Annual Report 2015-16
(01-04-2015 to 31.03.2016)


**Shri Hanumantharaya Educational and Charitable Society**
KRISHI VIGYAN KENDRA
**Yagantipalle – 518124, Kurnool Dt., A.P.**

**E-mail :** pendekantikvk@gmail.com **&** pendekantikvk@rediffmail.com
**Website :** www.pendekantikvk.com

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## ABSTRACT

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

**Mandatory activities carried out in 2015-16**

**On Farm Testing:**

1. **Castor based inter cropping system**:

   The results shows that intercropping of castor with greengram 1:2 / cluster bean 1:2 ratio resulted in highest castor equivalent yield and gross returns/ha(Rs.44640/-) than sole crops. Intercropping of greengram with castor in 1:2 row proportions resulted in the highest LER value of 1.27 coupled with highest yield of castor.

2. **Performance of red gram hybrids under rainfed sitation:**

   Assessment of Redgram Hybrids i.e ICPH-2740 and ICPH-2671 were organized in 5 locations each. The results indicated that the hybrid ICPH-2671 has recorded highest Yield (1265 Kg/ha) followed by ICPH-2740 – (1198 Kg/ha) as compared with local variety ICPL-85063( 1023 Kg/ha )

3. **Management of thrips and botch in onion:**

   The yields obtained in OFT (18,969 kg/ha) on management of Thrips and Blotch in Onion were 8.97 % higher compared to farmers practice (17,406 kg/ha) in addition to a saving of Rs 3,937/ha on cost of plant protection. Net additional returns obtained through the OFT were Rs.43,000/ ha.

4. **Management of root rot in chillies:**

   In the OFT on Management of root rot in chillies, with soil application of *Trichoderm*a and *Pseudomonas* 2.5 kg each incubated with FYM @ 250 kg/ha recorded 4.02 % root rot as against 5.66 % in farmers practice with an additional net benefit of Rs. 22,725-00 per ha.

5. **Assessing the performance of different varieties of Black gram against YMV:**

   In the OFT on Evaluatin of different varieties of Blackgram for YMV Disease, PU31 recorded 1860 kg/ha, which is 17.35 % and 8.45% higher compared to MASH 338 and LBG 752 respectively. PU 31 recorded a net additional income of Rs. 25,850/- ha over farmers practice of LBG 752.

6. **Perfroamance of IPM modules for management of Yellow Stem Borer in Rice**:

The results indicated that 5117 kg/ha yield was recorded which is 5.07 % more than farmers practice (4858 kg/ha) with saving of Rs 6125/ha on pp measures. The incidence of fruit rot and powdery were 4.6 & 6.9 % in OFT and 8.7 and 11.9 % farmers practice.

**7. Yield maximization through boron application in rice:**

Basal and foliar application of borax 15 Kg/ha and 0.1% respectively in Rice under boron deficient soils gave 11% higher yield in boron trial ((7352 kg/ha) when compared to controlled plots(6618 kg/ha)**.**

**8. Nutrient management in Groundnut based on STCR equation under I/D situation:** The The result indicated that the average yield of $T_1$ (3778kg/ha)and $T_2$ (3802 kg/ha) were on par. However, production cost is less in $T_2$ (Rs.46860 /ha) than $T_1$(Rs.54960/ha) hence it may be continued for one more year.

**9. Introduction of potato as alternate to traditional vegetables:**

Introduction of Potato as alternate to traditional vegetables, Potato crop is rabi season yielded 20.38 tonnes/ha. Which gave a net income of Rs. 1,73,903/- per ha. When compared with Tomato grown in rabi season. (net income: Rs. 70,145/- per ha.)

**10. Testing the performance of Chrysanthemum varieties**:

Improved varieties of Kundan (Yellow) and Chandrakiran (Violet) were introduced in the village Seetharampuram. There was 126.3% increase in yield in Kundan (21.14 tonnes/ha.) and 163.3% increased in yield in Chandrakiran (24.69 tonnes/ha.) as against the local varieties (9.34 tonnes/ha.)

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

Creep feeding to pre weaned lambs @50g/day resulted in 40.04% more body weight gain over farmers practice.

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

Supplementation of groundnut haulms supplemented feed to post weaned ram lambs @ 150g per day along with regular grazing resulted in increase of 37.65% body weight gain over farmers practice of grain feeding.

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

Among the three Hybrid Napier varieties, the fodder yields were 208.0, 196.0 and 172.0 tonnes /acre in Phule CO-4, Jaiwanth and APBN-1 hybrid napier fodder varieties respectively. The spines were less in phule jaiwanth compare to other varieties. The results indicated that 20.93% increased fodder yield in T2 and 13.95% increased fodder yield in T3 over T1.

**14. Effect of Lucerne meal supplementation on milk production in milch buffaloes:**

Supplementation of Lucerne meal @ 1kg/day along with concentrate feed to milch buffaloes resulted in 8.28% increased milk yield along with additional income of Rs. 2012.40 for 30 days.

