(For Official use only)

ACHARYA N G RANGA AGRICULTURAL UNIVERSITY

INDIAN COUNCIL OF AGRICULTURAL RESEARCH –ATARI, ZONE-X

ANGRAU

भाकृअनुप
ICAR

A BRIEF REPORT ON THE ACTIVITIES OF KVK, KONDEMPUDI

KRISHI VIGYAN KENDRA,
Kondempudi, Butchayyapeta (Mandal)
Anakapalli, Dt. Pin- 531026

Address of KVK with Phone, Fax and e-mail, Website :

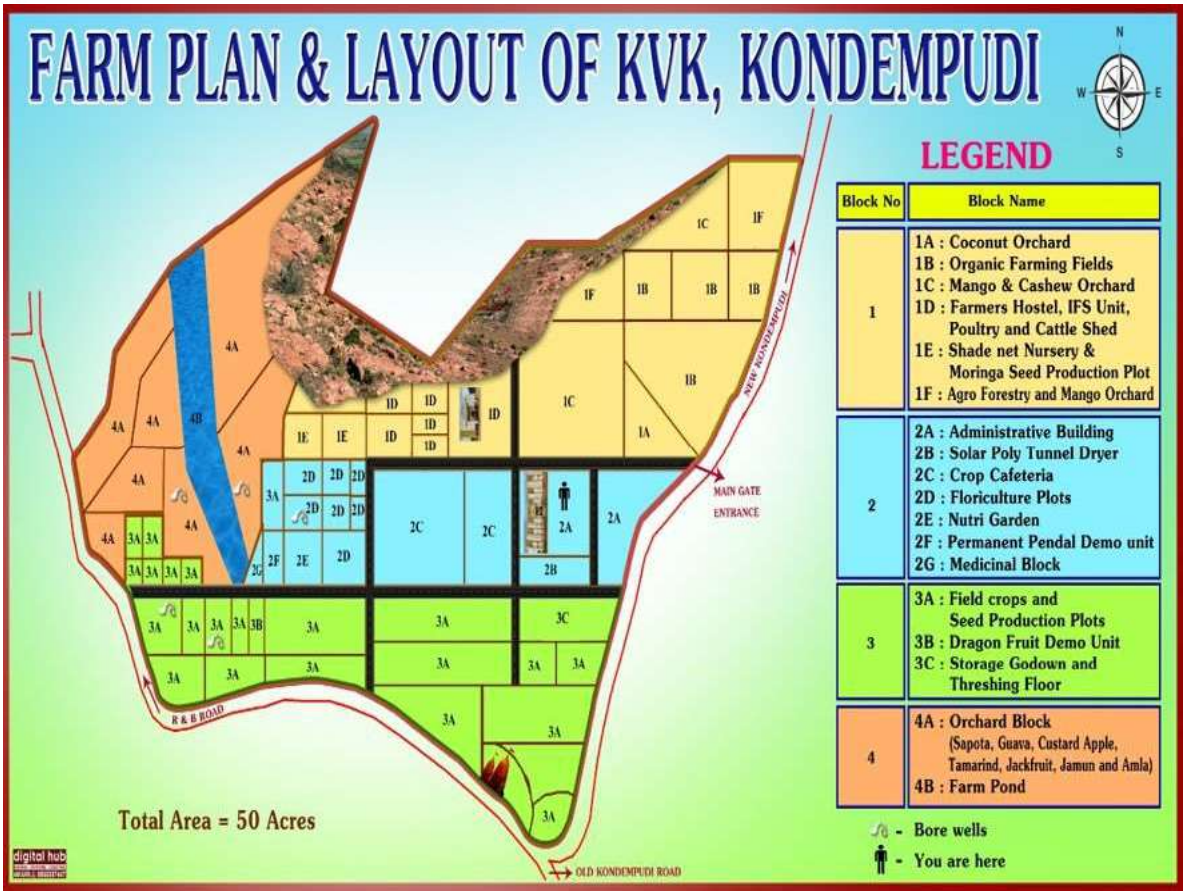
Name and address of KVK with Phone, Fax and e-mail	**Krishi Vigyan Kendra, Kondempudi village, Buchayyapeta Mandal, Pottidorapalem (Post), Anakapalli Dist. AP-531026** Phone No: 9989623984 **E-mail: kvk.kondempudi@angrau.ac.in**
Name and address of host organization with phone No. and email	ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY Lam, Guntur-522034 A.P. Phone No. **8008943336** **E- mail: registrarangrau@gmail.com**
Year of sanction	**19/12/2016**
Website of the KVK and date of last update	**www.kvkkondempudi.com**

Mandate and Activities

- On-farm testing to assess the location specificity of agricultural technologies under various farming systems.
- Frontline demonstrations to establish production potential of technologies on the farmers' fields.
- Capacity development of farmers and extension personnel to update their knowledge and skills on modern agricultural technologies.
- To work as Knowledge and Resource Centre of agricultural technologies for supporting initiatives of public, private and voluntary sector in improving the agricultural economy of the district.
- Provide farm advisories using ICT and other media means on varied subjects of interest to farmers
- In addition, KVKs produce quality technological products (seed, planting material, bio-agents, livestock) and make it available to farmers, organize frontline extension activities, identify and document selected farm innovations and converge with ongoing schemes and programs within the mandate of KVK.

JURISDICTION OF KVK, Kondempudi
Anakapalle, Visakhapatnam, Alluri Sitha Rama Raju

 అనకాపల్లి జిల్లా	6. అనకాపల్లి జిల్లా జిల్లా కేంద్రం: అనకాపల్లి నియోజక వర్గాలు: 7 (పాయకరావు పేట, నర్సీపట్నం, చోడవరం,మాడుగుల,అనకాపల్లి, యలమంచిలి, పిందుర్తి) రెవెన్యూ డివిజన్లు: అనకాపల్లి(12), నర్సీపట్నం(12) మొత్తం మండలాలు: 24 వైశాల్యం: 4,292 చ.కి.మీ. జనాభా: 17.270 లక్షలు	(8 Mandals) Buchayyapet, Ravikamatam, Chodavaram, Cheedikada, V. Madugula, K. Kotapadu, Devarapalle and Sabbavram
 విశాఖపట్నం జిల్లా	5. విశాఖపట్నం జిల్లా జిల్లా కేంద్రం: విశాఖపట్నం నియోజక వర్గాలు: 6 (భీమిలి, విశాఖ తూర్పు, ఉత్తర, పశ్చిమ, దక్షిణ, గాజువాక) రెవెన్యూ డివిజన్లు: భీమునిపట్నం (5), విశాఖపట్నం (6) మొత్తం మండలాలు: 11 వైశాల్యం: 1048 చ.కి.మీ. జనాభా: 19.595 లక్షలు	(5 Mandals) Pendurthi, Anandapuram, Bheemili, Padmanabham and Vizag (R)
 అల్లూరి సీతారామరాజు జిల్లా	4. అల్లూరి సీతారామరాజు జిల్లా జిల్లా కేంద్రం: పాడేరు నియోజక వర్గాలు: 3 (పాడేరు, అరకు, రంపచోడవరం) రెవెన్యూ డివిజన్లు: పాడేరు(11), రంపచోడవరం (11) మొత్తం మండలాలు: 22 వైశాల్యం: 12,251 చ.కి.మీ. జనాభా: 9.54 లక్షలు	(7 Mandals) Paderu, Hukumpet, Munchingput, Pedabayalu, Dumbriguda, Araku and Anantagiri


FARM PLAN & LAYOUT OF KVK, KONDEMPUDI
N
W
E
S
LEGEND
Block No
Block Name
1
1A : Coconut Orchard
1B : Organic Farming Fields
1C : Mango & Cashew Orchard
1D : Farmers Hostel, IFS Unit, Poultry and Cattle Shed
1E : Shade net Nursery & Moringa Seed Production Plot
1F : Agro Forestry and Mango Orchard
2
2A : Administrative Building
2B : Solar Poly Tunnel Dryer
2C : Crop Cafeteria
2D : Floriculture Plots
2E : Nutri Garden
2F : Permanent Pendal Demo unit
2G : Medicinal Block
3
3A : Field crops and Seed Production Plots
3B : Dragon Fruit Demo Unit
3C : Storage Godown and Threshing Floor
4
4A : Orchard Block (Sapota, Guava, Custard Apple, Tamarind, Jackfruit, Jamun and Amla)
4B : Farm Pond
- Bore wells
- You are here
MAIN GATE ENTRANCE
NEW KONDEMPUDI
R & B ROAD
OLD KONDEMPUDI ROAD
Total Area = 50 Acres
digital hub

1. KVK Staff Position:

S. No	Cadre	Sanctioned posts	Vacant	Name of the scientist positioned	Remarks
A.	**Scientific staff**				
1.	Programme Coordinator	1	--	Dr. N. Raja kumar	Regular
2.	SMS (Horticulture)	1	--	Dr. N. Sathi babu	Regular
3.	SMS (Crop Production)	1	--	Dr. A. Sowjanya	Temporary
4.	SMS (Plant Protection)	1			Temporary
5.	SMS (Home Science)	1			Temporary
6.	SMS (Extension)	1	--	Dr. N. Kishor Kumar	Temporary
7.	SMS (Engineering)	1	--	Er. P. Babu	Temporary
8.	Prog. Asst. (Computer)	1	--	Sri. P. Rajesh	Temporary
9.	Progr. Asst. (Technical)	1	--	Kum. Y. Sravanthi	Temporary
10.	Programme Asst. (F.M.)	1	--	Sri. P.V.S Ramunaidu	Temporary
B.	**Supporting staff**				
1.	Superintendent	1	--	Sri. V. Mohanrao	Regular
2.	JACT	1	--	Sri. Ch. Jogarao	Regular
3.	Driver cum Mechanic	1	--	Sri. Y. Ramarao	Out sourcing.
4.	Driver cum Mechanic	1	--	Sri. A. Nageswara rao	Out sourcing.
5.	Office subordinate-1	1		Sri. K. Giri Prasad	Out sourcing.
6.	Office subordinate-2	1		Sri. K. Ramesh	Out sourcing.

