

e. Clones proposed for AICRP (S) – ZVT - 2018-19 – (SRS, Cuddalore)

Category	Clone	Parentage	Cane yield (t/ha)	Reaction to red rot
Early	C 32 013	Co 85002 x ISH 229	139.25	R
Mid-late	C 32 016	Co 98101 x ISH 69	137.50	MR

Scientist in-charge:

Dr. S. Ganapathy, Assistant Professor (Plant Breeding), SRS, Cuddalore

Action plan for 2017-2020 on the identified themes

Theme No. 1		Evolving high sugar varieties				
Theme Leader		Dr. S. Ganapathy, Assistant Professor (Plant Breeding), SRS, Cuddalore				
Project		1. CPBG/CDL/PBG/SUG/2017/001 2. CPBG/SGM/PBG/SUG/2014/002 3. CPBGI/MLT/PBG/SUG/2014/ 002				
S. No.	Activity	Name of the scientist and Centre	Year 2017-18	Year 2018-19	Year 2019-20	Deliverables / expected out come
1.	Evolving high sugar varieties with red rot resistance for Early and Mid-late seasons.	Dr. S. Ganapathy, Assistant Professor (Plant Breeding), SRS, Cuddalore	Evolution and evaluation high sugar clones with red rot resistance			Release of sugarcane variety for high sugar content with red rot resistance could be achieved.
2.	Evolving high yielding, high quality sugarcane varieties suitable for water logged condition.	Dr. M. Shanmuganathan, Assistant Professor (Plant Breeding), SRS, Sirugamani	Evolution and evaluation of promising culture for high sugar and water logged condition			Release of high yielding, high quality sugarcane varieties for water logged condition could be evolved.
3.	Evolving high yielding, high quality sugarcane varieties suitable for jaggery production.	Dr. N.A. Saravanan, Assistant Professor (Plant Breeding), SRS, Melalathur	Evolution and evaluation of promising culture for high quality and jaggery production.			Release of high yielding, high quality sugarcane varieties for jaggery production.
Theme No. 2		Evaluation and identification of chewing cane variety				
Theme Leader		Dr. M. Shanmuganathan, Assistant Professor (Plant Breeding), SRS, Sirugamani				
Project		CPBG/SGM/PBG/SUG/2014/001				
S. No.	Activity	Name of the scientist and Centre	Year 2017-18	Year 2018-19	Year 2019-20	Deliverables / expected out come
1.	Evaluation and identification of chewing cane varieties with high	Dr. M. Shanmuganathan, Assist. Professor (Plant Breeding), SRS,	Twelve chewing cane collections were evaluated in station trials and promising three collections		Seed increase of identified chewing cane	Release of chewing cane variety with high yield with high inter-

	yield and long inter-nodal length with acceptability.	Sirugamani	were evaluated in MLTs and ARTs for quality analysis	culture for variety release.	nodal length could be achieved	
Theme No. 3	Evolving sugarcane varieties suitable for abiotic stresses					
Theme Leader	Dr. N. A. Saravanan, Assistant Professor (Plant Breeding), SRS, Melalathur.					
Project	CPBG/MLT/PBG/SUG/2014/ 002					
S. No.	Activity	Name of the Scientist and Centre	Year 2017-18	Year 2018-19	Year 2019-20	Deliverables / expected out come
1.	Evolving high yielding, high quality sugarcane varieties suitable for abiotic stresses	Dr. N. A. Saravanan, Assistant Professor (Plant Breeding), SRS, Melalathur.	Evolution and evaluation of promising culture for high sugar and abiotic stresses			Release of sugarcane varieties for drought and problematic soils of Vellore district could be evolved.

B. CROP MANAGEMENT

I. List of projects reviewed

S.No	Discipline/Station	University Research Projects	Externally Funded Project	Total
Agronomy				
1.	SRS, Cuddalore	6	-	6
2.	SRS, Sirugamani	3	-	3
3.	SRS, Melalathur	1	-	1
4.	AC&RI, Madurai	1	-	1
Soil Science & Agricultural Chemistry				
1.	TNAU, Coimbatore	1	-	1
Crop Physiology				
1.	SRS, Cuddalore	3	-	3
Seed Science & Technology				
1.	SRS, Melalathur	1	-	1
Agricultural Microbiology				
1.	SRS, Cuddalore	1	1	2
	Total	17	1	18

