Shri Hanumantharaya Educational and Charitable Society

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National Innovations in Climate Resilient Agriculture (NICRA)

Annual Progress Report 2018-19

Kurnool district of Andhra Pradesh is one of the drought prone districts of the state. Cherlokotturu and Krishnagiri villages which are located at a distance of 14 km from Banaganapalle Panchayat of Banaganapalle mandal with 70% of rainfed agriculture were selected for outreach programme of NICRA project. Desi cotton and redgram were the main crops grown during kharif and Jowar in rabi. Most of the crops get affected with late onset of monsoons followed by dry spells during critical crop growth periods, which in turn severely affecting yield.

During Kharif-18, the short duration millets viz., Foxtail millet SIA 3088 and SIA- 3222 varieties of 60-75 days duration and tolerance to drought and downy mildew were introduced in place of jowar and desi cotton. Like - wise inter copping systems with korra and red gram (5:1), in red gram replacement of long duration Variety with Asha-87119 and PRG-176 were taken up.

This Kharif-18 has started with early monsoon rains during first week of June with excess rain fall. By taking the advantage of rains received earlier Kharif sowings were taken up and all crops had good germination and good vegetative growth. But subsequent dry spell (prolonged) for 45 days during July to August 7 th had deleterious effect on early duration crops like Setaria , Blackgram and Green gram. Red gram suffered due to early phase drought. The rains that received during second week of August could help to recoup from ill effects of drought. Setaria and other pulses which were adversely effected at reproductive phase, failed to express full yield potential as a result of which poor grain yields were recorded.

With an objective to control the calf mortality, KVK also introduced calf registration programme which was well received by the farmers. The registered calves under this programme were provided medical and nutritional attention up to six months.

For conservation of soil and water, conservation furrows, sub soiling and demonstrations on Dead furrows were taken up in rainfed crops like red gram.

Burrakunta after desilting

Farm Pond filled with water

Major Climatic Details of the Village:

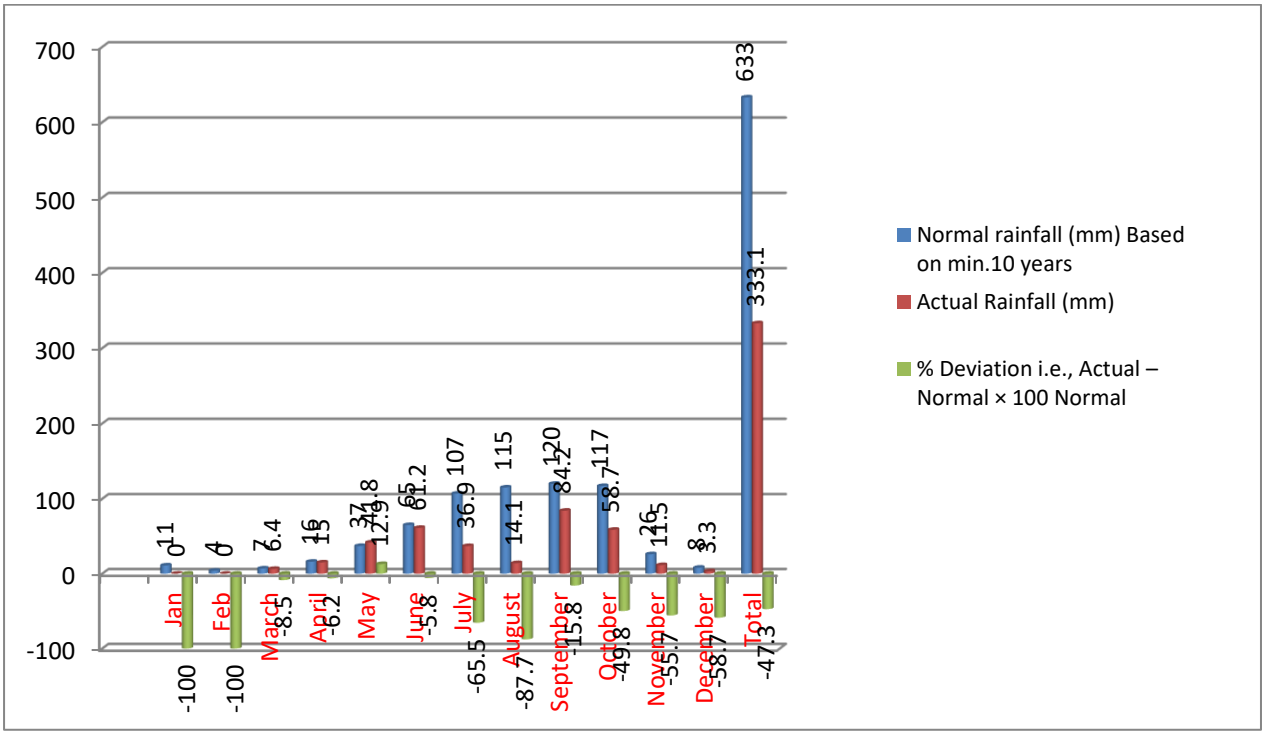
Table 1: Distribution of rainfall in comparison with normal 2018

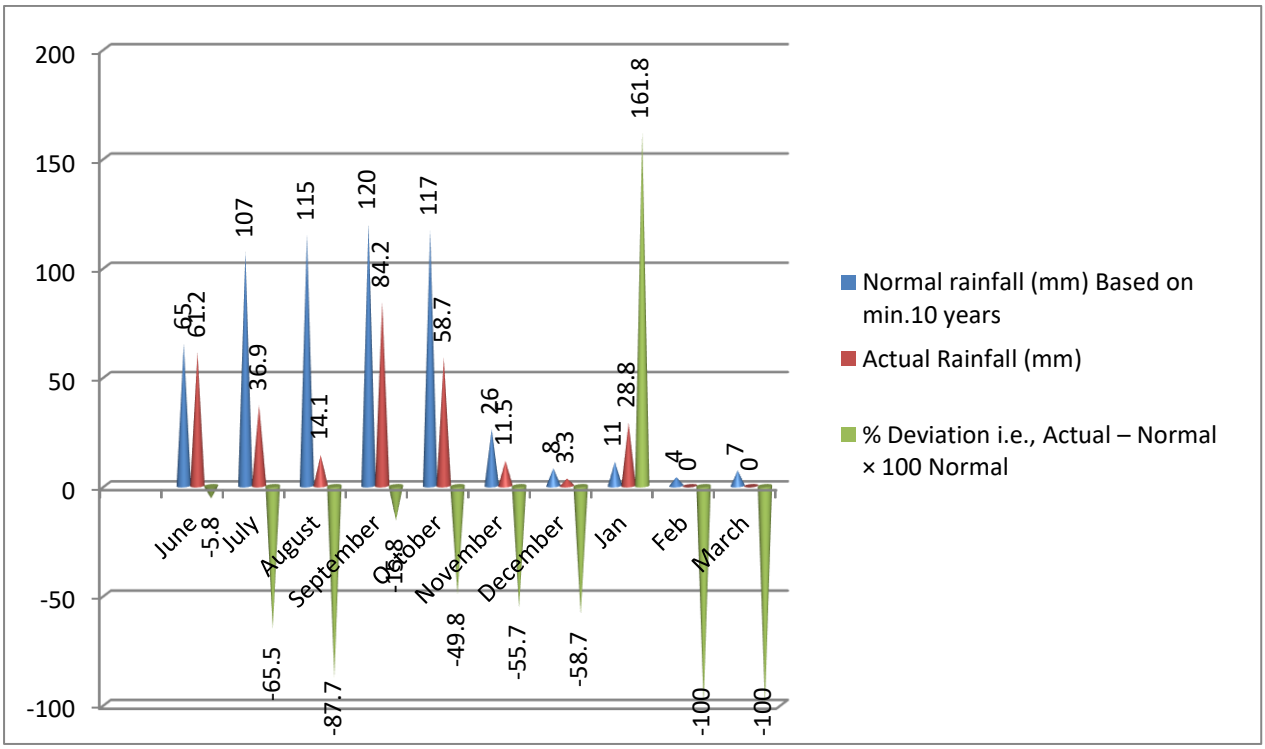
Month	Normal rainfall (mm) Based on min.10 years	Rainfall (mm)	Difference of rainfall in comparison with normal rainfall (mm)	% Deviation i.e., Actual – Normal × 100 / Normal
		2018	2018	
Jan	11.0	0	-11.0	-100
Feb	4.0	0	-4.0	- 100
March	7.0	6.4	-0.6	-8.5
April	16.0	15.0	-1	-6.2
May	37.0	41.8	+ 4.8	+ 12.9
June	65.0	61.2(5)	-3.8	-5.8
July	107.0	36.9(5)	- 70.1	-65.5
August	115.0	14.1(2)	-100.9	-87.7
September	120.0	84.2(8)	-35.8	-15.8
October	117.0	58.7(2)	-58.3	-49.8
November	26.0	11.5(1)	-14.5	-55.7
December	8.0	03.3(1)	-4.7	-58.7
Total	**633.0**	**333.1**	**-299.9**	**-47.3**
Total actual rainfall during cropping season (June to December	**558.00**	**269.90**	**-288.10**	**-51.60**

Table 2: Distribution of rainfall in NICRA Village during 2018:

Day	June	July	August	Sep	Oct	Nov	Dec	Jan-19	Feb-19	Mar-19
1	014.8	007.2	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
2	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
3	011.8	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
4	000.0	000.0	000.0	000.0	000.0	000.0	003.3	000.0	000.0	000.0
5	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
6	000.0	023.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
7	000.0	000.0	000.0	002.7	000.0	000.0	000.0	000.0	000.0	000.0
8	000.0	002.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
9	012.4	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
10	008.0	000.0	007.3	000.0	000.0	000.0	000.0	000.0	000.0	000.0
11	000.0	000.0	000.0	005.0	000.0	000.0	000.0	000.0	000.0	000.0
12	000.0	001.7	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
13	014.2	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
14	000.0	003.0	005.2	000.0	000.0	000.0	000.0	000.0	000.0	000.0
15	000.0	000.0	001.6	003.8	000.0	000.0	000.0	000.0	000.0	000.0
16	000.0	000.0	000.0	032.0	000.0	011.5	000.0	000.0	000.0	000.0
17	000.0	000.0	000.0	011.7	042.5	000.0	000.0	000.0	000.0	000.0
18	000.0	000.0	000.0	011.6	000.0	000.0	000.0	000.0	000.0	000.0
19	000.0	000.0	000.0	006.7	016.2	000.0	000.0	000.0	000.0	000.0
20	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
21	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
22	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
23	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
24	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
25	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
26	000.0	000.0	000.0	010.7	000.0	000.0	000.0	002.0	000.0	000.0
27	000.0	000.0	000.0	000.0	000.0	000.0	000.0	003.0	000.0	000.0
28	000.0	000.0	000.0	000.0	000.0	000.0	000.0	023.8	000.0	000.0
29	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	-	000.0
30	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	-	000.0
31	--	000.0	000.0	--	000.0	--	000.0	000.0	-	000.0
Total	**61.2(5)**	**36.9(4)**	**14.1(2)**	**84.2(8)**	**58.7(2)**	**11.5(1)**	**3.3(1)**	**O28.8(3)**	**000.0**	**000.0**

2018 Rainfall





Sowing to Harvesting time (June- December -2018)

During the Kharif-18 (June- December) a total quantity of 269.9 mm rainfall was received as against normal rainfall of 558.0 mm. Kharif sowings were taken up with the rain fall received during 1st & 2 ND week of June. Rabi sowings i.e. Bengal gram were taken up with rain rainfall received during 3rd week of October-2018.

Summary of interventions during 2018-19

NRM:

Name of the intervention	No. of units	Area (ha)	No. of farmers
In-situ moisture conservation through dead furrows	10	25	10
Total	**10**	**25**	**10**

Crop Production:

Name of the intervention	Area (ha)	No. of farmers
Intercropping system(Red gram+ Seteria)	10	25
Drought tolerant variety Red gram (PRG-176)& Asha	140	178
Introduction of hybrid varieties in Castor (DCH-519)	25	25
Bengal gram variety NBeG-3	25	10
Jowar varieties NJ-2647 and NJ-2446	20	25
Alternate crop (Seteria,SIA-3088)	10	5
Dolichos bean	01	5
	231	**273**

Livestock and fisheries:

Livestock

Name of the intervention	No. of units (Where ever applicable)	No .of animals benefitted	No. of farmers
Calf Registration	50	50	50
RSSM	10	10	10
Backyard poultry	43	--	42
Silage	75	75	46
Urea molasses bricks	10	10	10
Total	**188**	**145**	**158**

Fodder production:

Interventions (Fodder varieties/Azolla/Hydroponics etc.,)	No. of Units	No. of farmers	Area (ha)
Super Napier	02	10	02
Total	**02**	**10**	**02**

Institutional Interventions:

Name of the intervention	Area (ha)	No. of farmers covered
Fodder Bank	02	15
Seed Bank	10	20
Custom hire centre	50	25
Total	**62**	**60**

Capacity Building

Date	Title of the training programmes	Duration in days	No. of programmes organized	No. of participants			Remarks
				Male	Female	Total	
14-06-2018	Production technologies for Rainfed crops	1	01	36	4	40	
14-6-2018	Feed & Fodder technologies for Livestock	1	01	36	4	40	
22-6-2018	Soil & Water conservation Technologies for rainfed areas	1	01	31	4	35	
28-6-2018	Farm implements & machineries	1	01	28	4	32	
10-7-2018	Contingent crop planning & management	1	01	36	2	38	
10-7-2018	Soil & Water conservation Technologies for rainfed areas	1	01	32	3	35	
10-8-2018	Feed & Fodder technologies for Livestock	1	01	25	3	28	
30-8-2018	Prevention of disease in livestock	1	01	21	8	29	
7-9-2018	Rabi crop preparedness program	1	01	34	5	39	
20-9-2018	Importance of Home stead nutritional gardens	1	01	24	21	45	
28-9-2018	Soil Health management	1	01	29	6	35	

28-9-2018	Importance of Home stead nutritional gardens	1	01	8	42	50	
5-9-2018	Production technologies for Rainfed crops	1	01	32	8	40	
8/9/2018	Contingent crop planning & management	1	01	28	4	32	
8/8/2018	Crop pest disease management	1	01	32	6	38	
20-8-2018	Pest management In chillies	1	01	22	4	26	
10/10/2018	Value addition to millets	1	01	6	34	40	
8-11-2018	Bengalgram & Redgram Management Practices	1	01	26	6	32	
27-11-18	Crop pest disease management in Redgram & Bengal gram	1	01	30	5	35	
8-12-18	Management practices in Live stock & Mango management practices	1	01	25	3	28	
7/1/2019	Post harvesting Technology	1	01	38	4	42	
12/1/2019	VCRMC meeting and discussions on demonstrations	1	01	18	2	20	
17-1-2019	Zonal Review meeting	1	01	46	4	50	
21-2-2019	Interface meeting for NICRA and Non NICRA farmers	1	01	42	8	50	
23-3-2019	Interaction with NICRA and Other village farmers	1	01	44	6	50	
		26	**20**	**726**	**203**	**929**	

Extension Activities:

Date	Title of the activity	No.of programmes organized	No. of participants			Remarks
			Male	Female	Total	
23-08-2018, 19-09-2018, 04-10-2018	Stem application in Bt-cotton, Seed treatment of Jowar and Bengal gram.	03	93	13	106	
12-1-2019, 21-2-2019	VCRMC and NICRA farmers interface meeting	03	82	14	96	
21-12-2018	Kisan Divas	01	64	-	64	
5-7-2018	Awareness in production technologies on rain fed crops	01	31	08	39	
9 &10-5-2018	ARS, Anantapur	01	12	-	12	
Every Tuesday & Friday	Agro advisory services	52	4940	2912	7852	
23-3-2019	Interaction with NICRA & other village farmers	01	48	06	54	
		62	**5270**	**2953**	**8223**	

Weather – Crop – Pests & Diseases Situation in NICRA Village (2018-19)

Item/Month	June,2018	July, 2018	August, 18	Sep., 18	October, 18	Nov., 18
Rainfall	61.2	36.9	14.1	84.2	58.7	11.5
Temperatures	37.2	34.4	34.4	33.5	33.5	32.5
Dry spells	June 14 th to 30 th	July 15 th	Aug 9th Aug 15 th	Sep 6 th Sep 27 th	Oct 16th Oct 20 th	Nov 15 th
	16 days	25 days	21 days	19 days	27 days	
Setaria	June 1st & 2nd week		Vegetative to PI stage	Harvested	Harvested	
Pest/Disease				No pest/disease		
Redgram	June 1st & 2nd week		Vegetative	Vegetative	Bud initiation(PRG-176)	Bud initiation (Asha)
Pest/Disease				Jassids	Jassids, Webber (1 - 2%)	Jassids, Webber (1 - 2%)
Bt Cotton	June 1st & 2nd week	17th July to 15th Aug		Vegetative/ Square	Square/Flowering/Boll	Flower/Boll
				Jassids, Thrips, Whiteflies	Jassids, Whiteflies, Pink boll worm (1-3%)	

Maize	Vegetative	Tasseling	Cob formation	Grain maturation to harvest & Rabi Sowing	Harvesting & Rabi crop in vegetative stage	
	Stem borer (4-6%)	Effected with fall army warm	No pest		Stem borer (3-5%)	
Jowar				Rabi sowings (Sep 27th to Oct 16th) 19days	Oct 20thto Nov 15th(27 days)	Nov 17th to Dec 2nd (17 days) Seedling stage and reproductive stage under severe moisture stress
				Shoot fly (8-10%)	Aphids (8-10%) Stem borer (1-5%)	
Bengal gram	Dry spell				47 days	
					Helicoverpa (1-3%)	

Incidence of biotic and abiotic stress:

1. **Setaria:** No pest incidence was observed during the crop growth period. The crop suffered due to dry spells in July, August and Sepember, which affected the yields (1-2.5 q/ac only obtained).
2. **Bt. Cotton:** The crop was sown during first and second week of June. During early vegetative stage, crop received good rains and growth was good. But due to increased temperatures in July and August, Incidence of sucking pests (Aphids 5% and Jassids 5-6/leaf) were observed in October and (Jassids 10-12/leaf and Whiteflies 6-8/leaf) In November due to dry spell prevailed, square drop incidence is high.
3. **Jowar:** The crop was sown with the rains of September. The crop received good rains and recorded optimum growth in early stages. Incidence of shoot fly (10-12%) and Stem borer (1-5%) was observed during this period. Fall army warm incidence also is in high.
4. **Maize:** The crop was sown in 1st FN of June and suffered the damage of Stem borer (5-8%) and fall army warm in Kharif and due to dry spells of July the crop was affected. The yields recorded were only 8-10q/ac. In some farm holdings of crops was removed.
5. **Redgram:** Majority of the crop was sown during 1st FN of June. Due to lack of rains in July and Aug the crop facing severe moisture stress. In the September received good rains ,the crop was revived. But due to dry spell from October to November 15th (27 days) jassids and webber incidence were noticed. December 5thto 31st(27 days), jassids and webber incidence were

noticed. Now the crop is at flowering stage (Asha), PRG_176 Is at harvesting stage. Experiencing moisture stress due to this crop poor yields were recoreded.