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

Using improved sickles with 175 g weight instead of local practice of heavy weight (350-380 g) sickles of for harvesting paddy saved labour by 25 % with the use of improved sickles, labour saved by 25% and drudgery farm women reduced from less to nomal.

**16. Assessment of Performance of fertilizer dispenser**:

With the use of fertilizer dispenser labour saving by 33.3% and saving of fertilizers is by Rs. 2,430/- per acre. Results also indicated that drudgery of farm women rreduced how less to moderate than their regular practice recorded from moderate to severe.

## Front Line Demonstrations

**Sunflower:** The results indicated that sunflower hybrid sunbred-275 with Improved production technologies (seed treatment, Pre-emergence application of pendimethalin @ 2.5 lit/ha, Soil test based fertilizer application, spacing and thinning at 10-15 DAS, application of Boron @0.2% and sucking pestmanagement) gave higher yield (10.38/ha), which was 22.6 per cent than that of obtained with farmers practice yields of 8.46 q/ha in black soils under rainfed situation. The same Hybrid gave higher grain yield (19.42q/ha), which was 15.3 per cent than that of obtained with farmers practice under Irrigated condition.

**Bengalgram:** In Bengalgram variety Nandyala sanaga-1 with Improved production technologies (Improved variety, seed treatment, Soil test based fertilizer application, Sulphur @20 kg/ha and IPM measures against Helicoverpa and S.exigua) gave higher grain yield (13.77q/ha), which was 17.19 per cent than that of obtained with farmers practice yields of 11.75 q/ha in black soils under rainfed situation. The same variety gave higher grain yield (18.17q/ha), which was 14.63 per cent than that of obtained with farmers practice with one protective irrigation at 30-35 DAS. The increased grain yield with Improved production technologies was mainly because of more no of pods/plant and higher 100 grain weight

**Demonstration on Seteria Variety Suryanandi:**

During Kharif-2015 five FLDs were organized with **Suryanandi** variety of seteria at different locations of Banaganapalli mandal. The data revealed that the grain yield of improved variety was increased by 10.9 per cent with additional returns of Rs 9913/- per ha. The improved variety proved to be superior as compared to local variety both in terms of grain and fodder yield

**Weed Management in jowar:**

FLDs on Weed management were taken up in an area of 4ha at Yagantipalli Village with pre–emergence application Atrazine@2.0Kg/ha + Post–emergence application of 2,4D sodium salt@ 1.0 kg/ha on striga. The results indicated that post–emergence application 2,4D sodium salt@ 1.0 kg/ha have reduced the weed density most effectively. It was revealed that Post emergence application of herbicide along with one hand weeding most economic method for weed control in jowar.

**Weedmanagement in Maize:**

During khairf15 FLDs were taken up at Yagantipalli and Meerapuram villages of Banaganapalli mandal with pre–emergence application Atrazine@2.5Kg/ha + Post–emergence application of 2,4D sodium salt@ 1.0 kg/ha. The results indicated that weed density was significantly reduced and 79.0 per cent weed control efficiency was recorded. The hand weeding is laborious and generally more expensive. It was revealed that Post emergence application of herbicide followed by one intercultivation was most economic method for weed control in maize

**Semi Dry method of Rice cultivation:**

Under late on set of monsoon conditions and late release of in canals may become erratic and untimely leading to delayed transplanting (beyond August) resulting low yields. To tide over such predicaments, KVK organized demonstrations on Semi Dry method of Rice cultivation. In this method early seeding by taking advantage of early rains received just one month before canal supplies was imminent success with farmers.

- The data clearly indicated that direct seeding paddy seeds with gorru in the month of July recorded on par grain yield over transplanting. The mean yield of direct seeding was 7273Kg/ha as compared to 7050 kg/ha in case transplanting. The success of DSR mainly attributed to:.
- Tmely sowing
- Redduced cost of cultivation as compared to transplanting( Labour,Puddling costs)
- Reduced seedr ate ( 8-12 KG /acre as against 30kg /acre )
- Saves 35-40 per cent water.
- Reduced fertilizers and pesticides uses
- Equal or higher yields with reduced production costs and higher net income.

**Demonstration on Setaria- Bengalgram cropping sequence in Rainfed black soils:**

The results indicated that highest net returns was obtained with Korra-Bengalgram sequence (Rs 50892/ha) than fallow –bengalgram(Rs 31783/ha.The additional net income of the farmers was also increased in Korra- Bengalgram sequence which is calculated as Rs. Rs19019/- more than the Fallow-Bengalgram. This shows the increased profitability through Korra- Bengalgram sequence.

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

**Optimum Spacing in Bt cotton**: The results on Bt.cotton with spacing of 90X60cm (2072 kg) has recorded increased yield 7.24% over farmer practice i.e 120X60cm. 1932kg/ha.

