Action Plan 2020 - 21

FOR THE PERIOD
APRIL 2020 to MARCH 2021

ICAR-SCAD-KRISHI VIGYAN KENDRA
Thoothukudi District, Tamilnadu

ICAR – Agricultural Technology Application Research Institute, Hyderabad

ACTION PLAN 2020 – 21

1. General information about the Krishi Vigyan Kendra

1.1	**Name and address of KVK with Phone, Fax and e-mail**	:	ICAR – SCAD Krishi Vigyan Kendra, Vagaikulam, Mudivaithanendal Post, Thoothukudi – 628102 Phone and Fax: 0461-2269306 Email: pcscadkvk@gmail.com, pckvktut.icar@gov.in Website: www.scadkvk.org
1.2	**Name and address of host organization**	:	Social Change And Development (SACD) Bye Pass Road, Vannarpettai, Tirunelveli Ph: 0462-2501008, Fax: 0462-2501007 Email: scb_scad@yahoo.com
1.3	**Year of sanction**	:	1995
1.4	**Website address of KVK and date of last update**	:	www.scadkvk.org 31 – 03 – 2020

2. Details of staff as on date 30.05.20

Sl. No	Sanctioned post	Name of the incumbent	Discipline	Existing Pay band	Grade Pay	Date of joining	Permanent/ Temporary
1	Senior Scientist and Head	**Vacant**					
2	Subject Matter Specialist & SS &H i/c	P. K. Muthu Kumar	Plant protection	15600-39100	5400	17.11.2018	Permanent
3	Subject Matter Specialist	S. Sumathi	Home science	15600-39100	5400	01.12.2000	Permanent
4	Subject Matter Specialist	P. Velmurugan	Horticulture	15600-39100	5400	30.01.2001	Permanent
5	Subject Matter Specialist	A. Murugan	Agronomy	15600-39100	5400	18.07.2011	Permanent
6	Subject Matter Specialist	**Vacant**	Animal Science				
7	Subject Matter Specialist	**Vacant**	Agriculture Extension				
8	Lab Technician	I. Jeyakumar	Lab Assistant	9300-34800	4200	12.07.2013	Permanent
9	Computer Programmer	J. Jove	Computer	9300-34800	4200	01.04.2011	Permanent
10	Farm Manager	K. Dhamodharan	Agriculture	9300-34800	4200	31.08.2009	Permanent
11	Assistant	S.S. Ganesan	-	9300-34800	4200	01.06.1996	Permanent
12	Stenographer	A. Siva Bala Subramanian	Stenographer	7510-20200	2400	12.11.2018	Permanent
13	Driver 1	A. Dominic James	-	5200-20200	2000	01.06.1996	Permanent
14	Driver 2	A. Gulam Rasul	-	5200-20200	2000	01.07.1996	Permanent
15	Supporting staff 1	K. Rajeswaran	-	5200-20200	1800	01.12.1996	Permanent
16	Supporting staff 2	V. Xavier		5200-20200	1800	12.11.2001	Permanent

3. **Details of SAC meeting conducted during 2019 - 20: Nil**
We planned to conduct SAC meeting on 27.03.2020 but due to covid-19 lockdown we are unable to conduct.

4. **Capacity Building of KVK Staff**

4.1 **Plan of Human Resource Development of KVK personnel during 2020 - 21**

Sl. No	New Areas of Training	Institution proposed to attend	Proposed date of training
1	Post harvest technologies and value addition in Banana	ICAR – NRCB Banana	3.06.2020
2	Hi-tech approaches for production and value addition of horticulture crops in acid and semi acid region	SKRAU, Bikaner, Rajasthan	19.10.2020-24.10.2020
4	Advances in Weed Management	NIPHM, Hyderabad	03.02.2021
5	Efficient use of water resources	NIPHM, Hyderabad	07.10.2020
6	Pesticide application techniques and safety measures	NIPHM, Hyderabad	01.06.2020-05.06.2020
7	Vertebrate pests management	NIPHM, Hyderabad	29.07.2020 - 31.07.2020
8	Value addition of Moringa	IIFPT – Thanjavur	6.8.2020
9	Value addition of Fruits and Vegetables	IIFPT – Thanjavur	22 to 24.09.2020
10	Value addition of Palmyrah	AC&RI, KABIF-Killikulam	05.11.2020

5. **Cross-learning across KVKs during 2020 – 21**

S.No.	What expertise/ resources KVK can offer/ share to other KVKs		What you expect from other KVKs	
	Subject area/ resource/ expertise	Mention Other KVK	Subject area/ resource/ expertise	Mention source KVK
1	Bio fertilizers and BM usage	KVK, Tirunelveli	Forest tree cultivation technologies, value addition of agriculture and horticulture produce	Within the zone KVK Dindigal
2	Millet processing, BM usage, Kitchen gardening	KVK, Theni	Mechanization in agriculture, Value addition for millet products, Dry farming interventions	Within ring KVK Madurai, Virudunagar
3	Banana cultivation, BM usage, Kitchen garden	KVK, Madurai	Hi-tech production technologies of agriculture and horticulture crops	Out of the zone KVK- Baramati, Pune
4	BM usage	KVK, Dindigul		

6. **Operational areas details proposed during 2020 – 21**

Sl. No	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
1	Paddy	• Low Yield 4500 kg/ha. Low level of awareness on fine grain varieties (60%), • Ruling fine varieties BPT - 5204 is susceptible to bacterial leaf blight (35%), • Continuous usage of local seeds (55%)	19700ha	Rajapudkudi	OFT, Training and Advisory services
2	Black gram	• Low productivity (6.5qtl/ha) • Low level of awareness on high yielding new variety (70%) • Little awareness on YMV, Powdery mildew resistant variety (70%)	21000ha	Karaseri	OFT, extension activities, Training and Advisory services
3	Green gram	• Lack of awareness on short duration, high yielding new verities • 40% yield loss due to YMV • Poor pod filling due to MN deficiency (62%) • Labour shortage for weeding in time (76%) • Non availability of latest high yielding varieties in time (91%) • Non availability of labour for weeding in time (90%)	19500	Karaseri	FLD, extension activities Training and Advisory services
4	Paddy	• Low level of awareness on high yielding new verities (92%) • Water scarcity (55%) • Susceptible to Bacterial leaf blight – Yield loss 30-40 % • Lack of awareness on short, bold new varieties (60%)	19700	Aniyabaranallur	FLD, extension activities Training and Advisory services

		• Low yield from the existing ruling variety ASD-16 (4350 Kg/ha) • Continuous usage of local seeds, Poor cultivation practices (78%)			
5	Sorghum	• Low productivity in K-8 variety (990Kg/ha) • Crop losses in existing commercial hybrids due to drought condition in later stage of this crop growth (50%) • High cost and non availability of Commercial hybrid seeds • Late maturing long duration commercial varieties invites midges attack (55%)	1100ha	M. Venkateshwarapuram	FLD, extension activities Training and Advisory services
6	Bhendi	• YVMV infestation • Lack of awareness on high yielding, resistant varieties • Low yield and income • Drudgery and little awareness involved in Bhendi plucking (80%) • Non availability of Bhendi harvesters in local stores (95%) • During harvesting fingers are affected	4300ha	Rajapudkudi Karaseri	OFT,FLD, field visit, Training, advisory service, Field day
7	Green Gram	• Lack of awareness on IDPM • Yield loss up to 35%	29173ha	M. Venkateshwarapuram	Training and advisory services
8	Black Gram	• Lack of awareness on IDPM • Yield loss upto 35%	32177ha	M. Venkateshwarapuram	Training and Advisory services
9	Chilli	• Use of local , Low yielding varieties • Susceptibility of local varieties to fruit rot and die back • Little awareness on improved high yielding varieties of genuine source	11128ha	Karaseri	FLD, field visit, Training, advisory service, Field day
10	Tomato	• Use of local, Low yielding varieties • Susceptibility of local hybrids to LCV	3314 ha	Aniyabaranallur	FLD, field visit, Training, advisory service, Field day

		• Little awareness on improved high yielding varieties of genuine source • Lower yield and income • Fluctuation in the market price • Low returns to the farmers during peak production season • Need to create knowledge on value addition on tomato products			
11	Onion	• High cost of Seed bulb, • Drudgery of transport • Poor quality seed bulb • Little knowledge on new varieties • Lower yield and income • Incidence of , rot and thrips incidence reduces the yield up to 30 % • Over use of insecticides and lack of awareness about IPM	6320 ha	Aniyabaranallur Rajpudukudi	OFT, FLD, field visit, Training, advisory service, Field day
12	Brinjal	• Shoot and fruit borer incidence cause yield loss up to 35% • Lack of awareness about IPM Module.	4300ha	Karaseri	OFT, training, field visits and advisory services
13	Banana	• Fusarium wilt disease incidence cause yield loss up to 35% • Lack of awareness on the use of bio-control agents in disease management. • Lack of knowledge in value addition on Banana • Price fluctuation • Low market price • Incident of malnutrition among children • Lack of awareness on value addition of banana • More yield, low income • Unavailability of Information when farmer need it	8776 h	Aniyabaranallur/ Kootampuli	OFT, EDP, training and advisory services

14	Paddy	• Due to yellow stem borer, Leaf folder and Blast incidence cause yield loss up to 35% • Resorting of farmers for chemical control leading to higher cost of production (4-5 sprays) • Lack of awareness on IPDM	15489 ha	Rajapudkudi	FLD, training and advisory services
16	Maize	• Fall Army Worm incidence cause yield loss up to 30% • Lack of awareness on IPM practices	23450 ha	Karaseri	FLD, training and advisory services
18	Vegetables	• Poor intake of vegetables • Lack of knowledge in multi nutritive value of vegetables and greens (40%) • Intake of vegetables with toxic residues of pesticides (72%)	513 gardens	Karaseri	FLD, training and advisory services
19	Guava	• Low market price of L-49 fruits (Rs.15-20/kg) • Low consumer preference (50%) • Low income (75%) • Incidence of nematode (20%)	210ha	Kollankinaru	OFT, Training and Advisory services
20	Jasmine	• low –nil production during Nov- Feb in J.sambac • Lesser market price during peak production period • No known varieties with off season production capabilities • Little awareness on Improved / new varieties	325ha	Rajaputhukudi	FLD, Training and Advisory services
21	Banana	• Incident of malnutrition among children • Lack of awareness on value addition of banana • More yield, low income	8776 h	Aniyabaranallur/ Kootampuli	OFT, EDP, Training and Advisory services
22	Tomato	• Fluctuation in the market price • Low returns to the farmers during	6320 ha	Aniyabaranallur	FLD, Training and Advisory Services

		peak production season • Need to create knowledge on value addition on tomato products			
24	Goat	• Cattle mineral mixture is used by farmers for sheep and goat • Lack of knowledge on species specific for miner mixture for sheep and goat		Rajapudkudi	OFT, Training and advisory services
25	Poultry	• Lack of awareness on back yard poultry practices • Mortality up to 40% due to RD • Low productivity of Desi bird		Karaseri	FLD, training and advisory services
26	Mixed Fodder	• Lack of green fodder feeding during dry season • Under performance of cross bred milch cows (milk yield 6.5lit/day, Milk SNF-7.7 , Fat- 3.9%, TS- 11.6 and the avg rate for milk – 24.47/lit • Lower net profit/unit due to poor feeding practices (98%)	15 ha	Aniyabaranallur	FLD, Training and Advisory Services
28	Vegetable	• Lack of awareness about COVID 19 among vegetable growers • Marketing problem	4300ha	Rajapudkudi	FLD, Training and advisory services
29	Millet	• Less utilization of millets • Lack of ready to eat millet products	10515 ha	Karseri, Rajapudkudi	OFT, FLD, training and advisory services

7. **Technology Assessment proposed during 2020-21**

7.1 **Summary of OFTs**

OFT No	Source of the Technology	Status of the OFT*	Total no. of trials/ locations	Total cost for the Intervention (Rs.)	Team members
1	TO1:TNAU 2019 TO2: RARS (Nandiyal) 2016	New	5	15000	SMS (Ag)
2	TO1:TNAU 2020 TO2: RARS (Thirupati) 2016	New	5	19500	SMS (Ag)
3	TO1:TNAU – 2020 TO2: IIHR – 2006	New	5	23625	SMS (Hort)
4	TO1 :IIHR 2011 TO2: TNAU 2001	New	5	7500	SMS (Hort, PP)
5	TO1 : TNAU 2020 TO2 : IIHR 2016	New	5	19375	SMS (Hort)
6	TO1:Brinjal TNAU CPG – 2020 TO2: NBAIR 2019	New	5	8250	SMS (PP &Horti)
7	TO1:Banana TNAU, 2020 TO2: NRCB, 2015	New	5	16750	SMS (PP & Hort)
8	TO1:NRCB, Trichy – 2016 TO2: TNAU - 2015	New	5	10000	SMS (HS)
9	TO1:UAS Dharward, 2015 TO2: TNAU 2015	New	5	7500	SMS (HS)
10	TO1:NIANP, Bangalore 2019 TO2: TANUVAS, 2019	New	5	5375	SMS, (AS)
		Total	**50**	**132875**	

