ANNUAL PROGRESS REPORT 2021(1st January 2021 to 31st December 2021)

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail:

a) Name of the KVK as per official records (MoU)	:	Shri Hanumantharaya Educational & Charitable Society, Krishi Vigyan Kendra, Yagantipalle.
b) Address	:	Shri Hanumantharaya Educational & Charitable Society, Krishi Vigyan Kendra, Yagantipalle (P), Banaganapalle (M), Nandyal (Dt.), A.P.
c) Phone	:	9440607424
d) Fax No.	:	
f) Email	:	pendekantikvk@rediffmail.com pendekantikvk@gmail.com

1.2 .Name and address of host organization with phone, fax and e-mail:

a) Name of the Host Organization as per Official Records	:	Shri Hanumantharaya Educational & Charitable Society
b) Status of the Host Organization (As per the MoU)	:	NGO
c) Address	:	Shri Hanumantharaya Educational & Charitable Society, Krishi Vigyan Kendra, Yagantipalle (P), Banaganapalle (M), Nandyal (Dt.), A.P.
d) Phone	:	9440607424
e) Fax	:	
f) Email	:	pendekantikvk@gmail.com pendekantikvk@rediffmail.com
g) Name of the Chairperson	:	Sri P. Balaji
h) Mobile No	:	7702127616
i) Email	:	Pb1961@rediffmail.com

1.3. Name of the Programme Coordinator with phone & mobile No:

Name of the Programme Coordinator/SS&H	Telephone / Contact		
	Residential Address	Phone No.	Email
Smt. G. Dhanalakshmi	Illurukothapeta (V & P), Banaganapalle (M), Nandyal (Dt.), Andhra Pradesh.	9440607424	dhanaguru12@gmail.com

1.4. Year of sanction: 1989

1.5. Month and Year of establishment: December, 1989

1.6. Total land with KVK (in ha) : 20 ha

S. No.	Item	Area (ha)
1	Under Buildings	2
2.	Under Demonstration Units	1
3.	Under Crops	10
4.	Orchard/Agro-forestry	4
5.	Others (specify)	3
Total		**20**

1.7. Infrastructural Development:

B) Buildings:

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction (Completed/ in progress/ to be initiated)
1.	Administrative Building	ICAR	1994	550	7.59	1990-91		
2.	Farmers Hostel	ICAR	1994	450	8.0	1990-91		
3.	Staff Quarters(6)	ICAR	1998	650	32.27	1992-93		
4.	Demonstration Units (3)	ICAR	1992-93	300	6.5	1992-93		
5	Fencing	ICAR	2005-06		6.5	2004-05		
6	Rain Water harvesting system	-	-	-	-			
7	Threshing floor	-	-	-	-			
8	Farm Godown	ICAR	2005-06	112.5	5.28	2005-06		
9	Shed (Farm equipment)							
10	Soil Testing Laboratory	ICAR	2004-05	112.5	8.59	2004-05		
11	Goat Shed	ICAR	2016-17	35.0	3.0	2016-17		

B) Vehicles:

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero	2019	6,50,000-00	25,024 Km	OK
Mahindra & Mahindra Tractor	2005	3,54,522-00	30678 (hrs)	OK
Motorcycle (Hero Honda)	2014	-	13386 Km	OK

C) Equipments & AV aids:

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Tape Recorder	1990	2,600-00	OK
Over Head Projector	1991	6,200-00	OK
Slide Projector	1991	7,168-00	OK
Ahuja Micro phone Set	1994	9,500-00	OK
Television	1994	19,999-00	OK
Video Cassette Recorder	1996	19,000-00	OK
Ahuja Portable wireless Amplifier	2003	9,927-00	OK
Cordless micro phone	2003	5,804-00	OK
Collar Mic	2005	5,800-00	OK

1.8. A). Details SAC meeting conducted in the year:

Scientific Advisory Committee meeting for the year 2022-23 was held under the chairmanship of Sri. **N C. Venkateswarlu,** ADR, RARS, Nandyal, on 22.02.2022.

Field visit was made by ADR, DE Representative and other members to the demonstration units existing in KVK i.e. Vermicompost, IFS, Dairy, Custom Hiring center, Poultry, Mushroom unit, Bio-Control lab etc.

Smt. G. Dhanalakshmi, Senior Scientist and Head, KVK gave the presentation on the action taken on the minutes of the last SAC meeting, and overall achievements of KVK. Thereafter the Subject matter Specialists made their subject wise presentations.

The meeting was ended with vote of thanks by the Senior Scientist & head, KVK, Yagantipalle.

S. No.	Name of the SAC Member	Suggestions/Recommendations (bullet points)	Action Taken in brief
1	**Dr. N.C. Venkateswarlu,** ADR, RARS, Nandyal.	• In Organic Farming trial, SMS (SS) should study the variation in soil OC, Physical and Chemical properties as well. • Adoption of each technology (ANGRAU & ICAR) demonstrated or propagated is to be recorded. • OFT with Redgram+Setaria in Kharif followed by Bengalgram intercrop in Rabi for Rainfed areas need to be closely monitored for its performance in various soil conditions. • NBeG-776 may be demonstrated in Bengalgram which is a better variety for machine harvesting. • RBKs seed requirement may be matched with the seed production plan of KVK as to arrive at assured marketing and meeting farmers needs. • Data on varietal spread (both primary and secondary spread) need to be documented. • L Cyhalothrin use in Jowar Shootfly management may be replaced with alternate safer chemical. • As Bengalgram rust is becoming major problem, it may be included in IDM – Bengalgram demonstration and a chemical spray for its management (Hexaconazole or Propiconazole) may be included in the treatments. • Suggested to take up study on RBK's. • Suggested to include information on	• Will be taken in the ensuing season. • Data will be provided on the extent of adoption of ANGRAU varieties. • IDM in Bengal gram will be taken up

		Bengalgram variety NBeG-452 through SMS.	
2	**Dr. M.R. Sreenivasulu (Rtd.),** ADR, RARS, Nandyal.	• See that all the problems discussed in SAC be covered in technical programme.	• Included in the action plan
3	**Dr. Ramakrishna Rao,** Co-Ordinator, DAATC, Banavasi.	• Acephate spray for thrips management may be included in all KVKs suggestions and demonstrations in Chillis. • Whorl application of chemical in Maize is more effective than drone spraying. Before arriving at recommending drones for spraying, it is to be tested on wide variety of crops and situations and its efficacy and cost effectiveness and other problems are to be closely monitored and tested. • For Bengalgram dry root rot management, Trichoderma is to be mass multiplied in 90 kg FYM + 10 kg Neem cake before its soil application, as neem cake improves the virulence of the Trichoderma, it must be mixed with FYM. • For drying and wilting of Neem trees along the road ways, he suggested spraying of Profenophos @ 2 ml/lt. and Carbendazim @ 1 g/lt. for management of Tea mosquito bug and twig blight respectively, which are causing drying of leaves and wilting of plants. • Fruit fly menace in all fruit crops need to be targeted in collaboration with DoA and it needs awareness well in advance and support for inputs from department. • More number of Methyl eugenol bait traps need to be installed in Mango for effective fruit fly management, which can be prepared locally.	
4	**Dr. Manjunatha,** Sr. Scientist, RARS, Nandyal.	• Rust in Bengalgram is to be focussed in the action plan. • New chemicals like Cyanantraniliprole need to be included in trial against black thrips in chillis. • Use of drones for sprayings need to be studied further, which was being	

		taken up at RARS.	
5	**Dr. D. Umadevi,** PD, APMIP, Kurnool.	• Demonstrations should be conducted on Sigatoka Leaf spot in Banana.	
6	**Sri. S.V. Krishna Reddy,** Nandi RythuSamakhya Farmer, Kalugotla.	• Most of small and marginal farmers are showing interest towards organic farming, which is welcome. But they need more knowledge and support regarding marketing. • Prospects of Safflower replacing Bengalgram are good but worried about marketing possibilities. • Need varieties which are resilient to climate changes, for the farmer to succeed. • Need concrete package for management of PBW in Bt cotton	
7	**Sri. Chinnapu Reddy,** Farmer, Bhanumukkala.	• Late wilt in maize and wilt in watermelon are the problems hampering the crop in Rabi. Solution needed	
	Smt. Y. Padmavathamma, Farmer, Orvakal (M).	• Management package needed for fruit fly in rainfed mango and what is the right time to install fruit fly traps in Mango?	
	Mr. P.B. Hari Krishna, Farmer, Nandavaram.	• Efficient vaccinations are needed for management of Blue tongue disease in sheep, which is causing lot of damage to the herds.	
	Dr.M.BramhanandaReddy MAHO, Banaganapalle.	• Cow based products and byproducts need to be utilized for agriculture for sustainability of cow based farming systems. • By products like cow dung can be used for preparation of value added products like DhoopSticks which can give additional income to the Desi Cow Dairy Units. Models can be developed by KVK.	

2. DETAILS OF DISTRICT (2019-20)

2.0. Operational jurisdiction of KVKs:

District	New districts governed by the KVK after division of the district, if applicable	Taluks/Tehsils and/or Mandals under the KVKs jurisdiction
Nandyal	Nandyal	27 mandals

2.1 Major farming systems/enterprises (based on the analysis made by the KVK):

S. No.	Farming system/enterprise
1	Agriculture + Horticulture
2	Agriculture + Dairy
3	Agriculture + Horticulture + Dairy
4	Agriculture + Horticulture + Pastural Culture

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and Topography):

S. No	Agro-climatic Zone	Characteristics
1	Scarce rain fall zone	Low, scanty and erratic rainfall due to which successful crop production with good yield is unrespectable and dry land agriculture is predominant with a variety of rainfed crops in the zone.

2.3 Soil types:

S. No	Soil type	Characteristics	Area in ha lakh
1	Black cotton soils	Heavy and deep to very deep belonging to vertisols.	3.69
2	Red Earths	Clayey sub soil (association of alfisols and inceptisols)	1.29
3	Red earths	Loamy sub soil i.e chalkas (association of inceptisols and alfisols)	3.18
4	Red sandy loam soils	Dubbas & Chalkas (association of entisols, inceptisols and alfisols)-Light textured soils, poor water holding capacity, poor fertility	0.54
5	Problem soils (Saline/sodic)	High pH more than 9.0	1.04
6	Rock land and others	Undulated sloppy lands. Very shallow soils.	0.47

2.4. Area, Production and Productivity of major crops cultivated in the district for 2021:

Kharif:

S. No.	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	PADDY	85476	-	51.66
2	JOWAR	1326	-	14.36
3	BAJRA	7579	-	17.44
4	MAIZE	59,256	-	41.49
5	KORRA	2687	-	8.24
6	REDGRAM	61929	-	3.77
7	GREENGRAM	349	-	5.18
8	BLACKGRAM	10,077	-	8.19
9	HORSEGRAM	3	-	1.29
10	GROUNDNUT	92387	-	4.19
11	SESAMUM	5	-	2.28

12	SUNFLOWER	2316	-	6.98
13	CASTOR	2306	-	
14	SOYABEEN	1930	-	
15	OTHER OIL SEEDS	19	-	
16	CHILLIES	28808	-	
17	ONION	15471	-	
18	TURMERIC	877	-	
19	SUGARCANE	128	-	
20	COTTON	266280	-	
21	TOBACCO	10	-	
22	OTHER CROPS	138	-	
	TOTAL	**6,39,357**		

Rabi:

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	PADDY	24424	-	70.95
2	WHEAT	11	-	
3	JOWAR	33021	-	21.39
4	BAJRA	1169	-	13.94
5	MAIZE	9912	-	78.78
6	KORRA	962	-	7.10
7	HORSEGRAM	-	-	4.96
8	GREENGRAM	856	-	4.85
9	BLACKGRAM	38,325	-	6.37
10	REDGRAM	1178	-	5.83
11	BENGAL GRAM	138214	-	
12	COW PIE		-	
13	CHILLIES	708	-	
14	CORIANDER	227	-	
15	GROUNDNUT	22961	-	26.64
16	SESAMUM	534	-	2.90
17	SAFFLOWER	137	-	
18	SUNFLOWER	432	-	12.15
19	RAPE & MUSTARD	2517	-	
20	CASTOR	66	-	5.20
21	OTHER OIL SEEDS	12	-	
22	SUGARCANE	0	-	
23	ONION	3721	-	
24	COTTON	4	-	
25	TOBACCO	3542	-	
26	OTHERS	4394	-	
	Total	**2,87,327**		

Summer:

S. No.	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)

S. No.	Crops	Name	Dist (Ha.)	KVK, Ypl (Ha.)	Crops	Name	Dist (ac)	KVK, Ypl (Ha.)
1	Fruits	Mango	7397	3627	Vegetables	G. Chilli	4285	3659
2		Banana	4568	3838		Tomato	4244	1875
3		S. Orange	1825	681		Beans	6366	1852
4		Acid Lime	1604	1522		Bhendi	3787	2280
5		Papaya	453	328		Brinjal	2010	701
6		Pomegran	552	188		Onion	28559	5351
7		Total	17598	10501		Total	54669	16906
8	Spices	Dry Chilli	24482	13841	Flowers	Jasmine	898	481
9		Ajwan	3135	358		Chrysanthemum	272	175
10	-	-	-	-		Crossandra	162	44
11	-	-	-	-		Marrigold	141	107
	Total		**31017**	**17129**	**Total**		1514	808
	Total		**1,04,978 ha.**		**Total**		**45,458 ha.**	

2.5. Weather data:

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)	
		Maximum	Minimum	8.30 am	5.30 pm
Jan	7.9	31.7	17.9	87.3	60.9
Feb	2.5	34.8	20.3	80.6	50.3
March	2.2	38.2	23.8	75.5	37.0
April	2.5	40.1	26.7	67.2	34.2
May	0	40.5	27.5	72.0	42.0
June	117.3	36.2	25.5	77.1	53.4
July	**174.7**	33.6	24.5	87.1	68.4
August	**76.6**	32.5	23.9	80.2	63.7
September	**70.7**	32.5	23.8	83.3	69.4
October	82.5	32.5	22.8	82.5	67.2
November	116.9	31.2	20.1	76.9	71.6
December	0.3	30.5	17.8	84.3	59.0

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (Latest data):

Category	Population	Production	Productivity
Cattle			
Crossbred	3,167	16,468	5.2
Indigenous	4,90,397	98,079	0.2
Buffalo	6,46,453	7,75,743	1.2
Sheep			
Crossbred	-	-	-
Indigenous	13,91,474	-	-
Goats	6,07,907	-	-
Pigs	-	-	-
Crossbred	-	-	-
Indigenous	-	-	-
Rabbits	-	-	-
Poultry			
Hens	-	-	-
Desi	12,25,241	-	-
Improved	-	-	-
Ducks	-	-	-
Turkey and others	-	-	-
	Area	**Production**	**Productivity**
Fish	-	-	-
Marine	-	-	-
Inland	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

2.7. Details of Adopted Villages (2021):

S. No.	Taluk/ mandal	Name of the block	Name of the village	Year of adoption	Major crops & enterprises	Major problem identified	Identified Thrust Areas
KVK adopted villages							
1	Allagadda	Gospadu Sirvella	Sreenivasapuram Govindapalli		Rice, Sesame Blackgram	Low productivity in rice –rice system Low productivity in oilseeds	Introduction of rice based cropping systems (rice-Maize and rice-sunflower) Introduction of improved varieties of Sesame
2	Banaganapalli	Banaganapalli	Yerragudi Jolapuram Meerapuram		Redgram Cotton	Low productivity	Integrated crop management in Redgram and Crop geometry in cotton

3	Banaganapalli	Banaganapalli	Yagantipalle		Rice, Maize, Vegetables	Indiscriminate use of Fertilizers and Pesticides	INM and IPM
			Meerapuram, Jolapuram		Redgram, Greengram, Korra	Indiscriminate use of Pesticides, Poor choice of varieties	ICM and IPM
4	Owk	Owk	K. Sunkesula		Blackgram, Redgram and Chillis	Indiscriminate use of insecticides for management of pests in cotton & Chillis	IPM, IDM and ICM
					Groundnut Bengalgram Chillies	Non availability of improved varieties. Use of higher seed rate. Imbalanced nutrient management and increased cost of production.	FLDs
5	Dornipadu	Dornipadu	Ramachandrapuram		Rice, Cotton, Blackgram	PBW in cotton is increasing. Bud necrosis in Blackgram is noticed.	FLD on Bt Cotton FLD on Blackgram
			Dornipadu		Bt. Cotton, Rice and Jowar	Indiscriminate and excess application of chemical fertilizers and increased cost of production.	FLDs
6	Sanjamala	Sanjamala	Mangapalle		Bengalgram, Chilli, Rice	Dry root rot and wilt in Bengalgram. Viral diseases and root rot in Chillis.	OFT on Bengalgram seed treatment.
			Giddaluru		Rice	Blast, Sheath blight, Stem borer, BPH in rice.	OFT on Rice seedling dip with Pf for disease mgmt.
			Kotapadu Mangapalle Giddalur		Brinjal Banana	Sucking pests shoot & fruit borer.	FLD: Integrated Crop Management in Brinjal. Integrated crop management in Brinjal INM in Banana and cost reduction techniques.

7	Allagadda	Allagadda	Marripalle		Blackgram, Groundnut, Citrus	Twig blight, Canker, die back in acid lime. Stem rot, LLS in Groundnut. Viral diseases in Blackgram	FLD and training programmes.
8	Banaganapalli	Banaganapalli	Yagantipalle Jolapuram GB Pet Meerapuram		Household food security and Kitchen gardening Development of nutrient efficiency diet with local foods Women and child care Value Addition	• Lack of awareness on importance of consumption of green leafy and other vegetables in daily menu. • Non-availability of green leafy and other vegetables for daily consumption • Nutritional deficiencies among adolescent girls, pregnant and lactating women & children. • Lack of awareness on PHT of fruits and vegetables. • Lack of awareness on product diversification with local foods.	Training programmes & Demonstrations Training programmes & Method Demonstrations Training programmes & Method Demonstrations
9	Bethamcherla	Bethamcherla	R.S. Rangapuram Rehmanpuram Bethamcherla Ambapuram Gutupalle H.Kottala		Drudgery reduction technologies Development of nutrient efficiency diet with local foods Women and child care	• Drudgery among farm women in farm operations. • Nutritional deficiencies among adolescent girls,	FLD and OFTs Training programmes & Method Demonstrations

					Value Addition	pregnant and lactating women & children. • Lack of awareness on PHT of fruits and vegetables. • Lack of awareness on product diversification with local foods.	Training programmes & Method Demonstrations
10	Allagadda	Allagadda	Marripalle Ramakrishnapuram		Household food security and Kitchen gardening Women and child care Value Addition Drudgery reduction technologies	• Lack of awareness on importance of consumption of green leafy and other vegetables in daily menu. • Non-availability of green leafy and other vegetables for daily consumption. • Nutritional deficiencies among adolescent girls, pregnant and lactating women & children. • Lack of awareness on PHT of fruits and vegetables. • Lack of awareness on product diversification with emphasis on millets.	Training programmes & Demonstrations Training programmes & Method Demonstrations Training programmes & Method Demonstrations FLD and OFTs

						• Drudgery among farm women in farm operations.	
11	Sanjamala	Sanjamala	Giddalur Mangapalle		Development of nutrient efficiency diet with local foods Women and child care Household food security and Kitchen gardening Stiching and Tailoring Rural crafts Drudgery reduction technologies Value Addition	• Lack of awareness on Diversified products and value addition to local foods. • Nutritional deficiencies among adolescent girls, pregnant and lactating women & children. • Lack of awareness on importance of consumption of green leafy and other vegetables in daily menu. • Non-availability of green leafy and other vegetables for daily consumption. • Lack awareness on income generating activities for off season. • Drudgery among farm women in farm operations. • Lack of awareness on PHT of fruits and vegetables.	Training programmes & Method Demonstrations Training programmes & Demonstrations Training programmes FLD and OFTs

						• Lack of awareness on product diversification with local foods with emphasis on millets.	
12	Dornipadu	Dornipadu	Ramachandrapuram Chakirajuvemula		Household food security and Kitchen gardening Development of nutrient efficiency diet with local foods Women and child care Value Addition Stitching and Tailoring Rural crafts	• Lack of awareness on importance of consumption of green leafy and other vegetables in daily menu. • Non-availability of green leafy and other vegetables for daily consumption. • Nutritional deficiencies among adolescent girls, pregnant and lactating women & children • Lack of awareness on PHT of fruits and vegetables. • Lack of awareness on product diversification with local foods with emphasis on millets. • Lack of awareness on income generating activities for off season.	Training programmes & Demonstrations Training programmes & Method Demonstrations Training programmes & Method Demonstrations Training programmes

13	Kurnool/ Dornipadu	Kurnool/ Dornipadu	Ramachandrapuram		Dairy	• Reproductive problems and poor milk yield in milch Buffaloes. • Wastage of agricultural by products.	OFT-3, FLD-2, Training - 1
					Poultry	• Non availability of improved breeds.	FLD-1, Trainings-1
14	Kurnool/ Sanjamala	Kurnool/ Sanjamala	Mangapalle		Poultry	• Non availability of improved poultry breeds.	OFT-1, FLD-1 Trainings-1
			Giddaluru		Dairy	• Poor milk yield, reproductive problems in milch buffaloes	OFT-3, Trainings - 2
15	Allagadda	Allagadda	Marripalle		Dairy	• Poor milk production in milch buffaloes.	OFT-1,FLD-1, Trainings-2
DFI villages							
1	Banaganapalle	Banaganapalle	Yerragudi	2018	Household food security and Kitchen gardening Value Addition Drudgery reduction technologies Development of nutrient efficiency diet with local foods Women and	• Lack of awareness on importance of consumption of green leafy and other vegetables in daily menu. • Non-availability of green leafy and other vegetables for daily consumption. • Lack of awareness on PHT of fruits and vegetables. • Lack of awareness on product diversification with	Training programmes & Demonstrations Training Programmes Method Demonstrations Demonstrations Training Programmes

					child care Stiching and Tailoring Rural crafts	local foods with emphasis on millets. • Drudgery among farm women in farm operations. • Nutritional deficiencies among adolescent girls, pregnant and lactating women& children. • Lack awareness on income generating activities for off season.	Training Programmes
					Dairy	• Poor milk production. • Reproductive problems in milch buffaloes. • Mastitis	Demonstrations & Trainings.
					Poultry	• No improved poultry breeds are available. • Poultry diseases	Demonstrations & Trainings.
2	Banaganapalle	Banaganapalle	Yerragudi	2018	Redgram, Paddy, Setaria, Jowar	• Pod borers and Pod fly in Redgram. • Stemborer in Rice.	IDM, IPM.
3	Bethamcherla	Bethamcherla	H.kottala		Groundnut setaria	Low productivity in oilseeds Due moisture stress	Introduction of Varieties tolerant Moisture stress , Balanced nutrition and weed management Alternate crops
					Redgram, Bengalgram, Korra	Indiscriminate use of pesticides, poor knowhow on varieties suitable	ICM and IPM

					Dairy	• Fodder shortage. • Poor milk production. • Reproductive problems. • Mastitis	Demonstrations & Trainings.
					Poultry	• Non availability of improved poultry breeds.	Demonstrations & Trainings.
					Sheep	• Poor growth in ram lambs, high lamb mortality.	Demonstrations & Trainings.