6. **Bengal Gram:** Due to prolonged dry spell after sowing of Bengal gram (Sep 3rdweek) crop was suffered with severe moisture stress, hence poor yields were recorded and also less incidence of helicoverpa was noticed. But farmers gave one critical irrigation at begore flowering stage.
7. **Mango:** Flowering was ontime but due to prolonged dry spells in Oct, Nov and December , recorded poor yields.

Effect of Dry spells on standing crops and management practices:

Crop/cropping system	Time of drought	Management strategies
Redgram	Early season drought 14/6/18to 9/8/17) 45 days dry spell after sowing)	Foliar spray of 2% urea or 1.0% kno3 Formation of conservation furrows between two rows of Redgram as preventive measure
		Frequent inter cultivation to conserve soil moisture Foliar spray of 2% urea or 1.0% kno3
	Reproductive phase	Foliar spray of 2% urea or 1.0% kno3
Seteria	Early season drought (14/6/18 to9/8/18)45 days In Vegetative stage (15/8/2018to 6/9/2018) 21 days . Flowering stage: (20/10/2018 to Dec 27) 44 days	Frequent inter cultivation to conserve soil moisture Foliar spray of 2% urea or 1.0% kno3
Bt cotton	Vegetative stage to(July 15 th to Oct 16 th (46days)Reproductive phase	Frequent inter cultivation to conserve soil moisture Spray of urea/DAP @2%.
		Boran application @0.2% Supplemental irrigation with harvested rain water in farm ponds
Jowar	27/9/18 to 02/12/18 (63 days)	Foliar spray of 2% urea or 1.0% kno3 Formation of conservation furrows .
Maize	Early season drought 14/6/18 to 6/9/18) 62 days days dry spell after sowing)	Earthing up to conserve soil moisture Foliar spray of 2% urea or 1.0% kno3
		Foliar spray of 2% urea or 1.0% kno3

Progress Report of NICRA for 2018-19

Module 1.NATURAL RESOURCE MANAGEMENT:

1. Name of the technology	In-situ moisture conservation technologies in Red gram
2. Objectives of the study	To enhance the productivity of rain fed Red gram
3. Thematic area	NRM
4. Problem diagnosis	Low and uncertainty of productivity due to recurrent intermittent drought/erratic rainfall
5. Micro farming situation	Rain fed Medium Black soils
6. Year of start	2011
7. Year of completion	2018
8. Comparisons/treatments	
a) Farmers practice* (Describe the practice)	a)Farmers practice : No conservation measures between two rows of Red gram
b) Improved technology (mention test crop and varieties/variety used in demonstration)	b. Improved technology : Formation of Conservation furrows in between two rows of Red gram at 30-35 DAS
9. No. of Demonstrations	10
10. Area covered for each Demonstration (ha)	0.4
11. No. of farmers covered	25
12. Amount spent for each Demonstration	500/-
13. Contribution of demonstration from a) Project b) Farmers	Rs 500/-
14. Results (Yield, Cost of cultivation, Gross income, Net income, B:C ratio, Soil moisture conserved Water stored (Cum) in depth)	

Results:

Treatments	Seed yield (kg/ha)	Fodder Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Farmers practice (without furrows)	316	-	14680	16748	2068	1.14
In-situ moisture conservation practice	518	-	18135	27454	9319	1: 1.51

- ***Red gram price of grain: Rs 53/ Kg***

This area falls under scarce rainfall zone and frequent prolonged dry spells at critical crop growth stages resulting poor yields were observed. To cope up with this problem, in- situ moisture conservation measures by formation of conservation furrows between rows of red gram during Kharif-18 in an area of 10 ha were taken up.

The results indicated that Red gram variety PRG-176 with In-situ conservation measures and sub soiling gave higher yield 518 kg/ha, in medium black soils.

De-silting of existing percolation tank:

The project committee proposed to de-silt the existing percolation tank (Burrakunta) for deepening and use of tank silt for marginal soils to improve soil physical properties and fertility. Focus group interactions were held with the villagers to sensitize them on the importance of water harvesting and application of tank silt. The de-silting of Burrakunta (PT) was taken up during July 2012 and 1260 Cu.mt silt was excavated. The silt was applied to 6 ha covering 10 farmers and transportation cost was borne by the farmers.

Chemical properties and nutrient status of tank silt was analyzed before application into the fields and the average pH and EC of tank silt was 7.95 and 0.35 dSm^{-1} respectively which were under normal range. The organic carbon content of silt was high (0.89 %), available phosphorus (112ppm), Potassium (883ppm), Calcium (52me.eq/100gsoil), magnesium

(5.5me.eq/100gsoil), ferrous (33.5ppm), copper(3.62ppm) were found in high range. The farmers were ready to transport the tank silt to their poor soils, since it was good nutrient status.

Out comes:

1. Deepening of percolation tank increased the additional water storage capacity (12.60lakh liters).
2. It was observed that number of defunct bore wells decreasing from 2013-14 to 2017-18 and recharge of defunct bore wells increasing from 2013 to 2017 due to more storage water in Burrakunta by desilting (Table).
3. Water table is increased during monsoon period.

Table: Impact of de silting of Burrakunta on bore well recharge during the year 2018-19

Month	Water table in the bore well (ft)	Availability of water in Water storage structure (ft.)	Average area irrigated acre / Bore well	Rainfall (mm)
June-18	180	2.0	-	61.2(5)
July-18	180-200	1.5	**1.0**	36.9 (5)
August-18	175	1.0	**1.0**	14.1(2)
September-18	120	3.6	**2.0**	84.2(8)
October-18	165-180	2.5	**1-2**	58.7(2)
November-18	170-190	2.5	**0-1**	11.5(1)
December-18	200	2.0	**0**	03.3(1)

(Details (Average of Six bore wells taken for data)-Total number of bore wells – 40

Table: Year wise impact of Burrakunta on borewells recharge:

Year	No. of borewells under Burrakunta	No.of defunct borewells during summer	No. of defunct borewells recharged during monsoon period	Depth of water table(ft.) during summer	Depth of water table(ft.) during monsoon period	Average rainfall(mm)
2013-14	110	70 (64%)	64 (91 %)	158.4	71.4	594.3
2014-15	110	63(57%)	60 (95%)	150.2	74.6	668.6
2015-16	114	26(23%)	26(100%)	145.4	106.4	621.6
2016-17	114	72(63%)	56(78%)	156.6	96.4	655.5
2017-18	114	0	100%	120.4	64.0	798.0
2018-19	120	52 (45%)	12(20%)	200.6	120	333.1

Impact of Soil Testing:

One hundred and fifty two (152) soil samples (0~0.15 m depth) were collected in last year (2017) in Cherlokotturu and Krishnagiri villages of Banaganapalle mandal and analyzed at soil testing laboratory, KVK, Yagantipalle. The soil pH was measured by glass electrode using a soil to water ratio of 1:2.5, electrical conductivity (EC) was determined by an EC meter using a soil to water ratio of 1:2.5. Soil samples were analyzed for organic C by Walkley and Black method (Page et al.,1982), available nitrogen was analyzed by alkaline permanganate method (Subbaiah and Asija,1956), available phosphorus by Olsen et al.(1954)'s method , available potassium by ammonium acetate method (Hanway and Heidal, 1952)and available micronutrients (Z,Fe,Cu and Mn) by DTPA extracting reagent (Lindsay and Norvell,1978).

Soil nutrient status of NICRA Villages :

S.No	Particulars	Unit	Status
1	Organic carbon	Percent	0.53
2	Nitorgen	Kg./ha	165.8
3	Phosphorus	Kg./ha	34.73
4	Potash	Kg./ha	415.85
5	Sulphur	Ppm	20.29
6	Zinc	Ppm	0.39
7	Iron	Ppm	12.42
8	Copper	Ppm	1.62
9	Manganese	Ppm	14.24
10	Boron	Ppm	0.611

The data in Table.1 revealed that the average available soil nitrogen, Phosphorus and sulphur were low (165,34.73,20 ppm respectively). Potash is in medium availability.

However the organic carbon (OC) content is 0.53 % it is in normal in Rang (0.5- 1).

2. Theme Area: CROP PRODUCTION

Demo I: Testing of drought tolerant varieties in Pigeon pea:

1. Name of the technology	Performance of Drought tolerant varieties
2. Objectives of the study	To identify the varieties Suitable under Drought Situation.
3. Thematic area	Crop production
4. Problemdiagnosis	Low yields due to frequent drought Conditions and terminal moisture stress during pre-flowering and Pod development stages respectively.
5. Micro farming situation	Rain fed red soils
6. Year of start	2011
7. Year of completion	2018
8. Comparisons/treatments (mention test crop and varieties/variety used in demonstration)	1.Local : Asha 2.Improved variety : PRG-176
9. Area covered for each demonstration(ha)	0.8
10. No. of farmers covered	178 (outreach villages)
11. Amount spent for each demonstration/each farmer	320/-
12. Contribution of demonstration from a) Project b) Farmers	 160/- 160/-
13. Results (yield,cost of cultivation, gross income, net income B:Cratio, soil moisture. Indicators /plant characters of flood/ drought tolerance in terms growth and yield components etc.,	

Introduction of drought tolerant variety of Redgram PRG-176 which is tolerant to drought, suitable for medium to light soils with 140-150 days duration, where long duration(180 days) varieties were facing moisture stress at flowering and pod dev. Stage (Terminal moisture stress).

Table: Year 2017-18

Treatments	Seed yield (kg/ha)	Fodder Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
FP(LRG-41)	313	-	16885	16589	-296	-
Asha	386	-	16885	20458	3573	1:1.21
Improved variety(PRG-176)	438	-	16885	23214	6329	1:1.3

Seed Cost Rs. 53/- per kg.

The results indicated that Redgram variety PRG-176 with Improved production technologies gave higher yield 438 kg/ha than that of farmers practice 313 kg/ha in medium black soils.

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 1:1.21/1.00

Demo II: Testing of drought tolerant varieties in Bengal gram:

1. Name of the technology	Performance of Drought tolerant varieties
2. Objectives of the study	To identify the varieties Suitable under Drought Situation.
3. Thematic area	Crop production
4. Problem diagnosis	Low yields due to frequent drought Conditions and terminal moisture stress during pre-flowering and Pod development stages respectively.
5. Micro farming situation	Rain fed red soils
6. Year of start	2011
7. Year of completion	
8. Comparisons/treatments (mention test crop and varieties/ variety used in demonstration)	1.Local:JG-11 2.Improved variety :,NBeG-3
9. Area covered for each demonstration (ha)	2.5
10. No. of farmers covered	10
11. Amount spent for each demonstration/each farmer	3200/-
12. Contribution of demonstration from a) Project b) Farmers	 1600/- 1600/-
13. Results (yield, cost of cultivation, gross income, net income B:C ratio, soil moisture. Indicators /plant characters of flood/ drought tolerance in terms growth and yield components etc., **(Brief results to be summarized)**	

Table: Year 2017-18

Treatments	Seed yield (kg/ha)	Fodder Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Farmers practice(JG-11)	643	-	19500	28938	9435	1:1.48
Improved Variety(NBeG-3)	736	-	20500	33120	12620	1:1.61

Bengalgram Rs 45/kg

Results of Bengalgram demonstrations indicated that among desi varieties NBeG-3 Performed well in medium to light soils. These varieties are fairly tolerant drought with well developed root system and also tolerant to wilt diseases.

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 Farmers practice indicated that the cultivation of Nandyala sanaga-1 with improved technologies, additional returns of Rs 8670/- /ha were obtained with BC ratio of 1:1.61/1.48 ***The performance of Nandyal Senega was superior to the control for its rooting traits and heat tolerance.***

Demo III: Testing of drought tolerant varieties in Jowar:

1. Name of the technology	Performance of Drought tolerant varieties
2. Objectives of the study	To identify the varieties Suitable under Drought Situation.
3. Thematic area	Crop production
4. Problem diagnosis	Low yields due to frequent drought Conditions and terminal moisture stress during pre-flowering and Pod development stages respectively.
5. Micro farming situation	Rain fed red soils
6. Year of start	2017
7. Year of completion	2018
8. Comparisons/treatments (mention test crop and varieties/ variety used in demonstration)	1.Local:Mahindra male 2.Improved variety :,NJ-2446,NJ-2647
9. Area covered for each demonstration (ha)	1.0
10. No. of farmers covered	10
11. Amount spent for each demonstration/each farmer	180/-
12. Contribution of demonstration from a) Project b) Farmers	 90/- 90/-
13. Results (yield, cost of cultivation, gross income, net income B:C ratio, soil moisture. Indicators /plant characters of flood/ drought tolerance in terms growth and yield components etc.,	

NJ-2647

NJ-2446

Table: Year 2018-19

Treatments	Seed yield (kg/ha)	Fodder Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Farmers practice(Mahindra male)	625	938	9625	14250 (Including fodder cost)	4625	1:1.48
Improved Variety(NJ-2647)	686	1029	9125	15848	6723	1:1.73
NJ-2446 (Yellow Jowar)	650	975	11540	32900	21360	1:2.87

Mahindra & NJ-2647 Rs 18/kg, NJ-2446 (Yellow Jowar) Rs 46/Kg

Results of Jowar demonstrations indicated that two varieties NJ-2647 and NJ-2446 Performed well in medium to light soils compared to local varieties. These varieties are fairly tolerant drought with well developed root system.

The increased grain yield with improved production technologies was mainly because of Short duration (105-110) than local varieties (120-125 days). Economics of demonstration and Farmers practice indicated that the cultivation of NJ-2647 and NJ-2446 with improved technologies, additional returns of Rs 2098/- /ha and 16735/-per ha. Were obtained with CB ratio of 1:1.73 and 2.87/1.48.

White Sorghum NJ-2647 is semi dwarf in height, matures in 95-100 days. Grain yield is around 15-25 qt/acre and fodder yield is also 3-4 tones/acre. Non lodging and good ear head size. Under rain shadow regions, best for cultivation due to dual advantage (grain & fodder).

Yellow sorghum NJ-2446 matures in 120 days. Grain yield is around 12-16 qt/acre. This is also best suitable for cultivation under rain fed areas. It is good for health.. Climate resilience in seen in NJ-2466.

IV. *Demonstration on Intercropping:*

1. Name of the technology	Demonstration of Red gram and Seteria as a intercropping
2. Objectives of the study	To minimize the risk and bring stable income in rain fed situations
3. Thematic area	Crop production
4. Problem diagnosis	Low productivity and income in erratic rainfall Frequent Drought Conditions During crop growth stages and Crop failures due to prolonged dry spells, low net returns.
5. Micro farming situation	Rain fed , Red soils
6. Year of start	2011
7. Year of completion	2018
8. Comparisons/treatments	
a). Farmers practice* (Describe the practice) b). Improved technology (mention test crop and varieties/variety used in demonstration)	Seteria as a Sole crop Intercropping System(Seteria+Redgram5:1)
9. Area covered for each demonstration (ha)	0.4
10. No. of farmers covered	25
11. Amount spent for each demonstration/each farmer.	180/-
12. Contribution of demonstration from a) Project b) Farmers	 90/- 90/-
13. Results (yield,cost of cultivation, gross income, net income B:Cratio, other parameters like yield components, soil moisture depth etc., **(Brief results to be summarized)**	

Table: Influence of improved inter cropping systems on yields and income in rain fed environment

Crop/Cropping system	Seed yield (kg/ha)	Fodder (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (RS/ha)	B:C ratio
Sole Crop1(Seteria)	286	151	8125	8794	669	1:1.08
Setaria + Redgram	465(S)	604	14520	34013	19493	1:2.34
	376 (R)					

Seteria Rs 29/-, **Red gram Rs 53/kg**

Inter Cropping systems for drought mitigation:

Adverse weather conditions like delay onset of rains and prolonged dry spells during the crop period is very common in rain fed situation. Such situation results in economic losses to the farmers due to the partial or total failure of the sole crops.