2. Mandals under KVK operational area

S. No	Plain mandals	No. of Villages	S. No	Tribal mandals	No. of Villages
1	Buchayyapeta	38	1	Paderu	198
2	Ravikamatam	35	2	Hukumpet	168
3	Chodavaram	31	3	Munchingput	304
4	Cheedikada	30	4	Pedabayalu	270
5	V. Madugula	49	5	Dumbriguda	87
6	K. Kotapadu	32	6	Araku	162
7	Devarapalle	36	7	Anantagiri	274
8	Sabbavram	33		**Adopted Villages**	
9	Pendurthi	22	1	E. Kottavur	Paderu
10	Anandapuram	32	2	Santagandu	
11	Bheemili	19	3	Rayadedda	
12	Padmanabham	24	4	Killoguda	Araku
13	Vizag (R)	4	5	Basubeda	
	Total	**385**		**Total**	**1463**

3. Operational area/ Cluster Village Details

District/ Taluk/ Block	Name of cluster villages	Major crops & Enterprises	Major problems identifies in each crop/enterprise	Proposed type of interventions (OFT/ FLD/ Training/ Field day/ Method demonstrations/ Awareness camp)
Anakapalle, Visakhapatnam and Alluri Sitarama Raju districts	Tunivalasa (Devarapalle Mandal)	Paddy, Sugarcane, Vegerables, Sesame, Groundnut, Cashew, Dairy	**Paddy:** Use of over aged seedlings, Low plant density, No seed treatment, No alleways formation, Sheath rot, Leaf folder, Grain shedding, Blast	• Stress on usage of green manures (Dhaincha in saline soils) preceding rice to improve soil productivity. • Introduction of salt tolerant varieties like Swarna, • Management of over aged seedlings. • INM and IPM application.
			Sugarcane: Rattoon crop management, Shoot borrer management, Sett treatment, Lack of INM and use of over aged setts.	• Set treatment before planting for pest and disease management. • Use of Trichocards for the control of Early shoot borer • Intercropping greengram /blackgram in well drained normal soils.
			Groundnut: Lack of seed treatment and Fertilizer management, Use of old varieties, Non adoption of row planting.	• Adoption of recommended seed rate and spacing. • Application of recommended dose of phosphorus and gypsum. • Low cost pest management

				strategies and use of Neem oil
			Sesame: Use of old varieties, Non adoption of row planting, No fertilizer management.	• Stress on improved varieties like, YLM-11, YLM-66 • Adoption of improved management practices. • Timely sowings and need based plant protection
	Kanada (Ravikamatam Mandal)	Sugarcane, Redgram, Sesame Greengram, Vegetables, Mango, Dairy	**Millets:** Use of old varieties, Non adoption of row planting, No pest management	Popularizing improved varieties, ICM practices.
	Totakurapalem	Paddy, Pulses, Vegetables Dairy,	**Vegetables:** Use of old varieties.	Popularizing improved varieties, ICM practices.
	Neelamputtu	Paddy, Ragi, Turmeric, Ginger, Backyard Poultry	**Niger:** Use of old varieties, Cuscuta problem	Introduction improved varieties. ICM in niger, Cuscuta management.
	Santabayalu	Paddy, Ragi, Turmeric, Ginger, Rajmash, Niger, Backyard Poultry	**Rajmash:** No improved package	Popularizing improved varieties, ICM practices, awareness on seed production

4. Action Plan for OFT, FLD and FLD'S DURING 2023-24

Sl.No.	Title	Season	No.of Locations
A. Crop Production			
OFT's			
1	Assessment of newly released groundnut varieties during *kharif* (Contd..)	Kharif	5
2	Assessment of new Rajmash varieties during *late kharif* (Contd..)	Kharif	5
3	Assessment of profitable cropping system in Visakhapatnam district (Contd.,)	Kharif	5
4	Identification of suitable alternative paddy variety for RGL-2537 in Visakhapatnam district (Contd.)	Kharif	5
5.	Identification of suitable alternative paddy varieties to paddy hybrids in Paderu division of Alluri Seetarama Raju District (New)	Kharif	5
6	Assessment of Drip fertigation in Sugarcane	Rabi	3
7	Assessment of Intercropping in sugarcane	Rabi	5
FLD's			
1	Demonstration on sugarcane new variety 2009A107	Kharif	10
2	Demonstration on direct dry sowing of paddy by using seed drill	Kharif	10
3	Performance of newly released finger millet varieties during *Kharif* in ASR district and *rabi* in Anakapalle district	Kharif	10
4	Demonstration on performance of guli ragi in Tribal area of Alluri Seeta Rama Raju districts	Kharif	10
5	Use of liquid bio fertilizers in Paddy in tribal area of Visakhapatnam district	Kharif	10
6	Organic Farming in Paddy	Kharif	10
7	Organic Farming in Sugarcane	Kharif	10
B. Crop Protection			
1	Assessment of Integrated Pest Management Module in Brinjal	Kharif	5
2	Assessment of organic products for pest management in tomato/bitter gourd	Kharif	5
3	Leaf spot and Rhizome rot management in organically grown Turmeric	Kharif	5
4	Management of Diamond Back Moth and sucking pests in Cauliflower	Rabi	5
5	Management of Macrophomina root rot in Sesame	Rabi	5
FLD's			
1	Demonstration of Integrated Pest and Disease Management in Paddy	Kharif	10
2	Demonstration on management of soil borne diseases in Groundnut	Kharif	10
3	Demonstration on management of thrips and other sucking pests in Chilli	Kharif	10
4	Demonstration of Integrated Pest Management of Fall Armyworm (FAW) in Maize	Rabi	10
5	Demonstration of Tea mosquito bug and stem borer management through ICM in Cashew	Rabi	10
Horticulture			
OFT's			
1	Assessment of high yielding Marigold (Arka Abhi and Arka Bhanu) hybrids in Visakhapatnam district **(continued)**	Kharif	5
2	Assessment of Gladiolus varieties Arka Amar and Arka Aayush	Kharif	5
FLD's			

1	Organic cultivation of turmeric	Kharif	10
2	Organic cultivation of ginger	Kharif	10
3	Demonstration on ridge gourd var Arka Prasan	Kharif	10
4	Integrated Crop Management in Coffee	Kharif	10
5	Integrated Crop Management in dragonfruit	Kharif	10
6	Demonstration on Banana Grand nine (G-9) Variety	Kharif	10
7	Integrated Crop Management in Cashew	Rabi	10
Agricultural Engineering			
OFT's			
1	Evaluation of planting methods of paddy cultivation	Kharif	5
2	Assessment of Usage of organic mulch as soil conservation technique in Brinjal crop	Rabi	5
FLD's			
1	Demonstration of line sowing with seed drill in groundnut	Rabi	10
2	Demonstration of cycle weeder in guliragi	Rabi	10
3	Demonstration of tillage practices on growth and yield of groundnut	Rabi	10
4	Demonstration of intercultivation with tractor drawn implements in sugarcane crop	Rabi	10
Home Science			
OFT's			
1	Evaluation of value-added products with jack fruit seed powder	Kharif	5
2	Assessment of triple layer hermetic seed storage bags	Kharif	5
3	Evaluation of tomato varugu and tomato powder through solar dryer	Kharif	5
4	Assessment of nutritionally enriched products by dehydrated Moringa leaf powder.	Kharif	5
FLD's			
1	Demonstration of seedling planter for transplantation of vegetable crops (Chilli, Tomato)	Kharif	10
2	Demonstration of inter cultivation with cycle weeder in vegetable crops	Kharif	10
3	Introduction of knitted hand gloves to the vegetable crops	Kharif	10
4	Demonstration frit covers and harvesters on frit quality of mango.	Rabi	10
Extension Studies			
1	Training needs assessment of VAAs& VHAs of RBKs of Visakhapatnam district of Andhra Pradesh.	---	Sample Size :120
2	Impact of technology interventions of KVK in adopted villages of Visakhapatnam district of Andhra Pradesh	---	Sample Size :60
3	Impact of CFLDs on Oilseeds (Groundnut & Sesame) of Visakhapatnam district of Andhra Pradesh	---	Sample Size :60
CFLD (Pulses)			
1	ICM in Black gram	Rabi	50
2	ICM In Green gram	Rabi	50
CFLD (Oil Seeds)			
1	ICM In Groundnut	Rabi	50
2	ICM in Sesame	Rabi	50
3	ICM in Niger	Rabi	50
4	ICM in Sunflower	Rabi	25