II. Remarks on List of University Research projects

S.No	Project Number & Title	Remarks
1.	DCM/CDR/AGR/SUG/2017/002 Dr. G.Manickam , Professor (Agronomy), SRS, Cuddalore Dr. G.Gayathry , Asst. Professor (Agrl. Microbiology), SRS, Cuddalore Dr. D. Manohar Jesudas , Prof. and Head, AMRC, TNAU, Coimbatore Integrated best management practices for resource conservation in sugarcane. (Nov.2016 – Oct. 2019)	In first plant crop the mechanized cultivation of sugarcane registered higher values of growth, yield parameters. The aggregations of varied microbial population were also higher under this treatment. The project may be continued to obtain confirmatory results.
2.	DCM/CDR/AGR/SUG/2015/001 Dr. G.Manickam , Professor (Agronomy), SRS, Cuddalore Studies on herbicides in weed management of sugarcane. (Feb.2015 – Sep.2018)	Transformation value to be given in tables and the original value has to be given in parenthesis. Pre-emergence application of atrazine @1.0 kg/ha along with post emergence application of glyphosate @1.0 kg/ha at 45 DAP resulted with higher weed control efficiency, cane yield with highest monetary returns. The project was conducted for two years and completion report may be submitted.
3.	DCM/CDR/AGR/SUG/2017/001 Dr. G.Manickam , Professor (Agronomy) SRS, Cuddalore Studies on the effect of herbicidal	Transformation value may be given in tables and the original value may be given in parenthesis.

	<p>combinations on nut sedge management in sugarcane. (January 2017 – June 2019)</p>	<p>Based on one year experimentation, application of PE atrazine @ 2.0 kg/ha + EPoE halosulfuron @ 75 g a.i/ha registered lower nut sedge population with higher weed control efficiency. The project has to be continued.</p>
4.	<p>DCM/CDR/AGR/SUG/2015/001* Dr. S. Thirumarassan, Assistant Professor (Agronomy), SRS, Cuddalore Effect of leguminous intercrops on productivity of plant and ratoon crop of sugarcane. (Dec.2015 – May 2018)</p>	<p>Detailed information on variety, spacing, yield of component crops, sugarcane equivalent yield and economics may also be given. The project may be continued.</p>
5.	<p>DCM/SGM/AGR/SUG/2016/002 Dr. R.Nageswari, Assistant Professor (Agronomy) SRS, Cuddalore Dr. S. Thirumarassan, Assistant Professor (Agronomy) To evolve technology for controlling binding weeds in grown up Sugarcane crop. (Nov.2016 – Nov. 2019)</p>	<p>Midterm correction may be done by including detrashing and propping operations in all the treatments excluding the control. The trial has to be continued.</p>
6.	<p>DCM/CDR/CRP/SUG/2015/001* Tmt. R. Anitha, Assistant Professor (Crop Physiology), SRS, Cuddalore Studies to standardize the growth promoting nutrients to enhance the cane yield and sucrose accumulation in CoC (Sc) 24. (April 2015 – June 2017)</p>	<p>Foliar spraying of micro and macro nutrients solution weekly twice + soaking of bud chips in 0.01% etherl and 0.1% calcium chloride for 2 hours registered significantly maximum values of varied physiological and growth parameters. The findings recommended for OFT. The results are to be consolidated and completion report may be submitted.</p>
7.	<p>DCM/CDR/CRP/SUG/2014/002* Tmt. R. Anitha, Assistant Professor (Crop Physiology), SRS, Cuddalore Response of sugarcane clones to salt stress and role of exogenous application of ascorbic acid in mitigating salt induced damages. (Dec 2014 – July 2017)</p>	<p>Sett treatment with 1mM ascorbic acid + foliar spray of 1mM ascorbic acid on 45th DAP was effective in overcoming the adverse effects of salinity stress through enhancing the overall efficiency of the crop and resulted with higher cane and sugar yield of both ratoon and plant crop. The findings recommended for OFT and completion report may be submitted.</p>

8.	DCM/CDR/CRP/SUG/2015/003 Tmt. R. Anitha, Assistant Professor (Crop Physiology), SRS, Cuddalore Impact of silicon nutrition on physiology, yield and quality of sugarcane under drought condition. (March 2016 – July 2018)	Silica content in soil and plant may be analyzed along with the other nutrients uptake. The project may be continued.
9.	NRM/CDR/AGM/SUG/2018/001 Dr.G.Gayathry, Assistant Professor (Microbiology), SRS, Cuddalore Studies on the standardization and storage stability of fortified sugarcane juice using bio- preservatives. (January 2018 – June 2020)	Collection of sugarcane juice from different sugarcane varieties were made. Sensory evaluation of the juices revealed that CoC 24 registered maximum score of organoleptic content. The project may be continued.
10.	DCM/SGM/SUG/AGR/2016/001 Dr. R.Nageswari, Assistant Professor (Agronomy) SRS, Sirugamani Studies on plant geometry and intercropping under sustainable sugarcane initiative (SSI). (2016-2019)	Planting of chip budded seedlings at 150 cm in double rows with sun hemp as intercrop produced significantly higher cane equivalent yield and net return. Recommended for OFT and the completion report may be submitted.
11.	DCM/CDR/AGR/SUG/2016/001 Dr. L.Chithra, Professor and Head, SRS, Sirugamani Integrated best management practices for resource conservation in sugarcane. (Nov.2016 – Nov.2019)	Increased values of cane thickness (3.6 cm), single cane weight (1.5 kg) and number of millable canes (5.6/clump) were obtained under mechanized cultivation (T ₁) over conventional method (T ₂). The first ratoon crop need to be continued to arrive conclusions.
12.	SEED/MEL/SST/SUG/2016/001 Dr.K.Indira, Professor (Seed Tech), SRS, Melalathur Studies on the effect of Arbuscular mycorrhizal fungi and bioinoculants on Chip bud seedling vigor and resultant seed cane yield and Quality. (Feb 2016 – Feb 2019)	The chip bud seedlings applied with VAM fungi 2g + <i>Azophos</i> 2 gm + <i>Pseudomonas fluorescens</i> @ 0.75 g / chip bud recorded the maximum values for individual cane weight (850 gm) and the cane yield of 93 t/ha. The project may be continued.
13.	DCM/MDU/AGR/SUG/2016/001 Dr. S. Anitta Fanish, Assistant Professor (Agronomy), AC&RI, Madurai Agronomic evaluation of brown manuring and herbicides on management of weeds in sugarcane. (Nov. 2016 – Mar. 2019)	The second year field trail was initiated during January 2018 and crop is at crop establishment stage and the data on germination percentage revealed insignificant difference among the treatment. The trial has to be continued.
14.	WTC/ CBE/ AGR / SUG/ 2018 / 001 Dr. G. Senthil Kumar, Assistant Professor (Agronomy), WTC, TNAU, Coimbatore	The first year plant crop trial was initiated during January, 2018 and may be continued.