2.8 Priority/thrust areas:

Crop/Enterprise	Thrust area
Seed Production:	**Addressing the scarcity of quality seed:** Availability of quality seed to the farmer is one of the major constraint farmer is facing every year. They are depending on the private market / government agencies for their seed requirements. The supply is not meeting the demand in time and more over farmers are being cheated by different agencies with spurious seed. Awareness should be created about the production of own seed by the farmer. For this, seed village concept is required at least in direct varieties in crops like paddy, red gram, desi cotton, Bengal gram, which have huge demand in the market has to be promoted
Cropping system:	**Crop intensification in Rainfed black soils:** On black soils of Kurnool district generally one crop Bengalgram/fallow-Jowar is being taken during rabi (September - October) in an area of 3.02 laksh ha. Farmers are getting low net returns/ha. Foxtail millet (korra), crop being its short duration may fit well in double cropping sequence (Korra- Bengalgram/Jowar) under rainfed situation in black soils. In order to increase net returns Rs/ha and cropping intensity, Seteria- bengalgram can be successfully grown in rainfed black solis, if onset of monsoon are intime.
Varietal replacement:	The productivity of crops are lowest due to cultivation of old and traditional varieties due to non availability of improved varieties/hybrids .Seed is the vital and critical input for crop production. Crop productivity is highly influenced by selection of high yielding varieties.

	Among different components of recommended package of practices, improved variety contributes up to 30 percent to the overall yield improvement. Keeping this in view KVK, Yagantipalle is organized several FLDs in Cereals, Oil seeds, pulses and other crops in order to popularize improved varieties in different parts of Kurnool district
Resource conservation **Zero Tillage and Direct seeding in paddy with Drum seeder**	In Kurnool district Maize crop is being cultivated in an area of 14,604 ha and 10898 ha during kharif and rabi respectively with average productivity of 6250 kg /ha. In the district recently Rice followed by maize gaining popularity moreover their reaping good yields. There is a lot of scope to increase the acreage under this cropping system.
Redgram	Suitable Varietal selection, Integrated Pest Management
Rice	IPM for Stemborer, IDM for blast and sheathblight, Organic farming
Chillis	IPM for sucking pests and IDM for root rot
Cotton	IPM for sucking pests
Bengalgram	Varietal selection and ICM
Greengram	Varietal selection and ICM
Blackgram	Varietal selection and ICM
Jowar	IPM for shoot fly and stem borer

3. Salient Achievements

Achievements of Mandated activities (1st January 2021 to 31st December 2021)

S. No	Activity	Target	Achievement
1.	Technologies Assessed and refined(No.)	36	36
2.	On-farm trials conducted (No.)	16	16
3.	Frontline demonstrations conducted (No.)	25	25
4.	Farmers trained (in Lakh)	0.03735	0.04762
5.	Extension Personnel trained (No.)	650	1418
6.	Participants in extension activities (in Lakh)	90	1255
7.	Production and distribution of Seed (in Quintal)	2500	2885.13
8.	Planting material produced and distributed (in Lakh)	6 lakh	807587
9.	Live-stock strains and finger lings produced and distributed (in Lakh)	5000	11009
10.	Soil samples tested by Mini Soil Testing Kit (No)	-	-
11.	Soil samples tested by Traditional Laboratory (No)	2500	2954
12.	Water, plant, manure and other samples tested (No.)	50	64
13.	Mobile agro-advisory provided to farmers (No.)		
14.	No. of Soil Health Cards issued by Mini Soil Testing Kits (No.)	-	-
15.	No. of Soil Health Cards issued by Traditional Laboratory (No.)	4000	4578
16.	Production and distribution of Bio-inoculants (in Quintal)	40	62.79

Give Salient Achievements by KVK during the year in bullet points:

- Produced - seed material of 331 tonnes
- Seed hub production and supply of 105 tonnes of pulses
- Bio-inoculants production and supply of 7000 lts
- Vermicompost Production of 280 tonnes.
- Sol samples analyzed 2954
- Seedling material produced 803037
- Four week long National training on farm level Bio-inputs production.
- Five capsule trainings conducted in animal husbandry activities.
- Season long on line training programmes conducted in different aspects of animal husbandry covering 827 participants.
- Promoted two layered sheep / goat + poultry systems across the district.
- Thirteen Small processing units established with the technical support of kvk.
- Created awareness on black thrips control and facilitated for the inputs.
- Received Rs 47,80,000 for organizing field activities from different sources.
- Initiated KVK outreach programme to non adopted mandal which are far away from KVK.

Generated Rs12,00,000 Revolving Fund from different activities:

- Established Three Mini Processing Units (Yagantipalle, Koilakuntla and Giddalur) with SHG Women and Rural Youth at farm gate to make available primary products ie, dehulled rice for dehulling millets with emphasis on Foxtail millet as it is grown extensively by the farmers as climate resilient crop for economic sustainability and promotion of public health.
- Established Three Mini Food Processing Units (for pulses and spices) with SHG Women (Banaganapalle, Meerapuram and Akumalla) to meet the primary processing requirements of the village.
- Established two Jute Bag Making Units (Bethamcherla and Ramachandrapuram) with SHG Women
- Established Millet Bakery Unit with SHG Women At Nandyal.
- Established Millet Snack Unit with SHG Women in Nandyal.

4. TECHNICAL ACHIEVEMENTS

Details of target and achievements of mandatory activities by KVK during 2021

OFT (Technology Assessment):

No. of OFTs		Number of technologies		Number of locations (Villages)		Total no. of Trials / Replications / Beneficiaries	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
12	**12**	24	24	29	29	93	93

FLD (crop/enterprise/CFLDs):

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	Achievement	Targets	Achievement	Targets	Achievement
24	24	68.8	68.8	285	285

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit):

Number of Courses			Number of Participants	
Clientele	Targets	Achievement	Targets	Achievement
Farmers and Farm Women	72	82	2155	2621
Rural youth	15	49	335	1197
Extn. Functionaries	18	29	700	2230

Extension Activities:

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
6	123	509	2252

Seed Production (q):

Target	Achievement	Distributed to no. of farmers
2500	2885.13	5700

Bio-inoculants Production (Kgs):

Target	Achievement	Distributed to no. of farmers
4500	6279	668
	Rs. 13,02,050	

Planting material (No's.):

Target	Achievement	Distributed to no. of farmers
6 lakh	8 .07	53

Particulars	Target	Achievement	Distributed to no. of farmers
Vermicompost (Tonnes)	300	302	282
Vermiwash(lit.)	100	110	6
Earthworms(Kg.)	1000	2323	80
Bio-urea(Kg.)	8000	8500	7

Technology Assessments (OFTs) in Detail

OFT: 1

1. Thematic area : Cropping systems

2. Title : Assessment of Suitable preceding crop to paddy under command area (KC canal and tankfed area)

3. Scientists involved : M. Sudhakar, SMS (Agronomy)

4. Details of farming situation : Irrigated, Clay loam

5. Problem definition/description : Late onset of monsoon and late release of canal water leads to delay in paddy transplanting. Due to late release of water fields are fallow up to August. Short duration crop can accommodate before kharif paddy to increase cropping intensity and additional income.

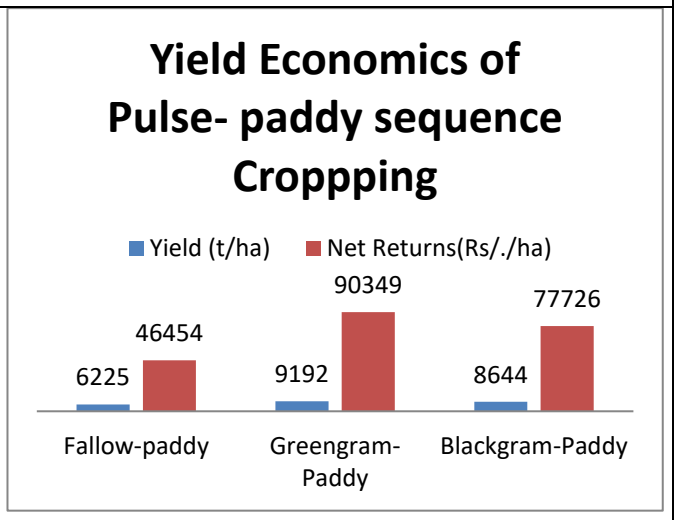
6. Technology Assessed : T1: Greengram- Paddy
T2: Blackgram-Paddy
T3: Fallow-paddy

7. Critical inputs given : Seed Rs 7500/-

8. Results:

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs/./ha)	Data on Other performance indicators*
Fallow-paddy	6	6225	90349	1.62
Greengram- Paddy		9192	77726	2.03
Blackgram-Paddy		8644	46454	1.86

Description of the results: On farm testing on Assessment of Suitable preceding crop to paddy under command area was conducted during the Pre-Kharif season of 2021 at Banaganapalli and Dornipadu mandals. The results indicated that Cultivation of Greengram and Blackgram preceding crop to paddy under command area resulted with maximum paddy equivalent yield and net returns (9192 kg ha Rs 90349/-) with Greengram-paddy, 8644 kg ha-1,Rs 77226 (Blackgram-Paddy) and 6225 kg ha Rs 46454 fallow-paddy were obtained respectively



9. Constraints: -

10. Feed back of the farmers involved:

- Pulses-Paddy system found to be remunerative than sole crop of Paddy.
- While maintaining the Soil fertility, additional yields with the Pulse- paddy sequence have been realized.
- Since, a food legume is involved in the system, it will not only enhance the income of the farmer, but also provide with the much-needed protein to supplement the predominantly cereal diet of farmers, besides adding fertility to the Soil.

11. Feed back to the scientist who developed the technology:

- Research on development of Short duration Greengram and Blackgram has to be strengthened.

OFT: 2

1. Thematic area : Resource conservation

2. Title : Assessment of different in-situ moisture conservation methods and plant densities in Bengalgram

3. Scientists involved : M. Sudhakar, SMS (Agronomy)

4. Details of farming situation : Irrigated, black soils,

5. Problem definition / description : In Kurnool district Bengalgram being cultivated in an area of 200000 ha under rainfed situation. The productivity levels are low due to high plant densities, less no of Primary & secondary branches, terminal moisture stress. Insurance against total crop failure, particularly aberrant weather conditions.

6. Technology Assessed : T1: Farmers practice
T2: Sowing with Paired row planter
T3: Sowing with BBF planter)

7. Critical inputs given : Seed Rs. 7,500/-

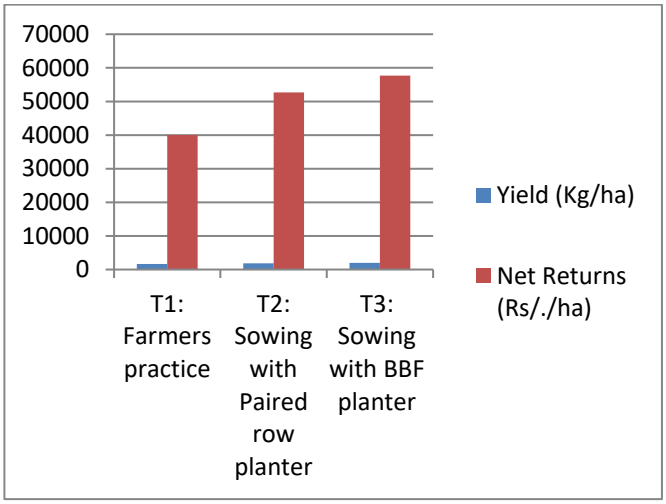
8. Results :

Performance of the technology

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs/./ha)	B:C	Data on Other performance indicators*
T1: Farmers practice	6	1637	40018	2.01	
T2: Sowing with Paired row planter		1867	52674	2.40	
T3: Sowing with BBF planter		1970	**57670**	**2.52**	

Description of the results:

On farm testing on **Assessment of different planting methods in Bengalgram** was conducted during the Rabi season of 2021 at Yagantipalli and Kotapadu villages of Banaganapalli and Owk mandal. The results indicated that Sowing with raised bed planter has recorded highest yield 1970kg/ha followed by Paired row planting 1867kg/ha compared with normal seed drill 1637 kg/ha.



Feed back of the farmers involved:

- No of pods plant were more in 90 cm spacing, but number of ill filled pods and seed size was less.
- The increased yield (18.0 per cent) was recorded with BBF planter compared Farmers practice due to more no of filled pods and seed size.

10. Feed back to the scientist who developed the technology:

- Research on development of varieties tolerant to moisture stress has to be strengthened.

OFT: 3

1. Thematic area : Varietal Evaluation

2. Title : Assessment of Medium duration Redgram varieties in Rainfed situation ,

3. Scientists involved : M. Sudhakar, SMS (Agronomy)

4. Details of farming situation : Rainfed, Redsoils

5. Problem definition / description : In Kurnool district generally Redgram is being cultivated in an area of 45,000 ha and yields are limited by the amount and distribution of rainfall during monsoon period and also long duration varieties are affecting due to terminal moisture stress..

6. Technology Assessed : T1: LRG-105
T2: LRG-133-33
T3: LRG-41

7. Critical inputs given : Seed Rs. 6,000/-

8. Results:

Performance of the technology

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs/./ha)	B:C ratio	Data on Other performance indicators*
T1:LRG-105	6	1121	32743	1.86	
T2: LRG-133-33		1290	43390	2.14	
T3: LRG-41		954	22222	1.58	

Description of the results:

The results indicated that among different **varieties of Redgram** LRG-105, LRG-133-33 and LRG-41, LRG-133-33 has recorded 1290 kg/ha (35.2%) followed by LRG-105 1121 kg/ha (17.5%) compared with local check LRG-41 (954kg/ha.).

Feed back of the farmers involved:

- Redgram Variety LRG-133-33 and LrG-105 performed well in Medium black soils.
- These varieties are Fairly tolerant to sterility mosaic than LRG-41
- These varieties are suitable under protective irrigated situations and not suitable for light soils.

10. Feed back to the scientist who developed the technology:

- Research on development of super early varieties tolerant to moisture stress has to be strengthened.

OFT: 4

1. Thematic area : Hybrids Evaluation

2. Title : **Assessment of performance of high yielding hybrids in Castor**,

3. Scientists involved : M. Sudhakar, SMS (Agronomy)

4. Details of farming situation : Rainfed, Red soils

5. Problem definition / description : **Erratic of rainfall** is one of the important factor for crop production under rainfed conditions leads to low yields and returns of the farmer with private castor hybrids

6. Technology Assessed : T1: DCH-519
T2: ICH-66
T3: Private hybrids

7. Critical inputs given : Seed Rs. 6,000/-

8. Results:

Performance of the technology

Technology Option	*No. of trials*	*Yield (t/ha)*	*Net Returns (Rs/./ha)*	*B:C ratio*	*Data on Other performance indicators**
T1:ICH-66	*6*	2144(34.6%)	65230	3.08	
T2: DCH-519		1810(13.6%)	50200	2.60	
T3 Private hybrids		1592	40390	2.29	

Description of the results:

On farm testing on Castor hybrids under Rainfed situation was conducted during the Kharif season of 2021 at Pathapadu village of Banaganapalli and Kamalapuri village of Kovelakuntla mandals. The results indicated that among different **castor hybrids ICH**-66 and DCH-519 and private hybrids, ICH-66 has recorded 2144 kg/ha (34.6 %) followed by DCH-519 1810 kg/ha (13.6 %) compared with local check (1592 kg/ha.).

Feed back of the farmers involved:

- The castor hybrid ICH-66 Performed well than private hybrids.
- The no of branches and Spikes were more in ICH-66 Compared to private hybrids,

10. Feed back to the scientist who developed the technology:

- Research on development of Hybrids tolerant to wilt and Botrytis has to be strengthened.

OFT: 5

1. Thematic Area : Integrated Pest Management

2. Title : **Evaluation of Management packages of Gall Midge in Rice**

3. Scientists Involved : D. Balaraju, SMS (Plant Protection)

4. Details of Farming Situation : Rice is generally grown under Canal Aycut area and under bore wells both in black soils and red soils of the district in about 1 lakh ha. Annually.

5. Problem definition/description : Rice is cultivated in about 1.0 lakh ha of land in the district during both Kharif and Rabi seasons. In recent years, the crop is suffering with incidence of gall midge, which is causing considerable yield loss. The average yield is low by 20-30% (52 q/ha) due to incidence of gall midge while the potential is about 65-67 q/ha. The present management option is only through soil application of Carbofuron 3 G @ 10 kg/ac (ANGRAU). Need based spraying of Thiamethoxam 25% WG @ 0.2 g/lt water in addition to soil application of Fipronil 0.3% G @ 10 kg/ac is effective in managing the pest (TNAU). Hence, the trail was taken up.

6. Technology assessed : TO 1 – Soil Application of Fipronil 0.3% G
TO 2 – Soil Application of Fipronil 0.3% G + Spray of Thiamethoxam 25% WG
FP - Spraying Insecticides Viz., Acephate, Chlorpyriphos, Profenophos, Quinalphos on Noticing the Pest incidence.

7. Critical Inputs given : Fipronil 0.3% G – 20 kg (Rs.2000-00)
Thiamethoxam 25% WG–100 g (Rs. 200-00)
Total / trial – Rs. 2,200-00

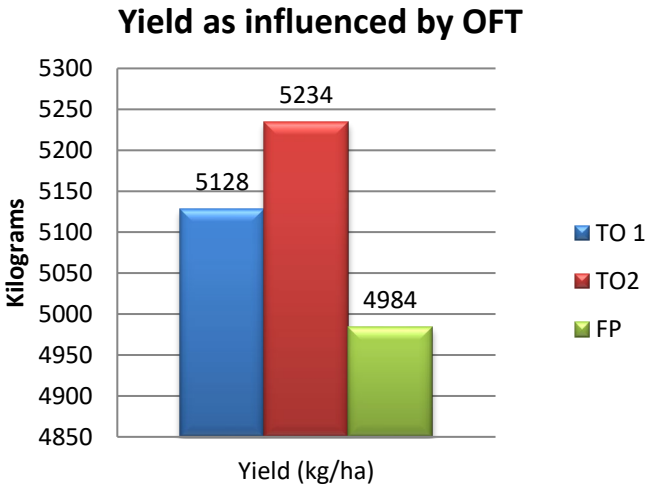
8. Results:

Table: Performance of the technology

Technology Option	No. of trials	Yield (t/ha)	Net Returns(Rs. lakh./ha)	B:C	Data on Other performance indicators*
TO 1 : Soil Application of Fipronil 0.3% G @ 8 kg/ac	5	5.128	0.25681	1.39	Gall Midge Incidence – 5.5% Cost of PP – Rs. 5,875-00/ha
TO 2 : Soil Application of Fipronil 0.3% G @ 8 kg/ac+ Spray of Thiamethoxam 25% WG @ 0.2 g/lt		5.234	0.27094	1.40	Gall Midge Incidence – 4.2% Cost of PP – Rs.6,375-00/ha
Farmers Practice : Spraying Insecticides Viz., Acephate,Chlorpyriphos,Profenophos, Quinalphos on Noticing the Pest incidence.		4.984	0.12219	1.16	Gall Midge Incidence – 9.7% Cost of PP – Rs.9,000-00/ha

Description of the results:

The result indicated that with adoption of packages under OFT, the Gall midge incidence was reduced by **43.1 & 56.9% respectively** compared to farmers practice, with **2.8 % & 5.0%** increase in yield.



9. Constraints faced:

- **Feed back of the farmers involved:**

✓ The farmers readily accepted the technologies as they are similar to their earlier method of soil application of Carbofuron.

✓ Farmers were convinced with the control of pest in second treatment where a foliar application of Thiamethoxam was taken up apart from soil application of Fipronil.

10. Feed back to the scientist who developed the technology:

- Management of gall midge without prophylactic application of chemicals need to be investigated and effective method may be evolved to reduce the unnecessary application of toxic chemicals to rice ecosystem which has secondary harmful effects on other fauna and environment.

OFT 6

1. Thematic Area : Integrated Pest Management

2. Title : **Evaluation ofIPM and Organic Package on Yield and Pest Management in Rice**

3. Scientists Involved : D. Balaraju, SMS (Plant Protection)

4. Details of Farming Situation : Rice is generally grown under Canal Aycut area and under bore wells both in black soils and red soils of the district in about 1 lakh ha. Annually.

5. Problem definition/description : In alternate systems of production, organic farming is gaining popularity in recent times. And for rational management of crop and pests, IPM is advocated widely. In the context of multiple methods of cultivation available, it is intended to give the advantage of each to the farmer for choosing the right method suited to him. Hence, the trial is proposed to evaluate both IPM and Organic methods vs farmers practice for their influence on yield and pest management.

6. Technology assessed : TO 1 – IPM:

- Application of FYM @ 5 t / acre & recommended doses of fertilizer application on soil test basis.

- Clipping of leaf tips of seedlings.
- Seed treatment with *Pseudomonusfluorescens* @ 10 g / kg seed.
- Formation of alley ways of 30 cm width for every 3 meters.
- Alternate wetting and drying at tillering stage.
- ETL: At tillering (10-15 hoppers per hill) and at Panicle initiation to emergence (20-25 hoppers per hill).
- Spray ethofenoprox 10% EC @ 400 ml /acre initially.
- If incidence is more spray dinotefuran 20% SG @ 80 g/acre or pymetrozine 50% WG @ 120g/acre.**(ANGRAU)**

TO 2 – Organic Package :

- Seed treatment with *Pseudomonas fluroscens* 10 g or *Azospirillam* @ 10 g/kg of seed,
- Nursery: Spray azadirachtin 1500 ppm @ 1000ml/ac at 10 days interval twice to manage early incidence of insect pests.
- Incorporation of green manure, application of vermicompost @ 200 kg /acre and FYM @ 5 t/acre,
- Clipping of seedling tips before transplanting. Formation of alleyways.
- Installation of pheromone traps @ 5 nos. / acre,
- Soil application of *Pseudomonas fluorescens (Pf)* 2 kg / acre along with 100 kg FYM.
- Spray azadirachtin 1500 ppm @ 1000 ml /acre at 20 and 40 days after transplanting.**(ANGRAU)**

FP - Applying fertilizers and Spraying Insecticides indiscriminately.