5. Details of seed production at KVK and Outsourcing (2022-23)

S.No	Crop	Variety	Production
01	Paddy	RGL- 2537	156
02	Paddy	MTU- 1224	100
03	Finger millet	Indravati	04
04	Sesame	YLM-66	12

Photos of Field visits and Monitoring of OFTs, FLDs and CFLDs

Visit to paddy fields of Mathysavanipalem of Ravikamatham mandal

Visit to green gram fields of Pottidorapalem of Butchayyapeta mandal

Visit to Sugarcane crop at V.Madugula as a part of OFT

Visit to Maize field at Eedulaputtu of Pedabayalu as a part of FLD


Visited to Tribal areas to monitor the vegetable crops

Raising of Ginger (var.Nadia) and Turmeric (Roma) single node seedlings through protray technology in tribal areas of Visakhapatnam district


Introduction of High yielding Marigold Hybrids (Arka Abhi and Arka Bhanu) in Visakhapatnam district


Management of rhizome rot in Ginger and Turmeric

Assessment of High yielding Tomato hybrids (Arka Abhed and Arka Samrat) in Visakhapatnam district

Assessment of Inter-cropping in sugarcane

ICM practices in Niger


Guli Ragi cultivation for finger millet farmers


ICM practices in Rajmash


Introduction of high yielding chilli - LCA 625



Assessment of newly released groundnut varieties during *kharif*


Assessment of new Rajmash varieties during *late kharif*


Assessment of profitable cropping system in Visakhapatnam district


Assessment of Drip fertigation in Sugarcane


Identification of suitable alternative paddy variety for RGL-2537 in Visakhapatnam district


Identification of suitable alternative paddy varieties to paddy hybrids in Paderu division of Alluri Seetarama Raju District

Plant Protection:

Assessment of Integrated Pest Management Module in Brinjal

Assessment of organic products for pest management in tomato

Leaf spot and Rhizome rot management in organically grown Turmeric


Management of Diamond Back Moth and sucking pests in Cauliflower

Management of Macrophomina root rot in Sesame

Horticulture:


Assessment of Chilli variety - LCA -625 in Visakhapatnam district


Assessment of Gladiolus varieties Arka Amar and Arka Aayush in Visakhapatnam district

Assessment of of high yielding Marigold (Arka Abhi and Arka Bhanu) hybrid in Visakhapatnam district

Home Science:

Evaluation of tomato varugu and tomato powder through solar dryer

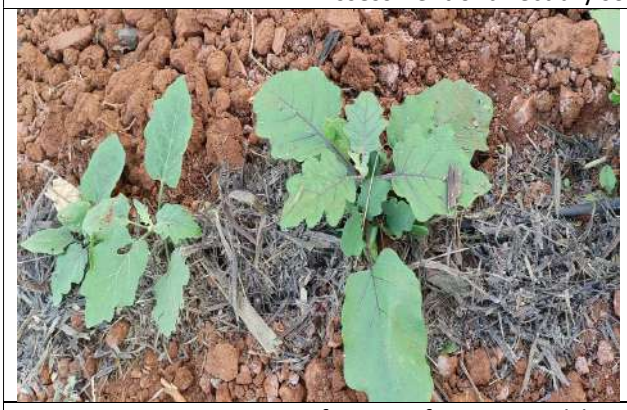
Assessment of triple layer hermetic seed storage bags

Evaluation of value-added products with jack fruit seed powder (new)

Assessment of nutritionally enriched products by dehydrated Moringa leaf powder.

Ag. Engg:

Assessment of direct dry sowing of paddy with seed drill



Assessment of Usage of organic mulch as soil conservation technique in Brinjal crop

FLD'S
Crop Production:


Demonstration on sugarcane new variety 2009A107


Demonstration on direct dry sowing of paddy by using seed drill (Concluded)


Demonstration on performance of guli ragi in Tribal area of Alluri Seeta Rama Raju districts (Concluded)


Use of liquid bio fertilizers in Paddy in tribal area of Visakhapatnam district (Concluded)


Organic Farming in Paddy


Organic Farming in Sugarcane

Plant Protection:


Demonstration of Integrated Pest and Disease Management in Paddy


Demonstration of Integrated Pest Management of Fall Armyworm (FAW) in Maize


Demonstration of management of soil borne diseases in Groundnut


Demonstration of management of thrips and other sucking pests in Chilli

Horticulture:


Integrated Crop Management in Cashew


Integrated Crop Management in Coffee


Organic cultivation of Ginger


Organic cultivation of Turmeric


Demonstration on Ridge gourd Arka Prasan variety


Demonstration on Grand nine (G-9) variety.

Home Science:


Demonstration of seedling planter for transplantation of vegetable crops (Chilli, Tomato)


Demonstration of inter cultivation with cycle weeder in vegetable crops


Introduction of knitted hand gloves to the vegetable crops

Ag. Engg:


Demonstration of line sowing with seed drill in groundnut


Demonstration of tillage practices on growth and yield of groundnut

Extension studies


Training needs assessment of VAAs& VHAs of RBKs of Visakhapatnam.dt of Andhra Pradesh.


Impact of technology interventions of KVK in adopted villages of Visakhapatnam district of Andhra Pradesh.

Cluster Front Line Demonstrations:


ICM practices in Black gram


ICM practices in Sunflower


ICM practices in Niger | ICM practices in Green gram


ICM practices in Groundnut

6. Status of Planting Material Production from 01.04.2022 to 31.03.2023

S.No	Crop	Variety	Total qty produced upto this month (No.s)
1	Papaya seedlings	Red lady-786	13806
2	Chilli seedlings	VNR-577	10055
		LCA-625	1000
3	Marigold seedlings	Yellow pride Yellow maxima Orange Ball	33642
4	Tomato	Arka Samrat	16570
		Arka Abhed	14775
		PHS-448	7980
		Tomato (Sahoo)	9440
		VNR-51	37629
		JK 8031	29536
6	Drumstick seedlings	PKM-1	5120
7	Dragon fruit dragon cuttings	Dragon fruit –White flesh	1100
8	Cashew grafts (BPP-8)	BPP-8	4435
	GRAND TOTAL		**185088**

Seedling Production at KVK, Kondempudi

7. Details of the Sponsored programmes Implemented during 2022-23

S.No	Name of the Programme/ Project	Funding Agency
1	CFLD-Oil seeds and Pulses	ICAR-ATARI
2	ICAR-ATARI-TSP	ICAR-ATARI
3	ICAR-NBAIR-TSP	ICAR-NBAIR
4	ICAR-IIHR-SC Sub Plan	ICAR-IIHR
5	ICAR-IIOR	ICAR-ATARI
6	CSISA	ICAR-ATARI

8. Activities undertaken to the Tribal Farmers under TSP during 2022-23

I	**Seed supplied (Q)**		
	Name of the crop / variety	**Quantity (Q)**	**No. of beneficiaries**
1	Paddy seed (MTU 1210, MTU 1224, MTU 1121)	3293 Kg	110
2	Ragi (Indravati)	150 Kg	75
3	Blackgram (GBG-1, TBG-104)	130 Kg	13
4	Groundnut (Kadiri Lepakshi)	700 Kg	25
5	Sunflower (Indus)	30 Kg	15
6	Rajma (Utakarsh, Jwala)	250 Kg	25
4	Sugarcane Seedlings (2009A107)	20000 No.	20
5	Gladiolus seed (Arka Amar and Arka Ayush)	3000 No.	10
6	China aster seed	30 Packs	10
7	Ridgegourd seed (Arka Prasan)	500 g	10
8	Marigold Seed (Arka Abhi, Orange Ball, Yellow Pride, Yellow Maxima)	22 Packs	22
9	Tomato (Sahoo)	4 Packs	04
10	Chilli (VNR 577)	3 Packs	03
11	Drumstik (PKM 1)	8 Packs	24
12	Papaya (Taiwan Red Lady 786)	4 Packs	30
13	Vegetable Seed kits (IIHR)	150 Kits	150
14	Vegetable Seed Packets for Kitchen Garden	2000 No.	2000
II	**Planting material supplied**		
	Name of the crop	**Number**	**No. of beneficiaries**
1	Marigold (Yellow Pride)	1600 No.	08
2	Tomato (Arka Abhed, Arka Samrat)	4000 No.	15
3	Brinjal (VNR 51, JK 8031)	6000 No.	30
4	Chilli (LCA 625)	2000 No.	20
5	Broccoli (Fantacy)	3000 No.	30
6	Drumstick (PKM 1)	600 No.	30
7	Papaya (Taiwan Red Lady 786)	300 No.	15
8	Dragon fruit (White flesh, Pink flesh)	300 No.	30
9	Banana Tissue culture plants (Gran Nain, Karpura Chakkerakely, Red banana)	2000 No.	100
10	Cashew Grafts (BPP 8)	430 No.	20