7.2 **Technology Assessment during 2020 – 21**

OFT No.	**1**
Crop/ enterprise	Paddy
Prioritized problem	• Low Yield 4500 kg/ha. Low level of awareness on fine grain varieties (60%), • Ruling fine varieties BPT - 5204 is susceptible to bacterial leaf blight (35%), Continuous usage of local seeds (55%)
Title of intervention	Assessment on suitability of Medium duration fine grain Paddy varieties.
Technology options	
TO-1	VGD (R) – 1
TO-2	NDLR (R) – 7
FP	BPT (R) – 5204
Source of Technology	
TO-1	TNAU 2019
TO-2	RARS (Nandiyal) 2016
Status (New proposal/ already approved OFT - 2nd year / 3rd year)	New proposal
Name of critical input	VGD (R) – 1, NDLR (R) -7, BPT (R) – 5204
Qty per trial	**Name of critical input** / **Qty per trail** BPT (R) - 5204 / 18Kg

		VGD (R) - 1	18Kg
		NDLR (R) – 7	18Kg
		Field board	1
Cost per trial (Rs.)		**Name of critical input**	**Cost of critical input (Rs.)**
		BPT (R) - 5204	900
		VGD (R) - 1	900
		NDLR (R) – 7	900
		Field board	300
		Total	**3000**
No. of trials	5		
Total cost for the Intervention (Rs.)	**15000**		
Parameters to be studied	No of hill / m2 No of Productive tillers / hill No of seeds / panicle Yield/ha BC ratio		
Team members	SMS Agronomy & SMS PP		

OFT No.	**2**		
Crop/ enterprise	Blackgram		
Prioritized problem	• Low productivity (6.5qtl/ha) • Low level of awareness on high yielding new variety (70%) • Lack of awareness on YMV, Powdery mildew resistant variety (70%)		
Title of intervention	Assessing the performance of high yielding Black gram varieties for dry land farming system.		
Technology options			
TO-1	VBN (Bg) –11		
TO-2	TBG (Bg) – 104 (Minumulu)		
FP	VBN –(Bg) -4		
Source of Technology			
TO-1	TNAU 2020		
TO-2	RARS(Thirupathi) 2016		
Status (New proposal/ already approved OFT - 2nd year / 3rd year)	New proposal		
Name of critical input	VBN(Bg) – 11,TBG (Bg) – 104, VBN (Bg) – 4		
Qty per trial		**Name of critical input**	**Qty per trail**
		VBN (Bg) – 4	8Kg
		VBN(Bg) – 11	8Kg
		TBG (Bg) – 104	8Kg
		Field Board	1
Cost per trial (Rs.)		**Name of critical input**	**Cost of critical input (Rs.)**
		VBN (Bg) – 4	1200
		VBN(Bg) – 11	1200
		TBG (Bg) – 104	1200

	Field Board	300	
	Total	**3900**	
No. of trials	5		
Total cost for the Intervention (Rs.)	**19500**		
Parameters to be studied	No of plants / m^2 No of pods /plant No of seeds /pod Pod borer and YMV incidence Yield /ha BC ratio		
Team members	SMS Agronomy & SMS PP		

OFT No.	**3**		
Crop/ enterprise	Onion		
Prioritized problem	• High cost of Seed bulb, • Drudgery of transport • Poor quality seed bulb • Little knowledge on new varieties • Lower yield and income		
Title of intervention	Assessment of yield potentials of high yielding Onion Hybrids		
Technology options			
TO-1	Co-6 Onion seeds		
TO-2	Arka Ujjwal Onion seeds		
FP	Bulps as seed material		
Source of Technology			
TO-1	TNAU 2020		
TO-2	IIHR, 2006		
Status (New proposal/ already approved OFT - 2nd year / 3rd year)	New Proposal		
Name of critical input	Co- 6 seed , Arka Ujjwal seed, Vegetable special, Field Board		
Qty per trial	Name of the critical input	Qty	Cost
	Co 6 seed	1kg	2050
	Arka Ujjwal	1kg	2200
	Vegetable special	1kg	175
	Field board	1	300
	Total		4775
Cost per trial (Rs.)	Rs.4775		
No. of trials	5		
Total cost for the Intervention (Rs.)	Name of the critical input	Qty	Cost
	Co 6 seed	5 Kg	10250
	Arka Ujjwal	5 Kg	11000
	Vegetable special	5 Kg	875
	Field board	5	1500
	Total		**23625**
Parameters to be studied	• Seed material cost, • no. of bulbs/plant, • bulb weight/plant,		

	• yield/ha, • CBR
Team members	SMS(Hort, Agr, PP)

OFT No.	**4**
Crop/ enterprise	Mushroom
Prioritized problem	• Unemployment and under employment of RY • Un aware of improved, high yielding oyster mushroom varieties • Low productivity to meet the market demand • Aversion towards fat rich food
Title of intervention	Assessment of yield potentials of Oyster mushroom varieties
Technology options	
TO-1	Arka-OM-1 spawn
TO-2	Pleurotus sajor- caju (M 2)
FP	APK 1
Source of Technology	
TO-1	IIHR 2011
TO-2	TNAU 2000
Status (New proposal/ already approved OFT - 2nd year / 3rd year)	New Proposal
Name of critical input	Arka-OM-1 spawn, Psc M- 2 Psc spawn, Field board
Qty per trial	Name of the critical input: IIHR variety Arka-OM-1 — Qty: 5 — Cost: 600 Name of the critical input: MD- 2 Psc spawn — Qty: 5 — Cost: 600 Name of the critical input: Field board — Qty: 1 — Cost: 300 Total — Cost: 1500
Cost per trial (Rs.)	Rs.1500
No. of trials	5
Total cost for the Intervention (Rs.)	Name of the critical input: Arka-OM-1 Spawn — Qty: 25 — Cost: 3000 Name of the critical input: MD- 2 Psc spawn — Qty: 25 — Cost: 3000 Name of the critical input: Field board — Qty: 5 — Cost: 1500 Total — Cost: 7500
Parameters to be studied	• Duration of crop cycle, • No of harvest/bag, • Yield/bag, • Self life harvested mushroom at room temp, • BCR
Team members	SMS(Hort, PP)

OFT No.	**5**
Crop/ enterprise	Tomato
Prioritized problem	• Use of local, Low yielding varieties • Susceptibility of local hybrids to LCV • Little awareness on improved high yielding varieties of genuine source • Lower yield and income • Poor agronomic practices
Title of intervention	Assessment of yield potentials of Tomato hybrids

<table>
<tr><td>Technology options</td><td></td></tr>
<tr><td>TO-1</td><td>Tomato Hybrid CO 4 seeds</td></tr>
<tr><td>TO-2</td><td>Tomato Hybrid Arka Abhed seeds</td></tr>
<tr><td>FP</td><td>MAHY -552</td></tr>
<tr><td>Source of Technology</td><td></td></tr>
<tr><td>TO-1</td><td>TNAU 2020</td></tr>
<tr><td>TO-2</td><td>IIHR, 2016</td></tr>
<tr><td>Status (New proposal/ already approved OFT - 2nd year / 3rd year)</td><td>New Proposal</td></tr>
<tr><td>Name of critical input</td><td>Tomato Hybrid Co-4 seed, Tomato Hybrid Arka Abhed seed, EM solution, Vegetable Special, Field Board</td></tr>
<tr><td>Qty per trial</td><td>
<table>
<tr><td>Name of the critical input</td><td>Qty</td><td>Cost</td></tr>
<tr><td>Tomato Hybrid Co-4</td><td>50gm</td><td>1600</td></tr>
<tr><td>Arka Abed</td><td>50gm</td><td>1600</td></tr>
<tr><td>Vegetable special</td><td>1kg</td><td>175</td></tr>
<tr><td>EM solution</td><td>1</td><td>200</td></tr>
<tr><td>Field board</td><td>1</td><td>300</td></tr>
<tr><td>Total</td><td></td><td>3875</td></tr>
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<tr><td>Cost per trial (Rs.)</td><td>Rs.3875</td></tr>
<tr><td>No. of trials</td><td>5</td></tr>
<tr><td>Total cost for the Intervention (Rs.)</td><td>
<table>
<tr><td>Name of the critical input</td><td>Qty</td><td>Cost</td></tr>
<tr><td>Tomato Hybrid Co-4</td><td>250gm</td><td>8000</td></tr>
<tr><td>Arka Abed</td><td>250gm</td><td>8000</td></tr>
<tr><td>Vegetable special</td><td>5kg</td><td>875</td></tr>
<tr><td>EM solution</td><td>5lit</td><td>1000</td></tr>
<tr><td>Field board</td><td>5nos</td><td>1500</td></tr>
<tr><td>Total</td><td></td><td>19375</td></tr>
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</td></tr>
<tr><td>Parameters to be studied</td><td>• No. of fruits/cluster,
• Ave. fruit weight,
• yield/plant,
• LCV resistance in field condition,
• Yield/ha,
• BCR</td></tr>
<tr><td>Team members</td><td>SMS(Hort,)</td></tr>
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<table>
<tr><td>OFT No.</td><td>6</td></tr>
<tr><td>Crop/ enterprise</td><td>Banana</td></tr>
<tr><td>Prioritized problem</td><td>• Fusarium wilt disease incidence cause yield loss up to 35%
• Lack of awareness on the use of bio-control agents in disease management.</td></tr>
<tr><td>Title of intervention</td><td>Assessment of bio control agents against Fusarium wilt disease in Banana</td></tr>
<tr><td>Technology options</td><td></td></tr>
<tr><td>TO-1</td><td>Application of P.fluorescens liquid formulation @ 4 lit/ha at planting 2nd, 4th and 6th MAP</td></tr>
<tr><td>TO-2</td><td>Soil application of T.viride + Penicillium lilaceum each @ 10g/plant as basal at 2nd, 4th and 6th MAP</td></tr>
<tr><td>FP</td><td>Fungicide spray</td></tr>
<tr><td>Source of Technology</td><td></td></tr>
<tr><td>TO-1</td><td>TNAU 2020</td></tr>
<tr><td>TO-2</td><td>NRCB, 2015</td></tr>
</table>

<table>
<tr><td>Status (New proposal/ already approved OFT - 2nd year / 3rd year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>▪ P.fluorescens liquid , T.viride and Penicillium lilaceum</td></tr>
<tr><td>Qty per trial</td><td><table><tr><th>Name of critical input</th><th>Qty per trial</th></tr><tr><td>P.fluorescens liquid</td><td>2.5litre</td></tr><tr><td>T.viride</td><td>10kg</td></tr><tr><td>Penicillium lilaceum</td><td>10kg</td></tr><tr><td>Field board</td><td>1 No</td></tr></table></td></tr>
<tr><td>Cost per trial (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost of critical input (Rs.)</th></tr><tr><td>P.fluorescens liquid</td><td>750</td></tr><tr><td>T.viride</td><td>1300</td></tr><tr><td>Penicillium lilaceum</td><td>1300</td></tr><tr><td>Total</td><td>3350</td></tr></table></td></tr>
<tr><td>No. of trials</td><td>5</td></tr>
<tr><td>Total cost for the Intervention (Rs.)</td><td>16750</td></tr>
<tr><td>Parameters to be studied</td><td>Percent disease incidence ,Yield (q/ha), BCR</td></tr>
<tr><td>Team members</td><td>SMS Plant Protection & SMS Horticulture</td></tr>
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<table>
<tr><td>OFT No.</td><td>7</td></tr>
<tr><td>Crop/ enterprise</td><td>Brinjal</td></tr>
<tr><td>Prioritized problem</td><td>Shoot and fruit borer incidence cause yield loss up to 35%. Lack of awareness about IPM Module.</td></tr>
<tr><td>Title of intervention</td><td>Assessment of pest management modules against brinjal shoot and fruit borer</td></tr>
<tr><td>Technology options</td><td></td></tr>
<tr><td>TO-1</td><td>▪ Crop sanitation.
▪ Trichograma chilonis @ 50,000/week/ha;
▪ Spray Neem Seed Kernel Extract 5 % ;
▪ Need based chemicals insecticide spray of Emamectin benzoate 5 % SG @ 4g/10 lit or Flubendiamide 20 WDG @ 7.5g/10 lit of water from one month after planting at 15 days interval</td></tr>
<tr><td>TO-2</td><td>▪ Mass trapping with NBAIR pheromone traps (water type) 15 per ac to be set after first week of planting.</td></tr>
<tr><td>FP</td><td>Chlorpyrifos 20% EC, Lambda-cyhalothrin 4.9% CS, Fipronil 5% SC.</td></tr>
<tr><td>Source of Technology</td><td></td></tr>
<tr><td>TO-1</td><td>TNAU CPG - 2020</td></tr>
<tr><td>TO-2</td><td>NBAIR 2019</td></tr>
<tr><td>Status (New proposal/ already approved OFT - 2nd year / 3rd year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>▪ Pheromone traps & lure, Trichogramma chilonis, Azadiractin 0.03%, Azadiractin 0.03%, Emamectin benzoate 5 % SG , Field Boards.</td></tr>
<tr><td>Qty per trial</td><td><table><tr><th>Name of critical input</th><th>Qty per trial</th></tr><tr><td>Pheromone traps & lure</td><td>10 Nos</td></tr><tr><td>Trichogramma chilonis</td><td>2 cc</td></tr><tr><td>Azadiractin 0.03%</td><td>500 ml</td></tr></table></td></tr>
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<tr><td></td><td></td><td><table><tr><td>Emamectin benzoate 5 % SG</td><td>100 g</td></tr></table></td></tr>
<tr><td>Cost per trial (Rs.)</td><td></td><td><table><tr><td>Name of critical input</td><td>Cost of critical input (Rs.)</td></tr><tr><td>Pheromone traps & lure</td><td>900</td></tr><tr><td>Trichogramma chilonis</td><td>200</td></tr><tr><td>Azadiractin 0.03%</td><td>150</td></tr><tr><td>Emamectin benzoate 5 % SG</td><td>400</td></tr><tr><td>Total</td><td>1650</td></tr></table></td></tr>
<tr><td>No. of trials</td><td colspan="2">5</td></tr>
<tr><td>Total cost for the Intervention (Rs.)</td><td colspan="2">8250</td></tr>
<tr><td>Parameters to be studied</td><td colspan="2">Percent infestation, Benefit Cost Ratio, Yield Q/ha.</td></tr>
<tr><td>Team members</td><td colspan="2">SMS Plant Protection & SMS Horticulture</td></tr>
</table>