7. Critical Inputs given : Pseudomonas –2 lt (Rs. 400-00)
Azadarachtin 1500 ppm – 2 lt (Rs. 900-00)
Pheromone traps for YSB – 5 no's (Rs. 250-00)
Ethofenprox – 0.5 lt (Rs. 400-00)
Total / trial – Rs. 1,950-00

8. Results:

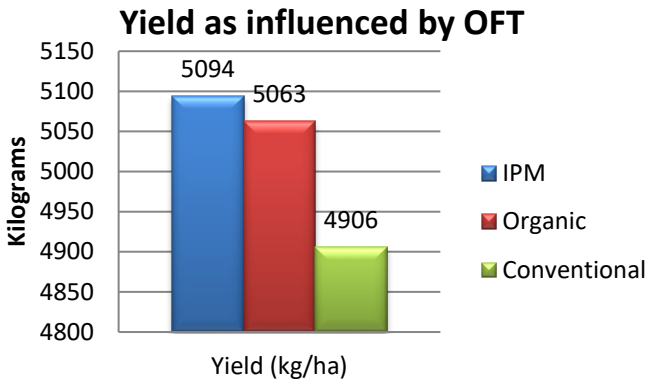
Table: Performance of the technology

Technology Option	No. of trials	Yield (t/ha)	Net Returns(Rs. lakh./ha)	B:C ratio	Data on Other performance indicators*
TO 1 : IPM Package	5	5.094	0.157	1.21	BPH Incidence – 8.2/hill at PI Blast – 7.5% Cost of PP – Rs. 6,500-00/ha
TO 2 : Organic package		5.063	0.301	1.49	BPH Incidence – 10.5/hill at PI Blast – 7.2% Cost of PP – Rs2,500-00/ha
Farmers Practice :Applying fertilizers and Spraying Insecticides indiscriminately		4.906	0.102	1.13	BPH Incidence – 20.2/hill at PI Blast – 14.2% Cost of PP - Rs.8,625-00/ha

Description of the results:

The result indicated that in IPM, resulted in on par yield with organic package which is 3-4% higher than yields of Farmers practices, with better level of control of pests and diseases. As the farmer incurred less investment in Organic method, the method gave better income over IPM and FP. The low yields of farmers practice

are due to lodging of the crop due to flash rains at harvest. IPM and Organic plots did not lodge due to optimal growth of the crop.



9. Constraints faced:

Feed back of the farmers involved:

- ✓ The farmers readily accepted some of the components viz., Ph traps, Neem oil spray as they are familiar with these. But, they showed reluctance in adoption of seed treatment/soil application of pseudomonas, use of Neem oil etc. as they are new and have less confidence in them about their performance.

- ✓ Farmers were convinced with the control of pest / disease with chemical application and they readily agreed to spray recommended chemicals.

10. Feed back to the scientist who developed the technology:

- Management of BPH, Stem borer and Blast in organic methods need to be standardized to reduce the rise of toxic chemical usage and also to reduce cost of production.

OFT-7

1. Thematic Area : Integrated Nutrient Management

2. Title : Assessment of efficacy of Humic acid for yield maximization in Rice

3. Scientists Involved : K.V. Ramanaiah

4. Details of Farming Situation : Kharif-2021. Irrigated black soils

5. Problem definition/description : Paddy is a major cereal crop cultivating in of Kurnool district during kharif season. Un availability of sufficient quantities of FYM and other organic inputs. Low organic carbon content 71 % soils of Kurnool dist.Low fertility and productivity.

6. Technology assessed :
T_1: Farmers practice : No FYM and Humic acid+RDF
T_2: : Humic acid-20 Kg/ha+RDF
T_3 FYM-10 MT/ha +RDF

7. Critical Inputs given : Humic acid-20 Kg/ha
Value- Rs.800/ha

8. Results :

Table: Performance of the technology:

Technology Option	No. of trials	Yield (q/ha)	Net Returns (Rs. in Rs./ha)	B:C ratio	Data on Other performance indicators*
Farmers Practice- No FYM and Humic acid+RDF)	6	47.70	25751	1.39:1	
Technology1 - Humic acid-20 Kg/ha+RDF		54.78	38240	1.57:1	
Technology2- FYM-10 MT/ha +RDF		53.50	31818	1.44:1	

Description of the results:

The result indicated that the yield in both T_2 (54.78 q/ha) and T_3 (53.50 q/ha) were on par and higher than farmer's practice -T_1 (47.70 q./ha)

9. Constraints faced:

10. Feed back of the farmers involved:

Pre seasonal training on soil sampling and testing, fertilizer application and mid seasonal field visits finally field days were organized. However, application of humic acid is effective in yield improvement.

11. Feed back to the scientist who developed the technology:

Efficacy of humic acid was observed in organic carbon deficient soils when compared sufficient range soils.

OFT-8

1. Thematic Area : Integrated Nutrient Management

2. Title : Assessment of organic farming package Rice

3. Scientists Involved : K.V. Ramanaiah

4. Details of Farming Situation : Kharif-2021. Irrigated black soils

5. Problem definition/description : Conventional/chemical farming is more hazardous to soils, humans, animals and environment. Organic farming is necessary to maintain healthy environment by reducing levels of pollution. It reduces the cost of agricultural production and improves soil organic carbon with sustainable practices.

6. Technology assessed : T_1: Farmers practice : Chemical farming
T_2: : Organic farming: Green manuring insitu,FYM-10 T/ha, Neem cake-500 kg, Castor cake-500 Kg.PSB -5 Kg/ha, Azotobacter- 5Kg/ha, Top dressing Vermicompost -500 Kg for 2 Splits, Pf, neem oil for spaying.

7. Critical Inputs given : Neem cake-500 kg, Castor cake-500 Kg.PSB -5 Kg/ha, Azotobacter- 5Kg/ha, Top dressing Vermicompost -500 Kg for 2 Splits, Pf, neem oil for spaying.

8. Results:

Table: Performance of the technology:

Technology Option	No. of trials	Yield (q/ha)	Net Returns (Rs. in Rs./ha)	B:C ratio	Data on Other performance indicators*
Farmers Practice- Chemical farming	6	48.75	25859	1.38:1	No of effective tillers 382/sqmt
Technology1 – Organic farming		43.12	51986	1.76:1	No of effective tillers 334/sqmt

Description of the results:

The result indicated that the yield in both T. (43.12 q/ha) was 12 % lower than farmer's practice -T_1 (48.75 q./ha).

9. Constraints faced:

10. Feed back of the farmers involved:

Pre seasonal training on soil sampling and testing, fertilizer application and mid seasonal field visits finally field days were organized. It is low cost technology when procure locally available organic inputs

11. Feed back to the scientist who developed the technology:

No yield advantage during first year as it is conversion period for 3 years. However, application of organic inputs is effective for Soil health improvement.

OFT: 9

1. Thematic area : Varietal evaluation

2. Title : Assessing the performance of ridge gourd varieties

3. Scientists involved : M. Adinarayana, SMS (Horticulture)

4. Details of farming situation : Irrigated, Sandy loam & clay loam

5. Problem definition / description : The local varieties are producing lower yields and late flowering varieties

6. Technology Assessed : T1 Arka Prasan, T2 – Arka Vikram, T3 Saniya-4 (FP)

7. Critical inputs given : Seeds of Arka Prasan 3kg Rs.5100 & Arka Vikram Seeds 3kg Rs.9000

8. Results:

Table: Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio	Data on Other performance indicators*
Farmers Practice	*5*	*25.13*	*337111*	*3.92*	*F. Length 27-32cm F. Weight 150-180g*
Technology 1(Arka Prasan)		*28.55*	*407254*	*4.81*	*F. Length 40-45cm F. Weight 180-200g*
Technology 2(Arka Vikram)		*29.13*	*426874*	*4.90*	*F. Length 30-35cm F. Weight 180-210g*

**** Other performance indicators: such as pest intensity, weed population, test weight, duration etc***



9. Constraints: Lack of seed availability in IIHR for conducting trials and farmers.

10. Feedback of the farmers involved:

Arka Prasan is a good marketable acceptance and compared to less seed cost and collected seed for next season. Stacking is good method to getting higher yields and observed less pest and diseases incidence.

11. Feed back to the scientist who developed the technology:

Arka Prasan and Arka Vikram are the high yielders but facing lack of seed from IIHR.

OFT: 10

1. Thematic area : Varietal evaluation

2. Title : Cultivation of Dolichos bean during the Rabi as alternate to traditional vegetables

3. Scientists involved : M. Adinarayana, SMS (Horticulture)

4. Details of farming situation : Irrigated, Sandy loam & clay loam

5. Problem definition/description : Tomato cultivation during Rabi season resulted in less price realization due to glut in the market

6. Technology Assessed : T1 Arka Amogh, T2 – Gold, T3 Tomato (FP)

7. Critical inputs given : Seeds of Arka Amogh Seeds 3kg; Rs.1500 & Gold variety cost 3kg; Rs. 1,500/-

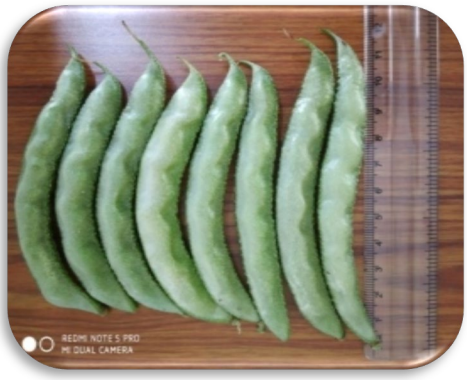
8. Results:

Table: Performance of the technology

Technology Option	*No. of trials*	*Yield (q/ha)*	*Net (Rs./ha)*	*B:C ratio*	*Data on Other performance indicators**
Farmers Practice(Tomato)	*5*	*46.25*	*146760*	*2.12*	
Technology 1(Arka Amogh)		*15.05*	*270653*	*4.57*	
Technology 2(Gold)		*13.66*	*235985*	*4.01*	

**** Other performance indicators:** such as pest intensity, weed population, test weight, duration etc*

A. Amogh Parameters	*Critical observations*
Days to 50% flowering (Days)	40
First harvest (days)	52
No of spikes per plant	6.21
Average pod length (cm)	10.67
Average pod width (cm)	1.92
Pod yield per plant (g)	321.86



9. Constraints: Lack of seed availability in IIHR for conducting trials and farmers.

10. Feedback of the farmers involved:

Arka Amogh is a good marketable acceptance and compared to less seed cost and collected seed for next season.

11. Feed back to the scientist who developed the technology:

Observed more flower drop during summer. Lack of seed from the source.

OFT: 11

1. Thematic area : Varietal evaluation

2. Title : Assessing the performance of onion varieties

3. Scientists involved : M. Adinarayana, SMS (Horticulture)

4. Details of farming situation : Irrigated, black loam soils

5. Problem definition/description : Local varieties producing lower yields and unknown varieties

6. Technology Assessed : T1 Arka Bheem, T2 – NHRDF red-4, T3 Panchaganga (FP)

7. Critical inputs given : Seeds of Arka Bheem Seeds 2kg; Rs.6000 & NHRDF red-4 cost 2kg; Rs.6,000/-

8. Results : Crop was damaged due to continuous & heavy rains during nursery stage. Observed damping off disease at 25-35 days after sowing

Table: Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net (Rs./ha)	B:C ratio	Data on Other performance indicators*
Farmers Practice(Panchaganga)		Crop was damaged due to continuous & heavy rains during nursery stage. Observed damping off disease at 25-35 days after sowing			
Technology 1(Arka Bheem)					
Technology 2(NHRDF-4)					

**** Other performance indicators:** such as pest intensity, weed population, test weight, duration etc*

9. Constraints: Observed damping off disease

10. Feedback of the farmers involved:

Nursery was damaged due to continuous and heavy rains during October

11. Feed back to the scientist who developed the technology:

This year not observed performance of these varieties in farmer's fields.

OFT: 12

Thematic area : Breed evaluation
Title : **Assessment of different poultry breeds at backyards**
Scientists involved : A.Krishna Murthy, SMS (AH)
Details of farming situation : Backyard poultry providing additional income and nutritional security to the small farmers.
Problem definition/ description : The existing Desi/ND poultry have low egg production capacity and growth rate.
Technology Assessed : T_1 – Vanasri
T2- Rajasri
T3- ND
Critical inputs given : Chicks of five weeks age
Results :

Table: Performance of the technology

Technology Option	No. of trials	Body weight gain in 5 months age (g)	Net Returns/bird	B:C ratio	Mortality (%)
Vanasri	5	*1056.2*	*320.00*	*1.76*	*42*
Rajasri		*985.9*	*185.00*	*1.63*	*28*
ND		*661.9*	*110.00*	*1.55*	*22*

Description of the results:

The body weight gain in 150gays was observed in Vanashri, Rajasri and ND poultry birds were 1056.2g, 985.9g and 661.9g respectively. It was observed that the mortality rate is high in Vanashri(42%) followed by Rajari (28%) and ND (22%).

9. Constraints:

10. Feed back of the farmers involved:

Rajasri breed found adaptable and the other breeds are easily caught by the predators and Vanashri birds have high market price.

11. Feed back to the scientist who developed the technology: Nil

OFT: 13

Thematic area : Nutrition management

Title : **Assessing the affect of probiotic yeast supplementation on milk production in milch buffaloes**

Scientists involved : A.Krishna Murthy, SMS (AH)

Details of farming situation : Dairy farming provides sustainable income to the farmers and the cost of milk production completely depends on concentrate feeding.

Problem definition / description (one paragraph) : Low milk production in existing feeding practices in milch buffaloes

Technology Assessed : TO-1: Concentrate feed + Probiotic yeast (15g/day) + 2% Sodium bi carbonate
TO-2: Concentrate feed + Probiotic yeast (15g/day)
FP: Concentrate feed

Critical inputs given: : Probiotic yeast and Sodium bicarbonate

Results :

Table: Performance of the technology

Technology Option	No. of trials	6%FCM yield/day (kg)	Net Returns/ day (Rs.)	B:C ratio	Data on Other performance indicators*
Concentrate feed + Probiotic yeast (15g/day) + 2% Sodium bi carbonate	*10*	*9.02*	*275.3*	*1.76*	
Concentrate feed + Probiotic yeast (15g/day)		*8.91*	*273.2*	*1.77*	
Concentrate feed (FP)		*7.86*	*234.4*	*1.75*	

Description of the results:

On supplementation of probiotic yeast @15g/day along with concentrate feed resulted in 13.4% increase in 6%FCM milk yield while on supplementation of probiotic yeast (15g/day) along with Sodium bicarbonate (40g/day) resulted in 14.8% increase in 6%FCM milk yield over farmers practice of concentrate feed only.

9. Constraints if any: Availability of probiotic yeast

10. Feed back of the farmers involved: Well accepted the technology by the farmers.

11. Feed back to the scientist who developed the technology: Nil

OFT: 14

Thematic area : Nutrition management

Title : **Assessing the effect of bypass fat supplementation on body weight gain fattening ram lambs**

Scientists involved : A.Krishna Murthy, SMS (AH)

Details of farming situation: : Ram lamb rearing is the subsidiary income source under rainfed situation. The ram lambs are mostly rear on grazing with or without supplementation of grains.

Problem definition / description: (one paragraph) : Low protein and energy value in the diet of lambs resulting in poor body weight gain.

Technology Assessed: : TO-1: Concentrate feed + Bypass fat (4g/kg feed)
TO-2: Concentrate feed (200g/day)
FP: Grain feeding

Critical inputs given: : Concentrate feed and Bypass fat

Results :

Table: Performance of the technology

Technology Option	No. of trials	Body weight gain in 90 days	Net Returns in per lamb (Rs.)	B:C ratio
TO-1: Concentrate feed + Bypass fat (4g/kg feed)	*5*	*9.5*	*2447.5*	*1.86*
Concentrate feed (200g/day)	*5*	*8.86*	*2658*	*1.86*
Grain feeding (FP)	*5*	*7.56*	*2268*	*1.83*

Description of the results:

On supplementation of concentrate feed (15% CP) resulted in 17% increase in body weight gain and Concentrate feed + Bypass fat feed resulted in 26% increase in body weight gain over farmers practice of grain feeding.

9. Constraints if any:

10. Feed back of the farmers involved: Bypass fat incorporation resulted in increased feed intake

11. Feed back to the scientist who developed the technology: Nil

OFT: 15

1. Thematic area : **Post harvest Technology**

2. Title : Assessment of different coating methods to improve the shelf life of fruits

3. Scientists involved : K. LakshmiPriya, PA (H. Sc), K. Adinarayana, SMS (Horti.)

4. Details of farming situation : Rainfed, Red sandy loam

5. Problem definition/description : The losses in Post harvest sector estimated in fruits and vegetables is 10 to 25% to 40% due to lack of proper storage facilities, accessibility of market, lack of proper transportation facilities.

6. Technology Assessed : T1: Farmers Practice: No Coating
T2: ICAR-IINRG Ranchi, (2006)
T3: Fruity Fresh- Enhanced Freshness Formulations (EFF)

7. Critical inputs given:

T2: Dipping in 2% of coating formulations for 5 minutes, surface drying & packing (ICAR-IINRG Ranchi).

T3: Dipping in 2 % TNAU Fruity Fresh coat for 5 minutes, surface drying & packing

8. Results:

Table: Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio	Data on Other performance indicators*
Farmers Practice	5		14,500.00		6.5 kgs/month/family Greens:300gms/week Other Vegetables:3kgs/week
Technology 1(Mention details)			26,425.00	1:2.76	Inclusion of Bajra and Seteria 2kgs/month/family apart from regular usage of Jowar (25kgs/month/family). Inclusion of greens and other vegetables increased by 3 times. (Greens: 2kgs/week/family Vegetables: 7kgs/week/)
Technology 2(Mention details)			*25,020.00*	*1:2.72*	

**** Other performance indicators: such as pest intensity, weed population, test weight, duration etc***

Feed Back:

Assessment of Different Coating Methods to improve shelf life of Mango fruits was taken up with ICAR-IINRG Fresh Coat and TNAU Fruity fresh (20 ml/lt.). Shelf life enhancement was increased by two weeks.

9. Constraints:

10. Feedback of the farmers involved:

Enhancement of shelf life by 15 days which avoids ripening during transport.

11. Feed back to the scientist who developed the technology:

OFT: 16

1. Thematic area : **Nutritional Security**

2. Title : **Assessment of Nutri Smart farming systems**

3. Scientists involved : K. LakshmiPriya, PA (H. Sc) & M. Sudhakar, SMS (Agro.)

4. Details of farming situation :

5. Problem definition / description : Malnutrition is widely prevalent among different sectors of the population mainly micronutrient deficiencies. One of the reason for the intensity of the problem lies with the changes in Agriculture from Integrated Farming system to Mono cropping/commercial cropping led to poor supply of nutrients from farm to plate. Hence, Integrated approach with the system can solve the problem of malnutrition as well as improves soil health status and monitory benefit to the farmers.

6. Technology Assessed : TO-1: Pearl Millet, Nutri Kitchen garden, Moringa, Greengram, Fodder Crops.
TO-2: FoxtailMillet+Redgram, Nutri Kitchen garden, Moringa, Border Fodder.
FP: Suryanandi as sole crop/Redgram as sole crop.

