

Chief Secretary Review on 7.12.2021



Key Activities & Impacts

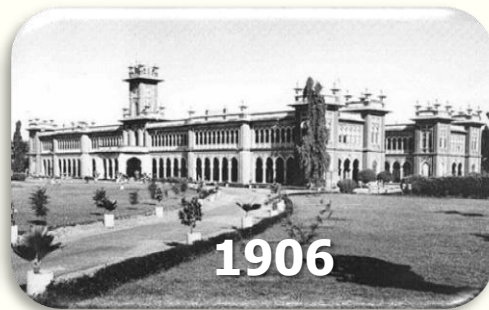


**Director of Research
Tamil Nadu Agricultural University
Coimbatore 641 003**

**Agricultural School,
Saidapet**



**AC & RI
Coimbatore**



**TNAU
Coimbatore**



Golden Jubilee Year



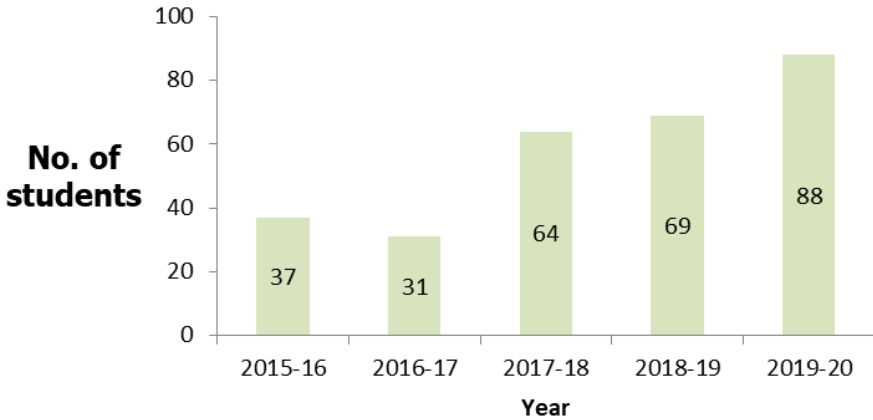
Academic Programs

Agriculture (10)	Horticulture (4)	Agricultural Engineering (2)	Forestry	Community Science
Coimbatore	Coimbatore	Coimbatore	Mettupalayam	Madurai
Madurai	Periyakulam	Kumulur		
Killikulam	Trichy (W)			
Trichy	Jeenur			
Echankottai	<p>Affiliated Colleges (29)</p> <p>Diploma Programs (13)</p> <p>Open & Distance Learning</p>			
Kudimiyanmalai				
Vazhavachanur				
Chettinad				
Nagapattinum				
Karur				

Wide array of programs to cater current scenarios in agriculture

Students' Performance

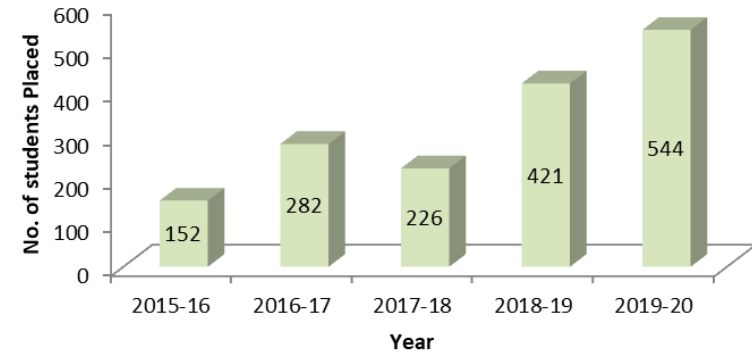
All India Competitive Exams



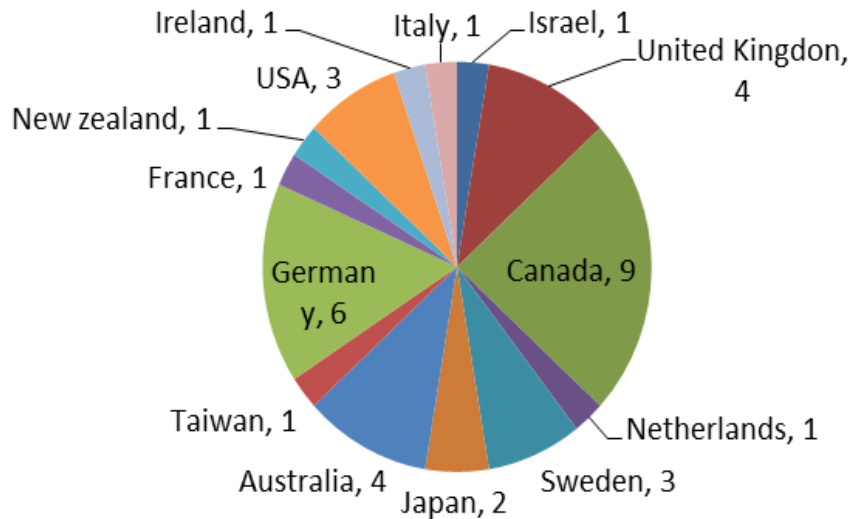
ICAR 2020

First
Horticulture
Second
Social
Science
Third
Ag. Engg.