III	Bio products supplied	Quantity (Q)	No. of beneficiaries
1	Neem oil	12 L	24
2	*Pseudomonas fluorescens* WP	50 Kg	50
3	*Trichoderma viride* WP	100 Kg	100
4	Yellow Sticky Sheet (Small)	700 No.	35
5	Blue Sticky Sheet (Small)	350 No.	18
6	Funnel Trap (Pheromone Trap)	500 No.	50
7	Brinjal Shoot and Fruit Borer Lure	300 No.	30
8	Tomato Pinworm Lure	200 No.	20
9	American Bollworm Lure	100 No.	10
10	Tobacco Caterpillar Lure	100 No.	10
11	Rice Yellow Stem Borer Lure	100 No.	10
12	Maize Fall Armyworm lure	100 No.	10
13	Sugarcane Early Shoot Borer	100 No.	10
IV	**Soil, water, plant, manures samples analysed**		
	Nature of the sample	**Number**	**No of beneficiaries**
1	Soil	200	200
2	Water	0	0
3	Plant and manures	0	0
V	**Physical Assets / micro-enterprises established**		
	Nature of asset	**Number of units supplied / established**	**Number of beneficiaries**
1	Mini Rice Mill	1 No.	1 Group
2	Mini Processing equipment	1 No.	1 Group
3	Solar cum Electrical dryer	3 No.	03 Groups
4	Solar Power Panel	2 No.	02 Groups
5	Power Reaper	1 No.	01 Group
6	Sub soiler	1 No.	1 Group
7	Battery operated sprayers	10 No.	10 No.s
8	Rotovator	01 No	1 Group
9	Blade harrow	1 No.	1 Group
10	Bund former	1 No.	1 Group
11	Spring tyne cultivator	1 No.	1 Group
12	Two bottom MB Plough	1 No.	1 Group
13	Two bottom disc Plough	1 No.	1 Group
14	Ridger	1 No.	1 Group
15	Hand hoe	120 No.	120
16	Wheel hoe	50 No.	50
17	Hand rake	55 No.	55
18	Hand hoe blade	100 No.	100
19	Spike tooth rake	45 No.	45
20	Sickles	100 No.	50

TSP Activities Photos:

Distribution of Vegetable crates, Tarpulins and Dragon fruit planting Material to Tribal Farmers under TSP 2022-23

Distribution of wheel barrow and Vegetable seedlings to Tribal Farmers under TSP 2022-23

9. Activities undertaken to the SC Farmers under SCSP during 2022-23

I	Planting material supplied		
	Name of the crop	Number	No. of beneficiaries
1	Marigold (Yellow Pride)	5000 No.	250
2	Drumstick (PKM 1)	2000 No.	20
3	Papaya (Taiwan Red Lady 786)	600 No.	30
4	Dragon fruit (White flesh, Pink flesh)	300 No.	30
5	Cashew Grafts (BPP 8)	800 No.	100
II	**Nature of asset**		
1	Mini RiceMill	1 No.	01 Group
2	Mini Oil Mill	1 No.	01 Group
3	Mini Dhal Mill	1 No.	01 Group
4	Chaff cutters	3 No.	03 Groups
5	Battery operated sprayers	2 No.	02 Group
6	Pruning shears	25 No.	25 No
7	Tarpulins	15 No.	15 Groups
8	Vegetable crates	34 No.	34 No.
9	Vyvasaya Panchangas	75 No.	75 No.
10	Udhyana Panchangas	50 No.	50 No.


Distribution of Tarpulins, Storage bins and battery operated sprayers to SC Farmers under SC-SP 2022-23


Distribution of kadakanath chicks and Cashew grafts to SC Farmers under SC-SP- 2022-23

Demo units maintaining at KVK, Kondempudi:


Permanent Pendal system	Mulching demo unit

	
Dragon fruit demo unit	**Goatary**
	
Vegetable Nursery	**Cashew grafts nursery**
	
Poly Tunnel solar dryer	**Demo unit on Gladiolus**
	
Field crops demo	**Field crops demo**

	
Paddy Seed Production	**Ragi Seed Production**

11. Infrastructure and other requirements:

S.No	Required Infrastructure	Estimated Budget (Rs. in Lakhs)	Justification
1	KVK Compound wall /Barbed wire fencing	**50.00**	Restrict encroachments, trespassing and thefts
2	Farm Pond and check dam	**25.00**	To collect the excess runoff water from the hilly areas and also to develop the aquaculture
3	Internal Roads	**20.00**	For Movement in the farm
4	Farm implement shed	**7.5**	To place the farm equipment's
5	Agro processing Shed/ Building	**15.00**	To place Dhal Mill, Mini rice mill, Oil Mill and Mini Millet processing unit.

ICAR- NBAIR- TSP

Institutions involved:

1. ICAR-NBAIR, Bangaluru, Karnataka
2. ANGRAU, KVK, Kondempudi, Visakhapatnam Dt, Andhra Pradesh

As per the reference F.NBAIR/TSP/4-38/2020-21, Dated:19.09.2020 of the Director, ICAR-NBAIR, Bengaluru and Proc No. 19097EXTN/A2/2021,of the Director of Extension, ANGRAU allotted 4.0 Lakhs to KVK, Kondempudi, Butchayyapeta, Visakhapatnam under ANGRAU- ICAR-NBAIR, Bangaluru Collaborative TSP programme for the year 2020-21.

I. Capacity building program on organic farming using healthy planting material, bio-fertilizers, Bio-agents:

There are two Capacity building programs were conducted under ANGRAU- ICAR-NBAIR, Bangaluru Collaborative TSP programme for the year 2020-21. One at Killoguda Village of Dumbriguda (Mandal), Visakhapatnam on 26.03.2021 and another one is at Sagara Village of Dumbriguda mandal on 27.03.2021. There are 200 No. of farmers from Paderu, Dumbriguda, Araku, Pedabayalu and Anantagiri mandals are attended this programme.

Capacity building programme: 1
Venue: Killoguda, Dumbriguda Mandal
Date: 26.03.2021
No. of Farmers attended: 100

Capacity building programme:2
Venue: Sagara, Dumbriguda Mandal
Date: 27.03.2021
No. of Farmers attended: 100

Dr. M. Bharatalakshimi, Associate Director of Research, Regional Agricultural Research Station, Anakapalle chaired the programme and conducted the proceedings very smoothly. She briefed about the Visakhapatnam districts cropping scenario particularly the tribal mandals, and advised all the tribal farmers to follow the IPM practices by using bio agents and bio fertilizers. She gave awareness on organic certification, to consult the certification agencies and get the knowledge about the procedure as the tribal farmers are producing crops organically and selling in market with low price.

Then Dr. N. Raja Kumar, Programme Coordinator (i/c), KVK, Kondempudi explained about the activities of KVK, Kondempudi in tribal mandals of Visakhapatnam district. Krishi Vigyan Kendra, Kondempudi is working in 13 plain and 7 tribal mandals out of 43 mandals in the district. Mostly inhabited by tribal population. They adopt Podu (Shifting Cultivation) and cultivate Paddy, Vegetables and some minor millet apart from commercial crops like coffee, pepper, turmeric and other spices.

Dr. M. Nagesh, Principal Scientist & Head, Division of Genomics Resources, ICAR-NBAIR, Bengaluru, elaborated the importance of organic farming in the present agricultural situation in his speech. He also shared the involvement of ICAR- NBAIR, Bangalore in promotion of Organic farming through identification and mass multiplication of different beneficial insects and micro organisms in pest and disease management. He made awareness on formation of FPO's for organic produce and how to create good marketing facilities for the organically producing vegetables, turmeric, ragi, ginger, coffee, blackpepper. And also mentioned the value addition of millets, jackfruit and creation of website for the FPO group and get linked with the online markets, collaborative institutions like SAU's ICAR Institutes, ITDA etc. Also briefed about the ANGRAU- ICAR-NBAIR, Bangaluru Collaborative TSP programme for the year 2020-21.