<table>
<tr><td>OFT No.</td><td>8</td></tr>
<tr><td>Crop/ enterprise</td><td>Banana</td></tr>
<tr><td>Prioritized problem</td><td>Incident of malnutrition among children
Lack of awareness on value addition of banana
More yield, low income</td></tr>
<tr><td>Title of intervention</td><td>Assessing the suitable Banana variety for Supplementary Nutri mix</td></tr>
<tr><td>Technology options</td><td></td></tr>
<tr><td>TO-1</td><td>Nutri mix from Mondhan banana flour</td></tr>
<tr><td>TO-2</td><td>Nutri mix from Nendran Banana flour</td></tr>
<tr><td>FP</td><td>Nil</td></tr>
<tr><td>Source of Technology</td><td></td></tr>
<tr><td>TO-1</td><td>NRCB, Trichy - 2016</td></tr>
<tr><td>TO-2</td><td>TNAU - 2015</td></tr>
<tr><td>Status (New proposal/ already approved OFT - 2nd year / 3rd year)</td><td>New Proposal</td></tr>
<tr><td>Name of critical input</td><td>Raw materials (Pearl millet, Ragi, Roasted bengal gram, Mondhan banana flour, Nendran banana flour and jaggery), packing materials and lab analysis</td></tr>
<tr><td>Qty per trial</td><td><table><tr><td>Name of the critical input</td><td>Qty</td><td>Cost</td></tr><tr><td>Raw materials (Pearl millet, Ragi, Roasted bengal gram, Mondhan banana flour, and jaggery), packing materials and lab analysis</td><td>1set</td><td>1000</td></tr><tr><td>Raw materials (Pearl millet, Ragi, Roasted bengal gram, Nendran banana flour, and jaggery) packing materials and lab analysis fees</td><td>1set</td><td>1000</td></tr><tr><td>Total</td><td></td><td>2000</td></tr></table></td></tr>
<tr><td>Cost per trial (Rs.)</td><td>Rs.2000</td></tr>
<tr><td>No. of trials</td><td>5</td></tr>
<tr><td>Total cost for the Intervention (Rs.)</td><td><table><tr><td>Name of the critical input</td><td>Qty</td><td>Cost</td></tr><tr><td>Raw materials (Pearl millet, Ragi, Roasted bengal gram, Mondhan banana flour, and jaggery), packing materials and lab analysis</td><td>5set</td><td>5000</td></tr><tr><td>Raw materials (Pearl millet, Ragi,</td><td>5 set</td><td>5000</td></tr></table></td></tr>
</table>

	Roasted bengal gram, Nendran banana flour, and jaggery) packing materials and lab analysis fees			
	Total		**10000**	
Parameters to be studied	Shelf life, Consumer preference, BC Ratio			
Team members	SMS(HS, Horti)			

OFT No.	**9**			
Crop/ enterprise	Nutri Millets and herbs			
Prioritized problem	Less utilization of nutri millets and healthy herbs Lack of awareness about therapeutics properties of herbs Addition of artificial flavours and colouring agents leads to health hazards			
Title of intervention	Assessment of different types of herbal powder incorporated millet cookies			
Technology options				
TO-1	Millet cookies with the addition of Thulasipowder @ 20g/ kg (2%) + whole wheat flour + Ragi			
TO-2	Millet cookies with the addition of Thuthuvalai powder @ 20g/ kg (2%) + whole wheat flour + Ragi			
FP	Maida + Dalda + white sugar + artificial colour			
Source of Technology				
TO-1	UAS Dharwad, 2015			
TO-2	TNAU 2015			
Status (New proposal/ already approved OFT - 2nd year / 3rd year)	New proposal			
Name of critical input	Ragi Millets, Wheat flour, sugar, Thulasi, Thuthuvalai powder) & packing materials			
Qty per trial	Name of the critical input	Qty	Cost	
	Demonstration materials (Ragi Millets, Wheat flour, sugar, Thulasi powder), packing materials	1set	600	
	Demonstration materials (Ragi Millets, Wheat flour, sugar, Thuthuvalai powder) & packing materials	1set	600	
	Demonstration materials (Maida + Dalda + white sugar + artificial colour) & packing materials	1set	300	
	Total		1500	
Cost per trial (Rs.)				
No. of trials	5			
Total cost for the Intervention (Rs.)	Name of the critical input	Qty	Cost	
	Demonstration materials (Ragi Millets, Wheat flour, sugar, Thulasi powder), packing materials	5set	3000	
	Demonstration materials (Ragi Millets, Wheat flour, sugar, Thuthuvalai powder) & packing materials	5set	3000	

	Demonstration materials (Maida + Dalda + white sugar + artificial colour) & packing materials	5set	1500	
	Total		7500	
Parameters to be studied	Shelf life, consumer preference, BC Ratio			
Team members	SMS(HS, Horti)			

OFT No.	**10**
Crop/ enterprise	Goats
Prioritized problem	Cattle mineral mixture is used by farmers for sheep and goat lack of knowledge on species specific for miner mixture for sheep and goat
Title of intervention	Assessment of performance of small ruminant mineral mixture on production performance of goats
Technology options	
TO-1	Small ruminant mineral mixture
TO-2	Small ruminant mineral mixture
FP	No specific mineral mixture used
Source of Technology	
TO-1	NIANP, Bangalore 2019
TO-2	TANUVAS, 2019
Status (New proposal/ already approved OFT - 2nd year / 3rd year)	Already approved OFT - 2nd year
Name of critical input	NIANP mineral mixture TANUVAS mineral mixture
Qty per trial	Name of the critical input: Qty NIANP mineral mixture: 2kg TANUVAS mineral mixture: 2kg Total:
Cost per trial (Rs.)	1075
No. of trials	5
Total cost for the Intervention (Rs.)	5375
Parameters to be studied	Weight gain in kids (%) Incidence of disease Twinning/ triplet percentage Incidents of mineral deficiency (Aloecia) BCR
Team members	SMS(AS, Ag,)

8.1. Summary of FLDs

8. Frontline Demonstrations proposed during 2020-21

8.1. Summary of FLDs

FLD No.	Source of technology	Status*	Total cost for the Demo (Rs.)	Team members
1	TNAU 2014	New proposal	37800	SMS – Agronomy & SMS -Plant Protection

2	TNAU 2020	New proposal	12300	SMS – Agronomy & SMS -Plant Protection
3	TNAU 2019	New proposal	15800	SMS – Agronomy & SMS -Plant Protection
4	TNAU 2016	New proposal	27250	SMS – Horticulture & SMS -Plant Protection
5	TNAU 2011	New proposal	33750	SMS – Horticulture & SMS -Plant Protection
6	TNAU 2016	New proposal	24550	SMS -Plant Protection & SMS – Agronomy
7	TNAU 2019	New proposal	23900	SMS -Plant Protection & SMS – Agronomy
8	TNAU 2018	New proposal	19500	SMS -Plant Protection & SMS - Horticulture
9	TNAU 2015	New proposal	14500	SMS –Home Science & SMS - Horticulture
10	TNAU	New proposal	10000	SMS –Home Science & SMS - Horticulture
11	TNAU	New proposal	10000	SMS –Home Science & SMS - Horticulture
12	TNAU,2018	New proposal	3000	SMS Agri Extension & SMS –Home Science
13	GOI,2020	New proposal	20000	SMS Agri Extension & SMS –Horticulture
14	TANUVAS,2017	New proposal	10000	SMS –Animal Science
15	TNAU 2015	New proposal	30000	SMS –Animal Science
Total			**292350**	

8.2. Details of FLDs

FLD No.	**1**
Category	Cereals
Crop/ enterprise	Paddy
Prioritized problem	• Low level of awareness on high yielding new varities (92%) • Water scarcity (55%) • Susceptible to Bacterial leaf blight – Yield loss 30-40 % • Lack of awareness on short, bold new varieties (60%) • low yield from the existing ruling Variety ASD-16 (4350 Kg/ha) • Continuous usage of local seeds, Poor cultivation practices (78%)

<table>
<tr><td>Technology to be demonstrated</td><td>• ICMP in Paddy TPS (R) 5 (TNAU 2014) Duration 118 days - Short bold Y – 6301 t/ha)
• INM - along with organic manure application @ A 12t of FYM or compost or green manure (Daincha)@ 50 kg seeds/ha
• Panipipe method of irrigation(AWD)
• Application of inorganic fertilizers – NPK 150 : 50 : 50
• Application of zinc sulphate Apply 25 kg /ha
• IWM - Pre-emergence herbicides - Butachlor 1.25kg/ha
▪ IPDM Practices.</td></tr>
<tr><td>Hybrid or Variety</td><td>Variety</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>TPS -5</td></tr>
<tr><td>Source of Technology</td><td>TNAU 2014</td></tr>
<tr><td>Status (New proposal /approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>Seed TPS-5,Azophos, Pani pipe, Field board</td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Seed TPS-5</td><td>18Kg</td></tr><tr><td>Azophos</td><td>1kg</td></tr><tr><td>Pani pipe</td><td>1no</td></tr><tr><td>Field board</td><td>1No</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo</th></tr><tr><td>Seed TPS-5</td><td>900</td></tr><tr><td>Azophos</td><td>80</td></tr><tr><td>Pani pipe</td><td>2500</td></tr><tr><td>Field board</td><td>300</td></tr><tr><td>Total</td><td>3780</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>37800</td></tr>
<tr><td>Parameters to be studied</td><td>• No of hill / m2
• No of Productive tillers / hill
• No of seeds / panicle
• BC ratio</td></tr>
<tr><td>Team members</td><td>SMS Agronomy & SMS PP</td></tr>
</table>

FLD No.	**2**
Category	Millets
Crop/ enterprise	Sorghum
Prioritized problem	• Low productivity of K-8 variety (990Kg /ha) • Crop losses in existing commercial hybrids due to drought condition in later stage of the crop growth (50%) • High cost and non availability of commercial hybrid seeds in time • Late maturing, long duration commercial verities invites midges attack (55%)
Technology to be demonstrated	• ICMP in Sorghum Co (S) 32 - 2020 (Duration 95 days) – Yield 2445 Kg/ha

<table>
<tr><td></td><td>• Cultivation of Dual purpose variety suited for grain and fodder(Yield grain -2445 kg /ha (R) -2911 kg/ha (I)
• Dry fodder yield of 6490 kg/ha(R)- 11710 (I))
• Seed treatment – Azophos
• INM - 90 N, 45 P O,45 KO kg/ha.
• Micronutrient mixture 12.5 kg /ha
• IWM - Apply PE Atrazine @ 0.25 kg/ha on 3-5 DAS
• IPDM Practices.</td></tr>
<tr><td>Hybrid or Variety</td><td>Variety</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>Co (S) 32</td></tr>
<tr><td>Source of Technology</td><td>TNAU 2020</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>Seed – Co (S) 32 Azophos PPFM/EM MN Mixture Field board</td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Seed – Co (S) 32</td><td>4kg</td></tr><tr><td>Azophos</td><td>1kg</td></tr><tr><td>PPFM/EM</td><td>1Lit</td></tr><tr><td>MN Mixture</td><td>5 Kg</td></tr><tr><td>Field board</td><td>1No</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo</th></tr><tr><td>Seed – Co (S) 32</td><td>200</td></tr><tr><td>Azophos</td><td>80</td></tr><tr><td>PPFM/EM</td><td>300</td></tr><tr><td>MN Mixture</td><td>350</td></tr><tr><td>Field board</td><td>300</td></tr><tr><td>Total</td><td>1230</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>12300</td></tr>
<tr><td>Parameters to be studied</td><td>• Population /m2 ,
• No of seed /head
• 100grain wt. Yield /ha
• BC ratio</td></tr>
<tr><td>Team members</td><td>SMS Agronomy & SMS PP</td></tr>
</table>