In order to utilize the bi-model distribution of rainfall and also to insure against crop failure due to drought during crop growth period, millet based inter cropping systems were demonstrated.
Introduced Redgram + Seteria (1:5) inter cropping systems in the village, along with sole crop of Redgram/Seteria in order to increase cropping intensity and net returns of the farmers.

- Results of demonstration on intercropping of Red gram + Seteria in row ratio of 1:5 indicated that the gross income was higher (Rs.34013/-) than sole crop of seteria (Rs.669 /-) Sole crop is dried due to lack of rain fall in July and Aug.

- The results on cropping system oriented demonstrations against drought mitigation clearly indicates that above inter cropping systems are economically advantageous than sole crops under rain fed situations. In the long run the fertility and microbial activity of the soil also increases with addition of biomass of red gram

Crop production (*cropping system)*

1. Name of the technology	Demonstration of Sequence cropping system
2. Objectives of the study	To maximize net income through sequence cropping system
3. Thematic area	Crop production
4. Problem diagnosis	Fallow land before rabi crops i.e. Jowar and Bengalgram.
5. Micro farming situation	Rainfed red soils/black soils/irrigated black soils/red soils/topography flat/slopy land
6. Year of start	2018
7. Year of completion	2018
8. Comparisons/treatments	Mention test crop and varieties
a). Farmers practice* (Describe the practice) b). Improved technology (mention test crop and varieties/variety used in demonstration)	1. Farmers practice-Sole Jowar (Mahindra male) 2. Dolichos beans followed by Jowar
9. No. of Demonstrations	05
10. Area covered for each demonstration (ha)	0.2
11. No. of farmers covered	05
12. Amount spent for each demonstration/each farmer.	500/-
13. Contribution of demonstration from a) Project b) Farmers	 500/-
14. Results (yield,cost of cultivation, gross income, net income B:Cratio, other parameters like yield components, soil moisture depth etc., **(Brief results to be summarized)**	

Dolichos bean +Jowar

Particulars	Yield (q/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Demo: D.bean + Jowar	36.5+ 6.25	42500 + 9625	73200+ 15848 (Including fodder cost)	30700+ 6723	1.72 + 1.73
Farmers practice(Mahindra male)	6.25	9625	15848 (Including fodder cost)	6723	1.73
* Market price Dolichos bean price @Rs.20/kg * Market price Jowar price @Rs.18/kg					

V. Introduction of alternate crop i.e Seteria

1.Name of the technology	Performance of Seteria as alternate crop to desi cotton
2.Objectives of the study	To Maximize yield and higher returns under harsh weather conditions
3.Thematic area	Crop production
4. Problem diagnosis	Low productivity and income in erratic rainfall
5.Micro farming situation	Frequent Drought Conditions During crop growth stages.
6.Year of start	2011
7.Year of completion	2018
8.Comparisons/treatments	
a). Farmers practice* (Describe the practice) b). Improved technology (mention test crop and varieties/variety used in demonstration)	Desi Cotton SIA-3088 and SIA -3222 as a alternate crops
9.Area covered for each demonstration (ha)	2
10.No. of farmers covered	5
11. Amount spent for each demonstration/each farmer.	120/-
12. Contribution of demonstration from a) Project b) Farmers	 120/- --
13.Results (yield, cost of cultivation, gross income, net income B:C ratio, other parameters like yield components, soil moisture depth etc.,	Current year.

Table: Influence of *alternate crops i.,e Seteria* on yields and income in rain fed environment 2018-19

Treatments	Variety	Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Farmers practice	Desi cotton	225	7862	11700	3838	1:1.48
Improved technology	SIA 3085	495	8125	14355	6230	1:1.76
	SIA-3222	186	8125	5394	-2731	1:0.66

In View of drought tolerance and minimum requirement of water seteria crop is preferred Sustainable yield and income was obtained under harsh weather conditions. In view of its superior performance the crop area increased from 05 to 250 acres in the villages during kharif 2018. Area expansion under this crop is expected during ensuing season also .*The adoption of seteria crop by the farmers was due to its suitability to delayed monsoon, its duration and additional benefit of fodder. The market price of seteria is also catching the attention of the farmers.*

Seteria Rs 29/-Kg, Cotton Rs 52/-Kg.

CROP PRODUCTION: PLANT PROTECTION

1. Name of the technology	Management of sucking pests in Bt-cotton
2. Objectives of the study	To economize the cost of plant protection of chemicals in Bt cotton by adopting IPM for sucking pests
3. Thematic area	
4. Problem diagnosis	The yield of bt cotton is affected due to regular incidence of sucking pests like jassids, Aphids and Whiteflies. The cost of plant protection is increasing year by year.
5. Micro farming situation	Rainfed Red/Black soils
6. Year of start	2013
7. Year of completion	2018
8. Comparisons/treatments	Test crop: Bt-cotton
a). Farmers practice* (Describe the practice) b) Improved technology (Mention test crop and varieties/variety used in demonstration)	1. Farmers method of plant protection (Spraying Mono, Imida and Triazophos) 2. IPM technology : Stem application at 20,40 and 60DAS with mono or Imidacloprid, Installing Yellow Sticky Traps @ 25/ha, Need based spraying of imidacloprid @0.25ml/lt.
9. No. of Demonstrations	25
10. Area covered for each demonstration (ha)	0.4
11. No. of farmers covered	25
12. Amount spent for each demonstration/each farmer	1500/-
13. Contribution of demonstration from a) Project b) Farmers	 1500/-
14. Results (yield, cost of cultivation, gross income, net income B:Cratio, other parameters like incidence of pests or disease (No.of plants damaged/sq.m), name the pest/ disease, No. of plants recovered/sq.m after imposition of treatment.etc.,	
15. Any other information/details	

Table: Influence of IPM technologies on yield and income in Bt-cotton

Treatments	Seed/Grain yield (kg/ha)	Fodder Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio	Remarks
Farmers practice	1422	-	25364	73944	48580	1:2.91	-
Improved method /IPM	1637	-	22434	85129	62695	1:3.79	-

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. Cherlokotturu and Krishnagiri 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 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.
- 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.

Theme area: LIVE STOCK AND FISHERIES

Reduction of calf mortality through calf registration programme

Name of the technology	Calf registration and healthy calf programme
Objectives of the study	To reduce the calf mortality To improve the growth rate in calves
Thematic area	Livestock and fisheries
Problem diagnosis	High calf mortality and poor growth rate in buffalo calves
Micro farming situation	Dairy farming
Year of start	2017-18
Year of completion	2019
Comparisons/treatments	
a). Farmers practice* *(Describe the practice) b) Improved technology	• Farmers practice • Calf registration (Monthly de-worming + Vit.A and B-complex supplementation
Area covered for each demonstration (ha)	50 calves

No. of farmers covered	50
Amount spent for each demonstration/each farmer	100/-
contribution of demonstration from a) Project b) Farmers	 75/- 25/-
Results (Fodder yield, cost of cultivation, gross income, net income B:Cratio, other No. of . cuttings harvested etc., after imposition of treatment.etc.,)	--
Any other information/details	

Results 2018-19

Particulars	***Farmers practice***	***Demonstration***	***Remarks***
Initial body weight (kg)	23.4	24.3	***The increased growth rate helps the calf to come into heat early.***
Final body weight (Kg)	62.6	71.6	
Body weight gain (kg)	39.2	47.6	
% increased in body Weight gain (Rs)	**21.17%**		
Mortality (number)	7	**3**	
Mortality (%)	14%	**6%**	

Backyard poultry:

Name of the technology	Poultry breed improvement through Rajasri birds
Objectives of the study	• To introduce improved poultry breed for backyard poultry • To encourage backyard poultry with improved breed for supplemental income generation activity
Thematic area	Live stock and fisheries
Problem diagnosis	Low egg production and body weight gain in native poultry
Micro farming situation	Small and marginal farmers depends on mostly daily wages and rainfed agriculture
Year of start	2017-18
Year of completion	
Comparisons/treatments	Type of bird species: local/native
a) Traditional method b) Improved technology	• Traditional method of rearing local birds • Improved method of feeding with improved birds ; Rajasri
No. of families covered in Demonstration	42
No. of units covered/farm family	01 (10 birds)
Amount spent for each demonstration/each farmer	1500/-
Contribution of demonstration from a) Project b) Farmers	 750/- 750/-
Results **(Brief results to be summarized)**	The birds are at 4 months age and weighing 1.2-1.6 kg. The birds are well adapted to the climatic condition of the village
• Any other information/details	

Data on body weight and egg production:

Particulars	Male Birds	Female Birds
Body weight of six weeks age	483.2	445.3
Body weight of adult birds at 6 months	1922.4	1398.6
Egg production in 90days	-	56.4

Low cost hydroponic fodder production:

Low cost hydroponic technology was demonstrated at NICRA villages to overcome the green fodder scarcity with available limited source of water. It is very effective technology suitable to drought areas. 8kg fodder can be grown from 1kg maize seed within seven days.

Each animal was offered with 12kg hydroponically grown maize fodder along with 7kg jowar straw every day. The results indicated that there was increase of 8.11% milk yield with the additional net income of Rs.32.00 per day. It was also observed that, through feeding of hydroponic fodder the concentrates can be reduced.

Observation	Milk yield(60days)	Fat in milk	6% FCM	B:C Ratio
Demo : Dry fodder + Hydroponic fodder 12kg	**390.8**	**7.08**	**7.32**	**4.86**
Farmers practice(Dry fodder + concentrates)	**328.8**	**6.78**	**5.97**	**3.83**
% increase	**18.86**	**4.42**	**22.61**	

Urea molasses bricks:

Name of the technology	Minerals supplementation through urea molasses Bricks.
Objectives of the study	To reduce the mineral deficiency in milchi buffalos
Thematic area	Livestock and fisheries
Problem diagnosis	-
Micro farming situation	Dairy farming
Year of start	2017-18
Year of completion	2019
Comparisons/treatments	
a). Farmers practice* *(Describe the practice) b) Improved technology	• Farmers practice :No supplementation of Minerals • Minerals supplementation through urea molasses Bricks.
Area covered for each demonstration (ha)	10
No. of farmers covered	10
Amount spent for each demonstration/each farmer	100/-
contribution of demonstration from a) Project b) Farmers	100/-
Results (Fodder yield, cost of cultivation, gross income, net income B:C ratio, other No. of . cuttings harvested etc., after imposition of treatment.etc.,) **(Brief results to be summarized)**	--
Any other information/details	

Particulars	Farmers practice	Demonstration
Milk Yield/day	**2.9**	**3.5**
% fat in Milk	**7**	**7.65**
Increase in milk Yield	**20.6%**	
Total milk yield	**174**	**210**
Increase in fat %	**9.28%**	
Grass income	**6124.8**	**9345**
CB ratio	**1:1.52**	

Silage:

Name of the technology	Alternate to green fodder
Objectives of the study	To avoid the green fodder scarcity in Summer
Thematic area	Livestock and fisheries
Problem diagnosis	To improve the milk yield in line period.
Micro farming situation	Dairy farming
Year of start	2017-18
Year of completion	2019
Comparisons/treatments	
a). Farmers practice* *(Describe the practice) b) Improved technology	• Farmers practice :No supplementation of Minerals • Minerals supplementation through urea molasses Bricks.
Area covered for each demonstration (ha)	-
No. of farmers covered	72
Amount spent for each demonstration/each farmer	400/-
contribution of demonstration from a) Project b) Farmers	 100/- 300/-
Results (Fodder yield, cost of cultivation, gross income, net income B:C ratio, other No. of . cuttings harvested etc., after imposition of treatment.etc.,) **(Brief results to be summarized)**	--
Any other information/details	

Observation	Milk yield(90days)	Fat in milk	6% FCM	B:C Ratio
Demo : Dry fodder + Silage fodder 5 kg	**546.0**	**7.18**	**7.32**	**4.86**
Farmers practice(Dry fodder + concentrates)	**441.0**	**6.78**	**6.21**	**3.83**
% increase	**23.80**	**5.89**	**17.87**	

INSTITUTIONAL INTERVENTIONS:

FARM MACHINERY:

CHCs are basically a unit comprising a set of farm machinery, implements and equipment meant for custom hiring by farmers. Though certain implements and equipment are crop specific,. Therefore, an ideal model envisaged in this project comprise farm machinery that are commonly used for tillage operations for all crops, multi crop equipment and a minimum of crop specific machinery.

Objectives:

1. To make available various farm machinery / equipments to small and marginal farmers
2. To improve mechanization in places with low farm power availability
3. To provide hiring services for various agricultural machinery/implements applied for different operations.
4. To expand mechanized activities during cropping seasons in large areas especially in small and marginal holdings.
5. To provide hiring services for various high value crop specific machines applied for different operations.

CROP PRODUCTION: FARM MACHINERY

1. Name of the technology	Seeding methods in Jowar & Bengal gram
2. Objectives of the study	To reduce the cost of sowing of agricultural crops and increase precision and to cover more area in unit time
3. Thematic area	Crop production- Farm Machinery
4. Problem diagnosis	Traditional method of seeding with bullocks involves high cost, less coverage and less precision
5. Micro farming situation	Rain fed red soils/black soils/irrigated black soils/red soils/topography flat/slopy land
6. Year of start	2017-18
7. Year of completion	2017-18
8. Comparisons/treatments	Test crop: variety
a). Farmers practice* (describe the practice) b) Improved technology (mention test crop and varieties/variety used in demonstration)	• Farmers method of seeding • Improved method of seeding with seed drill in Jowar & Bengal gram
9. Area covered for each demonstration (ha)	1.0
10. No. of farmers covered	10+10
11. Amount spent for each demonstration/each farmer	
12. Contribution of demonstration from a) Project b) Farmers	 -- --
13. Results	
14. Any other information/details	

Year 2018-19 Bengal gram:

Treatments	Seed / Grain yield (kg/ha)	Fodder Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Improved seed drill	816	--	21000	36720	15720	1:1.74
Farmers method of seeding	684	--	22500	30780	8280	1:1.36

Seed cost (Bengalgram) Rs. 45/- per kg

Year 2018-19 Jowar:

Treatments	Seed / Grain yield (kg/ha)	Fodder Yield (kg/ha)	Cost of cultivation (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Improved seed drill	785	-	11000	15700	4700	1:1.42
Farmers method of seeding	615	-	11680	12300	620	1:1.05

Indicate price of Jowar seed Rs 20 /Kg at the time of computing gross income.

Sowing witlh Automated seed dril

Sowing with Manual tractor Drawn seed drill

Custom Hiring center:

Custom hiring center with seed drills, Rotavator, Drumseeders, Taiwan sprayer, sprinklers with Pumpset and sheep de- worming gun etc. was established and the same is running successfully.

Custom Hiring center:

1. Name of the technology	Custom hiring center
2. Objectives of the study	To establish community based custom hiring center to provide hiring services of agricultural operations in a village
3. Thematic area	Institutional innovations
4. Problem diagnosis	Low productivity of crops due to lack of timely operations
5. Micro farming situation	Group based activity in a village
6. Year of establishment	2011
7. No. of families as members in community based custom hiring center	-
8. Contribution for the establishment of the center (Rs)	6.25 +4.85lakhs

(a) From the Project	
(b) Farming community	0.69 lakshs
(c) Loan from the Bank	-
(d) Other sources	-
Total	11.79 lakshs
9. Process of establishment	
10. Date of formation of Management committee	
11. Type s of equipments procured for running the center	Annexure
12. No. of persons engaged on hire basis in running and maintenance of equipments	-
13. No. of meetings held by the Management committee in a year with dates	
14. Recommendations of the committee for improved functioning	
15. Results/ performance	
16. Key leanings for sustainability of the center	

Table: Performance of custom hiring center

Year	Crops in demand for servicing custom hiring center	Area covered with hiring services (ha)	Amount realized due to services with custom hiring services (Rs)	Amount spent on contact service personnel For running the center	Amount incurred in maintenance of tools and center	Net amount realized due to custom hiring center	Any other informati on
2018	*Kharif & Rabi*						
	1.Redgram						
	2.Jowar						
	3.Bengalgram						
	4.seteria	38	4200	---		4200	

- Contribution from Farmers : Rs 2,84,811-00
- Amount invested to purchase implements : Rs 66,900-00
- Amount drawn for implement repair : Rs. 15,000-00
- Net amount realized : Rs. 2,07,111-00

S.No.	Name of the implement	No of Units
1	GPS unit	1
2	Seed drills	3
3	Rotavator	2
4	Power weeder	1
5	7- Tyned gorru	2
6	Sprinkler set	2
7	Oil engine	2
8	Taiwan Sprayers	8
9	De-worming gun	1
10	Soil augers	5
11	2-Plough set	1
12	Sub Soiler	1
13	Bullock drawn seed drill	1
14	Chesile plough	1

Custom Hiring Centre

Land preparation with Rotavator

Sowing with seed drill

Sowing with seed drill

Supplemental irrigation with Pipes

Oil Engine for lifting Irrigation water

Spraying with Tiwan Sprayer

Seed Production (Seed Bank):

Quality seed of improved varieties is an important basic input for enhancing productivity of any crop species. The existing mechanisms are not adequate to meet the seed requirements of small-scale farmers and have serious limitations. Particularly to small holder farmers at affordable prices and at the right time to enhance crop productivity and house hold food security.

