# Annual Report 2014-15

(01-04-2014 to 31.03.2015)



# Shri Hanumantharaya Educational and Charitable Society KRISHI VIGYAN KENDRA

Yagantipalle - 518124, Kurnool Dt., A.P.

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# **ABSTRACT**

Kurnool district comes under scarce rainfall zone with normal rainfall of 670.3 mm. The district comprises three revenue divisions, 54 revenue mandals, 926 revenue villages and 649 hamlet villages. The net area sown is 8.69 lakh and the gross cropped area of the district is 10.21 lakh ha of which 2.71 lakh ha are irrigated through canals, tanks, wells and other sources. Seventeen agriecological situations exists in the district. Majority of the soils are black (76%) and the remaining are red soils.

# **Mandatory activities carried out in 2014-15**

# On Farm Testing:

#### 1. Assessment of plant densities:

Maximum grain yield (6427 kg/ha) was recorded in ridge planting (60x20cm) as compared to paired row. The higher grain yield in ridge planting was due to higher number of grain rows/cob and test weight.

# 2. Castor based inter cropping system:

The results showed that castor intercropping with green gram 1:2 and cluster bean 1:2 ratio resulted in higher castor equivalent yield and gross returns per ha than sole crop. Intercropping of green gram with castor in 1:2 row proportions resulted in the highest LER value of 1:21 coupled with highest yield of castor.

#### 3. Performance of red gram hybrids under rainfed sitation:

The results indicated that the hybrid ICPH-2671 has recorded highest yield (1383kg/ha) followed by ICPH-2740 (1236 kg/ha).

#### 4. Management of thrips and botch in onion:

The results indicated that recommended practice gave batter yield (24,479 Kg/ha) compared to farmers practice (22,917 kg/ha). The incidence of thrips and blotch reduced by 43.07 % and 39.22 % respectively in the OFT.

- 5. Management of root rot in chillies: With the bioagents application, the wilt disease could be better managed compared to fungicides. The incidence of root rot in the treated plot was 3.1% against the control plot of 8.4%, with yield increase of 6 per cent.
- **6. Integrated disease management for fruit rot and powdery mildew in chillis**: The results indicated that 5117 kg/ha yield was recorded which is 5.07 % more than farmers practice (4858 kg/ha) with saving of Rs 6125/ha on pp measures. The incidence of fruit rot and powdery were 4.6 & 6.9 % in OFT and 8.7 and 11.9 % farmers practice.

- **7 .Nutrient management in sunflower based on STCR equation under I/D situation:** The results indicated that yield in both STCR ( NPK: 71-27-30)and farmers practice(NPK 100-108-0 kg ha) the yields(1934 kg/ha and 1924 kg/ha) were on par. Cost on fertilizers is reduced by Rs 4080/ ha
- **8.** Nutrient management in chilli based on STCR equation under irrigated situation: The results indicated that the average yield of T1(NPK:550-450-75 kg/ha) and T2 (NPK 400-40-88kg/ha) were on par (5144 and 5083 kg/ha respectively). However there was reduction in fertilizer cost by Rs 21,127/ha.

#### 9. Nutrient management in groundnut based on STCR equation under ID situation:

The results indicated that the average yield of T1 (3303kg/Ha) and T2 (3283 kg/ha) were on par. However production cost is less in T2 (Rs 76241 /ha) than T1 (rs 84360/ha.

# 10. Introduction of potato as alternate to traditional vegetables:

Potato yielded 19.65 tons/ha with net income of Rs.1,62,635 /ha as againest the tomato grown in the winter (Net income Rs. 78,557 /ha) and in Potato crop it was observed that the duration is only three months and harvesting is one time activity.

# 11. Testing the performance of Chrysanthemum varieties:

Results indicates that among varieties tested for their performance, Chandra kiran(Violet) recorded 26.63 tons/ha and Kundan (Yellow) recorded 24.32 tons/ha compared to local farmer variety 13.87 ton/ha. Chandra kiran and Kundan showed high level of establishment, drought tolerance and extended shelf life with good consumer acceptance compared to local farmers varieties.

## 12. Effect of Creep feeding on growth rate in preweaned lambs:

Creep feeding to pre weaned lambs @50g/day resulted in 26.4% more body weight gain over farmers practice.

# 13. Effect of groundnut based concentrate feed on growth rate in post weaned ram lambs:

Supplementation of groundnut based concentrate feed to post weaned ram lambs @ 150g per day along with regular grazing resulted in increase of 45.48% body weight gain over farmers practice of grain feeding.

#### 14. Evaluation of different hybrid Napier varieties:

Among the three Hybrid Napier varieties, the fodder yields were 191.2 t/ha (co-4) 183.2 ( Phule jayanvanth) and 166.72 t/h( APBN-1 ). The spines were less in phule jaiwanth compare to other varieties. The results indicated that 14.68% increased fodder yield in CO-4 and 9.88% increased fodder yield in Phule jaiwanth over T1.

# 15. Assessment of performance of improved sickles with local sickles:

Improved sickles of 175 g weight were used for harvesting paddy. The results indicated that with improved sickles the labour saved was 37.5 per cent.

#### 16. Performance of refined rotary weeder:

The cost of weeding was saved by Rs 600/- and labour saved by 62.5per cent

# Front line demonstrations of pulses:

### 1. Red gram:

In kharif thirty demonstrations were taken up with LRG-41 and ICPL-87119 with improved production technologies. The yield recorded was 1515kg/ha which was 17% more than farmers practice.

## 2. Bengal gram:

In rabi thirty demonstrations were organized with Nandyal Senega-1 variety with improved production technologies. The yield recorded was 1513kg/ha which is 16% more than farmers practice.

**3. Seteria:** The data revealed that that the grain yield of improved variety Suryanandi was 1184 kg/ha which is 12% more than the control.

#### Other demonstrations:

#### 4. Weed management:

The results indicated that post-emergence application of Bispyribac sodium 80ml/acre at 20 DAT reduced weed density with 77 %weed control efficiency. It was revealed that post emergence application of herbicide along with on e hand weeding is most economic method for weed control in transplanted rice.

### 5. Weed management in BT cotton:

With application of Pyrithiobac sodium+ quizalofopethyl at 20-25 DAS in BT cotton 79% weed control efficiency was recorded. Yield recorded in demo plot was 2704kg ha against the control 2589kg /ha.

#### 6. Semi dry method of rice cultivation:

Direct seeding of paddy with gorru and conversion to irrigated paddy after the release of water in canals. The data clearly indicated that direct seeding paddy seeds with gorru in the month of July recorded on par grain yield over transplanting. The mean yield of direct seeding was 7454 Kg/ha as compared to 7339 kg/ha in case transplanting.

# 7. NFSM demonstrations:

Organized 100 demonstrations of Bengal gram with JG-11 variety. The yield recorded was 1297kg/ha which is 5.1% more than the farmers practice.

### 8. Demonstration of RP Bio 226 paddy variety:

The result indicated that RP Bio 226 gave equivalent grain yield of 7437kg/ha.I t could serve as a replacement for Samba Mahsuri in BLB endemic areas.

### 9. Management of sucking pests in Bt Cotton:

Ten Demonstrations were organized on sucking pest management in Bt cotton. Due to dry spells prevailed in the season, sucking pests viz., Jassid and Aphid incidence was more. Stem application at 40 and 60 DAS reduced the incidence of sucking pests effectively and resulted in 7.2% increased yield over farmers practice. An additional net returns of Rs. 6,304-00 per ha were realized in demonstration.

#### 10. Contingent management of pests and diseases in Redgram:

The results indicated that Redgram variety PRG-158 with IPM measures against Helicoverpa & Maruca has recorded 5.5 % increased yield over local check under rainfed situation with additional net returns of Rs.7,335-00 /ha

#### 11. Contingent management of pests and diseases in Blackgram:

The results indicated the Blackgram variety LBG 752 with Management for Maruca and YMV has recorded 10.9 % increased yield over local check with additional net returns of Rs.18,524-00 /ha, due to better management of YMV and Maruca in FLD.

# 12. Nutrient management in rice based on STCR equation:

The results indicated that the average grain yield of paddy under STCR (7252Kg/ha) and the grain yield produced under controlled practice (7290Kg/ha) were on par.Net income was high in demonstration plots (Rs.65308 ha<sup>-1</sup>) as compared to controlled practice (Rs.55598 ha<sup>-1</sup>).

#### 13. Zinc Management in rice:

The average yield of rice under Zinc foliar application was high (6786 Kg/ha) as compared to controlled practice (5961Kg/ha) An amount of Rs.14439/ha was realized as additional income due to yield increment (13.83 %)in demonstrations

# 14. INM in Bt.Cotton:

The average yield of cotton was high (4067Kg/ha)in INM practice when compared to farmer's practice (3754 Kg/ha). An amount of Rs. 19992/ha was realized as additional income due to low production costs and yield increments (8.33%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:2.66) as compared to farmers practice (1:2.30) due to low cost of Production and higher gross income.

# 15. Reclamation of sodic soils with gypsum:

The average yield of paddy in demonstration plots was high (5992Kg/ha) as compared to controlled plots (4946 Kg/ha). The results indicated that 21.15 percent yield increase in demonstration plots over the controlled plots. An amount of Rs. 13114/ha was realized as additional income in demonstrations due to yield increments.

### 16. Sulphur and zinc management in Bengalgram based on soil test:

The average yield of bengalgram under Sulphur and zinc management was high (1779Kg/ha) as compared to control (1530Kg/ha). An amount of Rs. 7712/ha was realized as additional income due to yield increments (16.27%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:2.01) as compared to farmers practice (1:1.82) due to higher gross income.

## 17. Micro nutrient management in mango:

Ten demonstrations were organized at Emboi village of Bethamcherla mandal. Micronutrient mixture was sprayed twice at pre bloom period and at pea nut stage @ 5gms/lit of water. Results indicate that there was an increase of 26.91% ( 154.2 q/h) in the yield with B:C ratio 4.7 in demo as against the 3.8 in local check.

# 18. Management of Rhizome rot in Turmeric:

Tumeric rhizomes when treated withRidomil MZ@ 3 g/lt + Chlorpyriphos 5 ml/lt thre was 17.51 % increase in yeid in demonstration (8.45 tons/ha) compared to farmers practice (6.97 tons/ha).

# 19. Micronutrient management in Banana:

Micro nutrient mixture was applied on Banana bunches twice gave 69.72 tons/ha yield in demonstration as against the 61.45 tons/ha in farmers practice. There was an net additional income of Rs.1,04,063/ha in demo compared to farmers practice with B:C ratio to demo to control is 1:3.39 / 1:1.9

#### 20. Chemical Weed Management in Chillis:

Results indicate that there was 86 % control of weeds in demonstration plot when pendimethalin 3 lit/ha was applied in chilli plot compared to demonstration plot. There was 12% increase in yield in demonstration

# 21. Feeding sunflower heads supplemented ration to milch buffaloes:

On feeding of sunflower heads supplemented feed to milch animals an increase of 10.86% milk production and additional net income of Rs.3705/- was recorded over farmers practice of commercial concentrate feeding.

#### 22. Supplementation of RSSM to milch animals:

On supplementation of Regional Specific Mineral Mixture to milch buffaloes having post partum aoestrum@80g/day along with regular feed, 45% animals exhibited heat symptoms during the trial period of three months.

# 23. Azolla supplementation to Rajasri birds:

On supplementation of Azolla to Rajasri birds @50g/day/bird at backyards resulted in increase of 18.6 % body weight gain over complete scavenging.

## 24. Supplementation of UMMB to milch animals:

The milch buffaloes were allowed to lick the Urea Molasses Mineral blocks for one hour daily. It was observed that 7.53% increase in milk yield improvement through supplement the UMMB over control.

## 25. Bhendi Cutter for Reducing Drudgery for farm women:

With Bhendi cutter the harvesting rate was increased by 12.55 and labour was saved by 25% and the drudgery was reduced from normal to moderate than their regulatr practice.

# 26. Introduction of Cotton hand gloves for harvesting of Castor:

With introduction of cotton hand gloves, the labour required per acre was reduced from six to four as the farm women wear gloves which speeded up the activity and cost on harvesting saved by 33.3%.

# 27. Introduction of Mogi Improved Wheel hoe for reducing drudgery of Farm women in weeding operations:

Mogi Improved wheel hoe was introduced in Amadala village for weeding in groundnut crop. With the Mogi improved wheel hoe the cost on weeding was saved by Rs 600/- and labour saved by 62.5% for one weeding at 20 days. During the crop period the weeding was taken up for two times and the cost on weeding was saved by Rs 1200.

# Mobile advisory services:

Delivered 104 need based messages for 1545 registered farmers of KVK.

# **Training programmes**

Discipline	No.of	PFarmers		Rural Youth		Extension	
	Trainings _					Functionaries	
		Male	Female	Male	Female	Male	Female
Agronomy	14	407	11	60	-	30	-
Soil Science	10	211	-	25	-	25	-
Plant Protection	15	298		115	-	25	-
Horticulture	8	192		18			
Animal Husbandry	11	216				20	
Home Science	16	-	255	-	185	-	13
Total:	74	1324	266	218	185	100	13

# **Services and supplies**

Item	Quantity (Kg)
Paddy- BPT-5204	54000
NDLR-7	16140
ICPH-2740	441
LRG-41	251
Castor PCH-111	238
Seteria 9Suryanandi)	836
Vermicompost	104000
Earth worms	1477
Soil Samples	772 nos
Water Samples	563 nos
Trichoderma viride	682
Pseudomonas	715
Neem Powder	3691
Phosphorus Solubulizing Bacteria	199
Azatobactor	179
Azosprillum	12
Vegetable seedlings	7,83,300 nos
Rajasri chicks	2800 nos
Ram lambs	25 nos
Sheep	40 nos
Mineral Mixture	450
Feed	7000
Cotton sarees	100 nos

# **ANNUAL REPORT 2014 -15**

# 1. GENERAL INFORMATION ABOUT THE KVK:

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

Address	Telephone		E mail	Website
	Office	FAX	_	
Shri Hanumantharaya	9394444439		pendekantikvk@rediffmail.com	
Educational &			pendekantikvk@gmail.com	
Charitable Society,				
Krishi Vigyan Kendra,				
Yagantipalle (P)				
Banaganapalle (M)				
Kurnool (Dt.) A.P.				

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

Address	Telephone		E mail	Website
	Office	FAX		
Shri Hanumantharaya	9394444439		pb1961@rediffmail.	
Educational &			<u>com</u>	
Charitable Society,				
Krishi Vigyan Kendra,				
Yagantipalle (P)				
Banaganapalle (M)				
Kurnool (Dt.) A.P.				

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

	Telephone / Contact					
Name	Residence	Mobile	Email			
Smt. G.Dhanalakshmi		9440607424	dhana66@rediffmail.com			

# 1.4. Year of sanction: 1989

# 1.5. Staff Position (as on 31st March-2015)

SI. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale	Present basic (Rs)	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	Programme Coordinator	G.Dhanalakshmi	Programme Coordinator	Home Science	27,490-00	34,490-00	03-04-2003	Permanent	OC
2	Subject Matter	K.Venkata Ramanaiah	SMS	Soil Science	27,110-00	32,510-00	10-07-1996	Permanent	ВС
	Specialist		(Soil Science)						
3	Subject Matter	M.Sudhakar	SMS	Agronomy	27,110-00	32,510-00	23-09-1996	Permanent	OC
	Specialist		(Agronomy)						
4	Subject Matter	D.Balaraju	SMS	Plant Protection	23,110-00	28,510-00	04-04-2003	Permanent	OC
	Specialist		(Plant Protection)						
5	Subject Matter	K.Rajeswar	SMS	Horticulture	18,240-00	23,640-00	01-10-2008	Permanent	OC
	Specialist	Reddy	Horticulture						
6	Subject Matter	A.Krishna	SMS	Animal Husbandry	18,240-00	23,640-00	20-06-2010	Permanent	OC
	Specialist	Murthy	(Animal Husbandry)						
7	Programme	K.Lakshmi Priya	Programme Asst.	Home Science	18,490-00	22,690-00	18-06-1996	Permanent	ВС
	Assistant		(Home Science)						
8	Programme	B. Koteswar rao	Programme Asst.	Agronomy	9,300-00	13,500-00	01.02-2013	Temporary	
	Assistant		(Agronomy)						
9	Accountant / Superintendent	Vacant	Assistant	-	-	-	-	-	-

10	Jr.Asst. cum Typist (SK)	B.V.M.V.Prasad Rao	Jr. Asst. cum Typist	Jr. Asst. cum Typist	12,670-00	17,070-00	21-03-1990	Permanent	ВС
11	Driver	Iqbal Basha	Driver cum Mechanic	Driver cum Mechanic	9,870-00	11,870-00	20-09-1995	Permanent	OC
12	Driver	D.Obulesu	Driver cum Mechanic	Driver cum Mechanic	9,510-00	11,510-00	01-08-1996	Permanent	SC
13	Attender	P.Raghava Reddy	Attender	Attender	8,510-00	10,310-00	02-11-1990	Permanent	OC
14	Watchman	T.P.Gurappa	Watchman	Watchman	8,260-00	10,060-00	30-12-1994	Permanent	ВС
15	Cook	T.Rajeswari	Cook	Cook	8,260-00	10,060-00	20-09-1995	Permanent	ВС
16	Farm Attendent	A.Rama Subbaiah	Farm Attendent	Farm Attendent	8,260-00	10,060-00	01-10-1996	Permanent	ВС

# 1.6. Total land with KVK (in ha)

: 20 ha

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

# 1.7. Infrastructural Development:

# A) Buildings:

S.	Name of	Source			Stag	ge		
No.	building	of		Complete	е		Incompl	ete
		funding	Completion	Plinth	Expenditure	Starting	Plinth	Status of
			Date	area	(Rs.)	Date	area	construction
				(Sq.m)			(Sq.m)	
1.	Administrative	ICAR	1994	550	7.59	1990-91		
	Building							
2.	Farmers Hostel	ICAR	1994	450	8.0	1990-91		
3.	Staff	ICAR	1998	650	32.27	1992-93		
	Quarters(6)							
4.	Demonstration	ICAR	1992-93	300	6.5	1992-93		
	Units (3)							
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	Soil Testing	ICAR	2004-05	112.5	8.59	2004-05		
	Laboratory							

# B) Vehicles:

<u> </u>				
Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
TATA Sumo	2009	6,00,000-00	1,02,534 KM	OK
Mahindra & Mahindra Tractor	2005	3,54,522-00	30,678 (hrs)	ОК
Motorcycle (Hero Honda)	2014	-	3,704 KM	ОК
TVS XL-Super	2002	17,900-00	43,335 KM	ОК

# C) Equipments & AV Aids:

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

# 1.8. A) Details of SAC meeting held on 28.02.2015 for Kharif,2015:

SI.	Name and Designation of	Salient Recommendations
<b>No.</b> 1.	Participants  Dr. M.R.Sreenivasulu, Special	Farm waste should be used for vermicomposting along with FYM.
	Officer, SHE&CS.	Verify the adoption of STCR by Rice farmers.
		<ul> <li>Seed village concept may be taken up in other than rice also.</li> </ul>
		<ul> <li>All the seed produced in KVK should be tested for germination, before opening sales.</li> </ul>
		Pulse village programme may be tried.
		Striga management in Jowar may be taken up in endemic areas.
		Refugee crop in Bt cotton may be encouraged.
2	Mr. Krishna Reddy, Farmer, Kalugotla.	<ul> <li>Soil testing should be made compulsory for all the farmers.</li> </ul>
		For Awareness on management of YMV in blackgram, different methods may be suggested and
		popularized.
		Ram Lambs Production by farmers may be promoted.
		<ul> <li>Farmers are getting cheated by middle men in case of marketing of NDLR 7 &amp; 8.</li> </ul>
3	Mr. Bhupal Yadav, Cherlo	Feed supplied by KVK is good for sheep and buffaloes.
	Kottur, Banaganapalle (M).	By feeding RSMM to buffaloes, the animals are exhibiting heat in time.
		<ul> <li>Korra products are being consumed by many people, especially diabetic.</li> </ul>
4	Mr. Siva Sankar Reddy, Diary	<ul> <li>Requested to make available the seed of African Tall Maize.</li> </ul>
•	Farmer, Yagantipalle.	Lucerne need to be popularized.
		···
		Chaff cutter may be provided on custom hire basis, for promotion of haylage, silage etc.

5	Sri. Veerabhadra Reddy,
	Farmer. Bethamcherla.

- Mobile advisories provided by KVK are timely and useful for the farmers.
- The variety NBeG 1 is good with 100 seed weight of 25-28 g, that yields 50 kg excess yield per acre than other varieties.
- Due to incidence of Maruca in redgram at 70 75 DAS, yields were affected by about a quintal per acre.

# 6 Dr. Y.Narasimhudu, Principal Scientist & Programme Coordinator, KVK, Yemmiganur.

- 7 Sri. N. Sudhakar, ADA, Nandyal .
- Shared her experience regarding production and sale of Millet Value Added products with the help of KVK.
- Promised to extend full support from Dept. of Agriculture for making western parts of Banaganapalle mandal into Setaria Hub.
- Square type balers are tested to be performing better in the field and the plan of providing them under subsidy is in process.
- Soil testing in each village is being done in every farming situation, with GPS coordinates, the results of which will be useful for all the similar farmers.
- As the area under blackgram is increasing, Awareness on YMV management in Blackgram need to be done.
- Promotion of Setaria in drier parts of Banaganapalle (Rain Shadow Area), which extends to 10 villages from Yagantipalle to Pasupula need to be taken up.

8	Sri.G. Chandra Sekhar, Farm	•	For management of Whitefly in chillis, which is the vector for viral diseases, use of Yellow Sticky
	Radio Officer, AIR, Kurnool.		Traps may be promoted.
		•	Organic farming may be stressed.
		•	Promote multi cropping system for small and marginal farmers.
		•	Encourage the farmers to go for Green houses/Polyhouses and Micro Irrigation system, by
			availing government subsidy.
		•	Promote Banana/Pomegranate .
		•	Concentrate on Pulses and Crop Rotation.
9	Sri. Narayana Naik, ADA representing JDA, Kurnool.	•	Soil testing will be taken up by Dept. of Agriculture in large scale.
10	Dr. Panduranga Reddy, LRS,	•	IGFRI fodder varieties to be tested for smooth leaf.
	Mahanandi :	•	Fodder cutting machine to be developed.

• Cost of Hydroponics Production may be reduced and may be demonstrated.

# 11 Dr. A.R. Reddy, Senior Scientist, Zonal Project Directorate, Hyderabad.

- Awareness creation on STCR calculations to extension functionaries need to be taken up.
- High density planting in Bt cotton may be tried in poor and shallow soils.
- The practice of stem application in Bt. Cotton may be popularized.
- While formulating action plans, concentrate on major crops.
- Short messages on Market prices may be given through KMA.
- When new crops are planned, have full knowledge on the crop and crop management.
- For feed preparation, locally available material should be used.
- Moisture supply in Hydroponic system of fodder production, may be tested with drip and such methods which do not require power.
- See that Sickles and Weeders are available locally.
- Cotton INM should be continued as demonstration.

# 12 Dr. Y.Padmalatha, ADR, RARS, Nandyal

- Extended willingness to support KVKs intention of making Banaganapalle, foxtail crop hub.
- To increase the number of popular articles and sending them to Vyavasayam an agriculture magazine published by ANGRAU.
- Detailed account of information be furnished in the Action Taken Report with the names of the members who made the remarks.
- Creating new Infrastructure facilities may be approved by ZPD for making budgetary provisions to KVK, meanwhile the Secretary may accept the proposals and give consent to go ahead with the funds available in Revolving Fund of KVK.
- The OFT proposed in Sunflower crop may be dropped as the area under the crop has declined.
- A OFT may be proposed on Increasing Organic Carbon in Soils.

- OFT on STCR in Groundnut may be implemented in areas where crop rotation is followed with observation on irrigation management in those fields, with interdisciplinary support (Agronomist).
- Boron deficiency in Paddy and Maize may be verified before taking up OFT.
- Double cropping of Suryanandi of Setaria followed by Bengalgram/Jowar may be taken up as Front Line Demonstration.
- SIA 3156 (85 Days) variety of Setaria may be popularized as single crop.
- Mustard and Jowar may be included in Proposed OFT of Rice based cropping systems.
- Demonstrations on Striga management may be taken up in Striga endemic areas.
- Is it necessary to take up Redgram transplanting trial?
- Weather factor relation with pest/disease occurance need to be mentioned.
- Any organic intervention need to be tested on station, before going out to farmers.
- Use of Urea, Molasses mineral bricks may be taken up as a whole village approach.
- Gender friendly implements in agriculture may be popularized, by taking up production with blacksmith.
- 13 Dr. Y.Narasimhudu, Principal Scientist & Programme Coordinator, KVK, Yemmiganur
- Budget for KVK should be provided sufficiently as the maintenance of farm and labour is becoming costly.
- To avoid phytophthora blight in Potato, whole potato has to be sown and cutting potato into slice may be discouraged.

To control viral disease in Blackgram, Seed treatement with Imidacloprid and use of Neem oil (5-6 ml/lt) with Pesticide sprays may be encouraged, to arrest the entry of virus into the plants.

14	Dr. Saralamma, Coordinator,
	DAATC, Kurnool

• Take up management of Alternaria leaf spot as demonstration in Bt Cotton.

15 Sri. P.Balaji, Secretary, SHE & CS

- Check whether information in Soil heath cards provided by KVK is sinking with the soil health cards provided by Govt. of India.
- The target of soil samples should be atleast 1500 for 2015-16.
- Seed production by KVK should cover 10% of rice area of the district.
- Third party evaluation should be taken up for STCR in Rice and for other KVK programmes also.
- KVK should establish sub centres in Kurnool division to increase the outreach of KVK activities, employing Agri Diploma holders as coordinators.
- Performance of use of organic inputs may be tested against farmers practice.
- 16 Smt G. Dhanalakshmi, Programme Coordinator, KVK, Yagantipalle.
- Tthe Programme Coordinator of KVK has presented the new proposals for infrastructure development at KVK viz., Feed mixing unit (Rs. 2.5 lakhs), Dairy unit (Rs. 5.00 lakhs), Seed processing unit (Rs.16.00 lakhs), Expansion of Vermi compost unit (Rs. 2.50 lakhs) and Expansion of neem pounding unit (Rs. 3.20 lakhs) etc. with total projected budget outlay of Rs.29.2 lakhs, for approval of the house.

# **List of participants attended the SAC Meeting :**

S.No	Name	Designation
1.	Sri. S.C.Narayana Naik	ADA O/o JDA, Kurnool
2.	Sri. P.Balaji	Secretary, KVK, Yagantipalle
3.	Sri. N.Sudhakar	ADA, Nandyal
4.	Sri. G.Chandra Sekhar	FRO, AIR, Kurnool
5.	Dr. C.Venkata Ramana Varma	ADAH (Rep. of JDAH, Kurnool)
6.	Dr. M.Bramhananda Reddy	VAS, Pasupula
7.	Dr. Y. Narasimhulu	PC, KVK, Banavasi.
8.	Dr. A.R. Reddy	Sr.Scientist, ZPD, Zone V, Hyd.
9.	Dr. Y. Padmalatha	ADR, RARS, NDL.
10.	Dr. M.R. Sreenivasulu	Spl. Officer, SHE&CS, Y.palle.
11.	Smt. G. Dhanalakshmi	Programme Coordinator
12.	Dr. S. Saralamma	PS & Coordinator, DAATC, Kurnool
13.	Sri. D.Narasimhudu	AEO, Banaganapalle
14.	Dr. Hammylinde Talang	ARS Trainee Scientist, NAARM
15.	Sri. K.T.Ravi Kiran	ARS Trainee Scientist, NAARM
16.	Dr. Sudeshna Battacharya	ARS Trainee Scientist, NAARM
17.	Smt. Gayathri	ARS Trainee Scientist, NAARM
18.	Dr. Hari Abdul Samad	ARS Trainee Scientist, NAARM
19.	Sri. Siddanna Savadi	ARS Trainee Scientist, NAARM
20.	Sri. B.V.Subba Reddy	Farmer, Banaganapalle
21.	Sri. D.Chinnapu Reddy	Farmer, Banaganapalle
22.	Sri. B.Sreenivasulu	Farmer, Dornipadu
23.	Sri. M.V.Krishna Reddy	Farmer, Kalugotla
24.	Sri. K. Venkateswar Reddy	Farmer, Owk Mittapalle
25.	Sri. P.Bhupal Yadal	Farmer, Cherlo Kottur
26.	Sri. D.Siva Sankar Reddy	Farmer, Yagantipalle
27.	Sri. M.Subramanyam	Farmer, Yagantipalle
28.	Sri. M.Veerabhadra Reddy	Farmer, Bethamcherla
29.	Smt. B.Rajeswari	Women farmer, YPL
30.	Smt. Maheswari	Woman Enterpreneur, YPL
31.	Smt. Lakshmi Devi	Woman Farmer, Banaganapalle

# 2. DETAILS OF DISTRICT (2014-15):

# 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		
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 yields unexpectable and dry land agriculture is predominant with a variety of rainfed crops in the zone.