	Standardization of fertigation schedule for ratoon Sugarcane under SSI method. (Feb.2018 – May 2020)	
15.	NRM/CDR/SAC/SUG/2016/001 Dr.M. Jayachandran Professor & Head, SRS, Cuddalore. Dr. N. Chandra Sekaran Professor (SS&AC), TNAU, Coimbatore Assessing the effect of mechanization on soil compaction in sugarcane and developing suitable management strategies.	The initial field survey in Cuddalore district revealed that the most of the soils registered light (sandy) texture with good hydraulic conductivity and infiltration rate. The field trial has to be continued.

*** Submit completion report.**

III.PROPOSED ON FARM TRIAL

Experiment – I

Studies to standardize the growth promoting nutrients to enhance the cane yield and sucrose accumulation in sugarcane crop

Project leader: Tmt. R. Anitha, Assistant Professor (Crop physiology), SRS, Cuddalore

Treatments

T₁ Foliar spray of micro and macro nutrient solution will be added weekly twice to each protray from 10th to 25th DAP + soaking of bud chips in 0.01% ethrel and 0.1% calcium chloride for 2 hrs.

T₂ Farmers practice

Observations to be recorded

1. Germination %
2. Number of tillers ('000/ha)
3. Number of Millable Cane ('000/ha)
4. Leaf Area (cm²)
5. Stalk length (cm)
6. Cane diameter (cm)
7. Individual cane weight (kg)
8. Number of internodes/ plant
9. CCS (%)
10. Sugar yield (t/ha)
11. Cane yield (t/ ha)

Action: SRS, Cuddalore, Sirugamani and AC&RI, Trichy.

Duration: 2018-19

Scientist incharge

1. Tmt. R. Anitha, Assistant Professor (Crop Physiology), SRS, Cuddalore
2. Dr.R.Nageswari, Assistant Professor (Agronomy), SRS, Sirugamani
3. Dr.Nithila, Assistant Professor (Crop Physiology), AC&RI, Trichy

Deliverable

The effect of growth promoting nutrients to enhance the cane yield and sucrose accumulation in sugarcane crop will be assessed.

Experiment – II

Response of sugarcane clones to salt stress and role of exogenous application of ascorbic acid in mitigating salt induced damages

Project leader: Tmt. R.Anitha, Assistant Professor (Crop physiology), SRS, Cuddalore

Treatments

- T₁ Sett treatment of 1mM Ascorbic Acid + foliar spray of 1mM Ascorbic Acid
 at 45th after planting
- T₂ Farmers practice

Observations to be recorded

1. Germination %
2. Number of tillers ('000/ha)
3. Number of Millable Cane ('000/ha)
4. Leaf Area (cm²)
5. Total chlorophyll content (mg/g)
6. Chlorophyll stability index (%)
7. Relative water content (%)
8. Nitrate Reductase Activity (mg of NO₂/g/hr)
9. Proline (µg/g of tissue)
10. Stalk length (cm)
11. Cane diameter (cm)
12. Individual cane weight (kg)
13. Number of internodes/plant
14. CCS (%)
15. Sugar yield (t/ha)
16. Cane yield (t/ha)

Action: SRS, Cuddalore, Sirugamani and AC&RI, Trichy.

Duration: 2018-19

Scientist incharge

1. Tmt. R. Anitha, Assistant Professor (Crop Physiology), SRS, Cuddalore
2. Dr.R.Nageswari, Assistant Professor (Agronomy), SRS, Sirugamani
3. Dr.Nithila, Assistant Professor (Crop Physiology), AC&RI, Trichy

Deliverable

The impact of ascorbic acid application in minimizing the salinity effect on sugarcane could be ascertained.