Then Sri P. Demullu, Hon'ble member, BOM, ANGRAU also stressed the importance of Organic farming in the tribal mandals of Visakhapatnam district. Establishment of Custom Haring Centers (CHC's) in tribal areas to encourage the farmers towards farm mechanization. He also spoke on the marketing facilities for the organically produced commodities in tribal areas.

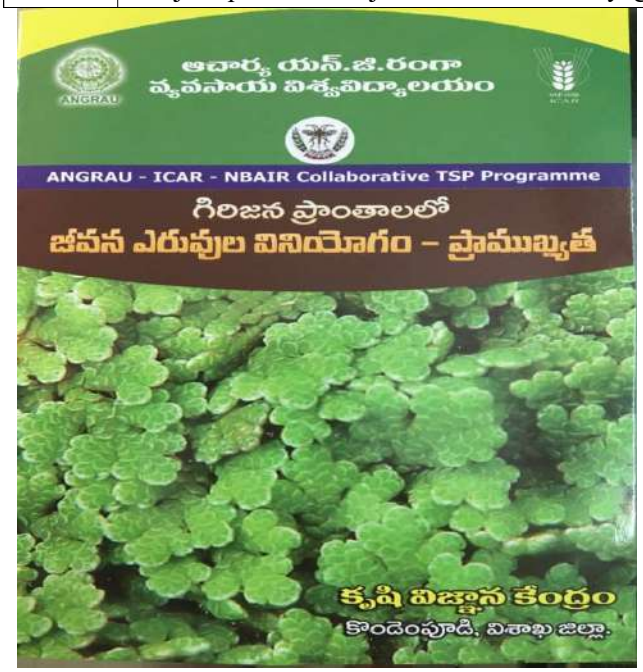
The Scientists of KVK, Kondempudi conducted demonstrations and explained to the farmers on use of different bio fertilizers and bio agents like Azatobacter, PSB, PGPR, Potashsol biofertilizer, Zincsol biofertilizer, *Trichoderma Viride*, *Pseudomonas flurescence* and Rhizobium. SMS (Crop Production) created awareness on use of bio fertilizers like Rhizobium in Rajmash, Azosirillum, PSB, KRB in Paddy, Ragi, Vegetables, Ginger and turmeric. SMS (Plant Protection) conducted demonstrations on use of bio agents for management of seed and soil borne diseases in ginger, turmeric, vegetables and blackpepper, and also mass multiplication of Trichoderma and Pseudomonas in FYM. Also explained the use of sticky traps and pheromone traps in pest management.

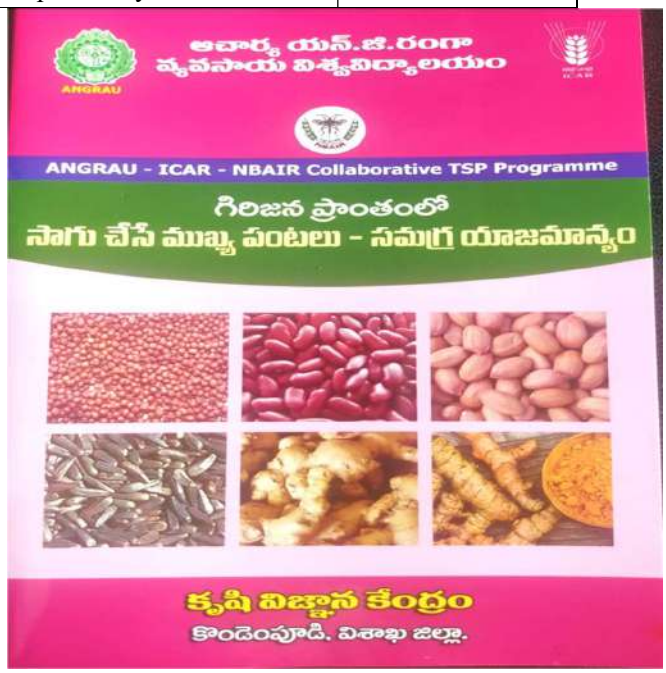
Then the SMS (Horticulture) explained the raising of Vegetable seedlings, Ginger and Turmeric through portrays, to reduce the seed rate especially in ginger, turmeric and also to get healthy planting material. SMS (Home Science) advised the tribal women farmers to go far value addition in ragi and turmeric for getting better market price. SMS (Extension) created awareness on the formation of FPO groups for better marketing facilities.

Dr. Y. Latha, Chief technical Officer, ICAR-NBAIR, Bengaluru, demonstrated the mass production *Trichogramme* Spp, Encarsia, Crysoperla, Rdevujid bugs etc and preparation of trichocards, bioagents like Beuvaria, Metarrhizium in laboratory conditions. She also explained about the use of these bio agents in field conditions. And they are very much interested to give hands on experience training to the educated tribal youth on the mass production predators and parasitoids at ICAR- NBAIR, Bangalore for establishing small scale mass production unit.

Then the delegates released the publication of multi colour booklets in telugu language made by the KVK, Scientists under the ANGRAU- ICAR-NBAIR, Bangaluru Collaborative TSP programme for the year 2020-21.

S.No	Name of the Publication	No. of copies
1	Girijana prantaalaloo saagu chese mukhya pantalu- samagra yajamanyam	500
2	Girijana prantaalaloo jeevana earuvula viniyogam- pramukhyata	500





Booklets published for the distribution among the tribal farmers

II. Inputs distributed:

Input Kits were distributed to 200 organic farming tribal farmers by the KVK, Konddempudi- ANGRAU- ICAR-NBAIR, Bangaluru. Each kit consists of

S. No.	Particulars	Quantity/ Farmer	No. of Farmers benifitted
Biofertilizers			
1	Azatobacter	0.5kg	200
2	PSB	0.5kg	200
3	KRB	0.5 Kg	200
Biocontrol agents			
4	T. viride	1.0 kg	200
5	P. fluorescens	1.0 Kg	200
Planting material			
6	Marigold	200 Nos	20
7	Tomato	500 Nos	20
8	Papaya	50 Nos	20
9	Brinjal	500 Nos	25
10	Moringa	30 Nos	25
11	Turmeric	40kg	20
12	Sugarcane	4000 Nos	5
Farm Implements			
12	Power Weeders	2 Nos	2 groups of 12 farmers each
13	Water lifting devices	2 Nos	2 groups of 12 farmers each
14	Pruning loppers	60 Nos	60 Nos
15	Battery sprayers	6 Nos	6 groups of 5 farmers each
16	Vegetable crates	50 Nos	50
Publications		2 Booklets	200

ANGRAU- KVK, Kondempudi- ICAR- NBAIR, Bangalore TSP, Killoguda

Success Stories Documented:

Success Story- I

Title: Raising of single node seedlings of ginger (Nadia) through pro tray technology

Situation analysis/Problem statement: Ginger (*Zingiber officinale*L.) is an important commercially grown spice crop for its aromatic rhizomes which are used as a spice, condiment and as a medicine. It is grown with an extent of 3247 ha. during kharif season in agency mandals of Visakhapatnam district of Andhra Pradesh. However, the farmers are using high seed rate i.e 800-1000kg/acre which in turn increasing cost of cultivation and also they not affordable to meet this expenditure due to small and marginal farmers.

1. **Plan, Implement and Support**: Krishi Vigyan Kendra, Kpndempudi, Visakhapatnam has introduced high yielding ginger variety (Nadia) with Raising of single node seedlings of ginger (Nadia) through pro tray technology along with recommended package of practices to reduce seed cost material and also enhance the yield of rhizome through frontline demonstrations (FLD) in 0.8ha area with 03 farmers in Bosubeda, Padmapuram and Killoguda villages of agency area of Visakhapatnam district. This technology required seed rate is 300 kg/acre only.
2. The component planned as follows.

   Package of practices:
   1. Variety (Roma)
   2. Seed treatment: prepared solution with 3 g Ridomol-MZ and Chloripyriphos @2.5 ml/liter. After 45 minutes these single buds dipped into solution of *Trichodermaviride* 5 g/liter for 30 minutes
   3. Media preparation with vermicompost and coco peat and these media enriched with *Trichodermaviride and Pseudomonas florescence* against control of fungal diseases.

5. Output: Nadia variety with pro tray technology and integrated crop management practices enhanced ginger rhizome yield increased 16.86 % over farmer practices. Rhizome yield (q/ha)

Table: Raising of single node Ginger (Nadia) seedlings through Pro tray technology

Particulars	Yield (q/ha)	COC	Gross Returns (Rs/ha)	Net returns (Rs/ha)	BCR	% increase in yield
T1-Farmer practice Seed rate @ 1000 kg/acre	116.8	192455	408800	216345	1:12	16.86%
T2- seed rate @ 300 kg/acre	140.5	121750	490175	368425	1: 3.02	Seed rate reduced and controlled rhizome rot

6. Output & Outcome: FLDs on Raising of single node Ginger (Nadia) seedlings through pro tray technology in ginger during *Kharif*, 2019-20 in farmers fields of .E.Kottavooru, Rayagedda, Basubeda, Padmapuram and Killoguda villages showed that 300 kg/ acre seed rate i.e single node Ginger (Nadia) seedlings raised through pro tray was recorded highest rhizome yield (140.5 q/ha) with an extent of 16.86 % with high cost benefit ratio of 1:3.02 as compared to the farmer practice (seed rate: 1000kg/acre) was recorded rhizome yield (116.8 q/ha) and cost benefit ratio (1:1.2).