# Agro-ecological situations:

S. No	Agro ecological situation	Characteristics
1	K.C canal irrigated red soils	Paddy-Paddy, Greengram-Paddy
	_	Paddy-Groundnut, Vegetables
		Paddy-Fallow
2	T.B.Low level canal irrigation	Paddy-Paddy, Paddy-Groundnut
	Red soils	Greengram-Paddy, Vegetables
		Groundnut/Fallow
3	T.B. High level canal irrigation	Greengram-Paddy, Paddy/Groundnut/
	Red soils	Vegetables-Fallow
4	K.C.Canal irrigation Black soils	Paddy-Greengram-Paddy
		Paddy/Groundnut-Vegetables
		Sunflower/Groundnut-Fallow Groundnut/Cotton-Fallow
5	T.B.Low level canal irrigation-	Greengram/Paddy-Paddy
	Black soils	Paddy-Groundnut/Vegetables
		Sunflower-Groundnut
		Groundnut-Sunflower
		Cotton-Fallow
6	T.B.High level canal irrigation Black soils	Paddy-Fallow, Sunflower/Groundnut-Fallow
7	Problem soils	Greengram-Paddy, Fallow-Paddy Fallow-Paddy
8	Tank irrigation Red soils	Paddy-Sunflower/Fallow
		Paddy/Sunflower-Fallow
9	Tank irrigation Black soils	Paddy-Paddy/Groundnut Sunflower-Fallow, Fallow-
		Paddy/Groundnut/Sunflower
10	Well irrigation Red soils	Paddy-Paddy/Sunflower/Groundnut
		Sunflower-Groundnut/Greengram
		Groundnut – Groundnut/Sunflower
		Cotton/Onion-Fallow
11	Well irrigation Black soils	Paddy-Paddy/Sunflower/Groundnut
		Sunflower/Vegetables
		Cotton/Onion/Chillies-Fallow
12	Rainfed Red soils	Sunflower, Groundnut+Redgram
		Groundnut+Jowar, Cotton
		Cotton+Redgra, Jowar, Korra, Redgram-Fallow
13	Rainfed-Black soils	Paddy-Fallow Sunflower/Bengalgram/Coriander fallow
		Jowar/Bengalgram/Tabacco
1.1	CDDC Dadasili	Jowar/Groundnut/Cotton-Fallow
14	SRBC – Redsoils	B.t. Cotton, Jowar, Redgram, Groundnut, Korra
15 16	SRBC – Black soils	Rice, Jowar, Maize
16	TGP – Red soils	G.nut, Vegetables, Sunflower, Chillis, Cotton
17	TGP –Black soils	Rice, B.t. Cotton, Chillis

# 2.3 Soil types:

S.	Soil type	Characteristics	Area in
No			lakh ha
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:

# **Kharif -2014**

SI. No.	Name of the Crops	Normal Area	Area Sown during the corresponding Period 2013	Area Sown 2014	(Percentage of Coverage)
1	Rice	88645	92596	86525	97.61
2	Jowar	10710	10958	16531	154.35
3	Bajra	7570	7614	4874	64.39
4	Maize	23878	38761	36303	152.04
5	Ragi	0	0	0	0.00
6	Minor Millets, (Korra)	10723	11066	6623	61.76
7	Redgram	47951	42964	41504	86.56
8	Greengram	2469	1261	1180	47.79
9	Blackgram	4104	2248	1993	48.56
10	Horsegram	1	4	0	0.00
11	Other Pulses	5	0	0	0.00
12	Groundnut	134916	150918	92906	68.86
13	Sesamum	35	44	54	154.29
14	Castor	62792	27505	31502	50.17
15	Sunflower	19892	7047	4202	21.12
16	Soyabean	81	50	342	422.22
17	Other Oilseeds	44	0	355	806.82
18	Cotton	108983	203685	294999	270.68
19	Mesta	306	36	55	17.97
20	Chillies	13896	15201	13730	98.81
21	Sugarcane	1270	751	744	58.58
22	Onion	16904	14961	22922	135.60
23	Turmeric	2379	1770	1986	83.48
24	Tobacco	1288	294	889	69.02
25	Others:-	26509	21542	16584	62.56
	DIST. TOTAL :	585351	651276	676803	115.62

# Rabi -2014:

SI. No.	Name of the Crops	Normal Area	Area Sown during the correspon-ding Period 2013	Area Sown 2014	(Percen- tage of Coverage)
1	Paddy	28323	987	2121	7.49
2	Wheat	385	136	17	
3	Jowar	60119	47794	57427	95.52
4	Bajra	496	53	56	11.29
5	Maize	7891	8649	5869	74.38
6	Ragi	1	1	0	0.00
7	Minor Millets, (Korra)	279	15	40	14.34
8	Redgram	1464	510	262	17.90
9	Greengram	1017	777	3114	306.19
10	Blackgram	6657	2418	12973	194.88
11	Horsegram	847	422	387	45.69
12	Bengalgram	215493	206282	141049	65.45
13	Other Pulses	38	0	0	0.00
14	Groundnut	21203	11072	12065	56.90
15	Sunflower	40892	12047	5205	12.73
16	Safflower	400	343	18	4.50
17	Sesamum	719	330	2453	341.17
18	Other Oilseeds	3574	1961	118	3.30
19	Chillies	672	610	655	97.47
20	Coriander	3924	425	6560	167.18
21	Tobacco	9132	6865	6092	66.71
22	Cotton	281	110	0	0.00
23	Onion	2136	1855	1694	79.31
24	Others:-	6547	10639	8597	131.31
	DIST. TOTAL :	412490	314301	266772	64.67

# AREA, PRODUCTION AND PRODUCTIVITY OF DIFFERENT HORTICULTURE CROPS GROWN IN THE DISTRICT

		DISTRI		
Sl.No	Name of the crop	Area (Ha)	<b>Production in Tones</b>	Productivity in Tons/Ha
1	Mango	7209	108135	15
2	Sapota	432	6480	15
3	Sweet Orange	2888	72200	25
4	Guava	210	3150	15
5	Ber	66	990	15
6	Pomogranate	57	570	10
7	Lime	205	2563	12.5
8	Banana	3373	168650	50
9	Coconut	120	45000	375 Nuts / Tree
10	Papaya	300	2400	8
11	Other fruits	202	-	-
	Total	15062	410138	
Vegeta	bles:			
12	Tomato	11515	75630	15
13	Brinjal	2856	22848	8
14	Drumstic	150	-	-
15	Gourds	575	4120	10
16	Beans	2605	13250	5
17	Leafy Vegetables	140	-	-
18	Bhendi	4318	8970	6
19	Carrot	310	5840	20
20	Cucumber	45	1500	10
21	Capsicum	125	-	
	Total	22639	132158	
Spices:				
21	Chillies	13765	96033	7
22	Onion	16970	254550	15
23	Turmeric	3436	15462	4.5
24	Coriander	50	10000	5
25	Ajwan	4833	4833	1
26	Curry Leafies	181	-	
	Total	39235	380878	
Flowers				
27	Jasmine	520	2080	4
28	Marrygold	452	2260	5
29	Crossandra	498	996	2
30	Rose	35	70	2
31	Lilly	10	20	2
32	Chrysanthemam	202	1616	8
	Total	1717	7042	
	Grand Total	78653	930216	

# 2.5. Weather data 2014-15:

Month	Rainfall (mm)	Temperature <sup>0</sup> C		Avg Relative
		Maximum	Minimum	Humidity (%)
Apr -14	8.4	39.3	25.4	61.3
May-14	39.6	39.6	26.5	65.4
Jun -14	135.4	37.4	26.3	69.4
Jul -14	50.3	34.2	25.5	75.3
Aug -14	238.8	34.2	24.9	80.1
Sep -14	32.1	33.3	24.1	84.5
Oct -14	115.9	33.3	23.0	85.8
Nov-14	24.0	29.9	19.6	93.3
Dec -14	5.0	29.4	17.6	82.7
Jan -15	0.0	30.6	16.2	79.2
Feb -15	0.6	33.3	16.9	71.8
Mar -15	18.5	36.5	21.6	70.3
Total:	668.6	34.25	22.3	76.5

# 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (Census 2014)

Category	Population	Production	Productivity
Cattle			
Crossbred	6452	3.98 lakh	6-8 lt
Indigenous	514259	metric tonnes	1.5-2.5
Buffalo	409741	of milk	2-3
Sheep			
Crossbred	-	19,087 metric	
Indigenous	1488939	tonnes of	12.5 kg
Goats	500518	meat	
Pigs	16949		
Crossbred			
Indigenous			
Rabbits			
Poultry			
Hens	2,74,957	857 lakh No.s	
Desi	6,41,218	eggs	60-70 eggs
Improved	3,35,127		245-260 eggs
Ducks	942		
Turkey and others			

# 2.6 Details of Operational area / Villages (2014-15):

S. No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Banaganapa lle	Nandyal	Bhanumukkala	Onion	Indiscriminate use of pesticides	IPM for Thrips and Blotch
			Yagantipalle	Maize	Indiscriminate use of Pesticides	Contingent management of pests and diseases
2	Banaganapa Ile	Nandyal	Amadala	Redgram	Indiscriminate use of pesticides	Realtime contingent mgmt, of pests & diseases
			Yagantipalle Meerapuram	B.t.cotton	Indiscriminate use of pesticides	Management of sucking pests
3	Gospadu	Nandyala	Mitnala	Blackgram	Indiscriminate use of Pesticides	Realtime contingent mgmt. of pests & diseases
4	Rudravaram	Allagadda	Alamuru	Chillis	Indiscriminate use of pesticides	Integrated Management of fruit rot and powdery mildew
						Management of root rot
5	Panyam	Nandyal	Yagantipalle	Rice	Indiscriminate use of pesticides	Management of stem borer.
6	Banaganapa Ile	Nandyal	Yagantipalle	Ram Lambs	Poor growth rate	Feeding of High protein feed
			Yagantipalle	Fodder	No improved varieties	Introduction of new hybride napier varieties
			Pasupula , Cherlakotturu, Katikavanikunta	Sheep	High mortality and poor growth in Pre weaned lambs	Supplimantation of high protein feed
7	Allagadda	Allagadda	Nallagatla	Dairy	Low milk production	Supplimantation of high protein feed at lower price.
8	Rudravaram	Allagadda	Mandaluru	Dairy	Re production problem in milch animals	Supplimentation of RSSM.

9	Bethemcher la	Kurnool	Seetharamapura m	Dairy	Poor milk production	Supplimentatin of UMMB.
				Rice	Low productivity in rice-rice system	Introduction of rice based cropping systems (Rice-maize / rice – sunflower)
				Maize	Drudgery to farm women in weeding	Introduction of rotary weeder for weeding.
			Pandlapuram	Bhindi	Difficuty in harvesting	Use of bhindi cutter for harvesting.
			Pasapula Amadala	G.nut	Drudgery in weeding and labour intensive operation.	Improved moghi wheel hoe
			Yagantipalle	Paddy	Drudgery to women in harvesting with heavy weight local sickles.	Serrated light weight sickles for easy harvest.
			Yerragudi Meerapuram	Castor	Drudgery to women in harvesting	Use of cotton hand gloves
			Illluru Kothapeta	Bengal gram	Wilt and dry root rot	Management of soil borne diseases with application of <i>Trichoderma viridi</i> as seed treatment and soil application.
				Sunflower	Imbalanced nutrient management	STCR based nutrient management
			I.K.Peta Yagantipalle	Rice	Incidence of Stem borer in Rabi	Management of stem borer in rice.
			Nandavaram Yagantipalle	Redgram	Indiscriminate use of Pesticides	Realtime contingent mgmt, of pests & diseases

			Yagantipalle Meerapuram	Castor	Indiscriminate use of pesticides	Realtime contingent mgmt. of pests & diseases
			Yagantipalle	Maize	Zinc deficiency Indisciminate use of pesticides	Zinc Management Realtime contingent mgmt. of pests and diseases
			Yagantipalle	Bt. Cotton	Low yields due to weed problem	Post emergence weed control with herbicides, INM in Bt Cotton.
			Yagantipalle	Potato	Low market prices for traditional vegetables during Rabi	ICM in Potato
			Nandavaram	Redgram Bengalgram	Low productivity in redgram & Bengalgram	Introduction of hybrids and varieties tolerant to wilt and moisture stress.
10	Gospadu	Nandyal	Yallur Jillella Yaluru Julepalli Gospadu M.Krisnapuram Srinivasapuram Nehrunagar	Groundnut Rice	Indiscriminate use of Pesticides for pest & diseases Indisciminate use of chemical fertilizers	STCR based nutrient management
					Indisciminate use of chemical fertilizers	STCR based nutrient management
					Low yields due to BLB	Introduction of RP Bio 226 variety with ICM
	Sirivel	Nandyal	Kotapadu Veerareddipalem Venkateswarapur am, Yerraguntla	Rice	Indisciminate use of chemical fertilizers	STCR based nutrient management
			& Venkatapuram		Low yields due to BLB	Introduction of RP Bio 226 variety with ICM

11	Rudravaram	Allagadda	Alamuru	Turmeric	Rhizome rot	Management of rhizome rot with seed treatment. Nutrient Management in Chillli.
	Owk	Koilakuntl a	Alamuru Sunkesula	Banana	Micronutrient deficiencies	Correction of micronutrient deficiency
12	Bethamcher la	Dhone	Embai	Mango	Micronutrient deficiencies	Correction of micronutrient deficiency, Nutrient Management in Groundnut.
			Sitarampuram	Chrysanthe mum	Low yield due to repeated cultivation of own NS planting material.	Improved varieties with high yield, uniformity, shelf life and attractive colour.
13	Koilakuntla	Nandyal	Kalugotla	Black gram	Low yields due to local varieties	ICM with YMV tolerant varieties.
14	Midthur	Nandikotk ur	Jalakanur	Rice	High cost of cultivation	Cost reduction technologies like SRI and Drum Seeder.
15	Sanjamala	Allagadda	Sanjamala	Bengalgrm	Low productivity in bengalgram	ICM in bengalgram
16	Panyam	Nandyal	Bhupanapadu Kowluru	Redgram	Low productivity in pulses	Introduction of tolerant varieties to wilt and moisture stress.

# 2.7 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.				
Inter Cropping	Drought mitigation and to prevent Crop failures in Red soils				
System	In Kurnool district generally crops like red gram and castor yields are limited				
	by the amount and distribution of rainfall during monsoon period. Farmers are				
	getting low net returns/ha due to changes in price of the marketable produce				
	and incidence of pest and diseases also increasing year by year due to				
	monocropping.				
	In order to increase Net returns of rainfed situation Greengram, seteria and				
	Clusterbean crops were introduced as intercrops in Castor.				
Double	Crop intensification in Rainfed black soils				
cropping:	In black soils, 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. Inorder to				
	increase net returns and cropping intensity, Seteria- bengalgram can be				
	successfully grown in rainfed black solis, subject to the onset of monsoons in				
	time.				

# Cotton, Bengalgram & Vegetables

# Promotion of IPM with a stress on biological control in Cotton, Bengalgram and Vegetables:

Due to indiscriminate and heavy use of chemical pesticides, the *Helicoverpa* on Cotton and Bengalgram has developed resistance and no more chemical sprays could manage the pest. The problem of insecticide residues in vegetables is causing panic and has become a threat to human health. Hence, it demands alternate ways of controlling the pest. And use of bio pesticides such as *Bacillus thurungiensis* and Ha NPV could solve the problem. Awareness regarding biological control among farmers is very poor. Hence, we considered it as a major thrust area and we are putting our efforts in promoting biological control through trainings and demonstrations in preparation as well as its usages.

# Bengalgram

# Improving productivity in Bengalgram:

# a. Management of Soil borne diseases:

The data collected in the district revealed that in about 2.1 lakh hectares Bengalgram is grown every year. The farmers are adopting monocropping, because there is no alternative, which is as remunerative as bengalgram. Due to monocropping, soil borne diseases like wilt and dry root rot have become major problem. And they are not manageable by chemicals. Hence, the farmers have to depend on alternate ways for its management. Use of *Trichoderma* for seed treatment and soil application, was found effective in managing the soil borne diseases. But, the farmers are not aware of its use and performance in the field. So the farmers need to be trained in application and usage of *Trichoderma* for controlling the wilt and dry root rot in Bengalgram.

In the same manner, soil borne diseases have become a common problem in many crops of the district like Cotton, Redgram, Chillies and sweet orange. The same *Trichoderma* can be effectively used for the management of these diseases. Farmers are not aware of its use and hence they need training in its application and usage.

#### **Blackgram**

#### Integrated Pest Management in Blackgram:

Blackgram area is increasing every year and the pests Maruca and Diseases YMV and Powdery mildew are the regular problems in the crop affecting yields. To improve the yields with good management of pests and diseases is the prime focus area. Hence, thrust is given to test the resistant varieties of Blackgram that withstand the incidence of YMV with good yield potential. Integrated Pest Management practices will be followed for managing the other problems.

### **Paddy**

### **Integrated Nutrient Management in Paddy:**

The paddy farmers are using higher doses of chemical fertilizers (B.C. Ratio: 1:1.5 to 1:1.75) and are going for top dressing with complex fertilizers even after 60 days, which is paving the way for incidence of pests and diseases. It was also observed that the poor soil health is due to low organic matter content and inert /filled material of the chemical fertilizers, which leads to low fertilizer use efficiency. Farmers are not going for soil test based recommendations. There is a dire need for the farmers to go for soil test based fertilizer recommendations with inorganic and organic manures in the ratio of 3:2 so as to reduce the cost and improve the soil health.

# Problematic soils

#### Reclamation of alkaline soils:

Out of total area, alkaline soils represent 10.2%, which are poor to very poor in productivity. To improve the physical properties of these soils, it requires some of the amendments like gypsum application, sulphur and organic manures addition. It is also necessary to follow special package of production to extract better yields from these soils. Training and demos in this regard will help the farmers to overcome this problem.

# Dryland Horticulture

## Focus on dry land Horticulture with micro irrigation.

Of the total area of Kurnool district, 0.81 lakh ha is under cultivable waste. All this area can be converted in to dry land horticulture by making some amendments. The crops that are suitable under dry land horticulture are Mango, Ber, Sapota, Pomogranate and Aonla. So there is every need to focus on increase of area and productivities of these crops, which indirectly improve the standard of living and income of the farm families.

As the groundwater table is depleting year after year, there is lot of scope for shifting of conventional field crops to horticulture crops. In this regard, there is a dire necessity to conserve ever limiting water resources, by adoption technologies like micro irrigation for increased water use efficiency.

#### **Milch Animals**

# Care and management of milch animals:

The data reveal that the management of milch animals is not to the standards. The data also tells us that the young calves are not taken care, due to which mortality rate is significantly high. The nutrient management is very low which resulted in poor milk yields. The irrigated track farmers are also not going for green fodder cultivation. As the diary is an important component in the farming systems, farmers should be educated about scientific rearing of the animals

# Income Generation

#### Income generating activities for rural women and adolescent girls.

Survey reveals that income-generating activities can be taken up in off-season for rural women and also for school dropouts depending upon the local resources and market demand.

# **B. TECHNICAL ACHIEVEMENTS:**

# 3.A. Details of target and achievements of mandatory activities by KVK during 2014-15:

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			•	
		1		2				
Num	Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
<b>Targets</b>	Achievement	Targets	Achievement	<b>Targets</b>	Achievement	Targets	Achievement	
17	17	85	85	20	60	220	373	

Training (including sponsored, vocational and other trainings)						Extension	n Activitie	S
3							4	
Nu	mber of Co	nber of Courses Number of Participants					Number of participants	
Clientele	<b>Targets</b>	Achievement	<b>Targets</b>	Achievement	T	Α	T	A
Farmers	55	55	1590	1590				
Rural youth	14	14	403	403				
Extn. Functio.	5	5	113	113				
Total	74	74	2106	2106	2572	2572	8500	8481

	Seed Production (Qtl.)				Planting material (Nos.)			
	5		6					
Target Achievement			Та	Achievement				
NDLR-7-	150	161.9	Chilli -	600000	643600			
BPT-5204-	500	540.9	Tomato -	50000	46900			
Redgram	6.0	6.94	Brinjal -	50000	50100			
Castor	4.0	2.38	Others		43100			
Seteria	8.0	8.36						

## 3.B. Abstract of interventions undertaken:

					lı	ntervention	ıs		
S. N o	Thrust area	Crop/ Enterprise	Identifie d Problem	Title of OFT if any	Title of FLD if any	Title of Training if any	Title of trai ning for exte nsio n pers onn el if any	Extens ion activit ies	Supply of seeds, planting materials etc.
1	Promo tion of IPM	Maize	Increasin g cost of plant protecti on	-	Integrated Pest Manageme nt	-	-	-	
		Redgram	Helicove rpa, Maruca and wilt	-	Realtime Contingent mgmt. of pests & diseases	IPM and sustaina ble 28ethod of plant protecti on	-	-	-
		Chillis	Fruit rot and Powdery Mildew & Root rot	IDM for fruit rot & PM Mgmt. of root rot	-	IPM and IDM in Chillis	-	-	-
		Black Gram	Maruca & YMV	-	Contengen t mgmt of pest s	IPM in Blackgra m	-	-	-
		B.t.Cotton	Jassids, Aphids, Whitefli es & Mealybu gs	-	Mgmt. of sucking pests	IPM in B.t. cotton			
		Onion	Thrips and Blotch	Mgmt.of Thrips and Blotch	-	-	-	-	-
2	INM	Sunflower	Low producti vity due to poor seed set and test weight.	Nutrient Manageme nt .	-	Integrat ed nutrient manage ment	-	Field day	Supply of sulphur and borax.

Chilli	Increase d cost of producti on due to indiscri minate and imbalan ce use of chemical fertilizer	Nutrient Manageme nt based on Soil Test Crop Response formula	-	-	Fiel d day	Supply of Vermi comp ost	Nutrient Manage ment based on Soil Test Crop Response formula
Ground t	nu Increase d cost of producti on due to indiscri minate and imbalan ce use of chemical fertilizer s	Nutrient Manageme nt based on Soil Test Crop Response formula		-		Gypsu m	Nutrient Manage ment based on Soil Test Crop Response formula
Rice	Increase d cost of producti on due to indiscri minate and imbalan ce use of chemical fertilizer s.		Nutrient Manageme nt based on Soil Test Crop Response formula	Soil samplin g and soil test based nutrient manage ment	-	Field day	Supply of Vermi compost
Bengalg m		-	Zinc and sulphur manageme nt	-	-	-	-
B.T.Cott		-	Application of Organic, Inorganic and Bio fertilizers				Vermico mpost, VAM, KNO <sub>3</sub> , Znso <sub>4</sub> , Mgso <sub>4</sub> , Borax

3	Recla matio n Proble matic soils		Poor physico - chemical properti es and Low producti vity.	-	Reclamatio n of sodic soils with gypsum under irrigated condition.	Reclama tion of sodic soils with gypsum under irrigated conditio n.	-	-	Supply of gypsum
4	Micro Nutrie nt deficie	Rice	60% of soils are deficient in Zinc		Foliar Application of Zinc				Chelated Zinc
	ncy in crops	Maize	60% of soils are deficient in Zinc		Basal application of Zinc Sulphate				Zinc Sulphate
5	Impro ving the produ ctivity	Redgram	Low yields with local varieties	Hybrid evaluation	Varietal evaluation	Producti on technol ogy	-	Field Days, Expos ure Visits	Supply of improved variety LRG-41
	,	Bengalgra m	Low yields with local varieties	-	Varietal demo	Producti on technol ogy		-do-	Supply of seed Nandyala sanaga-1
6	Crop geom etry	Maize	Low Yields with high density	Asessment of Plant densities	-	-	-	Field Visits	Seed
7	Resou rce Conse rvatio n	Paddy and Maize	Low Returns Due toHigh Cost of producti on	-	Direct seeding and Zero tillage	-do-	-	Field day	Herbicide s
8	Impro ving produ ctivity under rainfe d situati on	Seteria Bengalgra m and Castor	Low producti vity with monocr opping	Castor Based intercroppi ng system	Double cropping and Intercroppi ng	Croppin g systems	-	Field Days, Expos ure Visits -	Supply of korra seed and Introducti on of Intercrop s

9	Impro ving produ ctivity under irrigat ed situati on	Rice Btcotton	Increase d cost of cultivati on due to scarcity of manual labour	-	Semi dry rice cultivation, weed manageme nt in Rice and Bt cotton	iCM	-	Field Days, Expos ure Visits	Arrangem ent of Critical inputs i.e Herbicide s .
10	Feed mana geme nt in	Sheep	High lamb mortalit y, poor growth	Creep feeding	Mineral supplemen tation through salt licks	Scientifi c manage ment of sheep and goat.	-	-	-
			Poor growth in Ram Lambs	Supplement ation of high protein Feed	Feed of groundnut based concentrat e feed	Scientifi c manage ment of sheep and goat.			
10		Dairy	High cost of milk producti on, reproductive problem s & poor growth in calves	Fodder varieatal evaluation	Feeding of calf starter Feeding of SF heads supplemen ted ration Haylage making with maize stover. Supplemen tation of Regional Specific mineral mixture	Milk improve ment technol ogies Preventi on of calf mrthalit y	-		
11		Poultry	Low growth rate in backyar d poultry	-	Supplemen tation of azolla	Backyar d poultry manage ment	-	-	-

12	Impro ved varieti es of flower crops	Chrysanth emum	Repeate d use of own planting material leading to loss of vigour in crop	Introductio n of improved chrysanthe meum varieties	-	ICM in flower crops	-	-	Chrysant hemum suckers
13	Low incom e due to traditi onal vegeta ble cultiva tion	Rabi vege tables.	Low market price for tradition al crops like tomato	Potato	-	ICM in Potato	-	-	Potato tubers as seed material
14	IDM	Turme ric	Low populati on leading to reduced yields due to rhizome rot	-	Seed treatment of rhizomes	ICM in turmeric	-	Meth od demo n stratio n on seed treate ment	-
15	ICM	Chilli	Weed problem in later stages of the crop impactin g the yields.	-	Chemical weed manageme nt in Chilli	ICM in chillis	-	-	-
16	Micro nutrie nt mana ge ment	Mango	Micronu trient deficienc ies in crop leading to low quality of fruits and flower and fruit drop	-	Micro nutrient manage ment	INM	-	-	-

17	INM	Banana	Imprope r nutrient manage ment	-	Micro nutrient spraying on bunches
18	Drudg ery reduc ation in agricul	-	Drudery in harvesti ng in Jowar	Evaluation of improved sickles	
	tural operat ions		Weeding	Rotary weeder	Mobi improved wheel hoe
			Harvesti ng of Bhindi		Bhindi cutter demo
			Harvesti ng castor and fodder		Demo on Hand gloves

# 3.1 Achievements on technologies assessed and refined:

# A.1 Abstract of the number of technologies assessed\* in respect of crops/enterprises (Kharif-2014, Rabi & Summer 2014-15)

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation			1				1			2
Seed / Plant production										
Cropping systems		1								1
Integrated Crop Management					1					1
Integrated Nutrient Management		2			1					3
Crop Geometry	1									1
Mushroom cultivation										
Drudgery reduction	1									1
Farm machineries										
Value addition										
Integrated Pest Management	1				2					3
Integrated Disease Management					1					1
Resource conservation technology										
Small Scale income generating										
enterprises										
TOTAL	3	3	1		5		1			13

# A.2. Abstract of the number of technologies refined\* in respect of crops/enterprises (Kharif-2014, Rabi & Summer 2014-15):

Thematic areas	Cereals	Oilseeds	Pulses	Commercial	Vegetables	Fruits	Flower Plantation crobs Tuber Crops	TOTAL
Varietal Evaluation								
Seed / Plant production								
Weed Management								
Integrated Crop Management								
Integrated Nutrient Management								
Cropping System								
Mushroom cultivation								
Drudgery reduction	1							1
Farm machineries								
Post Harvest Technology								
Integrated Pest Management								
Integrated Disease Management								
Resource conservation technology								
Small Scale income generating								
enterprises								
Total:	1							1

## A.3. Abstract of the number of technologies assessed in respect of livestock / enterprises:

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of								
Breeds								
Nutrition			2					2
Management								
Disease of								
Management								
Value Addition								
Production and								
Management								
Feed and Fodder	1							1
Small Scale								
income								
generating								
enterprises								
TOTAL	1		2					3

# A.4. Abstract on the number of technologies refined in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of								
Breeds								
Nutrition								
Management								
Disease of								
Management								
Value Addition								
Production and								
Management								
Feed and Fodder								
Small Scale								
income								
generating								
enterprises								
TOTAL								

# B. Details of each On Farm Trial to be furnished in the following format

# A. Technology Assessment:

### **OFT 1**:

S.No	Item	Particulars
1	Title	: Assessment of plant densities i.e paired row Vs ridge planting (60x20 cm) in under I.D situation.
2	Problem diagnosed/refinement	: Low yields in Maize due to High population densities
3	Details of technologies selected for assessment/refinement	: T1 – Paired row (Farmers Practice ) T2 – Recommended spacing(60X20 cm)
4	Source of technology	: ZREAC Proceeding, RARS, Nandyal.
5	Production system	: Sandy clay loam, Irrigated
6	Thematic Area	: Crop geometry
7	Performance of the	: ✓ Plant population
	Technology with	✓ Yield / ha
	performance indicators	✓ Economics
8	Final recommendation for micro level situation	: The data on grain yield revealed that grain yield was affected by population densities. The maximum grain yield (6427 kg/ha) was recorded in ridge planting(60x20 cm) as compared to paired rows(6170 kg/ha). The higher grain yield in ridge planting (60x20 cm) mainly due to higher number of grain rows/ cob and test weight. Hence it is recommended for adoption
9	Constraints identified and feedback for research	· : -
10	Process of farmers participation and their	: Farmers were participated in planning, execution, monitoring .
	reaction	Convinced with optimum population than that of high density.

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT 4	No. of trials*	Technology Assessed/ refined 6	Parameters of assessment	Data on the parameter 8	Results of assessment	Feedback from the farmer 10
Maize	Irrigated	Low productivity in Maize due to high	Assessment of plant densities i.e paired row Vs ridge	5	T1 – Paired row (Farmers Practice)	Plant population/ha	138888	The maximum grain yield (6427kg/ha) was recorded in ridge	
		population densities.	planting (60x20 cm) in under I.D		T2 – Recommended spacing(60X20	Yield kg/ha	6170	planting(60x20 cm) as compared to paired rows.	
			situation		cm)	Plantpopulation/ha	83333	The higher grain yield in ridge planting(60x20	
						Yield kg/ha	6427	cm) mainly due to higher number of grain rows/ cob and test weight, hence it is recommended for adoption.	

Technology Assessed	Production per unit	Net Return (Profit) in Rs./unit	BC Ratio
11	12	13	14
T1 – Paired row (Farmers Practice )	6170kg/ha	35190-00	1:1.91
T2 – Recommended spacing(60X20 cm)	6427kg/ha	38674-00	1:2.01

### OFT-2

S.No	Item	Particulars
1	Title	: Assessment of castor based intercropping Systems in rainfed situation.
2	Problem diagnosed/refinement	: In Kurnool district generally castor is being cultivated in an area of 60533 ha and yields are limited by the amount and distribution of rainfall during monsoon period. Farmers are getting low net returns/ha due to changes in price of the marketable produce and incidence of pest and diseases also increasing year by year due to monocropping
3	Details of technologies selected for assessment/refinement	: T1: Castor + Greengram (1:2) T2: Castor + cluster bean (1:2) T3: castor ( Sole)
4	Source of technology	: RARS, Palem
5	Production system	: Redsoils, Rainfed
6	Thematic Area	: Cropping System
7	Performance of the Technology with performance indicators	: ✓ LER ✓ Yield / ha ✓ Economics
8	Final recommendation for micro level situation	: The results shows that intercropping of castor with greengram 1:2 / cluster bean 1:2 ratio resulted in highest castor equivalent yield and gross returns/ha than sole crops. Intercropping of greengram with castor in 1:2 row proportion resulted in the highest LER value of 1.04 coupled with highest yield of castor
9	Constraints identified and feedback for research	: -
10	Process of farmers participation and their reaction	<ul> <li>Farmers were participated in planning, execution, monitoring.</li> <li>Convinced with Castor based intercropping System than that of solecrops.</li> </ul>

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Castor	Rainfed	Low productivity in castor with sole crop	Assessment of castor based intercropping Systems in rainfed situation.	5	T1: Castor + Greengram (1:2) T2: Castor + cluster bean (1:2)	Yield LER Gross Returns(Rs/ha)  Yield LER Gross Returns(Rs/ha)	641+217 1.04 34390/- 583+936 1.02 33747/-	The results shows that intercropping of castor with greengram 1 :2 / cluster bean 1:2 ratio resulted in highest castor equivalent yield and gross returns/ha than sole crops .	
					T3: castor ( Sole)	Yield LER Gross Returns(Rs/ha)	867 - 28611		

Technology Assessed	Production per unit	Net Return (Profit) in Rs./unit	BC Ratio
11	12	13	14
Castor + Greengram	641+217	9753-00	1:1.4
Castor + Clusterbean	583+936	9532-00	1:3.8
Castor sloe	867	6224-00	1:1.2

### **OFT 3:**

S.No	Item	Particulars
1	Title	: Performance of Redgram Hybrids under rainfed situation (Scrace rainfall zone)
2	Problem diagnosed/refinement	: In Kurnool district Redgram being cultivated in an area of 45000 ha under rainfed situation. The productivity levels are low with ruling varieties and Wilt incidence. So farmers are searching for a wilt tolerant and high yielding Varieties.
3	Details of technologies selected for assessment/refinement	: T1 –ICPL-85063 T2 – ICPH-2740 T3 – ICPH-2671
4	Source of technology	: ICRISAT
5	Production system	: Rainfed, Black soils
6	Thematic Area	: Hybridsl evaluation
7	Performance of the Technology with performance indicators	: The results indicated that the hybrid ICPH-2671 has recorded highest Yield (1383 Kg/ha) followed by ICPH-2740- (1236Kg/ha) as compared with local varietiey ICPI-85063.
8	Final recommendation for micro level situation	: -
9	Constraints identified and feedback for research	: -
10	Process of farmers participation and their reaction	: Farmers were participated in planning execution, monitoring, evaluation of Hybrids and their reaction towards the performance and, adoptability etc. of the improved varieties were assessed.