Experiment – III

Studies on plant geometry and intercropping under sustainable sugarcane initiative (SSI)

Project leader: Dr.R.Nageswari, Assistant Professor (Agronomy), SRS, sirugamani

Treatments

- T₁ Planting of chip budded seedlings of sugarcane in double rows at 150 cm row spacing and intercropped with sunnhemp and incorporation *in situ* at 45 DAS
- T₂ Planting of chip budded seedlings of sugarcane as sole crop in single row at 150 cm row spacing (conventional ssi)

Observations to be recorded

1. Germination %
2. Number of tillers ('000/ha)
3. Number of Millable Cane ('000/ha)
4. Stalk length (cm)
5. Cane diameter (cm)
6. Individual cane weight (kg)
7. Number of internodes/plant
8. CCS (%)
9. Sugar yield (t/ha)
10. Cane yield (t/ha)

Action: SRS, Sirugamani and AC&RI, Madurai.

Duration: 2018-19

Scientist incharge

1. Dr.R.Nageswari, Assistant Professor (Agronomy), SRS, Sirugamani
2. Dr. S. Anitta Fanish, Assistant Professor (Agronomy), AC&RI, Madurai

Deliverable

To identify best plant geometry and intercropping system in sugarcane under SSI.

V. ACTION PLAN FOR IDENTIFIED THEMES (2018-19)

CROP MANAGEMENT				
Theme No. 4		Integrated best management practices for resource conservation in sugarcane		
Theme Leader		Dr. G.Manickam, Professor (Agronomy),SRS, Cuddalore		
Project No.		DCM/CDR/AGR/SUG/2017/002		
S.No.	Activity	Name of the scientist(s) and centre	2018-19	Deliverables
1.	To evolve best management practices for resource conservation in sugarcane with combined mechanization	1.Dr.G.Gayathry.,Ph.D., Asst. Prof. (Agrl. Micro),SRS, Cuddalore 2.Dr. D.Manohar Jesudas.,Ph.D., P& H, AMRC, TNAU, Coimbatore – 641 003.	The first year plant crop was ratooned during 2107-2018 will be continued during 2018-2019 and the data pertaining to the pre-plant and post harvest soil physico chemical characteristics, crop biometrics, varied microbial population and economics utility of the mechanization are to be studied	The impact of complete mechanization practice on physico-chemical soil properties, microbial population, weed flora, water use efficiency, labour saving, growth and yield of both plant and ratoon sugarcane could be ascertained to arrive at appropriate conclusion
Theme No. 5		To evolve technology for controlling binding weeds in grown up sugarcane crop		
Theme Leader		Dr. R.Nageswari, Asst. Professor (Agronomy), SRS, Sirugamani		
Project No.		DCM/SGM/AGR/SUG/2016/002		
S.No.	Theme Activity	Name of the scientist(s) and centre	2018-19	Deliverables
1.	To evolve management strategies to control major binding weeds in sugarcane (<i>Ipomea alba</i> , <i>Coccinia grandis</i> , <i>Convolvulus arvensis</i>)	Dr. R.Nageswari, Asst. Professor (Agronomy),SRS, Sirugamani Dr.S.Thirumarassan, Asst.Professor (Agronomy), SRS, Cuddalore	The trial will be continued with detrashing at 5 th and 7 th month after planting for all the treatments	Appropriate management methods for major binding weeds control in sugarcane will be evolved

Theme No. 6		Assessing the effect of mechanization on soil compaction in sugarcane and developing suitable management strategies		
Theme Leader		Dr.M. Jayachandran, Professor & Head, SRS, Cuddalore		
Project No.		NRM/CDR/SAC/SUG/2016/001		
S.No.	Theme Activity	Name of the scientist(s) and centre	2018-19	Deliverables
1.	Study the effect of intensification of mechanization in sugarcane cultivation on soil compaction in Cuddalore and Villupuram districts of Tamil Nadu.	Dr. N. Chandra Sekaran Professor (SS&AC), TNAU, Coimbatore Dr.M. Jayachandran, Professor & Head, SRS, Cuddalore.	The impact of mechanization on soil profile, physico-chemical characteristics, sugarcane crop growth, establishment and subsequent crop productivity are to be assessed.	The impact of mechanisation of soil profile, physico-chemical characteristics could be ascertained by which appropriate agro-technological methods could be formulated to safeguard the soil fertility and the productivity.
Theme No. 7		Packages for organic sugarcane cultivation		
Theme Leader		Dr.M. Jayachandran, Professor & Head, SRS, Cuddalore		
Project No.		New subproject to be proposed		
S.No.	Theme Activity	Name of the scientist(s) and centre	2018-19	Deliverables
1.	Organic Sugarcane Cultivation	Centres with Scientists Coordinating Centre SRS, Cuddalore Dr. M.Jayachandran, Prof. and Head, Dr. S.Douressamy, Professor (Agrl. Entomology) Dr. V.Ravichandran, Asst. Professor (Pl.Pathology)	Organic Methodologies T ₁ - Packages for organic sugarcane production ▪ Application of 12.5 t/ha of FYM as basal dressing along with 2.4 kg /ha each of <i>Gluconacetobacter</i> TNAU 1 (30,60 and 90 DAS) and Phosphobacteria in 100 kg/ha of FYM along the furrows ▪ Application of <i>Trichoderma viride</i> @ 2.5 kg / ha along with 25 kg FYM as basal ▪ Application of neem cake @ 125 kg/ha	Technology for organic method of cultivation will be developed and recommended for adoption