The baseline studies in the project area identified key problems related to seed supply system. Lack of timely availability of good quality seeds of high-yielding varieties is one of the major constraints contributing to stagnant yields of crops in the project area.

The project devised alternate seed systems, which ensure availability of quality seed of improved varieties at local level. The concept of village seed banks was promoted and successfully validated in the project village. It not only ensured timely availability of quality seed of farmer-preferred varieties at affordable prices at local level but also enhanced crop productivity and local seed enterprises leading to higher incomes to farmers.

During this kharif seed production in Red gram (Asha-87119 & PRG-176) and Korra (SIA-3088) and Bengal gram (NBeG-3) was taken up to establish seed bank in the village.

Seed bank:

1. Name of the technology	Establishment of Seed Bank
2. Objectives of the study	Lack of timely availability of good quality seeds of high-yielding varieties is one of the major constraints contributing to stagnant yields of crops in the project area.
3. Thematic area	Institutional innovations
4. Problem diagnosis	The existing mechanisms are not adequate to meet the seed requirements of small-scale farmers and have serious limitations.
5. Micro farming situation	Community based village system
6. Year of establishment	2017
7. No. of families as members in community based seed Bank	15
8. Contribution for the establishment of the center (Rs)	
(a) From the Project	
(b) Farming community	-
(c) Loan from the Bank	-
(d) other sources	
Total	
9. Process of establishment	

10. Date of formation of Management committee for seed bank	-
11. Type of infrastructure created for the bank godown etc.,	
12. No. of persons engaged on hire basis in running and maintenance of seed bank	
13. No. of meetings held by the Management committee in a year with dates	
14. Procurement of improved breeder/foundation/ certified seed from SAU/ICAR institutions for multiplication	Crop Variety Qty. procured for Multiplication 1. Redgram-PRG-176 - 25 Qts 2. Red gram- Asha - 10 Qts 3. Seteria - SIA-3088 - 15 Qts 4. Seteria - SIA-3221 - 10 Qts 5. Bengal gram- NBeG-3 –15 Qts
14. No. of farmers involved assessed producers involved	15
16. Quantity of seed produced (t)	1. Redgram-PRG-176 - 2.5 t 2. Redgram- Asha - 1.0 t 3. Seteria - SIA-3088 - 1.5 t 4. Seteria - SIA-3221 - 1.0 t 5. Bengal gram - NBeG-3 –1.5 t
17. Key learning's for sustainability of the center	
18. Any other related information	

Year	Quantity of seed proposed to produce from different crops (t)	Number of farmers Covered	Area (ha)	Quantity of seed produced (t)	Quantity of fodder sold (t)	Amount realized due to sale of seed from the bank (Rs.)
2018-19	Redgram (Asha)	5	2	1.5 tonne		
	Redgram (Prg-176)	5	3	2.0 tonne		
	Seteria (SIA-3088)	3	1	1.0 tonne		
	Seteria (SIA-3221)	2	1	1.0 tonne		
	Bengalgram	2	2.5	2.0 tonne		

Fodder Bank

1. Name of the technology	FODDER BANK
2. Objectives of the study	To mitigate the problem of fodder scarcity to livestock in the village
3. Thematic area	Institutional innovations
4. Problem diagnosis	Low productivity and profitability of livestock rearing due to fodder scarcity
5. Micro farming situation	Village based Institutions
6. Year of establishment	2017 (outreach villages)
7. No. of families as members in community based fodder Bank	15
8. Contribution for the establishment of the center (Rs) (a) From the Project	3000/-
(b) Farming community	-
(c) Loan from the Bank	-
(d) Other sources	-
Total	
9. Process of establishment	
10. Date of formation of Management committee for fodder bank	-
11. Type of infrastructure created for the bank godown etc.,	-
12. No. of livestock in the village	Type Qty and no.Fodder req.(t)
13. Quantity of fodder requirement in the village	
14. Average quantity of fodder produced in a year (t)	
15. Quantity of fodder deficit in the village *Kharif* *Rabi* *Summer*	
16. Fodder scarcity period(specify months)	
7. Detailed plan for production of fodder in Bank	*Kharif* Target(t) Achievement *Rabi* *Summer*
18. No. of persons engaged on hire basis in running and maintenance of fodder bank	-
19. No. of meetings held by the Management committee in a year with dates	-

20. Procurement of improved breeder/foundation/ certified fodder seed /slipsfrom SAU/ICAR institutions for multiplication	Crop Var. Qty (kg/no) Hybrid Napier Super Napier
21. No. of farmers involved as fodder producers involved and area of production	20 & 2ha
22. Key learning's for sustainability of the center	
23. Any other related information	
24. Results/progress	

6.5 Capacity Building

Date	Title of the training programmes	Duration in days	No. of programmes organized	No. of participants			Remarks
				Male	Female	Total	
14-06-2018	Production technologies for Rainfed crops	1	01	36	4	40	
14-6-2018	Feed & Fodder technologies for Livestock	1	01	36	4	40	
22-6-2018	Soil & Water conservation Technologies for rainfed areas	1	01	31	4	35	
28-6-2018	Farm implements & machineries	1	01	28	4	32	
10-7-2018	Contingent crop planning & management	1	01	36	2	38	
10-7-2018	Soil & Water conservation Technologies for rainfed areas	1	01	32	3	35	

10-8-2018	Feed & Fodder technologies for Livestock	1	01	25	3	28	
30-8-2018	Prevention of disease in livestock	1	01	21	8	29	
7-9-2018	Rabi crop preparedness program	1	01	34	5	39	
20-9-2018	Importance of Home stead nutritional gardens	1	01	24	21	45	
28-9-2018	Soil Health management	1	01	29	6	35	
28-9-2018	Importance of Home stead nutritional gardens	1	01	8	42	50	
5-9-2018	Production technologies for Rainfed crops	1	01	32	8	40	
8/9/2018	Contingent crop planning & management	1	01	28	4	32	
8/8/2018	Crop pest disease management	1	01	32	6	38	
20-8-2018	Pest management In chillies	1	01	22	4	26	
10/10/2018	Value addition to millets	1	01	6	34	40	
8-11-2018	Bengalgram & Redgram Management Practices	1	01	26	6	32	
27-11-18	Crop pest disease management in Redgram & Bengal gram	1	01	30	5	35	
8-12-18	Management practices in Live stock & Mango management practices	1	01	25	3	28	
7/1/2019	Post harvesting Technology	1	01	38	4	42	
12/1/2019	VCRMC meeting and discussions on demonstrations	1	01	18	2	20	

17-1-2019	Zonal Review meeting	1	01	46	4	50	
21-2-2019	Interface meeting for NICRA and Non NICRA farmers	1	01	42	8	50	
23-3-2019	Interaction with NICRA and Other village farmers	1	01	44	6	50	
		26	20	726	203	929	

6.6 Extension Activities

Date	Title of the activity	No.of programmes organized	No. of participants			Remarks
			Male	Female	Total	
23-08-2018, 19-09-2018, 04-10-2018	Stem application in Bt-cotton, Seed treatment of Jowar and Bengal gram.	03	93	13	106	
12-1-2019, 21-2-2019	VCRMC and NICRA farmers interface meeting	03	82	14	96	
21-12-2018	Kisan Divas	01	64	-	64	
5-7-2018	Awareness in production technologies on rain fed crops	01	31	08	39	
9 &10-5-2018	ARS, Anantapur	01	12	-	12	
Every Tuesday & Friday	Agro advisory services	52	4940	2912	7852	
23-3-2019	Interaction with NICRA & other village farmers	01	48	06	54	
		62	**5270**	**2953**	**8223**	

Extension Activities:

KVK Kurnool extended their services in transferring technologies related to climate resilient agriculture. The other activities include group dynamics, method demonstration, seeding devices, awareness programmes were also organized on climate resilient agriculture. Agro advisory services through mobile alert systems, exposure visits and kisan melas etc.

7. Up-scalable Technologies

S.NO	Name of the Technology	Previous area of adoption (ha)	Target area to be achieved during 2018-19 (ha)	Area of adoption achieved during 2018-19 (ha)	Remarks
1.	Inter cropping System	65	50	63	
2.	Seteria is an alternate to Desi cotton	50	40	45	
3.	Short duration variety Red gram (PRG-176)	45	45	50	
4.	Drought tolerant variety in Bengal gram (NBeG-3)	68	10	25	
5.	Drought tolerant varieties in Jowar NJ-2647 N J-2446	 10 10	 15 15	 10 10	

8. Information on NICRA village clusters

Table: Information on NICRA Village Clusters

S.No	Name of the villages in the cluster		Year of Inclusion of new villages	Intervention undertaken in new villages
	Old villages	New Villages		
1.	Yagantipalle		2011-12	Inter cropping system Redgram with Seteria (5:1), Farm ponds, Introduction of Short duration varieties i.e SIA-3088, SIA-3085, SIA-3222 in Seteria, In Redgram ICPL-87119,PRG-156,PRG-176, Bengal gram Jaki, JG-11, NBeG-3, NBeG-49 etc.
2.	Meerapuram			Inter cropping system Redgram

			2012-13	with Seteria (5:1), Farm ponds, Introduction of Short duration varieties i.e SIA-3088, SIA-3085, SIA-3222 in Seteria, In Redgram ICPL-87119,PRG-156,PRG-176, Bengal gram Jaki, JG-11, NBeG-3, NBeG-49 etc.
		Jolapuram & Yerragudi	2014-15	Inter cropping system Redgram with Seteria (5:1), Introduction of Short duration varieties i.e SIA-3088, SIA-3085, SIA-3222 in Seteria, In Redgram ICPL-87119,PRG-156,PRG-176,
3.		Cherlokotturu	2017-18	Inter cropping system Redgram with Seteria (5:1), Farm ponds, Introduction of Short duration varieties i.e SIA-3088, SIA-3085, SIA-3222 in Seteria, In Redgram ICPL-87119,PRG-156,PRG-176 Castor DCH-519 etc.
4.		Krishnagiri	2017-18	Inter cropping system Redgram with Seteria (5:1), Farm ponds, Introduction of Short duration varieties i.e SIA-3088, SIA-3085, SIA-3222 in Seteria, In Redgram ICPL-87119,PRG-156,PRG-176 Castor DCH-519 etc.

9. Information on Technology Saturation during 2018-19

S.No	Name of the NICRA village	Module	Technology selected for saturation	Achievement during 2018-19			% Saturation achieved (Area of adoption of intervention /Area under the crop in the village) or No. of animals covered by the intervention/Total no. of animals in the village or **No. of households covered / Total no. of households in the village)**
				Area covered (ha)	**No. of farmers benefited**	**No.of animals benefited**	
1	Cherlokotturu	NRM		2	05	-	3.10
		Live stock and fisheries	1. Calf Registration 2. Silage 3. Backyard poultry 4. RSSM (TMR)	50 75 43 10	50 75 42 10	50 75 - 10	31.05% 46.58% 26% 6.2%
2	Krishnagiri						
	128	Crop Production	1. Inter cropping system 2.Drought tolerant variety Redgram (PRG-176) & Asha 3.Introduction of Hybrid Castor 4.Jowar NJ-2647 & NJ-2446	5 54 10 8	12 43 10 10		9.37% 33.5% 7.8% 7.8%
		Livestock					

1. **Benefits accrued due to different interventions under NICRA in the adopted villages under different modules since inception of the project**

S.No (a)	Module (b)	Name of the intervention (c)	Previous adoption Area ((ha)/Number before NICRA (d)	Additional area (ha) or Number covered/benefited since inception (sum of all years) (e)	Monitory benefit (Rs./ha) (f)	Benefit accrued since inception (e) x (f)
1	NRM	Desilting / renovation / construction of tanks, farm ponds, check dams etc.,	Desilting / renovation / construction of tanks, farm ponds, check dams etc.,	No No No	250 50 15	8245/ha 15580 6580
		Supplementary irrigation with harvested water	No	50	8565	428250
		In-situ moisture conservation measures	No	275	3298	906950
		Soil quality and fertility management	No	352	2250	792000
2	Crop production	Climate resilient varieties	No	Redgram :434 Bengal gram:216 Seteria :280.2	12650 13650 6530	5490100 2948400 1829706
		Crop diversification	No	Castor : 100	5580	558000
		Intercropping systems	No	411	3450	1417950

		Resource / water saving technologies (Eg. Zero tillage maize)	No	42	5300	222600
		Nutrient management of crops		170	4680	795600
		Better crop protection practices	No	Stem application 114	6190	705660
3	Live stock	Improved fodder varieties	No	149	6890	1026610
		Fodder preservation through silage	No	130	6300	819000
		Feed enrichment techniques	No	RSSM: 105	1932 (3months)	202860
		Backyard poultry	No	247	3376	833872
		Health management interventions	No	22 health Programmes		
		Shelter management	No	10		
		Interventions in fisheries				
4	Institutional interventions	Custom hiring center	Custom hiring center			
		Seed bank	Seed bank		86	
		Fodder bank	Fodder bank		28.5 ha (285 no)	6842

Budgetary Details:

Sanctioned BE for 2018-19	Opening balance as on 1st April 2018	Funds received	Expenditure up to March 2019	Closing balance
10,25,00-00	10,25,00-00	10,25,00-00	10,16,651-50	8,348-50

Success stories

1. **Weather advisories issued and their Impact :**
   No of Bulletins issued in 2018-19: -80

Impact:

1. Farmer Name : B.V.Sudhakar Reddy

   Village : Yagantipalli

   Cultivated crop : Yellow Jowar

   Date of Sowing : 23/09/2018

   Cultivated Area : 5 ac

On 14th and 15th October farmer decided to provide irrigation. But due to the forecast of heavy rain on 12/10/2019. Farmer decided to withdraw irrigation operation. By following the forecast he saved on amount of Rs.3500/-

In November crop is under moisture stress, on 12th and 13th he planned to give light irrigation to the crop. But due to the forecast of rain he withdraw the irrigation operation. By the following forecast he saved Rs.4500/-

He planned harvest the crop on 26th and 27th of January. But due to the forecast of rain to the postponed crop harvesting. Give to this protecting the crop from unwanted rain. That's why he got good price per his products.

2.	Farmer Name	:	B.Shankar Reddy
	Village	:	Yagantipalli
	Cultivated crop	:	Red gram
	Date of Sowing	:	10/07/2018
	Cultivated Area	:	3 ac
	Cost of cultivation	:	9900/-
	Land preparation cost	:	4000/-
	Fertilizers	:	1000/-
	Pesticides	:	1500/-
	Weeding	:	400/
	Harvesting	:	600/- (200@ one)
	Threshing	:	2400/-
	Yield	:	6 qtls per ac

September 11th forecast he knows for the he stopped irrigation operation thatswhy he saved Rs.500/-.

He planned spraying of pesticides on 17th and 18th of October. But he knows the forecast of rain through 12th and 16th October give to this he postponed spraying operation for this he saved up to Rs.700/- per ac

Conservation measures by formation of conservation furrow beside rows of redgram was taken up which helped the crop to cope up with drought.

The medium duration seteria sown in the month of Ist week of july was affected due to severe moisture stress at vegetative stage and revived after receipt of rains and yielded 500kg/ha.

Drought at vegetative

Crop was recovered after receipt of rains

Details of Rainfall Distribution during crop growth period:

Month	Normal Rainfall (mm)	Actual Rainfall (mm)	Deviation (%)	Status	Rainy Days
Jan	11	0	-100	Scanty	0
Feb	4	0	-100	Scanty	0
March	7	6.4	-8.5	Normal	1
April	16	15	-6.2	Normal	1
May	37	41.8	12.9	Normal	4
June	65	61.2	-5.8	Normal	5
July	107	36.9	-65.5	Scanty	3
August	115	14.1	-87.7	Scanty	2
September	120	84.2	-15.8	Normal	8
October	117	58.7	-49.8	Scanty	2
November	26	11.5	-55.7	Scanty	1
December	8	3.3	-58.7	Scanty	1
Total	633	333.1	-47.3	Scanty	28

S.No.	Details of dry spells	Days
1	June 14th to june 30	16 days
2	July 15th to Aug 9th	25 days
3	Aug 15th to sept 6th	21 days
4	Sept 27th to oct16th	19 days
5	Oct 20 to nov 15th	27 days
6	Nov17th to dec 2nd	17 days
7	Dec 5th to dec 31st	27 days

Livestock rearing provides sustainable livelihood for small and marginal farmers in dry areas where agriculture is not promising. Similar situation is prevailing at Cherlo kothuru village of Banaganapalle mandal. Due to prolonged dry spells during crop season resulted decreased yields or no yield. Every house hold in this village has two or more dairy animals and sheep from which farmers are able to get some income. But the milk yield is very less due to non availability of green fodder and mineral deficiencies. Interventions were taken up under NICRA project to overcome the problem

Establishment of fodder bank:

To mitigate problem of the green fodder availability in the village, fodder bank has been established involving 12 dairy farmers in an area of 1.5 acres with the minimum water available in the bore well. Improved hybrid napier fodder var. Super napier stem cuttings supplied to the farmers. Each dairy farmers now able to get 40-50kg green fodder to their dairy animals. Milk yield has been improved by 13% on feeding of green fodder.