FLD No.	**3**
Category	Pulses
Crop/ enterprise	Green gram
Prioritized problem	• Lack of awareness on short duration, high yielding new verities • 40% yield loss due to YMV • Poor pod filling due to MN deficiency (62%) • Labour shortage for weeding in time (76%) • Non availability of latest high yielding varieties in time (91%) • Non availability of labour for weeding in time (90%)

<table>
<tr><td>Technology to be demonstrated</td><td>• ICMP – VBN - 4 (TNAU, 2019)
• Seed treatment - Pseudomonas fluorescens @ 10 g/kg seed – Rhizobium.
• Rainfed: 12.5 kg N + 25 kg P_2O_5 + 12.5 kg K_2O +10 kg S/ha.
• IWM - Pendimethalin 2.5 lit/ha application 3 DAS.
• Quizolofop ethyl @ 50g ai/ha and Imazethepyr @ 50g ai/ha application on 15-20 DAS.
• Pulse wonder spray 5kg/ha.
▪ IPDM Practices - Bt spray, Neem soap</td></tr>
<tr><td>Hybrid or Variety</td><td>Variety</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>VBN (Gg) 4</td></tr>
<tr><td>Source of Technology</td><td>TNAU 2019</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>Seed TPS-5 ,Azophos, Pani pipe, Field board</td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Seed – VBN(Gg) -4</td><td>8kg</td></tr><tr><td>Rhizophos</td><td>1kg</td></tr><tr><td>Pulses wonder</td><td>2 Kg</td></tr><tr><td>Field board</td><td>1No</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo</th></tr><tr><td>Seed – VBN(Gg) -4</td><td>800</td></tr><tr><td>Rhizophos</td><td>80</td></tr><tr><td>Pulses wonder</td><td>400</td></tr><tr><td>Field board</td><td>300</td></tr><tr><td>Total</td><td>1580</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>15800</td></tr>
<tr><td>Parameters to be studied</td><td>• Population /m2
• No of pod /plant
• No of seed /Pod
• Yield /ha
• BC ratio</td></tr>
<tr><td>Team members</td><td>SMS Agronomy & SMS PP</td></tr>
</table>

FLD No.	**4**
Category	Vegetables
Crop/ enterprise	Bhendi
Prioritized problem	• YMV infestation (75%) • Susceptibility of ruling variety (MH -10) to YMV (75%) • Little awareness on resistant varieties (90%) • Low yield(14ton/ha) and income loss

<table>
<tr><td>Technology to be demonstrated</td><td>• Cultivation of Co(Bh) 4 hybrid as YVMV resistant variety
• Foliar application of 0.3% Vegetable special on 35th, 50th and 65th DAP
▪ Foliar application of 3% EM at 20 days interval
▪ IPDM for LCV, Bacterial wilt and fruit borer</td></tr>
<tr><td>Hybrid or Variety</td><td>Hybrid</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>Bhendi Hybrid Co-4</td></tr>
<tr><td>Source of Technology</td><td>TNAU, 2016</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New Proposal</td></tr>
<tr><td>Name of critical input</td><td></td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Bhendi hybrid Co-4 seeds</td><td>1kg</td></tr><tr><td>EM</td><td>1lit</td></tr><tr><td>Vegetable special</td><td>1kg</td></tr><tr><td>Field Board</td><td>1</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo</th></tr><tr><td>Bhendi hybrid Co-4 seeds</td><td>2050</td></tr><tr><td>EM</td><td>200</td></tr><tr><td>Vegetable special</td><td>175</td></tr><tr><td>Field Board</td><td>300</td></tr><tr><td>Total</td><td>2725</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>27250</td></tr>
<tr><td>Parameters to be studied</td><td>• Number of fruits/plant,
• Fruit length (cm),
• YMV incidence (%),
• Fruit yield/ha,
• BCR</td></tr>
<tr><td>Team members</td><td>SMS(Hort, PP)</td></tr>
</table>

FLD No.	**5**
Category	Vegetables
Crop/ enterprise	Chilli
Prioritized problem	• Use of local , Low yielding varieties • Susceptibility of local varieties to fruit rot and die back • Little awareness on improved high yielding varieties of genuine source
Technology to be demonstrated	• Introduction of Chilli Co(CH)-1 to enhance production, productivity and net profit • Foliar application of 2% EM on 45th, 60th and 75th day • Foliar application of 0.5% Pseudomonas liquid formulation to control fruit rot or COC 0.25% 3 spraying first spray just before flowering and 2nd at the time of fruit formation and 3rd 15 days after 2nd spray • Thrips and Yellow Mite management with IPM

<table>
<tr><td></td><td>techniques</td></tr>
<tr><td>Hybrid or Variety</td><td>Hybrid</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>Chilli Hybrid Co(CH)-1</td></tr>
<tr><td>Source of Technology</td><td>TNAU 2011</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td></td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Chilli Co(CH)1 seed</td><td>100gm</td></tr><tr><td>EM</td><td>1lits</td></tr><tr><td>Pseudomonas liquid formulation</td><td>1lit</td></tr><tr><td>Vegetable special</td><td>1kg</td></tr><tr><td>Field board</td><td>1</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo</th></tr><tr><td>Chilli Co(CH)1 seed</td><td>2400</td></tr><tr><td>EM</td><td>200</td></tr><tr><td>Pseudomonas liquid formulation</td><td>300</td></tr><tr><td>Vegetable special</td><td>175</td></tr><tr><td>Field board</td><td>300</td></tr><tr><td></td><td>3375</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>33750</td></tr>
<tr><td>Parameters to be studied</td><td>• No of plants/m^2,
• % of fruit rot attack,
• No of fruits/plant,
• Thrips, mite and incidence,
• Yield/ha,
• BCR</td></tr>
<tr><td>Team members</td><td>SMS(Hort, PP)</td></tr>
</table>

FLD No.	**6**
Category	Cereals
Crop/ enterprise	Paddy
Prioritized problem	• Due to yellow stem borer, Leaf folder and Blast incidence cause yield loss up to 35% • Resorting of farmers for chemical control leading to higher cost of production (4-5 sprays) • Lack of awareness on IPDM
Technology to be demonstrated	**Integrated Pest and Disease Management in Paddy** ▪ *Pseudomonas fluorescens* - Seed treatment *@ 10 g/k.* ▪ Soil application @ 1kg/acre. ▪ Seedling root dip @ 1kg/acre. ▪ Foliar application of *Lecanicillium lecanii* @ 1 lit/acre. ▪ Release of *Trichogramma japonicum* @ 2 cc. ▪ Release of *Trichogramma chilonis* @ 2 cc. ▪ Installation of solar light trap @ 1/acre.

<table>
<tr><td></td><td>▪ Installation of Stem borer pheromone trap @ 10/acre.
▪ Installation of Yellow sticky trap @ 5/acre .
▪ Need based application of Neem oil @ 3%.
▪ Foliar application of Cartop Hydrochloride 50% SP@ 400 g/ac (Stem borer & Leaf folder) or Azoxystrobin 25 SC @ 200 ml ac^{-}</td></tr>
<tr><td>Hybrid or Variety</td><td>Variety</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>BPT 5204</td></tr>
<tr><td>Source of Technology</td><td>TNAU 2016</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>Pseudomonas fluorescens, Lecanicillium lecani, Pheromone trap, Stem borer lure, Yellow sticky trap, Field boards.</td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per trial</th></tr><tr><td>Trichogramma japonicum</td><td>6 cc</td></tr><tr><td>Trichogramma chilonis</td><td>6 cc</td></tr><tr><td>Pseudomonas fluorescens</td><td>3 kg</td></tr><tr><td>Lecanicillium lecanii</td><td>1 lit</td></tr><tr><td>Pheromone trap</td><td>10 Nos</td></tr><tr><td>Stem borer lure</td><td>20 Nos</td></tr><tr><td>Yellow sticky trap</td><td>5 Nos</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo (Rs.)</th></tr><tr><td>Trichogramma japonicum</td><td>420</td></tr><tr><td>Trichogramma chilonis</td><td>420</td></tr><tr><td>Pseudomonas fluorescens</td><td>360</td></tr><tr><td>Lecanicillium lecanii</td><td>300</td></tr><tr><td>Pheromone trap</td><td>400</td></tr><tr><td>Stem borer lure</td><td>400</td></tr><tr><td>Yellow sticky trap</td><td>200</td></tr><tr><td>Total</td><td>2500</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>25000</td></tr>
<tr><td>Parameters to be studied</td><td>Percent infestation, % disease index, Yield Q/ha, Benefit Cost Ratio.</td></tr>
<tr><td>Team members</td><td>SMS Plant Protection, SMS Agronomy</td></tr>
</table>

FLD No.	**7**
Category	Cereals
Crop/ enterprise	Maize
Prioritized problem	• Fall Army Worm incidence cause yield loss up to 30% • Lack of awareness on IPM practices.
Technology to be demonstrated	**<u>Demonstration on management of Fall Army Worm in Maize</u>** • Summer ploughing • Seed treatment with Fortezaduo (Cyantraniliprole + Thiamethoxam) @ 4 ml/Kg or Thiamethoxam 30FS @ 10g/kg • Border crop with grain sorghum as trap crop (advance

<table>
<tr><td></td><td>sowing) & legume intercrop (cowpea) to promote natural enemies (few rows at intervals)
• Collection and destruction of Egg masses
• Installation of S. frugiperda pheromone traps @ 4 no's/ac (PCI or Hyderabad chemicals)
• Azadirachtin 10000 ppm spray 10 to 15 DAS
• EPN or Bt @ 2g/lt 15 – 21 DAS
• Spray of Insecticide – 21 -28 & 36-42 DAS
• Spray of Metarhizium anisopliae ($1x10^7$)@ 2ml/lt 30-35 DAS
• Need based application of insecticides based on ETL (21- 28 DAS & 36 – 42 DAS)</td></tr>
<tr><td>Hybrid or Variety</td><td>Hybrid</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>Private hybrids</td></tr>
<tr><td>Source of Technology</td><td>ATARI 2019</td></tr>
<tr><td>Status (New proposal/approved FLD :2^{nd} / 3^{rd} Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Thiamethoxam 30 FS</td><td>80ml</td></tr><tr><td>Pheromone trap</td><td>4No</td></tr><tr><td>Azadirachtin 10000 ppm</td><td>200ml</td></tr><tr><td>B.t</td><td>200g</td></tr><tr><td>Metarhizium anisopliae</td><td>400 ml</td></tr><tr><td>Emamectin Benzoate 5SG</td><td>80g</td></tr><tr><td>Spinetoram 11.7 SC</td><td>60ml</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo (Rs.)</th></tr><tr><td>Thiamethoxam 30 FS</td><td>250</td></tr><tr><td>Pheromone trap</td><td>400</td></tr><tr><td>Azadirachtin 10000 ppm</td><td>180</td></tr><tr><td>B.t</td><td>80</td></tr><tr><td>Metarhizium anisopliae</td><td>120</td></tr><tr><td>Emamectin Benzoate 5SG</td><td>400</td></tr><tr><td>Spinetoram 11.7 SC</td><td>900</td></tr><tr><td>Total</td><td>2330</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>23300</td></tr>
<tr><td>Parameters to be studied</td><td>Percent infestation, Yield Q/ha, Benefit Cost Ratio.</td></tr>
<tr><td>Team members</td><td>SMS Plant Protection, SMS Agronomy</td></tr>
</table>

FLD No.	**8**
Category	Vegetables
Crop/ enterprise	Small Onion
Prioritized problem	• Rot and thrips incidence reduces the yield
Technology to be demonstrated	**<u>Demonstration of IPDM strategies in small onion</u>** • Bulb treatment with *P. fluorescens* @ 5g/kg + *T.asperellum* @ 5g/Kg