Impact of the program will be reached after 3 years since the demo conducted in 2018-19 only.

Success Story- II

1. Title: Raising of single node seedlings of turmeric (Roma) through pro tray technology

2. Situation analysis/Problem statement: Turmeric (Curcuma longa L.) is an important spice crop also known as 'Golden Spice of India' grown with an extent of 7458 ha. During kharif season in agency mandals of Visakhapatnam district of Andhra Pradesh. However, the farmers are using high seed rate i.e 800-1000kg/acre which in turn increasing cost of cultivation and they not affordable to meet this expenditure due to small and marginal farmers.

3. **Plan, Implement and Support**: Krishi Vigyan Kendra, Kpndempudi, Visakhapatnam has introduced high yielding turmeric variety (Roma) with Raising of single node seedlings of turmeric (Roma) through pro tray technology along withrecommended package of practices to reduce seed cost material and also enhance the yield of rhizome through frontline demonstrations (FLD) in 1.0ha area with 05 farmers in E.Kottavooru, Rayagedda, Bosubeda, Killoguda and Santhagondu villages of agency area of Visakhapatnam district. This technology required seed rate is 300 kg/acre only.
4. The component planned as follows.

   Package of practices:

   4. Variety (Roma)
   5. Seed treatment: prepared solution with 3 g Ridomol-MZ and Chloripyriphos @2.5 ml/liter. After 45 minutes these single buds dipped into solution of *Trichodermaviride* 5 g/liter for 30 minutes
   6. Media preparation with vermicompost and coco peat and these media enriched with *Trichodermaviride and Pseudomonas florescence* against control of fungal diseases.

   Output: High yielding short duration variety Roma with pro tray technology and integrated crop management practices enhanced turmeric rhizome yield increased 15.1 % over farmer practices.

Particulars	Yield (q/ha)	COC	Gross Returns (Rs/ha)	Net returns (Rs/ha)	BCR	% increase in yield
T1-Farmer practice Seed rate @ 1000 kg/acre	161.9	111312	323800	212488	1:1.90	15.1%
T2- seed rate @ 300 kg/acre	190.9	91245	381800	290555	1:3.18	Seed rate reduced and controlled rhizome rot

- **Output & Outcome:** FLDs on Raising of single node Turmeric (Roma) seedlings through pro tray technology in Turmeric during *Kharif*, 2019-20 in farmers fields of E.Kottavooru, Rayagedda, Bosubeda, Killoguda and Santhagondu villages showed that 300 kg/ acre seed rate i.e single node Turmeric (Roma) seedlings raised through pro tray was recorded highest rhizome yield (190.9 q/ha) with an extent of 15.1 % with high cost benefit ratio of 1:3.18 as compared to the farmer practice (seed rate: 1000kg/acre) rhizome yield was recorded (161.9 q/ha) and cost benefit ratio (1:1.90).


ప్రదర్శనా క్షేత్రం

Success Story- III

1.Title: Management of rhizome rot in Ginger and Turmeric

2. Situation analysis/ Problem statement:

Ginger (*Zingiber officinale* L.) and Turmeric (Curcuma longa L.) are important commercially grown spice crops for its aromatic rhizomes which are used as a spice, condiment and as a medicine. These are grown with an extent of 10705 ha. during kharif season in agency mandals of Visakhapatnam district of Andhra Pradesh. Due to heavy rains and not following the any IDM practices in agency mandals the crops were affected by the rhizome rot and getting very low yields.

3. Plan, Implement and Support:

Krishi Vigyan Kendra, Kpndempudi, Visakhapatnam has conducted Front Line Demonstrations (FLD) in 0.5 ha area with 10 farmers in E. Kothavur and Rayagedda villages of Paderu mandal, Visakhapatnam district. Demonstrated the seed treatment with the biocontrol agents obtained by the Bio Control Laboratory, Department of Agriculture, Visakhapatnam, *Trichoderma viride* + *Pseudomonas florescence* @ 10 g/liter each for 30 minutes, raised beds and Soil application of *Trichoderma viride* @ 2 kg/acre + 90 Kg FYM + 10 Kg neem cake reduced the rhizome rot incidence and there by increased the the yield of rhizome.

4. The component planned as follows.

Package of practices:

1. Variety: Turmeric: Roma; Ginger: Nadia
2. Seed treatment with *Trichoderma viride* @ 10 gm/lt
3. Sowing of Rhizomes on 20-30 cm raised beds
4. Soil application of *Trichoderma viride* @ 2 kg/acre + 90 Kg FYM + 10 Kg neem cake

5.Output:

The integrated disease management practices enhanced ginger and turmeric rhizome yield by 22 % over farmer practices. Rhizome yield (q/ha)

Particulars	Yield(q/ha)	% increase in yield
T1-Farmer practice No seed treatment, Sowing of rhizomes on flat beds and no management practices	98.81	Severe rhizome rot was observed
T2- Demo Plot Seed treatment with *Trichoderma viride* @ 10 gm/lt Sowing of Rhizomes on 20-30 cm raised beds, Soil application of *Trichoderma viride* @ 2 kg/acre + 90 Kg FYM + 10 Kg neem cake	132.40	25.4

6. Output & Outcome:

FLDs on management of rhizome rot and ginger during *Kharif*, 2019-20 in farmers fields of E. Kothavur and Rayagedda villages of Paderu mandal, Visakhapatnam district showed that 25.4 % increase over farmers practice. Impact of the program will be reached after 2 to 3 years since the demo conducted in 2019-20 only.

Seed treatment

Mass multiplication in FYM for field application

FLD Demo plot

Farmers plot

Success Story-IV:

1.Title: ICM practices in Rajmash

2. Situation analysis/ Problem statement:

The tribal hilly areas in Visakhapatnam district covered by the Eastern Ghats which has an altitude varying between 900 meters to 1200 meters at several peaks. The main source of income of these tribal zones is agriculture and rajmash is unique pulse crop grown by tribal farmers. Though rajmash is having nutritive value and marketing value the productivity of the crop is very low due to several reasons like., non availability of improved variety, sensitivity of crop to weather conditions particularly rainfall, poor adoption of package of practices and lack of pest and disease management.

Activities implemented by KVK:

To tackle the above problem and to enhace the productivity of rajmash crop there by income levels of tribal rajmash farmers KVK, Kondempudi conducted the on farm testing with new rajmash varieties front line demonstrations on ICM practices n 10 locations in DFI villages E.Kothooru, Santhagandu and raigedda villages of Paderu division.

Provided inputs like new variety Jwala, Rhyzobium and trichoderma for seed treatment, Azatobacter, PSB and KRB liquid bio fertilizers for nutrition, neem oil, sticky traps for plant protection. Training programmes were conducted to the tribal farmers on ICM in Rajmash twice, before starting of the season and during the season. Literature developed on "Rajma chikkulla sagu" and distributed to the farmers during the training programme.

3.Output of the intervention

Treatments	Yield (q/ha)	COC (Rs./ha)	Gross Returns (Rs./ha)	Net Returns (Rs./ha)	BCR
T1-Farmers Practice	**5.00**	**11,000/-**	**25000/-**	**14000/-**	**1:2.27**
T2-ICM practices (New variety Jwala, Line sowing, Application of biofertilizers (Azatobacter, PSB and KRB) @ 500 ml/ac.and plant protection measures with neem oil and sticky traps	**7.0**	**12,800/-**	**35000/-**	**22200/-**	**1:2.73**

Outcome and impact:

After harvesting of the rajmash crop the new variety Jwala seed is preserved by the farmers to take up sowings in the next season during 2021 and with the involvement of KVK scientists farmers are accepted to share the seed among the other farmers in the three DFI villages hence 60 farmers in three villages in 25 acres will get the jwala variety in the next season to come. ICM practices in rajmash enhanced the rajmash yield to the extent of 40 per cent and there by enhanced the family income @ Rs. 8200/- per ha.

Success Story-V:

Title: Introduction of high yielding marigold hybrids (Arka Abhi and Arka Bhanu) in Anakapalle District.

Situation analysis/Problem statement: Marigold (*Tageteserecta* L.) is an important commercially grown flower crop for its aesthetic nature which was highly demanded crop during *kharif* season in Anakapalle district of Andhra Pradesh. However, the farmers are using a local variety for which in turn getting low yields which in turns achieves low net returns.