		<p>Dr. G.Gayathry, Asst. Professor (Agrl. Micro.)</p> <p>Sub centres SRS, Sirugamani Dr.L.Chithra, Professor and Head Dr.R.Nageswari, Asst. Professor (Agronomy) Dr.V.Baskaran, Asst. Professor (Agrl. Entomology)</p>	<p>along with sett treatment of <i>Gluconacetobacter</i> TNAU 1 @ 2 kg/ha</p> <ul style="list-style-type: none"> ▪ Application of recommended dose of N (300 kg/ha) through Vermicompost as band placement at 30, 60 and 90 DAP for clay loam and 30,60,90 & 120 days for sandy loam soils, respectively ▪ Foliar application of Panchagavya @ 3% at monthly intervals from planting up to 5th month ▪ Trash mulching along the ridges on 3rd day in clay soils and @ 21 days after planting for sandy loam soil ▪ Basal application of silicon solubilizer @ 12.5 kg/ha adjacent to the crop row with 50 kg FYM ▪ Installation of pheromone traps @ 20 Nos. / ha for monitoring and trapping of borer pests of sugarcane ▪ Release of <i>Trichogramma chilonis</i> from the 4th to 6th month at 15 days interval @ 2.5 cc / ha <p>Farmers practices T₂ - Farmers method of sugarcane cultivation</p> <ul style="list-style-type: none"> • Application of 300 :100:200 kg of NPK/ha sett treatment with fungicides, flooding irrigation, trash burning and no -dethrashing. • Spacing 90 cm, manual cutting and planting, sett treatment with fungicides, flooding irrigation, manual weeding, trash burning, no detrashing & earthing up, manual harvesting). 	
--	--	--	--	--

C. CROP PROTECTION

I. List of projects reviewed

S. No.	Discipline / Station	University Research Projects	Externally Funded project	Total
Agricultural Entomology				
1.	SRS, Cuddalore	2	-	2
2.	SRS, Sirugamani	2	-	2
3.	SRS, Melalathur	3	-	3
Plant Pathology				
1.	SRS, Cuddalore	2	-	2
Nematology				
1.	SRS, Cuddalore	2	-	2
Total		11	-	11

II Remarks of the University Research Sub-Projects

A. Agricultural Entomology

S. No.	Project Number and Title	Remarks
1.	CPPS/CDR/ENT/SUG/2013/001 Dr.S.Douressamy , Professor (Agrl. Entomology), SRS, Cuddalore Screening for assessment of field resistance in sugarcane clones against endemic pests of Cuddalore region. (Feb. 2016 – Jan.2019)	The project may be continued.
2.	CPPS/CDR/ENT/SUG/2016/002 Dr.S.Douressamy , Professor (Agrl. Entomology), SRS, Cuddalore Ecofriendly management of borer pests and white grub in sugarcane. (Feb.2016 – Jan. 2019)	The project may be continued.
3.	CPPS/SGM/ENT/SUG/2015/001* Dr. V. Baskaran , Assistant Professor (Agrl. Entomology) SRS, Sirugamani Screening for assessment of field resistance in sugarcane clones against endemic pests and suitable management practices for Cauvery delta region. (Jan. 2015 – Mar.2018)	The results are to be consolidated and completion report should be submitted on or before 31.05.2018. A new sub-project has to be proposed on the same line.
4.	CPPS/SGM/ENT/SUG/2015/002* Dr. V. Baskaran , Assistant Professor (Agrl. Entomology), SRS, Sirugamani Monitoring of major insect pests and exploration of their natural enemies in sugarcane ecosystem. (Jan.2015 – Mar.2018)	The results are to be consolidated and completion report should be submitted on or before 31.05.2018. A new sub-project on Habitat manipulation for the management of early shoot borer shall be proposed and sent for approval on or before 31.05.2018.

5.	CPPS/MLT/ENT/SUG/2014/001* Dr. A. Thirumurugan , Professor and Head, SRS, Melalathur Developing IPM strategies for management of white fly under precision farming sugarcane cultivation. (Jan.2014 – Dec. 2017)	The results are to be consolidated and completion report should be submitted on or before 31.05.2018. A new sub-project on Habitat manipulation for the management of early shoot borer has to be proposed on or before 31.05.2018.
6.	CPPS/MLT/ENT/SUG/2015/002* Dr. A. Thirumurugan , Professor and Head, SRS, Melalathur Development of IPM package for management of white grub in sugarcane. (May 2015 – April 2018)	Extension proposal for one year may be sent for conducting the field trials.
7.	CPPS/MLT/ENT/SUG/2015/003* Dr. A. Thirumurugan , Professor and Head, SRS, Melalathur Evaluation of insecticides against borer pests of sugarcane under SSI. (May 2015 – April 2018)	The results are to be consolidated and completion report should be submitted on or before 31.05.2018.