7. Critical inputs given : Seed + Bio Agents + Vermicopost + Fodder Strips+Moringa

8. Results :

Table: Performance of the technology: Under Progress

Technology Option	No. of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio	Data on Other performance indicators*
Farmers Practice					6.5 kgs/month/family Greens:300gms/week Other Vegetables:3kgs/week Rs. 14,500
Technology 1(Mention details)					Inclusion of Bajra and Seteria 2kgs/month/family apart from regular usage of Jowar (25kgs/month/family). Inclusion of greens and other vegetables increased by 3 times. (Greens: 2kgs/week/family Vegetables: 7kgs/week/) **Rs 26,425.00 with T1 and T2** 25,020.00
Technology 2(Mention details)					

**** Other performance indicators: such as pest intensity, weed population, test weight, duration etc***

Treatments	Critical Iputs	Observations to be Recorded	Results
T-1: Pearl Millet, Nutri Kitchen garden, Moringa, Greengram, Fodder crops (IARI, 2018).	Seed + Bio Agents + Vermicompost + Fodder Strips	**Inclusion of Millets In daily menu (qty/day):** Inclusion of green leafy and other vegetables in daily menu (qty/day) Income generation(Rs.)	Inclusion of Bajra and Seteria 2kgs/month/family apart from regular usage of Jowar (25kgs/month/family). Inclusion of greens and other vegetables increased by 3 times. (Greens: 2kgs/week/family Vegetables: 7kgs/week/) Rs. 26,425.00 with T1 and T2 **25,020.00**.
T-2: FoxtailMillet +Redgram, Nutri Kitchen garden, Moringa, Greengram, Fodder crops (KVK-NICRA, 2019).			
FP: Suryanandi as sole crop/redgram as sole crop.			6.5 kgs/month/family Greens:300gms/week Other Vegetables:3kgs/week Rs. 14,500

9. Constraints: Farmers are not interested to cultivate all the crops in a single block

10. Feedback of the farmers involved: The Farming System is remunerative and helped the in increased incorporation and consumption of greens and other vegetables in daily menu

11. Feed back to the scientist who developed the technology: Nil

Frontline Demonstrations in Detail

a. Follow-up of FLDs implemented during previous years

S. No	Crop/ Enterprise	Thematic Area*	Technology Demonstrated as a follow-up from OFT	Feedback sent to the Research System	Details on the performance of the technology sent to the Extension Department	Horizontal spread of technology		
						No. of villages	No. of farmers	Area in ha
1	Bengalgram	Varietal Evaluation	Demonstration Bengalgram with NBeg-49 and Nandyala sanaga-1		Performing well in Rainfed situation. Tolerant to drought. Tolerant to wilt.	20	1500	35000
3	Paddy	Resource conservation	Direct Seeding		Water saving and Cost reduction technology	20	5000	15000
4	Maize	Resource conservation	Zero tillage		Water saving , time saving and Cost reduction technology	8	350	1000
5	Redgram Seteria	Cropping system	Redgram+ seteria Inter cropping System		Remunerative cropping system under rainfed situation	35	6000	35000
6	Redgram	Varietal Evaluation	Varietal Demonstration in Redgram-PRG-176& LRG-52		Performing well in Rainfed situation. Suitable for light to medium black soils. Tolerant to wilt	50	3000	27000
7	Bt Cotton	IPM	IPM	Ph. traps from square formation is effective for PBW monitoring.	Use of Ph traps, spray of Neem oil and Profenophos for PBW	18	472	1265
8	Redgram	IPM	Realtime contingent mgmt. of pests & diseases	Green pesticides with Thiomethoxam as two sprays at pod initiation and development - good control of pod fly.	Spray of Novaluron, Emamectin benzoate and Thiomethoxam for Maruca, Podborers and Pod fly.	17	428	305
9	Bengal gram	IDM	Biopriming for soil borne disease management	Seed treatment with Th with 30 g of FYM powder per kg seed	T.harzianum seed treatement and soil application @ 2 kg/ac	28	515	724

				supports establishment of Th in soil and effective in mgmt of Wilt.				
10	Chillis	IDM	Mgmt of viral diseases	Installing Yellow/blue sticky traps at 25 DAT is effective in checking thrips and viral diseases.	Seed treatement (Imidacloprid 600 FS), Installation of Sticky traps, Spray of Fipronil, Difenthiuron and Acetamaprid .	13	165	128
11	Onion	IPM	Thrips & Leaf blight	Sticky traps from 15 DAT effective in mgmt of thrips.	Sticky traps, Fipronil, Chlorothalonil	8	106	85
12	Blackgram	IPM	Real time contingent mgmt. of pest s & diseases	Seed treatment and Sticky traps gave good control of viral disease spread.	Seed treatement (Imida 600 FS), Sticky traps, Emamectin, Difenconazole.	17	316	338
13	Chilli	ICM	ICM whole package		Demonstrations, Exposure visits, and Field Days	32	2065	4543
14	Acid lime	IDM	Dry root rot management with bio agents		Demonstrations, Exposure visits, and Field Days	5	176	238
15	Brinjal	ICM	ICM whole package		Demonstrations, Exposure visits, and Field Days	16	194	267
16	Pomegranate	ICM	Best management practices from pruning to harvest		Demonstrations, Exposure visits, and Field Days	8	43	132
17	Horticulture crops	Cropping system	Two or more crops in the same piece of land		Demonstrations, Exposure visits, and Field Days	11	134	156

FLD-1

S. No.	Item	Details

1	**Crop**	:	Jowar
2	**Thematic area**	:	Varietal
3	**Technology demonstrated**	:	**White Jowar variety C-43**
4	**Season and year**	:	Maghi-21
5	**Farming situation**	:	Meduim black siol, Rainfed
6	**Source of fund**	:	KVK
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	5
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	-
13	**Feedback from farmers**	:	Farmers were satisfied with performance of white Jowar variety C-43 compared to existing non descriptive varieties.
14	**Feedback of the Scientist**	:	**White** Jowar variety **C-43** with Improved production technologies gave higher yield (1825kg/ha) than that of non-descriptive variety (1737 kg/ha in black soils.
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	 Field days-1  Training-1

FLD-2

S. No.	Item		Details
1	**Crop**	:	Maize
2	**Thematic area**	:	Crop geometry
3	**Technology demonstrated**	:	**Paired row method of Maize cultivation**
4	**Season and year**	:	Kharif-2021
5	**Farming situation**	:	Irrigated black- Sandy clay loam soil
6	**Source of fund**	:	KVK
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	5
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	-
13	**Feedback from farmers**	:	Farmers were impressed with increased yield with paired row method of Maize cultivation, low weed density, easy intercultural operations between pairs.

14	**Feedback of the Scientist**	:	Paired row method of Maize cultivation has recorded highest Yield 6905 kg /h and net returns than Farmers practice (6405kg/ha.) with 7.3 % increased Yield.
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	 Field days-1  Training-1

FLD: 3

S. No.	Item		Details
1	**Crop**	:	Setaria + Redgram- bengalgram
2	**Thematic area**	:	Cropping system
3	**Technology demonstrated**	:	**Demonstration on minimum tillage Bengalgram in Setaria+ Redgram Intercropping.**
4	**Season and year**	:	Kharif-2021 and Rabi
5	**Farming situation**	:	Rainfed black
6	**Source of fund**	:	CRIDA
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	5
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	-
13	**Feedback from farmers**	:	Farmers were impressed with Introduction Bengalgram with minimum **tillage in Setaria + Redgram intercropping system after harvest of Setaria.** The additional net income of the farmers was also increased in Rs. Rs 20579 /- more than the in Setaria+ Redgram Intercropping.
14	**Feedback of the Scientist**	:	 Highest net returns was obtained with minimum tillage Bengalgram in Korra+ Redgram intercropping (Rs 60949ha) than Korra+ Redgram intercropping (Rs 40370 ha). The additional net income of the farmers was also increased in minimum tillage Bengalgram in Korra+ Redgram intercropping which is calculated as Rs. Rs 20579/- more than the in Setaria+ Redgram Intercropping.
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension**	:	Field days-1 Training-1

Functionaries)

FLD: 4

S. No.	Item		Details
1	**Crop**	:	Setaria - Bengalgram
2	**Thematic area**	:	Cropping system
3	**Technology demonstrated**	:	**Setaria- Bengalgram cropping sequence with minimum Tillage.**
4	**Season and year**	:	Kharif-2021 and Rabi
5	**Farming situation**	:	Rainfed black
6	**Source of fund**	:	CRIDA
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	5
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	-
13	**Feedback from farmers**	:	Farmers were impressed with minimum **tillage in Setaria followed Bengalgram sequence.**
14	**Feedback of the Scientist**	:	The additional net income of the farmers was also increased in Korra - Bengalgram sequence which is calculated as Rs. 9,216/- more than the Fallow-Bengalgram This shows the increased profitability through Korra- Bengalgram sequence with minimum tillage.
15	**Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	 Field days-1  Training-1

FLD: 5

S. No.	Item		Details
1	**Crop**	:	Setaria - Blackgram
2	**Thematic area**	:	Cropping system
3	**Technology demonstrated**	:	.
4	**Season and year**	:	Kharif-2021 and Rabi
5	**Farming situation**	:	Rainfed black
6	**Source of fund**	:	CRIDA
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	5
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	-

13	**Feedback from farmers**	:	Farmers were impressed with minimum **tillage in Setaria followed Blackgramsequence** .
14	**Feedback of the Scientist**	:	The additional net income of the farmers was also increased in Korra- Blackgram sequence which is calculated as Rs. Rs 14240- more than the Fallow-Blackgram This shows the increased profitability through Korra - Blackgram sequence with minimum tillage.
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	 Field days-1  Training-1

FLD: 6

S. No.	Item		Details
1	**Crop**	:	Pearlmillet + Redgram
2	**Thematic area**	:	Cropping system
3	**Technology demonstrated**	:	**Demonstration on Redgram+ Pearlmillet**
4	**Season and year**	:	Kharif-2021
5	**Farming situation**	:	Rainfed black
6	**Source of fund**	:	CRIDA
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	5
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	-
13	**Feedback from farmers**	:	The additional net income of the farmers was increased in Rs. 20571/- more in **Redgram + Pearlmillet** intercropping than sole crops of Pearlmillet/Redgram.
14	**Feedback of the Scientist**	:	-
15	**Extension activities on the FLD**	:	 Field days-1  Training-1

FLD 7: Soil test based Nutrient management in Bt. Cotton

S. No.	Item		Details
1	**Crop**	:	Cotton
2	**Thematic area**	:	INM
3	**Technology demonstrated**	:	Foliar application of KNO3 (2%), MgSO4-(1%), ZnSO4(0.2%), Borax (0.15%) and STBR
4	**Season and year**	:	Kharif-2021
5	**Farming situation**	:	Irrigated black- Sandy clay loam soil
6	**Source of fund**	:	KVK
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	5
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	
13	**Feedback from farmers**	:	Farmers were satisfied with crop performances and expressed that Soil test based nutrient management is a viable technology in Bt. Cotton, because of less cost on chemical fertilizers and without reduction in yield compared to their own practice. They realized that they are resorting to higher expenditure on fertilizers in absence of soil testing of their fields
14	**Feedback of the Scientist:**	:	Soil test based nutrient management and foliar application of K,Mg,Zn and B improved the productivity of Bt. Cotton
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	Field days-1 Training-1

FLD-8: Integrated nutrient management in Groundnut

S. No.	Item		Details
1	**Crop**	:	Groundnut
2	**Thematic area**	:	INM
3	**Technology demonstrated**	:	Vermicompost-200 Kg/ha, PSB 2.5 lit/ha,Gypsum-500 Kg/ha
4	**Season and year**	:	Kharif-2021
5	**Farming situation**	:	Rainfed - Red soil
6	**Source of fund**	:	KVK
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	4
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	
13	**Feedback from farmers**	:	Farmers were satisfied with crop performances and expressed that Integrated nutrient management is a viable technology in groundnut, because of less cost on chemical fertilizers and without reduction in yield compared to their own practice. They realized that they are resorting to higher expenditure on fertilizers in

			absence of soil testing of their fields
14	**Feedback of the Scientist**	:	Integrated nutrient management and application of gypsum would improve the productivity of groundnut
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	Field days-1 Training-1

FLD-9: Soil test based nutrient management in Chickpea

S. No.	Item		Details
1	**Crop**	:	Chickpea
2	**Thematic area**	:	INM
3	**Technology demonstrated**	:	PSB-2.5 lit, Gypsum-250 kg and Zinc sulphate-25 Kg/ha
4	**Season and year**	:	Rabi-2021
5	**Farming situation**	:	Rainfed - Black soil
6	**Source of fund**	:	KVK
7	**No of locations (Villages)**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries)**	:	10
9	**No of SC/ST Farmers and women farmers**	:	4
10	**Area proposed (ha)**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any**	:	
13	**Feedback from farmers**	:	Farmers were satisfied with crop performances and expressed that Soil test based nutrient management is a viable technology in chickpea because of without reduction in yield compared to their own practice.
14	**Feedback of the Scientist**	:	Soil test based nutrient management and basal application of Zinc Sulphate and gypsum for Sulphur improved the productivity of Chickpea
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	Field days-1 Training-1

FLD-10: Soil test based nutrient management in Maize

S. No.	Item		Details
1	**Crop:**	:	Maize
2	**Thematic area:**	:	INM
3	**Technology demonstrated**	:	**Zinc sulphate-50 Kg/ha**
4	**Season and year:**	:	Rabi-2021
5	**Farming situation:**	:	ID - Black soil
6	**Source of fund:**	:	KVK
7	**No of locations (Villages):**	:	1
8	**No. of demonstrations (replications/farmers/beneficiaries):**	:	10
9	**No of SC/ST Farmers and women farmers:**	:	4
10	**Area proposed (ha):**	:	4
11	**Actual area (ha)**	:	4
12	**Justification for shortfall if any:**	:	

13	**Feedback from farmers:**	:	Farmers were satisfied with crop performances and expressed that Soil test based nutrient management is a viable technology in Maize, because of less cost on chemical fertilizers and without reduction in yield compared to their own practice. They realized that they are resorting to higher expenditure on fertilizers in absence of soil testing of their fields.
14	**Feedback of the Scientist:**	:	Soil test based nutrient management and basal application of zinc sulphate improved the productivity of Maize
15	**Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)**	:	Training-1

FLD 11: IPM for Pink Boll Worm in Bt. Cotton

S. No.	Item		Details
1	Crop:	:	Cotton
2	Thematic area:	:	IPM
3	Technology demonstrated	:	Integrated Pest Management for Pink Boll Worm : Avoiding staggered sowing of croop, Installing Pheromone traps 4/ac, Collection and Removal of rosette flowers, Spray of Neem oil (1500 PPM) @ 5 ml/lt Need based spray of Quinalphos and Profenophos
4	Season and year:	:	Kharif-2020
5	Farming situation:	:	Irrigated black soil
6	Source of fund:	:	KVK
7	No of locations (Villages):	:	1
8	No. of demonstrations (replications/farmers/beneficiaries):	:	10
9	No of SC/ST Farmers and women farmers:	:	4
10	Area proposed (ha):	:	4
11	Actual area (ha)	:	4
12	Justification for shortfall if any:	:	
13	Feedback from farmers:	:	Farmers felt happy that Pheromone traps are helpful in identifying the adult pest and farmers could take up prophylactic spray of Neem oil. Early detection and spray with Quinalphos and Profenophos helped the farmers to control the pest more efficiently.
14	Feedback of the Scientist:	:	Clean cultivation, Monitoring through Pheromone traps and avoiding staggered sowing help farmer equip for better manage the Pink Boll Worm pest.
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Training-1 Field Visits -2

FLD 12 : Management of shoot fly in Jowar

S. No.	Item	Details
1	Crop:	Jowar
2	Thematic area:	IPM
3	Technology demonstrated	IPM Package : Seed treatment with Imidacloprid 600 FS @ 5 ml/kg, Spray of Thiodicarb or L – Cyhalothrin at 7,14 and 21 DAS

4	Season and year:	Late Kharif-2020
5	Farming situation:	Irrigated Light Black Soil
6	Source of fund:	KVK
7	No of locations (Villages):	1
8	No. of demonstrations (replications/farmers/beneficiaries):	10
9	No of SC/ST Farmers and women farmers:	2
10	Area proposed (ha):	4
11	Actual area (ha)	4
12	Justification for shortfall if any:	
13	Feedback from farmers:	Seed treatment with Imidacloprid 600 FS reduces the shoot fly damage to a greater extent and gives more than 70% control of the problem.
14	Feedback of the Scientist:	Seed treatment is working efficiently in checking the shoot fly damage.
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	Training-1 Field Visits - 2

FLD 13 : Management of FAW in Maize

S. No.	Item	Details
1	Crop:	Maize
2	Thematic area:	IPM
3	Technology demonstrated	IPM Package : Seed treatment with Fortenzduo @ 6 ml/kg, Border fodder jower, Pheromone traps @ 5/ac, Prophylactic Spray of Neem oil 1500 PPM and need based spray of Emamectin benzoate or Rynaxypyr and Biopesticides (Nomurea or Bt) alternately.
4	Season and year:	Kharif-2021
5	Farming situation:	Irrigated Light Black Soil
6	Source of fund:	KVK
7	No of locations (Villages):	1
8	No. of demonstrations (replications/farmers/beneficiaries):	10
9	No of SC/ST Farmers and women farmers:	3
10	Area proposed (ha):	4
11	Actual area (ha)	4
12	Justification for shortfall if any:	
13	Feedback from farmers:	Seed treatment with Fortenzduo and erection of ph. traps reduced the FAW incidence and damage to a greater extent and gave more than 50% control of the problem during early growth stages of the crop.
14	Feedback of the Scientist:	Seed treatment, Ph traps, Border crop of fodder jower followed by prophylactic spray of Neem oil is working efficiently in checking the FAW incidence and damage.

15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	Training-1 Field Visits - 3

FLD 14 : Demonstration of Gebberellic Acid in chrysanthemum

S. No.	Item	Details
1	Crop:	Chrysanthemum
2	Thematic area:	IPM
3	Technology demonstrated	Spraying of Gebberellic acid 100ppm at 30, 45and 6 0 days after transplanting
4	Season and year:	Kharif, 2021
5	Farming situation:	Irrigated Red Soil
6	Source of fund:	KVK
7	No of locations (Villages):	1
8	No. of demonstrations (replications/farmers/beneficiaries):	10
9	No of SC/ST Farmers and women farmers:	3 & 1
10	Area proposed (ha):	4
11	Actual area (ha)	4
12	Justification for shortfall if any:	Farmers are not aware about the GA spraying and stage of the spraying in chrysanthemum
13	Feedback from farmers:	Farmers accepted this technology
14	Feedback of the Scientist:	Good technology, cost of spraying is very less cost and farmers are getting good yields
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	Farmers training programmes, field days

FLD 15 : Demonstration of bunch management practice in banana

S. No.	Item	Details
1	Crop:	Banana
2	Thematic area:	ICM
3	Technology demonstrated	Bunch care activities like Fipronil spray→ KNO_3 spray→ Bunch covering→ Micronutrient sprays.
4	Season and year:	Kharif, 2021
5	Farming situation:	Irrigated Black Soils
6	Source of fund:	KVK
7	No of locations (Villages):	2
8	No. of demonstrations (replications/farmers/beneficiaries):	10
9	No of SC/ST Farmers and women farmers:	2 & 1
10	Area proposed (ha):	4
11	Actual area (ha)	4
12	Justification for shortfall if any:	Formation of canker spot on finger due to attack by thrips. Poor bunch management practices fetches lesser price in market. Poor finger filling also concurrently reduces bunch weight. Moreover, bunches rejected for export purpose.
13	Feedback from farmers:	Farmers accepted this technology
14	Feedback of the Scientist:	This technology is useful to get more export quality bunches and good market prices.
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	Farmers training programmes, field days, Media coverage

FLD 16 : Demonstration of tomato hybrid Arka Samrat

S.	Item	Details

No.		
1	Crop:	Tomato
2	Thematic area:	Varietal evaluation
3	Technology demonstrated	Arka Samrat
4	Season and year:	Kharif, 2021
5	Farming situation:	Irrigated Black Soils
6	Source of fund:	KVK
7	No of locations (Villages):	3
8	No. of demonstrations (replications/farmers/beneficiaries):	10
9	No of SC/ST Farmers and women farmers:	2 & 2
10	Area proposed (ha):	4
11	Actual area (ha)	4
12	Justification for shortfall if any:	The local varieties are producing lower yields and more susceptible to ToLCV and bacterial wilt, blight diseases. Fruit size and number of harvests also low.
13	Feedback from farmers:	Farmers accepted this technology
14	Feedback of the Scientist:	This hybrid is high yielding, triple disease resistance and suitable to local area..
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	Farmers training programmes, field days, Media coverage

FLD 17 : Integrated crop management in pomegranate

S. No.	Item	Details
1	Crop:	Pomegranate
2	Thematic area:	ICM
3	Technology demonstrated	Spraying schedule of Dr.YSRHU
4	Season and year:	Kharif, 2021
5	Farming situation:	Irrigated Black Soils
6	Source of fund:	KVK
7	No of locations (Villages):	3
8	No. of demonstrations (replications/farmers/beneficiaries):	10

9	No of SC/ST Farmers and women farmers:	2
10	Area proposed (ha):	4
11	Actual area (ha)	4
12	Justification for shortfall if any:	Farmers are using fungicides as foliar spray for dry root rot
13	Feedback from farmers:	Farmers accepted this technology
14	Feedback of the Scientist:	This schedule having more number of sprayings around 15 sprayings. Need to reduce based on the incidence
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	Field days and training to extension functionaries.

FLD 18 : Multiple cropping system in horticulture crops

S. No.	Item	Details
1	Crop:	Vegetables
2	Thematic area:	Cropping system
3	Technology demonstrated	Multiple Cropping System
4	Season and year:	Kharif, 2021
5	Farming situation:	Irrigated Mixed Soils
6	Source of fund:	KVK
7	No of locations (Villages):	2
8	No. of demonstrations (replications/farmers/beneficiaries):	5
9	No of SC/ST Farmers and women farmers:	2
10	Area proposed (ha):	4
11	Actual area (ha)	4
12	Justification for shortfall if any:	Most of the farmers are growing mono cropping. Only small holding farmers are interested to grow multiple crops in horticulture
13	Feedback from farmers:	Farmers accepted this technology
14	Feedback of the Scientist:	Farmers get more economic benefit with multiple cropping
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	Field days and training to extension functionaries.

FLD-19

Technology 1	**Supplementation of bypass fat to milch buffaloes**
Crop	Dairy
Thematic area	Animal Nutrition management
Technology demonstrated	Bypass fat
Season and Year	Rabi 2021
Farming situation	-
Source of Fund	KVK
No. of locations (villages)	3
No. of demonstrations	10
No. of SC/ST farmers and women farmers	3
Area proposed	-
Actual area	-
Justification for short rainfall if any	-
Feedback from farmers	The technology is good for milk production
Feedback of the scientist	-
Extension activities on the FLD	Field visit, Method demonstration

FLD-20

Technology2	**Balanced feeding in milch buffaloes**
Crop	Dairy
Thematic area	Animal Nutrition management
Technology demonstrated	Formulation of balanced feed using SVVU android application
Season and Year	Rabi 2021

Farming situation	Rainfed
Source of Fund	KVK
No. of locations (villages)	3
No. of demonstrations	10
No. of SC/ST farmers and women farmers	2
Area proposed	-
Actual area	-
Justification for short rainfall if any	
Feedback from farmers	The technology is well accepted by the farmers but require thorough training
Feedback of the scientist	-
Extension activities on the FLD	Field visit, Method demonstration

FLD 21

Technology 3	**Improving reproductive efficiency though hormones**
Crop	Dairy
Thematic area	Dairy management
Technology demonstrated	Double PgF2alpha protocol
Season and Year	Rabi 2021
Farming situation	-
Source of Fund	KVK
No. of locations (villages)	4
No. of demonstrations	50
No. of SC/ST farmers and women farmers	10
Area proposed	-
Actual area	-
Justification for short rainfall if any	-
Feedback from farmers	The technology is good as it reduces the inter calving period
Feedback of the scientist	-
Extension activities on the FLD	Health camps, Field visits and group discussions

FLD 22

Technology 4	**Demonstration on influence of nutrient supplementation on incidence of mastitis**
Crop	Dairy
Thematic area	Nutrient management
Technology demonstrated	Supplementation of Se+Vit E, Vit A and mineral mixture
Season and Year	Rabi 2021
Farming situation	-
Source of Fund	KVK
No. of locations (villages)	3
No. of demonstrations	30
No. of SC/ST farmers and women farmers	10
Area proposed	-
Actual area	-
Justification for short rainfall if any	-
Feedback from farmers	The technology is good as it reduces the incidence of mastitis
Feedback of the scientist	-

Extension activities on the FLD	Health camps, Field visits and group discussions

FLD 23 :

S. No.	Item	Details
1	Crop:	Millets and Greens
2	Thematic area:	Value addition
3	Technology demonstrated	Foxtail Biscuits(70g-Foxtail Millet flour,20- Whole Wheat Flour,10- Moringa leaf Powder)
4	Season and year:	2021
5	Farming situation:	-
6	Source of fund:	KVK
7	No of locations (Villages):	2
8	No. of demonstrations (replications/farmers/beneficiaries):	10
9	No of SC/ST Farmers and women farmers:	-
10	Area proposed (ha):	-
11	Actual area (ha)	-
12	Justification for shortfall if any:	-
13	Feedback from farmers:	-
14	Feedback of the Scientist:	60% Expressed Colour, Taste, Smell, Texture, Appearance, Overall Acceptability : Scale Points: 6 (Like slightly).
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	-.