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Redgram	Rainfed	Low	Hybrids	5	1. ICPL-85063	Yield Kg/ha	1056	The results	
		productivity	evaluation					indicated that	
		of local			2. ICPH-2740	Yield Kg/ha	1236	the hybrid	
		varieties						ICPH-2671 has	
					3 ICPH-2671	Yield Kg/ha	1383	recorded	
					3 ICPH-2071	field Ng/IIa	1303	highest Yield	
								(1383 Kg/ha)	
								followed by	
								ICPH-2740-	
								(1236Kg/ha) as	
								compared with	
								local varietiey	
								ICPI-85063	

Technology Assessed	Production per unit 12	Net Return (Profit) in Rs. / unit 13	BC Ratio 14	
1.ICPL-85063	1056	30343-00	1:2.18	
2. ICPH-2740	1236	39883-00	1:2.56	
3. ICPH-2671	1383	47674-00	1:2.86	

- ❖ The two Pigeonpea hybrids i.e ICPH- 2740 and 2671 performed well in both rainfed and irrigated situations.
- Farmers Opined that the hybrids are suitable for medium black to black soils than light solis.
- ❖ Two hybids i.e ICPH- 2740 and 2671 are fairly tolerant to wilt.

#### OFT. 4

S.No	ltem		Particulars
1	Title	:	Management of Thrips and Blotch in Onion
2	Problem	:	Indiscriminate use of pesticides for management of
	diagnosed/refinement		Thrips and Purple blotch in Onion, leading to increased
3	Details of technologies	:	cost of plant protection.  Recommended module of pest management in Onion will
3	selected for	•	be assessed against indiscriminate use of pesticides
	assessment/refinement		followed by farmers.
			T1 – Farmers practice – Indiscriminate use of pesticides.
			T2 – Recommended –
			Use of Sticky traps.
			<ul> <li>Spraying of Chlorofenapyr 20% EC @ 2 ml/l +</li> </ul>
			Chlorothalonil @ 2 g/l at 30, 45 DAS and 60 DAS (3
			sprays).
			•
4	Source of technology	:	APHU
5	Production system	:	ID - Redsoils
6	Thematic Area	:	Integrated Pest Management
7	Performance of the	:	Incidence of Thrips and Purple leaf blotch.
	Technology with		2. Cost of treatment.
	performance indicators		3. Yield (q/ha).
			4. C: B Ratio
8	Final recommendation	:	-
	for micro level situation		
9	Constraints identified	:	-
	and feedback for research		
10	Process of farmers		Active participation of farmers in diagnosis of the pest
10	participation and their	•	and diseases and in spraying pesticides and fungicides.
	reaction		

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Onion	ID Red	Indiscriminate	Management	5	T1 – Farmers practice –	* Thrips	17.25	The result	
	soil	use of	of Thrips and		Spraying Carbosulfon @	(No./plant)		indicated that	
		pesticides for	Blotch in		2 ml/lt and COC @ 3 g/lt	* Blotch (%)	22.41%	recommended	
		management	Onion			*Cost of PP	10,000-00	practice gives	
		of Thrips and				* yield /ha.	22,917	better yield	
		Purple blotch					kg/ha	(24,479 kg/ha)	
					T2 – Recommended	* Thrips	9.82	compared to	
					Practice-	(No./plant)		farmers practice	
					<ul> <li>Use of Sticky traps.</li> </ul>	* Blotch (%)	13.62%	(22,917 kg/ha).	
					• Spraying of	*Cost of PP	8,125-00	The incidence of	
					Chlorofenapyr 20%	* yield /ha.	24,479	thrips and blotch	
					EC @ 2 ml/l +		kg/ha	reduced 43.07%	
					Chlorothalonil @ 2 g/l			and 39.22%	
					at 30, 45 DAS and 60			respectively in	
					DAS (3 sprays).			the OFT.	

Technology Assessed 11	Production per unit 12	Net Return (Profit) in Rs. / unit 13	BC Ratio 14
T1: Farmers practice – Spraying Carbosulfon @ 2 ml/lt and COC @ 3 g/lt	22,917 kg/ha	99,920-00	1:1.73
T2: Recommended Practice-  • Use of Sticky traps.	24,479 kg/ha	1,17,884-00	1:1.88
• Spraying of Chlorofenapyr 20% EC @ 2 ml/l + Chlorothalonil @ 2 g/l at 30, 45 and 60 DAS (3 sprays).	5 DAS		

### **OFT 5**:

OFI			
S. No.	Item		Particulars Particulars
1	Title	:	Management of Root rot in Chillis.
2	Problem	:	In Kurnool district, due to repeated cultivation of chillis year after
	diagnosed/refinement		year, root rot incidence is increasing and causing significant
			damage to chilli. As the conventional chemical interventions are
			not effective in its management, biological interventions which are
			reportedly better option for management of soil borne diseases,
			are chosen in this trial.
3	Details of technologies	:	Assessment of efficacy of bio agents (Pseudomonas fluorescens
	selected for		and Trichoderma viride) in management of rootrot.
	assessment/refinement		T1 – Farmer practice – Soil drenching with COC @ 3g/lt or
			Carbendazim @ 1g/lt.
			T2 – Technology assessed – Bioagents ( <i>P.fluorescens</i> ,
			T.viride)
			Application of Pseudomonas flourescense, Trichoderma
			viride @ 2kg/acre (2 Kg bio-agent + 100 kg FYM + 10 Kg
			Neem cake incubated for 10 days).
4	Source of technology	:	NARS
5	Production system	:	Irrigated Dry
6	Thematic Area	:	Integrated Disease Management
7	Performance of the	:	Root rot incidence %.
	Technology with		Cost of Plant protection.
	performance indicators		Yield (Q/ha).
			C:B Ratio
8	Final recommendation	:	During first two years it is observed that with soil application of
	for micro level situation		Pseudomonas fluorescens and Trichoderma incubated with FYM,
			the incidence of root rot was lower in treatment plot compared to
			farmers field.
9	Constraints identified	:	The method of incubation is tedious to practice.
_	and feedback for	-	
	research		
10	Process of farmers participation and their	:	Farmers actively involved in incubating bioagents with FYM and
	reaction		application to soil before transplantation.

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	/hassass	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Chillis	Irrigated	Incidence of	Evaluation of	5	T1 – Farmer	*Cost of Plant	38,750/ha	With	The method involves tedious
	Dry	root rot	Bioagents viz., Tv		practice –	protection		Bioagents	process of incubation with FYM,
		causing upto	& Pf for		COC @ 3g/lt or	*Root rot%	8.4 %	application,	but gives better control of
		20 % loss in	Management of		Carbendazim @ 1	L		the wilt	diseases as the methods are
		severe	root rot disease.		g/lt			disease could	prophylactically taken up.
		cases.						be better	
					T2 – Technology assessed –	*Cost of Plant protection	41,250/ha	managed compared to	
					Application of	*Root rot %	3.1 %	fungicides.	
					Pseudomonas			Resulted in	
					flourescense,			6.9 %	
					Trichoderma			increased	
					viride @ 2kg/acre	9		yield.	
					incubated in FYM	l			

Production per unit (Kg/ha)	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15
5,138	1,93,686-00	1:2.10
5,492	2,16,674-00	1:2.21

### **OFT** 6:

S.	Item		Particulars			
1 2	Title Problem	:	Performance of IDM module for management of Fruit rot and Powdery mildew in Chillis.			
2		:	In Kurnool district, the major diseases of chilli occurring regularly			
	diagnosed/refinement		are fruit rot, powdery mildew and leaf spots. Powdery mildew can			
2	Dataila of tachnalasias		cause damage upto 40% in severe cases.			
3	Details of technologies	:	Assessment of Integrated Disease Management package.			
	selected for assessment/refinement		T1 – Farmer practice – Spraying M-45 @ 2g/lt/Capton @ 2g/lt/Triademifon @ 1.25g/lt/ Karathane @ 1 ml/lt/ Azoxystrobin @ 1 ml/lt  T2 – Technology assessed – IDM  Seedling dip treatment with Pseudomonas fluorescens @ 10 g/lt. water.			
			<ul> <li>Prophylactic spray of <i>Pseudomonas fluorescens</i> @ 5 g/lt at flowering.</li> <li>Spray of P.f.@ 5g/lt + Azoxystrobin @ 0.5 ml/lt on observing initials of fruit rot/powdery mildew.</li> <li>Repeat the spray if necessary.</li> </ul>			
4	Source of technology	:	NARS			
5	Production system	:	Irrigated Dry			
6	Thematic Area	:	Integrated Disease Management			
7	Performance of the	:	1. Fruit rot and Powdery mildew PDI using standard scales.			
	Technology with		2. Cost of Plant protection.			
	performance indicators		3. Yield (Q/ha).			
			4. C:B Ratio			
8	Final recommendation for micro level situation	:	After 3 years of testing it is observed that with <i>Pseudomonas fluorescens</i> root dip and prophylactic spray at flowering followed by spraying Pf @ 5g/lt + Azoxystrobin @ 0.5 ml/lt on observing the initials of the diseases, the incidence of powdery mildew was reduced by 51.8% and fruit rot was reduced by 55.36% compared			
9	Constraints identified and feedback for research	:	to farmers practice.  Farmers find difficulty in getting the biofungicides and reluctant to take up root dipping, as it is tedious.			
10	Process of farmers participation and their reaction	:	Farmers actively involved in observing disease symptoms, taking up root dipping and spraying. They observed that the treated field had lesser incidence of powdery mildew and furit rot compared to farmers practice.			

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. o	•	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Chillis	Irrigated Dry	Incidence of fruit rot and powdery mildew causing upto 40 % loss in severe cases.	Performance of Integrated Disease Management module for Fruit rot and Powdery mildew	5	T1 – Farmer practice – Spraying M- 45 @ 2g/lt/Capton @ 2g/lt/Triademifon @ 1.25g/lt/ Karathane @ 1 ml/lt/ Azoxystrobin @ 1 ml/lt  T2 – Technology assessed - IDM • Seedling dip treatment with Pseudomonas fluorescens @ 10 g/lt. water. • Prophylactic spray of Pf @ 5 g/lt at flowering. • Spray of P.f.@ 5g/lt + Azoxystrobin @ 0.5 ml/lt on observing initials of fruit rot/powdery mildew. • Repeat the spray if necessary.	Plant protection *Fruit rot *Powdery mildew *Cost of Plant protection *Fruit rot *Powdery mildew	40,250-00/ha  8.7 % 11.9 %  34,125-00/ha  4.6 % 6.9 %	With IDM, fruit rot and powdery mildew dieases could be effectively managed at lower cost compared to farmers practice	The method involves tedious process of root dipping, but gives better control of diseases as the methods are prophylactically taken up.

Production per unit (Kg/ha)	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15
4,858	1,72,050-00	1:1.97
5,117	1,96,775-00	1:2.15

### **Overall Performance of the OFT:**

Year	Fruit rot (F	PDI)	% reduction	Powdery Milde	ew (PDI)	% reduction	Yield (kg/	ha)	Savings in PP
	<b>Farmers Practice</b>	OFT	in fruit rot	<b>Farmers Practice</b>	OFT	in PM	<b>Farmers Practice</b>	OFT	(Rs/ha)
2012-13	7.7	2.9	62.33	8.9	4.2	52.80	5327	5548	2,700
2013-14	6.4	2.7	57.81	11.6	4.5	61.20	5120	5380	3,350
2014-15	8.7	4.6	47.12	11.9	6.9	42.01	4858	5117	6,125
Average	7.6	3.4	55.26	10.8	5.2	51.85	5102	5348	4,058

### **OFT 7**:

S.	Item		Particulars
No.	Title		Performance of IPM module for management of Yellow Stem
1	ritie	•	
2	Deckler.		Borer in Rice.
2	Problem diagnosed/refinement	:	In Kurnool district, the major pest of Rabi rice is yellow stem borer
	_		and it is causing considerable loss in yield.
3	Details of technologies selected for	:	Assessment of Integrated Pest Management module.
	assessment/refinement		T1 – Farmer practice – Indiscriminate use of insecticides.
	·		T2 – Technology assessed – IPM
			<ul> <li>Application of Carbofuran 3G granules @160 gm/cent of</li> </ul>
			nursery one week before pulling the seedlings
			<ul> <li>Clipping leaf tips before transplanting</li> </ul>
			Mass trapping of male moths with pheromone traps @ 20 /ha
			• Use of <i>Trichogramma japanicum</i> @ 20 Tricho cards/ha (4
			cards/release, 5 releases starting from 35 DAT at 10 days
			interval)
			Need based pesticide spray (Cartaphydrochloride @2g/lt)
4	Source of technology	:	ANGRAU
5	Production system	:	Irrigated
6	Thematic Area	:	Integrated Pest Management
7	Performance of the	:	Dead hearts and white ears %.
	Technology with		Cost of Plant protection.
	performance indicators		Yield (Q/ha).
			C:B Ratio
8	Final recommendation	:	-
	for micro level situation		
9	Constraints identified and feedback for	:	-
	research		
10	Process of farmers	:	Farmers actively involved in erection of Pheromone traps for
	participation and their reaction		monitoring and involved in estimation of stem borer damage.

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	/hazzazzA	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Rice	Irrigated	Incidence of stem borer causing upto 20 % loss in severe cases.	Performance of IPM module for management of yellow stem borer in Rice	5	T1 – Farmer practice – Indiscriminate us of insecticides.  T2 – Technology assessed – IPM	and white ears %			-

Production per unit (Kg/ha)	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15
<del>-</del>	-	-
<u>-</u>	-	-

#### OFT-8

S.No	Item		Particulars
1	Title	:	Nutrient management in Sunflower based on STCR
			equation under I/D situation
2	Problem diagnosed/refinement	:	Sunflower yields are declining due to blanket and
			imbalanced used of chemical fertilizers. Soil test
			based nutrient application helps to realize higher
			response ratio and benefit cost ratio as the nutrients
			are applied in proportion to the magnitude of the
			deficiency of a particular nutrient and the correction
			of the nutrient imbalances in soil helps to harness
			the synergistic effects of balanced fertilization.
3	Details of technologies selected	:	T1 (Farmer's practice)
	for assessment/refinement		T2 (STCR for 20q/ha)
4	Source of technology	:	All India Coordinated project on Soil Test crop
			response. STCR formula developed for scarce rainfall
			zone, RARS Nandyal.
5	Production system	:	black soils under ID (Clay loams)
6	Thematic Area	:	Soil testing
7	Performance of the Techynology	:	Yield (q/ha)
	with performance indicators		
8	Final recommendation for micro	:	The result indicated that the yield in both STCR - $T_{-2}$
	level situation		NPK:71-27-30 kg/ha (1924kg/ha) and farmer's
			practice - $T_1$ (NPK:100-108-0kg/ha (1934 Kg./ha ) were
			on par hence it is recommended for adoption.
9	Constraints identified and	:	
	feedback for research		
10	Process of farmers participation	:	Pre seasonal training on soil sampling and testing,
	and their reaction		fertilizer application and mid seasonal field visits
			finally field days were organized at initial stages, but
			balanced fertilizer usage is more effective with low
			cost.

### **Results of On Farm Trials:**

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Sunflower	I/D Sunflower Nutrient black yields are management in soil declining due Sunflower to blanket based on STCR and equation under imbalanced rainfed	ver Nutrient 5 T <sub>1-</sub> F <sub>2</sub> are management in practing due Sunflower NPK ket based on STCR 108 equation under	T <sub>1</sub> -Farmers' practice NPK:100- 108-0kg/ha	* Yield Kg/ha *Production cost(Rs./ha)	1934 20810	The result indicated that production cost is less in T2 over	STCR based nutrient application is more effective to get higher returns.		
		use of chemical fertilizers	situation		T <sub>2</sub> -(STCR for 20q/ha) NPK:71-27- 30 kg/ha	* Yield Kg/ha *Production cost(Rs./ha)	1924 16730	T1	

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	<b>BC</b> Ratio
11	12	13	14
T <sub>1</sub> -Farmers' practice	1934Kg/ha	43012	3.07
T <sub>2</sub> -STCR	1924kg/ha	46762	3.80

### **OFT-9**:

S.No.	Item		Particulars
1	Title	:	Nutrient management in chilli based on STCR equation under irrigated situation
2	Problem diagnosed/refineent	:	Chilli is one of the major vegetable crop cultivating in Kurnool district under both rainfed and ID condition. Production cost is increasing in chilli due to indiscriminate and imbalanced usage of chemical fertilizers. Soil test based nutrient application helps to realize higher response ratio and benefit: cost ratio . Soil test crop response (STCR) can assist in improving yields, nutrient use efficiency and reducing the cost of production.
3	Details of technologies selected for assessment/refinement	:	$T_1$ - $N_1P_1K_1($ Farmers Practice) NPK:500-450-75kg/ha $T_2\ N_2P_2K_2$ (STCR for 50q/ha) -NPK:400:40-88 Kg/ha
4	Source of technology	:	All India Coordinated project on Soil Test Crop Response. STCR formula developed for Guntur, Ongole and Vijayawada and Khammam districts. Now it is taken up for assessment in scarce rainfall zone,Nandyal.
5	Production system	:	Irrigated black soils (Clay loams)
6	Thematic Area	:	Soil testing
8	Final recommendation for micro level situation	:	The result indicated that the average yield of $T_1$ (5144kg/ha)and $T_2$ (5083 kg/ha) were on par. However, production cost is less in $T_2$ than $T_1$ hence it may be concluded.
9	Constraints identified and feedback for research	:	
10	Process of farmers participation and their reaction	:	Pre seasonal training on soil sampling and testing, fertilizer application and mid seasonal field visits finally field days were organized at initial stages, but balanced fertilizer usage is more effective with low cost.

	Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
_	1	2	3	4	5	6	7	8	9	10
_	Chilli	Irrigated black soil	Increased cost of production due to excess and imbalanced use of chemical fertilizers	Nutrient management in chilli based on STCR equation under irrigated situation	5	T <sub>1</sub> Farmers' practice NPK: 500-450- 75 Kg/ ha	* Yield Kg/ha  *Production cost(Rs./ha)  * yield Kg/ha	5144 148335 5083	The result indicated that product cost is less in T2 over T1	STCR based nutrient application is more effective to reduce production costs towards
						NPK:400-40- 88 kg/ha	*Production cost(Rs./ha)	127208		fertilizers.

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T <sub>1</sub> -Farmers' practice	5144 Kg/ha	263185	2.77
T <sub>2</sub> -STCR	5083 kg/ha	279432	3.20

### **OFT-10:**

S.No.	Item		Particulars
1	Title	:	Nutrient management in groundnut based on STCR equation under I/D situation
2	Problem diagnosed/refinement	:	Groundnut yields are declining due to conventional blanket and imbalanced usage of fertilizers. Soil test based nutrient application helps to realize higher response ratio and benefit: cost ratio as the nutrients are applied in proportion to the magnitude of the deficiency of a particular nutrient and the correction of the nutrient imbalances in soil helps to harness the synergistic effects of balanced fertilization.F ertilizer application based on quantitative approaches such as Soil test crop response (STCR) can assist in improving yields and nutrient use efficiency in groundnut.
3	Details of technologies selected for assessment/refinement	:	$T_1$ - $N_1P_1K_1($ Farmers Practice) NPK-128-146-52 Kg./ha $T_2\ N_2P_2K_2$ (STCR for 45q/ha) - NPK-40-20-25 Kg./ha
4	Source of technology	:	All India Coordinated project on Soil Test Crop Response. STCR formula developed for groundnut in scarce rainfall zone.
5	Production system	:	Bore well irrigated - sandy clay loams
6	Thematic Area	:	Soil testing
8	Final recommendation for micro level situation	:	The result indicated that the average yield of $T_1$ (3303kg/ha)and $T_2$ (3283 kg/ha) were on par. However, production cost is less in $T_2$ (Rs.76241 /ha) than $T_1$ (Rs.84360/ha) hence it may be continued for one more year.
9	Constraints identified and feedback for research	:	
10	Process of farmers participation and their reaction	:	Pre seasonal training on soil sampling and testing, fertilizer application and mid seasonal field visits finally field days were organized at initial stages, but balanced fertilizer usage is more effective with low cost.

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Groundnut	Irrigated black soil	Increased cost of production due to excess and imbalanced use of chemical fertilizers	Nutrient management in groundnut based on STCR equation under irrigated situation	5	T₁Farmers' practice NPK: 128-146- 52 Kg/ ha	* Yield Kg/ha  *Production cost(Rs./ha)	3303 84360	The result indicated that product cost is less in T2 over T1	STCR based nutrient application is more effective to reduce
					T <sub>2</sub> - NPK:40-20-25 kg/ha	* yield Kg/ha *Production cost(Rs./ha)	3283 76241		production costs towards fertilizers.

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T <sub>1</sub> -Farmers' practice	3303Kg/ha	31245	1.37
T <sub>2</sub> -STCR	3283 kg/ha	38650	1.50

#### **OFT: 11**

S.No	Item		Particulars
1	Title	:	Introduction of Potato as alternate to traditional vegetables
2	Problem diagnosed/refinement	:	Growing of traditional vegetables is always not profitable due to glut in the market. Tomato is the major vegetable crop grown in rabi season and farmer on an average gets a price of Rs.3 /kg, which is not economical.
3	Details of technologies selected for assessment/refinement	:	$T_1$ – Local vegetables $T_2$ – Potato.
4	Source of technology	:	APHU
5	Production system	:	Irrigated Sandy Ioam
6	Thematic Area	:	Introduction of high value crop
7	Performance of the Technology with	:	<ul><li>✓ Duration of the crop</li><li>✓ Yield (kg/ha)</li></ul>
	performance indicators		✓ Net returns (Rs./ha)
8	Final recommendation for micro level situation	:	Results indicates that net returns are more in Potato and it was observed that the duration of the crop and harvesting charges is less in comparison with tomato.
9	Constraints identified and feedback for research	:	High seed cost of Potato tubers
10	Process of farmers participation and their reaction	:	Farmers opined that crop duration is hardly 80 to 90days and crop can be grown In staggered manner for better price realization, and storage of the produce can be done during the lean market period.

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Potato cultivation	Irrigated	Less profits from the traditional	Introduction of Potato as	5	T1 : Farmers practice	* Yield /ha.	46.3 t/ha	Net returns are high with Potato	Harvesting of Potato is one
		vegetables in local market due to frequent glut	alternate crop		(Tomato)	* Cost of cultivation (Rs./ha)	88,130-00	and its duration is also less.	time activity and lees labour intensive.
					T2. : Potato	* Yield t/ha.	19.65 ton/ha		
						* Cost of cultivation (Rs./ha)	1,12,543-00		

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1: Tomato	46.3 t/ha	78,557-00	1:1.89
T2:Potato	19.65 t/ha	1,62,635-00	1:2.44

#### **OFT: 12**

S.No	Item		Particulars
1	Title	:	Testing the performance of Chrysanthemum crop
			varieities.
2	Problem	:	Low yields due to growing of the local varieties and
	diagnosed/refinement		repeated use of suckers from same crop as planting
			material.
3	Details of technologies	:	T1: Farmers practice (Local varieities)
	selected for		T2: Kundan – yellow
	assessment/refinement		T3 – Chandra Kiran (Violet)
4	Source of technology	:	IIHR
5	Production system	:	Irrigated Red soil
6	Thematic Area	:	Introduction of high yielding improved varieties
7	Performance of the	:	✓ Duration of the crop
	Technology with		✓ Yield (kg/ha)
	performance indicators		✓ Net returns (Rs./ha)
			✓ C:B Ratio
8	Final recommendation for	:	Results indicates that among varieties tested for their
	micro level situation		performance, Both the varieties Kundan, Chandra kiran
			recorded higher yield, showed high level of establishment,
			shelf life and consumer acceptance.
9	Constraints identified and	:	Low availability of planting material for large scale
	feedback for research		adaption and high cost of planting material.
			-
10	Process of farmers	:	Farmers have participated actively in observing the yields,
	participation and their		establishment and shelf life.
	reaction		

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Chrysanthemum	Irrigated Red soil	Less profits from the local varieties	Performance of high yielding varieties	5	T1 : Farmers practice (Local)	* Yield /ha.  * Cost of cultivation (Rs./ha)	13.87t/ha 2,51,119-00	Net returns are high with Kundan and Chandra kiran	Shelf life is more for Both varieties.
					T2. : Kundan	* Yield /ha.	24.32 t/ha.		
					T3 : Chandra kiran	* Cost of cultivation (Rs./ha) *Yield /ha *Cost of cultivation (Rs./ha)	2,74,127-00 26.63 t/ha 2,98,131-00		

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1: Local	13.87 t/ha	4,36,566-00	2.73
T2: Kundan	24.32 t/ha	9,53,.60-00	4.47
T3: Chandra kiran	26.63 t/ha	10,95,336-00	4.67

### OFT-13:

S.No	Item		Particulars Particulars
1	Title	:	Effect of creep feeding on growth rate in pre weaned lambs
2	Problem	:	The growth rate in lambs is low at farmers flocks due to
	diagnosed/refinement		imbalanced feeding
3	Details of technologies	:	T <sub>1</sub> - Farmers practice
	selected for		$T_2$ – Creep feeding @ 50g / day
	assessment/refinement		
4	Source of technology	:	S.V. Veterinary University
5	Production system	:	Lambs
6	Thematic Area	:	creep feeding
7	Performance of the	:	✓ Body weight gain
	Technology with		✓ Growth rate
	performance indicators		
8	Final recommendation for	:	The results indicated that 26.4% increased body weight
	micro level situation		gain was recorded in lambs by creep feeding over farmers
			practice.
9	Constraints identified and	:	-
	feedback for research		
10	Process of farmers	:	The growth rate is good in lambs on creep feeding.
	participation and their		
	reaction		

# Villages: Pasupula and Charlakothuru of Banaganapalle (M)

crop/ enterprise	Farming situation	Problem Diagnosed	Title of FLD	No. of trials*	Technology demonstrated	Parameters	Data on the parameter	Results	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Sheep	Mixed	The growth rate in pre	Feeding	5	Control- Farmers	Initial	4.84Kg (T1)	The results	_
	farming	weaned lambs (bellow	of creep	100	practice	body		indicated that	
		3 months) is less due to	feed	lambs		weight	4.61 Kg(T2)	26.4%	
		Imbalanced feeding			Demo –Feeding	Final	10.71Kg (T1)	increased	
		and low proteins in the			Creep feeding	body		body weight	
		ration			@50gram/day	weight	12.03 Kg(T2)	gain by	
						Body	5.87 Kg (T1)	feeding of	
						weight		creep feed	
						gain (90	7.42 Kg(T2)	over farmers	
						days)		practice.	

S.No	Item		Particulars				
1	Title	:	Feeding of groundnut based feed concentrate for increasing growth rate in ram lambs.				
2	Problem		The growth rate in post weaned ram lambs is low due to				
	diagnosed/refinement		low protein value in the ration.				
3	Details of technologies	:	T <sub>1</sub> - Farmers practice(grain feeding)				
	selected for		$T_2$ –Feeding of GN based concentrate feed (CP-17%)				
	assessment/refinement						
4	Source of technology	:	S.V. Veterinary University				
5	Production system	:	Ram lambs				
6	Thematic Area	:	Feeding of concentrates				
7	Performance of the	:	✓ Body weight gain				
	Technology with		✓ Growth rate				
	performance indicators						
8	Final recommendation for	:	The results indicated that 45.48% increased body weight				
	micro level situation		was recorded by feeding groundnut based concentrate				
			over farmers practice.				
9	Constraints identified and	:	-				
	feedback for research						
10	Process of farmers	:	-				
	participation and their						
	reaction						

# Villages: Yagantipalle of Banaganapalle (M)

crop/ enterprise	Farming situation	Problem Diagnosed	Title of FLD	No. of trials*	Technology demonstrated	Parameters	Data on the parameter	Results	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Sheep	Ram	The growth	Effect of	25 ram	Control -	Initial	14.62Kg (C)	The results	
farming	lamb	rate in post	groundnut	lambs	Farmers	body		indicated that	
	rearing	weaned ram	based	(5	practice (grain	weight	14.04 Kg (D)	45.48% increased	
		lambs is low	concentrate	farmers)	feeding)			body weight gain	
		due to low	feed on growth		<b>Demo</b> –Feeding	Final	20.38 Kg (C)	by feeding	
		protein value	rate in ram		of G.N.based	body		groundnut based	
		in the ration.	lambs.		concentrate	weight	22.42 Kg (D)	concentrate feed	
					feed.			over farmers	
						Body	5.76 Kg (C)	practice.	
						weight			
						gain (90	8.38 Kg (D)		
						days)			

### **OFT-15**

S.No	Item		Particulars
1	Title	:	Assessment of performance of Phule Jayavanth and
			CO-4 fodder varies
2	Problem	:	Farmers cultivating APBN-1 hybrid Napier variety which is
	diagnosed/refinement		spiny and moderate fodder yield.
3	Details of technologies	:	T <sub>1</sub> –APBN-1
	selected for		$T_2 - CO-4$
	assessment/refinement		T <sub>3</sub> – Phule Jayavanth
4	Source of technology	:	MPKV Rahuri
5	Production system	:	Mixed farming
6	Thematic Area	:	Cultivation of perennial fodder
7	Performance of the	:	Fodder Yield
	Technology with		
	performance indicators		
8	Final recommendation for	:	The results indicated that 14.68% increased fodder
	micro level situation		yield in T2 and 9.88% increased fodder yield in T3 over
			T1
9	Constraints identified and	:	5
	feedback for research		
	Process of farmers	:	-
	participation and their		
	reaction		
10	Title	:	2014-15

# Villages: Mandaluru of Rudravaram (M), Yagantipalle and Meerapuram of Banaganapalle (M)

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Hybrid	Mixed	Farmers	Assessment of	5	$T_1$ –APBN-1	Fodder	166.72 (T1)	The results	
Napier	farming	cultivating APBN-1 hybrid Napier variety which is spiny and moderate fodder yield	performance of hybrid Napier varieties		$T_2 - CO-4$ $T_3$ —Phule Jayavanth	yield (t/ha)	191.2 (T2) 183.2 (T3)	indicated that 14.68% increased fodder yield in T2 and 9.88% increased fodder yield in T3 over T1.	

S.No	Item		Particulars
1	Title	:	Assessment of performance of Improved sickles with Local sickles
2	Problem	:	Farm women face drudgery in harvesting operations by
	diagnosed/refinement		using local sickles with heavy weight.
3	Details of technologies	:	✓ T1-Local Sickles (350-380 gms)
	selected for		✓ T2-Improved Sickles (175 gms)
	assessment/refinement		
4	Source of technology	:	-
5	Production system	:	-
6	Thematic Area	:	Drudgery of farm women
7	Performance of the	:	✓ Area Covered/day
	Technology with		✓ Time Taken for harvest/day
	performance indicators		✓ Labour Saved/ac
			✓ Feed back on work related stress factors
8	Final recommendation	:	The results indicated that, with the use of improved
	for micro level situation		sickles, the labour saved by 25% than their regular
			practice. Women also felt that with the use of improved
			sickles body strain, drudgery at harvest and stress was
			ranged from less to normal than their regular practice
			which ranged from moderate to severe. Regarding user
			acceptance on improved implement was ranged from
			satisfied to highly satisfied.
9	Constraints identified	:	-
	and feedback for		
	research		
10	Process of farmers	:	-
	participation and their		
	reaction		

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessmen t	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Farm	-	Farm women	Assessme	10	T1 – Local sickles	Area			Farm felt
Implemen		face drudgery	nt of		(350-380)	covered/day			that with
ts to		in harvesting	performa		T2 –Improved	T1	1.0ac		the use of
reduce		operations by	nce of		Sickles(175 gms)	T2	1.0ac		improved
drudgery		using local	Improved						sickles body
		sickles with	sickles			Time taken for			strain,drudg
		heavy weight.	with			harvest/ac/day			ery at
			Local			T1	3.40hrs		harvest
			sickles			T2	3.00hrs		ranged
									from less to
						Labour			normal
						Saved/ac/day			
						T1	8		
						T2	6		
						Feedback on	Presented		
						work related	in a		
						stress factors	separate		
							table		

Technology Assessed	Production /unit	Net return (profit) in Rs./unit	BC Ratio	
11	12	13	14	
T1 – Local Sickles -				
T2 –Improved Sickles		-		

Feed back on work related stress factors was recorded with the score card developed by AICRP, H.Sc, FRM and presented in the following table.