B. Plant Pathology

S. No.	Project Number and Title	Remarks
1.	CPPS/CDR/PAT/SUG/2011/001* Dr. V. Ravichandran , Asst. Professor (Plant Pathology), SRS, Cuddalore Evaluation of sugarcane clones / varieties for resistance to red rot caused by <i>Colletotrichum</i> <i>falcatum</i> Went. (April 2011 – May 2017)	Completion report should be submitted on or before 31.05.2018. A new URP has to be proposed on or before 31.05.2018.
2.	CPPS/CDR/PAT /SUG/2017/001 Dr. V. Ravichandran , Asst. Professor (Plant Pathology), SRS, Cuddalore Biosuppression of sugarcane sett rot disease and understanding the mechanism of suppression against <i>Ceratosystis paradoxa</i> . (June 2017 – March 2020)	The project may be continued taking into account the suggestions made during CSM.

C. Nematology

S. No.	Project Number and Title	Remarks
1.	CPPS/CDR/NEM/SUG/2014/001* Dr. J. Jayakumar , Asst. Prof. (Nematology), SRS, Cuddalore Management of sugarcane nematodes using nonchemical methods. (Nov. 2014 – Oct. 2017)	Extension proposal for one year may be sent for conducting the field trials.

2.	CPPS/CDR/NEM/SUG/2015/002* Dr. J. Jayakumar , Asst. Prof. (Nematology), SRS, Cuddalore Screening of sugarcane varieties against root knot nematode, <i>Meloidogyne incognita</i> and lesion nematode <i>Pratylenchus zae</i> and confirmation on the same. (Aug. 2015 – July 2018)	Extension proposal for one year may be sent for conducting the field trials.
----	--	--

* **Submit completion report.**

III. ON FARM TRIAL

Efficacy of chemical insecticides against white grub of sugarcane

Duration : 2018-19

Theme Leader : Dr. S. Douressamy, Professor (Agrl. Entomology), SRS, Cuddalore

Pest : White grub

Treatments	Dose ha ⁻¹
Imidacloprid 17.8 SL	250 ml
Phorate 10 G	50 kg
Control	

Action: SRS, Cuddalore, Sirugamani and Melalathur.

Scientists Incharge:

Team Leader : Dr. S. Douressamy, Professor (Agrl. Entomology), SRS, Cuddalore

Dr. V. Baskaran, Asst. Prof. (Agrl. Entomology), SRS, Sirugamani

Dr. A. Thirumurugan, Professor and Head, SRS, Melalathur

Deliverables

Management of white grub

IV TECHNOLOGY FOR ADOPTION

Release of egg parasitoid – *Trichogramma chilonis* @ 2.5 cc.ha⁻¹ from 4th to 6th months at fortnightly interval along with installation of INB sex pheromone trap for mass trapping @ 20/ha and detrashing at 5th and 7th month is recommended for the management of internode borer of sugarcane.

ACTION PLAN FOR IDENTIFIED THEMES (2018-19)

CROP PROTECTION				
Theme No. 8		Monitoring of pests, diseases, nematodes and natural enemies in sugarcane		
Theme Leader		Dr. S. Douressamy, Professor (Agrl. Entomology), SRS, Cuddalore		
Project No.		CPPS/CDR/ENT/SUG/2016/002 CPPS/SGM/ENT/SUG/2015/002 CPPS/MLT/ENT/SUG/2015/003 CPPS/CDR/PAT/SUG/2017/001 CPPS/CDR/NEM/SUG/2014/001		
S.No.	Activity	Name of the scientist(s) and centre	2018-19	Deliverables
1.	Monitoring of borers, sucking pests, root feeders and natural enemies in sugarcane in the endemic areas of respective district should be made. Monitoring of red rot, smut, wilt and YLD in endemic areas of the respective district. Awareness campaign on the integrated management of pests and diseases should be arranged at appropriate time.	SRS, Cuddalore Dr. S. Douressamy, Professor (Agrl. Entomology) Dr. V. Ravichandran, Assistant Professor (Plant Pathology) Dr. J. Jayakumar, Assistant Professor (Nematology) SRS, Melalathur Dr. A. Thirumurugan, Professor and Head SRS, Sirugamani Dr. V. Bhaskaran, Assistant Professor (Agrl. Entomology)	Monitoring to be continued. Correlation and regression analysis on pests, diseases damage level with weather factors for three years. Preparation of pests and diseases calendar for sugarcane.	Forecasting the outbreak of pests, diseases and nematodes in sugarcane at appropriate time, for taking up management measures by the farmers. Prediction analysis on the incidence of pests, diseases and nematodes in sugarcane. Pests, diseases and nematodes calendar for sugarcane crop.
Theme No. 9		Management of pests, diseases and nematodes of sugarcane		
Theme Leader		Dr. S. Douressamy, Professor (Agrl. Entomology), SRS, Cuddalore		
Project No.		CPPS/CDR/ENT/SUG/2016/ 002 CPPS/SGM/ENT/SUG/2015/002 CPPS/MLT/ENT/SUG/2015/002. CPPS/MEL/ENT/SUG/2014/001 CPPS/CDR/NEM/SUG/2014/001		

