

ANNUAL REPORT 2018-2019

Name of the Station : Sugarcane Research Station

Cuddalore

Name of the Directorate : Tamil Nadu Rice Research Institute,

Aduthurai

Mandate / Objectives

- To develop sugarcane varieties with high yield and high quality for different seasons.
- To carry out research for increasing sugarcane production in the coastal belt.
- To develop cost effective and adoptable sugarcane production techniques.
- To formulate integrated pest and disease management practices for sugarcane.

Schemes / Projects operated

Sl. No.	Funding agency	Scheme Number assigned by RPAC	Name of the scheme	Budget (Rs. in lakh)	Year of sanction
1.	Main	A26AV	Main Non Plan	31038900	2019
2.	AICRP	D32BU	ICAR - AICRP	5218000	2000
3.	Private Agencies	F37AFS	Private Agencies	4829	2016
4.	NFSM	F36OJ	NFSM	0	2016
5.	DST, SERB	E28ABJ	DST, SERB	0	2017
6.	Remote sensing	M28 CY	Remote sensing	0	2017
7.	NABARD	B26 AS	NABARD	0	2017
8.	VCS (TNAU)	V60IH	VCS (TNAU)	81	2018
9.	TNAU	CP 173	Core Project	3	2018
10.	TNAU	CP 174	Core Project	1	2018
11.	UGC Arrear	A20ZT	-	2739000	2019

Trainings / Seminars conducted

Sl. No	Date		Training/ Seminar Title	Budget	Funding source	Category of participants	Number of participants
	From	To					
1.	28.3.2018	-	Training on sugarcane cultivation	-	Kallakurichi Cooperative Sugar mills, Moongilthuraipattu	Farmers	60
2.	23.07.2018	-	Training on sugarcane cultivation	-	Impart of Madhuranthagam Co-operative sugar mills, Padalam	Sugar Mill cane staff	65
3.	20.9.2018	-	Awareness training on sugarcane laying of varietal demo field	-	Kallakurichi Cooperative Sugar mills, Kachirapalayam, KKII sugarmill	Sugar Mill cane staff	30
4.	26.9.2018	-	Profitable ratoon management and Integrated weed management in sugarcane & Intercropping strategies for sugarcane and Low cost technology for sugarcane	-	Agri dept, Darmapuri	ATMA farmers,	50
5.	9.10.2018	-	Training on Sugarcane varietal demo plots	-	Chengalrayan Co-Op. Sugar Mills, Periyasalavalai	Sugar Mill cane staff	30
6.	23.10.2018	-	Awareness training on sugarcane laying of varietal demo field	-	Perambalur Co-Op. Sugar Mills, Perambalur	Sugar Mill cane staff	30
7.	24.10.2018	-	SSI and Micro irrigation, New	-	JDA Salem under ATMA scheme	Farmers	30

			sugarcane varieties and varietal identification				
8.	31.10.2018	-	SSI and Micro irrigation, New sugarcane varieties and varietal identification	-	JDA Ariyalur under ATMA scheme	Farmers	30
9.	09.11.2018	-	SSI and Micro irrigation, New sugarcane varieties and varietal identification	-	JDA Krishnagiri under ATMA scheme	Farmers	30
10.	19.11.2018	-	SSI and Micro irrigation, New sugarcane varieties and varietal identification		JDA Annur, Coimbatore under ATMA scheme	Farmers	30
11.	3.12.2018		Training on Integrated Pest Management in sugarcane	-	ATMA scheme. Thiruvannmalai and Karur District.	Farmers	30
12.	20.12.2018	-	Training to cane staffs, Sugarcane varietal demo plots, BMT details inspection	--	Salem Co-Op. Sugar Mills, Salem	Farmers	30
13.	21.12.2018	-	Training to cane staffs, Sugarcane varietal demo plots, BMT details inspection	-	Amaravathi Co-Op. Sugar Mills, Coimbatore	Farmers	30