**Zinc Management in rice:** Ten Demonstrations were organized on Zinc management in rice at I.Kothapet village of Banaganapalle mandal. The average yield of rice under Zinc foliar application was high (6816Kg/ha) as compared to controlled practice (5928Kg/ha). An amount of Rs.17728/ha was realized as additional income due to yield increments (14.97 %)in demonstrations. Benefit-cost ratio was high in demonstrations (1:2.07) as compared to controlled practice (1:1.82) due to higher gross income.

**INM in Bt.Cotton:** Ten Demonstrations were organized on integrated nutrient management in Bt.cotton at Meerapuram village of Banagnapalle mandal. The average yield of cotton was high (2646Kg/ha) in INM practice when compared to farmer's practice (2345Kg/ha) . An amount of Rs. 17335/ha was realized as additional income due to low production costs and yield increments (12.83%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:1.97) as compared to farmers practice (1:1.57) due to low cost of Production and higher gross income.

**Nutrient management in chilli based on STCR equation:** The results indicated that the average pod yield of Chilli under STCR (5121Kg/ha) and pod yield produced under controlled practice (5138Kg/ha) were onpar.Net income was high in demonstration plots (Rs.509741 $ha^{-1}$) as compared to controlled practice (Rs.468017 $ha^{-1}$). It was also observed that an amount of Rs.18564/ha was realized as additional income due to low production costs and yield increments in demonstrations. Benefit-cost ratio was also high in demonstrations (1:4.80) as compared to check (1:4.15) due to low cost production.

**Sulphur and zinc management in Bengalgram based on soil test:** Ten Demonstrations were organized in bengalgram at K.Sunkesula village of Owk mandal. The average yield of bengalgram under Sulphur and zinc management was high (1362Kg/ha) as compared to control (1197Kg/ha). An amount of Rs. 6005/ha was realized as additional income due to yield increments (13.78%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:1.88) as compared to farmers practice (1:1.75) due to higher gross income.

**Reclamation of sodic soils with gypsum:** Ten Demonstrations were organized on reclamation of sodic soils with gypsum at Yagantipalle village of Banaganapalle mandal. The initial soil pH was ranged from 9.18 to 9.42 and after reclamation it is ranged from 8.52 to 8.84. The Paddy crop was cultivated after reclamation. The average yield of paddy in demonstration plots was high

(5875Kg/ha) as compared to controlled plots (4860 Kg/ha). The results indicated that 20.88 percent yield increase in demonstration plots over the controlled plots. An amount of Rs. 19065/ha was realized as additional income in demonstrations due to yield increments.

**Zinc management in maize:** Organised ten demonstrations at Yagantipalle village. Zinc sulphate applied @50 kg/ha at basal. Now the crop is at grain development phase

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

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

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

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

**Feeding of sunflower heads supplemented ration to milch buffaloes:** The demonstration was conducted at Amadala and Koilakuntla villages. 30% SF heads mixed ration was fed to the animals for 120 days. The results indicated that 6.22% increased milk production by feeding SF heads supplemented feed over farmers method. Difference of Rs.5540/- as net income was observed in demo over control.

**Supplementation of Regional Specific mineral mixture to milch buffaloes:** The demonstration was conducted at Mandaluru of Rudravaram (M) and C.K.Dinne of Allagadda (M) selecting 20 graded murrah buffaloes having post partum anoestrus condition. RSSM was supplemented @ 80grams per day along with regular concentrate feed. The results indicated that 40% animals exhibited heat symptoms and 9.58 % increase in milk yield was noticed over farmers practice.

**Azolla supplementation to Rajasri birds at backyards:** The demonstration was conducted at Charlakothuru and Pathapadu villages of Banaganapalle mandal. Azolla units were established and azolla was supplemented to Rajasri birds @50grams per day along with scavenging for 90 days. The results indicated that 13.97% increase in body weight was observed in treatment over control

**Supplementation of UMMB to milch buffaloes:** The demonstration was conducted at Seetaramapuram village of Bethamcherla mandal selecting 10 graded murrah buffaloes. UMMB was given to hang before the animals and allowed to lick for an hour daily. The results indicated that 19.28% increase in milk yield was observed in demo over farmers practice.

**Feeding of Hydroponic maize fodder to milch buffaloes:** The demonstration was conducted at Nallagtla, Meerapuram and Yagantipalle villages selecting 10 graded murrah buffaloes at five farmers. 12kg hydroponic maize fodder fed to animals along with dry jowar stover. The results indicated that 6.96% increase in milk yield was observed in demo over farmers practice.

## Mobile advisory services:

Delivered 28 need based messages for 1545 registered farmers of KVK.