<table>
<tr><td></td><td>

Soil application of P. fluorescens @ 1.25kg/ha + T. asperellum @1.25kg/ha + AM fungi (VAM)@12.5kg/ha + Azophos@ (4kg/ha)+ Neem cake@250kg/ha before planting
Installation of S. litura pheromone traps @ 12/ha
Yellow sticky traps @ 12/ha
Spraying of P.fluorescens 5g/lt +Beuveriabassian 10g/lt on 30 DAP
Need based application (If pest or disease crosses ETL)
Spraying of Azadairachtin 1% - 2ml/lt
Spraying of Profenophos (2ml/lt) or Dimethoate (2ml/lt) or Fipronil (1.5g/lt) for thrips /leaf miner/cut worm management
Spraying of tebuconozole 1.5ml/lt or Mancozeb 2 g/l or Zineb 2g/lt for purple blotch disease management
Spraying of metalxyl 2g/lt for downy mildew management

</td></tr>
<tr><td>Hybrid or Variety</td><td>Hybrid</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>Local Variety</td></tr>
<tr><td>Source of Technology</td><td>ATARI 2018</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>
<table>
<tr><th>Name of critical input</th><th>Qty per Demo</th></tr>
<tr><td>P. fluorescens</td><td>2 Kg</td></tr>
<tr><td>T. viride</td><td>2 Kg</td></tr>
<tr><td>AM fungi</td><td>5 Kg</td></tr>
<tr><td>Azophos</td><td>2Kg</td></tr>
<tr><td>Pheromone traps</td><td>5 Nos</td></tr>
<tr><td>Yellow sticky trap</td><td>5 Nos</td></tr>
<tr><td>Beuveria bassiana</td><td>1 Kg</td></tr>
</table>
</td></tr>
<tr><td>Cost per Demo (Rs.)</td><td>
<table>
<tr><th>Name of critical input</th><th>Cost per Demo (Rs.)</th></tr>
<tr><td>P. fluorescens</td><td>280</td></tr>
<tr><td>T. viride</td><td>280</td></tr>
<tr><td>AM fungi</td><td>290</td></tr>
<tr><td>Azophos</td><td>200</td></tr>
<tr><td>Pheromone traps</td><td>500</td></tr>
<tr><td>Yellow sticky trap</td><td>200</td></tr>
<tr><td>Beuveria bassiana</td><td>200</td></tr>
<tr><td>Total</td><td>1950</td></tr>
</table>
</td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>19500</td></tr>
<tr><td>Parameters to be studied</td><td>Percentage reduction of pest and disease incidence
Reduction in number of insecticide spray
Yield parameters.</td></tr>
<tr><td>Team members</td><td>SMS Plant Protection, SMS Agronomy</td></tr>
</table>

FLD No.	**9**
Category	Vegetables

<table>
<tr><td>Crop/ enterprise</td><td>Tomato</td></tr>
<tr><td>Prioritized problem</td><td>• Fluctuation in the market price
• Low returns to the farmers during peak production season
• Little knowledge on value addition and marketing</td></tr>
<tr><td>Technology to be demonstrated</td><td>• Demonstration of Tomato sauce, pickle, dehydrated tomato and Tomato powder using local variety
• Preservation and processing
• Value addition , labeling, branding and marketing</td></tr>
<tr><td>Hybrid or Variety</td><td>Variety</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>-</td></tr>
<tr><td>Source of Technology</td><td>TNAU 2015</td></tr>
<tr><td>Status (New proposal /approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>Food grade pouches and Pet jar, Hand sealing and Weighing machine</td></tr>
<tr><td>Qty per Demo</td><td><table>
<tr><th>Name of critical input</th><th>Qty per Demo</th></tr>
<tr><td>Food grade pouches and Pet jar</td><td>1 set</td></tr>
<tr><td>Hand sealing and Weighing machine</td><td>1</td></tr>
<tr><td>Poster and Pamphlet</td><td>10</td></tr>
<tr><td>Field board</td><td>1</td></tr>
</table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table>
<tr><th>Name of critical input</th><th>Cost per Demo</th></tr>
<tr><td>Food grade pouches and Pet jar</td><td>2000</td></tr>
<tr><td>Hand sealing and Weighing m/c</td><td>8000</td></tr>
<tr><td>Poster and Pamphlet</td><td>1500</td></tr>
<tr><td>Field board</td><td>300</td></tr>
<tr><td>Total</td><td>11800</td></tr>
</table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>14500</td></tr>
<tr><td>Parameters to be studied</td><td>• Sensory Evaluation,
• Consumer preference,
• Shelf life
BCR</td></tr>
<tr><td>Team members</td><td>SMS (HS, Hort)</td></tr>
</table>

FLD No.	**10**
Category	Vegetables
Crop/ enterprise	Nutri garden – Vegetable
Prioritized problem	• Poor intake of vegetables • High cost of vegetables • Lack of knowledge in multi nutritive value of vegetables and greens • Intake of vegetables with toxic residues of pesticides
Technology to be demonstrated	• Cultivation of organic nutritious vegetables (TNAU) • Effective usage of resources like air, space, water and sunlight

<table>
<tr><td>Hybrid or Variety</td><td>Variety</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>-</td></tr>
<tr><td>Source of Technology</td><td>TNAU</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>Seed kit (12 varieties), Azophos, Pseudomonas, Azadiractin (0.03%),</td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Seed kit (12 varieties)</td><td>1 Kg</td></tr><tr><td>Azophos</td><td>1 kg</td></tr><tr><td>Pseudomonas</td><td>1 kg</td></tr><tr><td>Azadiractin (0.03%)</td><td>20ml</td></tr><tr><td>Insect repellent</td><td>120 ml</td></tr><tr><td>Vermi compost</td><td>20 kg</td></tr><tr><td>Effective Micro organism -A</td><td>1lr</td></tr><tr><td>Field board</td><td>1No</td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo</th></tr><tr><td>Seed kit (12 varieties)</td><td>120</td></tr><tr><td>Azophos</td><td>80</td></tr><tr><td>Pseudomonas</td><td>120</td></tr><tr><td>Azadiractin (0.03%)</td><td>20</td></tr><tr><td>Insect repellent</td><td>10</td></tr><tr><td>Vermi compost</td><td>200</td></tr><tr><td>Effective Micro organism -A</td><td>150</td></tr><tr><td>Field board</td><td>300</td></tr><tr><td>Total</td><td>1000</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>10000</td></tr>
<tr><td>Parameters to be studied</td><td>• Vegetables availability – no of days /yr
• Vegetable yield / harvest /day
• Amount saved from the garden
• General health condition
• Nutrition knowledge of women before and after FLD</td></tr>
<tr><td>Team members</td><td>SMS (HS, Hort)</td></tr>
</table>

FLD No.	**11**
Category	Value addition and processing
Crop/ enterprise	Cereals, nutri millets and Pulses
Prioritized problem	• Lack of awareness about nutritive and therapeutics properties of millet. • Addition of artificial flavours and colouring agents leads to health hazards
Technology to be demonstrated	Demonstration of multi grain mix/ laddu (roasted whole wheat flour - 40gm, roasted kodo millet - 22.5gm, roasted horse gram - 22.5gm, modified banana powder -14gm and Roasted fenu greek -1gm)

Hybrid or Variety	-
Name of the Hybrid or Variety	
Source of Technology	TNAU
Status (New proposal/approved FLD :2nd / 3rd Year)	New proposal
Name of critical input	Roasted whole wheat flour, roasted kodo millet, roasted horse gram, modified banana powder and Roasted fenu greek and packing materials, field board
Qty per Demo	**Name of critical input** / **Qty per Demo** Raw materials (roasted whole wheat flour, roasted kodo millet, roasted horse gram, modified banana powder and Roasted fenu greek) and packing materials, field board / 1 set
Cost per Demo (Rs.)	**Name of critical input** / **Cost per Demo** Raw materials (roasted whole wheat flour, roasted kodo millet, roasted horse gram, modified banana powder and Roasted fenu greek) and packing materials, field board / 1000 **Total** / **1000**
No. of Demos	10
Total cost for the Demo (Rs.)	**10000**
Parameters to be studied	Sensory Evaluation ,Consumer preference, Shelf life & BCR
Team members	SMS (HS, Hort)

FLD No.	**12**
Category	Fruits
Crop/ enterprise	Banana
Prioritized problem	• Personal contact with every farmer is difficult • Availability of services and their source were not known to the farmers • Unavailability of Information when farmer need it
Technology to be demonstrated	TNAU Banana Expert System Mobile app released in 2018
Hybrid or Variety	-
Name of the Hybrid or Variety	
Source of Technology	TNAU,2018
Status (New proposal/approved FLD :2nd / 3rd Year)	New proposal
Name of critical input	Pre Assessment questioners of farmers
Qty per Demo	**Name of critical input** / **Qty per Demo** Pre Assessment questioners of farmers / 30 Feedback questioners of farmers / 30
Cost per Demo (Rs.)	**Name of critical input** / **Cost per Demo**

		Pre Assessment questioners of farmers	50
		Feedback questioners of farmers	50
		Total	**100**
No. of Demos	30		
Total cost for the Demo (Rs.)	**3000**		
Parameters to be studied	Pre and Post test knowledge gain , Symbolic adoption behaviour		
Team members	SMS (AE, HS)		

FLD No.	**13**		
Category	Vegetables		
Crop/ enterprise	Vegetables		
Prioritized problem	• Farmers are engaged in vegetable cultivation and they frequently visiting markets and are prone for more exposure to COVID-19. • Lack of awareness about COVID 19 among vegetable growers		
Technology to be demonstrated	Prevention techniques for COVID -19 as per approved GOI guidelines		
Hybrid or Variety	-		
Name of the Hybrid or Variety	-		
Source of Technology	GOI guidelines 2020		
Status (New proposal/approved FLD :2nd / 3rd Year)	New proposal		
Name of critical input	Mask, Gloves, Sanitizer, Thermal scanner and user information leaf let		
Qty per Demo		**Name of critical input**	**Qty per Demo**
		Mask, Gloves, Sanitizer, Thermal scanner and user information leaf let	1 set
Cost per Demo (Rs.)		**Name of critical input**	**Cost per Demo**
		Mask, Gloves, Sanitizer, Thermal scanner and user information leaf let	4000
		Total	**4000**
No. of Demos	5		
Total cost for the Demo (Rs.)	**20000**		
Parameters to be studied	Pre & post evaluation of awareness level & adoption level of preventive measures through questionnaire method		
Team members	SMS (AE, HS)		

FLD No.	**14**
Category	Poultry
Crop/ enterprise	Aseel chick
Prioritized problem	• Lack of awareness on back yard poultry practices

<table>
<tr><td></td><td>• Mortality up to 40% due to RD
Low productivity of Desi bird</td></tr>
<tr><td>Technology to be demonstrated</td><td>TANUVAS Aseel chicken</td></tr>
<tr><td>Hybrid or Variety</td><td>-</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>-</td></tr>
<tr><td>Source of Technology</td><td>TANUVAS,2017</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>30 days old TANUVAS Aseel chicken</td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>30 days old TANUVAS Aseel chicken</td><td>10</td></tr><tr><td></td><td></td></tr></table></td></tr>
<tr><td>Cost per Demo (Rs.)</td><td><table><tr><th>Name of critical input</th><th>Cost per Demo</th></tr><tr><td>30 days old TANUVAS Aseel chicken</td><td>1000</td></tr><tr><td>Total</td><td>10000</td></tr></table></td></tr>
<tr><td>No. of Demos</td><td>10</td></tr>
<tr><td>Total cost for the Demo (Rs.)</td><td>10000</td></tr>
<tr><td>Parameters to be studied</td><td>Pre & post evaluation of awareness level & adoption level of preventive measures through questionnaire method</td></tr>
<tr><td>Team members</td><td>SMS (Ag)</td></tr>
</table>

<table>
<tr><td>FLD No.</td><td>15</td></tr>
<tr><td>Category</td><td>Fodder</td></tr>
<tr><td>Crop/ enterprise</td><td>Mixed Fodder</td></tr>
<tr><td>Prioritized problem</td><td>• Lack of green fodder feeding during dry season
• Under performance of cross bred milch cows (milk yield 6.5lit/day, Milk SNF-7.7 , Fat- 3.9%, TS- 11.6 and the avg rate for milk – 24.47/lit
• Lower net profit/unit due to poor feeding practices (98%)</td></tr>
<tr><td>Technology to be demonstrated</td><td>• Balanced feeding through 10 cent model
• Mixed Fodder Cultivation
• CO5 Napier Grass, Hedge Lucerne , Fodder Sorghum CSV-31</td></tr>
<tr><td>Hybrid or Variety</td><td>Variety</td></tr>
<tr><td>Name of the Hybrid or Variety</td><td>Fodder sets Co(CN)-5, Hedge lucerne, Fodder sorghum CSV-33</td></tr>
<tr><td>Source of Technology</td><td>TNAU ,2015</td></tr>
<tr><td>Status (New proposal/approved FLD :2nd / 3rd Year)</td><td>New proposal</td></tr>
<tr><td>Name of critical input</td><td>Fodder sets Co(CN)-5, Hedge lucerne, Fodder sorghum CSV-33</td></tr>
<tr><td>Qty per Demo</td><td><table><tr><th>Name of critical input</th><th>Qty per Demo</th></tr><tr><td>Fodder sets Co(CN)-5</td><td>1600</td></tr><tr><td>Hedgelucerne / sesbania seeds</td><td>500g</td></tr><tr><td>Fodder sorghum CSV-33</td><td>500g</td></tr><tr><td>Field board</td><td>1</td></tr></table></td></tr>
</table>