14.	14.12.2018	-	Special lecture cum training on Awareness programme on Rugose spiralling white fly attack on coconut” to the farmers of Sedapalyam of Cuddalore	-	JDA, Cuddalore	Farmers	65
15.	18.12.2018	-	New Sugarcane varieties and varietal identification	-	ATMA scheme Karur Dist	Farmers	40

Field days / Melas organized/ Exhibition organized

S.No.	Name of the field day	Date	Place
1.	Exhibitions arranged at Farm Fiesta 2018 cum 32 nd Flower, Vegetable and Fruit show held at Botanical garden, Puducherry	02.02.2018 to 04.02.2018	Puducherry
2.	Exhibitions arranged for State Level Farmers day held at TNAU, Coimbatore	09.02.2018 to 10.02.2018	TNAU, Coimbatore
3.	Exhibitions arranged for 32 st Farm Festival cum Flower Vegetable and Fruit show	02.02.2018 to 04.02.2018	Puducherry
4.	Exhibitions arranged for 21 st SAC Meeting	23.02.2018	KVK, Vriddhachalam
5.	Farmer’s mela cum exhibition	20.06.2018	KVK, Edapady Santhiyur
6.	Exhibition on Sugarcane cultivation	25.06.2018 to 02.07.2018	Government Museum, Cuddalore
7.	Farmer’s mela and expo	24.07.2018	KKII Co-operative sugar mills, Kachirapalayam, Kallakuruchi
8.	Exhibitions arranged for Cane Expo at Arignar Anna Sugar Mills	09.08.2018	Kurungulam, Tanjavur
9.	Exhibition at CODISIA, Coimbatore at Farmers fair organized by Sugarcane Breeding Institute, Coimbatore	24.08.2018 to 25.08.2018	Coimbatore

Trainings / Seminars / Workshops / Scientific Meetings attended by TNAU Scientists

Sl. No.	Name of the Training and venue	Date		Name and Designation of participants
		From	To	
1.	Crop Scientist Meet on sugarcane'2018 and visit to SBI Coimbatore.	24.04.2018	27.04.2018	Dr.M.Jayachandran Dr.G.Manickam Dr. S. Douressamy Dr. V. Ravichandran Dr. S.Thirumarassan Dr. J. Jayakumar Dr. G. Gayathry Tmt. R. Anitha
2.	Stakeholder workshop on crop monitoring, Department of Remote Sensing, TNAU, Coimbatore from	02.05.2018	03.05.2018	Dr.M.Jayachandran Dr.S.Thirumarassan
3.	Micro propagation of sugarcane saplings	23.5.2018	25.5.2018	Tmt.R.Anitha Assistant Professor Crop Physiology
4.	Kisan Kalyan Karayashala Meeting at Cuddalore and created awareness on emerging pests of sugarcane and their management to the farmers.	2.5.2018	-	Dr.S.Douressamy Professor(Agrl. Entomology)
5.	Sixth scientist meet on Non-crop specific projects	13.6.2018	-	Dr. G. Gayathry
6.	Technical review meeting conducted by the Director, TRRI, Aduthurai at SRS, Cuddalore	22.6.2018	-	Dr. M.Jayachandran Dr. G.Manickam Dr. S. Douressamy Dr.S.Thirumarassan Dr. J. Jayakumar Dr.V.Ravichandran Dr. S. Ganapathy Dr. G. Gayathry Mrs. R. Anitha
7.	Field day on sugarcane technologies and Power weeder demonstration to the farmers of M/s Cheyyar Co operative sugar Mill at Maruthadu	5.7.2018	-	Dr.M.Jayachandran Dr. S. Douressamy Dr.V. Ravichandran