### Training programmes

| Discipline | No.of Trainings | PFarmers | | Rural Youth | | Extension Functionaries | |
|---|---|---|---|---|---|---|---|
| | | Male | Female | Male | Female | Male | Female |
| Agronomy | 15 | 529 | 0 | 25 | - | - | - |
| Soil Science | 20 | 163 | - | 182 | - | 152 | 173 |
| Plant Protection | 10 | 250 | | 30 | - | - | - |
| Horticulture | 8 | 192 | | 18 | | | |
| Animal Husbandry | 13 | 240 | 50 | - | - | 25 | - |
| Home Science | 21 | - | 379 | - | 194 | - | 85 |
| **Total:** | **87** | **1374** | **429** | **255** | **194** | **177** | **258** |

## Services and supplies

| Item | Quantity (Kg) |
|---|---|
| Paddy- BPT-5204 | 59010 |
| NDLR-7 | 15570 |
| ICPH-2740 | 748 |
| LRG-41 | 232 |
| Redgram (Asha) | 660 |
| Black gram (LBG-752) | 500 |
| Seteria (Suryanandi) | 2344 |
| Vermicompost | 154000 |
| Earth worms | 551 |
| Soil Samples | 6465 |
| Water Samples | 1660 |
| Plant Samples | 95 |
| Trichoderma viride | 631 |
| Pseudomonas | 928 |
| Neem Powder | 18072 |
| Phosphorus Solubulizing Bacteria | 467 |
| Azatobactor | 116 |
| Azosprillum | 45 |
| Vegetable seedlings | 382200 |
| Rajasri chicks | 5480 |
| Ram lambs | 28 |
| Mineral Mixture | 267 |
| Feed | 2480 |
| Fodder stem cuttings (no.) | 70000 |
| Cotton sarees | |

## ANNUAL REPORT 2014 -15

### 1. GENERAL INFORMATION ABOUT THE KVK:

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

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

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

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

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

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

#### 1.4. Year of sanction: 1989

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

| Sl. No. | Sanctioned post | Name of the incumbent | Designation | Discipline | Pay Scale | Present basic (Rs) | Date of joining | Permanent /Temporary | Category (SC/ST/ OBC/ Others) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Programme Coordinator | G.Dhanalakshmi | Programme Coordinator | Home Science | 15,600-39,100 | 34,490-00 | 03-04-2003 | Permanent | OC |
| 2 | Subject Matter Specialist | K.Venkata Ramanaiah | SMS (Soil Science) | Soil Science | 15,600-39,100 | 33,490-00 | 10-07-1996 | Permanent | BC |
| 3 | Subject Matter Specialist | M.Sudhakar | SMS (Agronomy) | Agronomy | 15,600-39,100 | 33,490-00 | 23-09-1996 | Permanent | OC |
| 4 | Subject Matter Specialist | D.Balaraju | SMS (Plant Protection) | Plant Protection | 15,600-39,100 | 29,370-00 | 04-04-2003 | Permanent | OC |
| 5 | Subject Matter Specialist | K.Rajeswar Reddy | SMS Horticulture | Horticulture | 15,600-39,100 | 24,350-00 | 01-10-2008 | Permanent | OC |
| 6 | Subject Matter Specialist | A.Krishna Murthy | SMS (Animal Husbandry) | Animal Husbandry | 15,600-39,100 | 24,350-00 | 29-06-2010 | Permanent | OC |
| 7 | Programme Assistant | K.Lakshmi Priya | Programme Asst. (Home Science) | Home Science | 9,300-34,800 | 23,370.00 | 18-06-1996 | Permanent | BC |
| 8 | Programme Assistant | B. Koteswar rao | Programme Asst. (Agronomy) | Agronomy | | | | Temporary | Sc |
| 9 | Accountant / Superintendent | N. Nagaraju | Assistant | | 9,300-34,800 | 13,500-00 | 24.08.2015 | permanant | OC |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10 | Jr.Asst. cum Typist (SK) | B.V.M.V.Prasad Rao | Jr. Asst. cum Typist | Jr. Asst. cum Typist | 5,200-20,200 | 15,530-00 | 21-03-1990 | Permanent | BC |
| 11 | Driver | Iqbal Basha | Driver cum Mechanic | Driver cum Mechanic | 5,200-20200 | 12,230-00 | 20-09-1995 | Permanent | OC |
| 12 | Driver | D.Obulesu | Driver cum Mechanic | Driver cum Mechanic | 5,200-20200 | 11,860-00 | 01-08-1996 | Permanent | SC |
| 13 | Attender | P.Raghava Reddy | Attender | Attender | 4,440-20200 | 10,620-00 | 02-11-1990 | Permanent | OC |
| 14 | Watchman | T.P.Gurappa | Watchman | Watchman | 4,440-20200 | 10,370-00 | 30-12-1994 | Permanent | BC |
| 15 | Cook | T.Rajeswari | Cook | Cook | 4,440-20200 | 10,370-00 | 20-09-1995 | Permanent | BC |
| 16 | Farm Attendent | A.Rama Subbaiah | Farm Attendent | Farm Attendent | 4,440-20200 | 10,370-00 | 01-10-1996 | Permanent | BC |