Placement



Foreign Students in TNAU



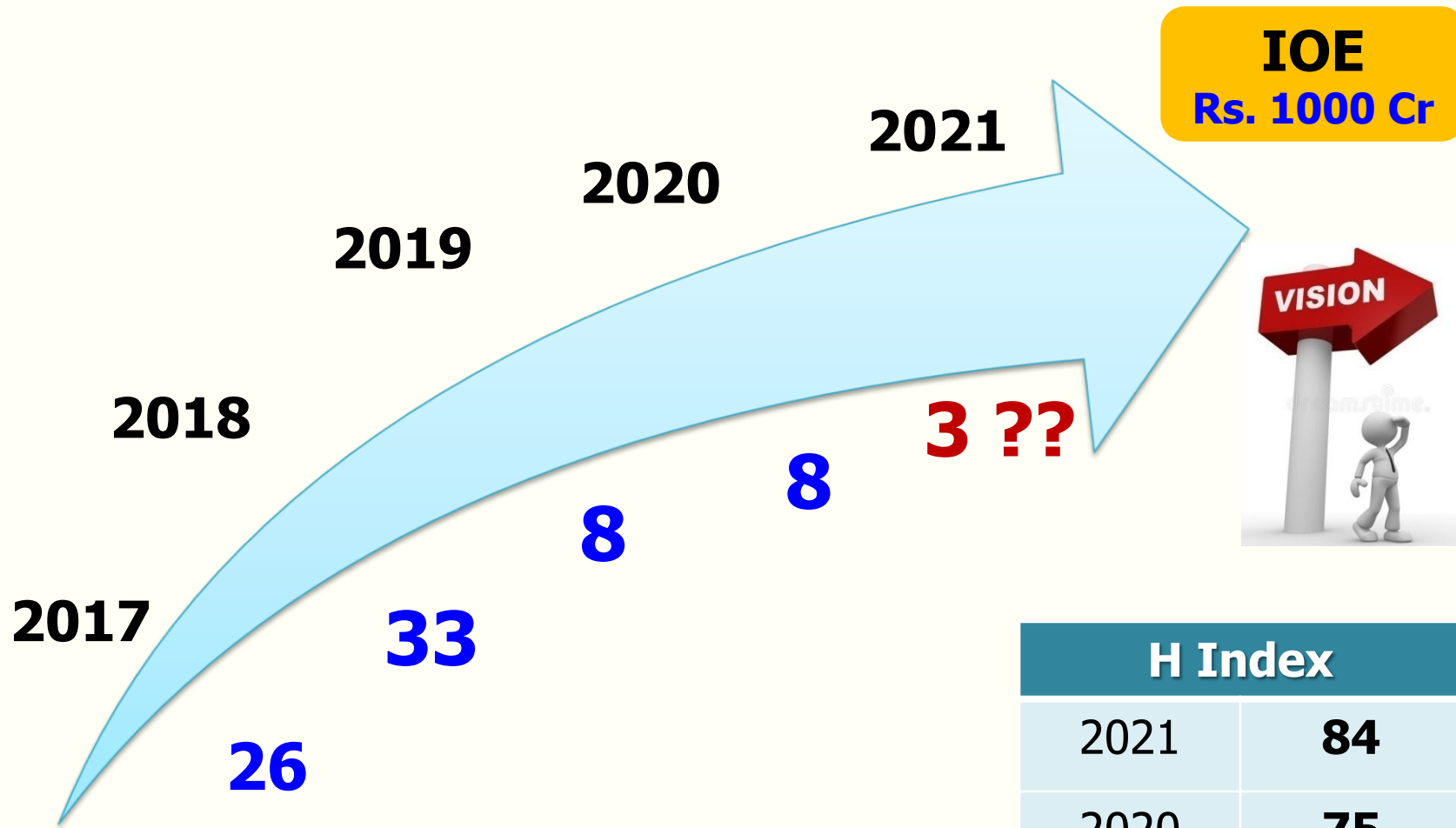
Dual Degree Programs

(Foreign Universities)

University	Program	No. of Students
Cornell University, USA	PG	18
Dalhousie University, Canada	UG	48
McGill University, Canada	Ph.D	2
University of Minnesota, University, USA (SPARC)	Ph.D	1

Civil Services
Cakewalk for Agri-Graduates

ICAR Ranking : Phenomenal Increase



IOE
Rs. 1000 Cr



Atal Ranking of Institutions on Innovation Achievements
(ARIIA – 6-25)

H Index	
2021	84
2020	75
2019	71
2018	64

Rural Agricultural Work Experience

(Village Stay Program)

Components	Duration (days)	Output
1. Exposure to Dept. of Agri	10	Acquire knowledge on role and functions
2. Attachment with NGO	10	Provision of solution at the grassroots level
3. Industrial implant	10	Learning industrial processes and products
4. Attachment with farmers	60	Collect data from small & marginal (3), Medium (3), Large (3) and Women (1)
5. Exhibits of Rural Experience & Presentation		Each group will present their works and rural experience besides Reports

Students in Farms (3 months)