8.	Field day on sugarcane technologies and arranged to the farmers of M/s. Madurantagam Co operative sugar Mill at Sattanancheri	5.7.2018	-	Dr.M.Jayachandran Dr. G. Manickam Dr. S. Douressamy Dr. V. Ravichandran
9.	Exhibition at CODISSIA, Coimbatore at Farmers fair organized by Sugarcane Breeding Institute, Coimbatore	24.08.2018	26.08.2018	Dr.M.Jayachandran Dr. V. Ravichandran
10.	XII ISSCT Pathology Workshop,TNAU, Coimbatore	02.09.2018	8.9.2018	Dr. Ravichandran,
11.	32 nd Biennial Workshop of AICRP on Sugarcane, UAS Bengaluru, Karnataka,	17.10.2018	18.10.2018	Dr.M.Jayachandran Dr. Ravichandran Dr.M.Shanmuganathan
12.	Faculty sensitization workshop on “Triggering Innovation in Research”, TNAU, Coimbatore	05.10.2018	-	Dr.M.Shanmuganathan
13.	49 th Research and Development workshop of Tamil Nadu and Puducherry on sugarcane, Erode, Tamil Nadu	01.11.2018	02.11.2018	Dr. M. Jayachandran Dr. V.Ravichandran Dr.M.Shanmuganathan
14.	Gaja- cyclone revenue meeting convened by the Agricultural Production Commissioner (APC) Chennai and the district of collector, Cuddalore	15.11.2018	-	Dr. S. Pasupathy
15.	Land transfer and inspection of Vellapakkam field for acquisition meeting conducted by the Director, TRRI, Aduthurai at SRS, Cuddalore	30.11.2018	-	Dr. M.Jayachandran Dr. G.Manickam Dr. S. Douressamy Dr.S.Thirumarassan Dr. J. Jayakumar Dr. V.Ravichandran Dr. G. Gayathry Mrs. R. Anitha
16.	Soil health day meeting at Thennapakkam Village, Cuddalore district	14.12.2018	-	Dr. G.Manickam Dr. S.Thirumarassan,
17.	Land acquisition meeting conducted by DRO, Cuddalore at District Colletorate office, Cuddalore	6.12.2018	-	Dr.M.Jayachandran

18.	C 29442 sugarcane mid-late clone variety release proposal presentation to SVRC at TNAU, Coimbatore	16.12.2018	17.12.2018	Dr.M.Jayachandran Dr.M.Shanmuganathan
19.	ICAR – Seed Project sponsored “5 th Annual Seed Workshop” for finalising the seed production programme of Foundation seed/Certified seed/Truthfully labeled seed/vegetative propagules production during 2019-20, TNAU, Coimbatore	19.3.2019	21.3.2019	Dr.M.Shanmuganathan
20.	27 th Annual Scientist meet on Sugarcane, TNAU, Coimbatore	22.4.2019	23.4.2019	Dr.M.Jayachandran Dr. S. Pasupathy Dr. M.Shanmuganathan Dr. V. Ravichandran Dr. G. Gayathry Tmt. R. Anitha

Awards received by institution

S.No	Date of award	Name of the Award	Awarding Institution	Mention the appropriate
1.	-	-	-	-

Inputs produced by TNAU departments/stations/colleges and distributed to farmers / other agencies

Crop	Category of seed/variety	Quantity	Value (Rs.)
Sugarcane (SSI)	Seedlings	15570 nos.	20,487
Seed cane	Setts	1003.385 m.t	22,10,125
Sugarcane Tissue culture seedlings	Seedlings	1600 nos.	12,800
Sunhemp	Seeds	613 kg	36,780
Blackgram	Seeds	388 kg	69,840
Others			
Jack fruit	Fruits	53 kg	530
Coconut	Nuts	200 trees	1,41,384
Mango	Fruits	13 trees	1498
Paddy grains	Grains	85233 kg	11,89,675
Paddy straw	Straw	-	45,575
Kapok cotton	Kapok	-	1200
Total			37,29,894