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

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

**1.7. Infrastructural Development:**

**A) Buildings:**

| S. No. | Name of building | Source of funding | Stage | | | | |
|---|---|---|---|---|---|---|---|
| | | | Complete | | | Incomplete | |
| | | | Completion Date | Plinth area (Sq.m) | Expenditure (Rs.) | Starting Date | Plinth area (Sq.m) | Status of construction |
| 1. | Administrative Building | ICAR | 1994 | 550 | 7.59 | 1990-91 | | |
| 2. | Farmers Hostel | ICAR | 1994 | 450 | 8.0 | 1990-91 | | |
| 3. | Staff Quarters(6) | ICAR | 1998 | 650 | 32.27 | 1992-93 | | |
| 4. | Demonstration Units (3) | ICAR | 1992-93 | 300 | 6.5 | 1992-93 | | |
| 5 | Fencing | ICAR | 2005-06 | | 6.5 | 2004-05 | | |
| 6 | Rain Water harvesting system | - | - | - | - | | | |
| 7 | Threshing floor | - | - | - | - | | | |
| 8 | Farm godown | ICAR | 2005-06 | 112.5 | 5.28 | 2005-06 | | |
| 9 | Soil Testing Laboratory | ICAR | 2004-05 | 112.5 | 8.59 | 2004-05 | | |

**B) Vehicles:**

| Type of vehicle | Year of purchase | Cost (Rs.) | Total km. Run | Present status |
|---|---|---|---|---|
| TATA Sumo | 2009 | 6,00,000-00 | 2,52,000km | OK |
| Mahindra & Mahindra Tractor | 2005 | 3,54,522-00 | 30,678 (hrs) | OK |
| Motorcycle (Hero Honda) | 2014 | - | 3,704 KM | OK |
| TVS XL-Super | 2002 | 17,900-00 | 43,335 KM | OK |

**C) Equipments & AV Aids:**

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

### 1.8. A) Details of SAC meeting held on 3.3.2016 for the year 2016-17 :

The SAC meeting was held on 3rd of March, 2016 at KVK. The meeting was presided over by Sri. P.Balaji, Secretary, SHE&CS. At the outset, Smt. G.Dhanalakshmi, Programme Coordinator has welcomed the SAC members, Guests. The programme started with ICAR Song.

A brochure on "Improved Production Technologies in Bengalgram" was released by the honourable members on the Dias. Significant Achievements of KVK, Future requirements of KVK and Action Taken Report was presented by Smt. G.Dhanalakshmi, Programme Coordinator, KVK followed by presentations of Work Done Report for 2015-16 and Action Plan for 2016-17 by individual Subject Matter Specialists Viz., Crop Production, Soil Science, Plant Protection, Horticulture, Animal Husbandary and Programme Assistant, Home Science.

The following observations, remarks and suggestions were made by the SAC members.

| Sl. No. | Name and Designation of Participants | Salient Recommendations |
|---|---|---|
| 1. | Dr. M.R.Sreenivasulu, Special Officer, SHE&CS. | • Farm waste should be used for vermicomposting along with FYM.<br>• Verify the adoption of STCR by Rice farmers.<br>• Seed village concept may be taken up in other than rice also.<br>• All the seed produced in KVK should be tested for germination, before opening sales.<br>• Pulse village programme may be tried.<br>• Striga management in Jowar may be taken up in endemic areas.<br>• Refugee crop in Bt cotton may be encouraged. |
| 2 | Mr. Krishna Reddy, Farmer, Kalugotla. | • Soil testing should be made compulsory for all the farmers.<br>• Programmes should be formulated for awareness on Own Seed Production and storage.<br>• The Jowar variety 2647 from RARS may be tested for its performance.<br>• In Blackgram, LBG 787 and TPT 104 to be tested in farmers fields for its performance. So also LGG 574 |

| | | |
|---|---|---|
| | | of Greengram and LRG 52 of Redgram.<br>• Control measures of Fruit and Shoot Borer in Brinjal need to be disseminated. |
| 3 | Mr Harikrishna, Nandavaram, Banaganapalle (M) | • Time to time awareness programmes for shepards need to be conducted. |
| 6 | Dr. Y.Narasimhudu, Principal Scientist & Programme Coordinator, KVK, Yemmiganur. | • IFS should be promoted by KVK.<br>• Mini Dairies and Sheep units are encouraging for farmers. And they can be taken up by farmers as part of IFS.<br>• Crop diversification should be promoted. |
| 8 | Sri Nagesh Kumar, AGM, NABARD: | • Importance should be given to reduce the cost of cultivation, productivity enhancement and Integrated Farming Systems.<br>• Yield gap should be reduced by demonstrating different technologies.<br>• Innovative activities can be taken up under Farm Sector Promotion Fund of NABARD.<br>• Focus should be given on Climate Resilient Agriculture. |
| 9 | Dr. Saralamma, PS - Pathology, RARS, Nandyal : | • In presentation of Workdon by SMSs, no. of locations and treatments should be mentioned.<br>• Organic farming is the need of the hour and it needs to be promoted.<br>• Training programmes should be conducted on Preparation of Organic inputs and its use. |
| 10 | Deputy Director of Agriculture, Kurnool : | • During this year in LBG 752 yellow mosaic disease is observed, so also pink boll worm observed in Bt cotton. These are to be taken note of and management strategies are to be promoted for next year's crop.<br>• The concepts like Navadhanya Pantalu and Organic/Natural farming should be promoted which acts |