S.No.	Name of the farmer	No. of milch animals	Fodder area allotted	Milk Yield/day		% increase in milk yield
				Before	After	
1	V. Prabhakar Reddy	3	0.30	6.2	7.0	12.9
2	G. Thimmaraju	2	0.40	3.8	4.6	14.4
3	S. Yaganti Reddy	1	0.25	1.8	2.0	11.1
4	N. Pedda hussanna	3	0.50	6.9	7.8	13.0
5	G. Ramesh	2	0.50	4.5	5.1	13.3
6	A.Paparayudu	4	0.50	8.1	9.2	13.5
7	G.Suryanarayana	2	0.30	4.6	5.2	13.0
8	V.Ayyapu Reddy	4	0.50	8.2	9.2	12.1
9	N. Venkata ramudu	2	0.25	3.4	3.9	14.7
10	N.Pratap Reddy	3	0.40	5.2	5.9	13.4
11	N.Thimma Reddy	2	0.25	4.6	5.2	13.0
12	O.Jayarami Reddy	2	0.40	3.6	4.1	13.8

Silage feeding as alternate to green fodder:

A total quantity of 11 tonnes of Silage maize fodder supplied to 35 dairy farmers in collaboration with Department of Animal Husbandry to feed milch buffaloes @5kg per day along with dry fodder to overcome green fodder scarcity in the village. The farmers accepted the technology. Due to feeding of silage 12% increase in milk yield was observed along with milk fat improvement.

Silage Bales

S.No.	Particulars	Farmers practice	Intervention
1	Feeding particulars	Dry fodder + Rice bran	Dry fodder + Rice bran + Silage
2	Milk yield/day	5.20	5.80
3	% increase	-	12%
4	Gross income/day	182.00 (@35/- per lt)	232.00 (@40/-per lt)
5	Expenditure on feeding	54.00	64.00
6	Net income/day	128.00	168.00
7	B:C ratio	1:3.37	1:3.63

పంటలు బెట్ట పరిస్థితుల నుంచి తట్టుకోవడానికి సలహాలు

బనగానపల్లె,నవంబర్ 29(కెఎన్ఎన్): పంటలను బెట్ట పరిస్థితుల నుంచి తట్టుకో ¨వడానికి రైతులకు సలహాలు, సూచనలు ఇచ్చినట్లు యాగంటిపల్లె కృషివిజ్ఞాన కేం ద్రం సీనియర్ శాస్త్రవేత్త జి. ధనలక్ష్మి పేర్కొన్నారు. బుధవారం ఆమె విలేకరుల సమావేశంలో మాట్లాడుతూ రాగల రోజుల్లో జిల్లాలో వర్షపాత సూచనలులేవని ప్రధానంగా జిల్లా అంతట పొడి వాతావరణం కలిగి ఉంటుందని వరి, మొక్కజొ న్న, మినుములు కోసుకునే రైతులు తమ పంటలను కోసుకోవచ్చన్నారు. అలాగే చాలా చోట్ల జిల్లాలో పంటలు బెట్టపరిస్థితుల్లో ఉన్నవి. ఈ బెట్ట పరిస్థితుల నుంచి తట్టుకోవడానికి 2శాతం యూరియా ద్రావణం లేదా 1శాతం 19-19-19 లేదా 13-0-45లలో ఏదోఒకదాన్ని పిచికారి చేసుకోవాలని వారు సూచించారు. ప్రస్తుత వాతావరణ పరిస్థితుల్లో గొర్రు లేదా గుంటకతో అంతరకృషి చేసుకోవడం ద్వారా నేలలో తేమను పట్టిఉంచి మొక్కలకు బెట్టరాకుండా నివారించవ చ్చన్నారు. అలాగే కలుపు బెడద లేకుండా చేయవచ్చన్నారు . వరి, మినుము, ప్రొద్దుతిరుగుడు, వేరుశనగలో కాయతొలుచు పురుగు, మిరపలో ఆకుపచ్చ తెగులు తదితర పంటల తెగుళ్లు, పురుగు నివారణ చర్యల గురించి వివరించడం జరిగింది. బనగానపల్లె వాతావరణం గడిచిన మూడు రోజుల నుంచి మండలంలో పొడి వాతావరణం కలిగి ఉంది. పగటి ఉష్ణోగ్రతలు 32-33 డిగ్రీ సెల్సియస్గా మరియు రాత్రి ఉష్ణోగ్రతలు 21-22 డిగ్రీ సెల్సియస్గా నమోదైందన్నారు. రాగల ఐదు రోజుల్లో మండలంలో పొడి వాతావరణం కలిగి ఉంటుందని పగటి ఉష్ణోగ్రతలు 31-32 డిగ్రీ సెల్సియస్గా మరియు రాత్రి ఉష్ణోగ్రతలు 18-19 డిగ్రీ సెల్సియస్గా నమోదుకావచ్చన్నారు.

ఆంధ్రప్రభ Thu, 30 November 2017
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సూచనలు పాటిస్తే అధిక దిగుబడి

బనగానపల్లె : రైతులు అధికారుల సూచనలు పాటిస్తే అధిక దిగుబడి సాధించవచ్చని యాగంటిపల్లె కృషి విజ్ఞాన కేంద్రం కో-ఆర్డినేటర్ ధనలక్ష్మీ పేర్కొన్నారు. బుధవారం వ్యవసాయ వాతావరణ అనుకూల పథకంలో భాగంగా ఆమె విలేకరులతో మాట్లాడారు. రైతులు అధికారుల సూచనలు పాటిస్తే తక్కువ పెట్టుబడితో ఎక్కువ దిగుబడి సాధించవచ్చన్నారు. వాతావరణానికి అనుగుణంగా రైతులు వ్యవసాయ పనులు చేసుకోవాలన్నారు. రాబోయే 5రోజుల్లో వాతావరణం పొడిగా ఉంటుందన్నారు. వరి, మొక్కజొన్న, మినుములను రైతులు కోసుకోవచ్చన్నారు. బెట్ట నుండి పంటలు తట్టుకోవడానికి 2 శాతం యూరియాను పిచికారీ చేయాలన్నారు. రాత్రి ఉష్ణోగ్రతలు తగ్గడం వల్ల వరిలో అగ్గితెగులు ఉందని, నివారణకు ట్రైసైక్లోజోల్ లీటర్ నీటికి 0.6గ్రాములు పిచికారీ చేయాలన్నారు. మినుములో కాండపు ఈగ ఆశిస్తుందని, నివారణకు లీటరు నీటికి 1.5మి.లీ డైమిథోయేట్, పొగాకుకు లద్దెపురుగు నివారణకు లీటరు నీటికి గ్రాము ధయోడికార్బ్ పిచికారీ చేయాలన్నారు. వేరుశనగలో కాయతొలచు పురుగు నివారణకు ఒక టన్నుకు 3 గ్రాముల అల్యూమినియం పాస్పేట్ బిల్లలు 1,2 పెట్టాలన్నారు. నవంబర్ నుండి డిశంబర్ 15వ తేదిలోగా వేరుశనగ విత్తనాలను వేసుకోవాలన్నారు.

ప్రజాశక్తి Thu, 30 November 2017
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వేసవి దుక్కులు ఉపయోగం

ప్రజాశక్తి బనగానపల్లె

రైతులు వేసవి దుక్కులను దున్నుకోవడం ఎంతో ఉపయోగమని కృషి విజ్ఞాన కేంద్రం ప్రోగ్రామ్ కో-ఆర్డినేటర్ ధనలక్ష్మీ పేర్కొన్నారు. మంగళవారం యాగంటిపల్లె కృషి విజ్ఞాన కేంద్రం ఆధ్వర్యంలో వాతావరణ అనుకూల వ్యవసాయ పథకంలో భాగంగా బులెటిన్ను విడుదల చేశారు. ఆమె మాట్లాడుతూ 5 రోజుల్లో జిల్లాలో పొడి వాతావరణం ఉంటుందని చెప్పారు. పగటి ఉష్ణోగ్రతలు 37-38 డిగ్రీలు, రాత్రి 24-26 డిగ్రీలు ఉంటుందని తెలిపారు. వాతావరణానికి అనుగుణంగా రైతులు వ్యవసాయాన్ని చేసుకోవాలన్నారు. రబీ సీజన్లో పంటలు వేసుకున్న రైతులు నీటి కొరత ఉన్న ప్రాంతాల్లో లీటరు నీటికి 20గ్రా. యూరియాను పిచికారీ చేయాలని సూచించారు. వరిలో త్రిప్స్, తామర పురుగుల నివారణకు లీటరు నీటికి 20మి. పిప్రోనిల్ పిచికారీ చేయాలని, వరిలో జింక్ లోపానికి లీటరు నీటికి 2గ్రా. జింక్సల్ఫేట్ ద్రావాన్ని పిచికారీ చేయాలని తెలిపారు. మొక్కజొన్నలో ఆకుఎండు తెగులు నివారణకు లీటరు నీటికి 2.5గ్రా. మంకోజెట్, మినుములో తెల్లదోమ నివారణకు లీటరు నీటికి 2మి. ట్రైజోఫాస్ లేదా ప్రొపినోఫాస్ను పిచికారీ చేయాలన్నారు. వంకాయలో రసం పీల్చు పురుగు నివారణకు లీటరు నీటికి 2మి. డైమిథోయేట్, కర్బూజలో తామరపురుగు నివారణకు లీటరు నీటికి 2మి. నువాస్ను పిచికారీ చేయాలన్నారు. కోళ్లలో కొక్కెర వ్యాధి నివారణకు టీకాలు వేయించుకోవాలని ఆమె తెలిపారు.

ప్రజాశక్తి Wed, 21 March 2018
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'రైతులు అప్రమత్తంగా ఉండాలి'

బనగానపల్లె, మార్చి 20: రోజురోజుకు పెరుగుతున్న ఉష్ణోగ్రతల పట్ల రైతులు అప్రమత్తంగా ఉండాలని కృషి విజ్ఞాన కేంద్రం కో ఆర్డినేటర్ ధనలక్ష్మి మంగళవారం సూచించారు. మరో ఐదు రోజుల్లో 40 డిగ్రీలకు పైగా ఎండ తీవ్రత పెరుగుతుందని, పెరిగే ఉష్ణోగ్రతలకు పంటలకు బెట్ట పరిస్థితి ఏర్పడవచ్చన్నారు. పైర్లను బెట్ట నుంచి కాపాడుకునేందుకు నీటితడులు ఇచ్చుకోవాలన్నారు. నీటి కొరత ఉన్న ప్రాంతాల్లో యూరియా ద్రావణాన్ని లీటరు నీటికి 20 గ్రాముల యూరియా కలిపి పంటలపై పిచికారి చేయాలన్నారు. అలాగే వరి, మొక్కజొన్న, మినుము, వంగ, ఖర్భూజా పైర్లపై వివిధ రకాల తెగుళ్లు, ఎండు తెగుళ్లు వస్తాయని, వీటి నివారణకు రైతులు జాగ్రత్తలు తీసుకోవాలన్నారు. ప్రస్తుత వాతావరణ పరిస్థితుల్లో కోళ్లకు కొక్కర వ్యాధి వస్తుందని, అలాగే పశువుల్లో చిటుక వాధి రావచ్చునని నిపుణుల సలహాల మేరకు టీకాలు వేయించాలన్నారు.

ఆంధ్రజ్యోతి Wed, 21 March 2018
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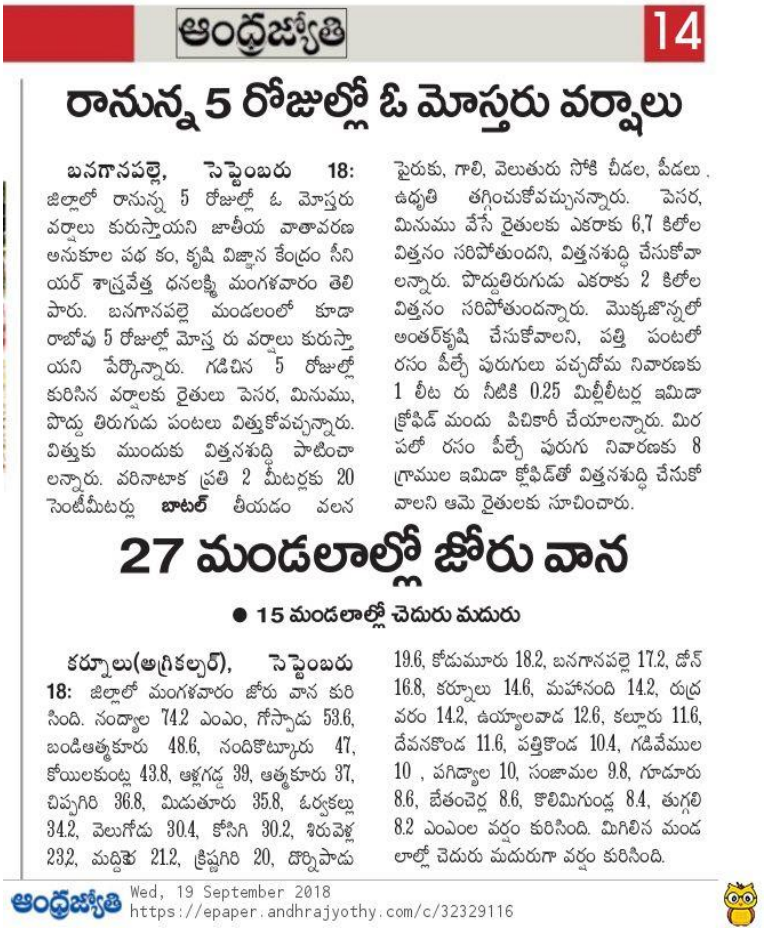

ఆంధ్రజ్యోతి 14

రానున్న 5 రోజుల్లో ఓ మోస్తరు వర్షాలు

బనగానపల్లె, సెప్టెంబరు 18: జిల్లాలో రానున్న 5 రోజుల్లో ఓ మోస్తరు వర్షాలు కురుస్తాయని జాతీయ వాతావరణ అనుకూల పథ కం, కృషి విజ్ఞాన కేంద్రం సీనియర్ శాస్త్రవేత్త ధనలక్ష్మి మంగళవారం తెలిపారు. బనగానపల్లె మండలంలో కూడా రాబోవు 5 రోజుల్లో మోస్త రు వర్షాలు కురుస్తాయని పేర్కొన్నారు. గడిచిన 5 రోజుల్లో కురిసిన వర్షాలకు రైతులు పెసర, మినుము, పొద్దు తిరుగుడు పంటలు విత్తుకోవచ్చన్నారు. విత్తుకు ముందుకు విత్తనశుద్ధి పాటించాలన్నారు. వరినాటాక ప్రతి 2 మీటర్లకు 20 సెంటీమీటర్లు బాటల్ తీయడం వలన పైరుకు, గాలి, వెలుతురు సోకి చీడల, పీడలు ఉధృతి తగ్గించుకోవచ్చునన్నారు. పెసర, మినుము వేసే రైతులకు ఎకరాకు 6,7 కిలోల విత్తనం సరిపోతుందని, విత్తనశుద్ధి చేసుకోవాలన్నారు. పొద్దుతిరుగుడు ఎకరాకు 2 కిలోల విత్తనం సరిపోతుందన్నారు. మొక్కజొన్నలో అంతర్‌కృషి చేసుకోవాలని, పత్తి పంటలో రసం పీల్చే పురుగులు పచ్చదోమ నివారణకు 1 లీట రు నీటికి 0.25 మిల్లీలీటర్ల ఇమిడా క్లోఫిడ్ మందు పిచికారీ చేయాలన్నారు. మిర పలో రసం పీల్చే పురుగు నివారణకు 8 గ్రాముల ఇమిడా క్లోఫిడ్‌తో విత్తనశుద్ధి చేసుకోవాలని ఆమె రైతులకు సూచించారు.

27 మండలాల్లో జోరు వాన

● 15 మండలాల్లో చెదురు మదురు

కర్నూలు(అగ్రికల్చర్), సెప్టెంబరు 18: జిల్లాలో మంగళవారం జోరు వాన కురిసింది. నంద్యాల 74.2 ఎంఎం, గోస్పాడు 53.6, బండిఆత్మకూరు 48.6, నందికొట్కూరు 47, కోయిలకుంట్ల 43.8, ఆళ్లగడ్డ 39, ఆత్మకూరు 37, చిప్పగిరి 36.8, మిడుతూరు 35.8, ఓర్వకల్లు 34.2, వెలుగోడు 30.4, కోసిగి 30.2, శిరువెళ్ల 23.2, మద్దికెర 21.2, క్రిష్ణగిరి 20, దొర్నిపాడు 19.6, కోడుమూరు 18.2, బనగానపల్లె 17.2, డోన్ 16.8, కర్నూలు 14.6, మహానంది 14.2, రుద్రవరం 14.2, ఉయ్యాలవాడ 12.6, కల్లూరు 11.6, దేవనకొండ 11.6, పత్తికొండ 10.4, గడివేముల 10 , పగిడ్యాల 10, సంజామల 9.8, గూడూరు 8.6, బేతంచెర్ల 8.6, కొలిమిగుండ్ల 8.4, తుగ్గలి 8.2 ఎంఎంల వర్షం కురిసింది. మిగిలిన మండలాల్లో చెదురు మదురుగా వర్షం కురిసింది.