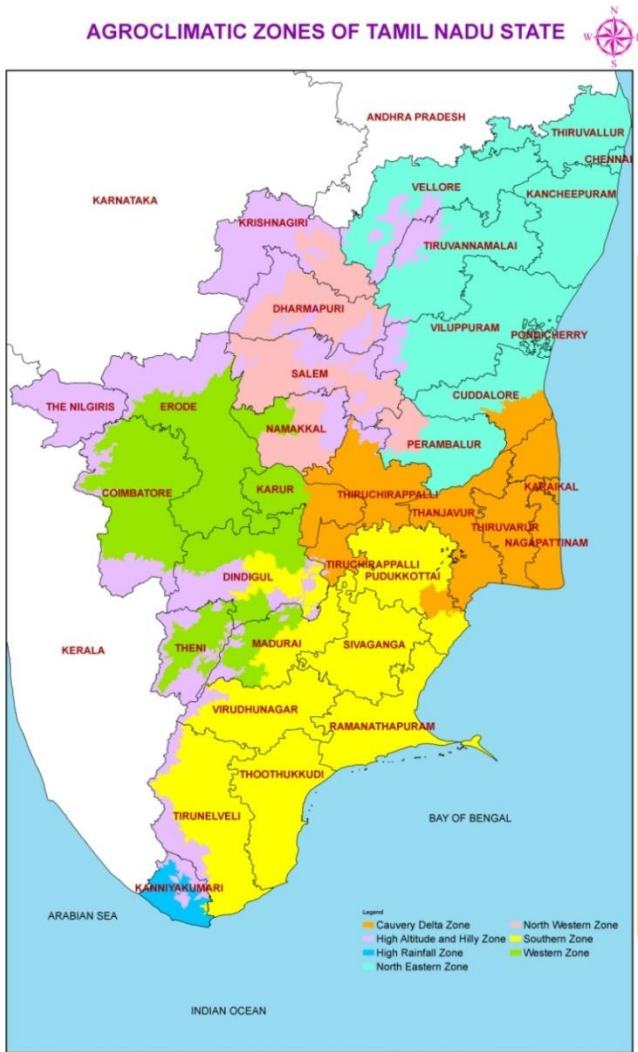


New Syllabus

Entrepreneurship
development

Mentorship

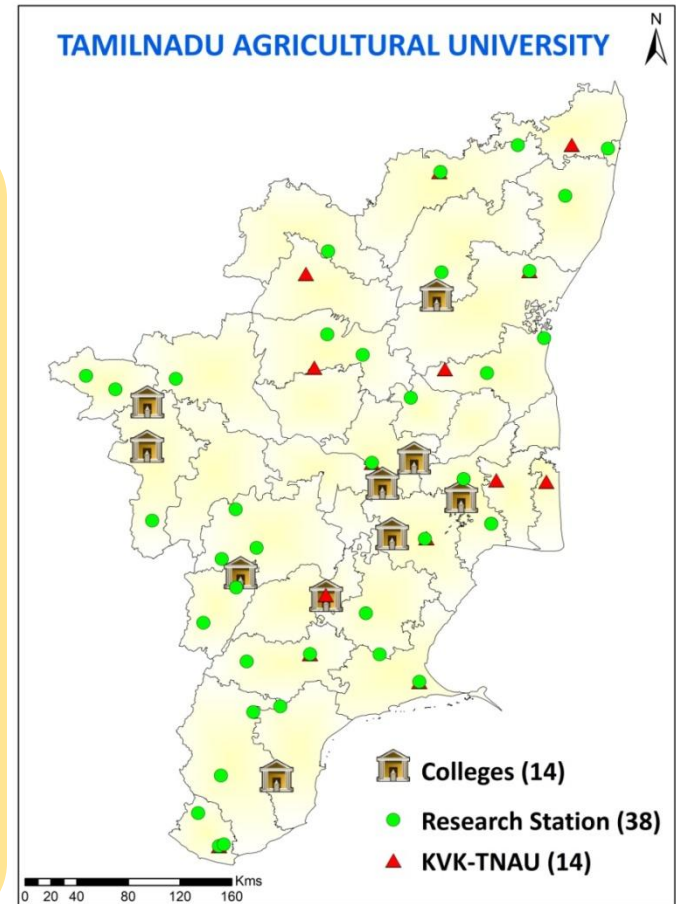
Agro-Climatic Zones of Tamil Nadu



Colleges
18

Research
Stations
39

KVKs
14



Well Knitted Research Network

Significant Outcomes

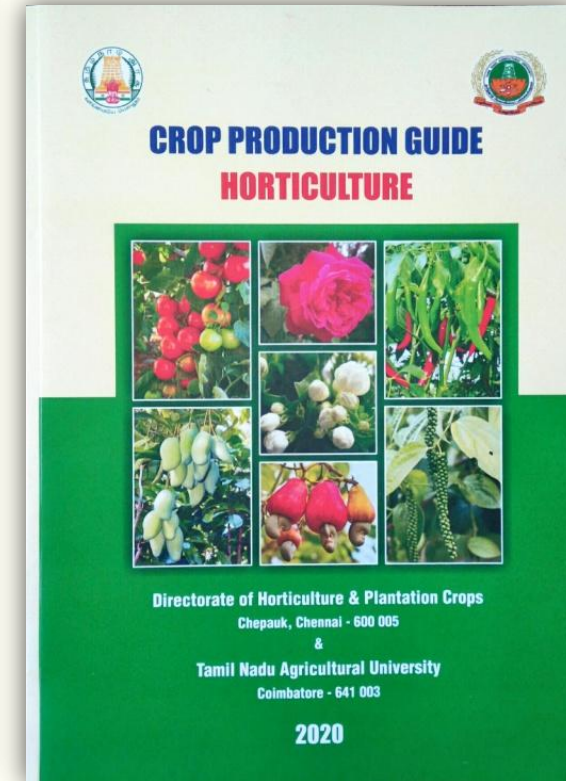
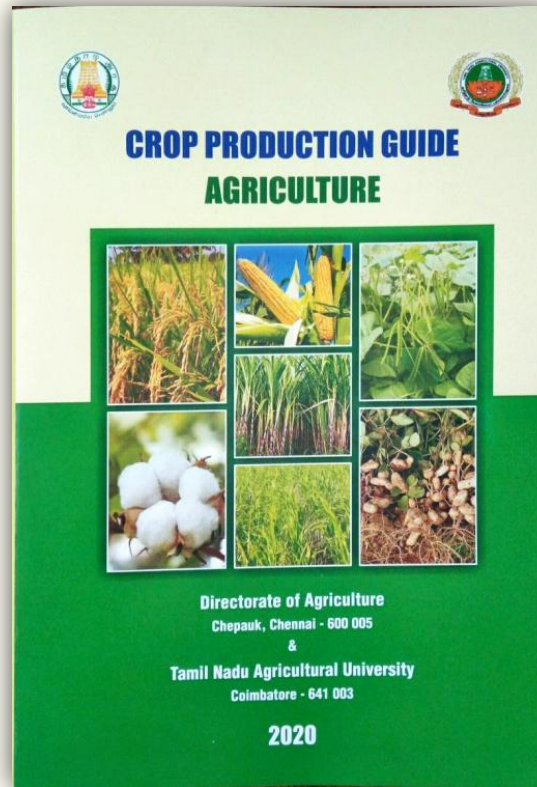
Crop Production Guides 2020

1920 – 2021

Varieties
865

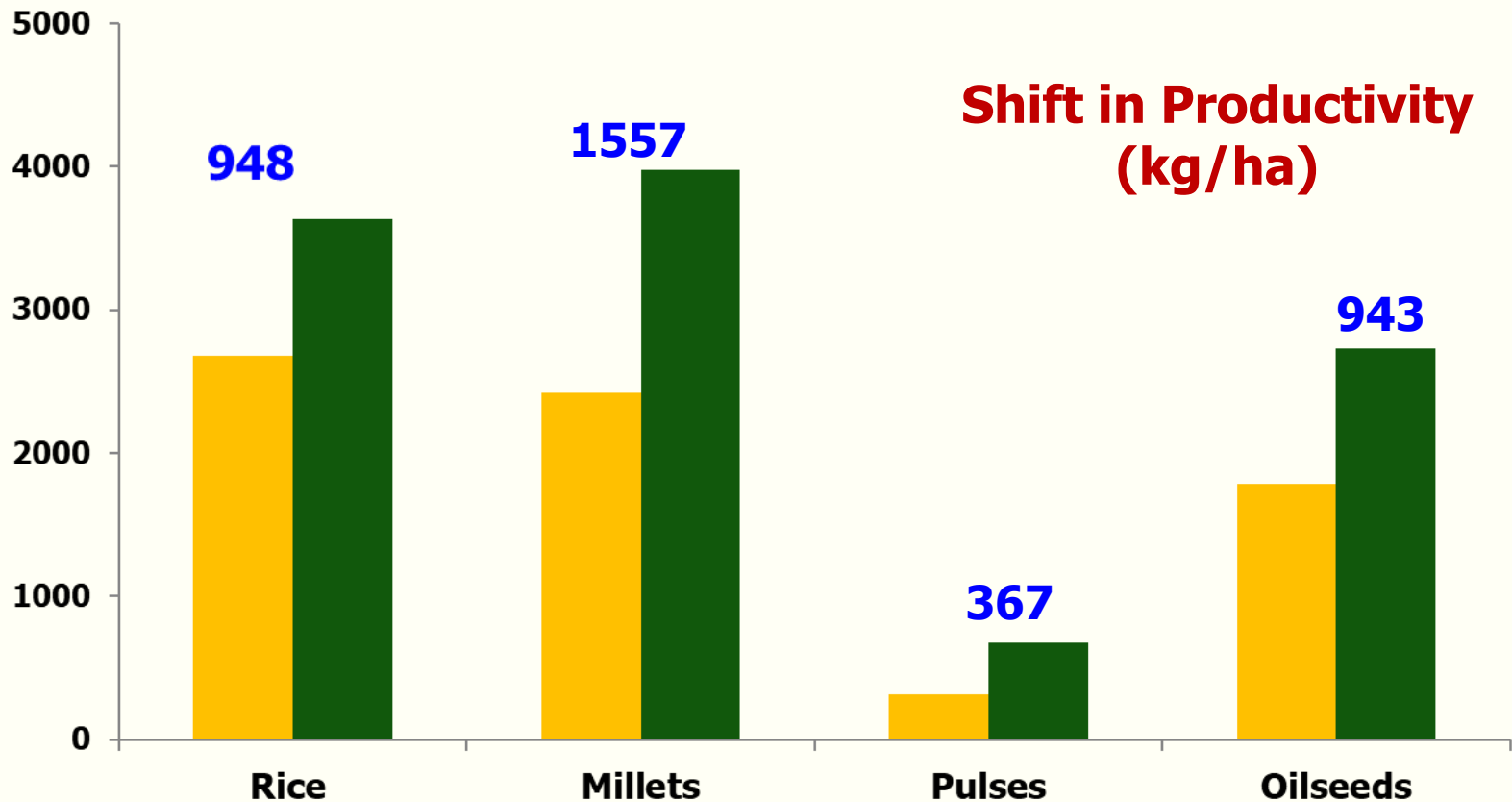
Technologies
> 1500

Machineries
180



3000 Copies
Agriculture & Horticulture
CPGs Printed

Shift in Productivity & Monetization (2008 - 2018)