| | | |
|---|---|---|
| | | as good climate resilient systems.<br>• Growing of own seed to be promoted among the farmers. |
| 11 | Sri. Sreenivas, DD, ATMA, Kurnool : | • Experiences of successful organic farmers should be shared with other farmers.<br>• Comprehensive revival of millets programme needs to be taken up.<br>• Zero budget natural farming should be given importance. |
| 12 | Sri. Subba Reddy, MAO, Banaganapalle : | • Performance of ICPH 2740 needs to be evaluated.<br>• Management strategies of Gemini Virus in chilli needs to be promoted.<br>• Varieties for drought tolerance in Jowar need to be developed.<br>• In Whatsapp groups of farmers, line department personnel also be included. |
| 13 | Dr. M.R.Sreenivasulu, Retd. ADR, RARS, Nandyal : | • IFS to be promoted as an important strategy.<br>• Navadhanya cultivation to be promoted in Kharif.<br>• Soil testing should be supported by NABARD. |
| 14 | Dr. Saralamma, Coordinator, DAATC, Kurnool | • Take up management of Alternaria leaf spot as demonstration in Bt Cotton. |
| 15 | Sri. P.Balaji, Secretary, SHE & CS | • Check whether information in Soil heath cards provided by KVK is sinking with the soil health cards provided by Govt. of India.<br>• The target of soil samples should be atleast 1500 for 2015-16.<br>• Seed production by KVK should cover 10% of rice area of the district.<br>• Third party evaluation should be taken up for STCR in Rice and for other KVK programmes also.<br>• KVK should establish sub centres in Kurnool division to increase the outreach of KVK activities, employing Agri Diploma holders as coordinators. |

| | | |
|---|---|---|
| | | • Performance of use of organic inputs may be tested against farmers practice. |
| 16 | Smt G. Dhanalakshmi, Programme Coordinator, KVK, Yagantipalle. | • Tthe Programme Coordinator of KVK has presented the new proposals for infrastructure development at KVK viz., Feed mixing unit (Rs. 2.5 lakhs), Dairy unit (Rs. 5.00 lakhs), Seed processing unit (Rs.16.00 lakhs), Expansion of Vermi compost unit (Rs. 2.50 lakhs) and Expansion of neem pounding unit (Rs. 3.20 lakhs) etc. with total projected budget outlay of Rs.29.2 lakhs, for approval of the house. |

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

| S.No | Name | Designation |
|---|---|---|
| 1. | Sri. A. Mallikarjuna Rao | DDA (PP) O/o JDA, Kurnool |
| 2. | Sri. P.Balaji | Secretary, KVK, Yagantipalle |
| 3. | Dr. S. Saralamma | PS (Path), RARS, Nandyal |
| 4. | Dr. P. Sujathamma | Coordinator, DAATTC, Kurnool |
| 5. | Dr. C.Venkata Ramana Varma | ADAH (Rep. of JDAH, Kurnool) |
| 6. | Sri. C. Subba Reddy | M.A.O, Banaganapalle |
| 7. | Sri. A. Nagesh Kumar | AGM, NABARD, Kurnool |
| 8. | Sri. C.N. Sreenivasulu | DPD, ATMA, Kurnool |
| 9. | Dr. Y. Narasimhulu | PC, KVK, Banavasi. |
| 10. | Sri. M. Srinivasa Reddy | BTM, ATMA, Nandyal. |
| 11. | Sri. R. Chakravarthi Naik | BTM, ATMA, Alur |
| 12. | Dr. M.R. Sreenivasulu | Spl. Officer, SHE&CS, Yagantipalle |
| 13. | Smt. G. Dhanalakshmi | Programme Coordinator |
| 14. | Sri M. Thirupam Reddy | Farmer, Kaipa |
| 15. | Sri. B.V.Subba Reddy | Farmer, Banaganapalle |
| 16. | Sri M. Krishnudu | Farmer, Yagantipalle |
| 17. | Sri K. Pani Bhushan | Farmer, Utakonda |
| 18. | Sri. P.B. Hari Krishna | Farmer, Nandavaram |
| 19. | Sri. M.V.Krishna Reddy | Farmer, Kalugotla |
| 20. | Sri. M.Veerabhadra Reddy | Farmer, Bethamcherla |
| 21. | Sri. K. Venkateswar Reddy | Farmer, Owk Mittapalle |
| 22. | Sri. D. Siva Shankar Reddy | Farmer, Yagantipalle |
| 23. | Smt. A. Padmavathi | Women Farmer, Banaganapalle |
| 24. | Smt. B. Rajeswari | Women farmer, YPL |
| 25. | Smt. Maheswaramma | Woman Entrepreneur, YPL |
| 26. | Smt. Lakshmi Devi | Woman Farmer, Banaganapalle |