Matrix ranking of Drudgery for Farm women in Agriculture Operations:

Indices for drudgery: Severe-5, Moderate-4, Normal-3, Less-2, No drudgery-1

Type of drudgery	Indices			
	Local sickles	Improved Sickles		
Drudgery estimation at harvest	4	2		
Stress Estimation	5	3		
Body Strain while in operation	4	2		
Estimation of feel while carrying weights	5	2		
Estimation of operational difficulty	4	2		
Psychological Stress due to work	5	2		

**Inferences:** It was clearly indicated that, with the use of improved sickles the body strain while in operation, estimation of operational difficulty, drudgery estimation at harvest, psychological stress due to work, estimation of feel while carrying weights and stress estimation was ranged from less to normal than their regular practice which was recorded from moderate to severe.

**User Acceptance of Matrix Index on Improved Implement:** 

Indices For Acceptance: Highly satisfied-5, Moderately Satisfied-4, Satisfied-3, Unsatisfied-2, Not Accettable-1

Name of the	User		Feel of Activity	
Implement		Time Taken for	Area Covered	<b>Energy Spent for</b>
		the Activity		work
Modified Sickles	Farmwomen	4	3	4

**Inferences:** It was opinioned that, with the use of improved sickles time taken for the activity, area covered and energy spent for the work ranged from satisfied to highly satisfied. They also expressed that with the use of improved sickles the strain while work and fatigue was reduced and felt easy in harvest operation.

_		-		_					
O	FT-	.17	٠.	R	ef	in	m	ni	ŀ١

S.No Item : Particulars  1 Title : Performance of Refined Rotary weeder  2 Problem : The exsisting length (5 ft) and weight (5.010gn diagnosed/refinement the weeder is not suitable for easy weeding op of farm women due to its heavy height and we	eration ight.
2 Problem : The exsisting length (5 ft) and weight (5.010gn diagnosed/refinement the weeder is not suitable for easy weeding op of farm women due to its heavy height and we	eration ight.
diagnosed/refinement the weeder is not suitable for easy weeding op  of farm women due to its heavy height and we	eration ight.
of farm women due to its heavy height and we	ight.
	ft and
Hence, the weeder is refined with the length-4	
weight-3.5 kgs.	
3 Details of technologies : T1 – Manual weeding	
selected for T2 – Weeding with rotary weeder	
assessment/refinement T3- Weeding with refined rotary weeder	
4 Source of technology : CIAU, Bhopal.	
5 Production system : -	
6 Thematic Area : Drudgery of farm women	
7 Performance of the : ✓ Labour Saved/ac/day	
Technology with ✓ Reduction on Cost on weeding/ac	
performance indicators ✓ Feed Back on work related stress facto	´S
8 Final recommendation for : The results indicated that, with the use of	f rotary
micro level situation weeder (T2) and refined rotary weeder	(T3),the
weeding was done with 4 labour per acre per o	ay than
their regular practice i.e, 8 labour per day per	acre and
cost on weeding was saved by 50% per acre	. Labour
saving on the implement was same with T2	and T3.
But, Women felt that after refinement, the lea	igth and
weight of the implement is reduced and with	the use
of refined weeder body strain, drudgery at v	veeding,
Estimation of feel and stress was ranged from	ı less to
moderate than their regular practice wh	ch was
recorded from moderate to severe.	
9 Constraints identified and : -	
feedback for research  10 Process of farmers : -	
participation and their	
reaction	

crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed/ refined	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Farm	=	Farm women	Refineme	5	T1 – Manual	Labour	8	4	Farm
Implemen		face drudgery	nt ;		weeding	Saved/ac/day/			wome
ts to		in weeding	Performa		T2 –Rotary weeder	Reduction on			n felt
reduce		operations due	nce of		T3 - Refined rotary	cost on			thatbo
drudgery		to lack of	refined		weeder	weeding/ac			dy
		knowledge on	rotary						strain,
		improved	weeder			Feed back on	Rs 960/-		drudge
		weeding				work related	Rs 480/-		ry,stre
		implements				stress factors			ss was
							Presented		reduce
							in a		d from
							separate		less to
							table		moder
									ate.

Technology Assessed	Production /unit	Net return (profit) in Rs./unit	BC Ratio
11	12	13	14

T1 – Manual weeding

T2 –Rotary weeder

T3-Refined rotary weeder

Feed back on work related stress factors was recorded with the score card developed by AICRP, H.Sc, FRM and presented in the following table.

Matrix ranking of Drudgery for Farm women in Agriculture Operations: Indices for drudgery: Severe-5, Moderate-4, Normal-3, Less-2, No drudgery-1

Type of drudgery	Inc	dices
Type of drudgery	Local sickles	Improved Sickles
Drudgery estimation at harvest	5	4
Stress Estimation	5	4
Body Strain while in operation	5	3
Estimation of feel while carrying weights	4	3
Estimation of operational difficulty	4	2
Psychological Stress due to work	4	2

**Inferences:** It was clearly indicated that with the use of refined rotary weeder, the body strain while in operation, estimation of operational difficulty, drudgery estimation at harvest, psychological stress due to work, estimation of feel while carrying weights and stress estimation ranged from less to moderate than their regular practice which was recorded from moderate to severe.

User Acceptance of Matrix Index on Improved Implement: Indices For Acceptance: Highly satisfied-5, Moderately Satisfied-4, Satisfied-3, Unsatisfied-2, Not Accettable-1

Name of the		Feel of Activity						
Implement	User	Time Taken for the Activity	Area Covered	Energy Spent for work				
Improved weeders	Farmwomen	4	3	4				

**Inferences:** It was opined that, with the use of refined rotary weeder time taken for the activity, area covered and energy spent for the work ranged from satisfied to moderately satisfied. They also expressed that with the use of refined rotary weeder, the strain while weeding and fatigue was reduced due to reduced length and weight of the implement.

#### 3.2. Achievements of Frontline Demonstrations:

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2014-15 and recommended for large scale adoption in the district

S. N	Crop/ Enterpr	Thematic Area*	<b>.</b>			zontal spro technolog	
0	ise		ed	methods suggested to the Extension system	No of vill ag es	No. of far mer s	Area in ha
1	Bengalg ram	Varietal Evaluation	Varietal Demonstratio n in Bengalgram with Jaki- 9218, digvijay and Nandyala sanaga-1	Demonstrations, Exposure visits, Field Days Seed village Concept	15	5000	25000
2	Cotton and Paddy	Weedmanag ement	Post- emrgence herbicides	Demonstrations, Exposure visits, Field Days, Seed village Concept	5	4000	30000
3	Paddy	Resource conservation	Direct Seeding	Demonstrations, Exposure visits, and Field Days	12	500	250
4	Paddy	Resource conservation	Zero tillage	Demonstrations, Exposure visits, and Field Days	8	200	250
5	Seteria	Varietal Evaluation	Varietal Demonstratio n with Suryanandi	Demonstrations, Exposure visits, and Field Days	15	1500	1000
6	Redgra m Seteria	Cropping system	Redgram+ seteria Inter cropping System	Demonstrations, Exposure visits, and Field Days	9	750	500
7	Redgra m	Varietal Evaluation	Varietal Demonstratio n in Redgram- PRG-158 & LRG-41	Demonstrations, Exposure visits, Field Days Seed village Concept	25	3500	12000
8	Rice	Soil testing	Soil testing crop response based nutrient application in rice	Demonstration, exposure visits, Field Days .	10	235	500

9	Bt	Nutrient	Foliar	Demonstrations,	12	900	2000
J	Cotton	management	nutrition	Exposure visits, and Field Days Demonstrations,	12	300	2000
				Exposure visits, and			
10	Bt	ICM	Spacing	Field Days Demonstrations,	15	500	2500
	Cotton			Exposure visits, and Field Days			
				Demonstrations, Exposure visits, and			
44	D.	100.4	104.4	Field Days	0	200	600
11	Bt Cotton	IPM	IPM	Demonstrations, Exposure visits, and Field Days	8	200	600
12	Redgra	IPM	Realtime	Spray of Chloro +	8	160	120
	m		contingent mgmt. of	Dichlorvos at flowring,			
			pests & diseases				
13	Bengalg	IDM	Biopriming for soil borne	Biopriming with	18	240	260
	ram		disease	T.viride @ 10g/kg + 30 g Powdered FYM			
14	Castor	IPM	management Realtime	as paste. Chloro for Capsule	4	40	50
			contingent mgmt. of	borer & Spray of Carbendazim pre &			
			pests & diseases	post rain for Botrytis			
15	Brinjal	IPM	Mgmt of fruit	Ph.traps, Neem oil,	6	40	25
16	Onion	IPM	& shoot borer Thrips & Leaf	Neem cake. Fipronil,	6	80	60
17	Blackgr	IPM	blight Realtime	Thiophanate methyl Chloro +	6	60	60
	am		contingent mgmt. of pest	Dichlorovos, Yellow sticky traps			
40		1014	s & diseases			4.5	
18	Mango	ICM	Integrated Crop	Manuring, training, pruning and	4	45	55
			Manageme nt	Micronutrient application,			
19	Jasmin e	ICM	Integrated Crop	INM, Pest and Disease	2	24	10
	C		Manageme	management			
20	Chillis	INM	nt Soil test	INM+ Micronutrient	3	60	80
			based fertilizer	management and optimum use of			
			application	chemical fertilizers			

# Details of FLDs implemented during 2014-15 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

SI. No.	Crop	Thematic area	Technology Demonstrated	ated year Area (		a (ha)		of farme		Reasons for shortfall
					Pro	Actu	SC/S	Other	Total	Shortiali
1	Redgram	ICM	Varietal	K-2014	12	12	6	24	30	
2	Bengalgram	ICM	Varietal	R-2014	12	12	6	24	30	
	er Demonstrations									
3	Seteria	varietal	varietal	K-2014	10.0	10.0	6	19	25	
4	Paddy	Weed management	Herbicides+ Manual weeding	K-2014	4	4	4	6	10	
5	Bt Cotton	Weed management	Herbicides+ Manual weeding	K-2014	4	4	4	6	10	
6	Paddy	Crop Establishment	Semi dry Rice cultivation	K-2014	2.	2	2	3	5	
7	Seteria	ICM	ICM	K-2014	16	16	25	-	25	
8	Bengalgram	ICM	ICM	Rabi- 2014	100	100	35	65	100	
9	Rice	Varietal	Varietal	K-2014	-	-	12	38	50	
10	Bt.Cotton	IPM	IPM	K-2014	4	4	3	7	10	
11	Redgram	IPM	Contingent Pest & Dis. Mgmt	K-2014	4	4	3	7	10	
12	Blackgram	IPM	Contingent Pest & Dis. Mgmt	R-2014	4	4	2	8	10	
13	Maize	IPM	Contingent Pest & Dis. Mgmt	R-2014	4	4	3	7	10	

14	Paddy	Soil & Water testing	Nutrient Management based on STCR	Kharif-14	4	4	2	8	10
15	Paddy	Micronutrient deficiency in crops	Zinc management	Kharif-14	4	4	3	7	10
16	Bt.cotton	INM	Integrated Nutrient Management	Kharif-14	4	4	2	8	10
17	Paddy	Management of Problematic Soils.	Reclamation of sodic soils	Kharif-14	4	4	4	6	10
18	Bengalgram	Secondary and micronutrient management	Sulphur and zinc management	Rabi-14	4	4	3	7	10
19	Maize	Micronutrient deficiency in crops	Zinc management	Rabi-14	4	4	3	7	10
20	Mango	INM	Micronutrient management	-	4	4	3	7	10
21	Turmeric	IDM	Management of rhizome rot	K 2014	4	4	2	8	10
22	Chilli	IWM	Chemical Weed management	R 2014	4	4	2	8	10
23	Banana	INM	Micronutrient management	-	4	4	2	8	10

# **Details of farming situation:**

S. No.	Crop	Season	Farming situation	Soil type	Status of soil		Previous crop	Sowing date	Harvest date	Season al	No. of	
			(RF/ Irrigated)		N	P	K				rainfall (mm)	rainy days
1	Redgram	K- 2014	Rainfed	Medium Black	L	Med	High	Jowar	3 rd week of July	1 <sup>st</sup> Week of January		
2	Bengalgram	R- 2014	Rainfed	Black soil	L	High	High	Jowar	1 <sup>st</sup> week of Novembe r	2 <sup>rd</sup> week of January		
	Other Demons	strations:										
3	Seteria	K- 2014	Rainfed	Black	L	M	High	Redgram	1 <sup>st</sup> FN of July	1 <sup>st</sup> FN of Oct		
4	Paddy	K- 2014	irrigated	Black soil	L	M	High	Jowar	2 <sup>nd</sup> week of july	2 <sup>nd</sup> Week of Dec		
5	Bt Cotton	K- 2014	irrigated	M.Black soils	L	M	M	Chillies	1 <sup>st</sup> week of August	Last Week of January		
6	Paddy	K- 2014	irrigated	Clay loam	L	M	M	Blackgram	2 <sup>nd</sup> week of july	2 <sup>nd</sup> Week of Dec		
7	Seteria	K- 2014	Rainfed	Black soil	L	Н	Н	Jowar	3 <sup>nd</sup> week of July	3 <sup>rd</sup> week of January		
8	Bengalgram	Rabi- 2014	Rainfed	Black Soil	L	Med	High	Jowar	1 <sup>st</sup> FN of Nov.	1 <sup>st</sup> FN of Feb		
9	Rice	K-13	Irri.	Black soil	L	Н	Н	Rice	2 <sup>nd</sup> FN of July.	3rd week of Dec		
10	Bt.Cotton	K -14	Irri.	Sandy clay loam	L	M	Н	Cotton	2 <sup>nd</sup> Week of July	Last wk of Jan		

11	Redgram	K	Rainfed	Black	L	М	М	Jowar	1 <sup>st</sup> week of	Last <sup>st</sup> Wk
		2014		soil					August	of January
12	Blackgram	R	Rainfed	Black	L	Н	Н	Jowar	2 <sup>nd</sup> week of	3 <sup>rd</sup> wk of
		2014		soil					October	January
13	Maize	R-	ID	Black	L	Med	High	Maize	2 <sup>nd</sup> to 3 <sup>rd</sup>	Last week
		2014		soil					wk of Dec	of March.
14	Paddy	Kharif-	Irrigated	Black	L	Н	M	Paddy	2 <sup>nd</sup> to 3 <sup>rd</sup>	Last wk of
		14		soil					wk of Aug.	December.
15	Paddy	Kharif-	Irrigated	Black	L	Н	M	Paddy	2 <sup>nd</sup> to 3 <sup>rd</sup>	Last week
		14		soil					wk of Aug	of Dec.
16	Bt.cotton	Kharif-	I/D	Black	Low	Medium	high	Jowar	Last week	Last
		14		soil					of J uly	picking 3 <sup>rd</sup>
										week of
										February
17	Paddy	Kharif-	Irrigated	Black	Low	High	Med	Paddy	2 <sup>nd</sup> to 3 <sup>rd</sup>	Last week
		14		soil					week of	of
									August.	December.
18	Bengalgram	Rabi-14	Rainfed	Black	Low	M to H	Med	Bengalgra	3rd week	3 <sup>rd</sup> week
								m	of Oct.	of Jan
19	Maize	Rabi-14	I/D	Black				Paddy	2 <sup>nd</sup> to 3 <sup>rd</sup>	Last week
									week of	of April
									January.	
20	Mango	-	ID	Red	L	Med	High	-	3 <sup>rd</sup> week of	1 <sup>st</sup> week of
				soil					July.	January.
21	Turmeric	K 14	ID	Red	L	Low	Med	Cotton	1 <sup>st</sup> Wk of	Last week
				soil					July	of March.
22	Chilli	R-14		Black	L	M	Н	Chilli	1st week of	Last week
				Soil					September	of
										February
23	Banana	-	ID	Black	L	Н	M	Chilli	=	-
				soil			to H			

**Performance of FLD:** 

SI. No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo.	Yield Qtl/h	na	Yield of local	Increase in yield	•	eter in relation to demonstrated
					_	Н	L	Α	Check Qtl./ha	(%)	Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Redgram	Component technologies	LRG-41/- ICPL-87119	10	4	16.62	13.90	15.15	13.00	17.0		
2	Bengalgram	Component	NBeG1/JG-11	30	12.0	16.90	11.20	15.13	12.99	16.0	28.6 pods/plant	24.4pods/plant
Other	demonstrations											
3	Seteria	varietal	Suryanadi	25	10.0	14.30	9.95	11.84	10.56	12.0		
4	Paddy	Herbicides+ Manual weeding	BPT-5204	10	4.0	75.56	64.68	70.88	70.00	-	Cost on weeding- 3000/ha	Cost on weeding- 5250/ha
5	Bt Cotton	Herbicides+ Manual weeding	Swapna	10	4.0	28.75	24.96	27.04	25.89	-	Cost on weeding- 5530/ha	Cost on weeding- 7200/ha
6	Paddy	Semi dry Rice cultivation	BPT-5204	5	2.0	76.87	72.18	74.54	73.39	-		
7	Seteria	ICM	SIA-3085	25	16.0	10.88	8.56	9.37	8.12	15.0		
8	Bengalgram	ICM	JG-11	100	100	14.50	11.88	12.97	12.33	5.1		
9	Rice	Varietal	RP-BIO-226	50	20.0	76.87	72.15	74.37	74.68		Panicle length- 18.8cm No of grains/panicle- 195	Panicle length- 20.66cm No of grains/panicle- 218
10	Bt. Cotton	IPM	Jaadu	10	4	2575	1900	2239	2089	7.2	Jassid 3.5/leaf Aphids 5.6%	9.2 /leaf 10.8%
11	Redgram	Contingent Pest & Dis Mgmt.	. PRG-158	10	4.0	1850	1475	1635	1550	5.5	6.1% Maruca 2.4% Pod borer	11.8% Maruca 6.2% Pod borer
12	Blackgram	Contingent Pest & Dis Mgmt.	. LBG 752	10	4.0	2750	2450	2578	2325	10.9	3.5% Maruca 1.3 % YMV 1.7% PM	7.3 % Maruca 5.6 % YMV 3.9% PM

13	Maize	Contingent Pest & dis.	-	10	4.0	Under pro	gress					
14	Paddy	Mgmt. Nutrient Management based on STCR	BPT-5204	10	4	75.50	69.85	72.52	72.90			
15	Paddy	Zinc management	BPT-5204	10	4	72.50	62.50	67.86	59.61	13.83	C.P and yield	C.P and yield
16	Bt.cotton	Integrated Nutrient Management	Jadhu Bt.	10	4	45.50	35.50	40.67	37.54	8.33	C.P and yield	C.P and yield
17	Paddy	Reclamation of sodic soils	BPT-5204	10	4	61.55	58.50	59.92	49.46	21.15	C.P and yield	C.P and yield
18	Bengalgram	Sulphur and zinc management	JG-11	10	4	20.7	15.80	17.79	15.30	16.27	C.P and yield	C.P and yield
19	Maize	Zinc management	Private hybrids	10	4				Under	progress		
20	Mango	Micronutrient management	Baneshan	10	4	165.32	112.45	154.2	113.5	26.91	Mango	Micronutrient management
21	Turmeric	Management of rhizome rot	Mydukuru	10	4	881.4	804.3	845	697	21.2	CP and yield	CP and yield
22	Chilli	Chemical weed management	Hybrids	10	4	65.17	52.84	48.86	54.78	12.11	CP and yield	CP and yield
23	Banana	Micronutrient management	Grand nine	10	4	712.02	680.04	697.2	614.5	13.45	CP and yield	CP and yield
24	Dairy animals	Feeding of SF heads supplemented feed	Graded murrah	10	10	811.04	675.2	743.12	670.28	10.86	% fat Demo 6.97	5.98
25	Dairy animals	Supplementationof Regional Specific Mineral Mixture Azolla	Graded murrah	20	20	469.6	433.8	451.7	407.2	10.92	Animals exl Demo: 9 (45%)	nibited heat 2 (10%)
26	Poultry	supplementation to Backyard poultry	Rajasri	10	100	1456.4	1009.0	1232.7	1038.9	18.6	-	-
27	Dairy animals	Supplementation of Urea Molasses Mineral Blocks	Graded murrah	10	10	324.7	292.3	308.5	286.9	7.53		-

# **Economic Impact (continuation of previous table):**

S. No	Average Cost of cu	ltivation (Rs./ha)	Average Gross Re	turn (Rs./ha)	Average Net Return	(Profit) (Rs./ha)	Benefit-Cost Ratio (Gross
	Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	Return / Gross Cost)
	14	15	16	17	18	19	20
1	18650-00	20,387-00	80,295-00	61645-00	61645-00	41258-00	1:4.31/3.02
2	23,087-00	26275-00	57494-00	49362-00	34407-00	23087-00	1:2.49/1.89
Other De	emonstrations						
3	16250-00	16250-00	22496-00	20064-00	6246-00	3796-00	1:1.38/1.23
4	53968-00	56218-00	122835-00	121310-00	68867-00	65092-00	1:2.28/2.16
5	55255-00	56925-00	102752-00	98382-00	47497-00	41457-00	1:1.8/1.71
6	45212-00	54637-00	129177-00	127184-00	83965-00	72547-00	1:2.86/2.33
7	12890-00	12890-00	17803-00	15428-00	4913-00	2538-00	1:1.38/1.20
8	23475-00	25506-00	49286-00	46854-00	25811-00	21348-00	1:2.0/1.8
9	55850-00	57850-00	128883-00	129420-00	730330-00	71570-00	1:2.31/2.24
10	38,685-00	40,660-00	82,769-00	78,440-00	44,084-00	37,780-00	1:2.14/1:1.93
11	33,150-00	35,300-00	99,735-00	94,550-00	66,585-00	59,250-00	1:3.01/1:2.68
12	37,925-00	41,775-00	1,49,524-00	1,34,850-00	1,11,599-00	93,075-00	1:3.94/1:3.23
13	-				-	-	-
14	68845	79267	134153	134865	65308	55598	1.95(D) 1.70(C)
15	65219	64403	125538	110282	60319	45880	1.93(D) 1.72(C)
16	73291	78278	195211	180206	121920	101928	2.66(D) 2.30(C)

17	54145	49895	99467	82104	45322	32209	1.84(D) 1.65(C)
18	33769	32019	67602	58140	33833	26121	2.01(D) 1.82(C)
19	Under progress						
20	1,25,284	1,14,247	5,91,374	4,36,577	4,66,089	3,22,331	1:4.7/1:3.8
21	2,75,893-00	2,73,906-00	6,21,075-00	5,05,327-00	3,45,182-00	2,31,421-00	1:2.25/1:1.84
22	2,09,327-00	2,07,653-00	4,22,225-00	3,54,235-00	1,91,415-00	1,46,582-00	1:1.99/1:1.71
23	2,12,639-00	2,17,497-00	7,32,068-00	6,29,862-00	5,16,429-00	4,12,366-00	1:3.39/1:1.9
24	4643.75	5100.00	26009.20	20108.40	21365.45	15008.40	1:5.60/1:3.94
25	4933.00	4443.00	13551.00	11401.00	8618.00	6957.00	1:2.75/1:2.56
26	720.00	650.00	1845.00	1545.00	1125.00	895.00	1:2.56/1:2.37
27	2310.00	2151.75	10797.50	8607.00	8487.50	6455.25	4.67/3.0

# Analytical Review of component demonstrations (details of each component for rain fed / irrigated situations to be given separately for each season)

S.No	Crop	Season	Component	Farming	Average yield	Local check	Percentage increase in
				situation	(q/ha)	(q/ha)	productivity over local check
1	Redgram	Kharif-	LRG-41	Irrigated	15.15	13.00	17.0
		2014					
2	Bengalgram	Rabi -14	ICM on Nandyala sanaga-1	Rianfed	15.13	12.99	16.0
	Other demons	trations					
3	Seteria	K-14	varietal	Rainfed	11.84	10.56	12.0
4	Paddy	K-14	Herbicides+ Manual weeding	irrigated	70.88	70.00	-
5	Bt Cotton	K-14	Herbicides+ Manual weeding	irrigated	27.04	25.89	4.0
6	Paddy	R-14	Semi dry Rice cultivation	irrigated	74.54	73.39	2.0
7	Seteria	K-14	ICM	Rainfed	9.37	8.12	15.0
8	Bengalgram	R-13	ICM	Rainfed	12.97	12.33	5.1
9	Rice	K-13	Varietal	Irrigated	74.37	74.68	
10	B.t. Cotton	K-2014	IPM	ID	2239	2089	7.2
11	Redgram	K 2014	Contingent Pest & Dis. Mgmt.	Rainfed	1635	1550	5.5
12	Blackgram	R 2014	Contingent Pest & Dis. Mgmt.	Rainfed	2578	2325	10.9
13	Maize	R 2014	Contingent Pest & Dis. Mgmt.	ID	-	-	-
14	Paddy	Kharif-14	Nutrient Management based on STCR	Irrigated	72.52	72.90	Cost of production reduced towards chemical fertilizers is Rs. 10422/ha,
15	Paddy	Kharif-14	Zinc management	Irrigated	67.86	59.61	13.83
16	Bt.cotton	Kharif-14	Integrated Nutrient Management	I/D	40.67	37.54	8.33
17	Paddy	Kharif-14	Reclamation of sodic soils	Irrigated	59.92	49.46	21.15
18	Bengalgram	Rabi-14	Sulphur and zinc management	Rainfed	17.79	15.30	16.27
19	Maize	Rabi-14	Zinc management	I/D		Unde	er progress

20	Mango	R-2013	Micro Nutrient Management	Irrigated Sandy Soils	154.2	113.5	26.91
21	Turmeric	R-2013	Rhizome rot management	Irrigated Loamy Soils	845	697	21.2
22	Chilli	R-2013	Chemical weed management	Irrigated Black Soils	48.86	54.78	12.11
23	Banana	R-2013	Micronutrient management	Irrigated Loamy Soils	697.2	614.5	13.45
24	Dairy animals	K- 14	Feeding of SF heads supplemented feed		743.12	670.28	10.86
25	Dairy animals	K- 14	Supplementation of Regional Specific Mineral Mixture		451.7	407.2	10.92
26	Poultry	Rabi 14	Azolla supplementation to Backyard poultry		1232.7	1038.9	18.6
27	Dairy animals	Rabi 14	Supplementation of Urea Molasses Mineral Blocks		308.5	286.9	7.53

**Redgram:** Redgram variety LRG-41 with Improved production technologies (Improved variety, seed treatment, pre-emergence application of pendimethalin against weeds, Soil test based fertilizer application, Sulphur @20 kg/ha and IPM measures against Helicoverpa and S.exigua) gave higher grain yield (1515 Kg/ha), which was 17.0% more than that of farmers practice in red soils with one protective irrigation at pod development stage.

The Economic Viability of improved technology over farmers practice was calculated depending on prevailing prices of input and output costs. The improved technologies resulted increased income with cost benefit ratio of 1:4.31/3.02 with protective irrigation .

**Bengalgram:** In Bengalgram variety Nandyala sanaga-1 with Improved production technologies (Improved variety,seed treatment, pre-emergence application of pendimethalin against weeds, Soil test based fertilizer application, Sulphur @20 kg/ha and IPM measures against Helicoverpa and S.exigua) gave higher grain yield (1513Kg/ha), which was 16.0 per cent more than that of farmers practice 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. Economics of demonstration and local check plots indicated that the with cultivation of Nandyala sanaga-1 with improved technologies, additional returns of Rs 11320/- /ha were obtained with BC ratio of 1:2.49/1.89

#### **Demonstration on Seteria Variety Suryanandi:**

During Kharif-2013, twenty five FLDs were organized with **Suryanandi** variety of seteria at different locations of Banaganapalli mandal. The data revealed that the grain yield of improved variety was increased by 12..0 per cent with additional returns of Rs 2450/- per ha. The improved variety proved to be superior as compared to local variety both in terms of grain and fodder yield

#### **Weed Management in Paddy:**

FLDs on Weed management were taken up in an area of 4ha at Yagantipalli Village with post-emergence application Bispyribac sodium80 ml /acre at 20 DAT+ one hand weeding at 40 DAT. The results indicated that post-emergence application Bispyribac sodium80 ml /acre at 20 DAT reduced the weed density most effectively and 77.0 per cent weed control efficiency was recorded. The hand weeding is laborious and generally more expensive. It was revealed that Post emergence application of herbicide along with one hand weeding most economic method for weed control in transplanted rice.

#### Weed management in Bt cotton

During khairf-14 FLDs were taken up at Yagantipalli, Meerapuram and yerragudi villages of Banaganapalli mandal with Post emergence application of Pyrithiobac sodium + Quizalofop ethyl at 20-25 DAS in Bt cotton. The results indicated that weed density was Significantly reduced and 79.0

per cent weed control efficiency was recorded. The hand weeding is laborious and generally more expensive. It was revealed that Post emergence application of herbicide along with two hand weedings was moret economic method for weed control in Bt cotton

#### Semi Dry method of Rice cultivation:

Late onset of monsoon conditions and late release of water in canals is leading to delayed transplanting (beyond August) resulting in low yields. To tide over such predicaments, KVK organized demonstrations on Semi Dry method of Rice cultivation. In this method early seeding with gorru was taken with the advantage of early rains received, which was later converted into Irrigated paddy after receipt of canal water.

- The data clearly indicated that direct seeding paddy seeds with gorru in the month of July recorded on par grain yield over transplanting. The mean yield of direct seeding was 7454 Kg/ha as compared to 7339 kg/ha in case transplanting. The success of DSR mainly attributed to:
- Tmely sowing
- Reduced cost of cultivation as compared to transplanting (Labour, Puddling costs)
- Reduced seed rate (8-12 KG /acre as against 30kg /acre)
- Saves 35-40 per cent water.
- Reduced fertilizer and pesticide use.
- Equal or higher yields with reduced production costs and higher net income.

#### **NFSM Demonstrations:**

#### a) Demonstrations in Bengalgram under NFSM in collaboration with Agrl Dept.,

Organised demonstrations in bengalgram variety JG-11 in an area of 100ha in diffetent villages of Banaganapalli mandal i.e Meerapuram, I.K. Peta, Gulamnabipeta and nandavaram villages. JG-11 variety with Integrated crop management practices (Improved variety,seed treatment, Sulphur @20 kg/ha and IPM measures against Helicoverpa and S.exigua) gave higher grain yield(1297Kg/ha), which was 5.1 per cent than that obtained with farmers practice in black soils under rainfed situation

#### b) Demonstrations in Seteria under NFSM in collaboration with Agrl Dept.,

Organised demonstrations in seteria Var SIA-3085 at Pasupala thanda village of Banaganapalli mandal in an area of 16.0 ha. Seteria variety SIA-3085 with Integrated crop management practices gave higher grain yield(937Kg/ha), which was 15.0 per cent than that obtained with farmers practice in red soils under rainfed situation.