Plan, Implement and Support: Krishi Vigyan Kendra, Kondempudi, Visakhapatnam has introduced high yielding marigold varieties (Arka Abhi and Arka Bhanu) in Anakapalle district along with recommended package of practices to achieve higher yields and also enhance the yield of flowers through On Farm Trail (OFT) in 1.0 ha area with 05 farmers in Bangarumetta, Cheedikada, Varahapuram, Kanada and Medivada villages of Anakapalle district. This technology involves 2 high yielding hybrids.

The component planned as follows.

7. Variety (Local)
8. Hybrid (ArkaAbhi)
9. Hybrid (Arka Bhanu).

Output: ArkaAbhi hybrid with recommended practices enhanced the flower yield increased 17.91 % over farmer practices.

Flower yield (q/ha)

- OFTplot : 117.25 q/ha (17.91 % over farmer practice)
- Farmer's practice: 96.25 q/ha

Net returns
Demo = Rs.423705/ha
Farmer practice = Rs. 319812/ha

Output & Outcome: Introduction of high yielding marigold hybrids (Arka Abhi and Arka Bhanu) in Anakapalle District during *Kharif*, 2022-23 in farmers' fields of Bangarumetta, Cheedikada, Varahapuram, Kanada and Medivada villages of Anakapalle District showed that the hybrid Arka Abhi was recorded highest flower yield (117.25 q/ha) with an extent of 17.91% with high cost benefit ratio of 1:2.60 as compared to the farmer practice(local variety) was recorded flower yield (96.25 q/ha) and cost benefit ratio (1:1.98).

Impact of the program:

Farmer showing the bumper harvest of his crop

Scientists of KVK Kondempudi visiting farmer field

Impact of the programme:

The SC farmers were felt happy about this technology mostly on high income generation when compared to local varieties. About 260 Farmers were convinced and adopt this high yielding marigold hybrids.

Entrepreneurship Development/ Women Empowerment

DHALL MILL (PROCESSING OF PULSES)

Name of the farmer : S. Laxman Rao
Village & Mandal : Chinapachili(V) & Ravikamatham (M)
District : Anakapalli
Phone No : 7287846763
Supported Company : Our Foods; Purchased Year : August, 2021
Name of the Equipment Available : 1. Grader 2. Dehusker and processing Unit 3. Polisher
Cost of the Machines : Rs. 2,50,000 (Only Machinery)
Processing of Dhal Mill : (Dry Method)

The removal of the outer husk and splitting the grain into two equal halves is known as milling/processing of pulses. Unit operations involved in the processing of in dhal milling are cleaning, grading, de-husking, splitting, separation and bagging. De-husking is the major problem in Pulses. Dhals like Arahar, urad, moong and lentil are difficult to de-husk as a result repeated operations by de-husking rollers are required.To facilitate de-husking and splitting of pulses alternate wetting and drying method is used. Rewetting and drying is the only technology to loosen portions of husk sticking after repeated rolling. Palm oil/ olive oil is mainly used conditioning of seed which helps for removal of outer husk. In India, there are two conventional pulses milling methods; wet milling method and dry milling method. The latter is more popular and used in commercial mills. The dry milling quality is found to be good and on an average 70-72 % dhal recovery is reported. Wet milled dhal is of better taste than dry milled dhal, but takes longer cooking time. There is no common processing method for all types of pulses. Linseed oil used to impart shine or better appeal to the milled dhal.

Cleaning and grading: Pulses are cleaned from dust, chaff, grits, etc., and graded according to size by a reel type or rotating sieve type cleaner.

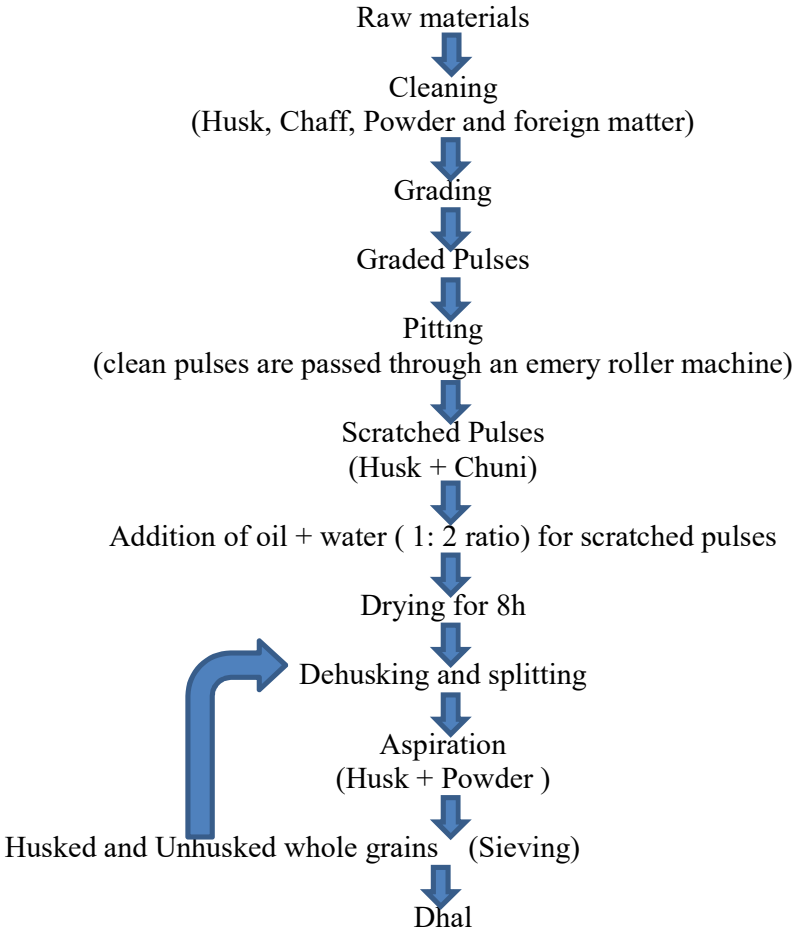
Pitting: The clean pulses are passed through an emery roller machine. Husk is cracked and scratched in this operation. This is to facilitate the subsequent oil penetration process for the loosening of husk. The clearance between the emery roller and cage (housing) gradually narrows from inlet to outlet. As the material is passed through the narrowing clearance mainly cracking and scratching of husk takes place by friction between pulses and emery. Some of the pulses are dehusked and split during this operations which are then separated by sieving.

Conditioning of pulses: Conditioning of pulses is done by alternate wetting and drying. After sun drying for a certain period, 1:2 ratio of oil and water is added to the pulse and tempered for about eight flours and again dried in the sun. Addition of moisture to the pulses can be accomplished by allowing water to drop from an overhead tank on the pulses being passed through a screw conveyor. The whole process of alternate wetting and drying is continued for eight hours until all pulses are sufficiently conditioned. Pulses are finally dried to about 10 to 12 % moisture content.

De-husking and Splitting: Emery rollers, known as Gota machine are used for the de-husking of conditioned pulses About 50 % pulses are de-husked in a single operation (in one pass). De-husked pulses are split into two parts also, the husk is aspirated off and de-husked split pulses are separated by sieving. The tail pulses and unsplit de-husked pulses are again conditioned and milled. The whole process is repeated two to three times until the remaining- pulses are de-husked and split.

Polishing: Polish is given to the de-husked and split pulses by treating them with a small quantity of oil and/or water.

Flowchart for Processing of Dhal Mill



- Milling efficiency of the pulses - 72 -75 %
- Brokens+ Dry losses –3-5 %
- Husk content – 20-22 %

Cost Economics :

Processing of pulses – 5 to 6 Tonnes/ month (Based of Power and Labour)

Time taken to complete one batch/ cycle – 5-6 days (Based on drying of conditioned grains)

Total quantity of pulses undergo for processing – 200-300 kg/ day (Actual company status – 800 kg/day)- On average per day – 250 kg of pulses undergo for processing

Labour Charges : 1 Male + 1 Female

1 Women – Rs. 300/- day ; 1 Men – Rs. 500/- day

Total – Rs.800/- day

For month = 800 * 30 = **Rs. 24, 000/-**

Electricity Charges = Rs. 200/- day

For Month = 200 * 30 = **Rs. 6000/-**

Maintenace charges = **Rs. 1500/- month**

EMI Charges for Machine for month = **Rs. 15000**

Total = Rs. 24, 000 + 6, 000 + 1, 500+ 15000 = Rs. 47, 500/-

On average per day – 250 kg of pulses undergo for processing

For one month – 250 kg * 25 (One month – 25 days) = 6250 kg

Processing charges for one kg = Rs. 10/-
Total cost for processing of 6250 kg of pulses = 6250 kg * 10 = **Rs. 62500/-**
Cost of Husk for one Kg = Rs. 15/-
Quantity of Husk from 6250 kg = 1250 kg
Cost of 1250 Kg – 1250 * 15 = Rs. 18,750
Total = Rs. 62500/- + Rs. 18,750/- = 81250
Net Profit = 81,250 – 47,500 = 33750.