## 2. DETAILS OF DISTRICT (2015-16):

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

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

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

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

**Agro-ecological situations:**

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

## 2.3 Soil types:

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

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

**Kharif -2015**

| Sl. No. | Name of the Crops | Normal Area | Area Sown during the corresponding Period 2014 | Area Sown 2014 | (Percen-tage of Coverage) |
|---|---|---|---|---|---|
| 1 | Rice | 90577 | 86525 | 46316 | 51.1 |
| 2 | Jowar | 11670 | 16531 | 13518 | 115.8 |
| 3 | Bajra | 7330 | 4874 | 9765 | 133.2 |
| 4 | Maize | 29424 | 36303 | 18240 | 61.9 |
| 5 | Ragi | 0 | 0 | | 0 |
| 6 | Minor Millets, (Korra) | 10937 | 6623 | 23119 | 211.3 |
| 7 | Redgram | 50457 | 41504 | 56949 | 112.8 |
| 8 | Greengram | 2438 | 1180 | 2736 | 112.2 |
| 9 | Blackgram | 3960 | 1993 | 6061 | 153.0 |
| 10 | Horsegram | 1 | 0 | 98 | 9800 |
| 11 | Other Pulses | 0 | 0 | 0 | 0 |
| 12 | Groundnut | 120205 | 92906 | 73370 | 61.03 |
| 13 | Sesamum | 35 | 54 | | 0 |
| 14 | Castor | 61880 | 31502 | 33571 | 54.25 |
| 15 | Sunflower | 10838 | 4202 | 2101 | 19.38 |
| 16 | Soyabean | 106 | 342 | 503 | 474.52 |
| 18 | Cotton | 162902 | 294999 | 200123 | 122.84 |
| 19 | Mesta | 306 | 55 | 12 | 3.92 |
| 20 | Chillies | 14432 | 13730 | 16626 | 115.20 |
| 21 | Sugarcane | 1769 | 744 | 929 | 52.51 |
| 22 | Onion | 18084 | 22922 | 26624 | 147.22 |
| 23 | Turmeric | 2588 | 1986 | 1654 | 63.91 |
| 24 | Tobacco | 418 | 889 | 108 | 25.83 |
| 25 | Others:- | 19594 | 16584 | 19410 | 99.06 |
| | **DIST. TOTAL :** | **619951** | **676448** | **551833** | **499.64** |

**Rabi -2015:**

| Sl. No. | Name of the Crops | Normal Area | Area Sown during the correspon-ding Period 2014 | Area Sown 2015 | (Percen-tage of Coverage) |
|---|---|---|---|---|---|
| 1 | Paddy | 24034 | 2121 | 8864 | 36.88 |
| 2 | Wheat | 329 | 17 | 141 | 42.85 |
| 3 | Jowar | 58252 | 57427 | 73855 | 126.78 |
| 4 | Bajra | 431 | 56 | 98 | 22.73 |
| 5 | Maize | 8575 | 5869 | 5172 | 60.31 |
| 6 | Ragi | 1 | 0 | 0 | 0 |
| 7 | Minor Millets, (Korra) | 0 | 40 | 373 | 373.0 |
| 8 | Redgram | 911 | 262 | 2429 | 266.63 |
| 9 | Greengram | 1316 | 3114 | 2917 | 221.65 |
| 10 | Blackgram | 7720 | 12973 | 20824 | 269.74 |
| 11 | Horsegram | 644 | 387 | 258 | 40.062 |
| 12 | Bengalgram | 196391 | 141049 | 201941 | 102.82 |
| 13 | Other Pulses | 0 | 0 | 0 | 0 |
| 14 | Groundnut | 19165 | 12065 | 13440 | 70.12 |
| 15 | Sunflower | 24331 | 5205 | 3079 | 12.65 |
| 16 | Safflower | 272 | 18 | 66 | 24.26 |
| 17 | Sesamum | 1199 | 2453 | 461 | 38.44 |
| 18 | Other Oilseeds | 3308 | 118 | 708 | 21.40 |
| 19 | Chillies | 592 | 655 | 417 | 70.43 |
| 20 | Coriander | 4263 | 6560 | 3403 | 79.82 |
| 21 | Tobacco | 7529 | 6092 | 6553 | 87.03 |
| 22 | Cotton | 282 | 0 | 7 | 2.48 |
| 23 | Onion | 2248 | 1694 | 3283 | 146.04 |
| 24 | Others:- | 6602 | 8597 | 10402 | 157.55 |
| | **DIST. TOTAL :** | 368395 | **266772** | 358691 | 97.36 |