#### **Demonstration on Rice Variety Improved samba Mashuri:**

During Kharif-2014 FLDs were organized with BLB resistant Variety RP Bio-226 (Improved Samba mashuri) at different locations. The results indicated that RP BIO-226 gave equivalent grain

yield and it could serve as a replacement for Samba Mahsuri in BLB endemic areas. It is found to be suitable for BLB endemic areas of K.C canal command areas where BLB susceptible fine-grained varieties like Samba Mahsuri, Sona Mahsuri, etc are cultivated.

Management of sucking pests in Bt Cotton: Ten Demonstrations were organized on sucking pest management in Bt cotton. Due to dry spells prevailed in the season, sucking pests viz., Jassid and Aphid incidence was more. Stem application at 40 and 60 DAS reduced the incidence of sucking pests effectively and resulted in 7.2% increased yield over farmers practice. An additional net returns of Rs. 6,304-00 per ha were realized in demonstration.

Contingent management of pests and diseases in Redgram: The results indicated that Redgram variety PRG-158 with IPM measures against Helicoverpa & Maruca has recorded 5.5 % increased yield over local check under rainfed situation with additional net returns of Rs.7,335-00 /ha

Contingent management of pests and diseases in Blackgram: The results indicated the Blackgram variety LBG 752 with Management for Maruca and YMV has recorded 10.9 % increased yield over local check with additional net returns of Rs.18,524-00 /ha, due to better management of YMV and Maruca in FLD.

Contingent management of pests and diseases in Maize: The demo was conducted at Yagantipalle village of Banaganapalle mandal. The crop is at harvesting stage and results are to be compiled.

**Nutrient management in rice based on STCR equation:**\_The results indicated that the average grain yield of paddy under STCR (7252Kg/ha) and the grain yield produced under controlled practice (7290Kg/ha) were onpar.Net income were high in demonstration plots (Rs.65308 ha<sup>-1</sup>) as compared to controlled practice (Rs.55598 ha<sup>-1</sup>). It was also observed that an amount of Rs.9710/ha was realized as additional income due to low production costs and yield increments in demonstrations. Benefit-cost ratio was also high in demonstrations (1:1.95) as compared to check (1:1.1.70) due to low cost production.

Zinc Management in rice: Ten Demonstrations were organized on Zinc management in rice at Vekatapuram, Yerraguntla and Vankindinne villages of Sirivella mandal. The average yield of rice under Zinc foliar application was high (6786 Kg/ha) as compared to controlled practice (5961Kg/ha) An amount of Rs.14439/ha was realized as additional income due to yield increments (13.83 %) in demonstrations. Benefit-cost ratio was high in demonstrations (1:1.93) as compared to controlled practice (1:1.72) due to higher gross income.

**INM in Bt.Cotton:** Ten Demonstrations were organized on integrated nutrient management in Bt.cotton at Meerapuram village of Banagnapalle mandal. The average yield of cotton was high

(4067Kg/ha)in INM practice when compared to farmer's practice (3754 Kg/ha). An amount of Rs. 19992/ha was realized as additional income due to low production costs and yield increments (8.33%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:2.66) as compared to farmers practice (1:2.30) due to low cost of Production and higher gross income.

Reclamation of sodic soils with gypsum: Ten Demonstrations were organized on reclamation of sodic soils with gypsum at Yagantipalle village of Banaganapalle mandal. The initial soil pH was ranged from 9.08 to 9.40 and after reclamation it is ranged from 8.59 to 8.94. The Paddy crop was cultivated after reclamation. The average yield of paddy in demonstration plots was high (5992Kg/ha) as compared to controlled plots (4946 Kg/ha). The results indicated that 21.15 percent yield increase in demonstration plots over the controlled plots. An amount of Rs. 13114/ha was realized as additional income in demonstrations due to yield increments.

**Sulphur and zinc management in Bengalgram based on soil test:** Ten Demonstrations were organized in bengalgram at Embai village of Bethamcherla mandal. The average yield of bengalgram under Sulphur and zinc management was high (1779Kg/ha) as compared to control (1530Kg/ha). An amount of Rs. 7712/ha was realized as additional income due to yield increments (16.27%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:2.01) as compared to farmers practice (1:1.82) due to higher gross income.

**Zinc management in maize:** Organized ten demonstrations at Yagantipalle village. Zinc sulphate applied @50 kg/ha at basal. Now the crop is at knee high stage.

**Micro nutrient management in mango:** Ten demonstrations were organized at Emboi village of Bethamcherla mandal. Micronutrient mixture was sprayed twice at pre bloom period and at pea nut stage @ 5gms/lit of water. Results indicate that there was an increase of 26.91% in the yield with B:C ratio 4.7 in demo as against the 3.8 in local check.

Rhizome rot management in Turmeric: Demonstration was taken up with 10 farmers in Alamur village of Rudravaram mandal. The seed treatment of rhizomes was done by soaking the rhizomes in Ridomyl MZ (3g/lt.). After one month of sowing, Trichoderma Viridae enriched manure (2.5q/ha.) was applied. There was 17.51 % increase in yeid in demonstration (8.45 tons/ha) compared to farmers practice (6.97 tons/ha).

**Micronutrient management in Banana**: This demonstration was taken up in Alamuru village of Rudravaram mandal. Micro nutrient mixture was applied on Banana bunches twice gave 69.72 tons/ha yield in demonstration as against the 61.45 tons/ha in farmers practice. There was an net additional income of Rs.1,04,063/ha in demo compared to farmers practice with B:C ratio to demo to control is 1:3.39 / 1:1.9

Chemical Weed Management in Chillis: Demonstration was taken up in SunKesula village of Owk mandal with ten farmers in mature old Chilli plots where interculture operations are not possible. Results indicate that there was 86 % control of weeds in demonstration plot when pendimethalin 3 lit/ha was applied in chilli plot compared to demonstration plot.there was 12% increase in yield in demonstration

Feeding of sunflower heads supplemented ration to milch buffaloes: The demonstration was conducted at Amadala and Koilakuntla villages. 30% SF heads mixed ration was fed to the animals for 120 days. The results indicated that 10.86% increased milk production by feeding SF heads supplemented feed over farmers method. Difference of Rs.3705/- as net profit was observed in demo over control.

Supplementation of Regional Specific mineral mixture to milch buffaloes: The demonstration was conducted at Mandaluru of Rudravaram (M) and C.K.Dinne of Allagadda (M) selecting 20 graded murrah buffaloes having post partum anoestrus condition. RSSM was supplemented @ 80grams per day along with regular concentrate feed. The results indicated that 45% animals exhibited heat symptoms and 10.92 % increase in milk yield was noticed over farmers practice.

**Azolla supplementation to Rajasri birds at backyards:** The demonstration was conducted at Charlakothuru and Pathapadu villages of Banaganapalle mandal. Azolla units were established and azolla was supplemented to Rajasri birds @50grams per day along with scavenging for 90 days. The results indicated that 18.6% increase in body weight was observed in treatment over control

**Supplementation of UMMB to milch buffaloes:** The demonstration was conducted at Seetaramapuram village of Bethamcherla mandal selecting 10 graded murrah buffaloes. UMMB was given to hang before the animals and allowed to lick for an hour daily. The results indicated that 7.53% increase in milk yield was observed in demo over farmers practice.

#### **Technical Feedback on the demonstrated technologies:**

# S. Feed Back No

- 1 Technology Demonstration in Redgram:
  - The redgram variety LRG-41 being its Long duration, it is suitable for Medium black under rainfed situations.
  - Moderately tolerant to Helicoverpa pod borer.
  - Pods are brick red in colour with bold and dark red seeds.
- 2 Technology Demonstration in Bengalgram:
  - Plant height, no. of branches/plant, No. of pods/plant were on par with JG-11
  - Plant was bushy with basal branching habit
  - Seeds are bold and attractive
  - 100 seed weight is more compared to JG-11

- The incidence of wilt is comparatively less than local check..
- It is Tolerant to drought due to its deep root system
- 3. Integrated weed management in Rice, Bt cotton
  - Cost on manual weeding was reduced (Rs 950/- per ha)
  - Weed control efficiency was 82-86.0Per cent
  - Weed density was less in demo plot up to critical periods

#### 4 Cropping systems:

- Castor and greengram intercropping system found to be remunerative than sole crop of Castor/ Greengram even under drought conditions.
- While maintaining the yield levels of the sole crop, additional yields with the intercropping component 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.

#### 5 Semi dry method of Rice cultivation:

- Reduced cost of cultivation as compared to transplanting( Labour, Puddling costs)
- Reduced seed rate (8-12 KG /acre as against 30kg /acre)
- Saves 35-40 per cent water.
- Reduced fertilizers and pesticides uses.
- Equal or higher yields with reduced production costs and higher net income.

#### 6 STCR based nutrient management in rice:

- The status of phosphorus was more than 100 kg./ha in all demonstration fields. Hence Phosphorus was not applied in demonstrations.
- Nutrient use efficiency (kg grain- /kg<sup>-1</sup> nutrient) was high in STCR (23.39) as compared to farmers practice (13.14).
- Soil test based nutrient management helped in fertilizer cost reduction (Rs.10422 ha<sup>-1</sup>) in demonstrations.

#### 7 Zinc management in Rice:

- Foliar application of chelated zinc performed equally as basal application.
- Zinc deficiency correction gave higher yield than control
- 8 INM in Bt Cotton: Integrated nutrient management gave higher yield than control
- 9 Reclamation of Sodic Soils: Application of gypsum helped in reduction of soil pH.
- 10 Sulphur and Zinc Management in Bengalgram: Productivity enhancement due application of sulphur and zinc in respective nutrient deficient soils

#### Farmers reaction on Specific technologies:

S.	Feed Back
No	

- STCR in Rice: Farmers were satisfied with crop performances and expressed that Soil test based nutrient management is a viable technology in Rice, because of less cost of 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. They are now willing to adopt the STCR technology in succeeding seasons for raising crops.
- 2 Zinc Management in Rice: Foliar application of zinc is more economical than basal.
- 3 INM in Bt Cotton: Soil quality improved and cost of fertilizers reduced.
- 4 **Reclamation of Sodic Soils**: Sodic soil reclamation by gypsum application is more effective than others.
- 5 **Sulphur and Zinca Management in Bengalgram**: Need based application of Sulphur and zinc is more essential for bengalgram yield increments.
- 6 **Sucking pest management in Bt cotton**: Stem application with Imidacloprid and Monocrotophos at 40 and 60 DAS offered good control of sucking pests especially Jassids and Aphids. Sticky traps @ 10/ ac offered good protection against whiteflies later in the season.
- 7 **Contingent management of pests and diseases in Redgram**: Spraying Chloro + Dichlorovos at flowering on observing initials of leaf webbing, offered good control of Maruca.
- 8 Contingent management of pests and diseases in Blackgram: Yellow sticky traps offer good catch of whiteflies in the field. Spraying Chloro + Dichlorovos at flowering offered good control of pod borer.

#### **Extension and Training activities under FLD:**

S. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	18-01-2015	75	
			02-2-2015	70	
2	Farmers Training	5	23-06-2014	30	
			24-11-2014	25	
			19-09-2014	30	
			16-12-2014	25	
3	Training for extension functionaries	1	18-12.2014	40	

### c) Farm Implements:

Name of the implement	Crop	No. of farmers	Area (ha)	Performance parameters / indicators	relation t demo	* Data on parameter in relation to technology demonstrated		Remarks
					Demo	Local check	r	
Cotton Hand Gloves	Castor	10	0.4	Labour Saved/ picking/acre/day Reduction on cost on Harvesting/picking //day (Rs.) ❖ Feed back on work related stress factors presented in a separate table	4 480	6 720	33.3	With the introduction of cotton hand gloves for castor harvesting, the labour required and cost on harvesting saved by 33.3% and the drudgery reduced from less to normal than their regular practice recorded from
								moderate to severe
Bhendi Cutter	Bhendi	10	0.4	Qty. harvested in kgs/ day/person	67.5	60	12.5	With the introduction of Bendi
				Labour Saved In Rs /day Feed back on work related stress factors presented in a separate table Feed back on work related stress factors presented in a separate table	360	480	25.0	cutter(from MPKV,Rahuri) the harvesting rate increased by 12.5% and labour cost saved by 25% and the drudgery was reduced from normal to moderate than their regular practice severe
Mogi Improved Wheelhoe	Jowar	5	0.4	Labour Saved/ acre/day	3	8	62.5	With the introduction of Mogi improved wheelhoe, the cost on
				Reduction on cost on weeding / acre  Feed back on work related stress factors presented in a separate table	360	960		weeding was saved by 600/- and labour saved by 62.5%. The drudgery was reduced from less to moderate than their regular practice i.e, from moderate to severe.

<sup>•</sup> Feed back on stress factors was recorded with the score card developed by AICRP, H.Sc, FRM, ANGRAU and presented separately in the following table.

#### **Introduction of Cotton hand gloves for harvesting of castor:**

Feed back on work related stress factors was recorded with the score card given by AICRP, H.Sc, FRM, ANGRAU and presented in the following table.

Matrix ranking of Drudgery for Farm women in Agriculture Operations:

Indices for drudgery: Severe-5, Moderate-4, Normal-3, Less-2, No drudgery-1

	Indices			
Type of drudgery	<b>Cutting with bear</b>	<b>Cutting with</b>		
	hands	Gloves		
Drudgery estimation at harvest	5	3		
Stress Estimation	5	3		
Body Strain while in operation	5	3		
Estimation of feel while carrying weights	5	3		
Estimation of operational difficulty	4	2		
Psychological Stress due to work	5	2		

**Inferences:** Farm women felt that, with the use of cotton hand gloves the body strain while in operation, estimation of operational difficulty, drudgery estimation at harvest, psychological stress due to work, estimation of feel while carrying weights and stress estimation was ranged from less to normal than their regular practice which was recorded from moderate to severe.

**User Acceptance of Matrix Index on Improved Implement:** 

Indices For Acceptance: Highly satisfied-5, Moderately Satisfied-4, Satisfied-3, Unsatisfied-2, Not Accettable-1

Name of the	User		Feel of Activity	
Implement		Time Taken for the Activity	Area Covered	Energy Spent for work
Cotton Hand Gloves	Farmwomen	3	4	3

**Inferences:** It was opinioned that, with the use of Cotton hand gloves time taken for the activity, area covered and energy spent for the work ranges from satisfied to moderately satisfied. They also expressed that with the use of cotton hand gloves the strain while harvesting, scratches, injuries and fatigue was reduced and this helped them for harvesting more area with less time and less labour.

#### **II. Introduction of Bhendi Cutter for reducing drudgery:**

Feed back on work related stress factors was recorded with the score card developed by AICRP, H.Sc, FRM, ANGRAU and presented in the following table.

Matrix ranking of Drudgery for Farm women in Agriculture Operations:

Indices for drudgery: Severe-5, Moderate-4, Normal-3, Less-2, No drudgery-1

	Indices			
Type of drudgery	Picking with bear	Picking with		
	hands	Gloves		
Drudgery estimation at harvest	5	4		
Stress Estimation	5	4		
Body Strain while in operation	5	3		
Estimation of feel while carrying weights	5	4		
Estimation of operational difficulty	5	4		
Psychological Stress due to work	5	3		

**Inferences:** Farm women felt that, with the use of Bendi Cutter, the body strain while in operation, estimation of operational difficulty, drudgery estimation at harvest, psychological stress due to work, estimation of feel while carrying weights and stress estimation was ranged from normal to moderate than their regular practice which was recorded severe.

**User Acceptance of Matrix Index on Improved Implement:** 

Indices For Acceptance: Highly satisfied-5, Moderately Satisfied-4, Satisfied-3, Unsatisfied-2, Not Accettable-1

Name of the		Feel of Activity				
Implement	User	Time Taken for the Activity	Area Covered	Energy Spent for work		
Bendi Cutter	Farmwomen	3	4	4		

**Inferences:** It was opinioned that, with the use of Bendi Cutter, time taken for the activity, area covered and energy spent for the work ranges from satisfied to moderately satisfied. They also expressed that with the use of Bendi cutter, the strain while harvesting, scratches, injuries and fatigue was reduced and this helped them for increasing harvest rate with less time and less labour.

# III. Introduction of Mogi Improved Wheelhoe for reducing drudgery of farm women in weeding operations:

Feed back on work related stress factors was recorded with the score card given by AICRP, H.Sc, FRM, ANGRAU and presented in the following table.

Matrix ranking of Drudgery for Farm women in Agriculture Operations:

Indices for drudgery: Severe-5, Moderate-4, Normal-3, Less-2, No drudgery-1

Type of drudgery	Indices			
	Manual Weeding	Weeding with		
		refined rotary		
		weeder		
Drudgery estimation at harvest	5	4		
Stress Estimation	5	4		
Body Strain while in operation	5	3		
Estimation of feel while carrying weights	4	3		
Estimation of operational difficulty	4	2		
Psychological Stress due to work	4	2		

**Inferences:** It was clearly indicated that with the use of Mogi Improved Wheelhoe, the body strain while in operation, estimation of operational difficulty, drudgery estimation at harvest, psychological stress due to work, estimation of feel while carrying weights and stress estimation was ranged from less to moderate than their regular practice which was recorded from moderate to severe.

**User Acceptance of Matrix Index on Improved Implement:** 

Indices For Acceptance: Highly satisfied-5, Moderately Satisfied-4, Satisfied-3, Unsatisfied-2, Not Accettable-1

Name of the		Feel of Activity				
Implement	User	Time Taken for the Activity	Area Covered	Energy Spent for work		
Mogi Improved Wheelhoe	Farmwomen	4	3	4		

**Inferences:** It was opinioned that, with the use of Mogi nImproved Wheelhoe, time taken for the activity, area covered and energy spent for the work ranges from satisfied to moderately satisfied. They also expressed that with the use of Mogi Improved wheelhoe, the strain while harvesting, scratches, injuries and fatigue was reduced but they required practice for easy operation of the implement.

# (ii) Livestock Enterprises:

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated Demon. Local		% change in the parameter	Remarks
					Demon.	check		
Dairy animals	Graded murrah	10	10	Milk yield (120 days)	743.12	670.28	10.86	
Dairy animals	Graded murrah	20	20	Milk yield (90 days) and animals exhibited heat	451.7	407.2	10.92	
Poultry	Rajasri	10	100	Body weight gain/120days	1232.7	1038.9	18.6	
Dairy animals	Graded murrah	10	10	Milk yield/60days	308.5	286.9	7.53	

<sup>\*</sup> Milk production, meat production, egg production, reduction in disease incidence etc.

# (iii) Other Enterprises:

Enterpris	Variety/	No. of	No.	Performanc	Data on	% change	Remark
е	breed/Species /	farmer s	of Unit	e parameters	parameter in relation to	in the paramete	S
	others		S	/ indicators	technology demonstrated	r	
					Demo Local check		

# 3.3 Achievements on Training (Including the sponsored, vocational, FLD and trainings under Rainwater Harvesting Unit):

# A) ON Campus:

Thematic area	No. of	Others		Pa	rticip	ants				
	courses			SC/ST			<b>Grand Total</b>			
		M	F	Т	M	F	Т	M	F	T
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	22		22	8		8	30		30
Resource Conservation Technologies	1	16		16	9		9	25		25
Cropping Systems	1	18		23	7		7	25	5	30
Crop Diversification	2	73		73	10		10	83		83
Weed Management	1	22		22	8		8	30		30
Water management	1	20		20	10		10	30		30
Integrated Crop Management	2	50		50	10		10	60		60
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value										
crops										
Protective cultivation (Green Houses,										
Shade Net etc.)										
b) Fruits										
Training and Pruning										
Cultivation of Tissue Culture Banana	1	50		50	15		15	65		65
c) Ornamental Plants										
ICM in Jasmine	1	15		15	3		3	18		18
III Soil Health and Fertility Management										
Integrated Nutrient Management	1	20		20	5		5	25		25
Production and use of organic inputs	1	20		20	5		5	25		25
Management of Problematic soils	1	21		21	4		4	25		25
Soil and Water Testing	1	23		23	3		3	26		26
IV Livestock Production and Management										
Poultry Management										
Disease Management										
Feed management	1	17		17	8	_	8	25		25
Dairy Management	1	18		18	12		12	30		30
V Home Science/Women empowerment										
Value addition	1			19		6	6		25	25
Location specific drudgery reduction	_			21		4	4		25	25
technologies	1									
VII Plant Protection										
Integrated Pest Management	7	120		120	26		26	146		146
Bio-control of pests and diseases	2	61		61	13		13	74		74
Mushroom cultivation	1	37		37	7		7	44		44
IX Production of Inputs at site										
Vermi-compost production										
TOTAL	29	623		668	163	10	173	786	55	841
-										

(B) RURAL YOUTH										
Seed production	2	45	-	45	15	-	15	60	-	60
Nursery raising	1	15		15	3		3	18		18
Production of organic inputs	2	45	-	45	10	-	10	55	-	55
Soil & Water Testing	1	20	-	20	5	-	5	25	-	25
Tailoring and Stitching										
Rural Crafts										
TOTAL	6	125	-	125	33	-	33	158	-	158
(C) Extension Personnel										
Productivity enhancement in field crops	1	25	-	25	5	-	5	30	-	30
Production and use of organic inputs		25	-	25	-	-	-	25	-	25
Soil & Water Testing		25	-	25	-	-	-	25	-	25
Low cost and nutrient efficient diet designing		-	9	9	-	4	4	-	13	13
Feed Management	1	9	5	14	3	3	6	12	8	20
TOTAL	5	84	14	98	8	7	15	92	21	113

# B) OFF Campus

Thematic area	No. of	Participants								
	courses	Others			SC/ST			<b>Grand Total</b>		
		M	F	Т	M	F	Т	M	F	T
(A) Farmers & Farm Women I Crop Production										
Integrated Crop Management II Horticulture a) Vegetable Crops	3	130	-	130	24	6	30	154	6	160
ICM in Chillies Protective cultivation (Green Houses, Shade Net etc.)	1	19		19	5		5	24		24
b) Fruits										
Training and Pruning in Mango	1	26		26	6		6	32		32
IPM in Mango Cultivation of Tissue Culture Banana	1	21		21	3		3	24		24
ICM in Sweet Orange	1	13		13	4		4	17		17
ICM in Papaya c) Ornamental Plants	1	9		9	3		3	12		12
ICM in Chrysanthemum  III Soil Health and Fertility	1	16		16	3		3	19		19
Management										
Soil fertility management	1	24	-	24	6	-	6	30	-	30
Soil and Water Conservation	1	21	-	21	4	-	4	25	-	25
Micro nutrient deficiency in crops	1	20	-	20	5	-	5	25	-	25
Nutrient Use Efficiency  IV Livestock Production and	1	22	-	22	8	-	8	30	-	30
Management										
Dairy Management	3	43		43	17		17	60		60
Disease Management	1	15		15	6	-	6	21	-	21
Feed management Production of quality animal products	4	55		55	25		25	80		80
V Home Science/Women										
empowerment										
Household food security by kitchen gardening and nutrition gardening	2	-	51	51	-	26	26	-	77	77
Design and development of low/minimum cost diet	1	-	18	18	-	12	12	-	30	30
Value addition	1	-	19	19	-	9	9	-	28	28
Income generation activities for empowerment of rural Women	1	-	23	23	-	12	12	-	35	35
Women and child care VII Plant Protection	1	-	13	13	-	22	22	-	35	35
Integrated Pest Management	1	30	_	30	4	_	4	34	_	34
TOTAL	28	464	124	588	123	87	210	587	211	798

(B) RURAL YOUTH											
Organic Farming		1	48	-	48	12	-	12	60	-	60
Tailoring and Stitching		1	-	18	18	-	8	8	-	26	26
Rural Crafts-Quilt Bag Making		1	-	17	17	-	6	6	-	23	23
Fabric Painting		2	-	36	36	-	14	14	-	50	50
Maggam Embroidery Works		1	-	22	22	-	6	6	-	28	28
Handmade Paper bag Making		1	-	22	22	-	6	6	-	28	28
Life skills development for Adolescent Girls		1	-	11	11	-	19	19	-	30	30
Т	TOTAL	8	48	126	174	12	59	71	60	185	245

#### (C) Extension Personnel

Livestock feed and fodder production

Women and Child care

TOTAL

## C) Consolidated table (ON and OFF Campus)

	No. of				Par	ticipa	ints			
Thematic area	courses	-	Others			SC/S1		Gr	and To	tal
		M	F	T	M	F	T	M	F	Т
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	2	44	-	44	16	-	16	60	-	60
Resource Conservation Technologies	1	16	-	16	9	-	9	25	-	25
Cropping Systems	1	18	5	23	7	-	7	25	5	30
Crop Diversification	2	73	-	73	10	-	10	83	-	83
Water Management	1	20	-	20	10	-	10	30	-	30
Integrated Crop Management	5	180	-	180	34	6	40	214	6	220
II Horticulture										
a) Vegetable Crops										
ICM in Chillies	1	19		19	5		5	24		24
b) Fruits										
Training and Pruning	1	26		26	6		6	32		32
IPM in Mango	1	21		21	3		3	24		24
ICM in Sweet Orange	1	13		13	4		4	17		17
ICM in Papaya	1	9		9	3		3	12		12
Cultivation of Tissue Culture Banana	1	50	-	50	15	-	15	65	-	65
c) Ornamental Plants										
ICM in Jasmine	1	15	-	15	3	-	3	18	-	18
ICM in Chrysanthemum	1	16	-	16	3	-	3	19	-	19
III Soil Health and Fertility Mgmt.										
Soil fertility management	1	24	-	24	6	-	6	30	-	30
Soil and Water Conservation	1	21	-	21	4	-	4	25	-	25
Integrated Nutrient Management	1	20	-	20	5	-	5	25	-	25
Production of organic inputs	1	20	-	20	5	-	5	25	-	25
Management of Problematic soils	1	21	-	21	4	-	4	25	_	25
Micro nutrient deficiency in crops	1	20	-	20	5	-	5	25	-	25
Nutrient Use Efficiency	1	22	-	22	8	-	8	30	-	30
Soil and Water Testing	1	23	-	23	3	-	3	26	_	26
IV Livestock Production & Mgmt		_			-			-		
_										
Dairy Management	4	61		61	29	-	29	90		90
Poultry Management		4.5		4-	_		_	0.4		24
Disease Management	1	15	-	15	6	-	6	21	-	21
Feed management	5	72		72	33	-	33	105		105
V Home Science										
Household food security by kitchen	2	-	51	51	-	26	26	-	77	77
gardening and nutrition gardening										
Design and development of	1	-	18	18	-	12	12	-	30	30
low/minimum cost diet										
Value addition	2	-	38	38	-	15	15	-	53	53
Income generation activities for	1	-	23	23	-	12	12	-	35	35
empowerment of rural Women	-									
Location specific drudgery reduction	1	-	21	21	-	4	4	-	25	25
technologies										
Women and child care	1	-	13	13	-	22	22	-	35	35
VII Plant Protection										
Integrated Pest Management	8	150	-	150	30	-	30	180	-	180
Bio-control of pests and diseases	2	61	-	61	13	-	13	74	-	74
Mushroom cultivation	1	37	-	37	7	-	7	44	-	44
TOTAL:	57	1087	169	1256	286	97	383	1373	<b>266</b>	1639

(B) RURAL YOUTH										
Seed production	2	45	-	45	15	-	15	60	-	60
Nursery raising	1	15		15	3		3	18		18
Production of organic inputs	2	45	-	45	10	-	10	55	-	55
Organic Farming	1	48	-	48	12	-	12	60	-	60
Soil & Water Testing	1	20	-	20	5	-	5	25	-	25
Tailoring and Stitching	1	-	18	18	-	8	8	-	26	26
Rural Crafts-Quilt Bag Making	1	-	17	17	-	6	6	-	23	23
Fabric Painting	2	-	36	36	-	14	14	-	50	50
Maggam Embroidery Works	1	-	22	22	-	6	6	-	28	28
Handmade Paper bag Making	1	-	22	22	-	6	6	-	28	28
Life skills development for	1	-	11	11	-	19	19	-	30	30
Adolescent Girls	1									
TOTAL	14	173	126	299	45	59	104	218	185	403
(C) Extension Personnel										
Productivity enhancement in field	1	25		25	5		5	30		30
crops	1	25	-	25	5	-	5	30	-	30
Livestock feed and fodder	1	9	5	14	3	3	6	12	8	20
production	1									
Women and Child care	1	-	9	9	-	4	4	-	13	13
Production and use of organic	1	25		25				25	_	25
inputs	1	23	-	23	-	-	-	23	-	23
Soil & Water Testing	1	25	-	25	-	-	-	25	-	25
TOTAL	5	84	14	98	8	7	15	92	21	113
Grand Total	76	1344	309	1653	339	163	502	1683	472	2155

### **Annexures**

A. <u>KVK funded:</u> Agronomy:

Date	Cliente le	Title of the training programme	Discipline	Thematic area	Dura tion	Venue (Off / On Campus)		ber of rticipa			mbe SC/S			l numb rticipa	
					in days		M	F	Т	M	F	Т	M	F	T
1-7-2014	PFM	Crops and cropping system for dry land black soils/red soils	Agronomy	Crop & cropping system	1	On	18	5	23	7	-	7	25	5	30
14.7.2014	PFM	Low cost production technologies in rainfed oil seeds.	-do-	Integrated crop management	1	on	25	-	25	5	-	5	30	-	30
18.7.2014	PFM	Low cost production technologies in rainfed oil seeds.	-do-	Integrated crop management	1	OFF	50	-	50	5	-	5	50	5	55
21-7-2014-	PFM	Integrated weed management in practices in rainfed crops	-do-	Weed management	1	On	22	-	22	8	-	8	30	-	30
26-8-2014	PFM	Rice production technologies		ICM	1	off	35	-	35	10	-	10	45	-	45
10-10-2014	PFM	Critical technologies for enhancing yield in rabi pulses	-do-	Integrated crop management	1	On	25	-	25	5	-	5	30	-	30
24.10-2014	PFM	Production technologies in Redgram and Bengalgram	-do-	Integrated crop management	1	Off	45	-	45	9	6	15	54	6	60
22-11-2014	RYM	Seed production technology and importance of seed village concepts	-do-	Seed production	1	On	20	-	20	10	-	10	20	10	30
5-12-2014	RYM	Seed production technology and importance of seed village concepts	-do-	Seed production	1	On	25	-	25	5	-	5	30	-	30
20-12-2014	PFM	Rice based cropping systems with reference to Zero tillage concept.	do	Resource conservation	1	on	16	-	16	9	-	9	25	-	25
28-12-2014	PFM	Water management in ID crops		Water management	1	on	20	-	20	10	-	10	30	-	30

#### **Plant Protection:**

S.	Date	Client	Title		area	Durat	Venu						•	oants			Sponsori
No		(PF/ RY/ EF)		Discipline	<b>Thematic</b> ar	ion (days)	e (Off/ On camp us)	M	<u>Other</u> F	rs T	M	SC/S	<u>т</u>	M	F F	al T	ng Agency
Prac	ticing Farm	ers					•										
1	21.7.14 to 22.7.14	PF	Botanical pesticides and NPM options in pest and disease management – hands on experience	_	Bioc ontr ol	1	On	32	-	32	8	-	8	40	-	40	KVK
2	07.8.14	PF	Management of pests and diseases in chillis	ţi	IPM	1	On	16	-	16	4	-	4	20	-	20	KVK
3	4.9.14	PF	Integrated Pest Management in Bengalgram, Redgram and Rice	Plant Protection	IPM	1	Off	30	-	30	4	-	4	34	-	34	KVK
4	11.9.14 to 12.9.14	PF	Cultivation of milky mushrooms as a small scale home business	Plant	IG Aciti vity	2	On	37	-	37	7	-	7	44	-	44	KVK
5	24.9.14	PF	Management of sucking pests in Bt cotton		IPM	1	On	24	-	24	5	-	5	29	-	29	KVK
6	25.9.14	PF	Management of pests and diseases in castor		IPM	1	On	18	-	18	4	-	4	22	-	22	KVK
7	18.10.14	PF	Management of pests and diseases in blackgram and bengalgram		IPM	1	On	14	-	14	2	-	2	16	-	16	KVK
8	10.11.14	PF	Management of pests and diseases in blackgram		IPM	1	On	16	-	16	4	-	4	20	-	20	KVK
9	26.11.14	PF	Management of pests and diseases in redgram and bengalgram		IPM	1	On	20	-	20	5	-	5	25	-	25	KVK
			Sub Total			9		207	-	207	43	-	43	250	-	250	
Rura	l Youth																
10	27.8.14 to 28.8.14	RY	Mushroom cultivation as an income generating activity		IG Activ ity	2	On	25	-	25	5	-	5	30	-	30	KVK
	20.0.17		Sub Total		,	1		25		25	5		5	30		30	
			545 1544														