S.No.	Theme Activity	Name of the scientist(s) and centre	2018-19	Deliverables
1.	Management of white grub	<p>SRS, Cuddalore Dr. S. Douressamy, Professor (Agrl. Entomology) Dr. V. Ravichandran, Assistant Professor (Plant Pathology) Dr. J. Jayakumar, Assistant Professor (Nematology)</p> <p>SRS, Melalathur Dr. A. Thirumurugan, Professor and Head</p> <p>SRS, Sirugamani Dr. V. Bhaskaran, Assistant Professor (Agrl. Entomology)</p>	<p>Treatments T₁- <i>Metarhizium anisopliae</i> 4 x 10⁹ cfu-5 kg⁻¹ T₂- <i>Beauveria brongniarti</i> 4 x 10⁹ cfu-5 kg⁻¹ T₃- <i>B. bassiana</i> 4 x 10⁹ cfu-5 kg⁻¹ T₄ - EPN (<i>H. indica</i>) 8 x 10⁹ nematodes ha⁻¹ T₅ - EPN (<i>S. glaserie</i>) 8 x 10⁹ nematodes ha⁻¹ T₆ - Untreated control</p> <p>Design: RBD Replications: 4 Observations to be recorded: No. of white grub per m row Yield, B:C ratio</p>	Best bioinoculants for the management of white grub in sugarcane will be confirmed by the consecutive trials and will be recommended for adoption.
2.	Management of nematodes	<p>SRS, Cuddalore Dr. J. Jayakumar, Assistant Professor (Nematology)</p>	Screening of bio inoculants against nematodes. Influence of sett treatment with bacterial and fungal antagonist for management of nematodes.	Best bio inoculants for the management of nematodes in sugarcane will be confirmed by the consecutive trials and will be recommended for adoption
3.	Habitat manipulation for management of ESB	<p>SRS, Melalathur Dr. A. Thirumurugan, Professor and Head</p> <p>SRS, Sirugamani Dr. V. Bhaskaran,</p>	<p>Components Raising 2 rows of border crops on 3 DAP - Cowpea, bhendi, brinjal, tomato, sesame, sunflower, sorghum, pearl millet, chrysanthemum & Sole crop.</p>	<p>Habitat manipulation for managing borer pests.</p> <p>A new URP may be submitted on or before 30.06.2018</p>

		Assistant Professor (Agrl.Entomology)	Design: Exploded design with non-replicated trials of 10 cents for each treatment. Season: March Parameters to be recorded Per cent ESB damage, Natural enemies population, yield, B:C ratio.	
4.	Tissue culture and bio hardening of seedlings with bioinoculants for management of sett borne diseases and nematodes	SRS, Cuddalore Dr. V. Ravichandran, Assistant Professor (Plant Pathology) Dr. J. Jayakumar, Assistant Professor (Nematology)	Components Diseases : red rot and smut Nematodes : lesion and spiral Testing bioinoculants <i>Pseudomonas fluorescens</i> , <i>Bacillus subtilis</i> , for antagonistic activity. Compatibility with other bioinoculants. Parameters to be recorded <i>In vitro</i> antagonistic activity, Disease / nematode incidence.	Seedlings free of disease and nematodes will be produced. A new URP may be submitted on or before 30.06.2018.
5.	Production of disease free seedlings / planting materials	SRS, Cuddalore Dr. V. Ravichandran, Assistant Professor (Plant Pathology) Dr. J. Jayakumar, Assistant Professor (Nematology)	Activity Penetration of chemicals into the setts / bud chips by sett treatment device developed by Sugarcane Breeding Institute, Coimbatore. Parameters to be recorded Germination % Disease / nematode incidence	Production of disease and nematodes free setts. A new URP may be submitted on or before 30.06.2018.
Theme No. 10		Identification of resistant sources to major pests and diseases		
Theme Leader		Dr. S. Douressamy, Professor (Agrl. Entomology), SRS, Cuddalore.		
Project No.		CPPS/CDR/ENT/SUG/2016/ 002 CPPS/SGM/ENT/SUG/2015/002 CPPS/MLT/ENT/SUG/2015/002 CPPS/MEL/ENT/SUG/2014/001 CPPS/CDR/PAT/SUG/2011/001 CPPS/CDR/PAT /SUG/2017/001		