Cost per Demo (Rs.)	**Name of critical input**	**Cost per Demo**	
	Fodder sets Co(CN)-5	1600	
	Hedgelucerne / sesbania seeds	400	
	Fodder sorghum CSV-33	700	
	Field board	300	
	Total	**3000**	
No. of Demos	10		
Total cost for the Demo (Rs.)	**30000**		
Parameters to be studied	Green fodder yield/ha ,BC ratio, Palatability index		
Team members	SMS AS & SMS AGR		

8.3. National Food Security Mission (NFSM)

8.3.1. Cluster Frontline Demonstrations on Pulses

Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid / Variety	Name of the Hybrid / Variety	Source of Technology	Name of critical input	Qty per Demo	Cost per Demo (Rs)	No. of Demo	Total cost for the Demo (Rs.)	Parameters to be studied	Team member
Pulses	Black gram	• Lack of awareness on short duration, high yielding new verities • 40% yield loss due to YMV • Poor pod filling due to MN deficiency (62%) • Labour shortage for weeding in time (76%) • Non availability of latest high yielding varieties in time (91%) Non availability of labour for weeding in time (90%)	• ICMP – VBN - 8 (Crop duration 65-70 days, yield 980 kg/ha). • Seed treatment - Pseudomonas fluorescens @ 10 g/kg seed – Rhizobium. • Rainfed: 12.5 kg N + 25 kg P2O5 + 12.5 kg K2O +10 kg S/ha. • IWM - Pendimethalin 2.5 lit/ha application 3 DAS. • Quizolofop ethyl @ 50g ai/ha and Imazethepyr @ 50g ai/ha application on 15-20 DAS. • Pulse wonder spray 5kg/ha. IPDM Practices - Bt spray, Neem soap	Variety	VBN -8	TNAU	Seed Rhizophos Pseudomonas Pulses wonder Soil test EM	8kg 1kg 1kg 2kg 1no 3lit	1600 80 120 400 250 450	50	180000	• Population /m2 • No of pod /plant • No of seed /Pod • Yield /ha • BC ratio	SMS – AGR SMS - PP

Pulses	Green gram	• Lack of awareness on short duration, high yielding new verities • 40% yield loss due to YMV • Poor pod filling due to MN deficiency (62%) • Labour shortage for weeding in time (76%) • Non availability of latest high yielding varieties in time (91%) Non availability of labour for weeding in time (90%)	• ICMP – Co-8 (Crop duration 65-days, yield 970 kg/ha). • Seed treatment - Pseudomonas fluorescens @ 10 g/kg seed – Rhizobium. • Rainfed: 12.5 kg N + 25 kg P2O5 + 12.5 kg K2O +10 kg S/ha. • IWM - Pendimethalin 2.5 lit/ha application 3 DAS. • Quizolofop ethyl @ 50g ai/ha and Imazethepyr @ 50g ai/ha application on 15-20 DAS. • Pulse wonder spray 5kg/ha. IPDM Practices - Bt spray, Neem soap	Variety	Co-8	TNAU	Seed Rhizophos Pseudomonas Pulses wonder Soil test EM	8kg 1kg 1kg 2kg 1no 3lit	1600 80 120 400 250 450	30	108000	• Population /m2 • No of pod /plant • No of seed /Pod • Yield /ha BC ratio	SMS – AGR SMS - PP

8.3.2. Cluster Front Line Demonstrations on Oil Seeds

Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid/ Variety	Name of the Hybrid/ Variety	Source of Technology	Name of critical input	Qty per Demo	Cost per Demo (Rs)	No. of Demo	Total cost for theDemo (Rs.)	Parameters to be studied	Team member
Oil seed	Groundnut	Lack of awareness ICM Practices – yield loss 45 % Lack of awareness high yielding new varieties and hybrid (45pod filling due to MN deficiency (56%) Non availability of seed in time (82%)	ICMP with variety – Co-7 Seed treatment - *Pseudomonas fluorescens* @ 10 g/kg seed Fertilizer application – NPK :30:60:90 Kg/ha Gypsum application 400kg / ha IWM - Pendimethalin 2.5 lit/ha application 3 DAS Quizolofop ethyl @ 50g ai/ha and Imazethepyr @ 50g ai/ha application on 15-20 DAS Micronutrient mixture 12.5 kg /ha Groundnut rich spray 5kg/ha IPDM Practice	Variety	Co -7	TNAU	Seed Rhizophos Pseudomonas Soil test EM	50kg 1kg 1kg 1no 3lit	3500 80 120 250 450	50	240000	• Population /m2 • No of pod /plant • No of seed /Pod • Yield /ha BC ratio	SMS – AGR SMS - PP

9. Special Programmes

S. No.	Category/ Crop or enterprise	Prioritized problem	Title of Technology	Source	No. of Demo	Area (ha)/ Units	Details of critical inputs	Total cost involved (Rs.)	Names of the team members involved
1	IFS	Unemployment Lack of awareness on income generation activities. Low income Lack of awareness on recycling of crop residues .	• Rearing improved desi chicken like Gramapriya/ Cauvery/ TANUVAS Aseel • Honey bee rearing • Azolla cultivation for livestock and poultry feeding • Recycling crop residues through Waste Decomposer	TNAU	5	5no	Silpaulin sheet , shade net, Azolla inoculums Improved backyard poultry chicks, Honey bee boxes with hives , Waste Decomposer	30750	SMS AS&SMS AGR
2	EDP	Lack of knowledge in value addition in banana Price fluctuation Under utilization	• Demonstration on Value Addition in Banana (Bakery products – banana cake and cookies)	TNAU	1	10 members	Oven Toast Griller (OTG), Weighing and sealing machine, Attractive packaging and labeling	25500	SMS HS & SMS AS

10. Externally funded projects

10.1. Projects summary

S.No.	Title	Funding agency	Duration in years	Year of start	Total budget (Rs)	Current year budget (Rs)	PI
1.	Rural Mart	NABARD	2 Years	2019	258000	129000	SMS(H.Sc)

10.2. Project details (Use one table per project)

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	Rural Mart

Objectives	To promote market outlet for WSHG To promote palmyrah value added products
Study area	Vembar
Methodology	Training, demonstrations and marketing strategies
Team Members	SMS Home Science,
Budget	258000

11. Trainings during 2020-21

11.1. Trainings for Farmers and Farm Women

S. No	Thematic area	Crop / Enterprise	Major problem	Linked field intervention (OFT/ FLD)	Training Course Title	No. of Courses	Expected No. of participants	Names of the team members involved
1	Horticulture	Vegetables Onion	• High cost of Seed bulb, • Drudgery of transport • Poor quality seed bulb • Little knowledge on new varieties • Lower yield and income	OFT	POP for multiplier Onion with ICMP	2	40	SMS (Hort)
2	Horticulture	Tomato	• Use of local, Low yielding varieties • Susceptibility of local hybrids to LCV • Little awareness on improved high yielding varieties of genuine source • Lower yield and income • Poor agronomic practices	FLD	POP for Tomato with ICM	2	40	SMS (Hort)

3	Horticulture	Bhendi	• YVMV infestation • Lack of awareness on high yielding, resistant varieties • Low yield and income	FLD	PO for Bhendi with ICM	2	40	SMS (Hort)
4	Horticulture	Chilli	• Use of local , Low yielding varieties • Susceptibility of local varieties to fruit rot and die back • Little awareness on improved high yielding varieties of genuine source	FLD	POP for High yielding Chilli Hybrids with ICMP	2	40	SMS (Hort, Ag, PP)
5	Home science	Millets	• Lack of knowledge in millet value addition • Under utilization	OFT	Value addition on Millet	1	20	SMS (H.Sc)
6	Home science	Tomato	• Poor remunerative returns to the farmers during glut season • Minimum level of awareness on value addition	FLD	Value addition on Tomato	2	40	SMS (H.Sc)
7	Home science	Vegetable	• Low per capita consumption of greens. • Incidence of micro nutrient deficiency	FLD	Importance of nutri green garden for nutritional security	2	40	SMS (H.Sc)
8	Home science	Banana	• Poor remunerative returns to the farmers during glut season • Minimum level of	FLD	Value addition on Banana	2	40	SMS (H.Sc)

			awareness on value addition					
9	Home science	Millets	• Lack of knowledge in value addition to Millets • Price fluctuation of millet products	FLD	Design and development of low cost diet	1	20	SMS (H.Sc)
10	Plant Protection	Maize	• Fall Army Worm incidence cause yield loss up to 30% • Lack of awareness on IPM practices	FLD	IPM practices of Fall Army Worm (*Spodoptera fugiperda*) in Maize	2	40	SMS (PP)
11	Plant Protection	Small onion	• Incidence of , rot and thrips incidence reduces the yield up to 30 % • Over use of insecticides and lack of awareness about IPM	FLD	Integrated Pests Management in Small onion	2	40	SMS (PP)
12	Plant Protection	Paddy	• Due to stem borer, Leaf folder and Blast incidence cause yield loss up to 35% • Resorting of farmers for chemical control leading to higher cost of production (4-5 sprays) • Lack of awareness on IPDM	FLD	IPDM practices in Paddy	2	40	SMS (PP)
13	Plant Protection	Brinjal	• Shoot and fruit borer incidence cause yield loss up to 35%	OFT	Integrated Pest Management in brinjal	2	40	SMS (PP)

			• Lack of awareness about IPM Module					
14	Plant Protection	Banana	• Fusarium wilt disease incidence cause yield loss up to 35% • Lack of awareness on the use of bio-control agents in disease management.	OFT	Banana pest and diseases management	2	40	SMS (PP)
15	Agronomy	Paddy	• Low Yield 4500 kg/ha. • Low level of awareness on fine grain varieties (60%), • Ruling fine varieties BPT - 5204 is susceptible to bacterial leaf blight (35%), • Continuous usage of local seeds (55%)	OFT	Medium duration fine grain Paddy varieties for Thoothukudi district**.**	1	20	SMS (Ag)
16	Agronomy	Black gram	• Low productivity (6.5qtl/ha) • Low level of awareness on high yielding new variety (70%) • Little awareness on YMV, Powdery mildew resistant variety (70%)		ICM practices for Black gram	2	40	SMS(Ag)
17	Agronomy	Sorghum	• Low productivity of traditional varieties	FLD	ICM for Sorghum CO-32	1	20	SMS(Ag)
18	Agronomy	Green gram	• Low productivity of traditional varieties	FLD	ICM for Green gram VBN -4	1	20	SMS(Ag)

19	Agronomy	Paddy	• Low productivity of traditional varieties	FLD	ICM for TPS -5 Paddy	1	20	SMS(Ag)
20	Agronomy	Black gram	• Low productivity of traditional varieties	CFLD	ICM for VBN 8 variety	2	40	SMS(Ag)
21	Agronomy	Green gram	• Low productivity of traditional varieties	CFLD	ICM for Co(Gg) 8 variety	2	40	SMS(Ag)
22	Agronomy	Groundnut	• Low productivity of traditional varieties	CFLD	ICM for Co(Gn) 6 variety	2	40	SMS(Ag)
23	Animal Science	Backyard poultry rearing	• Poor productivity of the desi birds, mortality in birds	FLD, Training	Backyard poultry rearing	1	20	SMS AS
24	Animal Science	IFS	• Reduced profitability and lack of employment due to non-adoption of IFS	IFS	IFS	1	20	SMS AS
25	Animal Science	Cattle	• High production cost , production loss due to mastitis , production and infectious diseases, infertility due to poor breeding and feeding practices	FLD	Cattle disease management	1	20	SMS AS
26	Animal Science	Fodder	• Non availability of green fodder	FLD	ICMP in Fodder	1	20	SMS AS
27	Animal Science	Goat & Sheep	• Mortality in Sheep and goats due to infectious diseases and parasitism	FLD, Training	Goat & Sheep rearing	1	20	SMS AS
28	Agri Extension	Extension tools	Personal contact with every farmer is difficult	FLD	Banana expert system	1	20	SMS AE
29	Agri Extension	Mobile apps	Inconsistency in availing advisory services	FLD	Mobile based Apps in farming for farmers	1	20	SMS AE

30	Agri Extension	Waste decomposing	Improper waste utilization and Low Soil fertility	Training and Extension activities	waste management	1	20	SMS AE
31	Agri Extension	e Market Linkage	Middle man intervention and low knowledge on marketing network	Training and Extension activities	e market linkage for small and marginal farmers	1	20	SMS AE
TOTAL						**47**	**940**	