### **Soil Science**

SI. no	Date	ele	Title of the training programme	line	Thematic Area	Duratio n	Venue		nber of o			mber SC/ST	of	Tota of pa		
		Clientele		Discipline		(days)		M	F	Т	M	F	T	М	F	Т
Prac	ticing Farme	ers														
1	16-04-14	PF	Soil sampling procedure and soil test based nutrient management		Soil and water testing	3	on	23	-	23	3	-	3	26	-	26
2	15.05.14	PF	Reclamation of problematic soils		Management of problematic soils	1	on	21	-	21	4	-	4	25	-	25
3	12.06.14	PF	Methods to improve fertilisers use efficiency		Nutrient use efficiency	1	off	22	-	22	8	-	8	30	-	30
4	21.07.14	PF	Calculation of fertilizers based on nutrient recommendations	Science	Soil fertility management	1	off	24	-	24	6	-	6	30	-	30
5	18.08.14	PF	Integrated Nutrient Management in rice .	Soil Scie	INM	1	on	20	-	20	5	-	5	25	-	25
6	22.09.14	PF	Diagnosis and correction of micronutrient deficiencies in young mango orchards	S	Micronutrient deficiency in crops	1	off	20	-	20	5	-	5	25	-	25
7	09.02.15	PF	Vermi and NADEP composting technologies		Production and use of organic inputs	3	on	20	-	20	5	-	5	25	-	25
8	25.30.15	PF	Soil and moisture conservation measures in rainfed black soils		Soil and Water conservation	1	off	21	-	21	4	-	4	25	-	25
			Total:					171	-	171	40		40	211		211

Rura	al Youth															
9	15.10.14	RY	Preparation of organic inputs viz.  CPP compost, Bio dynamic compost, vermicompost,etc.	Science	Production of Organic inputs	3	On	19	-	19	6	-	6	25	-	25
10	19.01.15	RY	Soil sampling, testing and interpretation of data	Soil	Soil and water testing	3	on	27	-	27	6	-	6	33	-	33
			Total:					46	-	46	12	-	12	58	-	58
Exte	nsion Funct	ionari	es													
11	18.11.14	EF	Soil testing and Soil test based fertilizers usage in major crops	Ge	Soil and water testing	3	on	25	-	25				25	-	25
12	29.12.14	EF	Preparation of organic inputs viz. CPP compost, vermicompost, NADEP compost, Panchagavya Amruthapani etc	Soil Science	Production of Organic inputs	3	On	25	-	25	-	-	-	25		25
			Total:					50	-	50	-	-	-	50	-	50
			sub Total:					<b>267</b>		267	52		52	319		319

### Horticulture:

S.	Date	Clintele	Title	Discipli	Thematic	Dura	Venue				No. of	Part	icipant	S		
No				ne	area	tion		No	. of Oth	ners		SC/S	T		Tota	
						(day		M	F	Т	M	F	T	M	F	T
						s)										
1	21-05-14	PF	Package practices for	Horticul	ICM	1	Off	14	-	14	5	-	5	19	-	19
			cultivation of chrysanthemum	ture												
2	21-06-14	PF	Management of mango	-do-	Training &	1	Off	22	-	22	10	-	10	32	-	32
			orchards after harvest		Pruning											
3	13-08-14	PF	Package of practices for	-do-	ICM	1	Off	18	-	18	6	-	6	24	-	24
			cultivation of Chilli													
4	12-09-14	PF	Package of practices for	-do-	INM	1	On	15	-	15	3	-	3	18	-	18
			cultivation of Jasmine													
5	8-10-14	PF	Package of practices for	-do-	ICM	1	Off	12	-	12	5	-	5	17	-	17
			cultivation of sweet orange													
6	07-11-14	PF	Cultivation of Tissue culture	-do-	ICM	1	On	42	-	42	23	-	23	65	-	65
			Banana													
7	23-01-15	PF	Package of practices for	-do-	ICM	1	Off	9	-	9	3	-	3	12	-	12
			cultivation of papaya													
8	03.02.15	PF	Integrated pest management in	-do-	ICM	1	Off	22	-	22	2	-	2	24	-	24
			Mango													
			Total			8		154		154	57		57	211		211
	youth:															
11	13-01-15	RY	Vegetable nursery cultivation	-do-	Nursery	2	On	14	-	14	4	-	4	18	-	18
			in portrays under shade net													
Gran	d TOTAL					10		168	-	168	61	-	61	229	-	229

### **Animal Husbandry:**

Date	Clientele	Title of the training programme	Discipline	Thematic	Duration	Venue (Off / On			ther ants		mbe				nber pants
				area	in days	Campus)	M	F	T	M	F	'т	M M	F	T
15.04.14	PFM	Mitigation of heat stress in dairy animals	АН	Dairy management	1	Off	13	-	13	7	-	7	20	-	20
14.06.14	PFM	Round the year fodder production	-do-	Fodder management	1	Off	14	-	14	6	-	6	20	-	20
16.06.14	PFM	Cultivation practices of fodder during Kharif	-do-	Fodder management	1	Off	11	-	11	9	-	9	20	-	20
21.07.14	PFM	Reproductive problems in milch animals		Disease Management	1	Off	15	-	15	6	-	6	21	-	21
13.08.14	PFM	Cultivation of different fodder crops and round the year fodder production	-do-	Feed Management	1	Off	16	-	16	4	-	4	20	-	20
11.09.14 & 12.09.14	EF	Hydroponic Fodder Production	-do-	Feed Management	2	On	9	5	14	3	3	6	12	8	20
15.10.14	PFM	Reproduction disorders and improvement of reproduction efficiency in milch animals	-do-	Dairy management	1	Off	15	-	15	5	-	5	20	-	20
12.11.14	PFM	Milk improvement technologies	-do-	Feed management	1	On	18	-	18	12	-	12	30	-	30
6.12.14	PFM	Clean milk production	-do-	Dairy management	1	Off	15	-	15	5	-	5	20	-	20
07.01.15	PFM	Utilization of agricultural by products as cattle feed	-do-	Feed management	1	Off	14	-	14	6	-	6	20	-	20
23.02.15	PFM	Preservation of green fodder	-do-	Feed management	1	On	17	-	17	8	-	8	25	-	25
		Sub Total			12		157	5	162	71	3	74	228	8	236

### **Home Science:**

Date	Clientele	Title of the training programme	Discipline	Thematic area	Duration in days	Venue (Off / On Campus)	Num of of partic	ther cipan	Nu	mber	of SC/	/ST		al num articip	nber of eants
							M	F	Т	M	F	Т	M	F	Т
23.7.14	PFF	Training Programme nutritional deficiency disorders among pregnant and lactating mothers	Home Science	Design and development of low/minimum cost diet	1	Off	-	18	18	-	12	12	-	30	30
24.7.14	PFF	Importance of raising of homestead nutrition gardens	-do-	Household food security by kitchen gardening	1	Off	-	16	16	-	14	14	-	30	30
11.8.14 to 12.8.14	PFF	Awareness programme on value added with millets	-do-	Value addition	2	On	-	19	19	-	6	6	-	25	25
13.8.14to 14.8.14	PFF	Training on drudgery reducing implements	-do-	Location specific drudgery reducing implements	1	On	-	21	21	-	4	4	-	25	25
19.9.14	PFF	Preparation of value added products with tomato	-do-	Value addition	1	Off	-	19	19	-	9	9	-	28	28
26.9.14	PFF	Importance of raising of homestead nutrition gardens	-do-	Household food security by kitchen gardening	1	Off	-	35	35	-	12	12	-	47	47
5.12.14	PFF	Training on preparation of masala powders as IG Activity	-do-	IG Activities for empowerment of rural families	1	Off	-	23	23	-	12	12	-	35	35
6.12.14	PFF	Importance of adolescent and child nutrition	-do-	Design and development of low/minimum cost diet	1	Off	-	13	13	-	22	22	-	35	35

4.4.14	RYF	Training on soft skills development for Ag.girls	-do-	Women and child care	1	On	-	11	11	-	19	19		30	30
10.9.14to 9.12.14	RYF	Vocational Skill training on tailoring(Basic&Advanced)	-do-	IG Activities for empowerment of rural families	90	Off	-	18	18	-	8	8	-	26	26
8.12.14to16 .12.14	RYF	Vocational Skill training on Quilt bag making	-do-	IG Activities for empowerment of rural families	9	Off	-	17	17	-	6	6	-	23	23
17.12.14 to 26.12.14	RYF	Vocational Skill training on fabric painting	-do-	IG Activities for empowerment of rural families	10	Off	-	14	14	-	8	8	-	22	22
23.12.14 to4.1.15	RYF	Long Duration Vocational Skill Training Programme on Maggam embroidery works	-do-	IG Activities for empowerment of rural families	12	Off	-	22	22	-	6	6	-	28	28
20.1.15 to 30.1.15	RYF	Vocational skill training programme on Fabric Painting	-do-	IG Activities for empowerment of rural families	10	Off	-	22	22	-	6	6	-	28	28
31.1.15 to3.2.15	RYF	Vocational skill training programme on handmade paper bag making	-do-	IG Activities for empowerment of rural families	4	Off	-	22	22	-	6	6	-	28	28
2.7.14 to3.7.14	EFF	Capsule Trg.Prog.on preschool creative activities,Preparation of PSe materials and value added products with millets	-do-	Women andchildcare	1	On	-	9	9	-	4	4	-	13	13
		TOTAL:			147			299	299		154	154		453	453

## D) Vocational training programmes for Rural Youth:

## **Discipline :Home Science**

Crop /	Date	Training title*	Identified	Duration	No. o	of Participa	ants	Self e	mployed afte	r training	Number of
Enterprise			Thrust Area	(days)	Male	Female	Tot al	Type of units	Number of units	Number of persons employed	persons employed else where
Women Empowerment	10.9.14 to 9.12.14	Long Duration Vocational Skill Training Programme on Tailoring as I.G.Activity	I.G Activity	90	-	26	26	Individual	20	20	2
	8.12.14 to 16.12.14	Vocational skill training programme on quilt bag making	I.G Activity	9	-	17	17	Individual	8	8	3
Women Empowerment	17.12.14 to 26.12.14	Vocational skill training programme on Fabric Painting	I.G Activity	10	-	22	22	Individual	18	16	3
Women Empowerment	23.12.14 to 4.1.15	Training Programme on Maggam embroidery works	I.G Activity	12	-	28	28	Individual	7	7	2
Women Empowerment	31.1.15 to 3.2.15	Training Programme on handmade paperbag making	I.G Activity	4	-	28	28	Individual	8	8	2

## **E. Sponsored Training Programmes :**

### **Agronomy:**

S.	Date	Title		Themati	Duratio	Client	No.o				No. o	f Pa	rticip	ants			Sponsor	Amoun
No			Disci pline	c area	n (days)	(PF/RY/EF )	f cour ses	C	Othe	ers	S	SC/S	т		Tota	I	ing Agency	t of fund receive d (Rs.)
								M	F	Т	M	F	Т	M	F	Т	_	
1	12-11- 2014	Improved production technologie s in Rice, Groundnut, Sunflower, Maize and Redgram.	Agronom y		2	EF	1	25	-	25	5	-	5	30	-	30	NFCL	
2	18-1- 2015\218 -1-2015	Seteria production technom	Agronom y		1	PFM	2	73	-	73	10	-	10	83	-	83	Dept Agrl	
		Total:			3		3	98	-	98	15	-	15	113	-	113		

### **Plant Protection**

S.	Date	Title			Duration	Client	No.of			N	lo. o	f Par	ticip	ants			Sponsoring	Amount of
No			Discipline	iatic area	(days)	(PF/RY/EF)	courses	C	the	ers		SC/S	Т		Tota	I	Agency	fund received (Rs.)
			Dis	Thematic				M	F	Т	M	F	Т	M	F	Т		
1	5.9.14	Management of Pests and Diseases in groundnut, redgram and cotton	Plant Protection	IPM	1	PF	1	12	-	12	2	-	2	14	-	14	Dept. of Agriculture	-
2	15.12.14	Organic farming for sustaining agriculture	Plar	Organic farming	1	RY	1	48	-	48	12	-	12	60	-	60	Govt. degree college.	-
3	09.03.15	Non Chemical pest and disease management options in agriculture		Biocontrol	1	PF	1	29	-	29	5	-	5	34		34	FTC, Nandyal	
		Total					3	89	-	89	19	-	19	108	-	108		

### **Home Science**

S.	Date	Title	Discipline	Thematic	Client	No.			No	. of F	Parti	cipa	nts			Sponsoring Agency	Amount
No				area	(PF/	of		Othe	r	S	C/S	T		Tota	l		of
					RY/ EF)	Courses	M	F	Т	M	F	Т	M	F	Т	-	fund received (Rs)
1-3	17.12.14 to3.2.15	Vocational skill training programme on fabric painting, maggam embroidery works and hand made paper bag making	Home Science	IG Activty for women	RYF	3	-	22	22	-	6	6	-	28	28	SVB Govt.Degree College,Koilakuntla	58,300/-
		Total				3	-	22	22	-	6	6	-	28	28		

## 3.4. Extension Activities (including activities of FLD programmes):

S.	Nature of	Purpose/	No. of						Partici	pants					
No.	<b>Extension Activity</b>	topic and	activiti	Fari	mers (Ot	hers)	SC	/ST (Farn	ners)	Exte	nsion O	fficials	(	Grand Tot	tal
		Date	es		(1)			(II)			(III)			(1+11+111)	1
				M	F	Total	M	F	Total	M	F	Total	M	F	Total
1	Field Day	STCR in rice	1	44	12	56	5	2	7	1	-	1	50	14	64
3	Kisan Mela														
4	Kisan Ghosthi														
5	Farmer-scientist		2												86
6	interaction meet	A.I	2												
6	Exhibition	All activities	2												40-
7	Film Show	Nutrition	4	-	74	74	-	53	53	-	-	-	-	127	127
8	Method		9	58	=	58	11	-	11	4	-	4	73	-	73
	Demonstrations														
9	Farmers Seminar														
10	Workshop														
11	Group meetings		23												465
12	Lectures delivered as resource persons	All disciplines	32												750
13	Newspaper	discipilites	9												
13	coverage		,												
14	Radio talks	Various	12												
		aspects													
15	TV talks		2												
16	Popular articles		3												
17	<b>Extension Literature</b>		4												
18	<b>Advisory Services</b>														
19	Scientific visit to farmers field		130	929											929

S.	Nature of Extension	Purpose/	No. of						Partio	ipants					
No.	Activity	topic and Date	activities	Farn	ners (O	thers)	SC/	ST (Fari	mers)	Exte	nsion C	Officials	G	rand Tot	tal
					(1)			(II)			(III)			(1+11+111)	
				M	F	Total	M	F	Total	M	F	Total	M	F	Total
20	Diagnostic visits		26												336
21	Farmers visit to KVK		1810												1810
22	Exposure visits		2												48
23	Ex-trainees Sammelan														
24	Soil health Camp		4												220
25	Animal Health Camp		5												130
26	Agri. mobile SMS		104										1545	906	2451
27	Soil test campaigns		8												450
28	ICAR foundation day	ICAR	1	120	35	155	32	8	40	8	3	11	128	38	166
		foundation day													
		16-7 -2014													
29	Self Help Group														
	Conveners meetings														
	Celebration of		1	45	58	103	13	39	52	2	5	7	60	102	162
	important days														
	(specify)														
	1.World Food Day														
31	2.International		-	-	-	-	-	-	-	-	-	-	-	-	-
	Womens Day														
	3.National Nutrition		1	-	105	105	-	75	75	-	20	20	-	200	200
	Week														
32	Homestead nutritional		378	-	215	215	-	109	109	-	54	54	-	378	378
	gardens														
	Total:		2572												8481

### 3.5 (A). Kisan Mobile Advisory Services

No. of registered farmers of KVK : 1545

### Details of Kisan Mobile Advisory Services from 01.04.14 to 31.03.15 (AGRICULTURE)

Major	Category	Crop/	Thematic	Date	Message					Numb	er of	Farme	ers			
Group		Enter	Area			gs		Other	'S		SC/S	T		Total		ses
		pirse				No. of msgs	M	F	Т	M	F	Т	M	F	Т	Responses
Agriculture	Comm. Crops	Bt Cotton	IPM	13-05-14	KVK,Banaganapalle: Bt pattilo rasampeelchu purugula nivaranaku Mono (1:4 dilution) leda Imidacloprid (1:20 dilution) tho, kandaaniki poothagaa pooyaali.	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Field crops	Rice, Castor	Gen	20.05.14	KVK, Banaganapalle: Vari BPT 5204 (F/S) – Rs.900/- per 30 kg bag, BPT 5204 (C/S) – Rs. 850/- per 30 kg bag, Amudam PCH 111 – Rs.500/- per 2 kg prakaram villanaalu andubaatulo vunnavi. Vivaralaku 9440739378 nu sampradinchagalaru.	1	1480	-	1480	65	-	65	1545	-	1545	36
Agriculture	Cereals	Bt Cotton	IPM	06-06-14	KVK,Banaganapalle: Bt pattilo rasampeelchu purugula nivaranaku 20-35, 50-65 rojulaku Mono (1:4 dilution) leda Imidacloprid (1:20 dilution) tho, kandaaniki poothagaa pooyaali.	1	1480	-	1480	65	-	65	1545	-	1545	15
Agriculture	Pulses	Rice	IPM	10.06.14	KVK, Banaganapalle : Varilo aggi tegulu raakunda Psudomonas 10g/kg vittananiki kalipi vittana shuddi chesukovali.	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Comm. Crops	Bengalgr am	IPM	17-06-14	KVK,Banaganapalle : Aamudam, kandi lo endu tegulu rakunda T.Viridini 8g/kg vittananiki kalipi vittana shuddi chesukovali.	1	1480	-	1480	65	-	65	1545	-	1545	15
Agriculture	Field crops	Bt Cotton	IPM	24.06.14	KVK,Banaganapalle: Bt pattilo rasampeelchu purugula nivaranaku 20-35, 50-65 rojulaku Mono (1:4 dilution) leda Imidacloprid (1:20 dilution) tho, kandaaniki poothagaa pooyaali.	1	1480	-	1480	65	-	65	1545	-	1545	20

Agriculture	Cereals	Rice	IDM	08-07-14	KVK,Banaganapalle : Varilo Pseudomonas 10g/kg vittanaaniki kalipi vittanasuddi chesukuni, naaru posukunnatlaithe Aggitegulu, podategulla bari	1	1480	-	1480	65	-	65	1545	-	1545	10
					nundi pairunu kaapadavacchu											
Agriculture	Comm. crops	Bt Cotton	IPM	15.07.14	KVK,Banaganapalle: Bt pattilo rasampeelchu purugula nivaranaku 20,35,50 mariyu 65 rojulaku Mono (1:4 dilution) leda Imidacloprid (1:20 dilution) tho, kandaaniki poothagaa pooyaali	1	1480	-	1480	65	-	65	1545	-	1545	18
Agriculture	Comm. Crops	Field crops	IDM	18-07-14	KVK,Banaganapalle : Aamudam, kandi lo endu tegulu rakunda, verusanagalo masitegulu raakundaa T.Viridi 8g/kg vittananiki kalipi vittana shuddi chesukovali.	1	1480	-	1480	65	-	65	1545	-	1545	13
Agriculture	Field crops	Redgra m, Castor	Crop Production	25.07.14	KVK, Banaganapalle : Ippudu Kandi, amudam pairlu naatukune raithulu varusala Madhya yedam thagginchi naatukovali.	1	1480	-	1480	65	-	65	1545	-	1545	16
Agriculture	Cereals	Rice	ICM	08-08-14	KVK,Banaganapalle : Varilo zink lopam savarinchutaku yekaraniki 20 kilola ZnSO4 dukkilo vesukovali.	1	1480	-	1480	65	-	65	1545	-	1545	8
Agriculture	Comm. crops	Bt Cotton	IPM	15.08.14	. KVK,Banaganapalle : Bt pattilo rasampeelchu purugula nivaranaku 20,35,50 mariyu 65 rojulaku Mono (1:4 dilution) leda Imidacloprid (1:20 dilution) tho, kandaaniki poothagaa pooyaali	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Field crops	Redgra m, Castor	ICM	22-08-14	KVK,Banaganapalle : Kandi, amukam, mokkajonnalo bettanundi pairunu kaapadadaniki KNO3 1% dravanaanni, pichikaari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	10
Agriculture	Cereals	Rice	ICM	26.08.14	KVK, Banaganapalle : Naatukinda varilo yekaraaku 75 kilola DAP, 50 kilola Urea mariyu 25 kilola MOP yeruvulanu challaali.	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Cereals	Rice	INM	09.09.14	KVK, Banaganapalle: Vari naatina 30 rojulalopu yekaraaku 2 kilola PSB, 2 kilola Azospirillum lanu 20 kilola vepa pindi leda compost yeruvutho kalipi challithe, bhasvaram mariyu natrajani pantaku andubaatuloki vasthundi mariyu paipatugaa vese bhasvaram, natrajani yeruvulanu thagginchi vaadukovacchu	1	1480	-	1480	65	-	65	1545	-	1545	10
Agriculture	Cereals	Rice	ICM	12.09.14	KVK,Banaganapalle: Varilo paipatugaa vese Urea tho, prathi 50 kilolaku, 10 kilola choppuna Vepa pindini kalipi challina, Natrajani poorthigaa pantaku viniyogam loki vasthundi mariyu pairunu aasinche purugu, tegullu kooda niyantranaloo vuntaayi	1	1480	-	1480	65	-	65	1545	-	1545	15

Agriculture	Weather	Forecas		16.09.14	Kurnool jillaalo raabovu 5 rojullo 10-13 mm	1	1480	_	1480	65	_	65	1545	_	1545	16
, 18.10a.ta. c	Troutine.	t		20.03.2	varsham pade avakasam vundi.Vushnogratalu 29- 32 degreelugaa namodu kaavacchu	_	2.00		2.00				20.0		25 .5	
Agriculture	Comm. Crops	Bt cotton	IPM	18.09.14	KVK,Banaganapalle: Bt pattilo Pacchadoma, Jeeda, Mudatha nivaranaku vittina 40, 60 rojulalo Mono 1:4 leda Imida 1:20 nishpattilo neetitho kalipi, patti mokka kaandaaniki, poothagaa pooyaali	1	1480	-	1480	65	-	65	1545	-	1545	15
Agriculture	Millets	Jowar	ICM	18.09.14	Jonna vittina 48 gantala lopu Atrazine 4g/lt prakaram neetitho kalipi, polamanthaa thadichela pichikaari chesina yedala Jonna Malle mariyu ithara Kalupu mokkalanu samarthavanthangaa nivarinchavacchu	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Weather	Forecas t		19.9.14	Rabovu 5 rojullo Thelikapaati vaanalu (5-10 mm) pade suchanalu kalavu. Pagati vushnograthalu 29- 31 degree celcius gaa mariyu raathri vushnograthalu 20-23 degree celcius gaa namodu kaavacchu. AICRPAM-NICRA	1	1480	-	1480	65	-	65	1545	-	1545	10
Agriculture	Cereals	Rice	INM	19.9.14	Jillalo varilo akkadakkadaa zinc lopam kanipisthondi. Nivaranaku Zinc sulphate 2g/lt neetiki prakaram kalipi, pairanthaa thadichelaa 5 rojula vyavadhilo 2 saarlu pichikaari cheyyaali.	1	1480	-	1480	65	-	65	1545	-	1545	8
Agriculture	Oilseeds/C ereals	Castor/ Maize	IDM/IPM	20.9.14	1)Prasthutha vaathavaranamlo Gela vese dasalo vunna AAMUDAM lo BOOJU TEGULU aasinche avakaasam vundi. Nivaranaku CARBENDAZIM 1g/lt neetiki prakaram, gelalu thadichela pichikari cheyyali. 2)MOKKAJONNA lo akkadakkada KANDAM TOLCHU PURUGU asinchindi. Nivaranaku CARBOFURON 3 kilolu 1 yekaraaku choppuna sudulalo veyyali	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Cereals/Mi llets/Com m.Crops	Rice/Jo war/Bt cotton	INM	20.9.14	1)Varshadhara Jonnaku chivari dukkilo yekaraku 35 kg DAP, 10 kg Urea, 20 kg Potash veyali. 2) Bt Patthi naatina 45 rojulaku, Megnesium Sulphate 1 lt neetiki 10 gramula choppuna kalipi pichikari cheyyali. 3)Varilo paipaatuga yekaraaku 50 kg Urea, 10 kg Vepa Chekka kalipi challaali. Complex yeruvulu paipatugaa veyaraadu.	1	1480	-	1480	65	-	65	1545	-	1545	10
Agriculture	Cereals	Rice	IDM	22.9.14	Mabbulatho koodina varsham, gaalilo thema adhikangaa vunna prasthutha paristhithullo VARI lo PAAMUPODA thegulu soke avakasam vundi. Tegulu gamaninchinatlaithe nivaaranaku Propiconazole 1 ml leda Validamycin 1 ml 1 leetaru neetiki prakaram kalipi pairanthaa thadichela pichikaari cheyyali	1	1480	-	1480	65	-	65	1545	-	1545	8

Agriculture	Weather	Forecas		23.9.14	Raabovu 5 rojullo thelikapati vaanalu (8-15mm) pade avakasam vundi. Pagati vushnograthalu 30-31	1	1480	-	1480	65	-	65	1545	-	1545	10
					degree celcius mariyu raathri vushnograthalu 23-24 degree celcius gaa namodu kaavacchu.											
Agriculture	Cereals	Rice	IDM	25.9.14	Jillalo akkadakkada Varilo Bacteria Yendu Tegulu (BLB/BLS) kanipisthondi. Nivaaranaku 20% Aavu peda draavanam leda Streptomycin + Tetracycline 120 g and COC 500 g/ac prakaram pichikaari cheyyaali	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Cereals	Rice	IDM	26.09.14	KVK, Banaganapalle : Jillalo akkadakkada Varilo Bacteria Yendu Tegulu (BLB/BLS) kanipisthondi. Nivaaranaku 20% Aavu peda draavanam leda Streptomycin + Tetracycline 120 g and COC 500 g/ac prakaram pichikaari cheyyaali	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Millets	Jowar	IPM	29.09.14	KVK,Banaganapalle: Jillalo iteevala vittina jonnalo movvu champu eega nu gamaninchadamainadi. Deeni nivaranaku Monocrotophos @ 1.6 ml/lt leda Thiodicarb @ 1.25 g/lt leda Acephate @ 1.5g/lt neetiki kapili pairantha thadichela pichikaari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	17
Agriculture	Pulses	Bengalg ram	IDM	09.10.14	KVK,Banaganapalle: Shanagalo yendu tegulu, veru kullu tegulla nivaaranaku 1 kilo vittanaaniki 10 gramula Trichoderma leda 2 gramula Carbendazim leda Benlate mandunu kalipi, vittukovaali. Vittanasuddi thappaka aacharinchaali.	1	1480	-	1480	65	-	65	1545	-	1545	18
Agriculture	Cereals	Rice	IPM	15.10.14	KVK,Banaganapalle : Varilo aakunalli aasinchi eenela Madhya pasupuranguku maaradam gamaninchadam jarigindi. Nivaranaku Profenophos @ 2 ml/lt neetiki prakaram kalipi, pairanthaa thadichela pichikaari cheyyaali.	1	1480	-	1480	65	-	65	1545	-	1545	14
Agriculture	Cereals	Rice	IPM	19.10.14	KVK,Banaganapalle: Mundugaa naatina vari pairulo akkadakkada sudi doma, pamu poda tegulu aasinchindi. Nivaranaku Ethofenprox @ 2 ml mariyu Propiconazole @ 1 ml/lt neetiki kalipi, pairu modalu varaku thadichela pichikaari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	19
Agriculture	Comm. Crops	Bt cotton	IPM	07.11.14	Bt pattilo Pindinalli mariyu, aaku yerrabaaradam nivaaranaku, Profenophos @ 3 ml/lt +MgSO4 @ 10g/lt neetiki kalipi pairu thadichela pichikari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	15
Agriculture	Oilseeds	Castor	IDM	11.11.14	Gela vese dasalo vunna AAMUDAM lo BOOJU TEGULU aasinchindi. Nivaranaku CARBENDAZIM 1g/lt neetiki prakaram, gelalu thadichela pichikari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	12

				TOTAL:	pichikaari cheyyaali.	45	66600	0	66600	2925	0	2925	69525	0	69525	580
Agriculture	Vegatables	Onion	IPM	24.3.15	2g/lt prakaram kalipi pichikaari cheyyali. Vullilo thamarapurugula nivaranaku Fipronil @ 2 ml/lt prakaram sticker kalipi pairu thadichela	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Cereals	Rice	INM	10.3.15	Varilo akkadakkada kandam tolchu purugu aasinchindi. Nivaranaku Cartap Hydrachloride @	1	1480	-	1480	65	-	65	1545	-	1545	17
Agriculture	Cereals	Maize	IPM	27.2.15	gulikalanu yekaraaniki 8 kilola prakaram challaali. Mokkajonnalo kandam tolchu purugu aasinchindi. Nivaranaku, Carbofuran 3G gulikalanu yekaraaniki 5 kilola choppuna, sudulalo veyyaali.	1	1480	-	1480	65	-	65	1545	-	1545	9
Agriculture	Cereals	Rice	IPM	24.2.15	Varilo akkadakkada kandam tolchu purugu aasinchindi. Nivaranaku Cartap Hydrochloride 4G	1	1480	-	1480	65	-	65	1545	-	1545	10
Agriculture	Cereals	Rice	INM	12.2.15	pichikari cheyyali. Varilo Zinc lopam gamanichadamainadi. Nivaranaku ZnSO4, 2g/lt neetiki prakaram pichikaari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	11
Agriculture	Oilseeds	G.nut	IPM	9.1.15	Rabi verusanagalo laddepurugu nivaranaku Thiodicarb @ 1.25g/lt neetiki prakaram kalipi,	1	1480	-	1480	65	-	65	1545	-	1545	4
Agriculture	Cereals	Rice	IPM	06.1.15	pichikari cheyyali. Varilo aggitegulu nivaranaku naru natukone mundu Pseudomonas dravanamlo munchi naataali.	1	1480	-	1480	65	-	65	1545	-	1545	9
Agriculture	Oilseeds	G.nut	IPM	12.12.14	kalipi pichikari cheyyali. Rabi verusanagalo laddepurugu nivaranaku Thiodicarb @ 1.25g/lt neetiki prakaram kalipi,	1	1480	-	1480	65	-	65	1545	-	1545	8
Agriculture	Cereals	Rice	IPM	05.12.14	Tricyclazole @ 0.6g/lt prakaram neetitho kalipi, pairantha thadichela pichikaari cheyyali. Varilo aggitegulu nivaranaku Isoprothiolane @ 1.5 ml/lt leda Tricyclazole @ 0.6g/lt neetiki prakaram	1	1480	-	1480	65	-	65	1545	-	1545	16
Agriculture	Cereals	Rice	IDM	25.11.14	thadichela pichikaari cheyyali. Varilo Aggi Tegulu, Meda virupu tegulla Nivaaranaku Isoprothiolane @ 2 ml/lt leda	1	1480	-	1480	65	-	65	1545	-	1545	12
Agriculture	Cereals	Rice	IPM	18.11.14	varilo akumudatha nivaranaku, thaadunu pairupai laagi, Chlorpyriphos @ 2.5 ml/lt neetiki kalipi pairu	1	1480	-	1480	65	-	65	1545	-	1545	8
Agriculture	Cereals	Rice	INM	14.11.14	Alasyangaa naatina Vari pairulo akkadakkada Zinc lopam kanipisthondi. Nivaranaku ZnSO4 @ 2g/lt neetiki prakaram kalipi, varam vyavadhilo 2 saarlu	1	1480	-	1480	65	-	65	1545	-	1545	10