FLD 24:

S. No.	Item	Details
1	Crop:	Oil Seeds
2	Thematic area:	Drudgery Reduction
3	Technology demonstrated	Groundnut Stripper
4	Season and year:	2021
5	Farming situation:	Rainfed Redsoils
6	Source of fund:	KVK
7	No of locations (Villages):	2
8	No. of demonstrations (replications/farmers/beneficiaries):	5
9	No of SC/ST Farmers and women farmers:	5
10	Area proposed (ha):	2.5
11	Actual area (ha)	2.5
12	Justification for shortfall if any:	-
13	Feedback from farmers:	With the farmers practice for stripping of groundnut pods from the crop drudgery was recorded from moderate to minimum than stripping with stripper recorded from moderate to maximum.
14	Feedback of the Scientist:	-

15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	-.

FLD 25 :

S. No.	Item	Details
1	Crop:	Green Leafy and Vegetables
2	Thematic area:	Nutrition Garden
3	Technology demonstrated	Household food security by kitchen gardening and nutrition gardening
4	Season and year:	2021
5	Farming situation:	Irrigated Medium Black soils
6	Source of fund:	KVK
7	No of locations (Villages):	2
8	No. of demonstrations (replications/farmers/beneficiaries):	5
9	No of SC/ST Farmers and women farmers:	5
10	Area proposed (ha):	1.5
11	Actual area (ha)	1.5
12	Justification for shortfall if any:	-
13	Feedback from farmers:	With the Introduction of Nutrigardens consumption of greens and other vegetables Increased (11kgs /week) in daily menu than their regular usage i.e, 3-4 kgs/week helps in dietary diversity and income generated Rs. 1067/- /week (Rs.7,990/season) on sales of surplus production.
14	Feedback of the Scientist:	-
15	Extension activities on the FLD: (Field days, Farmers training, media coverage, training to Extension Functionaries)	-.

Frontline demonstrations on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
Value Addition	Demonstration Of Millet Based Moringa Biscuit	10	Sensory Evaluation by Using Hedonic Scale	70% Expressed Colour, Taste, Smell, Texture, Appearance, Overall Acceptability : Scale Points: 6 (Like slightly).	-
Drudgery Reduction	Demonstration Of Groundnut Stripping Frame to reduce drudgery of farm women	5	Labour required/ac/day	11	22

			Reduction on Cost on weeding/ac	Rs.1650	Rs.3300
			Feed Back on work related Stress factors :Drudgery Index parameters	stripping with stripper recorded from moderate to maximum.	For stripping of groundnut pods from the crop drudgery was recorded from moderate to minimum
Nutrtional Security	Demonstration on Nutrigarden For Ensuring Year Long Availability of Vegetables	5	Qty. Harvested/Week	45.5kgs	-
			Frequency of Consumption /Week	**11**kgs	3-4kgs
			Income generation/Week (Rs.)	**1067**.00 (Rs.7,990/season	-
				With the Introduction of Nutrigardens Increased (11 kgs /week) consumption of greens and other vegetables in daily menu than their regular usage i.e, 3-4 kgs/week helps in improvement of nutritional status and income generated Rs.1067/- /week (Rs.7,990/season).	

Impact of KVK activities (Not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Production and use of various bioinputs for natural farming	104	28%	18,000/-/ one village outlet	45,000/- one village outlet.
FAW management in Maize	32	22%	28,000/- per ac.	37,000/- per ac.
Basic & Advanced Tailoring	26	73.07		2,800.00
Jute Bag Making	22	68.18	1950	3,300.00
Millet Value Added Products	28	67.85	-	4,800. 00

NB:Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

Training/workshops/seminars etc. attended by KVK staff

Trainings attended in the relevant field of specialization (Mention Title, duration, Institution, location etc.)

Name of the staff	Title	Dates	Duration	Organized by
D.Balaraju	Furtherance in IPM approaches for ATARI Zone 10	2-4, March, 21	3 days	NCIPM, New Delhi
D.Balaraju	Promise of Biological Control for Sustainable Pest management.	17th May, 21	1 day	Maharana Prathap University of Agriculture and Technology, Rajasthan
D.Balaraju	Increasing Farmers Income - Way forward	18th June, 21	1 day	Maharana Prathap University of Agriculture and Technology, Rajasthan
D.Balaraju	Roadmap for KVKs to enhance mushroom production and consumption	9-11 Aug, 21	3 days	IIHR, Bengaluru
D.Balaraju	Spawn Production & Mushroom Cultivation	1-7 Jan, 22	7 days	IIHR, Bengaluru
K.Lakshmipriya	Webnar on Millets market linkages to farmers,FPos and other Millet Stake holders	3/6/21	1 day	ICAR-IIMR
K.Lakshmipriya	Webnar on Sensitization of Millets based FPOs and Export Opportunities In The Processing Of Millets On 30 July organized by ICAR-IIMR	30/7/21	1 day	ICAR-IIMR
K.Lakshmipriya		31/7/21	1 day	ICAR-IIMR

Details of sponsored projects/programmes implemented by KVK

S.No	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs)
1	Training on Production and Use of Bioinoculants and Organic inputs as an enterprize	WASSAN, Hyderabad	1. To train village level cadre of different NGOs working on Natural Farming in India. 2. To build capacities with regard to production of various bio inputs including	1 year	3,90,000

			bioinoculants. 3. To equip establish a bioinput enterprise in their respective villages and run them with proper business planning.		
2	NICRA	CRIDA, Hyderabad	Promoting Climate Change Adoptable Technologies	Continuation	20,00,000
3	IIRR SC Sub Plan	IIRR, Hyderabad	Extending latest technologies in Rice production to SC farmers.	Continuation	8,16,000
4	IIMR SC Sub Plan	IIMR, Hyderabad	Extending latest technologies in Millets production to SC farmers.	Continuation	3,00,000
5	CRIDA SC Sub Plan CRIDA- CRP CA	CRIDA, Hyderabad	Extending latest technologies in Cost minimizing and drought tolerance to SC farmers.	Continuation	2,06,000 50,000
6	NAARM SC Sub Plan	NAARM, Hyderabad	Promoting better production technologies in Cash crops and Animal husbandry.	Continuation	5,00,000
7	District Level Workshop on Climate Resilient Agriculture in Rainfed areas	NABARD		2021-22	50,000
8	Study on Adoption of Climate Resilient technologies in agriculture	NABARD		2021-22	1,70,000
9	Farmers and scientists interaction programme	ATMA, Kurnool		2021-22	10,000
10	DAESI Programme	Dept of Agriculture	Training Agri. input dealers.	2021-22	8,00,000

Cluster FLDs on PULSES:

Crop	Variety	Area (ha)		Average Yield (q/ha)	Increase (%) (Demo-Check)*	Yield Gap (Demo-Check)	Increase (%) Over District	Increase (%) Over State average
		Target	Achievement					

				Demo	Check	100/check		average (q/ha)	(q/ha)
Kharif									
Redgram	PRG-176	10	10	1280	1062	20.5	218	261	165.56
	LRG-52	10	10	1567	1187	31.5	380	342	255.10
Blackgram	TBG-104	20	20	1402	1117	25.5	285	51.7	29.09
Rabi									
Bengalgram	NBeG-49	10	10	1917	1625	17.9	292	50	57.38
Total (K+R+S)		50	50						

Redgram: Redgram variety LRG-52 with Improved production technologies (Improved variety, seed treatment, pre-emergence application of pendimethalin against weeds, Soil test based fertilizer application and IPM measures against Helicoverpa gave higher grain yield(1567Kg/ha), which was 31.5 per cent than that of obtained with farmers practice in medium black soils under rainfed situation. Similarly the variety PRG-176 has recorded 1280 kg/ha, which was 20.5 per cent increased than local variety (ICPL-87119) 1062kg/ha under rainfed red soils.

Blackgram: In Blackgram variety TBG-104 with Improved production technologies (Improved variety,seed treatment, pre-emergence application of pendimethalin against weeds, Soil test based fertilizer application and IPM measures against sucking pest management) gave higher grain yield(1402kg/ha), which was 13.6 per cent than that obtained with farmers practice yields of 1117 kg/ha in rainfed situation.

Bengalgram: In Bengalgram variety NBeG-49 with Improved production technologies (Improved variety,seed treatment, pre-emergence application of pendimethalin against weeds, Soil test based fertilizer application and IPM measures against Helicoverpa and S.exigua) gave higher grain yield(1917kg/ha), which was 25.5 per cent than that obtained with farmers practice yields of 1625kg/ha in black soils under rainfed situation. The increased grain yield with Improved production technologies was mainly because of more no of pods/plant and higher 100 grain weight.

Cluster FLDs on oil seeds:

Crop	Variety	Area (ha)		Average Yield (q/ha)	Increase (%) (Demo-Check)*	Yield Gap (Demo-Check)	Increase (%) Over District	Increase (%) Over State
		Target	Achievement					

				Demo	Check	100/check		average (q/ha)	average (q/ha)
Kharif									
Groundnut	Kadiri Amaravathi	10	10	985	786	25.3	199	392	103
Rabi									
Safflower	ISF-764	30	30	1190	956	24.4	234		
Groundnut	KadiriAmaravathi & Harithandra	40	40	Results are awaited, Crop is at pod maturity Stage.					
Sesamum	JCS-1020	30	30	Results are awaited, Crop is at Flowering to pod formation stage.					
Total (K+R+S)		110	110						

Groundnut: In groundnut variety Kadiri Amaravathi with Improved production technologies (Improved variety, seed treatment, Soil test based fertilizer application, weed management and IPM measures against sucking pest) gave higher grain yield (985Kg/ha), which was 25.3 per cent higher than that of local variety K6 (786kg/ha) under rainfed situation.

Rabi Groundnut: During Rabi Groundnut variety Kadri Harithandra and Kadiri Amaravathi with Improved production technologies (Improved variety, seed treatment, Soil test based fertilizer application, Foliar spray of Zn and IPM measures against spodoptera). **Results are awaited.**

Safflower: The results indicated that Safflower variety ISF-764 with Improved production technologies (Improved variety, Pre-emergence application of pendimethalin @ 2.5 lit/ha, Soil test based fertilizer application, thinning at 10-15 DAS, and sucking pest management) gave higher yield(1190kg/ha), which was 24.4 per cent than that of farmers practice (956 kg/ha) in black soils under rainfed condition.

Sesame: The results indicated that sesame variety JCS-1020 with improved production technologies (Improved variety, Pre-emergence application of pendimethalin @ 2.5 lit/ha, Soil test based fertilizer application, thinning at 10-15 DAS, and sucking pest management). **Results are awaited.**

Success stories

Success story 1

"Nutrient Management in Rice based on Soil Test Crop Response equation"

Situation analysis/Problem statement:

The agricultural production technologies of late are closely associated with fertilizer application. Farmers have been using chemical fertilizers from mid fifties as part of soil fertility management and crop production. During the year 1950-51 fertilizer consumption in India was 0.065 million tonnes and by 2008-09 it reached to 24.90 million tonnes (DAC, 2010). The future requirement by 2025 is 35.00 million tonnes. This alarming situation may create lot of problems in soil health, crop production costs, subsidies on chemical fertilizers and environmental degradation.

Rice is one of the major food crops of Kurnool district and is being grown in an area of 1,00,000 ha in both *kharif* and *rabi* seasons. Farmers are resorted to excess and indiscriminate usage of nitrogen (320 kg/ha) and phosphorus (160 kg/ha) as against recommended doses of N (240 kg/ha) and P (80 kg/ha).

Group discussions and interaction with farmers indicated that higher doses of chemical fertilizers tend to increase the yield of rice. The Subject Matter Specialists of KVK tried to convince the farmers stating that the higher doses of chemical fertilizer may give higher yields, but not economical as they cause ill health of soil, increased costs of production, crop vulnerability for pest attack , instability in productivity and reduced profitability. Due to low fertilizer use efficiency of the soil, blanket recommendation of fertilizers were inadequate for getting satisfactory yield i.e. 65 to 75 quintals/ha. Hence, the farmers are resorting higher doses of chemical fertilizers.

The Soil Test Crop Response equations (STCR) for important crops grown in the district were developed by ANGRAU - RARS, Nandyal in rice, bengalgram, groundnut, sunflower etc. By using these equations, the KVK, Yagantipalle had implemented demonstrations on nutrient management in rice based on soil test crop response equation/formula to avoid wasteful expenditure on irrational nutrient(s) application and in rationalizing the apportionment of different nutrient quantities that need to be applied to reap maximum returns in paddy from the investment on plant nutrition at different mandals of Kurnool district with a target yield of 75q/ha .

Plan, Implementation and Support:

The methodology used for implementation of programme:

- The demonstrations were implemented in eight mandals of Kurnool district namely, Dornipadu, Allgadda, Gospadu ,Nandyal,B.Atmakur, Sirivella, Uyyalawada and Yemmiganur. The villages have been selected based on PRA conducted on cost of cultivation, cost of fertilizers and soil test data of these villages etc. in major crops grown in that village.
- All the farmers of the village along with farm women, and youth were involved in awareness meetings and campaigns on abuse of chemical fertilizers in nutrient management.

- Then selected farmers, women and youth were trained on soil sampling procedure and nutrient management in Rice before starting of the season at village level. The successful farmers who adopted the STCR recommendation were utilized for capacity building of new farmers.
- Soil samples were collected and analyzed (for estimation of N,P,K,Zn,Fe,Cu and Mn) during summer at soil testing laboratory, KVK, Yagantipalle before implementation of demonstrations.
- Demonstrations conducted in farmer's fields to practically show how these STCR technologies will be effective in nutrient management to reduce cost of chemical fertilizers by their own perception.
- STCR technology replicated in project villages through awareness campaigns, trainings, exposure visits , mass media coverage, field visits, farmer's interaction meetings, field days etc.
- And taken the help of local agriculture extension personnel in the spread and replication of technology by involving them in each activity i.e trainings, field visits, field days etc.

Salient output :

Four hundred and fifty seven frontline demonstrations were organized on *"Nutrient Management in Rice based on Soil Test Crop Response equation"* in farmer's fields covering 1150 ha of 10 villages under irrigated domains of Kurnool district from the year 2015 to 2021.

Soil characteristics:

The soils were neutral to moderate alkali in reaction with pH varying from 7.26 to 8.32 and EC ranged from 0.16 to 0.96 dsm^{-1}. The organic carbon content varied from 0.28 % to 1.25 %. Texture of the surface soil varied from sandy clay loam to clay loam. The soils were low in N (ranging from 38 to 238 kg/ha kg/ha), medium to high in P (ranging from 44 to 398 kg/ha) and medium to high in K (from 164 to 726kg/ha). Though these soils are considered to be fertile, they are deficient in nitrogen but moderately high with available phosphorus and potassium.

Nutrient Application:

Based on soil test results the farmers of demonstration plots applied lower doses of N-P_2O_5-K_2O (211-16-58 Kg./ha, respectively) as compared to farmer's practice (278-202-60 Kg./ha, respectively) which is reflected in cost of production.

Yield and Economics:

The average grain yield of paddy under STCR approach was higher (7075 kg ha^{-1}) than the grain yield produced under farmer's practice (6854 kg ha^{-1}) due to balanced nutrient application .The average cost of production over the years was less in STCR trials (Rs.58955/ha) as compared to farmer's practice (Rs.68503 ha^{-1}) and net difference in cost of production was Rs. 9548 ha^{-1} due to controlled application of chemical fertilizers. Gross and net income were higher in STCR demonstrations (Rs. 141500 ha^{-1} and Rs.82545 ha^{-1}, respectively) as compared to the farmer's practice (Rs.137080 ha^{-1} and Rs.68577 ha^{-1}, respectively). It was also observed that an amount of Rs.13968 ha^{-1} was realized as additional income due to low cost of production and yield increments (2.49%) in demonstrations. Benefit-cost ratio was higher in STCR demonstrations (2.40) as compared to farmer's practice (2.0) due to low cost of production and higher gross income .

During regular field visits farmers were briefed on time, dosage, method of application of fertilizers, identification of pest and diseases and their control. It was observed that number. of effective tillers/ m^2 and number of grains/panicle were more in demo plots as compared to the check. Timely

visiting of fields helped in early diagnosis of pest and disease problems and in their control. It was also noticed that the pest and disease incidence was high in check plots compared to demonstrations particularly BPH and blast incidences. Farmers were convinced on STCR based nutrient application in rice and expressed that number of sprayings (pesticides and fungicides) were less in demonstration plots as compared to check plots.

Impact:

To study the impact evaluation of soil test based nutrient management in rice, focused group has been selected from five villages such as, Dornipadu, Kondapuram, Ramachadrapuram, Bhagyanagaram and Ammireddinagar of Dornipadu mandal from KVK adopted villages. Farmers (100 nos.) who are resorting to indiscriminate and excess application of chemical fertilisers and adopting soil test based nutrient management in rice taken for study.

Knowledge level of Soil test based nutrient management :

The data (Table.1)revealed that the results on knowledge level among the respondents clearly indicated an improvement in knowledge level of nutrient management practices which reached very high level of 86.47 percent after the demonstration compared to medium level (46.40 percent) prior to demonstration. Similar trends were noticed in the findings of Dayananda and Kumaresan (2010).The variation between, before and after demonstration of soil test based nutrient management on knowledge level is found statistically significant at 5 percent level .

Table:1. Impact of demonstrations on Knowledge of soil test based nutrient management practices among respondents:

Sl.	Particulars	Before demonstration			After demonstration		
		Total score	Index(%)	Category	Total score	Index(%)	Category
1	Soil testing and its importance	54	36.00	L	137	91.33	VH
2	Soil sampling procedure	58	38.67	L	139	92.67	VH
3	Knowledge about the nutrient content in the chemical fertilizers.	38	25.33	L	120	80.00	VH
4	Split application of fertilizers	140	93.33	VH	144	96.00	VH
5	Application of FYM	111	74.00	H	145	96.67	VH
6	Vermicomposting technique	22	14.67	VL	117	78.00	H
7	Green manuring insitu	102	68.00	H	134	89.33	VH
8	Use of bio-fertilisers	56	37.33	L	114	76.00	H
9	Application of neem powder with urea	77	51.33	M	124	82.67	VH
10	Soil test based fertilizer application	38	25.33	L	123	82.00	VH

Mean **'t' Value**	**69.6**	**46.40**	**M** **6.35***	**129.7**	**86.47**	**VH**

*Significant at 5% Category :VL-Very low; L-Low; M-Medium; H-High; VH-Very high

The data in table.2 revealed that overall results on adoption level of nutrient management practices among the respondents indicated significant improvement in soil test based nutrient management technologies to high level (68.10 percent) after the demonstration compared to low level (34.29 percent) before the demonstration due to the soil test based nutrient management technology has been successfully proved in the fields of high phosphorus built up, even without applying phosphotic fertilizers especially complexes, farmers got the same yields similar to that of applied ones (Table.2). In other words, saving costs on fertilizers to the tune of Rs. 8161 per ha which is almost 50% of costs on fertilizers and also got an additional income of Rs.10996/ha (8 Years mean shown in table.1). Farmers of other villages through exposure visits have seen these demonstrations and one to one farmer interactions arranged effectively.

Table:2. Impact of demonstrations on adoption of soil test based nutrient management practices among respondents

The diffusion of technology impact on the neighbors of the direct contacts:

Sl. no	**Practice**	**Before demonstration**			**After demonstration**		
		Total score	Index (%)	Category	Total score	Index(%)	Category
1	Split application of Chemical fertilisers	133.00	88.67	VH	136	90.67	VH
2	Application of FYM	99.00	66.00	H	127	84.67	VH
3	Vermicomposting technique	12.00	8.00	VL	51	34.00	L
4	Green manuring insitu	84.00	56.00	M	109	72.67	H
5	Use of biofertilisers	7.00	4.67	VL	85	56.67	M
6	Application of urea with neem powder	21.00	14.00	VL	94	62.67	H
7	Soil test based fertilizer application	4.00	2.67	VL	113	75.33	H
Mean 't' Value		**51.43**	**34.29**	**L 3.62***	**102.14**	**68.10**	**H**

Outcome

So far STCR based nutrient management was adopted by 3818 farmers of TBLLC and KC canal command villages covering 9874 ha. It was observed that cost reduction on chemical fertilizers is around 7.23 crores and the same amount was saved towards subsidy for Govt. of India

which is bearing 50% subsidy on chemical fertilizers. And also got an additional income of 8.68 crores due to adoption of soil test based nutrient management by farmers

Scope and future thrust of the project:

In each project village, Rice is cultivated in 400 to 800 ha. Hence there is a lot of scope to replicate the same practice in remaining paddy areas and an amount of Rs.7000-8000/- per hectare is saved on cost of production particularly on chemical fertilizers.

Further, Paddy is cultivated in Kurnool district in about one lakh hectares under all sources of irrigation. As per KVK nutritional survey and benchmark survey of RARS Nandyal, nearly 80% paddy area do not require phosphorus nutrient for another 2 to 3 years for getting optimum yields. Moreover, 'P' Nutrient is costlier (Rs. 40 to 55 per Kg) than other nutrients (N&K). Added to this, nowadays availability of complex fertilizers is also difficult. Hence, It may be popularized throughout India on project mode.

Conclusion:

Nutrient management for rice should focus on developing fertilizer recommendations for spatial domains with relatively uniform agro-ecological characteristics, cropping practices and socio-economic conditions. The project will help to make guidelines for rational usage of fertilizers in rice cultivation. With the variation in conditions like different cultivars, soil conditions, etc. fertilizer requirement will be differing. However the change will not be significant for cultivars with same yielding ability. Now with the variation of soil and climate, the soil variation mainly depends on the nutrient releasing capacity of soil and its different properties. The specific yield equation based on soil health will not only ensure sustainable crop production but will also steer the farmers towards economic usage of fertilizers depending on their financial status and prevailing market price of the crop under consideration.

Field visit to Jillella, Gospadu mandal mandal

Crop cut experiment at Kondapuram village of Dornipadu

Field visit de
village of Sir

Field visit of demo plots at Yallur village of
Gospadu mandal

Success Story 2 ::

Multiple cropping system horticulture crops

Situation analysis/Problem statement: Guru Prasad was a farmer from a village Chinnarajupalem of Banaganapalle mandal, Kurnool district in Andhra Pradesh. Farmers are getting low or at times negative net returns due to cultivation of mono cropping in Agriculture and horticulture crops. Traditionally he used to cultivate Paddy. Due to low yields and less market the income obtained was not able to meet the expenditure of his family. With multiple cropping the risk of total loss from drought, pests and diseases reduced. Some of the crops can survive and produce yield. It gives maximum production from small plots.