ఆంధ్రజ్యోతి Wed, 19 September 2018
https://epaper.andhrajyothy.com/c/32329116

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9	P. Vishnu Mohan Reddy	SRF		9963875833

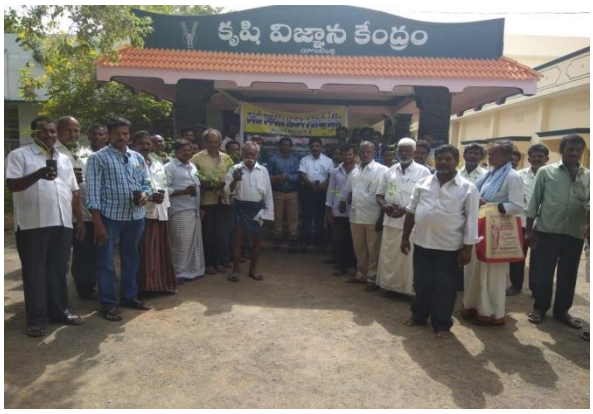
Action plan discussion with VCRMC

Percolation tank visited with ZRC members

Multi K for Mango farmers

Dolichus seed distribution to Farmers

Blue &yellow sticky traps distribution



Drumstick plants distribution to the farmers

Demonstration on stem application in Bt-cotton

Bulletin Ditribution in NICRA village

Vegetable seeds for Nutritional gardens

Drumstick plants distributed to women farmers

Training programme on Value addition to millets

Inputs distribution to cotton farmers

List of Annexures to be enclosed in Annual report

ANNEXURE-I

Rainfall details in NICRA village -2018

Days	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1	000.0	000.0	000.0	001.5	000.0	014.8	007.2	000.0	000.0	000.0	000.0	000.0
2	000.0	000.0	000.0	013.3	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
3	000.0	000.0	000.0	000.0	010.4	011.8	000.0	000.0	000.0	000.0	000.0	000.0
4	000.0	003.3	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	003.3
5	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
6	000.0	000.0	000.0	000.0	000.0	000.0	023.0	000.0	000.0	000.0	000.0	000.0
7	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	002.7	000.0	000.0	000.0
8	000.0	000.0	000.0	000.0	000.0	000.0	002.0	000.0	000.0	000.0	000.0	000.0
9	000.0	000.0	000.0	000.0	000.0	012.4	000.0	000.0	000.0	000.0	000.0	000.0
10	000.0	000.0	000.0	000.0	000.0	008.0	000.0	007.3	000.0	000.0	000.0	000.0
11	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	005.0	000.0	000.0	000.0
12	000.0	000.0	000.0	000.0	000.0	000.0	001.7	000.0	000.0	000.0	000.0	000.0
13	000.0	000.0	000.0	000.0	000.0	014.2	000.0	000.0	000.0	000.0	000.0	000.0
14	000.0	000.0	000.0	000.0	017.6	000.0	003.0	005.2	000.0	000.0	000.0	000.0
15	000.0	000.0	000.0	000.0	000.0	000.0	000.0	001.6	003.8	000.0	000.0	000.0
16	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	032.0	000.0	011.5	000.0
17	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	011.7	042.5	000.0	000.0
18	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	011.6	000.0	000.0	000.0
19	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	006.7	016.2	000.0	000.0
20	000.0	000.0	000.0	000.0	006.6	000.0	000.0	000.0	000.0	000.0	000.0	000.0
21	000.0	000.0	000.0	000.0	007.2	000.0	000.0	000.0	000.0	000.0	000.0	000.0
22	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
23	000.0	000.0	000.0	000.2	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
24	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
25	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
26	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	010.7	000.0	000.0	000.0
27	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
28	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
29	000.0		006.4	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
30	000.0		000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0	000.0
31	000.0		000.0			--	000.0	000.0	--	000.0	--	000.0
Total	**0.0**	**0.0**	**6.4**	**15**	**41.8**	**61.2**	**36.9**	**14.1**	**84.2**	**58.7**	**11.5**	**3.3**
Rainy days	**0.0**	**0.0**	**1**	**1**	**4**	**5**	**3**	**2**	**8**	**2**	**1**	**1**

ANNEXURE-II

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : In-situ moisture conservation in Redgram

2 .Year of the study : 2018-19

3. No. of farmers covered : 10

4 . Area covered in each demonstration (ha) : 1

5 .Total area covered in the intervention (ha) : 25

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	A.Ratnamma	594	9-7-2018	26-11-18
2	G.Chinna Thimmaiah	510	8-7-2018	5-12-18
3	P.BalaHussaini	530	10-7-2018	28-12-18
4	A.Paparayudu	525	12-8-2018	24-12-18
5	G.Venkatesh	500	10-7-2018	30-11-18
6	N.Thimmaiah	510	9-7-2018	4-12-18
7	N. Thimmaiah	490	12-8-2018	25-11-18
8	N.P. Hussanna	526	8-7-2018	2-12-18
9	O.Peddarama Subba Reddy	515	10-7-2018	28-11-18
10	B.Venkateswara Reddy	480	8-7-2018	28-11-18
	Avg	518		

Farmer wise yield data for different interventions implemented - 2018-19

1. Title of the intervention : Drought tolerant varieties Red gram (PRG-176)

2. Year of the study : 2018-19

3. No. of farmers covered : 88

4. Area covered in each demonstration (ha) : 0.8

5. Total area covered in the intervention (ha) : 70.4

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	K.Chinnathimma Reddy	410	9-7-2018	26-11-18
2	N.Lakshmi Devi	350	8-7-2018	5-12-18
3	N.Chinna thimma Raju	390	10-7-2018	28-12-18
4	N.Thimma Reddy	420	12-8-2018	24-12-18
5	O.Rambhupal Reddy	470	10-7-2018	30-11-18
6	N.Narayana	450	9-7-2018	4-12-18
7	N.Ramulamma	460	12-8-2018	25-11-18
8	S.Siva Bhaskar Reddy	470	8-7-2018	2-12-18
9	S.sumalatha	420	10-7-2018	28-11-18
10	N.Nadipi Husseni	440	8-7-2018	26-11-18
11	D.Hussainamma	450	18-8-2017	5-12-18
12	V.Ayyapu Reddy	485	12-6-2017	28-12-18
13	K.Chandara Babu	400	20-6-2017	24-12-18
14	V.Chinnapu Reddy	380	11-8-2017	30-11-18
15	N.Seera Reddy	475	21-6-2017	4-12-18
16	A.Lakshmi Devi	470	20-6-2017	25-11-18
17	N.Sivamma	400	16-8-2017	2-12-18

18	N. Subhadra	480	19-8-2017	28-11-18
19	S. Yaganti Reddy	360	26-6-2017	4-12-18
20	S. Padmavathi	375	21-6-2017	25-11-18
21	T. Lakshmi Narayana	490	20-6-2017	2-12-18
22	C. Thimmaiah	470	14-8-2017	28-11-18
23	Y.Madhusudhan	450	9-7-2018	26-11-18
24	S.Lakshmi Devi	460	8-7-2018	5-12-18
25	S.Lakshmi Devi	450	10-7-2018	28-12-18
26	B. Venkata Lakshmamma	460	12-8-2018	24-12-18
27	C. Maddulety	470	10-7-2018	4-12-18
28	C. Subbadu	480	9-7-2018	25-11-18
29	C. Thirupalu	490	12-8-2018	2-12-18
30	N. Ramlakshamma	450	8-7-2018	28-11-18
31	M. Maddamma	485	10-7-2018	26-11-18
32	R. Ghanana Maddamma	490	8-7-2018	5-12-18
33	N. Rama Chandrudu	390	9-7-2018	28-12-18
34	N. Rajeswari	475	8-7-2018	24-12-18
35	R. Lakshmi Devi	470	11-7-2018	4-12-18
36	N. Peddahussain	400	9-7-2018	25-11-18
37	K. Maddulety Reddy	420	8-7-2018	2-12-18
38	O.Rami Reddy	455	10-7-2018	28-11-18
39	A.Rathnamma	480	11-7-2018	26-11-18
40	V.Venkata Lakshmamma	495	9-7-2018	5-12-18
41	N.Thimmaiah	360	12-7-2018	28-12-18

42	N.Bala Hussaini	680	8-7-2018	24-12-18
43	N.Rama Subbaiah	475	8-7-2018	4-12-18
44	N.Chinna Lakshmamma	470	11-7-2018	25-11-18
45	I.Malleswari	370	9-7-2018	2-12-18
46	M.Ramaddilety	480	8-7-2018	28-11-18
47	R.Maddilety	400	10-7-2018	26-11-18
48	N.Maddi Reddy	402	11-7-2018	5-12-18
49	A.Nageswaramma	380	9-7-2018	28-12-18
50	T.Maddilety	470	12-7-2018	24-12-18
51	Thalari.Narasamma	450	8-7-2018	4-12-18
52	V.Madhavi	460	11-7-2018	25-11-18
53	Y.Subbamma	470	9-7-2018	2-12-18
54	N.Bali Reddy	410	8-7-2018	28-11-18
55	N. SivaLakshamma	490	10-7-2018	26-11-18
56	A.Venkata Ramudu	450	9-7-2018	5-12-18
57	Golla. N.Thimma Raju	400	8-7-2018	28-12-18
58	G.Ramesh	350	10-7-2018	24-12-18
59	G.Chinna Thimmaiah	420	12-8-2018	24-12-18
60	G.LaksmiDevi	450	10-7-2018	4-12-18
61	O.Ram Bhupal	485	9-7-2018	25-11-18
62	R.Lakshmi Devi	420	12-8-2018	2-12-18
63	A.Chinnapaparayudu	350	8-7-2018	28-11-18
64	G.Maddilety Reddy	475	10-7-2018	26-11-18
65	S.Jayachandrudu	470	8-7-2018	24-12-18

66	N.Nageswara rao	340	9-7-2018	4-12-18
67	N.C.Lakshmaiah	360	10-7-2018	25-11-18
68	N.shivasankar	455	12-8-2018	2-12-18
69	Madhanmohan krishna	390	10-7-2018	28-11-18
70	G.Thimma raju	410	9-7-2018	26-11-18
71	P.venkata ramudu	450	12-8-2018	24-12-18
72	O.Jayarami Reddy	420	8-7-2018	4-12-18
73	B.Narayana Reddy	475	10-7-2018	25-11-18
74	N.Thimma Reddy	470	8-7-2018	2-12-18
75	G.Gopinath	385	9-7-2018	28-11-18
76	A.Ayyapu Reddy	480	10-7-2018	26-11-18
77	A.AdhiNarayan	490	12-8-2018	24-12-18
78	P.Bhupal Yadav	450	9-7-2018	4-12-18
79	G.Lakshmi Reddy	350	8-7-2018	25-11-18
80	Shaik.Himam Bee	380	10-7-2018	2-12-18
81	S.Ma Basha	350	12-8-2018	24-12-18
82	Y.Malleesawra Reddy	475	10-7-2018	4-12-18
83	Y.Venakata Reddy	470	9-7-2018	25-11-18
84	A.Sambha Siva Reddy	400	12-8-2018	2-12-18
85	G.ThimmaRaju	420	8-7-2018	28-11-18
86	Yaganti Reddy	455	10-7-2018	26-11-18
87	Y.Manohar	410	8-7-2018	24-12-18
88	Y.Ramulamma	410	9-7-2018	4-12-18
	Avg	438		

Farmer wise yield data for different interventions implemented - 2018-19

1. Title of the intervention : Drought tolerant varieties Red gram (Asha)

2. Year of the study : 2018-19

3. No. of farmers covered : 90

4. Area covered in each demonstration (ha) : 0.8

5. Total area covered in the intervention (ha) : 72

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	N. Prabhakar	400	9-7-2018	28-12-18
2	N.Salamma	385	12-7-2018	12-1-19
3	Y.Subbamma	380	8-7-2018	10-1-19
4	Y. Venkata subbaiah	390	9-7-2018	5-1-19
5	S. Olamma	400	8-7-2018	29-12-18
6	N. Nageswara Rao	410	10-7-2018	21-1-19
7	S. Lakshmi Devi	375	12-7-2018	18-1-19
8	S. Lakshmi Devi	395	10-7-2018	8-1-19
9	B.Venkata Lakshamma	420	9-7-2018	30-12-19
10	C. Tirupalu	350	12-7-2018	12-1-19
11	K. Pedda Thimmaiah	380	8-7-2018	8-1-19
12	R. Pedda Maddilety	368	10-7-2018	31-12-18
13	T. Naidu	374	8-7-2018	4-1-19
14	T. Anashuya	360	9-7-2018	16-1-19
15	E. Kasamma	400	8-7-2018	5-1-19
16	T. Lakshmi Narayana	430	11-7-2018	8-1-19
17	Y. Nagendrudu	410	9-7-2018	10-1-19

18	I. Mallaswari	385	8-7-2018	28-12-18
19	M.Rama Maddilety	400	10-7-2018	12-1-19
20	Y.Maddilety	385	11-7-2018	18-1-19
21	E.Tulasi	380	9-7-2018	10-1-19
22	C. Lakshmaiah	390	12-7-2018	14-1-19
23	C.Maddilety	400	8-7-2018	28-12-18
24	C. Maddiletamma	410	8-7-2018	12-1-19
25	E. Thimmaiah	375	11-7-2018	10-1-19
26	E.Achamma	395	9-7-2018	5-1-19
27	M. Peddamaddilety	420	8-7-2018	29-12-18
28	R.Maddilety	350	10-7-2018	21-1-19
29	R.C. Maddilety	380	11-7-2018	18-1-19
30	R.Gana Maddamma K. Yaganti	368	9-7-2018	28-12-18
31	S. Ademma	374	12-7-2018	12-1-19
32	C. Thimmadu	360	8-7-2018	10-1-19
33	T. Sudhakar	400	11-7-2018	5-1-19
34	N. Seshi Reddy	430	9-7-2018	29-12-18
35	E. Balalingaiah	410	8-7-2018	21-1-19
36	Madhuprakash	385	10-7-2018	18-1-19
37	T. Eswaramma	374	9-7-2018	28-12-18
38	B.mounika	360	8-7-2018	12-1-19
39	G. Meena	400	10-7-2018	10-1-19
40	P.Sudhakar	430	12-8-2018	5-1-19
41	N. Rama Subbaiah	410	10-7-2018	29-12-18

42	N. Siva Kumar	385	9-7-2018	21-1-19
43	S. Lakhmi Devi	400	12-8-2018	18-1-19
44	N. Nageswaramma	385	8-7-2018	8-1-19
45	G.BalaRamudu	380	10-7-2018	30-12-19
46	G.sulochana	390	8-7-2018	12-1-19
47	S.Rameswarudu	400	9-7-2018	8-1-19
48	S.Lakshmi Devi	368	12-8-2018	31-12-18
49	Y.V. Ramasubbaiah	374	8-7-2018	4-1-19
50	Y. Narayanamma	360	10-7-2018	16-1-19
51	Y.Naga Siddayya	400	8-7-2018	5-1-19
52	M. Balakka	430	9-7-2018	8-1-19
53	M. Maddamma	410	10-7-2018	10-1-19
54	Y. Olakshamma	385	12-8-2018	28-12-18
55	S. Nagarjuna	374	9-7-2018	12-1-19
56	M. Hussain saheb	360	8-7-2018	18-1-19
57	N. Ramaswari	400	10-7-2018	10-1-19
58	M. Pedda Hussain	385	12-8-2018	14-1-19
59	N.Golla pedda usenna	400	10-7-2018	28-12-18
60	K. Bala thimmaiah	385	9-7-2018	12-1-19
61	B. Yellappa	380	12-8-2018	10-1-19
62	O. Ramachandra Reddy	390	8-7-2018	5-1-19
63	A. Venkatalakshamma	385	10-7-2018	29-12-18
64	A.Chinna Naganna	368	8-7-2018	21-1-19
65	S. Sivasankar Reddy	374	9-7-2018	18-1-19
66	O. Papi Reddy	360	9-7-2018	8-1-19