#### HORTICULTURE

Major	Category	Crop/	Thematic	Date	Message				N	lumbe	r of	Farme	rs			
Group		Enterp	Area			ges		Othe	rs	9	SC/S	T		Total		S
		irse				No. of messages	M	F	Tot	M	F	Tot	M	F	Tot	Responses
Horticulture	Spices	Chillis	IPM	24.9.14	Mirapalo paimudatha nivaaranaku Fipronil 2 ml/lt neetiki leda Pegassus 1.5 g/lt neetiki kalipi pichikaari cheyyaali. Leda mirapa naatina 15 va mariyu 45 va rooju Fipronil 0.3% gulikalu yekaraaniki 8 kilola choppuna bhoomilo thaginantha thema vunnapudu challadam dwaaraa koodaa nivarinchukovacchu	1	1480	-	1480	65	-	65	1545	-	1545	10
Horticulture	Spices	Chillis	IPM	21.11.14	Mirapalo paimudatha nivaaranaku Fipronil 2 ml/lt neetiki leda Pegassus 1.5 g/lt neetiki kalipi pichikaari cheyyaali.	1	1480	-	1480	65	-	65	1545	-	1545	10
Horticulture	Spices	Chillis	IPM	19.12.14	Mirapalo paimudatha nivaaranaku Fipronil 2 ml/lt neetiki leda Difenthiuron 1.5 g/lt neetiki kalipi pichikaari cheyyaali.	1	1480	-	1480	65	-	65	1545	-	1545	24
Horticulture	Spices	Chillis	IDM	23.12.14	Mirapalo boodida tegulu nivaranaku Karathane @ 1 ml/lt leda Calixin @ 1.5 ml/lt neetiki kalipi pichikari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	18
Horticulture	Spices	Chillis	IPM	20.1.15	Mirapalo boodida tegulu nivaranaku Karathane @ 1 ml/lt leda Calixin @ 1.5 ml/lt leda Azoxystrobin @ 1 ml/lt neetiki kalipi pichikari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	13
Horticulture	Fruits	Mango	IDM	23.1.15	Mamidilo tenemanchu purgu mariyu boodida tegulu asinchakundaa Imidacloprid @ 0.5 ml/lt mariyu Wettable Sulphur @ 3 g/lt neetiki prakaram kalipi pichikari cheyyali	1	1480	-	1480	65	-	65	1545	-	1545	6
Horticulture	Vegetables	Onion	IPM	20.2.15	Vullilo thamarapurugula nivaranaku Fipronil @ 2ml/l prakaram pichikaari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	5
Horticulture	Vegetables	Chillis	IPM	17.3.15	Mirapalo thamarapurugulu aasinchi aaku mudatha gamaninchadamainadi. Nivaranaku Fipronil @ 2 ml/lt leda Acetamaprid @ 0.3g/lt neetiki prakaram kalipi pairu baagaa thadichela pichikaari cheyyali.	1	1480	-	1480	65	-	65	1545	-	1545	6
				TOTAL:		8	11840		11840	520		520	12360		12360	92

#### **ANIMAL HUSBANDRY**

Major	Category	Crop/	Thematic	Date	Message				ľ	Numb	er of	Farmei	'S			
Group		Enterpirse	Area			ges		Others	S		SC/S	T		Total		S
						No. of messag	M	F	Tot	M	F	Tot	M	F	Tot	Response
Animal Husbandary	Small ruminants	Sheep	Dis.Mgmt	23.9.14	1) Gorrelaku chituku vyaadhi raakundaa ET teekalanu veyinchandi. 2) Gorrelu nilichi vunna varshapu neetini thragakundaa choodandi. Leniyedala Jalag Vyaadhi vacche avakasam vundi	1	1480	-	1480	65	-	65	1545	-	1545	12
			ТО	TAL:		1	1480	-	1480	65	-	65	1545	-	1545	12

#### **HOME SCIENCE**

Major	Category	Crop/	Thematic	Date	Message					Numl	er of I	armer	S			
Group		Enterpirse	Area			ges		Others			SC/S	Ī		Total		v
						No. of message	M	F	Tot	M	F	Tot	M	F	Tot	Response
Home	Nutrition	-	Nutrition	21.4.14	Minor millets are rich in fibre and low in	1	-	582	582	-	325	325	-	907	907	56
science	Education		Education		calories and they are good for diabetics, obese and for heart patients.											
Home	Nutrition		Nutrition	28.4.14	Minor millets are rich sources of	1		582	582	-	325	325	-	907	907	-
science	Education		education		iron,calcium and fibre They are good for children,pregnant and lactating mothers.											
Home	Nutrition	-	Nutrition	26.05.14	The mothers should give Colostrum soon	1	-	582	582	-	325	325	-	907	907	48
science	Education		Education		after delivery with in one hour for babies as it contains Vit.A, Proteins, anti infections.											
Home	Nutrition		Nutrition	31.05.14	Mothers milk should be given for children	1		582	582	-	325	325	-	907	907	-
science	Education		education		up to six months.											
			TO	ΓAL:		4	0	2328	2328	0	1300	1300	0	3628	3628	104

#### **WEATHER FORECAST**

Major	Category	Crop/	Thematic	Date	Message					Numb	er of	Farmer	S			
Group		Enterp	Area			ges		Others	S		SC/S	T		Total		v
		irse				No. of messages	M	F	Tot	M	F	Tot	M	F	Tot	Responses
Agriculture	weather	foreca st	Short term weather forecast	02-05-2014	(Agromet NICRA kvk yagantipalle) :-Meduiam rainfall ,TMAX 34-37 °c, T MIN 24-27 °c wind speed 20-22 k mph.	1	292	20	312	32	-	32	324	20	344	10
Agriculture	weather	foreca st	Short term weather forecast	06-05-2014	NICRA-KVK, chances of light Rainfall TMAX 36-38 $^{\circ c}$ , T MIN 25-27 $^{\circ c}$ wind speed 16-25 k mph .	1	292	20	312	32	-	32	324	20	344	8
Agriculture	weather	foreca st	Short term weather forecast	09-05-2014	NICRA-KVK, chances of light to medium rains for the next 3 days in Kurnool dist,TMAX 35-37 $^{\rm oc}$ , T MIN 23-25 $^{\rm oc}$ wind speed 7-14 k mph .	1	292	20	312	32	-	32	324	20	344	6
Agriculture	weather	foreca st	Short term weather forecast	13-05-2014	T MAX Temperatures will be increased for the next 5 days in Kurnool dist, T MAX 40-43 $^{\rm oc}$ , T MIN 24-25 $^{\rm oc}$ , wind speed 12-15 k mph . (Agromet NICRA kvk ypl.)	1	292	20	312	32	-	32	324	20	344	4
Agriculture	weather	foreca st	Short term weather forecast	20-05-2014	NICRA-KVK, Rainfall (10-12 mm) forecast for the next 3 days in Kurnool dist,TMAX 36-39 $^{\rm oc}$ , T MIN 25-27 $^{\rm oc}$ wind speed 19-24 k mph .	1	292	20	312	32	-	32	324	20	344	9
Agriculture	weather	foreca st	Short term weather forecast	27-05-2014	NICRA-KVK, Rainfall (3-5 mm) forecast for the next 3 days in Kurnool dist,TMAX 37-39 $^{\rm cc}$ , T MIN 25-28 $^{\rm cc}$ wind speed 14-22 k mph .	1	292	20	312	32	-	32	324	20	344	13

Agriculture	weather	foreca	Short	03-06-2014	(Agromet NICRA kvk yagantipalle) :-Chance of Medium rains for the next 5 days in Kurnool district	1	292	20	312	32	-	32	324	20	344	10
		st	term weather		,TMAX 34-37 °C, T MIN 24-27 °C wind speed 20-22 k											
			forecast		mph.											
Agriculture	weather	foreca	Short	06-06-2014	NICRA-KVK, chances of light Rainfall for the next 5	1	292	20	312	32	_	32	324	20	344	8
/ Griculture	weather	st	term		days in Kurnool district , TMAX 36-38 °C, T MIN 25-	-	232	20	312	32		32	324	20	344	Ü
			weather		27 °c wind speed 16-25 k mph.											
			forecast													
Agriculture	weather	foreca	Short	17-06-2014	NICRA-KVK, chances of light Rainfall forecast for	1	292	20	312	32	-	32	324	20	344	6
		st	term		the next 5 days in Kurnool district , TMAX 36-38 $^{\rm cc}$ , T MIN 24-25 $^{\rm cc}$ wind speed 21-25 k mph .											
			weather		Willy 24-25 Willia Speed 21-25 Killpii .											
			forecast													
Agriculture	weather	foreca	Short	20-06-2014	NICRA-KVK, light Rainfall forecast for the next 5days in Kurnool dt. TMAX 34-36 °C, T MIN 25-26 °C	1	292	20	312	32	-	32	324	20	344	4
		st	term .		wind speed 16-19 k mph .											
			weather													
A aniau Ituura		farasa	forecast	04-07-2014	(Agromet NICRA kvk yagantipalle) :- light rainfall	1	292	20	212	22		22	224	20	344	10
Agriculture	weather	foreca st	Short term	04 07 2014	forecast (4-5 mm) for the next 5 days in Kurnool	1	292	20	312	32	-	32	324	20	344	10
		St	weather		dist,TMAX 32-33 °C, T MIN 22-23 °C wind speed 8-11											
			forecast		k mph.											
Agriculture	weather	foreca	Short	08-07-2014	NICRA-KVK, chances of light drizzles forecast for	1	292	20	312	32	_	32	324	20	344	8
7.8		st	term		the next 3 days in Kurnool dist,TMAX 30-34 °c, T	_			011	0_		-	0	_0	•	Ü
			weather		MIN 23-25 $^{\circ c}$ wind speed 8-10 k mph .											
			forecast													
Agriculture	weather	foreca	Short	18-07-2014	Forecast of light rainfall for the next 5 days in	1	292	20	312	32	-	32	324	20	344	4
		st	term		Kurnool district . TMAX 28-30 $^{\rm cc}$ , T MIN 23-24 $^{\rm cc}$ wind speed 19-21 k mph .											
			weather		wild speed 13-21 k ilipii .											
			forecast													
Agriculture	weather	foreca	Short	22-07-2014	NICRA-KVK, chances of light rains 2-5 mm forecast for the next 3 days in Kurnool dist,TMAX 31-33 °c, T	1	292	20	312	32	-	32	324	20	344	9
		st	term		MIN 24-25 °C wind speed 19-24 k mph.											
			weather		·											
			forecast													

Agriculture	weather	foreca st	Short term weather	25-07-2014	NICRA-KVK, chances of light rains forecast for the next 3 days in Kurnool dist,TMAX 33-35 $^{\circ c}$ , T MIN 23-26 $^{\circ c}$ wind speed 14-22 k mph .	1	292	20	312	32	-	32	324	20	344	13
Agriculture	weather	foreca	forecast Short	01-08-2014	Forecast of light rainfall(1-7mm) for the next five	1	292	20	312	32	_	32	324	20	344	8
Agriculture	weather	st	term weather forecast		days in Kurnool dist. T max 30-32 oc T min 23-24 oc wind speed 17-19 kmph.	1	232	20	312	32	-	32	324	20	344	0
Agriculture	weather	foreca st	Short term weather	05-08-2014	Chances of light rains (5-8 mm) for the next five days in Kurnool dist. T max 30-33 oc wind speed 16-20 kmph.	1	292	20	312	32	-	32	324	20	344	8
Agriculture	weather	foreca st	forecast Short term weather forecast	08-08-2014	Chances of light drizzles (2-4 mm) for the next five days in Kurnool dist. T max 34-35 & T min 23-25 oc.	1	292	20	312	32	-	32	324	20	344	9
Agriculture	weather	foreca st	Short term weather forecast	13-08-2014	Chances of light rainfall (3-10 mm) for the next five days in kurnool dist. T max 30-35 & T min 22-25 oc. Increasing of wind speed around 19-21 kmph.	1	292	20	312	32	-	32	324	20	344	18
Agriculture	weather	foreca st	Short term weather forecast	20-08-2014	Chances of light to mediun rains (5-15mm) for the next five days in Kurnool dist. T max 30-32 & T min 22-24 oc. Wind speed 10-11 kmph.	1	292	20	312	32	-	32	324	20	344	13
Agriculture	Weather	Foreca st	Short term weatheer forecast	23-08-2014	Chances of light to medium rains (5-10 mm) for the next five days in Kurnool dist. T max 34-37 & T min 22-24 oc. Wind speed 9-15 kmph.	1	292	20	312	32	-	32	324	20	344	8
Agriculture	weather	foreca st	Short term weather forecast	19-09-2014	NICRA KVK,YPL Light rainfall (5-10 mm) forecast for the next 5 days in Kurnool district MAX Temp 29-31 oc and T Min temp 23-24 oc wind speed 12-17 kmph sky will be cloudy decrease in day temperatures	1	292	20	312	32	-	32	324	20	344	8
Agriculture	weather	foreca st	Short term weather forecast	23-09-2014	NICRA KVK,YPL Light rainfall (8-15 mm)Forecast for the next 5 days in Kurnool district, MAX Temp 30-31 oc and T Min temp 23-24 oc wind speed 10 -17 kmph sky will be cloudy.	1	292	20	312	32	-	32	324	20	344	15

Agriculture	Weather	Foreca st	Short term weatheer	26-09-2014	AGROMET, NICRA KVK,YPL Light rainfall (1-10 mm)Forecast for the next 5 days in Kurnool district, MAX Temp 31-33 oc and T Min temp 23-24 oc wind speed 5	1	292	20	312	32	-	32	324	20	344	18
Agriculture	weather	foreca st	forecast Short term weather forecast	07-10-2014	-8 kmph sky will be cloudy. AGROMET –NICRA KVK, YPL. Chances of Light rainfall forecast for the next 3 days in kurnool dts. T max (30-33) ocT min 19-23 oc wind speed15-19 kmph.	1	292	20	312	32	-	32	324	20	344	8
Agriculture	weather	foreca st	Short term weather forecast	17-10-2014	Agromet, NICRA KVK,YPL chances of Light rainfall Forecast for the next 3 days in Kurnool district, MAX Temp 30-33 oc and T Min temp 21-24 oc wind speed 10 -12 kmph sky will be cloudy.	1	292	20	312	32	-	32	324	20	344	6
Agriculture	weather	foreca st	Short term weather forecast	21-10-2014	NICRA KVK,YPL No rainfall forecast for the next 3 days in Kurnool district MAX Temp 32-34 oc and T Min temp 22-24 oc wind speed 6-8 kmph	1	292	20	312	32	-	32	324	20	344	2
Agriculture	weather	foreca st	Short term weather forecast	24-10-2014	NICRA KVK,YPL chances of Light rainfall (5-10 mm) forecast for the next 5 days in Kurnool district MAX Temp 31-33 oc and T Min temp 21-23 oc wind speed 6-9 kmph	1	292	20	312	32	-	32	324	20	344	10
Agriculture	Weather	Foreca st	Short term weatheer forecast	28-10-2014	NICRA KVK,YPL chances of Light rainfall (4-10 mm)Forecast for the next 5 days in Kurnool district, MAX Temp 27-29 oc and T Min temp 20-23 oc what Speed 5 company to the second to the	1	292	20	312	32	-	32	324	20	344	19
Agriculture	weather	foreca st	Short term weather forecast	04-11-2014	-8 kmph sky will be cloudy. Agromet-nicra-kvk,ypl. Chance of light rain fall forecast for the next 3 days in Kurnool district. t max 29-30 and t min 19-23 wind speed 6-8 kmph.	1	292	20	312	32	-	32	324	20	344	8
Agriculture	weather	foreca st	Short term weather forecast	07-11-2014	Chances of light rains (3-5mm) for the next 5 days in Kurnool district	1	292	20	312	32	-	32	324	20	344	10
Agriculture	weather	foreca st	Short term weather forecast	11-11-2014	Chances of light rains (3-15 mm) for the next 5 days in Kurnool district	1	292	20	312	32	-	32	324	20	344	14

Agriculture	weather	foreca st	Short term weather	18-11-2014	Forecast of no rainfall for the next 5 days in Kurnool distrct. t max 31-32 and t min 19-20 wind speed 5-6 kmph.	1	292	20	312	32	-	32	324	20	344	4
Agriculture	weather	foreca st	forecast Short term weather	21-11-2014	Agromet-nicra-kvk,ypl. No rainfall forecast forecast for the next 3 days in Kurnool district. Temperatures will be increased	1	292	20	312	32	-	32	324	20	344	15
Agriculture	Weather	Foreca st	forecast Short term weatheer forecast	25-11-2014	Agromet-nicra-kvk,ypl. Chance of light rain fall forecast for the next 3 days in Kurnool district. t max 29-32 and t min 21-23 wind speed 8-12 kmph.	1	292	20	312	32	-	32	324	20	344	16
Agriculture	Weather	Foreca st	Short term weatheer forecast	02-12-2014	Agromet-nicra-kvk,ypl. No rain fall forecast for the next 3 days in Kurnool district. t min temperatures will be range b/w 15-17 oc .	1	292	20	312	32	-	32	324	20	344	10
Agriculture	Weather	Foreca st	Short term weatheer forecast	16-12-2014	Agromet-nicra-kvk,ypl. Partly cloudy No rain fall forecast for the next 3 days in Kurnool district. t mini temperatures will be range b/w 15-17 oc .	1	292	20	312	32	-	32	324	20	344	08
Agriculture	Weather	Foreca st	Short term weatheer forecast	19-12-2014	Agromet-nicra-kvk,ypl. No rain fall forecast for the next 3 days in Kurnool district. t mini temperatures 28-29 oc .t max 17-19oc.	1	292	20	312	32	-	32	324	20	344	04
Agriculture	Weather	Foreca st	Short term weatheer forecast	02-01-2015	Agromet-nicra-kvk,ypl. Forecast of light dizzles for the next 5 days in Kurnool district. t max temperatures 27-29 oc t mini 20-23 oc.	1	292	20	312	32	-	32	324	20	344	06
Agriculture	Weather	Foreca st	Short term weatheer forecast	06-01-2015	Agromet-nicra-kvk,ypl. No rain fall forecast for the next 3 days in Kurnool district. t max 29-31 oc t mini 19-20 oc.	1	292	20	312	32	-	32	324	20	344	06
Agriculture	Weather	Foreca st	Short term weatheer forecast	23-01-2015	Agromet-nicra-kvk,ypl. No rain fall forecast for the next 3 days in Kurnool district. t max will be range b/w 30-31 oc t mini 15-18oc .	1	292	20	312	32	-	32	324	20	344	04

Agriculture	Weather	Foreca st	Short term	03-02-2015	Agromet-nicra-kvk,ypl. No rain fall forecast for the next 3 days in Kurnool district. t max will be	1	292	20	312	32	-	32	324	20	344	06
			weatheer forecast		range b/w 31-33 oc t mini 17-19 oc wind speed 8-10 kmph											
Agriculture	Weather	Foreca	Short	20-02-2015	Agromet-nicra-kvk,ypl. No rain fall forecast for	1	292	20	312	32	-	32	324	20	344	10
		st	term		the next 3 days in Kurnool district. t max 34-36 oc t min 17-20 oc .wind speed 8-12 kmph.											
			weatheer													
			forecast													
Agriculture	Weather	Foreca	Short	03-03-2015	Agromet-nicra-kvk,ypl. Forecast of light rains for the next 3 days in Kurnool district. t max	1	292	20	312	32	-	32	324	20	344	14
		st	term weatheer	Temperatures will be range b/w 32-33 oc t mini												
			forecast		22-23 oc. Wind speed 8-15 kmph											
Agriculture	Weather	Foreca	Short	31-3-2015	Agromet-nicra-kvk,ypl. Forecast of light rains for	1	292	20	312	32	_	32	324	20	344	04
7.6		st	term		the next 3 days in Kurnool district. t max	_			011	-		0_	0		• • • • • • • • • • • • • • • • • • • •	•
			weatheer		Temperatures will be range b/w 36-37 oc t mini 25-26 oc. Wind speed 10-15 kmph											
			forecast		25 26 60: Willia speed 26 25 killpil											
Agriculture	Weather	Foreca	Short	07-04-2015	Agromet-nicra-kvk,ypl. Chances of light rains for	1	292	20	312	32	-	32	324	20	344	14
		st	term		the next 3 days in Kurnool district. t max Temperatures will be range b/w 38-41 oc t mini											
			weatheer		24-26 oc. Wind speed 10-15 kmph.											
			forecast													
			Т	otal:		46	13432	920	14352	1472	0	1472	14904	920	15824	425

### (B) Details of SMSs:

Content category	No.of Messages	No.of Farmers	Feedback from farmers
Crop Production/ Crop Protection	45	1545	580
Livestock & Fisheries Advisory	1	1545	12
Weather Advisory	46	324	425
Market information			
Events Information			
Inputs availability			
Others (specify) Horticulture	8	1545	92
Homescience	4	3628	104
Total	104	8587	1213

# **3.5 Production and supply of Technological Products:**

#### **SEED MATERIALS**

Major group/	Crop	Variety	Quantity	Value (Rs)	Provided to
class			(Qtl.)		No of Farmers
Cereals	Paddy	NDLR-7	161.40	4,00,000-00	230
		BPT-5204	540.90	15,00,000-00	989
Millets	Setaria	Suryanandi	8.36	25,000-00	350
Oilseeds	Castor	PCH 111	2.38	40,000-00	50
Pulses	Redgram	LRG 41	2.52	25000-00	200
		ICPH-2740	4.42	40,000-00	

### **Summary**

S.No.	Major group/	Quantity (qtl.)	Value (Rs)	Provided to No of
	class			Farmers
1	Cereals	702.3	19,00,000-00	1219
2	Millets	8.36	25,000-00	350
3	Oilseeds	2.38	40,000-00	50
4	Pulses	6.94	82,000-00	200

#### **PLANTING MATERIALS**

Major group/class	Crop	Variety	Quantity	Value	Provided to No. of
			(Nos.)	(Rs.)	Farmers
FRUITS					
SPICES					
VEGETABLES					
	TOMATO	Hybrids	46,900	14,070	38
	BRINJAL	Poluru	50,100	15,030	12
	CHILLIS	Hybrids	6,43,600	1,93,080	45
	Others	-	43,100	12,930	13
			140,100	42,030	108

#### **SUMMARY**

SI. No.	Major group/class	Quantity	Value (Rs.)	Provided to
		(Nos.)		No. of Farmers
1	FRUITS			
2	VEGETABLES	7,83,000	2,35,110	108
3	SPICES			
4	FOREST SPECIES			
5	ORNAMENTAL CROPS			
6	PLANTATION CROPS			
7	OTHERS			
	TOTAL	7,83,700	2,35,110	108

#### **BIO PRODUCTS**

Major	Product Name Species		Quantity		Value (Rs.)	Provided
group/class			No	(kg)		to No. of Farmers
BIO PESTICIDES						
1	Pseudomonas	P.fluorescens	-	715	71,500-00	106
2	Trichoderma	T.viride	-	682	68,200-00	63
3	Neem powder	-	-	3691	61,500-00	14
BIO FERTILIZERS						
1	Phosphorus	-	-	199	9,950-00	18
	Solubulizing					
	Bacteria					
2	Azatobacter	Azatobacter	-	179	8,950-00	15
3	Azospirillum	Azospirillum	-	12	600-00	3
4	Vermicompost	Eudrilus eugini	-	104000	6,99,700-00	325
5	Earth worms	Eudrilus eugini	-	1477	2,33,733 00	
Total				109,478.00	220,700.00	544.00

#### **SUMMARY**

SI.	<b>Product Name</b>	Species	Quantity		Value (Rs.)	Provided
No.			Nos	(kg)		to No. of Farmers
1	BIOAGENTS					
2	BIO FERTILIZERS	-	-	104,390.00	19,500.00	361.00
3	BIO PESTICIDE	-	-	5,088.00	201,200.00	183.00

#### **LIVESTOCK**

Sl. No.	Туре	Breed	Qua	ntity	Value (Rs.)	Provided to No. of
			Nos	Kgs		Farmers
Cattle						
SHEEP AND GOAT	Ram lambs	Nellore brown	17	173	43,250.00	6
307	Ewes	Nellore brown	26	770	1,00,100.00	2
	Culled ewes	Nellore Brown	12	252	25,200.00	4
	Breeding Buck	Mahaboob nagar	1	25	5000.00	1
	Breeding Doe	Mahaboob nagar	1	21	3780.00	1
POULTRY	Backyard poultry	Rajasri	2800	-	1,82,000.00	185
FISHERIES						
Others (Specify)	Mineral mixture	-	-	433	30310.00	25
	Cattle feed Fodder cuttings	-	-	6900	86250.00 40000.00	35

#### **SUMMARY**

Cl	_		Quai	Quantity		Provided to No. of	
Sl. No.	Туре	Breed	Nos	Kgs	Value (Rs.)	Farmers	
1	CATTLE					_	
2	SHEEP	Nellore Brown	57	945	1,77,330.00	14	
3	POULTRY	Rajasri	2800	-	1,82,000.00	185	
4	FISHERIES						
5	OTHERS						
	TOTAL				3,59,330.00	199	

#### 3.6. Literature Developed/Published (with full title, author & reference)

- A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)
- B) Literature developed/published

#### 1. Brochures & Booklets developed:

- Rearing of Rajasri birds for additional income
- Chemical weed management in different crops
- Protection of Plant varieties and Farmers Rights.
- Production of Organic Inputs

#### 2. Articles and Scientific Publications:

An article entitled "A study on effect of sunflower heads supplemented feed on milk yield in milch buffaloes" published in International Journal on Agricultural Sciences 6 (1): 60-64, January-June 2015.

#### 3. Popular Articles

Hydroponic fodder	A.Krishnamurthy	Padipantalu (Saakshi),
production		13.06.14
Hydroponic fodder	A.Krishnamurthy	Pasunestham August'14
production at farmers level		pp.15-16

#### (C) Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme			Number
1	VCD	Cattle agricultur	Cattle feed from agricultural waste		100

#### 3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)

### 1. Gender Mainstreaming in Climate Change By Establishment of Bio-Gas Units - A Whole Village Approach:

### Introduction:

Krishi Vigyan Kendra adopted Yagantipalle village and survey was conducted in the village and it was found that nearly 80% of households are using fire wood in open chullahs. Cooking on open firewood again depends on the dietary pattern of the villagers i.e, for preparation of Jowar rotis which requires high flame. More than 50% of the households are having LPG Connections and the cost of LPG is Rs.550/- per cylinder. The households are having two to three milch animals. The dung is not properly utilized and disposed in their backyards which creates environmental in sanitation.

### Methodology:

Group discussion was conducted with the women folk of that village and they expressed that

Fetching of fire wood for long hours in hillocks and jungles induces drudgery i.e, body pains, scratches and injuries on hands and legs, thrustyness, dust on hair and majoring is social security problem, fearness towards LPG when they go out for farming activity and unaware of proper utilization of dung.

Krishi Vigyan Kendra, after discussion explained women about

importance of construction of Bio-gas units and its advantages vs health hazards and difficulties with open fire wood cooking. In the beginning six women came forward for construction. The advantages of Bio-Gas plants created awareness among farm women. 22 Bio-gas units were constructed during the period from 2012 to 2014 under NICRA Project.

**Impact:** After Construction and using of the units, the farm women are very happy and expressed that the bio-gas.,

- Reduced drudgery in searching of firewood and provides social security
- Improved their quality of life and helped them for using their leisure time, labour and freeing them for economic productivity.
- Reduced 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).



The dung is effectively utilizing for production of bio-gas and it produces quality compost of 10 tonnes/unit/year.

- The slurry from bio-gas units is using as organic manure in their farm in place of chemical fertilizers in turn reduces cost of cultivation.
- 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.
- It also improves the sanitary condition of back yard and its surroundings by disposal of plant and animal wastes.

### 2. Millet Processing Unit - A Success Story of SHG Women:

Sri Umamaheswara Self Help Group of Yagantiplle village 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. The Millet Processing Unit sanctioned to Krishi Vigyan Kendra under RKVY Millet Project of Acharya NG Ranga Agricultural University.

The women came forward for the unit establishment in their village. They constructed shed by hiring loan i.e, Rs 2.0 lakhs from Village organization. KVK behind the women group right from the



technical guidance in Fixation of machineries, unit registration, Training in products preparation, Sample analysis, Products registration with FSSAI, Advertisement of the products and also marketing for the millet products.

The products produced by the group are Seteria rice, sorghum flour, sorghum bold & fine

semolina, sorghum snacks, ragi flour, sorghum and seteria snack items. The women started their production with two qtls per month over a period of eight months geared their production from 80 to 100 qtls/month, with an net income of Rs. 6,000/- to 7,000/-. They also employed three women and paying Rs.100/day for 20 days in a month. They are selling products to departmental stores, Super markets at Nandyal, Kurnool, ANGRAU Foods, Hyderbad, Grovel Foods and Agro Products, Hyderabad.



These units subsequently promoted area, production and productivity of Sorghum and Seteria crops in the villages.

### 3. Millet Foods Centre:

Smt B. Lakshmi Devi W/o Sambasiva Reddy, a SHG women of Banaganapalle village with technical support from KVK, established "Millet Foods Centre" and supplying Sorghum Poridge, Ragi Poridge, Seteria Rice(Cooked) and Sorghum Rotis by taking orders through mobile phone. She is getting orders locally and also from nearby mandals. She also shown employment for another SHG women in assisting her in preparation and packing of the



cooked foods and paying Rs. 125/- per day for 20 days in a month. By establishing Millet Foods Centre, she is earning Rs. 3,300/- to 4,200/- per month as net income and she became popular in that area for Millet Foods.

### 4. Pickle Making Unit:

Smt K. Narayanamma W/o Veerachari a SHG women of Owk village with technical support from KVK, established "Shree Veerabrahmendra Swamy" Pickle Making Unit at Owk and preparing Tomato, Lemon, Ginger, Mango, Red Chillie, Gogu, Amla, Green Chillie pickles and selling locally and also in super markets, melas, and exhibitions @ Rs. 100/- per Kg. By establishing pickle making unit, she is earning Rs. 1,100/- to 1,400/- per month as net income.

# Introduction of crossbred cows to increase milk production in Yagantipalle village of Kurnoool District

Krishi Vigyan Kendra, Kurnool district of Andhra Pradesh adopted Yagantipalle to takeup various activities under NICRA project. The village has huge buffalo population of around 1200 non-descript buffaloes. The total milk production of the village during March 2012 was only 550lts per day. Several training programmes have organized and exposure visits were made by KVK



to create awareness towards rearing of crossbred cattle. As a beginning 10 farmers came forward and purchased 20 crossbred jersey cows during the month of April 2012 by utilizing Animal Husbandry department schemes. Fodder stem cuttings of APBN-1 and CO-4 improved varieties were supplied to the farmers from NICRA Fodder bank in the village.