Diagnostic visits in farmers' field

Sl. No	Date	Name of the village	Nature of problem
1.	17.5.2018	Neduvasal, Cuddalore	Demonstration of new sugarcane varieties and clones organized by M/s Perambalur sugar Mills and created awareness on integrated management of pests of sugarcane.
2.	5.6.2018	Chengalrayan Co-operative sugar mills	Red rot and sett rot field survey
3.	15.6.2018	Maruvai, Palayamkottai, Erumbur, Villupuram district	Visited the sugarcane field affected by Red rot, mite, early shoot borer, inter node borer and suggested management measures at Maruvai, Palayamkottai, Erumbur.
4.	28.6.2018	Maruvai, Palayamkottai, Erumbur.	Inspected sugarcane field affected by Red rot, mite, early shoot borer, inter node borer and suggested management measures.
5.	13.7.2018	Visited the coconut field affected by Rugose spiraling whitefly and suggested management measures.	Visited the coconut field affected by Rugose spiraling whitefly and suggested management measures.
6.	16.7.2018	Thondamanatham	Visited the coconut field affected by Rugose spiraling whitefly and suggested management measures
7.	18.7.2018	Enathimangalam, Korattur	Visited the sugarcane field affected by Red rot, Sett rot mite, early shoot borer, inter node borer and suggested management measures.
8.	17.8.2018	Enathimangalam, Korattur	Visited the sugarcane field affected by Red rot, Sett rot mite, early shoot borer, inter node borer and suggested management measures
9.	26.8.2018	Sethiathope	Sugarcane varietal demo plots laid out by M/s MRK Co operative sugar mill and survey of pests of sugarcane, MRK sugar mill, Sethiathope

10.	27.8.2018	Kachirapalayam, Kallakuruchi	Survey on white grub and incidence of diseases in sugarcane and to analyse small mill test of varietal demo plots, KK II sugarmill, Kachirapalayam.
11.	20.9.2018	M.Podaiyur, Department of Agriculture, Mangalur block.	Visited the maize crop affected by fall army worm and suggested suitable management measures. Created awareness on integrated management of fall army worm in maize crop to the farmers in the meeting.
12.	15.10.2018	Palayamkottai, Melvalayamadevi	Visited the sugarcane varietal demo field, sugarcane affected by red rot and suggested management measures.
13.	25.10.2018	Sethiathope	Sugarcane varietal demo plots inspection at MRK sugar mill farm area
14.	27.11.2018	Sornavur, Villupuram dist.	Farm advisory service Field visit to farmers field at Sornavur for inspection of Drip Fertigation in sugarcane
15.	11.1.2019	Chengalrayan cooperative sugar mill	To make survey on diseases in sugarcane
16.	12.2.2019	Thennapakkam Village, Cuddalore district	Soil health day farmers meeting
17.	15.3.2019	Pakkam village of Vilupuram District	Field inspection for red rot incidence

Special Lectures delivered

Date	Venue	Title of the Special lecture	To whom
2.5.2019 & 3.5.2019	Training Hall, SRS, Cuddalore	Agro-techniques and recent trends in sugarcane cultivation	Technical staffs of M/s. Godrej Agrovet & Co., Trichy

Venture capital scheme/ Externally funded schemes/Private Agency schemes

Title of the scheme	Sponsor	Duration (Year)	Budget (in lakhs)
Production of sugarcane seed cane/chip budded seedlings for enhanced productivity of sugarcane	Venture Capital Scheme	Four years	5.00
Demonstrations on single bud chip technology in Sugarcane	NFSM scheme	Two year	18.00
Production of tissue cultured plantlets of sugarcane.	NFSM scheme	Two year	3.50
Remote sensing based information for crop coverage, yield estimation and drought monitoring	NADP	One year	4.33
Fermentative Production of GABA enriched Kombucha: a value added functional plant beverage (FPB) from underutilized fruits.	DST –SERB, New Delhi	Three years	22.3
Evaluation of bioefficacy of RKJP 1505 against major weeds in sugarcane	ATUL, RJKP schme	Three years	11.74

Students Guided**Dr. M. Jayachandran, Professor and Head, SRS, Cuddalore**

Name of Student with I. D. No	Degree	Title of the thesis
V.K. Sneka Priya-2016610208	M.Sc (Agronomy)	Effect of sugarcane trash Bio char for carbon sequestration on yield and quality of sugarcane seed crop.
S.Sugeerthi-2016600211	M.Sc (Agronomy)	Studies on the selection of seed material and integrated nutrient management to enhance the productivity of sugarcane seed crop.