Monetization of TNAU Technologies (Annual)

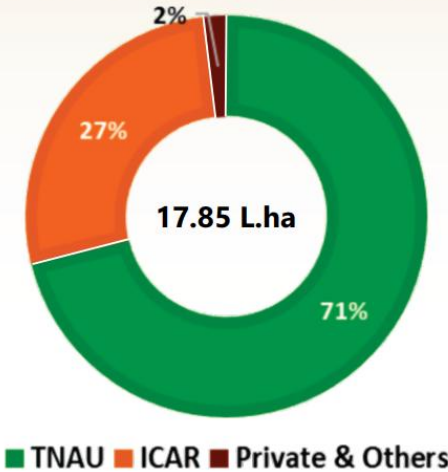
Area Coverage
Rs. 27,542 Cr

Technologies
Rs. 17,109 Cr

Incremental Benefits
Rs. 10,433 Cr

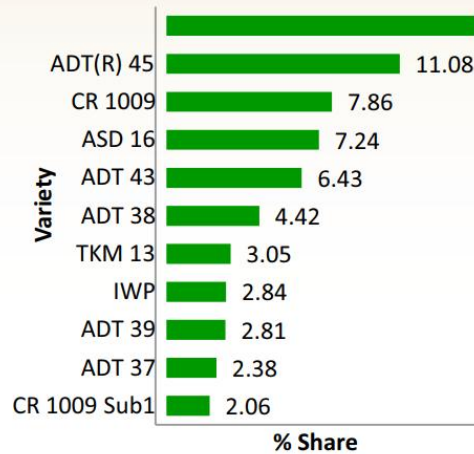
TNAU Rice Varieties Distribution in Tamil Nadu

Institutional share of Rice Varieties



Paddy

% share of major TNAU Rice varieties



New (< 5 yrs)
Co. 51 , VGD1

Old (> 5 yrs)
TKM 13, ASD 16
TKM 5, ADT 45

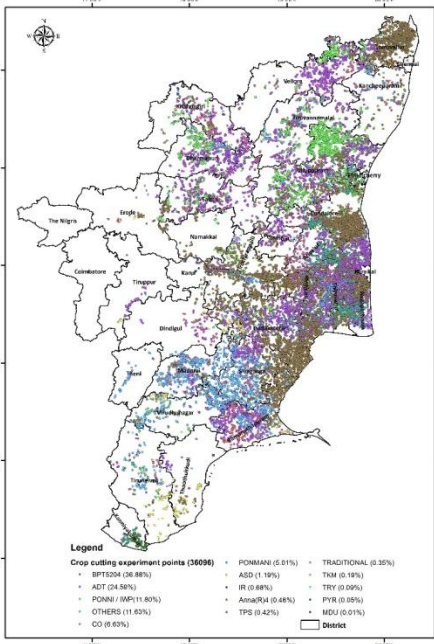
Robin Mutant
Anti-diabetic Kavuni

RICE VARIETIES (CCE POINTS: 36,096)

BPT 5204:	36.88%
ADT :	24.59%
PONNI :	11.80%
CO :	6.63%
PONMANI:	5.01%
ASD :	1.19%

Kuruvai
65%

Samba
49%



Crop Management Technologies

Crop Boosters



(Pulse Wonder, Groundnut Rich, Maize Maxim, Coconut tonic, Cassava Tonic, Castor Gold)

Liquid Bioinoculants (KSB, ZSB, PPFM)