Periodical animal health camps were organized to provide intensive health care by involving veterinary experts in the district. Other farmers came forward and purchased the crossbred cows. Due to introduction of crossbred cows, the milk production in the village increased to 2200 lts in the

month of January'13. The total crossbred cattle population is 176. The fodder area also increased to more than 50 acres.

Area specific mineral mixture was supplied under NICRA project to the cattle and buffaloes in the village to mitigate the mineral deficiency and to make them regular breeders. Due to this intervention 17% of animals have exhibited the heat and also





8.3% increase in milk yield was observed.

Calf registration programme was initiated in the village to reduce the calf mortality and the entire cross bred calves were covered under this programme. Vitamin and mineral supplementation was given upto 6 months age and also provided calf starter to boost the growth rate.

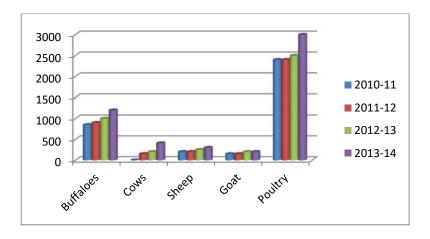


KVK play a key role in formation of Dairy Farmers cooperative society in the village. The private vendors and the other private dairies are not allowed in the village to collect the milk. The entire milk is supplying to Cooperative Dairy, Nandyal. Farmers have got additional bonus of Rs.2,30,000/within six months from the society. Community fodder

production has also taken up in 12 acres for which the seed was supplied from NICRA fodder bank. Now the village is the second highest milk producer in the district.

Impact of Livestock activities on growth of population and production at Yagantipalle

Livestock	2010-11	2011-12	2012-13	2013-14
Buffaloes	850	900	1000	1200
Cows	-	150	200	400
Sheep	200	200	250	300
Goat	150	150	200	200
Poultry	2400	2400	2500	3000
Milk Production/month	25000	30000	42000	51000



### 6. Calf registration and Healthy calf programme:

#### Introduction:

Dairy farming is the most sustainable livelihood to the farmers. Continuous growth in dairy sector in Kurnool district indicates the interest of the farmers towards this sector. Scientific rearing of dairy animals will keep the animals healthy as well as productive. Especially, calves are neglecting and are not offering proper medication and feeding. This resulting in poor growth rate and delayed maturity (4-5years). To educate the farmers towards scientific practices in calf rearing "Calf registration and healthy calf programme" was initiated during 2011-12 under NICRA project in Yagantipalle village.

### Methodology:

Initially two villages viz. Yagantipalle and Meerapuram of Banaganapalle mandal were selected for the study. Training programme was organized to create awareness about the programme.

- The farmer has to register his calf immediately after birth
- Technical staff of KVK visits the calf and cut the umbilical card and the record the body weight. He will closely monitor calf in feeding of colostrums.
- A calf health card will be issued to the farmers filling the initial data about the calf.

### **Calf Health Card**

- Calf health card contains details about medication, feeding and growth particulars of the registered calf.
- Every month a health camp will be conducted to treat the registered calves in both the villages.
- De-worming, Supplementation of Vit.A and B-Complex was done to the calves.
   Body weight was recorded in the health card.
- From the second month onwards, calf starter was provided to feed the calves along with milk as make balance diet.

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- To mitigate the mineral deficiency, salt bricks were also given to the registered calves.
- In this programme, the registered calves were provided scientific feeding and medication up to six months age.







### **Schedule of medication:**

Age of the calf	Medication
7 <sup>th</sup> Day	Deworming
1 month	Dewoming + Vit. A
2 months	De worming + Vit.A
	FMD Vaccination
3 months	Deworming + Vit A + B Complex
4 months	Deworming + Vit A + B Complex
5 months	Deworming + Vit A + B Complex
6 months	Deworming + Vit A + B Complex
	FMD vaccination

### **Result:**

The registered calves gain 82.24kg in 5 months of age where as control group gain 55.83kg only. AS the growth rate was more, the calves exhibited heat early at 2 years age. The programme created a great impact among the farmers about calf rearing.

Particulars	Registered calves	Control
Initial Body weight (mean) kg	31.37	32.15
Final Body weight (mean) kg	113.61	87.98
Body weight gain (in 150 days)	82.24	55.83
Mortality (%)	4%	12%





The programme was taken up from 2011-12 in Yagantipalle and Meerapuram villages. 250 calves were registered and scientific practices were adopted under NICRA project during the year 2011-14. Among them 33 cow heifers and 9 buffalo heifers exhibited heat and conceived.

Year	No of calve	s registered	No. animals exhibited heat		
rear	White	Black	White	Black	
2011-12	60	40	22	6	
2012-13	50	50	9	3	

### **Outcome:**

The farmers convinced about the programme and adopted to their calves in both the villages. It helped the farmers to create awareness on scientific rearing of calves.

### 7. Rearing of Rajasri chicks – A success story

#### Introduction:

Badrinaikthanda, Pasupula thanda and Kalenaik thanda are small tribal villages in remote areas of Banaganapalle mandal. The Most of them are agricultural labourers. The women and children were suffering from malnutrition. Due to their low economic status the intake of proteins like eggs and meat is very less. Most of them are rearing desi poultry at backyards. The low production of eggs and meat from these birds couldn't support them. Taking these problems in consideration, it was planned to promote high yielding breeds as backyard poultry by involving women.

#### **Process:**

Demonstrations were taken up to promote the backyard poultry rearing for additional income and to provide nutritional security to the BPL families with Rajasri birds under ATMA during 2011-12. Rajasri is a layer with egg production of 150-180 in a year and have 25% native blood which is advantageous trait for backyard poultry. The chicks were reared for six weeks at KVK. Training was organized on backyard poultry management and distributed ten Rajasri birds to each family.



Frequent visits were made to monitor the demonstrations and periodical vaccination and deworming was done. The birds let loose in the backyards to find their food through scavenging. Beside this, kitchen waste, grain waste etc provided to the birds. Small poultry house with Kadapa slabs were constructed at backyards. Body weight and perception of the women towards these birds was recorded during the study



period. Two training programmes were organized to update the knowledge towards poultry management and prevention of diseases and also motivated the farmers to develop the strength by keeping the eggs under brooding desi hen. This helped to multiply the flock.

### Follow up action:

Local veterinary department officials visited the village and also involved in vaccination programme. Women farmers were from different villages in Banaganapalle mandal also taken to the village and interacted with the farmers. The surplus eggs and male birds were sold at better price with the help of KVK.

### Result:

Particulars on performance	Male birds	Female birds
Mean body weight at six weeks age (g)	469.9 <u>+</u> 18.02	431.72 <u>+</u> 18.54
Mean body weight of adult birds at 6 months age (g)	1896.83 <u>+</u> 47.13	1371.05 <u>+</u> 35.92
Mean egg production in 90days	-	54.6 <u>+</u> 1.54
Mean egg weight (g)	-	49.06 <u>+</u> 1.08
Mortality	7.0	6%
Mean additional income in 9 months per family	Rs.1059.6	66 <u>+</u> 28.85
Weekly egg consumption	1.7 (Before)	3.3 (After)

### **Outcome:**

The performance of Rajasri birds attracted the farmers in surrounding villages. Some of the rural youth started rearing these birds in commercial farms. Six weeks rajasri birds were supplied by KVK.

### **Conclusion:**

The results revealed that Rajasri chicks are well adapted to the climatic conditions of tribal areas and rearing of these birds provides supplementary income and nutritional security to the BPL families.

3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year

# 3.9 Give 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)

S.	Crop /	ITK Practiced	Purpose of ITK
No.	Enterprise		
1	Redgram	When Jaggery solution is sprayed on the crop,	To manage
		black ants were attracted to the plants and all the	Helicoverpa in
		egg and larval stages were seen eaten away by	Redgram
		the ants.	
2	Paddy	When 1.5 It Neem oil is mixed with 25 kg sand and	To control BPH in
		applied in 1 acre after reducing the water in the	Paddy
		field, in 48 hours all the BPH were seen flushed	
		out from the field and pungent smell of neem oil	
		persists in the field for 5 days.	
3	Maize	Tieing of stitched old saries around the crop as	To prevent wild
		border of Maize, to prevent the entry of wild	boar entry.
		boars into the field.	
4	Paddy	Placing used bamboo baskets at water discharge	To prevent
		points of bore wells	erosion of the
			soil.

### 3.10 Indicate the specific training need analysis tools/methodology followed for

Identification of courses for farmers/farm women

- Baseline survey
- o Family survey
- o PRA
- o Group discussion

For Rural Youth

- o Group discussion
- o PRA
- o Through interaction with farmers clubs

### 3.11 Field activities

- i. Number of villages adopted 12
- ii. No. of farm families selected 300
- iii. No. of survey /PRA conducted 12

# 3.12. Activities of Soil and Water Testing Laboratory

# **Status of establishment of Lab:**

1.Year of establishment : 2005

# 2.List of equipments purchased with amount :

SI. No	Name of the Equipment	Qty.	Cost
1	Digital pH Meter	1	7,080-00
2	$\upsilon$ P based EC-TDS Analyser	1	13,680-00
3	Scanning Visible Spectrophotometer	1	36,800-00
4	υP based Flamephotometer	1	30,400-00
5	Nephelometer	1	7,600-00
6	Electronic KEL Plus Automatic Microprocessor	1	79,200-00
	(Digestion system)		
7	Electronic Superior Automatic Microprocessor based	1	1,42,300-00
	Distillation system		
8	Electronic Laboratory Shaker	1	57,350-00
9	Mettler Electronic Analytical Balance	1	91,843-00
10	INDION two bed portable Deioniazer	1	45,900-00
11	INDION portable mixed bed Deionizer	1	
12	Atomic Absorption spectrophotometer	1	8,11,108-00
	Total	12	13,23,261-00

# 3.Details of samples analyzed so far:

Details	No. of Samples	No. of Farmers No. of Villages		Amount realized
				(Rs. In Lakhs)
Soil Samples	4602	3815	430	7.99
Water Samples	1597	1523	277	1.52
Plant Samples	95	89	8	0.50
Total	6294	5427	715	10.01

# 3.13. Activities under rainwater harvesting (for those KVKs

Date	Nature of Activity	Title	Client (PF/R Y/EF)	No. of Cou	Pa: ir	No. c rticipa cludi SC/S	ants ing		lo. of S Particip	•	Pa	Tota rticip	al pants
					М	F	Tot	М	F	Tot	М	F	Tot

### 4.0 IMPACT

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

Name of specific	No. of	% of adoption	Change in ir	ncome (Rs.)
technology/skill transferred	participants		Before	After
			(Rs./Unit)	(Rs./Unit)
Nutrient Management in rice	559	52	48,959/ha	59,328/ha
based on STCR				
Cultivation of Organic Rice	15	40	23,500/ha	29,000/ha
Hydroponics in fodder	25	45	-	=
cultivation				
Nursery raising in portrays	18	33	-	=
Own seed production in Rice	50	40	-	-
Vermicomposting	60	42	-	=
Designer blouses	50	40	4,000/month	7,000/month
Pickle making	40	10	-	3,000/ month
Dairy farming	20	25	-	-
Basic tailoring	200	55	-	4,000/ month
Kitchen gardening	100	40	-	300/month

# 4.2 Cases of large scale adoption (Please furnish detailed information for each case)

### 1. Soil test based nutrient application in rice for reduced costs of production.

Rice (<u>Oryza sativa</u> L.) is one of the main staple cereal food crops in the world. In 2007 about 650 million metric tones of unmilled rice was produced globally on about 157 million ha (FAO, 2008). KC canal and TBLLC command area is the most potential belt for paddy cultivation in Kurnool district of Andhra Pradesh. Paddy is being cultivated nearly in one lakh hectares in both Kharif and Rabi seasons. In order to get highest yields farmers resorted to excess use of chemical fertilizers which leads to adverse effects on soil and crop with nutrient toxicity and deficiency either by over use or inadequate use, which in turn increases the production costs, subsidies on chemical fertilizers and environmental degradation.

Soil test based nutrient application helps to avoid wasteful expenditure on irrational nutrient application and realize higher benefit: cost ratio as the nutrients applied are in proportion to the magnitude of the deficiency of a particular nutrient and correction of the nutrient imbalances in soil.

One hundred and thirty frontline demonstrations were organized in farmer's fields from the year 2007 to 2009 and soil samples (0~0.15m depth) were collected and analyzed at soil testing laboratory, KVK, Yagantipalle before implementation of demonstrations.

### **RESULTS:**

#### **Soil characteristics:**

The soils were neutral to moderate alkali in reaction with pH varying from 7.27 to 8.1 and EC ranged from 0.29 to 0.96 dsm<sup>-1</sup>. The organic carbon content varied from 0.32 % to 0.98 %. Texture of the surface soil varied from sandy clay loam to clay loam. The soils were low to medium in N (ranging from 38 to 238 kg/ha kg/ha), medium to high in P (ranging from 54 to 469 kg/ha) and medium to high in K (from 152 to 831 kg/ha). Though these soils are considered to be fertile, they are deficient in nitrogen in all mandals but moderately high with available phosphorus and potassium in all mandals.

<u>Nutrient Application</u>: Based on soil test results the farmers of demonstration plots applied lower doses of N-P-K (230-19-59 Kg./ha, respectively) as compared to farmer's practice (317-190-62 Kg./ha, respectively) which is reflected in cost of production.

### **Yield and Economics of front line demonstrations:**

S.No	Item	Demonstration (STCR)	Farmers practice
1	Mean yield of paddy grain (Kg./ha)	7402	6950
2	Cost of production per hectare (Rs.)	33968	40134
3	Gross returns per hectare (Rs.)	103239	109559
4	Net returns per hectare (Rs.)	75592	63105
5	C:B ratio	1:3.23	1:2.57

### **IMPACT OF STCR:**

**Additional income**: Farmers of demonstration plots realized additional income of Rs.12487 per hectare over farmer's practice due to low cost of production and yield increments in demonstrations.

### Farmer's feed back

Farmers were satisfied with crop performances and expressed that Soil test based nutrient management in rice is a viable technology, because of less cost on chemical fertilizers and without reduction in yield compared to their own practice. They finally realized that they are incurring higher expenditure on fertilizers in the absence of soil testing of their fields. Many farmers have come forward to adopt this methodology in their fields.

Extent of Adoption: So far STCR based nutrient management was by adopted 253 farmers of TBLLC and KC canal command villages covering 500 ha. It was observed that reduction in cost on fertilizers is around Rs.30.0 lakh with an additional income of Rs.60.0 lakh due to adoption of soil test based nutrient management in rice.

### 2. Case study on crop intensification in Rainfed black soils (Double cropping):

Name, address and mobile number of the farmer: A. Madhava Reddy, Appalapuram, Banaganapalli, Kurnool Dist, 9701623440

**Background**: 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 under rainfed situation in black soils. In order to increase Net returns/ha and cropping intensity in drylands this demonstration was planned.

Details of the activity implemented: Organised Demonstrations on crop intensification in Rainfed black soils (Double cropping), at Appalapuram Village of Banaganapalli mandal and provided critical inputs i.e seed, Fertilizers and P.P chemicals to the selected farmers. During the crop period five field visits were organized to the farmers and others farmers from different villages to show the new cropping system i.e growing of Seteria before bengalgram.

### Initiation taken for follow up action:

After assessment of technology for two years, the successful results of the technology is considered for large scale adoption in the district. In order to create awareness on double cropping, three trainings were conducted to farmers, adarsha rythus and extension personnel. The methodology and results were published in Daily news papers. Out of 120 trained farmers twenty farmers were selected for demonstration in an area 20 acres and provided critical inputs like seteria seed, fertilizers and need based pp chemicals. Seteria crop was sown during the month of 1 st week of july and harvested during last week of September . second crop i.e Bengalgram was Successfully sown during second week of October . During the crop period five field visits were organized to the farmers and others farmers from different villages to show the new cropping system i.e growing of Seteria before bengalgram.

**Result :** (photos-Farmers with crop, etc.): The results indicated th at highest net returns was obtained with Korra-Bengalgram sequence (Rs32948/ha) than fallow-bengalgram. The net income of the farmers was also increased in Korra- Bengalgram sequence which is calculated as Rs. 32948/per ha which is Rs. 8535/- more than the Fallow- Bengalgram. This shows the increased profitability through Korra- Bengalgram sequence.

**Conclusion:** Foxtail millet (korra), crop being its short duration may fit well in double cropping sequence under rainfed situation in black soils. Inorder to increase net returns Rs/ha and cropping intensity, Seteria- bengalgram can be successfully grown in rainfed black solis, if on set of monsoon are intime.

### 4.3 Details of impact analysis of KVK activities carried out during the reporting period

# **5.0 LINKAGES:**

# 5.1 Functional linkage with different organizations

S.No.	Name of organization	Nature of linkage
1	FTC, Nandyal	Advisory board member, Krishi Vigyan Kendra as resource persons
2	RARS, Nandyal	Technical support to Krishi Vigyan Kendra
3	ATMA, Kurnool	GB member, AMC member, trainings, demonstrations, Kisan gostis.
4	DAATTC	DLCC member & technical support from DAATTC
5	Dept. of Agriculture	Advisory member for NWDPRA & programs, supply of earthworms and organic farming.
6	Local NGOs	Technical support by KVK
7	Department of Women Development & Child Welfare	Training Programmes to Extension Functionaries
8	Child Fund India	Training on IG activities to Adolescent girls.
9	Department of Animal Husbandry	Organising, Health camps and Technical support
10	Dept.of Horticulture	Trainings
11	ICRISAT	Demonstrations, seed production
12	DRR	Demonstrations

# 5.2 List special programmes under taken by the KVK, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Anganwadi Trainings	April, 2014	Women	14,00,000-00
		Development &	
		Child Welfare	
Demonstrations	April, 2014	ATMA	40,000-00
National Initiative on Climate	April-2014	CRIDA	12,50,000-00
Resilient Agriculture			

# 5.3 Details of linkage with ATMA

# a) Is ATMA implemented in your district : Yes

S. No.	Programme	Nature of linkage	Remarks
1	Training Programme		
2	Demonstrations		
3	Exposure visit	Financial support from ATMA	
4	Kisan ghosti	Financial support from ATMA	
5	Technology assessment & refinement		

# 5.4 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any
		NIL	

# 5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks	
		NIL		

# 6. PERFORMANCE OF INFRASTRUCTURE IN KVK:

# 6.1 Performance of demonstration units (other than instructional farm)

SI.	Demo	Year	Ar	Detail	Details of production		Amoun	t (Rs.)	Net
No.	Unit	of	ea	Variety	Produce	Qty.	Cost of	Gross	income
		estt.				tones	inputs	income	
	Vermi	2003	-	Udrilus eugeni	Vermi	104			
	compost				compost				
1	ing unit						2,54,250	6,99,700	4,45,450
					Earthworms	1.47			
2	IBRC	2010	-	Pseudomonas	Pseudomonas	715	25,025	71,500	46,475
				Trichoderma	Trichoderma				
				Neem Powder	Neem Powder	682	23,870	68,200	44,330
				PSB	PSB	3691	47,983	61,500	13,517
				Azatobacter	Azatobacter				
				Azospirillum	Azospirillum	199	6,368	9,950	3,582
						179	5,728	8,950	3,222
						12	384	600	216

# **6.2** Performance of instructional farm (Crops) including seed production:

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production		Amou	nt (Rs.)	arks	
	30111118		()	Variety	Type of Produce	Qty (Qtl).	Cost of inputs	Gross income	Remarks
Cereals									
Paddy	1 St wk of Aug	Last wk of Dec	3.0	NDLR-7	Seed	161.40	2.00,000	4,00,000	
	1 St wk of Aug	1 St wk of Jan	9.0	BPT-5204	Seed	540.90	7,50,000	15,00,000	
Millets	Ü								
Setaria	3 <sup>rd</sup> wk of July	2 <sup>nd</sup> wk of Oct.	0.6	Suryanandi	Seed	8.36	10,000	25,000	
Pulses									
Pigeonpea	Last wk of July	2 <sup>nd</sup> wk of Jan	0.6	LRG-41 ICPH- 2740	Seed	6.94	35,000-	65,000	
Oilseeds									
Castor	Ist wk of Oct	2 nd wk of April	1.0	PCH-111	Seed	2.52	20,000	40,000	

# 6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)

SI.	Name of the	Qty	Amour	Damada	
No.	Product	tonnes.	Cost of inputs	Gross income	Remarks
1	Pseudomonas	0.715	25,025	71,500	
2	Trichoderma	0.682	23,870	68,200	
3	Neem powder	3.691	47,983	61,500	
4	PSB	0.199	6,368	9,950	
5	Azatobacter	0.179	5,728	8,950	
6	Azospirillum	0.012	384	600	
	Total	5,478	1,09,358	2,20,700	1,11,342

# 6.4 Performance of instructional farm (livestock and fisheries production)

SI.	Name	Deta	Details of production		Amour	nt (Rs.)	Remarks
No	of the animal / bird / aquatics	Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Poultry	Rajasri	Chicks	2800	1,39,000.00	1,82,000.00	_
2	Sheep	Nellore Brown	Ram lambs and Ewes & Goats	57	96,000.00	1,77,330.00	

# 6.5 Rainwater Harvesting

# Training programmes conducted by using Rainwater Harvesting DemonstrationUnit

Date	Title of the	Client	No. of	No. of Participants			No. of		
	training course	(PF/RY	Course	ind	including SC/ST		SC/	STParticipa	ants
		/EF)	S	Male	Female	Total	Male	Female	Total

# 6.6 Utilization of hostel facilities:

Accommodation available (No. of beds): 40

Months	Title of the training course/Purpose of stay	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall
	, , , , , , , , , , , , , , , , , , , ,		722,	(if any)
April-14		30	30	
Total		30	30	
May,14		29	29	
Total		29	29	
June,14				
Total				
July,14		40	80	
Total		40	80	
Aug,14		60	90	
Total		60	90	
Sep,14		113	176	
Total		113	176	
Oct,14				
Total				
Nov,14				
Total				
Dec,14				
Total				
Jan,15				
Total				
Feb,15				
Total				
Mar,15		100	100	
Total		100	100	
<b>Grand total</b>		372	505	

# 7. FINANCIAL PERFORMANCE

# 7.1 Details of KVK Bank accounts

Bank account	Name of the Bank	Location	Account Number
With Host Institute			
With KVK			
Main A/C	Andhra Bank	Banaganapalle	SB 005910011006023
Revolving Fund	Andhra Bank	Banaganapalle	SB 005910011006024

# 7.5 Utilization of KVK funds during the year 2014-15

S.	Particulars	Sanctioned	Released	Expenditure				
No.				·				
A. RE	A. RECURRING ITEMS							
1	Pay & Allowances	110	110					
2	Traveling allowances	1.35	1.35					
3	Contingencies							
Α	Stationery, telephone, postage and other							
	expenditure on office running, publication of	2.00						
	Newsletter and library maintenance (purchase of	3.00						
	News paper & Magazines)							
В	POL, repair of vehicles, tractor and equipments							
С	Meals/refreshment for trainees (celling upto							
	Rs.40/day/trainee be maintained)							
D	Training material (posters, charts, demonstration							
	material including chemicals etc., required for							
	conducting the training).							
Ε	Frontline demonstration except oilseeds and pulses							
	(minimum of 30 demonstration in a year)							
F	On farm testing (on need based location specific	2.87						
	and newly generated information in themajor	2.07						
	production systems of the area)							
G	Training of extension functionaries							
Н	Honarorium for Trainers							
1	Establishment of Soil, Plant & Water Testing							
	Laboratory							
J	Libray							
K	Maintenance of farm							
	TOTAL (A)							
	hnology Demonstration on Pulses							
Α.	Redgram 30 demonstrations for Kharif @							
0	Rs.4000/demo = Rs.120000							
В.	Bengalgram 30 demonstrations for Rabi @							
_	Rs.4000/demo = Rs.120000							
<i>C</i> .	Contractual Services = Rs. 60000	0.40	0.40					
D.	NIFTD	0.40 <b>6.27</b>	0.40					
	TOTAL (B)	0.27						

### **C.FLD Cotton**

### TOTAL (C)

### **D. Non Recurring Contingencies**

- 1 Works
- 2 Equipments including SWTL & Furniture
- 3 Vehicle (Four wheeler/Two wheeler, please specify)
- 4 Library (purchase of assets like books & journals)

TOTAL (D)

**E REVOLVING FUND** 

GRAND TOTAL (A+B+C+D+E)

117.62 117.62

# 7.5 Status of revolving fund (Rs. in lakhs) for the three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April -2012 to March-2013	42,72,165-00	35,31,491-00	25,93,520-00	52,10,136-00
April-2013 to March -2014	52,10,136-00			57,30,752-00
April 2014 to March 2015	57,30,752-00			69,00,000-00

### 8.0 Please include information which has not been reflected above (write in detail).

### 8.1 Constraints:

- (a) Administrative
- (b) Financial
- (c) Technical

### **ANNEXURE - 1**

### **District Profile:**

### 1. General Census:

Area :17658 sq. km

Population :35.29 lakhs

Male population : 17.96 lakhs

Female population : 17.33 lakhs

No of households : 6.99 lakhs

Inhabited villages : 1514

Literates : 15.92 lakhs

Literacy rate : 53.22

Normal rainfall : 670.0 mm

Revenue villages : 928
Gram panchayats : 898

### 2. Agriculturural and Allied Census:

Gross cropped area 9.91 lakh ha Net cropped area 8.86 lakh ha Cropping intensity 111.87 % Gross area irrigated 2.31 lakh ha 1.92 lakh ha Net irrigated area Forests 3.18 lakh ha Cultivable waste 0.77 lakh ha Uncultivable land 0.99 lakh ha Land put to non agricultural use 1.35 lakh ha Permanent pastures 0.04 lakh ha Other fallow lands 1.21 lakh ha Current fallows 1.16 lakh ha 8.86 lakh ha Net area sown Area sown more than once 1.05 lakh ha No of marginal farmers 2.02 lakhs No of Small farmers 1.41 lakhs No. of Medium farmers 0.51 lakhs 0.09 lakhs No. of Large farmers

3.64 lakhs Cultivators Agricultural labour 6.25 lakhs Livestock population 24.44 lakhs Cattle population 4.29 lakhs No of Buffaloes 4.59 lakhs Sheep 11.49 lakhs Goat 3.87 lakhs Pigs 13.47 lakhs Poultry 11.79 lakhs

### 3. Agroclimatic Zones:

Scarce rainfall zone Low scanty and erratic rainfall due to which successful crop production

with good yields is unexpectable and dryland agriculture is

predominant with a variety of rainfed crops in the zone.

### 4. Agro –Eco systems:

K.C.Canal irrigated red soils

T.B.Low level canal irrigation red soils

T.B.High level canal irrigation black soils

K.C.Canal irrigation blacksoils

T.B.Low level canal irrigation black soils

T.B.high level canal irrigation black soils

Problem soils

Tank irrigation red soils

Tank irrigation black soils

Well irrigation red soils

Rainfed red soils

Rainfed black soils

### 5. Major and micro farming systems:

- 1 Agriculture + Horticulture
- 2 Agriculture + Dairy
- 3 Agriculture + Horticulture + Dairy
- 4 Agriculture + Horticulture + Pastural culture

# 6. Major production systems:

Paddy- Paddy,

Greengram-Paddy,

Paddy- Groundnut/ vegetables

Paddy-fallow

Paddy/Groundnut/vegetables-fallow

Paddy- Greengram- Paddy,

Paddy/Groundnut-vegetables

Sunflower/ Groundnut-fallow

Groundnut/Cotton-fallow

Sunflower- Groundnut

**Groundnut-Sunflower** 

Cotton-fallow

Paddy- Sunflower

Cotton/Onion-fallow

Cotton/Onion/ Chillies- fallow

Sunflower- Groundnut+ Redgram

Groundnut+ Jowar, Cotton

Cotton+ redgram/ Korra/ Redgram-fallow

Jowar/Bengalgram/Tobacco-fallow

Jowar-fallow

Groundnut-fallow

### 7. Major agriculture and allied enterprises

Agriculture

Horticulture

Floriculture

Olericulture

Silviculture

Pastoral culture

Dairy farming

Pisciculture

Sheep farming

Goatry

#### **ANNEXURE -2**

### Agro-ecosystem Analysis of the focus/target area:

### 1 .Names of villages, focus area, target area etc.

Farming situation	Name of the village	Focus area	Target area

### 2. Survey methods used (survey by questionnaire, PRA, RRA, etc.)

**Questionnaire**: Primary and secondary data about the villages was collected through a pre scheduled questionnaire by gathering a group of farmers. Information about the management practices being followed and technology used was collected from individual farmers through semi structured interview schedule.

3. Various techniques used and brief documentation of process involved in applying the techniques used like release transect, resource map, etc.

**Resource map**: Villagers were involved in a transect walk along the pathways of the village and later on a social map was drawn to know the resources available in and around the villages.

### 4. Analysis and conclusions:

#### Rainfed red soils:

Major crops are Sunflower, Groundnut, Jowar and Redgram Specific constraints are poor soil fertility and water retentivity, late rains, drought and frequent dry spells. Production constraints are improper spacing, non usage of recommended fertilizers, high doses of pesticides. Potentials identified are rainfed greengram to enrich soils, encourage inter crops against failures.

#### Rainfed black soils:

Major crops are Bengalgram & Cotton. Specific constraints are erratic rainfall, drought, frequent dry spells and terminal drought in bengalgram and jowar. Production constraints are improper spacing, non usage of recommended fertilizers, high doses of pesticides. Potentials identified are rainfed greengram to enrich soils, encourage inter crops against failures.

### TBP LLC canal irrigated black soils:

Main crops are Groundnut, Sunflower, Paddy: Specific constraints are late and uncertain release of water due to erratic rainfall, non availability of water in tail end areas. Production constraints are poor pod filling in groundnut. Potentials identified are double cropping in tail end areas and growing of off – season vegetables.

### TBP LLC canal irrigated red soils:

Main crops are Paddy, Groundnut and vegetables like Onion Chillies and Tomato. Specific constraints are soils poor in organic carbon content, water problem in tail end areas due to erratic rainfall leading to non availability of water in critical crop stages. Production constraints are high N&P application in paddy, poor pod filling in groundnut. Potentials identified are greengram or green manure crop preceding paddy to enrich soil and kharif pulse crop in the follow areas.

# 5. List of location specific problems and brief description of frequency and extent/intensity/severity of each problem:

Rainfed red soils: The area being mostly rainfed, farmers were found to be non aware of moisture conservation measures, methods of fertilizer application, appropriate spacing etc.

- Need based plant protection measures are not adopted.
- Traditional varieties are cultivated. Crop rotation is not followed.

#### Groundnut:

- Proper plant population not maintained.
- Usage of local variety for a long time.
- Improper fertilizer management.
- Lack of knowledge on usage of bio pesticides.

### **Rainfed black soils:**

#### Mungari cotton:

- Proper spacing not adopted.
- o Non awareness of IPM measures.

### • Bengalgram:

- o No practice of growing preceding crop to Bengalgram.
- o Latest improved varieties not adopted.
- o Proper management practices not followed.
- o IPM techniques not adopted.

### **TBP LLC canal irrigated red soils:**

- Improved and high yielding varieties not grown.
- Indiscriminate usage of fertilizers.
- Recommended spacing and plant population not followed.
- Timely and proper plant protection measures not adopted.

#### Paddy:

- High doses of fertilizers being applied.
- IPM techniques not adopted.

#### Groundnut:

- Improved varieties not adopted.
- IPM measures not followed.
- Non usage of micronutrients.

# Tank irrigation black soils:

# Chillis:

- Indiscriminate usage of Fertilizers and pesticides.
- Direct sowing of seed. No nursery management.