Plan, Implement and Support: Chinnarajupalem village was selected as one of the adopted villages of KVK. He was selected as one of the beneficiary of horticulture interventions. Under the guidance of KVK, he has started cultivating multiple crops in horticulture like tomato, ridge gourd, coriander and gogu for getting higher income and cultivating paddy as cattle feed. To increase the yield levels of tomato and ridge gourd, KVK supplied triple disease resistant hybrid Arka Samrat in tomato and high yielding variety Arka Prasan in ridge gourd and recommended good ICM practices. He started following the recommended management practices in cultivation of crops. In an area of 6 acres, he is cultivating Tomato (2 acres), Ridge gourd (2 acres), Coriander (0.5 acres), Gogu (0.5 acres) and Paddy (1 acre). Instead of using Chemical fertilizers, he applied dung obtained from buffaloes and vermicompost as organic manure. He also used Jeevamrutha, Panchagavya, neem oil, Ghana Jeevamrutha for growth, pest and disease control.

Output and Outcome:

After adopting the high yielding varieties and technical interventions he was able to double his income levels. He is selling produce to local villages and Banaganapalle market as organic produce. He is investing less cost on fertilizers and pesticides. Nearby farmers are following multiple cropping systems in horticulture.

Economics:

Crops	Area (Acre)	Production (Q.)	Cost of cultivation (Rs.)	Gross Income (Rs.)	Net Income (Rs.)
Tomato (Arka Samrat)	2ac	493.2Q	109804	246600	136796
Ridge gourd (Arka Prasanna, Arka Vikram)	2ac	223.5Q	106498	337350	230852
Coriander	0.5ac	16.24 Q	5899	28385	22486
Gogu	0.5ac	27.57Q	4923	30427	25504
Paddy ICM	1ac	26.76Q	18470	38457	19987
Total	**6ac**		**245594**	**681219**	**435625**


REDMI NOTE 5 PRO
MI DUAL CAMERA


REDMI NOTE 9
AI QUAD CAMERA

Success Story 3

Backyard poultry – A viable enterprise for small farmers

Situation/Problem statement:

Kurnool district is situated in scarce rainfall zone with annual rain fall of 700mm. Due to unexpected drought spells, farmers facing heavy losses in agriculture on every alternate year. Livestock is the major activity in rainfed agriculture which is providing sustainable income to the farmers. Backyard poultry is one of the livestock components which ensure income, employment and nutritional security to the rural small and marginal farmers. But improved breeds of poultry are not available to the farmers to succeed in this sector.

Plan, implement and support:

Backyard poultry nursery unit has been established at KVK, Yagantipalle during the year 2012. Day old chicks of improved poultry like Rajasri have purchased from the institutions and reared for five weeks in the nursery unit. Scientific brooding, feeding and vaccination against Ranikhet Disease, Infectious Bursal disease was done during this period. The chicks have given to the farmers at five weeks age to rear at their backyards. Awareness have created among the farmers towards scientific rearing of backyard poultry through training programmes and field visits. A total of 61950 chicks of backyard poultry especially Rajasri breed have supplied from 2012 to 2021-22.

Year	No. of chicks supplied
2012-13	9413
2013-14	17795
2014-15	2800
2015-16	5480
2016-17	3942
2017-18	4006
2018-19	5599
2019-20	4968
2020-21	3600
2021-22	4347
Total	**61950**

Adaptability of Rajasri birds:

A total of 14573 Rajasri chicks were supplied for the past three years from 2017-2020. Data was collected from 25 farmers randomly to whom 1875 chicks supplied during 2017-18. It was observed that 64% was the success rate of adoption. However mortality rate was 36% which was due to predators and cannibalism (11%) and bacterial infection (25%).

Similarly data collected randomly from 25 farmers to whom 3176 birds supplied during the year 2018-19. It was observed that the success rate was 84.4% and mortality rate was 15.6%. The mortality was due to cannibalism and predators (6.4%) and bacterial infections (9.2%).

It was observed from the data collected from 13 farmers to whom 1640 chicks supplied during 2019-20 that, 67.9% was the success rate. Mortality rate was 32.1% due to predators (11%), cannibalism and bacterial infections (21.1%).

Year	No. of birds	Success (%)	Mortality (%)
2017-18	1845	64.0	36.0
2018-19	3176	84.4	15.6
2019-20	1640	67.9	32.1
2021-21	3600	72.6	27.4
2021-22	4347	78.4	21.6

The major cause of the death during 2017-18 and 2019-20 was due to predators and in some cases it is due to bacterial infections like infectious bronchitis.

Farmers are being educated towards rearing of poultry at backyards at the time of distribution and regularly in contact with the farmers and providing medical advice and other management practices to control vices like cannibalism. Post mortem of the dead birds is being conducted and suitable medication is advising to the farmers.

Economic Impact of Rajasri Chicks:

An additional income of Rs.293.95/bird was observed from the chicks supplied during 2019-20 compared Rs.207.67/bird during 2018-19 and 221.02/bird in 2017-18. Farmers sold the birds at high cost vary from Rs.500 to 1200 per bird during village rituals and increase in cost of chicken in the market during lock down period.

Particulars	2017-18	2018-19	2019-20
Male birds	709	1608	474
Female birds	472	1072	479
Total	1181	2680	953
Sale price of male	174.7	176.4	353.85
Sale price of female	169.8	165.2	276.92
weekly egg production	3.61	3.52	3.5
No. of weeks in egg production	15.09	14.23	12.0
Sale price of eggs	5.86	5.64	6.0
Gross income (Rs.)	351806.32	763560.93	472687.5
Expenditure (Rs.)	90800.00	207000.00	192550.0
Net income (Rs.)	261006.32	556560.93	280137.5
Net income/bird (Rs.)	221.02	207.67	293.95
Additional income per family	**10440.25**	**22262.43**	**21549.04**

Success story of Rajasri backyard poultry

Sri. Narayana, Vemulapadu

No. of chicks purchased	: 200
Total cost incurred	**: 35000**
Mortality	: 35
Total income from	
Sale of adult birds @ 250/- per kg	: 45,000.00
Egg production/day : 20-25	
Total income from eggs (till date)	: 7,500.00
Total income	**: 52,500.00**

Success Story 4

I. Title of the Success Story:

Gender Main Streaming in Promotion of Millets for Economic Sustainability–A Success Stories of Women Agripreneurs of Kurnool dt., Andhra Pradesh.

II. Category:

Value addition to Agriculture Produce

III. Introduction:

KVK focused on establishment of small scale food processing units at village level by motivating and involving SHG women in rural areas with locally grown crops. The establishment of small scale units at village level also helps farmers for fetching remunerative prices by avoiding middle men. Since half a decade millet based products have become increasingly popular due to nutritional and economic advantages and scope for area expansion also.

In 2015, Sri Umamaheswara Self Help Group of Yagantiplle village of Banaganapalle mandal approached Krishi Vigyan Kendra for establishing income generating unit for their economic and self sustainability. KVK encouraged SHG women to take up Millet processing unit with predominant crops of the village i.e, Jowar and Seteria.

IV. Previous Background:

Farming and dairy was the basic occupation of the entrepreneurs. Paddy, maize, Redgram and millets like Jowar and Seteria crops were cultivated, but the annual income was not able to meet the family expenses.

V. Challenge:

Abundant raw material availability is the opportunity for the women and their passion to initiate and sustain the millet startup is the strength. However they were not technically and economically sound to take up the activity. Marketing the output is the challenge in the system. KVK was behind the Woman group in bridging the gaps and converting the weakness into strengths and threats into opportunities.

VI. Interventions/Initiatives:

KVK took initiative in giving technical guidance and SHG women were taken to the various millet processing units for Primary, Secondary and Tertiary processing of millets at Incubation centers of Indian Institute of Millet Research, and Millet processing Unit, PJTSAU, R'nagar, Hyd.

KVK Motivated and encouraged SHG Women to start Millet Processing Activities. They hired loan from SHG for construction of shed, got 3 phase electricity supply and installed machineries. They also hired loan from Shree Shakthi for purchase of raw material.

KVK behind the SHGs in unit registration, training in products preparation, Sample analysis, Products Registration with FSSAI, Advertisement of the products, product promotion in various forums, Packing, Labelling and Marketing .

VII. Results/Insights:

First Millet Processing Unit established with SHG Women in the State in 2015 and running successfully till to date.

VIII. Output/Impact:

The products produced by the group are Seteria rice, Seteria suji, sorghum flour, sorghum bold & fine semolina, sorghum snacks, Ragi flour, Mixed millet flours, Mixed millet suji, Bajra suji,flours, Ragi,Bajra, Sorghum and Seteria snack items etc... and selling under the brand name of **KRISHI Millets** manufactured by **Shri Umamaheswara Millet Processing Unit**. The initial production was two qtls per month over a period of eight months geared their production from 8 to 10 qtls/month, with an net income of Rs. 9,000/- to 10,000/-per month with the support of three out sourced employees i.e, SHG women by paying Rs.150/day for 20 days in a month. The products are sold to departmental stores, Super markets at Nandyal, Kurnool, and also to the wholesale dealers throughout the state. At present the annual output is 25 tonnes with the average income of Rs.2,40,000/- .

IX. Awards & Recognitions:

- Received Best Women Agripreneurs in 2015 During Kisan Diwas celebrations.
- Received best appreciation from district level administration in millet value addition
- Received Best Agripreneurs in 2019 during International women's Day Celebrations organized by NANDI Rythu Samakhya, A Farmers Organization, Nandyal

X. Lessons Learnt:

Millet processing and marketing is catching every one's attention. At present awareness on Consumption of millets has increased several folds. For further up scaling of the products…

- Advanced machinery with high output.
- Promotion by Government for establishment of the units by SHGs
- Policy frame work of the government for inclusion of millets and millet bi products into Public Distribution System, Mid Day Meal and Supplementary Nutrition Programme in Anganwadi Centres.

XII. Supporting Photos & Images :

Destonning Of Millets

Dehulling Of Millets

Dr K.RajaReddy, Former Director of Extension Visit To Millet Processing Unit.

Scientists Team UAS, Bangalore Visit to Millet processing Unit.

Best women Agripreneurs During kisan Mela Celebrations in 2015-16

Appreciation from District Administration In Millet value Addition

Participation In International Trade fair On Organics And Millets 2018

Participation In Millet Fests

XIII. Message to Fellow farmers By the Achiever: Farmers to be united under FPO's and take up different value addition activities for agriculture produce for doubling farmers income.

XIV. Contact Details Of Achiver inclosing E-mail, Phone No. & Pin code:

1. K.Maheswaramma,W/o SivaramiReddy,YagantipalleVillage, Banaganapalle(M), Kurnool Dt. Pin: 518124, A.P, Mobile No: 9493375873, 9618984600.

2. B. RajeswarammaW/o Ramohan Reddy, Yagantipalle Village, Banaganapalle(M), Kurnool Dt. Pin: 518124, A.P, Mobile No: 9491591273. E-mail: pendekantikvk@gmail.com

Success Story 5

Establishment of Millet Bakery Unit For Self Sustainability of SHG Women:

Situation analysis/Problem statement:

Smt Y.Rani w/o Narasimhudu of Banaganapalle Village, Banaganapalle mandal. She is single women with two children staying with parents. When the children grow older and she felt that she is more dependent on parents for finances she realized financial constraints. She approached KVK for takingup any IG Activity for her livelihoods promotion. In 2016, she attended Jute Bag training programme for one month and In 2017 she attended Millet bakery Training at KVK and showed interest in establishment of Millet Bakery Unit.

Plan, Implement and Support:

KVK suggested to establish Millet bakery unit due to high market demand of Millet bakery products. She underwent training on preparation of various millet based products i.e, Cookies, Cakes, bread, buns with Pearl, Foxtail , Sorghum, Finger millet, multi millet etc (Sweet and salt , jaggery, Sugarfree etc). She Purchased Oven and Other Bakery Unit Accessories and Raw materials by hiring loan from SHG and started preparation of millet based bakery products. KVK helped establishing the unit and also in getting the FSSAI registration number. To enhance her skills in commercial bakery she was sponsored to Nutritech Bakery Solutions, Hyd as a part of EDP.

Output:

She got expertise in preparation of various millet based bakery products i.e, Cookies, cakes, buns and breads etc. Established ***Star Millet Bakery Products Unit*** at Banaganapalle.

Outcome: She is preparing 200 kgs /month and earning an net income of Rs.8,500/- month excluding loan amount. She is supplying and selling millet bakery products to Local shops, Super markets, NGOs, Exhibitions, Offices etc and able to meet the expenses for her livelihoods. Her millet products got placed in “e Bharathi.org website” which is e-platform created by the Government of Andhra Pradesh with the support of TATA Trust to help the rural entrepreneurs in selling their products.

Impact of Intervention: This income generating activity helped her in getting name for the brand of millet based bakery products in the district and also empowered her by becoming a bread winner.

Supporting Photos & Images:

Preparation Of Millet cookies

Preparation Of Millet cookies

Process of Preparation

Preparation Of Millet Cup Cakes

Visit Of Dean Of Homescience
Dr L.Umadevi, ANGRAU & ADR,
RARS, Nandyal

Vist of Officials from SERP,
State Head office,Vijayawada

Advanced bakery training at
Nutritech solutions,Hyd.

Exhibition of millet based products in
District level Exhibitions

Success Story 6

Establishment of Dhal Processing Units For Economic Sustainability And Doubling Farmers's income

Situation analysis/Problem statement:

Pulses are important traditional Crops in Kurnool district, In Kharif Redgram is grown in an area of 68,660 hac and Bengalgram is grown in 1,61,142 hac in Rabi. The food habits of people of this region are mainly depending on Redgram and Bengal gram based recepies in daily menu. Average consumption of Redgram is 25-30kgs/annum/household and Bengal gram 25kgs/annum/household. Though there is a lot of demand for dhal for house hold consumption due to lack of proper processing facilities at door steps of farm families they depend on traditional method of processing or at old processing machineries with low out put.

The decentralized, small scale house hold based economy of food production and food processing is advantageous for young rural farmers for Economic Sustainability. Keeping this in view, KVK focused on establishment of small scale food processing units at village level by motivating and involving young farmers in rural areas.

Plan, Implement and Support:

Sri R.Suresh Reddy S/o Viswanath Reddy of Yanakandla Village of Banaganapalle mandal visited KVK for establishing viable income generating unit for economic sustainability and to make available the primary processing facilities at the door steps of farming community with high out put.

KVK suggested the entrepreneur to establish the dhal processing units with high end technology with high out put i.e, and technically guided for the procurement of machineries. KVK extended technical guidance right from the purchase of machineries till the processing of dhal. He purchased dhal processing Unit from Jalaram Engineering works, Akola, Maharastra, A Franchiser of dhal processing machinery developed by Dr PDKV, Akola.

Output:

He got expertise in running dhal processing units and started dehusking of Redgram, Bengalgram, Greengram and Blackgram.

Outcome:

His turn over is 4 ton to 4.5 ton/month with an output of 78 to 80 kgs/qtl , charging Rs.250/-/qtls and earning an net income of Rs.5,500/- month excluding loan amount.

Impact of Intervention:

The income generating activity helped him as alternate income source. He is known in the mandal and adjoining three mandals Owk, Bethamcherla and Panyam for dhal processing activity.

 Sign Board of Dhal Processing Unit	 Processing of Redgramdhal
 Processing Of Redgram Dhal	 Video documentation of Dhal Processing Activity
 Interaction with the entrepreneur regarding Processing Activity	 Dean Of Homescience Dr L.Umadevi ,ANGRAU Visit to Dhal processing Unit

Success Story 7

Establishment of Dhal Processing Units For Economic Sustainability of Agripreneur:

Situation analysis/Problem statement:

Pulses are important traditional Crops in Kurnool district, in Kharif Redgram is grown in an area of 68,660 hac and Bengalgram is grown in 1,61,142 hac in Rabi. Pulses are nutritious foods with good amount of dietary fibre and essential minerals. Koilakuntla mandal of Kurnool district is predominantly agriculture belt with fallow chick pea cropping pattern grown in an area of 38,000 hac and redgram grown in an area of 1750hac. The food habits of people of this region is consumption of Redgram dhal with Jowar roti/Rice and Bengalgram is used for preparation of Snacks and Sweets. Average consumption

of Redgram is 25-30kgs/annum/household and Bengal gram 25kgs/annum/household. Though there is a lot of demand for dhal for house hold consumption due to lack of proper processing facilities at door steps of farm families they depend on traditional method of processing or at old processing machineries with low out put @58kgs to 60 kgs/qtl.

The decentralized, small scale house hold based economy of food production and food processing is advantageous for young rural farmers for Economic Sustainability. Keeping this in view, KVK focused on establishment of small scale food processing units at village level by motivating and involving young farmers in rural areas.

Plan, Implement and Support:

Sri S. Ahmed S/o Mohammed Ghouse of Koilakuntla Village of Koilajkuntla mandal visited KVK for establishing viable income generating unit for economic sustainability and to make available the primary processing facilities at the door steps of farming community with high out put.

KVK suggested the entrepreneur to establish the dhal processing units with high end technology with high output. KVK extended technical guidance right from the purchase of machineries till the processing of dhal. He purchased dhal processing Unit from Jalaram Engineering works, Akola, Maharastra, A Franchiser of dhal processing machinery developed by Dr PDKV, Akola.

Output:

Learned the skill of dehusking with more output of dhal for all the pulses i.e, Redgram, Bengalgram, Greengram and Blackgram.

Outcome:

Processing 1 ton to 1.5 ton/month with processing efficiency of of 78 kgs/qtl with an net income of Rs.6,500/- month.

Impact of Intervention:

This income generating activity helped him as alternate income source. He is known in the mandal for quality dhal Processing activity and in adjoining two mandals i.e, Sanjamala and Koilakuntla covering 20 villages.

Entrepreneur With Dhal Mill

Inauguration of Dhal Mill

Success Story 8

Establishment of Millet Processing Units For Economic Sustainability Of Rural Youth And Doubling farmers Income

Situation analysis/Problem statement:

Millets are important traditional food crops grown in an area of 70046 hac in Kurnool district of A.P. Jowar a great millet food crop is largely consumed in Kurnool district limited to traditional recipies i.e. roti and Porridge and other millets like Seteria, Bajra are also grown as sole crop/Inter crop with redgram in rayalaseema region. But the household consumption is very limited to not even 1kg/month. This is due to lack of awareness on diversified and value added products and its nutritional importance. Taking into consideration of above facts, there is every need to develop and diversify value added products with jowar and other millets i.e, seteria, Bajra, Ragi etc.. and to make available according to the choice and taste/preference of the consumer.

The decentralized, small scale house hold based economy of food production and food processing is advantageous for young rural farmers for Economic Sustainability. Keeping this in view, KVK focused on Secondary Agriculture i.e, Value Addition establishment of small scale food processing units at village level by motivating and involving young farmers in rural areas.

Plan, Implement and Support:

Sri K.NagaVenkatesh S/o Sivaiah of Banaganapalle Village of Banaganapalle mandal was interested in establishing Millet Processing unit at Banaganapalle and bring the millet products at the door steps of the public with ensured quality supply.

KVK suggested the entrepreneur to establish the millet processing units with high end technology with high put i.e, and technically guided for the procurement of machineries. KVK extended technical guidance right from the purchase of machineries, training and till the processing of millets. He purchased Millet processing machineries i.e, destonner, grader cum Aspirator, dehuller, pulveriser, suji making

machine by investing an amount of Rs..15.0lakh on machineries and Rs.25.0 lakh on shed Construction and electricity supply by hiring loan from bank.,

Output:

He underwent training on installation and product preparation at Millet unit established by KVK With SHG Women and he was also taken to exposure visit to Indian Institute of Millet Reserach, Rajendra Nagar for further strengthening his skills and knowledge in running millet processing unit. He started processing activities of all millet primary, secondary and tertiary products .

Outcome:

"AYURGUNA" was the outcome of his hard work. All the products were labeled on the brand name of Ayurguna under the manufacturing company "Lakshmi Foods". All millets (Sorghum, Ragi, Bajra, Seteria, Kodo ,Proso, and Little Millet) primary and secondary products prepared are Rice, Suji, Flours, Mixed Millet Suji, Mixed Millet flours etc with turn over of 218 qtls/annum on total sale of all millet products realizing an net income of Rs.2,39,800/-. Ayurguna Raagi Malt reached many stores across the state.

Impact of Intervention:

Millet Unit established by him was an inspiration to many enthusiastic entrepreneurs through out the district and the State. New entrepreneurs across the State are approaching him in establishing millet units. His success was recorded and broadcasted in ETV-Yuva Programme as an inspiring success for the Upcoming youth entrepreneurs. Students from Agri clinics and Agri business Colleges, SHG women members, Students from Agriculture colleges visited the unit and inspired with his success.

Supporting Quotes & Images:

Visit of Dean of Homescience Dr L.UmaDevi And ADR, RARS, Nandyal Pulverizing Millets

Dean of Homescience Dr L.UmaDevi And ADR, RARS, Nandyal Interacting with Entrepreneur

Dehulling of Millets

Pulverizing Millets

Packing Of Millets

Finished Products Ready To Market

Exposure visit Of SHG Women

Exposure visit of Agri.Students

Success Story 9

Promotion Of Eco-Friendly Jute Bag a Success of SHG Women

Situation analysis/Problem statement:

Plastic bags made from petrochemical products such as Polyethylene and Polypropylene was extensively used for manufacturing carry bags. The disposable bags are convenient but they are major source of waste and pollution in the nature. The materials are not bio-degradable and also threat to the humans health. Over the years disposal of carry bags in the face of houses , waterways, sewage, parks, beaches or streets showing harmful effects on the Ecosystem. Reuasable cloth bags/Biodegradable bags

are very strong and highly durable, **100% biodegradable** (it degrades biologically in 1 to 2 years), Eco-friendly, **low-energy recyclable** help to protect the environment concerns. It is a time to encourage the usage of Biodegradable/natural material bags, so that it contribute to the environment to make our planet clean and healthy place to live in.

Plan, Implement and Support:

With an aim to initiate and promote Eco friendly Jute bags, KVK took Initiative in imparting training to two SHG women groups consisting of 25 women members in collaboration with Indira Kranthi Patham, Bethamcherla on Jute Bag Making. Jute bag Making was selected because of its availability in different colours and designs and is more acceptable by consumers for its durability and appearance. The training duration was for a period of one month and this was organized at Mandal Mahila Samakhya, Bethamcherla. After the training, four SHG women came forward to establish Jute Bag Making Unit. KVK was behind the group in purchasing Jute Bag making stitching machine and jute materials from National Jute Board, Hyderbad . They Invested Rs.40,000/- initially by hiring loan from Mandal Mahila Samakhya.