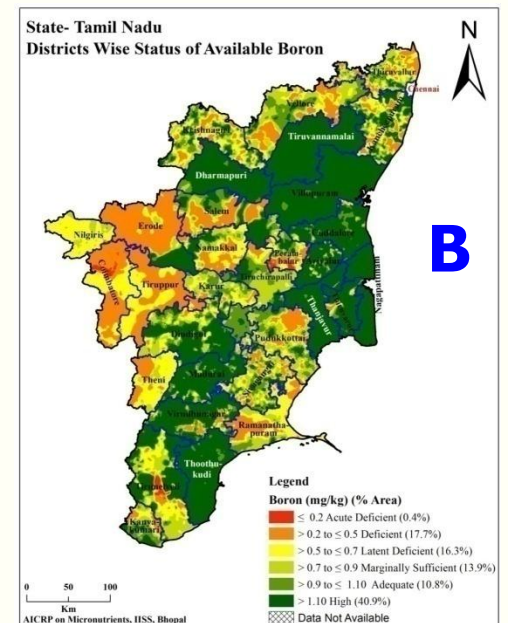
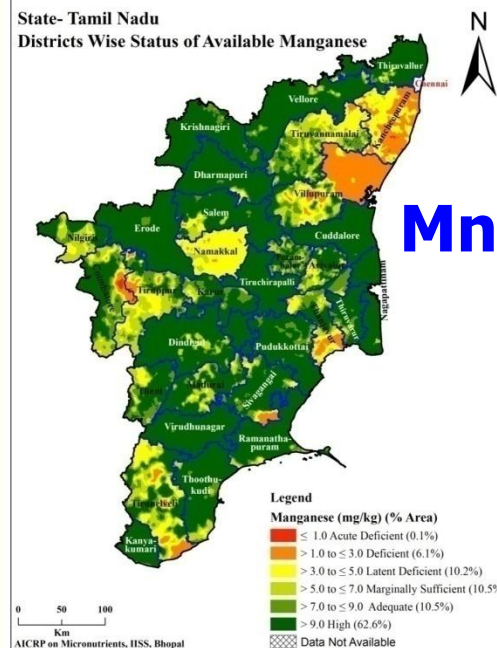
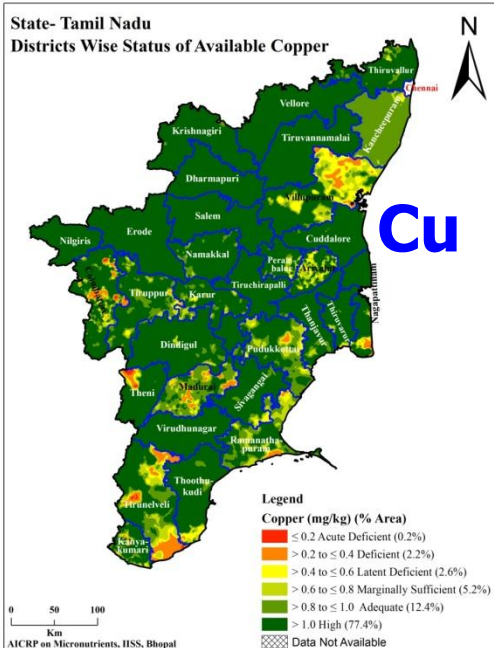
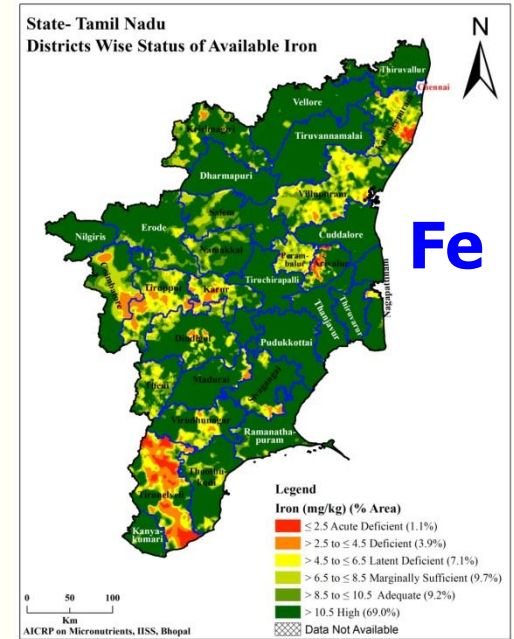
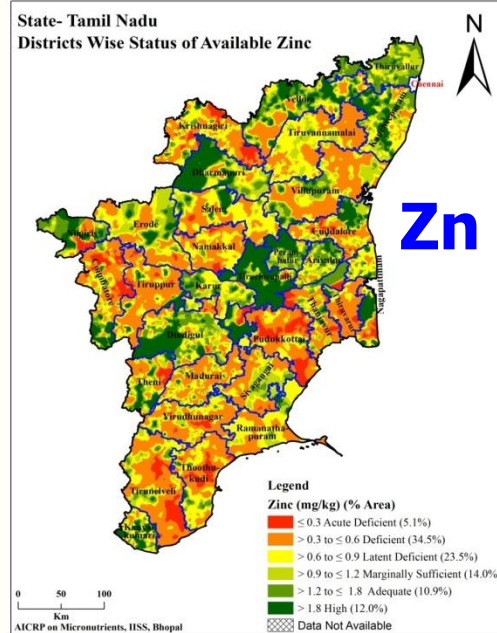
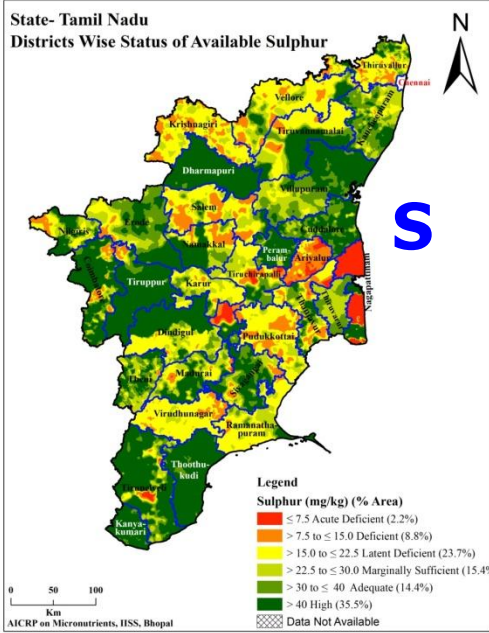
Crop Micronutrient Mixtures



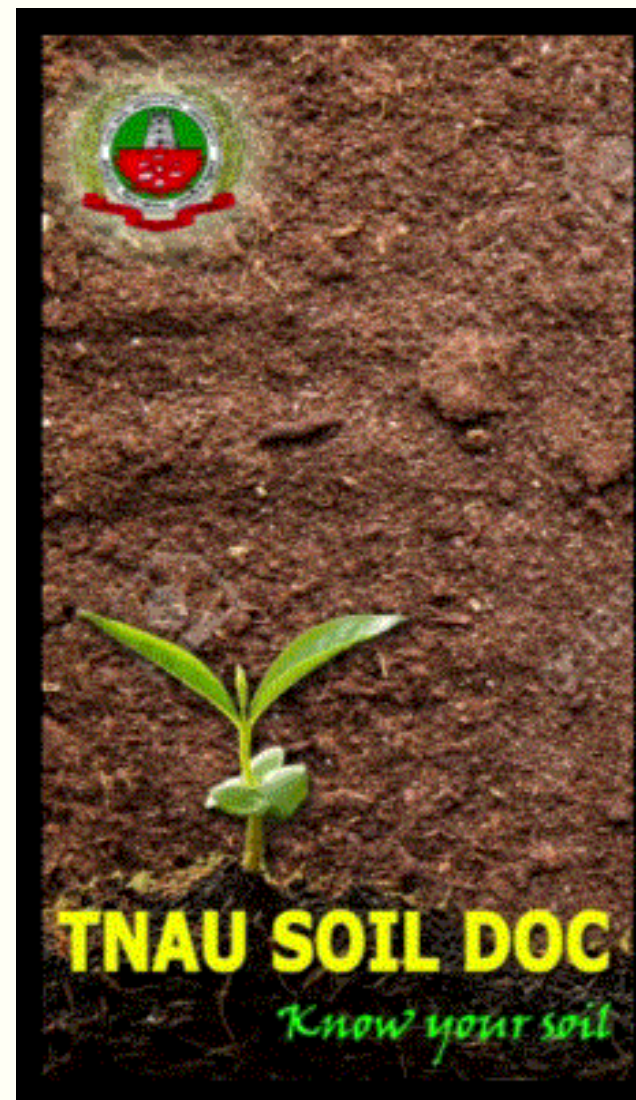
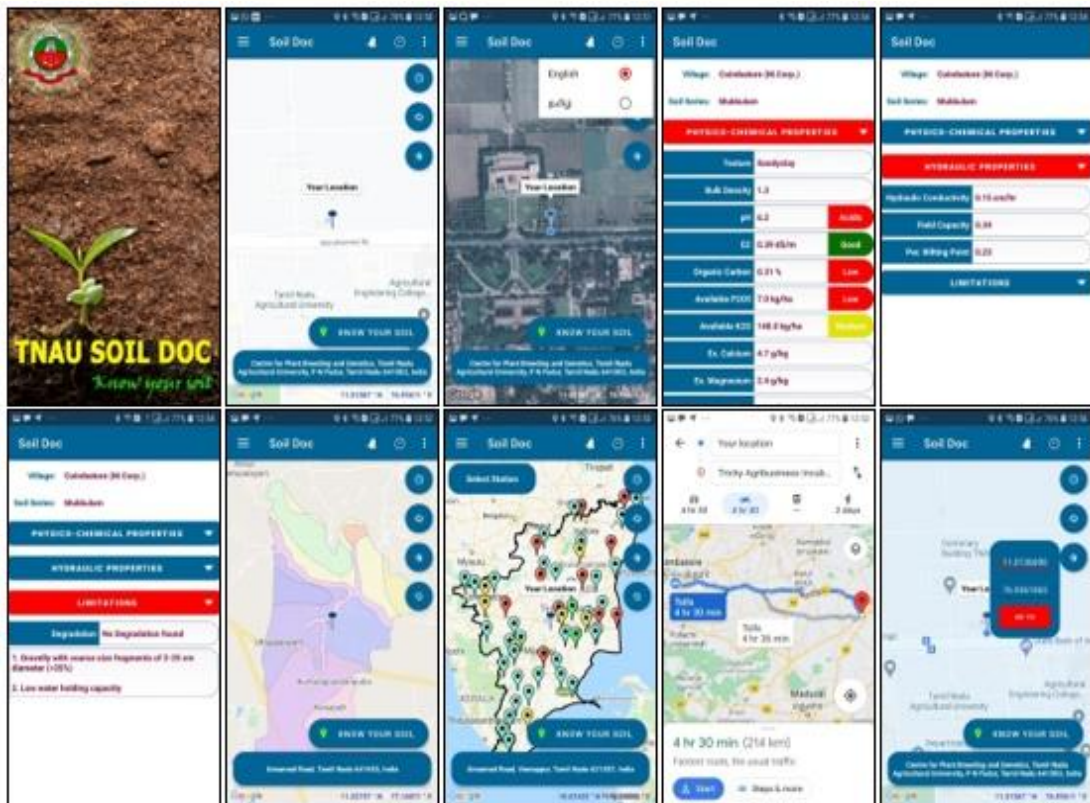
Liquid Multi- Micronutrients