S.No.	Theme Activity	Name of the scientist(s) and centre	2018-19	Deliverables
1.	Screening of sugarcane clones for their reaction to major pests and diseases	SRS, Cuddalore Dr. S. Douressamy, Professor (Agrl. Entomology) Dr. V. Ravichandran, Assistant Professor (Plant Pathology) SRS, Melalathur Dr. A. Thirumurugan, Professor and Head SRS, Sirugamani Dr. V. Bhaskaran, Assistant Professor (Agrl. Entomology)	Activity Pests: Early shoot borer, internode borer To be screened under natural field condition Diseases: Red rot and smut To be screened by artificial inoculation	The resistance sources will be utilized for breeding programme

Work Load of each Scientist (Theme wise)

Theme 1 : Evolving high sugar varieties

Theme 2 : Evaluation and identification of chewing cane variety

Theme 3 : Evolving sugarcane varieties suitable for abiotic stresses

Theme 4 : Integrated best management practices for resource conservation in sugarcane

Theme 5 : To evolve technology for controlling binding weeds in grown up sugarcane crop

Theme 6 : Assessing the effect of mechanization on soil compaction in sugarcane and developing suitable management strategies

Theme 7 : Packages for organic sugarcane cultivation

Theme 8 : Monitoring of pests, diseases, nematodes and natural enemies in sugarcane

Theme 9 : Management of pests, diseases and nematodes of sugarcane

Theme 10 : Identification of resistant sources to major pests and diseases

S. No	Name of the Scientist	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	Theme 8	Theme 9	Theme 10	Total
		Man hours/week										
1.	M. Jayachandran						10	10				20
2.	N. Chandrasekaran						10					10
3.	A. Thirumurugan								8	12	7	27
4.	S. Ganapathy	20	5	5								30
5.	M. Shanmuganathan	20	5	5								30
6.	N. A. Saravanan	15	5	10								30
7.	G. Manickam				20			5				25
8.	S. Thiruvarassan					10		10				20
9.	G. Gayathry				10							10
10.	L. Chitra							10				10
11.	R. Nageswari					15		5				20
12.	S. Douressamy							2	10	10	8	30
13.	V. Baskaran							2	8	12	8	30
14.	V. Ravichandran							2	8	9	8	27
15.	J. Jayakumar								8	12	8	28
16.	D.Manohar Jesudas				10							10

Work Load of Sugarcane scientists for the Year 2018-19

S. No.	Scientists	% of time
1.	M. Jayachandran	
	Univ. Sub Project – 1	35
	Administration	30
	Student guide	25
	Extension	5
	Other Activities	5
2.	L. Chitra	
	Univ. Sub Project – 1	35
	Administration	30
	Student guide	10
	Other activities	25
3.	A. Thirumurugan	
	Univ. Sub Project – 1	22
	Univ. Sub Project – 2	33
	Univ. Sub Project – 3	20
	Administration	25
4.	S. Ganapathy	
	Univer. Sub Project – 1	20
	AICRP(S)	50
	Breeder seed Production	10
	MLT & ARTs	10
	Extension & Other activities	10
5.	M. Shanmuganathan	
	Univ. Sub Project – 1	20
	Univ. Sub Project – 2	20
	Univ. Sub Project – 3	20
	Teaching	20
	Other activities	20
6.	N. A. Saravanan	
	Univ. Sub Project – 1	20
	Univ. Sub Project – 2	20
	Univ. Sub Project – 3	20
	Farm & Other activities	40
7.	G. Manickam	
	Univ. Sub Project – 1	25
	Univ. Sub Project – 2	25
	Univ. Sub Project – 3	25
	Other activities	25
8.	R.Nageswari	
	Univ. Sub Project – 1	30
	Teaching	20
	Seed Production	30
	Other activities	20

S. No.	Scientists	% of time
9.	Dr. S. Thiruvarassan	
	Univ. Sub Project – 1	25
	Univ. Sub Project – 2	25
	Univ. Sub Project – 3	25
	Other activities (Farm)	25
10.	R. Anitha	
	Univ. Sub Project – 1	25
	Univ. Sub Project – 2	25
	Univ. Sub Project – 3	25
	Other activities	25
11.	K. Indira	
	Univ. Sub Project – 1	40
	Seed Production	40
	Other activities	20
12.	G. Gayathri	
	Univ. Sub Project – 1	25
	Externally funded	30
	Teaching	15
	Extension	10
	Other Activities	20
13.	S. Douressamy	
	Univ. Sub Project – 1	30
	Univ. Sub Project – 2	30
	Farm superintendent	30
	Extension & other activities	10
14.	V.Baskaran	
	Univ. Sub Project – 1	25
	Univ. Sub Project – 2	30
	Teaching	15
	Other activities (Farm)	30
15.	V. Ravichandran	
	Univ. Sub Project – 1	25
	AICRP (S)	50
	Extension	10
	Other activities	15
16.	J. Jayakumar	
	Univ. Sub Project – 1	25
	Univ. Sub Project – 2	25
	Teaching	20
	Extension & Other activities	30