Output:

Stitched different types of Jute bags of various sizes with value addition of laces, patch work with ethnic cotton materials etc..

Outcome:

The bags are being sold under the brand name of Siva Shanthi Eco friendly Jute & Cloth Bags. They are Stitching 250-300 bags/month and selling in retails shops, local markets, shandys and Rural Retail Stores opened by DRDA in five mandals and realizing an net income of Rs.3200/-/each. Jute bags catalogue also placed in “e Bharathi.org website” created by the Government of Andhra Pradesh with the support of TATA Trust to help the rural entrepreneurs in selling their products on e-platform.

Impact of Intervention:

First Jute Bag Making Unit established with SHG Women in the district in 2018 and running successfully. The Jute bags stitched by this unit got very good demand and line departments came forward to order also for cloth bags for seed packing, Jute bags & Pouches for meetings.

The unit stitched 15000 cloth bags for KVK seed for last two years. To meet the increased demand two more new machines were purchased.

Supporting Quotes & Images:

Training SHG Women on Jute Bag Making At Mandal Mahila Samakhya, Bethamcherla

Trained SHG Women With Different models of Jute Bags

Inauguration of Jute Bag Making Unit

Jute Bag Making Production Unit

Cutting Of Jute Materials For Bag Stiching

Stiching of Jute Bags

Success Story 10

Promotion Of Nutrigardens for Food & Nutritional Security in the Adopted villages of KVK

Situation analysis/Problem statement:

The two major nutritional problems in India are Under Nutrition (underweight-43.5, stunting-47.9, and wasting-20) Nutritional Anaemia (<5 years-74.3%, and pregnant women-49.7%). It is estimated that

about 20%-40% of maternal deaths in India are due to anemia. Low dietary intake, poor iron (less than 20 mg /day) and folic acid intake (less than 70
micrograms/day). Data from NNMB, ICMR and DLHS surveys have shown that prevalence of anaemia is very high ranging between 80-90% in preschool children, pregnant and lactating women and adolescent girls. Moderate and severe anaemia is seen even among educated families and the higher income group. NNMB survey in 2006 showed that 55% of the adult men also suffer from anaemia. Anaemia is associated with increased susceptibility to infections, reduction in work capacity and poor concentration.

Most of the population spend 60 to 80 percent of their income on food. Majority of farm women have lack of knowledge about health and nutrition, dietary pattern of pregnant and supplementary feeding for children. Due to poor economic condition they are unable to purchase fruits and vegetable from market for their daily dietary need. It resulted in poor health and imbalance nutritional status of farm women and children. Farm Women of rural areas of Kurnool district with small backyard spaces were used for the dumping waste material and other unproductive work. These issues have been noticed by many of them but are unaware of efficient utilization of the space. They are mostly engaged as wage laborers in farm work during cropping season.

The farm women of adopted villages of KVK are growing one or two vegetable crops of local variety in their backyard in traditional way. Motivated farm women towards growing improved varieties of different vegetables to fulfill their nutritional requirement, awareness was created on nutritional deficiency diseases ,importance of greens and other vegetables in daily menu, importance of raising of nutria gardens to combat nutritional deficiencies. Demonstrations on kitchen gardening were organized in their back yards depending on the place available at their door steps.

Plan, Implement and Support:

Awareness programmes were organized for farm women on importance of raising of nutri gardens. Total 300 demonstrations were conducted on nutri gardens in 20 villages of 5 mandals in Kurnool district with an Objective of Improving the health and nutritional status of farm families, Increase the income of farm families, make farm women familiar with different vegetables and inclusion of vegetables in daily menu depending on the place available at their door steps.

Each family was supplied with 50 gms of Seed kit consisting of four types of greenleafy vegetables i.e, spinach, gogu, amaranthus, chukka and six types of other vegetables i.e, okra, cluster beans, French beans, Tomato,Brinjal, Green chillies and three types creepers i.e, Ridge gourd, bottle gourd, bitter gourd.

Output:

After the training programmes farm women got motivated and raised nutri gardens in their back yards.

Outcome:

The farm women of adopted villages of KVK raised nutri gardens depending on place available at their disposal and produced green leafy and other vegetables to meet the daily requirement of the farm families. Each house hold got an avg. yield of 4kgs/week and 250gms-300gms (one bunch) of each greenleafy vegetable/week. A total of 16kgs of vegetables /month and 16 bunches of all green leafy vegetables/month for 41/2 to 5 months.

Impact of Intervention:

With the raising of nutri gardens in their backyards intake of varied vegetables regularly by families led to considerable improvement in the dietary diversity contributed to improve the nutritional status of the family members. Their dependence on the market for buying vegetables has reduced substantially. With fresh vegetables grown in their own home during the season saved Rs.3,500/- to 4,000/-.

Initially, farmwomen hesitated to adopt nutri garden but seeing the success fellow farm women and other from neighboring villages approached KVK for seed leads to horizontal spread of Nutri Gardens to 38 villages covering 8 mandals. The women who took up demonstrations made available some quantity of vegetable seed by selection and used for next year and shared to their neighbours. The major achievement of the demonstrations is farm women adopting Nutri gardening using spare space around their house and use spare time and also get fresh food. They also save money and get additional incomes from their Nutri gardens. The combined value of garden production, including sale of surplus vegetables combined with savings in food and medical expenses, varies seasonally but constitutes a significant proportion of total income (upwards of Rs 7,000 to 8,000 per annum) for most households.

Supporting Quotes & Images:

Training farm women On Importance of raising of Nutri gardens

Training farm women On Importance of Raising of Nutri gardens

Awareness On Nutritional deficiency Disorders

Distribution Of Seed kits Under ATMA

Distribution Of Seed Kits Under NICRA

Distribution of seed Kits

Distribution of Seed Kits Under ANGRAU-SERP

Model Nutrigardens In Mandal Mahila Samakhya

Honouring Farm women During Mahila Kisan Diwas Celebrations For Being A Role Model For Raising Nutrigardens

Sharing of Experiences By Farmwomen in Cultivation of Nutri gardens

Farm Women With Nutri gardens In Their CourtYard

View Of Nutri gardens In GB Pet Viilage

Farm Women With NutriGardens in Yerragudi village

Farm Women With NutriGardens in Ramachandra puram village

Farm women with Nutrigardens in Yagatipalle Village

Farm women with Nutrigardens in K.Kottala Village

Success Story 11

Promotion Of Nutrigardens In Schools And Anganwadi Centres – A Pave for Food & Nutritional Security

Situation analysis/Problem statement:

Malnutrition continues to be a primary cause of ill health and mortality among children. Poor nutritional status during childhood is the determinant of ill health outcomes. In rural areas the nutritional status of school- aged children is considerably not satisfying. About half of rural children are too short for their age (stunting) and 21% have low weight for height (wasting). In Kurnool district 13.15% of

children are moderately under weight and 22.08% of children are moderately stunted. Generally in rural areas intake of calories, proteins and micro nutrients is found to be less than the recommended dietary allowances.

Education, Adequate nutrition and good health & wellbeing are crucial to the development of children and their future livelihoods. School Nutrition gardens can be a vital part of Nation's Endeavour to address hunger and malnutrition. School Nutrition gardens provide freshly grown nutritious vegetables that can be utilized for mid day meals for the children. School nutrition gardens can take back the children to the organic methods of growing vegetables. To address the double burden of malnutrition due to excessive consumption of fast and junk foods by children, school nutrition gardens can offer opportunity for an outdoor activity while also teaching the importance of nutrients rich diet. School Nutrition gardens is a place where greens and other vegetables are grown around the the school premises. School nutri gardens are a wonderful way to use the school to reconnect the students to a natural world and make them aware about the true source of their food and teach them valuable gardening and agriculture concepts and skills.

Plan, Implement and Support:

Awareness regarding importance of good nutrition and dietary knowledge are important factors for improving the nutritional status of school children. Raising school nutrition gardens inculcate the habit cultivating nutri gardens in back home situations. It is also recommended that, in Anganwadi Centers mothers should also be given awareness about healthy, locally available, low cost food for good health of their children. Knowledge regarding nutrients available in the foods, nutrients for proper growth & development and nutritious recipes must be given to the mothers & encourage them to indulge their children in good eating habits etc.

KVK took initiative in promoting school nutrition gardens for incorporating Green leafy and Other vegetables in Mid Day Meal Programmes by adopting three Govt schools at Banaganapalle and Dornipadu mandals, Two KGBV Schools (Sanjamala & Dornipadu) and 120 Anganwadi Centres in 3 ICDS Projects i.,e Banaganapalle, Koilakuntla & Nandyal (Rural) The harvested greens and other vegetables are utilized for children and mothers meals.

Organised 6 Training programmes on Nutrition Education for students of classes from 5 th to 10th Govt.girls high School Banaganapalle, Govt School Kaipa, Model High School Banaganapalle, KGBV School Banaganapalle, KGBV School Dornipadu, KGBV School Sanjamala,Govt Model School Ramachandrapuram,Social Welfare Hostel Banaganaplle and Supplied Nutri Garden Seed kits (250gms) consisting of four types of green leafy vegetables i.e, spinach, gogu, amaranthus, chukka and six types of other vegetables i.e, okra, cluster beans, French beans, Tomato , Brinjal , Greenj chillies and three types creepers i.e, Ridge gourd, bottle gourd, bitter gourd along with Drum Stick Plants. Nutri

Garden Committees were formed in each school for Land preparation, Sowing Of Seeds, Watering, Removal Of weeds etc under the control of School Physical Education Teachers. The harvested vegetables are used in Mid day Meal programme of the Schools.

Organised five training programmes for Anganwadi Teachers and Supervisors on importance of raising of Nutri gardens and their role in combating nutritional deficiency disorders and supplied nutri garden kits. Further Anganwadi Teachers are directed to orient mothers on importance of greens and other vegetables in daily menu and also mothers can visualize how a small garden in their backyards could meet their families' year-round dietary requirements for fresh fruits and vegetables and they can also send their products to anganwadis and the vegetables and grains contributed by the community are used to cook meals for childrens.

Output:

Nutri gardens were laid out in the Govt. High Schools of Kaipa, Banaganapalle, Ramachandrapuram villages and Kasturbha Gandhi Balika Vidyalaya of Sanjamala, Dornipadu and In 120 Anganwadi Centres in Banaganapalle, Koilakuntla and Nandyal ICDS Projects.

Outcome:

The nutri gardens established in the schools and aganwadi centres with the average yield of all the vegetables ranged from 12-15kgs/week and green leafy vegetables 24 bunches/week (each bunch of 250Gms) helped them to incorporate in Mid day meal programme. The nutri gardens laid out in Anganwadi centres helped to incorporated in preparation of meals for children, Pregnant and lactating mothers. During mid day meal time they interacted with the teachers on cultivating greens and other vegetables to take back home situations. Pregnant and lactating mothers were also given greens and vegetables when found excess.

Impact of Intervention:

The nutri gardens raised in the schools and anganwadi centres allowed the children to grow plants from seed to vegetable and watching tiny seeds turn into a plants. It not only added fresh vegetables to their menu but also Students will be given responsibility to take care for plants and living organism thus added many advantages for the school children, anganwadi children and mothers.

The nutri gardens raised in the schools & Anganwadi centres had strong influence on children and mothers, 68% showed interest in raising nutri gardens in back home situations and cultivated three types of green leafy vegetables i.e, gogu, Palak, Amaranthus and okra, Ridge gourd, Cluster beans, French beans, Bottle gourd and Bitter gourd etc..fresh greens and other vegetables from their own garden helped them to cook varied, balanced and nutritious foods.

Supporting Quotes & Images:

 **Nutri Gardens in Govt.Girls High School, Banaganapalle**	 **Awareness training programme to school children on nutritional importance of Foods**
 **Awareness training programme to school children on nutritional importance of Foods**	 **Nutri garden Committees participating School Nutrition garden Activities**
 **Distribution Of Seed Kits to Govt.High School, Kaipa**	 **Planting moringa in Govt.High School, Kaipa**

Children&Staff with Nutri garden at Govt.High School, Kaipa

Nutri Gardens in Social Welfare Hostel, Banaganapalle

Distribution Of Seed Kits to KGBV School, Sanjamala

Nuri Garden committes are participating in the Nutri Garden Layout At KGBV School ,Sanjamala

Interacting With Children on Science Experiences and Colour concept,Concept of greens and Other vegetables Promotion through Nutri gardens in AWCs

Nutri gardens in Anganwadi centres

Nutri gardens Kits Distribution to KGBV School, Dornipadu

Nutri Gardens in Anganwadi centres

Distribution Of Vegetables to Pregant & Lactating Mothers In AWCs

NutriGarden Seeds distribution to Govt School, Ramachandrapuram
School Staff, School Commttee Members

Nutrition Education To Students of Model High School, Banaganapalle

Nutrition Education Students of Social Welfare Hostel, Banaganapalle

Nutrition Education Students Of Govt.High School, Banaganapalle

Nutrition education to Preganat&Lactating Mothers at Anganwadi Centre Jalakanur Viilage

Nutrition Pledge To Students Of KGBV School,Banaganapalle

Nutrition Education To Girl Students of KGBV School

Success Story 12

Gender Mainstreaming in Climate Change By Establishment of Bio-Gas Units : A Whole Village Approach under NICRA Project- A Case Study :

Situation analysis/Problem statement:

Krishi Vigyan Kendra adopted Yagantipalle village under NICRA Village and survey was conducted on Cooking methods followed by women in the village and it was found that nearly 80% of households are using open fire wood chulhas. Inspite of several households are having LPGs, they prefer to cook on open fire wood chulhas. It was also noticed that, the households are having two to three milch animals and the dung is not properly disposed in their backyards. It is planned that this can be easily overcome with construction of Bio-gas Plants.

Plan, Implement and Support:

During Group discussion held with the women folk, it was found that, fetching of fire wood for long hours in hillocks and jungles lead to drudgery i.e, body pains, scratches and injuries on hands and legs,

thrustyness, dust on hair apart from social security problem. Hazards of wrong handling of LPG when the family members go out for farm activities and unaware of proper utilization of dung which is major substituent for Bio-Gas with least risks.

After detailed explanation about the advantages of Bio-Gas and its usage the women of the village were quite convinced about importance of construction of Bio-gas units and its usefulness vs health hazards and difficulties with open fire wood cooking. The advantages of Bio-Gas plants created awareness among farm women and initially six innovative women came forward for construction of units in the first instance. So for 29 Bio-gas units were constructed during the period from 2013 to 2016 under NICRA Project in this village.

Output:

With motivation and encouragement 29 women came forward and constructed 29 bio-gas units .

Outcome:

After Construction and using of the units, farm women of the village expressed that the construction of bio-gas helped them in

Reducing expenditure i.e, Rs.9500/-/year on other rural energy resources like Wood, Hard coal, kerosene, plant residues Saves (32 lts of kerosene & 11/2 of tractor loads of firewood @ Rs 5000/-tractor).

Impact of Intervention:

- Reduced drudgery in searching of firewood and avoids scope for social insecurity
- Improved their quality of life and helped them for using their leisure time for enhancing their economic productivity by attending skill works.
- The dung is being effectively utilized for production of bio-gas and the slurry produces quality compost of 10 tonnes/unit/year.
- The slurry from bio-gas units is the best organic manure and can be applied in their farms in place of chemical fertilizers which reduces cost of cultivation and improves soil health.
- Reduces health risks i.e, respiratory diseases, eye ailments, burning accidents etc.for women and children associated with open fire.
- This Energy form is clean burning and completely natural so it has no adverse effects on the environment. It also reduces the amount of methane and carbon dioxide released into the environment
- Reduced the risks and tensions associated with LPG when they leave home for farming activity and also booking the gas supply.

- It also improved the sanitary condition of back yard and its surroundings by disposal of plant and animal wastes.

❖ **Supporting Quotes & Images:**

Farm Women with her Bio-Gas Unit

Farm Women with her Bio-Gas Unit

Farm Women Explaining about the Use Of Bio-Gas

Farm women From Neighbouring District Visit to Bio-Gas Unit

Feed Back Of Farm Women on Use of Bio-Gas

Feed Back Of farm Women On Use Of bio-gas

Dean Of Homescience Dr L.Umadevi ,ADR,RARS,Nandyal ,ANGRAU Visit to Bio-

Dean Of Homescience Dr L.Umadevi

Gas Unit and Interacting with farm women on its Uses	,ADR,RARS,Nandyal ,ANGRAU Visit to Bio-Gas Unit and Interacting with farm women on its Uses

Success Story 13

Promotion Of Gender Friendly Weeding Implement to reduce drudgery and labour Wages - A Success Story of H.Kottala Village of Bethamcherla mandal

Situation analysis/Problem statement:

In Kurnool district most of the cultivars grow maize, Jowar, Redgram, chillies, banana, Papaya, all vegetable crops etc in rainfed and irrigated condition. Weed control within crop rows is one of the major problems in farming, Untimely weeding harms crop growth. Weeding in row crops is normally carried out by hand weeding. Various hand tools like heavy weight sickle, spade, khurpi are used by farm women. For weeding, the farm women have to sit in squatic position. It creates drudgery leading backache. Along with drudgery, the field capacity is very low. It requires more laborers and time leads to increase in labour cost which is more burden for small and marginal farmers.

H.Kottala village of bethamcherla mandal is predominantly rainfed village with mostly grown crops Bajra, Redgram, Groundnut, Korra and only 10% under bore wells and they grow vegetable crops i.e, brinjal, tomato, chillies etc..by spending an amount of Rs.8,500/-to Rs.9,000/ac on labour wages/annum and they found difficult in getting labour during peak season.

Plan, Implement and Support:

KVK took initiative in addressing the problem of drudgery of farm women and reducing labour cost for small and marginal farmers, trained 120 farm women on use of improved implements for harvesting and weeding operations and organized Front Line Demonstrations on introduction of three pronged wheel hoes in four villages covering 30 farmers and farm women.

Output:

After training and demonstrations farm families came forward to use three pronged wheel hoes for reducing labour cost and drudgery.

Outcome:

The farm families of H.Kottala village kept all the weeders which were given during demonstrations kept in the Villge Panchayat Building. They are maintaining log book for weeders with the details included…Name of the farmer, Crop for which the weeder is needed, no.of acres, Issuing date and return date along with their mobile no… an average 75-80ac/season by saving an amount of Rs. 1,75,500/- on labour wages.

Impact of Intervention:

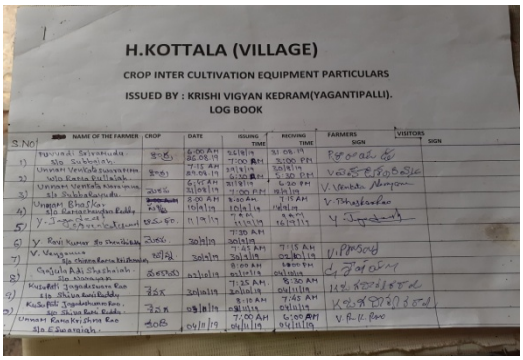
The usage of weeders there by reducing labour wages its availability at their disposal became an enthusiastic and motivating factor for the neighboring villages and the youth farmers from the neighboring villages approached KVK for its availability. The technology has spread to 20 villages covering 5 mandals. FPOs of Bethamcherla and Kolimigundla adopted this technology.

Supporting Quotes & Images:

Training farm women On Improved Implements

Training FPO General Body members on Intercultivation Implements

Training farm Women Of h.Kottala Village On Three Pronged wheel hoes



Log Book Maintained for Weeders At H.Kottala Village

Feed Back of Farmers And farm Women Of H.Kottala Village

Farm Women Doing Intercultivation In Her Onion Field at Rs Rangapuram

	Village
 Distribution Of Weeders In Presence Of President,MPP,VO President And Ahganwadi Staff In H.Kottala Village	 **Farm Women Doing Intercultivation in her Ground nut Field In Rehmanpuram village Of Bethamcherla Mandal**
 **Farm Women Doing Intercultivation in her Jowar Field In Amadala village Of Koilakuntla Mandal**	 **Farm Women Doing Intercultivation in her Cabbage Field In Yagantipalle village Of Banaganapalle Mandal**

Success Story 14

Semi dry Rice cultivation K.C .canal area of Scarce Rainfall Zone of Kurnool district, A.P.

Situation analysis/Problem statement:

Transplanted rice has deleterious effects on the Soil environment and nearly 30% of total Water used (1,400 – 1,800 mm) in rice culture is consumed mainly during Puddling and transplanting Operations. Puddling requires lots Water at a time when there is little Water in the reservoirs, destroys Soil structure and adversely affects Soil Productivity. Therefore, a key concern is how the farmers can avoid Puddling and transplanting operations without yield penalty.

Plan, Implement and Support:

After assessment of technology for three years, the successful results of the technology is considered for large scale adoption in the district. In order to create awareness on semi dry cultivation In Rice trainings were conducted to the farmers, adarsha rythus and extension personnel and results were published in Daily news papers. Extensive coverage through mass media also helped to reach more number of farmers in the district.

Organised Demonstrations on semi dry cultivation In Rice in different locations of Kurnool district provided critical inputs i.e seed, herbicides to the selected farmers . During the crop period field visits were organized to the farmers and others farmers from different villages to show the performance of the technology technology.

Intervention: Direct Seeded rice which removes Puddling and drudgery of transplanting the young rice Seedlings provides an option to resolve the adaphic conflict and enhance the Sustainability of rice and Subsequent cropping system. DSR overcomes the problem of Seasonality in labour requirement for rice nursery raising and transplanting operations. DSR facilitates timely establishment of rice and Succeeding crops.

Mean Yield and Economic Returns of Semi Dry rice cultivation:

Particulars	Yield (kg/ha).	Cost of production (Rs)	Net returns (Rs/ha	CB ratio
Semi Dry Rice	7453	55000	79154	1:2.43
Farmers practice	7125	71550	56700	1:1.79

- **Output and Outcome:**
- The results revealed that semi dry cultivation In Rice has recorded increased net returns of Rs 22454/ha.
- **This technology has spread very quickly in the district due to:**
- Approx. 50% reduction in seed rate compared to transplanted method is observed in DSR.
- 20-40% of reduction in water usage compared to transplantation method.
- Harvesting can be done in 7 to 10 days ahead.
- As seeding is done by the tractor , nursery and the transplantation labour is not required.
- In the transplantation method we need 10-15 labourers, where as in the direct-seeding method one person per one hour is enough to finish the seeding process.
- Because of the recent advances in improved efficiency of pesticides and herbicides , initial growth phase of the weeds can also be eradicated.
- Optimum plant population can be maintained.