Single solution to
remediate multi-
micronutrient
deficiencies

Soil Available Nutrient Status of Tamil Nadu



TNAU SOILDOC – Soil Data of Tamil Nadu at a Click

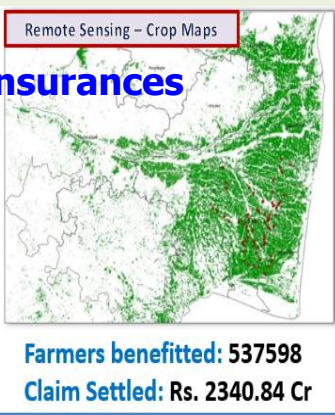
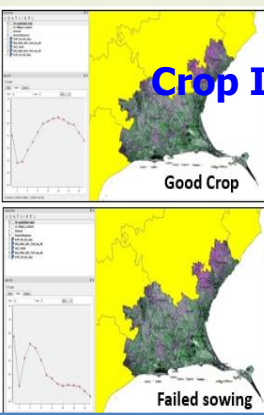
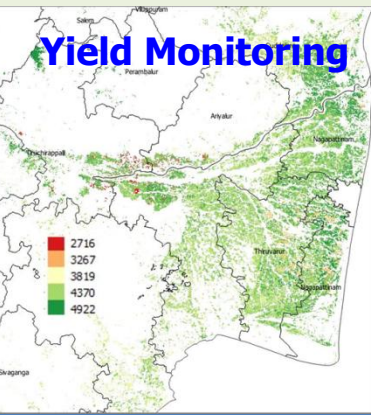
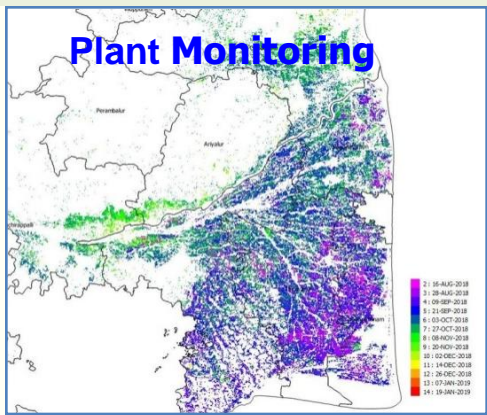
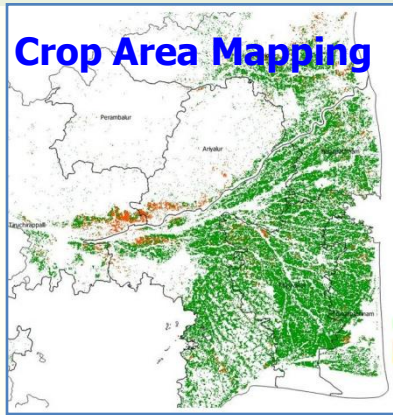


National (Natural) Remote Information System Project

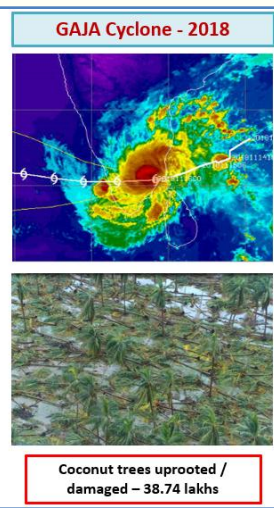
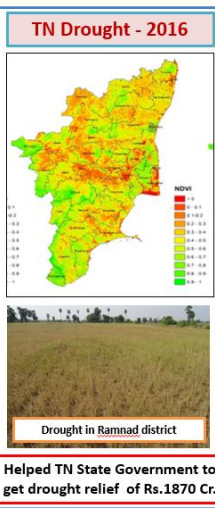
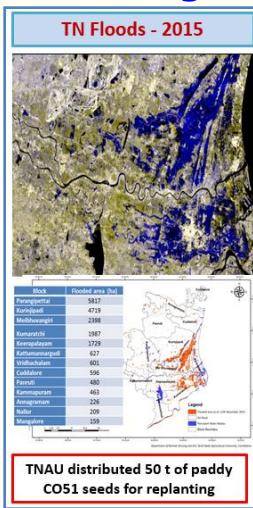
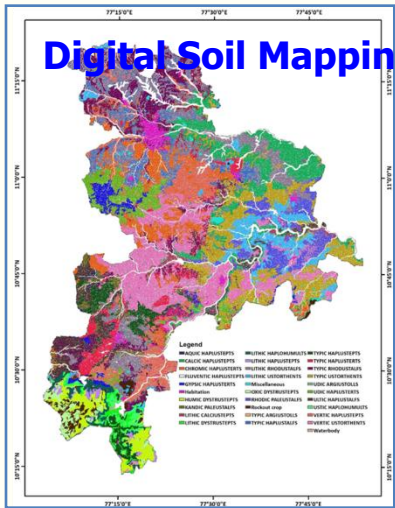
Soil Mapping @1:50,000 scale