Publications

- Douressamy, S. Ravichandran, V. and Jayakumar, J. 2018. Field efficacy of insecticides and bioinoculants against white grub in sugarcane. *Annals of Plant Protection Sciences*, Vol.26 (2): 287-290.
- Douressamy, S. and Ganapathy, S. 2018. Screening of sugarcane clones/ varieties for their field reaction to early shoot borer and inter node borer infestation. *In* Compendium of Research articles and status paper of 49th Sugarcane Research & Development Workshop of Tamil Nadu and Puducherry, (Eds.,) Puthira Prathap *et al.*, published by Sugarcane Breeding Institute, Coimbatore, p: 342-344.
- Jayachandran, M. 2018. Agronomic evaluation of promising sugarcane (AICRP). *In* Compendium of Research articles and status paper of 49th Sugarcane Research & Development Workshop of Tamil Nadu and Puducherry, (Eds.,) Puthira Prathap *et al.*, published by Sugarcane Breeding Institute, Coimbatore, p: 369-37.
- Jayakumar, J. 2018. Minimizing yield losses through management of sugarcane lesion nematodes using non-chemical strategies. Compendium of research articles and status papers of 49th sugarcane Research & Development workshop of Tamil Nadu and Puducherry, P.No.23-25.
- Jayakumar, J. 2018. Screening of sugarcane clones for resistance to early shoot borer and internode borer, *Annals of Plant Protection Sciences*, Vol.26 (2): 270-275.
- Ravichandran V. 2018. Screening of sugarcane AICRP clones for resistance to red rot and smut disease. *In*: Compendium of Research articles & status papers of 49th Sugarcane Research and Development Workshop of Tamil Nadu and Puducherry (Ed) by Puthira Prathap *et al.*, and published by ICAR – Sugarcane Breeding Institute, Coimbatore pp. 371 – 373.
- Ravichandran, V. 2018. Occurrence of red rot of sugarcane and variation in pathogenicity of *Colletotrichum falcatum* in coastal Tamil Nadu. *In*: ISSCT XII Pathology Workshop held at Coimbatore, P.79.
- Shankar, M., Thiruvengadam, V., Shanmuganathan, M., Ganesh Ram, S. and PL.Viswanathan. 2018. Development of a simple and genotype independent in vitro regeneration system in Sugarcane [*Saccharum* spp] using shoot apex explant. *Electronic Journal of Plant Breeding* (ISSN 0975-928X), 9(3): 1077 – 1082.
- Shanmuganathan, M. and S. Ganapathy. 2018. Evaluation of promising early and mid-late AICRP(S) sugarcane clones (*Saccharum* spp.) in East Coast zone of Tamil Nadu. *In* Compendium of Research articles and status paper of 49th Sugarcane Research & Development Workshop of Tamil Nadu and Puducherry, (Eds.,) Puthira Prathap *et al.*, published by Sugarcane Breeding Institute, Coimbatore, p: 364-368.
- Shanmuganathan, M., Baskaran, V. and L. Chithra. 2018. Assessment of genetic variability, heritability and genetic advance for cane yield, fodder yield and associated traits in sugarcane. *Trends in Biosciences* (ISSN 0974-8431), 11(22): 3136 – 3140.
- Snekapriya, V.K. and M.Jayachandran. 2018. Effect of sugarcane trash biochar on growth and yield of sugarcane seed crop. *Madras Agric. J.*, 141 (4-6): 147-150.
- Sugeerthi, S., M.Jayachandran and C.Chinnusamy. 2018. Effect of planting material and integrated nutrient management on yield of sugarcane. *Madras Agric. J.*, 141 (4-6): 141-146.
- Thirumurugan, A. Jayakumar, J and Ravichandran, V. 2018. Eco friendly approach for management of white grub *Holotrichia serrata* in sugarcane, SISSTA Proceedings 2018 in 48th Annual convention, pp.154-156