Images on Dhall Mill processing unit




Established Value addition and income generating Facility for Tribal Communities on Jackfruit powder at SUSAG FPO, Santabayalu Vill.

In Visakhapatnam Dt Jack Fruit is a major Forest tree and Thousands of Jack fruit trees are present in the forest, Field bunds and residential areas. During the season lakhs of fruits are produced and being exported to other districts of Andhra Pradesh. Besides the export of fruits 1000's of Tonnes was spoiling due to excess production. Because of the ignorance of the tribal farmers 1000's of quintals of seed also being wasting as the Jack Fruit Powder has got the medicinal properties.

In Santabayalu village of Paderu (Mandal) Visakhapatnam Distruct We have identified SUSAG FPO women group which is collaborated with KVK, Kondempudi are involved in natural firming. Hence, We established the Jack Fruit seed powder making, packing, marketing and capacity building facility at tribal areas of Visakhapatnam Dt to uplift the Tribal FPO's.

This unit was established in 10x12 m area Pucca building which is belongs to the SUSAG FPO in Santabayalu Village. This building having the all facilities and the following equipment was installed in that unit

S. No	Particulars	Quantity Supplied
1	Solar Tunnel Dryer	1
2	Preparation Tables	4
3	Universal Slicer	1
4	Oven	1
5	Pulverizer	1
6	Sulphitation tank	1
7	Dough mixer	1
8	Mixer grinder	1
9	Strainer	1
10	Perforated trays	24
11	Electric sealers	2
12	Knives, Stainless steel basins and miscellaneous items	10

This Jackfruit seed powder making unit was inaugurated on 26.02.2022 at Santabayalu Village of Paderu Mandal. For this inauguration the following members were attended.

S. No	Name	Designation	Place
1	Dr. M. Nagesh	Director (A)	ICAR-NBAIR, Bengaluru
2	Sri. P. Demullu	Hon'ble Member, Board of Management, ANGRAU	Paderu
3	Dr. P. Rambabu	Director of Extension	ANGRAU
4	Dr. M. Bharatalakshimi	Associate Director of Research	RARS, Anakapalle
5	Dr. CK. Nayarayan	PS and Head, PHT and CEO, BESST-HORT	ICAR- IIHR, Bangalore
6	Dr. PVK. Jagannadha Rao	PS and University Head, PHT	RARS, Anakapalle
	Dr. R. Rangeswaran	PS (Microbiology)	ICAR-NBAIR, Bengaluru
7	Dr. N. Raja Kumar	Programme Coordinator	KVK, Kondempudi
8	Dr. V. Gouri	SMS (Crop Production)	KVK, Kondempudi
9	Dr. N. Satti Babu	SMS (Horticulture)	KVK, Kondempudi
10	Dr. D. U.M. Rao	SMS (Plant Extension)	KVK, Kondempudi
11	Dr. Omprakash Navik	Scientist (Entomology)	ICAR-NBAIR, Bengaluru
12	Sri K. Das	Deputy Director of Agriculture	DRC, Visakhapatnam
13	Smt. Ratna Kumari	Assistant Director of Agriculture,	ITDA, Paderu
14	Sri. M. Janaki Rao	Project Coordinator, NC Zone	AP State Bio Diversity Board
15	Sri K. Jogi Naidu	Director	SUSAG FPO
16	Smt.T. Santi Kumari	CEO	Susag Millets Producer FPO, Sirasapalle, Santabayalu

This jackfruit seed powder making unit was financially supported by the ICAR- NBAIR, Bangalore and TSP of ATARI Zone-X and Technical Support by the ICAR- IIHR, Bangalore. After the inauguration of the unit Dr. CK. Narayana, Principal Scientist and Head PHT, ICAR- IIHR Bangalore explained about the working of all the equipments to the members attended the programme. He also explained the importance of Jackfruit seed powder, its medicinal value and market demand for the powder

After the inauguration Dr. CK. Narayana, Principal Scientist and Head PHT, ICAR- IIHR Bangalore was given the training to the KVK, Kondempudi Scientists and SUSAG FPO group members on 27.02. 2022. In that training he taught on the different steps involved in Jackfruit seed powder making i.e., Selection of fruits, removal of seed, boiling, drying, powder making, packing and marketing. After that he also trained the Tribal woman on Biscuit and Chapati making with Jackfruit seed powder blended with millet powder.

Dr. M. Nagesh, Director (A), ICAR- NBAIR, Bangalore, Sri P. Demullu, BOM, ANGRAU, Dr. P. Rambabu, Director of Extension, ANGRAU, Dr. M. Bharatalakshimi, ADR, RARS, Anakapalle

Jackfruit Seed Powder making Unit at SUSAG FPO at Santabayalu

Training Programme on Jackfruit seed powder making by Dr. CK. Narayana, PS & Head, ICAR- IIHR, Bangalore to KVK Scientists and SUSAG FPO woman group

Citations / Recognitions /Appreciations received by the Centre / Scientists:

ICAR-Agricultural Technology Application Research Institute
Zone-X, Santoshnagar, Hyderabad- 500 059

Certificate of Appreciation

This Certificate is awarded to KVK VISAKHAPATNAM (KONDEMPUDI) in RECOGNITION of Best Annual Report 2020 among KVKs of Andhra Pradesh during the Virtual Annual Zonal Review Workshop of KVKs of ICAR-ATARI-Zone-X held during 06-08 July 2021

Dr. J.V. Prasad
DIRECTOR, ICAR-ATARI
ZONE X, HYDERABAD

ICAR-Agricultural Technology Application Research Institute
Zone-X, Santoshnagar, Hyderabad- 500 059

Certificate of Appreciation

This Certificate is awarded to KVK VISAKHAPATNAM (KONDEMPUDI) for winning the SECOND PLACE for Best Project: CFLD Oil Seeds 2020 among KVKs of Andhra Pradesh during the Virtual Annual Zonal Review Workshop of KVKs of ICAR-ATARI-Zone-X held during 06-08 July 2021

Dr. J.V. Prasad
DIRECTOR, ICAR-ATARI
ZONE X, HYDERABAD

ICAR-Agricultural Technology Application Research Institute
Zone-X, Santoshnagar, Hyderabad- 500 059

Certificate of appreciation

This Certificate is awarded to **KVK Visakhapatnam (Kondempudi)** for winning the **SECOND PLACE** for **Best Programme: TSP 2019-20** among KVKs of **Andhra Pradesh** during the Virtual Annual Zonal Review Workshop of KVKs of ICAR-ATARI-Zone-X held during 23-25 July 2020

Dr. Y.G. Prasad
DIRECTOR, ICAR-ATARI
ZONE X, HYDERABAD

ICAR-Agricultural Technology Application Research Institute
Zone-X, Santoshnagar, Hyderabad- 500 059

Certificate of appreciation

This Certificate is awarded to **KVK Visakhapatnam (Kondempudi)** in appreciation of **Good Performance** among the newly established KVKs in **Andhra Pradesh** during the Virtual Annual Zonal Review Workshop of KVKs of ICAR-ATARI-Zone-X held during 23-25 July 2020

Dr. Y.G. Prasad
DIRECTOR, ICAR-ATARI
ZONE X, HYDERABAD

ICAR-Agricultural Technology Application Research Institute

Zone-X, Santoshnagar, Hyderabad- 500 059

Certificate of Appreciation

This Certificate is awarded to KVK Visakhapatnam (Kondempudi) for winning the First Place for Best Project : TSP among KVKs of Zone - X during the Annual Zonal Review Workshop of KVKs of ICAR - ATARI Zone - X held during 12 -14 July 2022

Dr. J.V. Prasad
DIRECTOR, ICAR-ATARI
ZONE X, HYDERABAD

ICAR-Agricultural Technology Application Research Institute

Zone-X, Santoshnagar, Hyderabad- 500 059

Certificate of Appreciation

This Certificate is awarded to KVK, Visakhapatnam (Kondempudi) for winning the Third Place for Best Service : Planting materials among KVKs of Andhra Pradesh during the Annual Zonal Review Workshop of KVKs of ICAR - ATARI Zone - X held during 12 -14 July 2022

Dr. J.V. Prasad
DIRECTOR, ICAR-ATARI
ZONE X, HYDERABAD

ICAR-Agricultural Technology Application Research Institute

Zone-X, Santoshnagar, Hyderabad- 500 059

Certificate of Appreciation

This Certificate is awarded to KVK, Visakhapatnam (Kondempudi) for winning the Recognition for Best Extension activities among KVKs of Andhra Pradesh during the Annual Zonal Review Workshop of KVKs of ICAR - ATARI Zone - X held during 12 -14 July 2022

Dr. J.V. Prasad
DIRECTOR, ICAR-ATARI
ZONE X, HYDERABAD