Soil Series/Association level classification

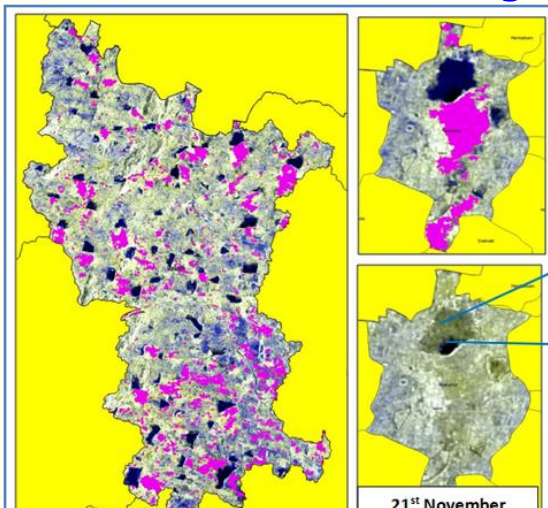
Remote Sensing Applications in Agriculture



Agricultural Disasters



Water resource Monitoring



Drone based mapping and spraying techniques



TNAU – Nano Center



Landmarks

**Referral
Laboratory**

**Renowned in the
Country**

**Set Research
Framework**

**Regulatory
Guidelines**



**Cornell University
USA**

GUIDELINES FOR
EVALUATION OF
**NANO-BASED
AGRI-INPUT
AND FOOD
PRODUCTS**
IN INDIA



TNAU Nano-Products Ready For Commercialization

Preservation of Fruits

EFF



Stickers



Pellets

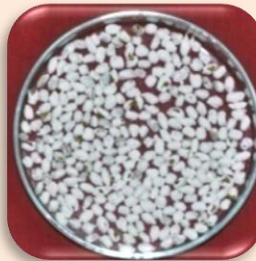


Nano-Film



Nano-Inputs

Nano-fibre



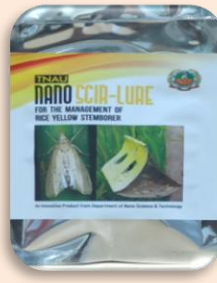
RhizoBoost



Bio-Nano

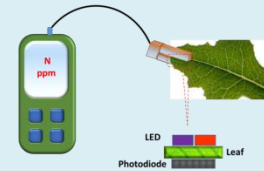


Nano-Lure

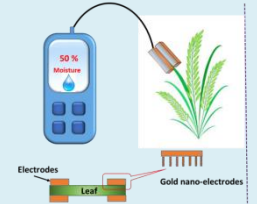


Nano-Diagnostics

N Sensor

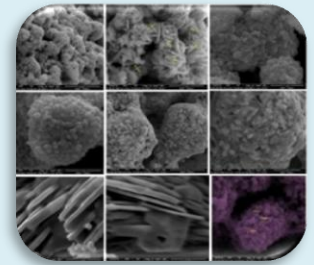


Moisture



Pesticide Residues

(Fruits / Vegetables / Grains)



TNAU Sanitizer



Invasive Pest Management (Fall Army Worm)



Scientists : 27
Field Visits : 335
Campaigns: 396

Beneficiaries
Farmers : 23,250
Input Dealers : 2500
Extension : 2150

Technology Capsule

(Coconut – Rugose Spiraling Whitefly)

Aleurodicus rugioperculatus

Parasitoids

Encarsia guadeloupae @ 100 / ha



**38.6
Lakhs**

Traps

Yellow sticky traps (5 ft. x 1.5 ft.)
smeared with castor oil @ 5 / ac



**TN Govt.
25,000 ha**

Predators

Chrysoperla zastrowi sillemi eggs
@ 1000/ha



**41.5
Lakhs**

Holiday

No pesticide use



Beneficiaries 24,768

Invasive Cassava Mealybug



Phenacoccus manihoti



Hyperaspis maindroni
Predator of mealybug

Grub

Parasitoid of predator
Homalotylus turkmenicus

TNAU

Parasitoid
Anagrus lopezi
to be imported
from Thailand



Refresher Training for Middle Level Officers

Dept.	Officials	No.	Date
DOA	ADAs (2 Batches)	294	Aug – Sept. 2020
DHPC	ADHs / HOs (2 Batches)	385	Aug – Sept. 2020
CAM-AB	DDAs / ADAs	35	Oct. 5-9, 2020
AED	AEs / JEs	150	Oct. 12-16, 2020
SCOC	SCO & SI	50	Oct. 19-23, 2020
	Total	889	



Status

All Refresher Training Completed

Feedback

Useful, visits needed

(Action : DEE & DR; DOA, DHPC, AED, CAM, SCOC)

Joint Field Visits with Dept. Officials

No	Activities	Year		No. of beneficiaries
		2019 - 2020	2020 – 2021	
1.	Exposure Visits	153	113	10059
2.	Trainings	213	223	19041
3.	Joint Diagnostic Visits	432	440	4327
4.	Resource Persons	465	579	--
5.	Others	201	111	29663
	Total	1464	1466	81409

Problems & Issues if any

- **Acute scientific manpower shortage** both colleges and research stations.
- **Financial support** for research stations
- **Shortage of labour** in many of the farms unable to meet the challenges in ensuring cropping program
- Complete **mechanization**
- **Fencing & roads** are to be laid / relaid in most of the research stations
- **Man-animal conflict** and management of vertebrate pests (peacock, wild boars, elephants, parrot, monkeys)
- **Renovation** of old research stations (TRRI, Aduthurai, ARS, Kovilpatti, ARS, Vaigai Dam etc)

Status of Court Cases

Type of Case	No. of Cases	Status	Action Needed
Cases related to NGT	1	Counter filed and ready for argument (9 respondents)	To list the case for hearing and final disposal by the Court
Cases against GO (GO Ms 160 & 233)	18	Counter filed and ready for argument	To list the case for hearing and final disposal by the Court
Cases related to Establishment (Pension, Pay fixation and Others)	13	Counter filed and ready for argument	To list the case for hearing and final disposal by the Court
TOTAL	32		