Impact of Intervention:

semi dry cultivation of Rice has spread very quickly not only to the interior pockets of the district. Farmers are reaping good returns due to less cost of cultivation and higher net returns . The impact was spread to different parts the district. Awareness on semi dry cultivation was created and nearly 15-20 % of Command area farmers were adopting the method.

Details of innovative methodology, innovative technology and transfer of Technology developed and used during the year by the KVK

1. Formation of whatsapp group:

Created whatsapp group separately for the farmers actively involved in livestock farming in the district. Presently the group is having 190 active members. The problems facing in the livestock rearing are sharing in the group and getting potential solution. This also become a platform for the famers for cross learning, sale of the animals and products etc.

Night school for livestock owners:

Training programmes were organized to the group member on every Thursday from 7.30 to 9.00PM and discussed about current plan of action in livestock and clarified the doubts. 16 programmes of such were organized during the year.

1	05.07.2020	Livestock diseases and preventive measures
2	19.07.2020	Feeding management of dairy animals
3	26.08.2020	Improving reproductive efficiency in milch animals
4	03.09.2020	Feeding management of dairy animals (Zoom meeting) 03.09.2020

5	10.09.2020	Feeding management of dairy animals - 2nd session (Zoom meeting) 10.09.2020
6	17.09.2020	Profitable poultry farming
7	25.09.2020	
8	30.09.2020	
9	09.10.2020	Prevention of mastitis in milch animals
10	15.10.2020	Reduction of mortality in calves and lambs
11	27.10.2020	Profitable sheep production
12	05.11.2020	Commercial sheep farming
13	26.11.2020	Management of livestock during rainy and winter seasons
14	10.12.2020	Preventive measures against diseases in livestock during winter
15	19.12.2020	Advance technologies in Livestock feeding
16	08.01.2021	Avian influenza (Bird flu) in poultry and preventive measures

2. Created farmers and extension personnel Whatsapp groups:

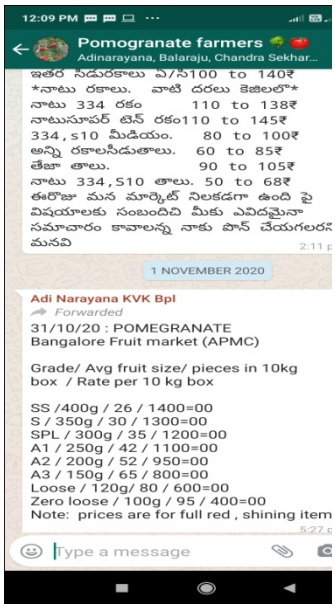
A total of 12 Whatsapp groups comprising of 1204 farmers of different crops and VAAs working at RBKs of Village panchayats were created for timely dissemination of information and provide agro advisories to farmers during COVID 19 pandemic.

Efficacy of Whatsapp Groups:

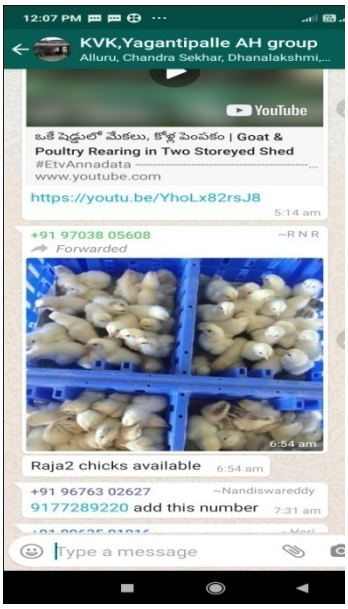
		Whatsapp Groups									
		Ask KVK	**Paddy Farmers**	**Chilli farmers**	**Pulses growing farmers**	**Pomogranate farmers**	**Seed Hub farmers**	**BRC-APDMP**	**Biotech Kisan**	**KVK-YPL-AH**	**VAAs**
No. of Participants		136	126	245	103	40	24	119	188	192	35
Types of Chats (Content)	**a. Information**	More Frequent	Frequent	More Frequent	Frequent	Frequent	Frequent	More Frequent	More Frequent	More Frequent	Frequent
	b. Queries/ problems	Frequent	More Frequent	More Frequent	Less Frequent	Less Frequent	Less Frequent	More Frequent	More Frequent	More Frequent	Less Frequent
	c. Advisory	Frequent	More Frequent	More Frequent	Frequent	Frequent	Frequent	More Frequent	More Frequent	More Frequent	Frequent
	d. Market info	Less Frequent	Less Frequent	More Frequent	Less Frequent	More Frequent	Less Frequent	Less Frequent	Less Frequent	Frequent	More Frequent
	e. Diagnosis	Frequent	More Frequent	Frequent	Less Frequent	Less Frequent	Less Frequent	More Frequent	More Frequent	More Frequent	Less Frequent
	f. Agri related information audio and video	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent

ASK KVK

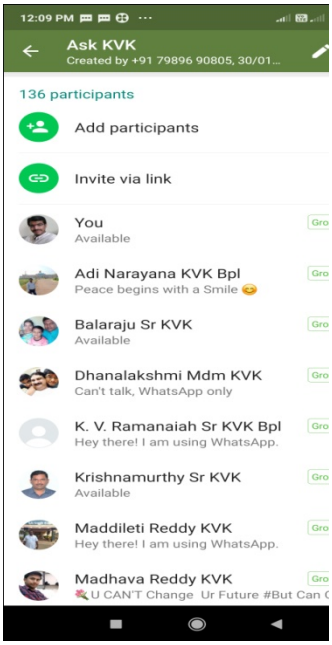
Chilli Farmers

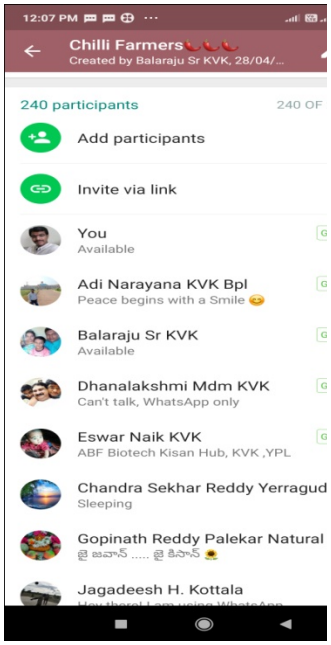


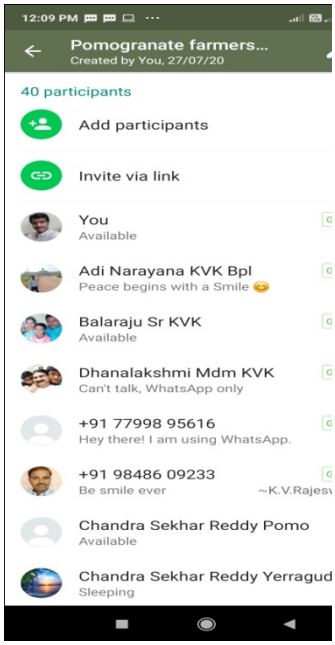
Pomogranate Farmers

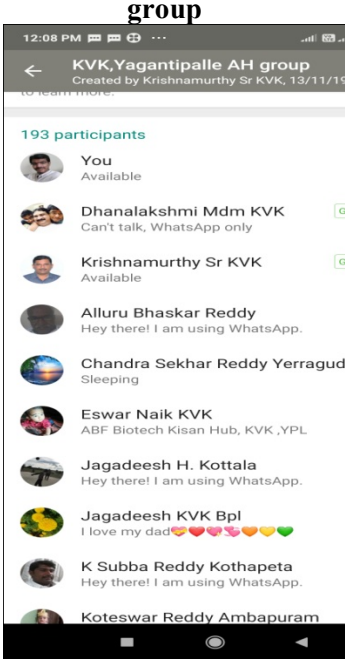


KVK, Yagantipalle AH group









Farmers Innovative Practices:

1. Cultivation of Bengalgram using Raised Bed method of sowing:

Name of the farmer: Venkata Rami Reddy

Village: Kotapadu

Mandal: Owk

Introduction: In Kurnool district Bengalgram is being cultivated in an area of 1,46,353 ha during Rabi season and returns are limited due to low yield, high cost of cultivation (due to high seed rate).

Innovation: In order to increase the returns from Bengalgram cultivation the farmers has started Raised Bed method of sowing instead of traditional line sowing method. In Bed method for every two rows farmer has left an irrigation channel.

Bed Method	Traditional Method
C C X C C X C C X C C C C X C C X C C X C C	C C C C C C C C C C C C C C C C C C C C C C

C – Crop

X – Irrigation channel

Advantages of Bed method:

1. Low seed rate required: Compared to traditional line sowing method (35kg/acre) seed rate is low in Bed method (10 kg/acre).
2. Due to irrigation channel the excess moisture is drained out and growth of the plants on the bed observed was more vigorous.
3. Even though Plant population was found less compared to traditional method, the existing plants have more number of branches and more number of pods observed (300-500 pods observed/plant).
4. Through Bed method the farmer obtained an average yield of 13 quintals/acre where as through traditional method 8-10 quintals was observed.

2. Protecting the crops from Wild boars and birds attack through Audio recorder and speaker:

Farmers of Chinnarajupalem village protecting their crops from Birds and Wild boars attack by using this instrument innovatively (playing different sounds to scare birds and wild boars) which only costs Rs.650/-

- 12 hours battery charge with USB support
- Crop loss was 25% earlier which was reduced to < 5%.

Details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

Impact of KVK activities (Not to be restricted for reporting period):

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Basic & Advanced Tailoring	26	73.07		2,800.00
Jute Bag Making	22	68.18	1950	3,300.00
Millet Value Added Products	28	67.85	-	4,800. 00

Study 1

Study 1: Impact assessment of Kisan Mobile Advisory services of KVK

Objectives:

- To assess the impact of Kisan Mobile Advisories as technological information obtained by the beneficiary farmers.
- To analyze the effectiveness, utility and timeliness of the information received through Kisan Mobile Advisories.
- To identify the constraints faced and suggestions given by the respondents

- **Research design:** Ex-post facto research design

- **Total sample size :** 120
- **Statistics included:** Frequency, percentage, mean and standard deviation

Results:

Table.1 Year wise number of text message sent to farmers

Year	No. of Messages	No. of farmers
2018-19	127	2965
2019-20	124	5891
2020-21	128	16222

Table.2 Number of text message sent year wise and discipline wise

Year	Crop Production and Protection	Animal Science	Awareness	Weather
2018-19	26	3	4	94
2019-20	22	3	7	92
2020-21	24	4	5	95

Table 3: Distribution of respondents according to different parameters (N=120)

Parameter	Frequency (Percentage)
1. Understanding of the message	
A. Highly understandable	40 (33.33)
B. Partially understandable	56 (46.67)
C. Not understandable	24 (20)
2. Need based information	
A. Needful	109 (90.84)
B. Somewhat Needful	9 (7.5)
C. Not Needful	2 (1.66)
3. Time based information	
A. Timely	62 (51.66)
B. Undecided	52 (43.34)
C. Not timely	6 (5.00)
4. Applicability of message	
A. Fully applicable	32 (26.66)
B. Partially applicable	79 (65.84)
C. Not applicable	9 (7.5)
5. Save time & money	
A. Agree	105 (87.5)
B. Disagree	7 (5.83)
C. Undecided	8 (6.67)
6. Increase in social contact	
A. Agree	97 (80.84)
B. Disagree	5 (4.16)
C. Undecided	18 (15)
7. Increase in knowledge	
A. Agree	103 (85.83)
B. Disagree	8 (6.67)
C. Undecided	9 (7.5)
8. Increase in productivity	
A. Agree	81 (67.5)

B. Disagree	22 (18.34)
C. Undecided	17 (14.16)
9. Adoption of KMA Services	
A. Fully adopted	57 (47.5)
B. Partially adopted	31 (25.84)
C. Not adopted	32 (26.66)
10. Overall impact of KMA services	
A. Low	16 (13.33)
B. Medium	47 (39.16)
C. High	37 (30.83)

Table 4: Opinion of KMA service users in making the KMA service more effective (N=120)

S.No.	Opinion	Frequency (%)	Rank
1	The message should be simple and understandable	20 (16.66)	V
2	Message should be appropriate to the farming situation	17 (14.16)	VII
3	The message should be serve in local language	49 (40.83)	I
4	Voice message facility should be provided	36 (30.00)	III
5	Along with the name of the insecticides, pesticides etc, approximate market prices should also be communicated	19 (15.83)	VI
6	Message on agriculture related enterprises should also be provided	4 (3.33)	VIII
7	Market related up to date information should be given	34 (28.33)	IV
8	Message on latest technologies on agriculture and allied sector should be provided	45. (37.5)	II

Study 2.

Impact of skill training programmes conducted by KVK

Objectives:

1. To analyze the personal characteristics of the trainees
2. To asses the Knowledge and adoption levels of the trainees
3. To identify the constraints faced by the trainees

Research design: Ex-post facto research design

Total sample size : 105

Statistics included: Frequency, percentage, mean and standard deviation

List of skill training programmes

S. No.	Skill Training Programme	No. of trainings conducted		
		2018-19	2019-20	2020-21
1	Seed Production/Seed Growers	1	1	1
2	Production of Bio-inputs	8	2	6
3	Mushroom production	1	1	2
4	Organic farming	3	2	1
5	Poultry farming	1	1	1

6	Basic advances in tailoring	1	1	-
7	Value addition	2	6	3

Table 1. Personal characteristics of farmers (N=105)

Sl. No.	Variables	Frequency	Per cent
1.	**Age**		
	Young (<30 years)	21	20.00
	Middle (31-50 years)	52	49.52
	Old (>50 years)	32	30.48
2.	**Education**		
	Illiterate	28	26.67
	Primary school	21	20.00
	Secondary school	26	24.76
	Intermediate	18	17.14
	Graduation	12	11.43
3.	**Farming experience**		
	Low (<15 years)	26	24.76
	Medium (15 – 30 years)	48	45.71
	High (>30 years)	31	29.53
4.	**Land Holding**		
	Marginal	21	20.00
	Small	44	41.90
	Medium	24	22.85
	Large	16	15.25
5	**Extension Contact**		
	Low	28	26.67
	Medium	58	55.23
	High	19	18.10
6	**Mass Media Exposure**		
	Low	22	20.95
	Medium	53	50.47

	High	30	28.58
7	**Social Participation**		
	Low	32	30.47
	Medium	49	46.67
	High	24	22.86

Table 1: Knowledge on training programmes **(N=105)**

S.No.	Particulars	Level of Knowledge					
		High		Medium		Low	
		F	%	F	%	F	%
1	Seed Production/Seed Growers (n=15)	8	53.33	4	26.67	3	20.00
2	Production of Bio-inputs (n=15)	7	46.67	6	40.00	2	13.33
3	Mushroom production (n=15)	6	40.00	4	26.67	5	
4	Organic farming (n=15)	9	60.00	3	20.00	3	20.00
5	Poultry farming (n=15)	6	40.00	6	40.00	3	20.00
6	Basic advances in tailoring (n=15)	9	60.00	4	26.67	2	13.33
7	Value addition (n=15)	8	53.33	5	33.33	2	13.33

Table 2: Adoption on training programmes

(N=105)

S.No.	Particulars	Level of Adoption					
		Full Adoption		Partial Adoption		No Adoption	
		F	%	F	%	F	%
1	Seed Production/Seed Growers (n=15)	9	60.00	0	0.00	6	40.00
2	Production of Bio-inputs (n=15)	5	33.33	4	26.67	6	40.00
3	Mushroom production (n=15)	0	0.00	0	0.00	15	100.00
4	Organic farming (n=15)	4	26.67	6	40.00	5	33.33
5	Poultry farming (n=15)	6	40.00	4	26.67	5	33.33
6	Basic advances in tailoring (n=15)	12	80.00	0	0.00	3	20.00

7	Value addition (n=15)	5	33.33	0	0.00	10	66.67

Table 4. Constraints faced by the trainees

S. No.	Constraints
1	Low yields
2	Small Land Holding
3	Lack of complete knowledge
4	Lack of support
5	Financial problem
6	Marketing problem

Study3:

Impact of technologies implemented by KVK in adopted villages

- **Objectives:**

1. To study the knowledge levels and extent of adoption of technologies implemented by KVK.
2. To study the economic impact of technologies

- **Research design:** Ex-post facto research design
- **Total sample size : 120**
- **Statistics included:** Frequency, percentage, mean and standard deviation

List of Technologies

1. Nutrient Management in Paddy based on STCR
2. Redgram + Seteria Intercropping system
3. Redgram variety PRG-176 with crop management practices
4. Blackgram variety TBG-104 with crop management practices
5. Viral disease management in Chilli
6. Sucking pest management in Bt Cotton
7. Cultivation of Improved fodder variety Super Napier
8. Introduction of three pronged wheelhoes for reducing drudgery of farm women in weeding operations

Table 1: Knowledge on the technology **(N=120)**

S.No.	Particulars	Level of Knowledge					
		High		Medium		Low	
		F	%	F	%	F	%

1	Nutrient Management in Paddy based on STCR	5	33.33	6	40.00	4	26.67
2	Redgram + Seteria Intercropping system	7	46.67	5	33.33	3	20.00
3	Redgram variety PRG-176 with crop management practices	6	40.00	6	40.00	3	20.00
4	Blackgram variety TBG-104 with crop management practices	8	53.33	4	26.67	3	20.00
5	Viral disease management in Chilli	6	40.00	6	40.00	3	20.00
6	Sucking pest management in Bt Cotton	8	53.33	6	40.00	2	13.33
7	Cultivation of Improved fodder variety Super Napier	7	46.67	6	40.00	2	13.33
8	Introduction of three pronged wheelhoes for reducing drudgery	9	60.00	4	26.67	2	13.33

Table 2: Adoption of the technology **(N=120)**

S.No.	Particulars	Level of Adoption					
		Full Adoption		Partial Adoption		No Adoption	
		F	%	F	%	F	%
1	Nutrient Management in Paddy based on STCR	5	33.33	3	20.00	7	46.67
2	Redgram + Seteria Intercropping system	9	60.00	0	0.00	6	40.00
3	Redgram variety PRG-176 with crop management practices	8	53.33	0	0.00	7	46.67
4	Blackgram variety TBG-104 with crop management practices	9	60.00	0	0.00	6	40.00
5	Viral disease management in Chilli	6	40.00	6	40.00	3	20.00
6	Sucking pest management in Bt Cotton	8	53.33	5	33.33	3	20.00
7	Cultivation of Improved fodder variety Super Napier	7	46.67	4	26.67	4	26.67
8	Introduction of three pronged wheelhoes for reducing drudgery	9	60.00	4	26.67	2	13.33

Table 3: Economic Impact **(N=120)**

S. No.	Particulars	Before		After	
		Yield (q/Ha)	Net Returns (Rs.)	Yield (q/Ha)	Net Returns (Rs.)
1	Nutrient Management in Paddy	72.68	46,560	74.13	55,698

2	Redgram + Seteria Intercropping system	12.50 (S)	9,700	8.46 (S) + 4.38 (R)	19,850
3	Redgram variety PRG-176 with crop management practices	8.64	21,026	11.26	28,349
4	Blackgram variety TBG-104 with crop management practices	17.34	71,922	22.91	95,026
5	Viral disease management in Chilli	38.60	68,132	51.20	94,352
6	Sucking pest management in Bt Cotton	14.56	37,194	18.75	50,480

Linkages

Functional linkage with different organizations:

Name of organization	Nature of linkage
Acharya N.G. Ranga Agricultural University, Guntur	• Technical backstopping for KVK activities • Supply of Breeder seed–Paddy 5204, NDLR-7, NBeG-3 and NBeG-47 • Seed production programme of varieties in farmers field. • Capacity building of KVK scientists • As member in regional council
Rashtriya Krishi Vikas Yojana (RKVY) through ANGRAU	• Promotion of mechanization through custom hiring centre. • Strengthening of soil testing lab for more outreach. • Establishment of spawn and mushroom production unit for entrepreneurship. • Sustaining farmers income through integrated farming system • Strengthening of information and communication centre for wider dissemination of technologies-
Regional Agriculture Research Station (RARS)	• Seasonal work shops • T&V meetings • Procurement of foundation seed • Updation of technical know how
Agriculture Research Station, Anantapur	• Implementation of All India Coordinated Research Project on Agro meteorology (ACRPAM) in Kurnool district
Central Research Institute for Dry Land Agriculture, Hyderabad	• Capacity building of scientists • Implementation of NICRA Project(National Innovations on Climate Resilient Agriculture) • Implementation of Conservation Agriculture project.
International Crop Research Institute for Semiarid Tropics(ICRISAT)	• Seed Production of Hybrid Pigeon pea ICPH 2740
NAARM	• Organisation o f demonstrations and capacity building programmes under Sc Sub plan.
IIMR	• Organisation o f demonstrations and capacity building programmes under Sc Sub plan
IIRR	Organisation o f demonstrations and capacity building programmes under Sc Sub plan

National Institute for Agriculture Extension Management, Hyderabad	• Capacity building of **Scientists** on innovations in extension and marketing
National Bank for Agriculture & Rural development, Hyderabad	• Capacity building of farmers. • Conducting Farmers Technology Transfer fund project (FTTF project) in soil test based nutrient application in250 ha covering five villages in K.C canal ayucut. Seminars workshops and studies on climate change
Agriculture Technology Management Agency	• Assessment and refinement of the technologies • Demonstration of the latest technologies • Capacity building of farmers, and farm women • Organization of exposure visits and interstate training programs to farmers for getting firsthand experience in latest technologies being available with progressive farmers and institutes.

List of special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies:

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Establishment of Bio Resource Centres in APDMP Cluster villages of Andhra Pradesh	Oct, 2018	APDMP, Andhra Pradesh	8,64,000.00
ABF Biotech KISAN Project	Jan, 2019	DBT Through ABF, Hyderabad	17,00,000.00

Important Visitors to KVKs during 2021 (with photographs)

Sri P. Behra, CGM, NABARD, Smt. P. Ramalakshmi, DGM, NABARD and Sri. A. Parthava, AGM, NABARD, Kurnool visited KVK during the workshop organized on Climate Resilient Agriculture on Jan 21st 2021.

Sri. K. Viswanatha Reddy, ADA, Koilakuntla division of Kurnool Dist. visited Seed Processing Unit at KVK along with Mandal Agriculture Officers

PHOTOS

Photos on performance of technologies in OFTs and FLDs, Trainings, Extension Programmes, Other Extension Activities, Important Visitors, Awards and Recognitions (KVK, Staff, Farmers)*etc*.

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