11.2. Trainings for Rural Youth

Sl. No	**Thematic area**	**Crop / Enterprise**	**Major problem**	**Linked field intervention (Assessment/ Refinement/ FLD)**	**Training Course Title**	**No. of Courses**	**Expected No. of participants**	**Names of the team members involved**
1	Horticulture	Poly house	Low production, pest and disease and low quality products	Nil	Poly house cultivation for high value commercial horticulture crops	1	20	SMS Hort, Ag
2	Horticulture	Nursery management	Un employment and under employment	Nil	Nursery establishment and management	1	20	SMS Hort, Ag
3	Home science	Banana	Little awareness on value addition and marketing	Training/FLD	Training on Value addition and marketing strategies	1	20	SMS H.S
4	Home science	Tomato	Little awareness on value addition and marketing Low returns to the farmers during peak production season	FLD	Training on Value addition and marketing strategies	1	20	SMS H.S
5	Home science	Nutri garden	Low per capita consumption of	FLD	Training on importance of	2	40	SMS H.S

			Vegetables & greens. Incidence of nutrient deficiency		nutrition garden for nutritional security			
6	Home science	Palmyrah – rural craft	Un employment and under employment	Training	Training on Palmyrah leaf products	1	20	SMS HS
7	Agronomy	All Crops	Lack of knowledge on organic farming practices High cost of production	FLD	Panchakavya and Poochiviratti Production	2	40	SMS Ag
8	Agronomy	Seed production techniques	Non availability and less awareness of seed production	FLD	Seed production in cereals, millets and pulses	2	40	SMS Ag
9	Agronomy	All crops	Lack of awareness about soil moisture conservation	OFT	Composting technology and soil moisture conservation	1	20	SMS Ag
10	Agronomy	IFS	Low productivity of the farm	IFS	Integrated Farming system modes for different farming situation	2	40	SMS Ag
11	Horticulture	Coconut	Labour scarcity Low productivity Pest and diseases incidence	Nil	Coconut tree climbing using devise and tree management	2	40	All Staff
12	Plant Protection	Bio pesticides	Indiscriminate use of pesticides increase the cultivation	Nil	Identification, preparation and utilization of plants in pest management	1	20	SMS PP SMS Ag
13	Plant	Bee keeping	Lack of awareness	Nil	Bee keeping	2	40	SMS PP

	Protection		on bee keeping		technologies			
14	Animal Science	Poultry	Un employment and under employment	FLD	Training on poultry rearing	2	40	SMS AS
TOTAL						**21**	**420**	

11.3. Trainings for Extension Personnel

Sl. No	Thematic area	Training Course Title	No. of Courses
1	Seed production	Seed production techniques for pulses	1
2	Integrated Crop Management	Recent technologies for increasing productivity in field crops	1
3	Waste to wealth	Advanced technologies in farm waste recycling	1
4	Organic farming	Organic farming practices for Agriculture crops	1
5	Dry land farming	Fruit trees for dry land farming	1
6	Precision farming	Precision farming techniques for commercial horticulture crops	1
7.	Nursery management	Nursery establishment and management	1
8	Home Science	Formation and maintenance of FPCL	1
9	Home Science	Value addition on minor millets	1
10	Home science	Low cost and nutrient efficient diet designing	1
11	Home science	Women and child care	1
12	Home science	Gender mainstreaming through WSHG	1
13	Plant Protection	Recent technologies in Pest and disease management in Field and Horticultural crops	1
TOTAL			**13**

11.4. Skill trainings and vocational trainings during 2020-21

Sl. No	Training title*	Duration (days)	No. of programmes	Sponsoring agency if any
1	Production of high value horticulture crops under protected structures	1 (3 days)	1	Govt. Horti. Dept.
2	Vertical farming techniques for vegetable production	1 (3 days)	1	Govt. Horti. Dept.
3	Oyster Mushroom Cultivation and Value addition	5(3 days)	1	Govt. Horti. Dept.

4	Home/ Terrace garden vegetables	1 (3 days)	1	NABARD
5	Value addition on palmyrah	1(3 days)	1	NABARD
6	Coconut tree climbing using devise and tree management	(6 days)	2	Coconut development board
7	Production of Vermicomposting ,Bio inputs Panchakavya and Poochiviratti	1(3 days)	1	Govt. Agri. Dept.
8	IFS	1(3 days)	1	Govt. Agri. Dept.
9	Bee Keeping Technologies	1(3 days)	1	Govt. Agri. Dept.
	TOTAL	30 Days	10	

11.5. Sponsored trainings

Sl. No	Thematic area and the Crop/Enterprise	Training title*	No. of programmes / Duration (days)	Type of Clientele	Expected No. of participants	Sponsoring agency	Names of the team members involved
3	Home Science	Value addition on palmyrah products	1 (3 days)	Youth & women	30	NABARD	SMS H.S
4	Home Science	Home/ Terrace garden vegetables	1 (3 days)	Youth & women	30	NABARD	SMS H.S
6	Coconut tree management	Coconut tree climbing using device and tree management	(6 Days)	Farmer's & Youth	40	Coconut Development Board	SMS(Hort)
7	Organic farming	Production of Vermicompost, Panchakavya, Poochiviratti and EM usage.	1 (3 days)	Farmer's & Youth	40	Govt. Agri. Dept.	SMS Ag SMS Hort
8	Honey production	Bee keeping technologies.	1 (1 days)	Practicing farmers and farm women1	20	Department of Horticulture	SMS Plant protection, SMS Agrl. Extn.
TOTAL			**16 Days**		**160**		

***SHGs, NYKs, Women, Youth etc.**

12. Extension programmes during 2020-21

Sl. No	Extension programme*	No. of programmes	Team member involved
1	Advisory Services	280	Senior Scientist and Head i/c, SMS Horticulture, SMS Home Science, SMS Plant Protection, SMS Agricultural Extension, SMS Animal Science.
2	Diagnostic visits	15	
3	Field Day	10	
4	Group discussions	10	
5	Kisan Ghosthi	4	
6	Film Show	10	
7	Kisan Mela	1	
8	Exhibition	5	
9	Scientists' visit to farmers field	120	
10	Plant/Soil health campaign	8	
11	Ex-trainees Sammelan	1	
12	Farmers' seminar/workshop	1	
13	Method Demonstrations	34	
14	Celebration of important days	4	
15	Special day celebration	2	
16	Exposure visits	3	
17	Technology week,	1	
18	FFS	1	
19	Farm innovators meet	1	
20	Awareness programs	5	
21	Lecture delivered	15	
22	TV/Radio Programme	10	
23	News clips	10	
24	Popular Articles	8	
25	Research Article	1	
26	Extension Literatures	16	
27	Kisan Mobile Advisory Services	24	
TOTAL		**600**	

13. Activities proposed as Knowledge and Resource Centre during 2020-21

13.1. Technological knowledge

Sl. No	Category	Details of technologies	Area (ha)/ Number	Names of the team members involved
	Technology Park/ Crop cafeteria	Nursery for fruit and ornamental seedlings production	1 ha	SMS Hort ,Farm manager
		Guava (HDP)	0.4 ha	SMS Hort ,Farm manager
		Mango	1 ha	SMS Hort ,Farm manager
		Tamarind	2 ha	SMS Hort ,Farm manager
		Coconut (Tall)	0.8ha	SMS Hort ,Farm manager
		Sapota	0.4 ha	SMS Hort ,Farm manager
		Drumstick	0.4 ha	SMS Hort ,Farm manager
		Eucalyptus (TNPL)PPP	5 ha	SMS Ag , Farm manager
		Green fodder (CO-4), CoFS-29,30, Subabul	0.6 ha	SMS Ag , Farm manager
	Demonstration Units	Vermicompost unit	45 sq.m	SMS Ag, Prog. Asst
		Mushroom unit	45 sq.m	SMS HS, Prog. Asst
		Composite Fish Culture unit	3 unit (360sq.m)	SMS AS
		Azolla unit	8 sq.m	SMS AS
		Poultry chick brooding unit	160 sq.m	SMS AS , Farm Manager
		Calf rearing unit	5	SMS AS , Farm Manager
		Poultry hatchery	120 and 240 egg capacity	SMS AS, Farm Manager,
		Bee Keeping Unit	2 Hives	SMS PP, Farm Manager,
		Hydroponic fodder unit	3 sq.m	SMS AS , Farm Manager
		Roof garden/	10 sq.m	SMS(H.Sc)
	Lab Analytical services	Soil and water test lab	650 samples	SMS Ag, Prog. Asst
		Bio control lab	1500 kg of bio fertilizer	SMS PP, Prog. Asst
	Technology Week	Suitability of high yielding varieties for vegetables, high density planting for fruit crops, poly house cultivation, fodder production, backyard poultry, goat and sheep rearing, soil and water conservation, farm machineries and implements, soil sampling, value addition of fruit &	1 no's	ALL SMS

		vegetables		

13.2 Technological Products to be produced in KVK during 2020-21
(Seeds, planting materials, livestock, bio-inputs and other inputs)

Sl. No	Category	Name of the product	Quantity (Qtl.)/Number planned to be produced	Names of the team members involved
	Seeds	Paddy Seed - TPS -5	85 qtl	SMS Ag and FM
		Sorghum Co - 32	12 qtl	SMS Ag and FM
		Black gram - VBN (Bg) 8	10 qtl	SMS Ag and FM
		Green gram - Co-(Gg) 8	10 qtl	SMS Ag and FM
		Co (Fs) -29,31	2.5 qtl	SMS Ag and FM
		Daincha seeds	3qtl	SMS Ag and FM
		Azolla	2.4 qtl	SMS Ag and FM
	Planting materials	Mango, Guava graft plants	3000 numbers	SMS Hort and FM
		Subabul	0.1 qtl	FM
		Gliricidia	1000 numbers	FM
		Jasmine seedlings	1000 numbers	SMS Hort, and FM
		Ornamental cuttings	10000 numbers	SMS Hort, and FM
		Super Napier	10000 numbers	SMS Ag and FM
		CO(CN)-4	20000 numbers	SMS Ag and FM
	Bio-products	Azophos	3.0 qtl	SMS Ag & PP, Lab Technician
		Rhizophos	2.5 qtl	SMS Ag & PP, Lab Technician
		T.viridi	3.0 qtl	SMS PP, Lab Technician
		Pseudomonas fluorescence	6.5 qtl	SMS PP, Lab Technician
		Mushroom	1.5 qtl	SMS PP, Lab Technician
		Salt lick	1.2qtl	SMS AS, Lab tech.
	Organic Inputs	Vermicompost	50 qtl	SMS Ag & PP, Lab Technician
		Waste Decomposer	200 no’s	SMS Ag & PP, Lab Technician
		Panchakavya	1000 liter	SMS Ag & PP, F.M
		EM production	1500 lit	SMS Ag & PP, Lab Technician
		Fish oil	150 liter	SMS Ag & PP, Lab Technician
	Plant Protection	Insect repellent	500 liter	SMS PP, F.M
		Yellow & Blue sticky trap	100 no’s	SMS PP, Lab Technician

		Pheromone trap	150 no's	SMS PP, Lab Technician
		Beekeeping kit	50nos	SMS PP, Lab Technician
	Livestock strains	Improved chicks	4000 nos	FM, SMS Ag
	Home science	Vegetable mini seed kits	1500 nos	SMS(H.Sc, Hort, AE)
		Roof garden kits	200 nos	SMS(H.Sc, Hort, AE)
	Others	Banana special	300kg	SMS Hort & PP, Lab Technician
		Mineral mixture	150kg	SMS Ag & FM, Lab Technician

13.3. Technological Information

13.3.1. Technology backstopping to line departments

Sl. No	Category	Technological capsules / Number	Names of the team members involved
1	Agriculture	4	SMS Ag
2	Horticulture	4	SMS Horti
3	Plant Protection	2	SMS PP
4	Home science	2	SMS HS

13.3.2. Publications

S. No	Category of publication	Number	Names of the team members involved
1	Agriculture	5	SMS Ag & SMS PP
2	Horticulture	5	SMS Horti & SMS PP
3	Plant Protection	5	SMS PP SMS Ag & SMS Horti
4	Home science	5	SMS Home science

14. Additional (Collaborative) Activities Planned during 2020-21

Sl. No	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.)	Names of the team members involved
	NABARD	Promotion of Rural mart	2	4,00,000	SMS HS
	Coconut Development Board	FoCT training	1 Nos.	60000.00	SMS Plant protection SMS Hort
	TNRTP	Start up fund to start Agri business	2	20,00,000	SMS HS

	NFSM/MSDA	Promotion of Dhall mill unit for FPCL	Establishment of Dhall mill processing unit and marketing strategies	50,00,000	All H.Sc
	SFAC	Seed processing unit	Establishment of seed processing unit for FPCL	60,00,000	SMS HS, Ag

15. Revolving Fund

15.1. Status of Revolving fund

Opening balance as on 01.04.2019 (Rs. in Lakh)	Receipts during 2019 – 20 (Rs. in Lakh)	Expenditure incurred during 2019 – 20 (Rs. in Lakh)	Closing balance as on 31.03.2020 (Rs. in Lakh)
6.00	**36.30**	**31.16**	**11.14**