67	O. Siva Reddy	390	12-8-2018	30-12-19
68	N. Madhu mohan Reddy	386	8-7-2018	12-1-19
69	N. Chinna thimma Raju	385	10-7-2018	8-1-19
70	T. Chinnatirupalu	395	8-7-2018	31-12-18
71	N. Narayana	385	9-7-2018	4-1-19
72	O. Lalithamma	380	10-7-2018	16-1-19
73	K. Chinna thimma Rddy	390	12-8-2018	5-1-19
74	S. Chinna Maddilety	375	9-7-2018	8-1-19
75	O. Ramaswari Reddy	368	8-7-2018	10-1-19
76	O. Jayarami Reddy	374	10-7-2018	28-12-18
77	V. Ramakrishna Reddy	360	12-8-2018	12-1-19
78	G. Chinna thimmaiah	380	10-7-2018	10-1-19
79	G. Rama Lakshamma	395	9-7-2018	5-1-19
80	N. Dastagiramma	385	12-8-2018	29-12-18
81	G. Lakshmi devi	385	8-7-2018	21-1-19
82	A.Lakshmi devi	385	10-7-2018	18-1-19
83	N.Bala hussaini	360	8-7-2018	8-1-19
84	N.Ayyapu Reddy	352	9-7-2018	30-12-19
85	N.Seera Reddy	385	9-7-2018	12-1-19
86	N. Eswaramma	385	12-8-2018	8-1-19
87	N. Ratnamma	385	8-7-2018	31-12-18
88	N.Thimmaiah	386	10-7-2018	4-1-19
89	G.Ramesh	380	8-7-2018	16-1-19
90	B.Obulesu	364	9-7-2018	5-1-19
	Avg	386		

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Drought tolerant variety Bengal gram (Nandyal sanaga-1)

2 .Year of the study : 2018-19

3. No. of farmers covered : 10

4 .Area covered in each demonstration (ha) : 1

5 .Total area covered in the intervention (ha) : 10

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	S.Sekhar Reddy	750	22-10-2018	10-1-19
2	B. Pedda pulla Reddy	810	20-10-2018	16-1-19
3	B. Malleswar Reddy	735	25-10-2018	22-1-19
4	B.Bhaskar Reddy	740	21-10-2018	30-1-19
5	B.Sivasankar Reddy	680	24-10-2018	26-1-19
6	B. Jagadeswar Reddy	700	21-10-2018	20-1-19
7	Y. Sanjeeva Reddy	750	22-10-2018	25-1-19
8	B. Pratapa Reddy	690	26-10-2018	1-2-19
9	Y. Viswanath Reddy	700	20-10-2018	22-1-19
10	S. Balasubba Reddy	800	24-10-2018	20-1-19
Avg.		736		

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Drought tolerant variety- JOWAR (NJ-2647)

2 .Year of the study : 2018-19

3. No. of farmers covered : 13

4 . Area covered in each demonstration (ha) : 0.8

5 .Total area covered in the intervention (ha) : 10.4

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	G. Thimmaraju	650	22-9-2018	22-1-19
2	G.Ramesh	675	21-9-2018	29-1-19
3	V. Sambasiva Reddy	640	22-9-2018	12-1-19
4	N.Ramakrishnudu	755	21-9-2018	1-2-19
5	A.Lakshmidevi	680	25-9-2018	20-1-19
6	G.Ventalakshamma	680	28-9-2018	26-1-19
7	V.Madhusudhana Reddy	680	21-9-2018	24-1-19
8	N.Hussainaiah	685	23-9-2018	18-1-19
9	S.Bhaskar Reddy	710	20-9-2018	21-1-19
10	G.Kamabagiri	700	28-9-2018	24-1-19
		686		

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Drought tolerant variety- JOWAR (NJ-2446)

2 .Year of the study : 2018-19

3. No. of farmers covered : 12

4 . Area covered in each demonstration (ha) : 0.8

5 .Total area covered in the intervention (ha) : 9.6

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	N.ramudu	648	22-9-2018	3-2-19
2	Y.Maddilety	652	21-9-2018	22-1-19
3	V.Chinna yaganti Reddy	640	22-9-2018	20-1-19
4	s.seera reddy	620	21-9-2018	29-1-19
5	N.Bali Reddy	630	25-9-2018	26-1-19
6	Y.Nagasiddaiah	680	28-9-2018	30-1-19
7	O.seera Reddy	650	21-9-2018	24-1-19
8	B.Jagadeswar Reddy	640	23-9-2018	22-1-19
9	B.Srinivasul Reddy	680	20-9-2018	2-2-19
10	O.Rami reddy	660	28-9-2018	26-1-19
	Avg	**650**		

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Intercropping systems (Red gram + Seteria, 1:5)

2 .Year of the study : 2018-19

3. No. of farmers covered : 25

4. Area covered in each demonstration (ha) : 0.4

5 .Total area covered in the intervention (ha) : 10

S.No.	Farmer	Seed yield (kg/ha)		Date of sowing	Date of harvesting
		Korra	Redgram		
1	Y. Nagendrudu	350	500	10-7-2018	30-12-19
2	Y. Maddilety	370	480	8-7-2018	12-1-19
3	N. Nageswar Rao	400	440	9-7-2018	8-1-19
4	N.Ramachandru	450	430	12-8-2018	31-12-18
5	N. Ramana	345	520	8-7-2018	4-1-19
6	K. Maddilety Reddy	420	450	10-7-2018	16-1-19
7	G. Savithri	410	490	8-7-2018	5-1-19
8	N. Narayana	370	420	9-7-2018	8-1-19
9	Y. Balaswami	352	520	10-7-2018	10-1-19
10	Y.Madhu sudhan	390	450	12-8-2018	28-12-18
11	O. Ramaswami	360	450	9-7-2018	12-1-19
12	P. Chandrahasa Reddy	400	456	8-7-2018	18-1-19
13	N. Hussainaiah	380	480	10-7-2018	10-1-19
14	G.N. Thimmaraju	340	455	12-8-2018	14-1-19
15	B.Thirupathaiah	370	440	10-7-2018	28-12-18
16	Y. Nageswar Rao	380	490	9-7-2018	12-1-19
17	P. Sreenivasulu	350	452	10-7-2018	30-12-19

18	O.Papi Reddy	380	460	10-7-2018	30-12-19
19	V.Sivasankara Redy	360	452	8-7-2018	12-1-19
20	D.Shaleeni	420	465	9-7-2018	8-1-19
21	K.Yaganti	318	450	12-8-2018	31-12-18
22	K.Chinna Thimma Reddy	352	460	8-7-2018	4-1-19
23	N.Pedda Hussaini	380	450	10-7-2018	16-1-19
24	N.Lakshmi Devi	360	460	8-7-2018	5-1-19
25	N.Chinna Thimma Reju	400	510	9-7-2018	8-1-19
Avg		**465**	**376**		

Farmer wise yield data for different interventions implemented --- 2018-19

1. Title of the intervention : Seteria as alternate crop

2. Year of the study : 2018-19

3. No. of farmers covered : 5

4. Area covered in each demonstration (ha) : 2

5. Total area covered in the intervention (ha) : 10

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	N.V. krishna Reddy	480	10-07-2018	4-10-2018
2	A. Rathnamma	495	13-7-2018	5-10-2018
3	P.Nageshudu	505	13-7-2018	4-10-2018
4	P.Bhupal	490	9-7-2018	10-10-2018
5	P.Madhu Prakash	505	12-7-2018	3-10-2018
	Avg	**495**		

Farmer wise yield data for different interventions implemented --- 2018-19

1. Title of the intervention : Sequence cropping

2. Year of the study : 2018-19

3. No. of farmers covered : 5

4. Area covered in each demonstration (ha) : 0.2

5. Total area covered in the intervention (ha) : 1

S.No.	Farmer	Seed yield (kg/ha)		Date of sowing		Date of harvesting	
		Dolichos	Jowar	Dolichos	Jowar	Dolichos	Jowar
1	N.Seera Reddy	3745	635	10-07-2018	22-9-18	5-9-18	12-1-19
2	V.Ayyapu Reddy	3360	605	13-7-2018	23-9-18	8-5-18	14-1-19
3	K. Rajasekhar Reddy	3830	636	13-7-2018	19-9-18	7-9-18	10-1-19
4	V. Madhu sudhan Reddy	3830	663	9-7-2018	22-9-18	8-5-18	14-1-19
5	N.Chandrasekhar Reddy	3485	586	12-7-2018	19-9-19	7-9-18	16-1-19
	Avg	3650	625				

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Suckking pest management in Bt-cotton

2 .Year of the study : 2018-19

3. No. of farmers covered : 25

4 . Area covered in each demonstration (ha) : 0.4

5 .Total area covered in the intervention (ha) : 10

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	D. Seetharami Reddy	1625	9-7-2018	10-2-19
2	B. Ramakrishna Reddy	1575	10-7-2018	3-2-19
3	B. Venkatasubba Reddy	1600	8-7-2018	21-1-19
4	B. Chandra sekhar Reddy	1625	10-7-2018	16-2-19
5	B. Suryanarayana Reddy	1700	8-7-2018	22-2-19
6	B. Laxmi Narayana Reddy	1625	9-10--2018	14-2-2019
7	B. Rambhupal Reddy	1600	9-10--2018	29-1-19
8	B. Saisubba Reddy	1550	8-7-2018	21-1-19
9	D. Nadipibalu	1563	10-7-2018	16-2-19
10	K. Dhupaiah	1608	9-10--2018	22-2-19
11	B.Sivasankar Reddy	1680	8-7-2018	14-2-2019
12	B.Siva Kumar Reddy	1648	10-7-2018	29-1-19
13	S.Siva Prasad	1750	8-7-2018	10-2-19
14	V. Pulla Reddy	1725	9-10--2018	3-2-19
15	B.Jagadeswar Reddy	1625	8-7-2018	21-1-19
16	B.Srinivasul Reddy	1600	10-7-2018	16-2-19
17	B.Thimma Reddy	1675	12-7-2018	22-2-19

18	K. Nageseshudu	1700	8-7-2018	10-2-19
19	K. Avulaiah	1630	10-7-2018	3-2-19
20	S.Vijaya bhaskar Reddy	1575	9-10--2018	21-1-19
21	S. Siva Prasad Reddy	1560	8-7-2018	16-2-19
22	B. Malleswar Reddy	1700	10-7-2018	21-1-19
23	B. Jagadeswar Reddy	1735	8-7-2018	16-2-19
24	K.Srinivasulu	1643	9-10--2018	22-2-19
25	B. Gopal Reddy	1613	8-7-2018	14-2-2019
	Avg	**1637**		

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Farm machinery- Seeding methods in Jowar

2 .Year of the study : 2018-19

3. No. of farmers covered : 10

4. Area covered in each demonstration (ha) : 1

5 .Total area covered in the intervention (ha) : 10

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	O.JayaRami Reddy	765	22-9-2018	26-01-18
2	O.Rama Swami Reddy	768	28-9-2018	18-1-19
3	N.Ramapullaiah	796	29-9-2018	22-1-19
4	E.Balalingaiah	802	25-9-2018	26-8-19
5	E.Tulasi	789	22-9-2018	29-8-19
6	G.Gurramma	806	23-9-2018	16-1-19
7	N,Maddilety	763	28-9-2018	14-1-19

8	N.Balayagantamma	768	23-9-2018	22-1-19
9	K.Yaganti	828	21-9-2018	26-1-19
10	K.Chinnathimma Reddy	765	23-9-2018	16-1-19
	Avg	**785**		

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Farm machinery- Seeding methods in Bengal Gram

2 .Year of the study : 2018-19

3. No. of farmers covered : 10

4. Area covered in each demonstration (ha) : 1

5 .Total area covered in the intervention (ha) : 10

S.No.	Farmer	Seed yield (kg/ha)	Date of sowing	Date of harvesting
1	G.Lakshmi Reddy	872	22-10-2018	14-1-19
2	G.Nagasubba Reddy	836	20-10-2018	19-1-19
3	M.Krishnudu	814	25-10-2018	18-1-19
4	B.Bhaskar Reddy	853	23-10-2018	22-1-19
5	K.Sivaiah	698	24-10-2018	30-1-19
6	B.Malleswara Reddy	852	22-10-2018	29-1-19
7	B.Sankara Reddy	745	22-10-2018	2-2-19
8	B.Siva Reddy	836	26-10-2018	4-2-19
9	B.Sarveswara Reddy	802	21-10-2018	9-2-19

10	M.Chalapathi	852	20-10-2018	2-2-19
	Avg	**816**		

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Calf Registration

3. No. of farmers covered : 50

4. Area covered in each demonstration (ha) :

5 .Total area covered in the intervention (ha) :

S.No.	Name of the farmer	Calf Registration Programme	
		Initial B.wt (Buffalo)	Final B.wt (Buffalo)
1	Y. Nagendrudu	32	62.4
2	Y. Maddilety	30	78.2
3	N. Nageswar Rao	32	62
4	N.Ramachandru	26	58.4
5	N. Ramana	26	76.8
6	K. Maddilety Reddy	24	73.2
7	G. Savithri	32	62.4
8	N. Narayana	25	70
9	Y. Balaswami	23	69.8
10	Y.Madhu sudhan	28	77.3
11	O. Ramaswami	23	57.3
12	P. Chandrahasa Reddy	24	58
13	N. Hussainaiah	24	73.9

14	G.N. Thimmaraju	23	69.8
15	B.thitupataiah	25	68.7
16	Y.Nageswara Rao	28	69.8
17	P.Sreenivasulu	27	69
18	N.Seera Reddy	22	81
19	V.Ayyapu Reddy	22	77.9
20	K. Rajasekhar Reddy	22	73.2
21	V. Madhu sudhan Reddy	23	59.4
22	N.Chandrasekhar Reddy	26	74.8
23	O. Jayarami Reddy	29	76.9
24	N. Prabhakar	25	72.9
25	N.Salamma	23	65.4
26	Y.Subbamma	27	78.4
27	Y. Venkata subbaiah	23	69.8
28	S. Olamma	20	73.2
29	N. Nageswara Rao	21	68.7
30	S. Lakshmi Devi	23	75.8
31	S. Lakshmi Devi	23	74.6
32	B.Venkata Lakshamma	20	72.9
33	C. Tirupalu	21	69.8
34	K. Pedda Thimmaiah	19	62.8
35	R. Pedda Maddilety	24	75.7
36	T. Naidu	21	73.2
37	T. Anashuya	24	82
38	E. Kasamma	27	80.2
39	T. Lakshmi Narayana	23	60.4

40	Y. Nagendrudu	22	71.9
41	I. Mallaswari	23	78.2
42	M.Rama Maddilety	23	75.4
43	Y.Maddilety	26	69.1
44	E.Tulasi	23	79.5
45	C. Lakshmaiah	21	76.2
46	C.Maddilety	26	73.2
47	C. Maddiletamma	24	79.5
48	E. Thimmaiah	19	72.5
49	E.Achamma	24	74.6
50	M. Peddamaddilety	21	72.39
	Avg	24.24	71.6

Farmer wise yield data for different interventions implemented -- 2018-19

1 .Title of the intervention : Backyard Poultry

2 .Year of the study : 2018-19

3. No. of farmers covered : 42

4. Area covered in each demonstration (ha) :

5 .Total area covered in the intervention (ha) :

S.No.	Farmer	Initial Weight	Final weight(180Days)
1	G.Gurrappa	486.2	1452.6
2	O.Rambhupal Reddy	422.5	1596.8
3	N.Madhavakrishna Reddy	412.2	1856.9
4	V.Madhusudhana Reddy	456.1	1758.6

5	S.Yaganti Reddy	486.3	1825.6
6	V.Prabhakar Reddy	478.2	1568.7
7	N.Thimma Reddy	446	1698.4
8	A.Paparayudu	458.7	1757.4
9	K.Padma Jyothi	496.8	1864.7
10	D.Shali bi	467.2	1698.2
11	G.Ramesh	498.4	1754.2
12	G.Thimma Raju	497.2	1698.7
13	O.Rami reddy	468.6	1532.9
14	V.Lakshmi Sireesha	479.2	1824.1
15	M.N.Ramagovindu	496.3	1694.3
16	V.Samba siva Reddy	452.5	1589.2
17	G.Suresh	468.8	1736.4
18	N.Golla Hussainaiah	486.4	1546.8
19	N.Hussanaiah	446.5	1496.7
20	K.Sivaparvatamma	489.5	1534.8
-21-	D.Jamalbee	418.2	1715
22	D.Chinna Dastagiri	432.8	1539.4
23	S.Balakondanna	422.1	1660.8
24	V.Madhavi	496.2	1636.7
25	N.BalaHussaini	482.6	1630.2
26	K.Hussain Basha	482.4	1634.6
27	B.Venkata Ramudu	422.8	1520.6
28	O.Jayarami Reddy	434.9	1585.5
29	V.Ramalakshamma	485.5	1696.2

30	N.Ramachandrudu	440.6	1566.4
31	A.Ratnamma	472.6	1612.2
32	G.Chinna Thimmaiah	484.2	1695.2
33	P.BalaHussaini	415.8	1640.2
34	A.Paparayudu	486	1685.5
35	G.Venkatesh	492	1632.5
36	N.Thimmaiah	512	1685.8
37	N. Thimmaiah	428.2	1696.4
38	N.P. Hussanna	432.8	1702.8
39	O.Peddarama Subba Reddy	482.5	1589.9
40	B.Venkateswara Reddy	446.6	1705.8
41	B.Sankara Reddy	488.1	1698.4
42	B.Santhosh kumar Reddy	445.2	1725.9
	Avg	464.23	1660.52

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Silage

3. No. of farmers covered : 72

4. Area covered in each demonstration (ha) :

5 .Total area covered in the intervention (ha) :