Project Pending Which Involve Land Acquisition

No.	Subject	Land in Acres	Remarks
1	Forest Lease land FC&RI, Mettupalayam, H&FRS, Pechiparai, Thadiyankudisai and Kodaikanal. - Requested for Renewal and fix nominal rent @ Rs. 1/per ha./per annum	600	Orders Awaited
2	SRS, Cuddalore <ul style="list-style-type: none"> Withdrawal of the proposal for transfer of land area of 18.58 acre from SRS, Cuddalore to District Administration, Cuddalore Requesting payment of compensation for the already transferred land 27.36 acres for construction of District Collectorate, Cuddalore in 2013 	27.36	Orders Awaited
3	Temple lease Land - 43.34 ac - ARS, Virinjipuram <ol style="list-style-type: none"> Requested to extend the lease period from period of 30 years from 17.11.2020 to 31.12.2050 at Rs.2,000/- per acre/ annum Ratification of lease for the completed period from 17.11.2010 to 16.11.2020 at Rs.2,000/- per acre/ annum 	43.34	Orders Awaited
4	RBGRC-IARI at TRRI, Aduthurai. fix nominal Rent Waiver of arrears of rent Rs.5,95,070/- to be paid by the ICAR	14.93	Orders Awaited
5	Allotment of land for Centre of Excellence in Biotechnology TNAU, Coimbatore [5.00 acres] <ul style="list-style-type: none"> 4.80 acres from JDA, Coimbatore Chief Engg. (Agri.) Dept. accepted to provide 20.00 cents to TNAU for the establishment of CoE in Biotechnology / Chief Engr (Agri.) has also requested to allot 2.11 ha. of TNAU land to Dept. of Agrl. Engg., Govt. Of TN. 	5.00	Orders Awaited
6	Specific orders placing the lands at the disposal - CRS, Sankarankoil - [21.05.5 ha] [50 ac] To Issue order in the name of TNAU	50.00	Orders Awaited
7	Proposal for the extension of lease – PWD Tank Bed land leased out to TNAU, Coimbatore (25.06 ac) Krishnampathi : 20.00 ac & Narasampathi : 5.06 ac, Coimbatore Requested the Govt. to Communicated the lease amount for 10 yrs. 01.06.2007 to 31.05.2017 & also requested to extend further lease period of 12yrs. (01.06.2017 to 31.05.2029) at Rs.1000/- pa	25.06	Orders Awaited
8	மண்டல ஆராய்ச்சி நிலையம், விருத்தாச்சலம் - சர்வே எண்.410, 9.24 ஏக்கர் - முந்திரி ஆராய்ச்சி நிலையத்திற்கு நில மாற்றம் / நில உரிமை மாற்றம் ஆவணங்களை பரிசீலித்து முடிவு மேற்கொள்ளக் கோரியது — தொடர்பாக.	9.24	Orders Awaited

Land Acquisition cont...

No.	Subject	Land in Acres	Remarks
9	Permission for Seed Production Activities -SHF- Nanjanad farm on regular basis. The Dean (Hort.), TNAU, Coimbatore	5 to 7	Orders Awaited
10	Grapes Research Station, Anaimalayanpatty, Theni District - Additional land for Coconut and Banana Research Station - Requested - Regarding.	24.74	Orders Awaited
11	Land Alienation Theni District, Uthamapalayam Taluk, Mallingapuram Village - S.No.322 etc., 11.53.0 Hectares - Enter upon possession granted to Tamil Nadu Agricultural University for Grapes Research Station - Payment of land cost or exchange of land of 25 acres decision and report -Regarding.	28.47	Orders Awaited
12	Land Valuation – Lalgudi Taluk, Peruvalanallur (West) village – S.F.Nos.171/2, 172/1 and 172/3 – Patta lands measuring 8.30 acres held by Agricultural College, Kumulur of Tamil Nadu Agricultural University – transferred to the District Institute for Education and Training (DIET), Trichy – Non-payment of cost of land to TNAU pending fixation of land value - Revenue Officials – fixation of land value - Requested.	8.30	Orders Awaited
13	Temple lease Land – 1.72 ac – SRS, Cuddalore 1. Request a nominal rent of Rs.2000/- per acre per annum as fixed, Hindu Religious & Charitable Endowment Department, Chennai for ARS, Virinjipuram 2. Till final orders are issued by the Government - collection of lease rent in abeyance.	1.72	Orders Awaited

Major Project Pending with **GOI**

No.	Name of the scheme pending with GOI	Budget (Lakhs)	Present status of the project	Date on which proposal sent to GOI
1	NABARD & GoTN - Centre of excellence in Biotechnology	430	First Year grant released and building construction in progress	2018-2019
2	DBT: Establishment of Genomics Platform to accelerate gene discovery for crop improvement, biofortification and bioprospecting (DBT-BUILDER)	397	Grant release awaited	August'2017
3	DBT: Establishment of Bioinformatics and Computational Biology Centre under DBT (Centre project)	349	Grant release awaited	June'2020
4	DBT -Genome engineering of host genes for Yellow Stem borer and Brown Plant Hopper resistance using CRISPR/Cas technology	38.64	Grant release awaited	26-7-2019
5	DBT -Harnessing the genomic potential of natural colorant tree Annatto (<i>Bixaorellana</i>) as a natural food colorant	82.28	Grant release awaited	February'2020
6	DBT -Genome engineering for developing jointless pedicle tomato with enhanced fruit shelf life	33	Grant release awaited	July'2017
7	DBT -OsRR22 knockout for improving salt tolerance in rice	40.8	Grant release awaited	July'2017
8	ICAR-NASF Microbiome enabled transgenerational antiviral immunity in tomato against TOSPO and Begamoviruses	349	Administrative and Financial orders awaited	Jan'2021

Major Project Pending with GOI

9	DBT -Adaptive Rice Cultivation for a Changing Climat E (Ad-RICCE)	100	Administrative and Financial orders awaited	Jan'2020
10	DST-SERB Comprehensive expression analysis of Late Embryogenesis Abundant protein gene family in mungbean (<i>Vigna radiata</i> W.) for gaining functional insights during development and a biotic stresses	32	Administrative and Financial orders awaited	Jan'2020
11	DBT - CRISPR/Cas9 mediated genome engineering of disease susceptibility genes in rice for sheath blight disease resistance	38	Grant release awaited	July'2020
12	DBT Exploring the commercial potential of multifaceted <i>Bacillus myoliquefaciens</i> VB7 for the management of Fusarium wilt of banana, guava and tomato	61	Grant release awaited	February'2021
13	ICAR NASF Generation of high yielding salt tolerant rice lines by assembling untapped genes associated with enhanced potassium uptake	275	Administrative and Financial orders awaited	Jan'2021
14	DBT -Development of herbicide tolerant versions of popular rice varieties through Marker Assisted Back Crossing: Paving way for water and labour saving rice cultivation	30	Grant release awaited	February'2021
15	DBT -Development of Provitamin A rich Sweet corn hybrid through marker assisted breeding'	85	Grant release awaited	February'2021
16	DBT - Strategic understanding of mechanisms that restrict grain yield, grain protein content and quality in rice through an interface between clinical nutrition and agriculture research	82	Grant release awaited	June'2020
17	DBT - <i>In vitro</i> screening and evaluation of indigenous <i>Bacillus thuringiensis</i> isolates for toxicity against important Lepidopteron pests(BT/PR41026)	36	Grant release awaited	February'2021
18	DBT - Development of genetics stocks, genomic resources for <i>Neolamarckia cadamba</i> (Kadam) for timber value and medicinal properties	40	Grant release awaited	February'2020
19.	ICAR – NICRA Assessing crop loss during extreme weather events integrating satellite and drone imageries with crop growth models.	43	Scheme approved for Rs. 43.00 lakhs. Budget yet to be released.	23.03.2021

5. Inter Departmental Issues

Water Technology Center, TNAU

World Bank Funded

Tamil Nadu Irrigated Agriculture Modernization Project
(TN-IAMP)

2017-2024

Rs. 8746 Crores (66 Basins)

**Annual financial sanction should be given
without delay**