15.2. Plan of activities under Revolving Fund

S. No	Proposed activities	Expected output	Anticipated income (Rs.)	Names of the team members involved
1	Poultry chick rearing	3500	350000	FM
2	Salt lick	120 Kg	9000	Lab. Tech
3	Calf rearing	5 numbers	150000	FM
5	Paid training programmes	72	18000	All SMS
6	Project report preparation	25 farmers	5000	SS&H i/c
7	Fodder seed sales under PPP	5 qtl	50000	FM
	Sub Total – A		**582000**	
8	Nutrimix production under PPP mode	4000 kg	264000	SMS (HS) & F.M
9	Vegetable seed kit pack	1000 No's	10000	SMS (HS) & F.M
10	Roof garden kit sales	200 kits	5000	SMS (HS) & F.M
11	Mushroom production	100kg	58860	SMS (H.S) & Lab. Tech
12	Nutrimix production under PPP mode	4000 kg	264000	SMS (HS) & F.M
	Sub Total – B		**601860**	
13	Trichodermo Viridi	300 Kg	24000	SMS Ag & PP, Lab. Tech

14	Pseudomonas fluorescence	650 kg	78000	SMS Ag & PP, Lab. Tech
15	Azophos	300 kg	24000	SMS Ag & PP, Lab. Tech
16	Rhizophos	250 kg	20000	SMS Ag & PP, Lab. Tech
18	EM production	1500 lit	225000	SMS Ag & PP, Lab. Tech
19	Insect repellent	600 litre	39000	SMS Ag & PP, F.M
20	Yellow & Blue sticky trap	150 no	9750	SMS PP, Lab Technician
21	Pheromone trap	150 no	7500	SMS PP, Lab. Tech
22	Beekeeping kit	25	18000	SMS PP, Lab. Tech
23	Paid training programmes	40 persons	13500	SMS (PP) & Lab. Tech
	Sub Total – C		**458750**	
24	Fruit Crops seedling production under PPP mode	5000 no's	185000	SMS (Hort) & F.M
24	Vegetables & greens	0.5ac	30000	SMS (Hort) & F.M
25	Forest Saplings	2000nos	20000	SMS (Hort) & F.M
26	Paid training programmes	50	7500	SMS (Hort) & F.M
27	Mango and Sapota production	500 kg	10000	SMS (Hort) & F.M
	Sub Total – D		**252500**	
28	Paddy Seed Production TPS -5	85 qtl	119000	SMS (Ag) & F.M
29	Sorghum seed production Co-32	6qtl	42000	SMS (Ag) & F.M
30	Black gram seed production VBN -8	9 qtl	72000	SMS (Ag) & F.M
31	Panchakavya	1000 liter	85000	SMS Ag & F.M
33	Fish oil	150 liter	15000	SMS Ag & PP, Lab.Tech
34	Coconut Production	500 kg	15000	SMS (Ag) & F.M
35	Coconut seedling production	1000	40000	SMS (Ag) & F.M
36	Daincha Seed Production	3 qtl	12000	SMS (Ag) & F.M
37	Fodder Seed Production - Co (FS) 29 & 31	6.0 qtl	100000	SMS (Ag) & F.M
38	Black gram and Green gram Seed Production under PPP mode	20 qtl	60000	SMS (Ag) & F.M
39	Vermicompost	50 qtl	50000	SMS Ag & Lab. Tech

40	Waste Decomposer	200 no's	10000	SMS Ag & PP, Lab. Tech
41	Soil and water testing	650	97500	Lab. Tech & SMS (Ag)
	Sub Total – E		**717500**	
43	Book - Organic input preparation manual	1000 no's	150000	SMS Ag, PP & FM
45	Paid training	72	18000	SMS Ag
	Sub Total – F		**168000**	
	Grand Total (A to F)		**2780610**	

16 Activities of soil, water and plant testing laboratory during 2020-21

S. No.	Type	Through	No. of samples to be analyzed	Names of the team members involved
1	Soil	Min soil lab	500	SMS Agronomy & Lab Technician
		Traditional SWT lab	0	-do-
		AAS	0	-do-
2	Water		100	SMS Agronomy & Lab Technician
3	Plant		50	-do-

17. Plan of activity for Institutional Farm

S.No.	Activity	Area (ha)	Names of the team members involved
1	Production and supply of paddy seeds	1.0	SMS Agronomy, Farm Manager
2	Production and supply of blackgram seeds	1.0	
3	Production and supply of Fodder & Fodder Seed	2.4	SMS Agronomy, Farm Manager
4	Production and supply of quality fruit plants	2.0	SMS Horticulture, Farm Manager
7	Production and sale of fruits for revolving fund	0.4	SMS Horticulture, SMS Plant Protection Farm Manager

18. Demonstration units in KVK premises

S. No.	Name of Demo unit	Capacity for production (specify units)	Names of the team members involved
1	Vermicompost unit	50 qtl	SMS (Ag) & F.M
2	Mushroom unit	100 kg	SMS (H.S) & Lab. Tech
3	Hydroponics fodder production	3240 kg	SMS (Ag) & F.M
4	Fish rearing in farm pond	250 kg	SMS (Ag) & F.M
5	Roof garden/Home garden	182 kg	SMS (HS) & F.M
6	Azolla unit	2.4 qtl	SMS (Ag) & F.M
7	Poultry chick brooding unit	4000 no's	SMS (AS) & F.M
8	Calf rearing unit	30 no's	SMS (AS) & F.M
9	Poultry hatchery	3500 no's	SMS (AS) & F.M
10	Bee Keeping Unit	5kg /Year/Hive	SMS (PP) & F.M

19. E-linkage activities status / proposed during 2020-21

Activity	Particulars	No. of farmers in database/ involved in activity/ downloads/ users etc
Website	Link : www.scadkvk.org	40216
Mobile App	Name and link : -	-
ICT initiative	-	-
KVK portal (update status)	Infrastructure details & photos uploaded (no):14 Events uploaded : 97 News items submitted : 10	-
KVK mobile App of ICAR	Downloaded and used by scientists (no.)	8
Other mobile Apps in use by KVK	Uzhavan, Nithra, Pasumai Vivasayam	4 Technical experts
mKisan of DAC & FW	Messages to the district database farmers twice in a month.	22753
Social media		

a) Whatsapp groups	No. of groups/KVK: 17	4979
b) Face book	Link : https://www.facebook.com/ScadKvk/	357
c) Twitter	Handle name:-	-
Membership / participation in online digital platforms for services/ marketing etc.	-	-
KVK Blogs etc.	-	-
Collaboration with public/ private firms for audio/ video conferencing etc	Agency : Reliance foundation MoU (Yes/No): No. No. of programs done: 5	126 farmers from Thoothukudi districts.
Any other (specify)	-	-

20. Farmer's Field School planned

S. No	Thematic area	Title of the FFS	No. of members in FFS group	Budget proposed in Rs. In lakhs
1.	Nutrition	Nutrition Sensitive Agriculture through Promotion of Nutri Smart Village	25	0.30

Details of FFS:

Prioritized problem:	• Low per capita consumption of vegetables and greens • Incidence of micro nutrient deficiency among women and children. • Lack of awareness on Nutritious diet • Lack of coordination and linkages between Agri and Nutrition
Village identified	Aniyabaranallur
Technologies to be taught	• Establishment of Linkages between Agrl, Health and Nutrition for different stake holders

	• Agri farming system – Nutri Herbal garden • Agri nutri education • Agri nutri capacity building & WSHG s based nutri forum for social learning • Local institutional convergence
Number of farmers to be enrolled	25

S.No	Session
1	Pre assessment of nutritional status of households through Anthropometric methods and secondary data's from local anganwadi
2	Diet survey of smart village through informal meeting to know about current intake
3	Awareness Training on nutrition education to WSHG Members covering pregnant, lactating mothers and preschool mothers
4	Establishment of linkages between different stake holders (local agri officials, anganwadi teachers, local VHN, WSHG members, formal and informal leaders etc)
5	Training and demonstration on importance of low cost nutritious diet with the help of locally available nutritious food stuffs.
6	Demonstration of high efficiency fortified diet through enrichment of existing food (by adding greens, millet, sprouted pulses, fermented food etc in daily diet)
7	Promotion and access to nutri rich organic and locally available seasonal food through crop plan for nutritional security
8	Training and demonstration on importance of Composting techniques, Bio fertilizers and Bio pesticides
9	Importance and maintenance of Immune boosting herbal and nutrition garden

10	Establishment of Nutrition and herbal garden in the community, anganwadi, schools and in Households
11	End line diet survey and Impact study
12	Field Day

Budget of FFS		
S. No	**Details**	**Amount**
1	Base line survey on diet pattern, Anthropometric measurements and clinical examination, (Testing charges and consultation fees todoctor)	5000
2	Printing materials on Nutrition education	5000
3	Establishment of Nutrition garden (seed kit, bio fertilizer and bio pesticide)	10000
4	Awareness creation through Training, demonstration etc.,	4500
5	Resource person Honorarium	1800
6	Miscellaneous expenses for logistics support and documentation charges support , Impact assessment study etc.,	3700
	TOTAL	**30000**

21. Details of Innovative Farmers network established

Sl. No	**Particulars**	**Details**
25.1	Are you planning for conducing Farm Innovators meet in your district?	Yes
25.2	If Yes likely month of the meet	October 2020
25.3	Brief action plan in this regard	A meeting will be convened for the extension officials and NGO representatives regarding farm innovation and the potential farm innovators will be identified during the months of July to Sep. The short listed farm innovators

		will be visited by the KVK scientist and their farm innovation will be recorded during the month of Oct to Dec. Then one farm innovators meeting will be organized at the district level at KVK to spread the awareness about the innovations. Then their innovation will be fine-tuned with the help of National Innovation Fund to make it as a technology and commercially saleable.

22. Budget - Details of budget utilization (2019-20) up to 31 March 2020 (Rs.)

S. No	Particulars	Sanctioned Grant for 2019-20	Released for 2019-20	Expenditure for the period from 1-4-2019 to 31-3-2020
A	**RECURRING**			
1	**Pay & Allowances**	1,18,70,000	118514236	1,13,61,564
2	**Travelling Allowances**	1,30,000		1,24,901
	a) Field activities & programmes			
	b) Training programmes			
3	Contingencies			
A	Office Contingencies	5,00,000		4,97,098
B	Technical Programmes including TSP/ SCSP	680000		669961
	Total of Contingencies	1180000		
	Sub Total of Recurring Items (1+2+3)	**13180000**		
4	**NON-RECURRING CONTINGENCIES:**			
	Works			0
	Furniture& Equipment			0
	Vehicle- (Tractor & four Wheeler)	1600000		1600000
	TSP (creation of physical assets)			0
	SCSP Component (Creation of Physical assets)	142000		142000
	Sub Total of non-recurring Items (4)			
5	**GRAND TOTAL**	**14922000**		**14395524**

23. Details of Budget Estimate (2020-21) based on proposed action plan

S. No	Particulars	Budget Estimate for 2020-21
A	**RECURRING ITEMS**	
1	**Pay & Allowances**	1,23,45,000
2	**Travelling Allowances**	1,30,000
a	Field activities & programmes	
b	Training programmes	
3	**Contingencies**	
	Office Contingencies	
a	Stationery, telephone, stamps and other expenditure on office running	4,50,000
b	POL, repair of vehicles, tractor and equipment including hiring of vehicle	
4	**Technical Programmes**	8,05,000
a	Rs.150/- per person per day towards food and refreshments for KVK training programmes for farmers/extension personnel	
b	Teaching materials for training and demonstrations	
c	Training of extension functionaries	
d	Publications of extension literature for farmers and extension functionaries	
e	Honorarium for trainers	
f	On Farm Testing (Problem Oriented)	
g	Front Line Demonstration on major crops including oilseeds & pulses, fodder crops, animal husbandry, fisheries, etc.,	
h	Kissn Meals /Farmers Fair (at KVK farm)	
i	Library (Purchase of newspaper, journals, etc.,)	
j	Maintenance of farm	
k	Value chain management of FPO/Integrated Farming System (IFS)/Farmers Field School(FFS)	
l	Soil Health Card (SHC)	
m	Wesite/mobile app etc	
	Total of Contingencies	**12,55,000**
	Total of Recurring Items	**1,37,30,000**

S. No	Particulars	Budget Estimate for 2020-21
B	**NON-RECURRING ITEMS:**	
a	Works	
b	Vehicle (Jeep/Tractor/2 Wheller)	
c	Furniture	
d	TSP (creation of physical assets)	
e	SCSP Component (Creation of Physical assets)	1,50,000
	Total of Non-Recurring Items	**1,50,000**
	GRAND TOTAL (A+B)	**1,38,80,000**