S.No.	Name of the farmer	Milk yield /90 days
1	N.Hussainaiah	568.4
2	N.Pratapa Reddy	580.2
3	V.Ayyapu Reddy	542.6

4	P.Gopal Yadav	515
5	A.Paparayudu	556
6	N.Gollapeddanna	576
7	G.Thimmaraju	582.8
8	G.Ramesh	465.2
9	G.Subbanarayana	523
10	V.Prabhakar Reddy	528.6
11	N. Pedda hussanna	568.2
12	Krishnudu	586.2
13	Ramudu	598.2
14	Bala Hussani	574.2
15	V. Madhu mohan Reddy	612
16	A.Paparayudu	496.2
17	G.Surya Narayana	452
18	O. Venkata Rami Reddy	496.8
19	G.Gurrappa	568.2
20	O.Rambhupal Reddy	564.6
21	N.Madhavakrishna Reddy	545.8
22	V.Madhusudhana Reddy	524.5
23	S.Yaganti Reddy	548.6
24	V.Prabhakar Reddy	576.8
25	N.Thimma Reddy	498.2
26	A.Paparayudu	496.3
27	K.Padma Jyothi	452.5
28	D.Shali bi	468.8
29	G.Suresh	486.4
30	G.Thimmaiah	446.5
31	O.Rami reddy	489.5
32	V.Lakshmi Sireesha	418.2
33	M.N.Ramagovindu	432.8
34	V.Samba siva Reddy	422.1
35	G.Suresh	496.2
36	N.Golla Hussainaiah	586.4

37	N.Hussanaiah	592.4
38	K.Sivaparvatamma	542.8
39	D.Jamalbee	526.9
40	D.Chinna Dastagiri	586.4
41	S.Balakondanna	528.6
42	V.Madhavi	568.2
43	N.BalaHussaini	586.2
44	K.Hussain Basha	598.2
45	B.Venkata Ramudu	574.2
46	O.Jayarami Reddy	612
47	V.Ramalakshamma	546.8
48	N.Ramachandrudu	546.5
49	A.Ratnamma	496.8
50	G.Chinna Thimmaiah	585.2
51	P.BalaHussaini	596.3
52	A.Paparayudu	582.4
53	G.Venkatesh	546.3
54	N.Thimmaiah	523.5
55	N. Thimmaiah	498.6
56	N.P. Hussanna	582.6
57	O.Peddarama Subba Reddy	586.4
58	B.Venkateswara Reddy	598.2
59	B.Sankara Reddy	612.5
60	B.Santhosh kumar Reddy	582.8
61	A.AdhiNarayan	584.8
62	P.Bhupal Yadav	582.6
63	G.Lakshmi Reddy	528.6
64	Shaik.Himam Bee	568.2
65	S.Ma Basha	568.6
66	Y.Malleesawra Reddy	564.8
67	Y.Venakata Reddy	582.5
68	A.Sambha Siva Reddy	612.5
69	G.ThimmaRaju	586.2

70	Yaganti Reddy	596.4
71	Y.Manohar	546.8
72	Y.Ramulamma	568.4
	Avg-	**546.0**

Farmer wise yield data for different interventions implemented --- 2018-19

1 .Title of the intervention : Mitigation of mineral deficiency in milch buffaloes with Urea molasses bricks

3. No. of farmers covered : 10

4. Area covered in each demonstration (ha) :

5. Total area covered in the intervention (ha) :

S.No.	Farmer	Milk Production(Avg 90days)
1	N.Hussainaiah	296.5
2	N.Pratapa Reddy	325.8
3	V.Ayyapu Reddy	312.4
4	P.Gopal Yadav	302.6
5	A.Paparayudu	298.4
6	N.Gollapeddanna	346.2
7	G.Thimmaraju	298.3
8	G.Ramesh	330.8
9	G.Subbanarayana	324.8
10	V.Prabhakar Reddy	315.2
	AVG.	315.1

Action Plan Format For 2019-20

1.0 A. Basic information about NICRA cluster **DISTRICT: Kurnool**

S. No.	*Item*	*Existing NICRA village*	*Additional villages selected in the programme**		
			Village 1	*Village 2*	*Village 3*
1.1	Village name	Yagantipalle & Meerapuram	Cherlokotturu	Krishnagiri	--
1.2	Name of mandal/Block	Banaganapalle	Banaganapalle	Banaganapalle	--
1.3	Total area (ha)	640 + 200	264	406	--
1.4	No. of house holds	361,381	161	128	--
1.5	Extent of rain fed area (ha)	70%	75%	76%	--

***B. Technologies proposed to be scaled up in the NICRA village during 2019:**

Sl. No.	Name of technology	No. of farmers covered	Approx. area to be covered (ha)	Remarks
1	Inter cropping system Red gram +Setaria(5:1)	50	20	
2	Seteria SIA-3088 & 3222	80	32	
3	In-situ Moisture conservation in Red gram	10	25	
4	Calf registration	50	50	
5	silage	50	50	

C. Module-wise technologies proposed to be scaled up in the adjoining villages during 2018:

Sl. No.	Name of technology	No. of farmers covered	Approx. area to be covered (ha)	Remarks
1	Inter cropping system	120	186	
2	Drought tolerant varieties Redgram-PRG-176 and LRG-52	200	160	
3	In-situ Moisture conservation in Red gram	60	56	
4	Calf registration	50	50	
5	silage	30	30	

*** Simple and low cost resilient practices are to be scaled up so as to reach as many farmers as possible with minimal cost**

D. Module-wise resilient technologies proposed to be demonstrated for the year 2019-20:

S. No.	Module	Climatic constraint addressed	Key intervention	No. of farmers proposed to be involved	Measurable indicator (s)
I	**Natural resource management**				
1	Farm ponds	Drought	Critical irrigation	10	Yields
2	In-situ moisture conservation (dead furrows)		Avoid moisture stress	20	Yields
3	Chisel plough		Conservation furrows.	10	Yields
II	**Crop production**				
1	Drought tolerant varieties Redgram Setaria Jowar Bengalgram	Terminal moisture stress	Terminal moisture stress	 50 50 25 25	Yields
2	Intercropping System Red gram +Green gram(5:1) Red gram +Castor(1:1) Red gram + Bajra (1:2) With different millets	Drought		50	
3	Introduction of Bengal gram as Relay crop in Red gram + Setaria inter cropping	drought	Relay crop	15	

	system				
4	Weather based IPM technology in Red gram & Castor			50	
5	Efficacy of waste decomposer performance in jasmine			10	Yield & pest disease situation
6	Introduction of Bajra as climate resilient crop.	Drought		20	
7	Foliar application of silica @3.0% against moisture stress	Drought		25	
8	Introduction of Horse gram as contingent crop	Drought		20	
III	**Horticulture**				
1	Drip Irrigation	WUE		10	Yield
2	Dolychos bean			10	
3	Chrysanthemum/Marygold			05	
4	Integrated crop management in Chillis & Brinjal.			10	
5	Fertigation managements in Horticultural crops			20	
IV	**Livestock & Fisheries**				
1	Rajasree birds	Breed Improvement	Income generation	50	
2	Utilization of agri waste in livestock feed		Improve milk yield	10	
3	Ration balancing programme in mich	Low milk Production	Feeding management	30	

	buffaloes				
4	Silage	Fodder shortage	Fodder conservation	100	
5	Oestram synchronization in Buffaloes		Timely calving	30	
6	Calf Registration		Healthy calf Programme	50	
7	Preventive vaccination against FMD, As, ET and Ranikheth diseases in Poultry			Whole village approach	
8	Cultivation of Improved fodder duringkharif		Avoid fodder scarcity	10	
V	**Institutional interventions**				
1	Custom hire center	Non availability of equipment	Timely operation	10	
2	Seed bank	Non availability of good seed	Quality seed production	20	
3	Fodder bank	Green fodder scarcity	Availability of green fodder throughout the year	10	

ACTIVITIES AND COSTS

3.0 Contingencies

3.1 Module 1 – NRM interventions

A) Repair / Renovation of existing water harvesting structures, drainage channels etc.:

S. No.	*Intervention* and village*	*Dimensions*	*No. of units*	*No. of benefi-ciaries*	*Convergence value, if any (Rs)*	*Value of farmers share (Rs)*	*Cost to project (Rs)*
1.	Farm ponds	20X20X3mts	02	10	-	-	2,00,000.00
4.	Drip irrigation		10	10		6,000.00	60,000.00
	Sub-total 3.1 A		**03**	**20**	**-**	**6,000.00**	**2,60,000.00**

B) *In situ* conservation – Resource Conservation Technologies (RCTs):

Item (specify the interventions) and village	*Unit cost Rs/acre*	*No. of demos*	*Coverage*		*Total amount (Rs)*	*Remarks*
			Area (acres)	*No. of farmers*		
	A	**B**	**C**	**D**	**A x C**	
1.*In situ* conservation	250/-	10	10	10	2,500.00	
2. chisel plough	250/-	10	10	10	2,500.00	
Sub-total 3.1 B		**20**	**20**		**5,000.00**	

3.2 Module II – Crop production interventions

A. Stress tolerant / Improved varieties / Short duration / Legume crops:

Intervention and village	*Description*		*Cost (Rs/acre)*	*No. of demos*	*Coverage*		*Total amount (Rs)*	*Remarks (purpose of intervention)*
	Crop	*Variety (s)*			*Area (ac)*	*No. of farmers*		
			A	*B*	*C*	*D*	*A x C*	
Drought tolerant varieties	Redgram	LRG-52	400	50	100	100	40,000	
	Bengal gram	NBeG-3	3000	25	25	25	75,000	
	Seteria	SIA-3088	120	50	50	50	6,000	
		SIA-3222	120	50	50	50	6,000	

Climate resilient crop.	Bajra	-	500	20	20	20	10,000	
Foliar application of silica @3.0%	Red gran & cotton	LRG-52 & Bt - cotton	150	10	10	10	1500	
contingent crop	Horsegram/ Safflower	-	500	25	25	25	12,500	
Intercropping systems Red gram +Green gram(5:1) Red gram+ Castor(1:1) Red gram+ Bajra(1:2) with different millets.	Red gram+ Seteria Bajra, Foxtaile millet, Little millet and prosomillets	PRG-176+ SIA-3088	520	50	50	50	26,000	
Sub Total 3.2 A							1,77,000	

B) Improved agronomic practices and other crop interventions:

Intervention	***Cost (Rs/ acre)***	***No. of demos***	***Coverage***		***Amount (Rs)***	***Remarks (Purpose of intervention)***
			Area (ac)	***No. of farmers***		
	A	***B***	***C***	***D***	***A x C***	
Establishment of Home stead Nutritious gardens			*50*	*50*	*2,500*	
Grow bags			*50*	*50*	*2,500*	
Dolychos bean			10	10	50,000	
Chrysanthemum/Mary gold			05	10		
Integrated crop management in Chillis & Brinjal.			10	10		
Fertigation managements in			*05*	*10*		

vegetable crops						
Sub-total 3.2 B			***125***	***140***	***55,000***	

4.0 Module 3 – Livestock & Fisheries interventions:

4.1 Year round fodder production strategies (annual/perennial fodder) in the village:

Season	Name of fodder	Variety	Area (ha)	Unit cost of demo (Rs/ha)*	No. of demos	Total amount (Rs/ha)*	*Remarks (purpose of intervention & No. of farmers covered)*
Kharif	Cultivation of improved fodder	(Cofs-29)	2.0 ha	7500/-	10	15000/-	
	Sub-total 4.1					**15,000/-**	

4.2 Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture (MM) blocks / feed enrichment

Details of feed demo*	Unit cost of demo (Rs)	No. of demos	Total amount (Rs/ha)	*Remarks (purpose of intervention & No. of farmers covered)*
a) Silage demos	600	100	60000	100
b) Oestrum synchronigation in Baffaloes	800	30	24,000	30
c) Feeding management & disease control programme in livestock (Total Mixed Ration, Mineral block, medicines & disinfectant solution)	2000	10	20,000	10
d)Animal health camps(Preventive	20,000	01	20,000	Whole Village

vaccination against FMD, AS, ET and raniketh disease in poultry.				
e) Calf Registration	100	50	5000	50
f) Utilization of agri waste for livestock feed.	1500	10	15000	10
Sub-total of 4.2			**1,44,000**	**200**

4.4 Livestock / Fisheries units:

A	B	C	D	E	F	G
Enterprise/unit*	**Unit cost (Rs)**	**Convergence share in unit cost, if any** (Rs)**	**Project share in unit cost (Rs)**	**No. of units/ farmers**	**Cost to Project (D x E) (Rs)**	***Remarks (purpose of intervention& farmers covered)***
Back yard Poultry	750	375	375	50	18,750	
Sub-total of 4.4				**50**	**18,750**	

5.0 Module 4 – Community interventions:

5.2 Establishment of Seed banks:

Name of the SHG	Crop and variety	Quantity of storage (t)	Unit cost (Rs.)	No. of units	Amount (Rs.)	Remarks (No. of beneficiaries & Period of use)
	Red gram	15 qtls	6000 per qt	01	6,000	10 members 6-8 months
	Jowar	10 qtls	2000 per qt	01	20,000	4-5 farmers
	seteria	12 qtls	2900 per qt	01	34,800	3-5farmers
Sub-total 5.2		**37 qtls**		**03**	**60,800**	

6.0. Capacity Building & Training Programmes:

6.1 Training Courses proposed:

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
ICM	Production technologies for Rain fed crops	June	50	30,000/-
	Contingent crop planning & management	July	50	
	Production technologies in pulse crops	October	50	
Resource conservation technologies	Water and soil conservation technologies for rainfed areas	June	50	
	Soil health management	July	50	
	Micro irrigation systems	September	50	
IPM	Integrated pest management in Major crops	August	50	
Value addition	Value addition to millets	October	50	
Income generating activity	Awareness Training programme on Income generating activity.	August	50	
Nutrition Gardens	Training programme on importance of home stead nutritional gardens	September	50	
Dairy	Management of milch animals during summer	May	50	
Feed & Fodder	Feed & fodder technologies for livestock	June	50	
	Prevention of diseases in livestock	July	50	

Sub-total 6.1			**650**	

6.2. Field Days proposed:

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
1. Short duration varieties	Red gram PRG-176	January	100	10,000/-
Sub-total 6.2			**100**	**10,000/-**

6.3 Exposure Visits proposed:

Place of visit	Purpose of visit	Proposed month	No. of participants	Cost to project (Rs.)
1.ARS,Ananthapur	Dry land agriculture	july	25	20,000/-
Sub-total 6.3			**25**	**20,000/-**

7.0 Plan for contingency situations involving various crops during the cropping season 2019-20:

Sl. No	Possible contingency situation	Measures envisaged	Unit cost/ acre	No. of farmers to be covered	Cost to project (Rs.)	Remarks
1	Late onset of monsoon	Sowing of Contingent crops ie Maghi jowar, closer spacing in redgram, seteria, horse gram, Fodder jowar, direct seeded rice.	500/-	100	85,000/-	
2	Prolonged breaks during the season	With foliar application of KNo3 during dry spells, frequent intercultivations, 2% urea spray, Insitu moisture conservation measures.	120	125		
3	Early withdrawal of monsoon	-do-	120	125		

4	Intense storms	Provision of drainage channel. Application of Nitrogen @25kg/acre and potash @10kg.	100	200		
5	Temporary flooding/ Water logging due to heavy rains	- do -	100	200		
6	Weather based pest & disease management in red gram & castor	*1500*	*50 (25Red gram+ 25 Castor)*	*50*		
Sub-total 7.0					**85,000/-**	

08.0 Contractual Manpower (SRFs/YPs):

Category	Rate/month (Rs.)	No. of months	Amount (Rs.)
Senior Research Fellow	20,000	12	2,40,000/-
Sub-total 8.0			**2,40,000/-**

9.0 Media Products to be developed (video films/brochures/bulletins proposed to be developed):

Item description	No. of copies	Amount (Rs.)
1.CD on NICRA activities	150	25,000/-
2.		
Sub-total 9.0		**25,000/-**

Summary of budget Estimates for 2019-20 (Tentative)

Item number	*Title of the Item*	*Amount (Rs.)*
3.1 A	Repair/ Renovation of existing water harvesting structures & drainage channels etc.	2,60,000
3.1 B	*In situ* conservation – Resource Conservation Technologies (RCTs)	5,000
3.2 A	Stress tolerant/ Improved varieties	1,77,000
3.2 B	Improved agronomic practices and other crop interventions	55,000
4.1	Year round fodder production strategies (annual/perennial fodder) in the village	15,500
4.2	Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture blocks / feed enrichment	1,44,000
4.4	Livestock/fisheries units	18,750
5.2	Establishment of seed banks	60,800
6.1	Training courses	30,000
6.2	Field days	10,000
6.3	Exposure visits	20,000
7.0	Plan for contingency measures for various crops during the cropping season 2018-19	85,000
8.0	Contractual manpower (SRFs/YPs)	2,40,000
9.0	Media products to be developed	25,000
10.0	Any other contingencies (TA etc)	50,000
	Grand total (Rs.)	**11,96,050**

Date: **Signature of PC, KVK/ In-charge NICRA**

Date: **Signature of Nodal Officer, NICRA-ZPD Zone**