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

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

### 2.5. Weather data 2015-16:

| Month | Rainfall (mm) | Temperature $^0$ C | | Avg Relative Humidity (%) |
|---|---|---|---|---|
| | | Maximum | Minimum | |
| Apr -15 | 60.4 | 41.8 | 19.8 | 34.2 |
| May-15 | 46.6 | 43.6 | 18.4 | 32.2 |
| Jun -15 | 32.3 | 41.4 | 20.2 | 37.5 |
| Jul -15 | 84.4 | 38.6 | 18.8 | 34.5 |
| Aug -15 | 78.9 | 38.4 | 19.5 | 33.0 |
| Sep -15 | 216.5 | 36.2 | 16.8 | 32.0 |
| Oct -15 | 102.5 | 36.0 | 17.2 | 33.0 |
| Nov-15 | 81.0 | 34.6 | 17.0 | 29.2 |
| Dec -15 | 1.4 | 32.5 | 19.5 | 25.0 |
| Jan -16 | 13.2 | 34.0 | 19.0 | 22.0 |
| Feb -16 | 00.0 | 37.8 | 23.0 | 25.0 |
| Mar -16 | 00.0 | 41.5 | 27.0 | 30.5 |
| **Total:** | **717.2** | | | |

### 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (Census 2015)

| Category | Population | Production | Productivity |
|---|---|---|---|
| **Cattle** | | | |
| Crossbred | 6452 | 3.98 lakh | 6-8 lt |
| Indigenous | 409575 | metric tonnes | 1.5-2.5 |
| Buffalo | 410783 | of milk | 2-3 |
| Sheep | | | |
| Crossbred | - | 19,087 metric | |
| Indigenous | 1504038 | tonnes of | 12.5 kg |
| Goats | 505112 | meat | |
| Pigs | 16949 | | |
| Crossbred | | | |
| Indigenous | | | |
| Rabbits | | | |
| Poultry | | | |
| Hens | 2,74,957 | 857 lakh No.s | |
| Desi | 6,41,218 | eggs | 60-70 eggs |
| Improved | 3,35,127 | | 245-260 eggs |
| Ducks | 942 | | |
| Turkey and others | | | |

## 2.6 Details of Operational area / Villages (2015-16):

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

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

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

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

## 2.7 Priority/thrust areas:

| Crop/Enterprise | Thrust area |
|---|---|
| **Seed Production** | **Addressing the scarcity of quality seed :**<br>Availability of quality seed to the farmer is one of the major constraint farmer is facing every year. They are depending on the private market / government agencies for their seed requirements. The supply is not meeting the demand in time and more over farmers are being cheated by different agencies with spurious seed. Awareness should be created about the production of own seed by the farmer. For this, seed village concept is required at least in direct varieties in crops like paddy, red gram, desi cotton, Bengal gram, which have huge demand in the market has to be promoted. |
| **Inter Cropping System** | **Drought mitigation and to prevent Crop failures in Red soils**<br>In Kurnool district generally castor is being cultivated in an area of 60533 ha and yields are limited by the amount and distribution of rainfall during monsoon period. Farmers are getting low net returns/ha due to changes in price of the marketable produce and incidence of pest and diseases also increasing year by year due to monocropping.<br>In order to increase Net returns of rainfed situation, Greengram and Clusterbean crops were introduced as intercrops in Castor. |
| **Double cropping:** | **crop intensification in Rainfed black soils**<br>On black soils of Kurnool district generally one crop Bengalgram/fallow-Jowar is being taken during rabi (September - october) in an area of 3.02 laksh ha. Farmers are getting low net returns/ha. Foxtail millet (korra), crop being its short duration may fit well in double cropping sequence (Korra- Bengalgram/ Jowar) under rainfed situation in black soils. Inorder to increase net returns Rs/ha and cropping intensity, Seteria- bengalgram can be successfully grown in rainfed black solis, if on set of monsoon are intime.<br>**Zero Tillage and Direct seeding in paddy with Drum seeder**<br>In Kurnool district Maize crop is being cultivated in an area of 14,604 ha and 10898 ha during kharif and rabi respectively with average productivity of 6250 kg /ha. In the district recently Rice followed by maize gaining popularity moreover their reaping good yields. There is a lot of scope to increase the acreage under this cropping system. |

**Varietal replacement in major crops:**

The productivity of crops is lowest due to cultivation of old and traditional varieties due to non availability of improved varieties/hybrids .Seed is the vital and critical input for crop production. Crop productivity is highly influenced by selection of high yielding varieties. Among different components of recommended package of practices, improved variety contributes up to 30 percent to the over all yield improvement. Keeping this in view KVK, Yagantipalle is organized several FLDs in Cereals,oil seeds, pulses and other crops in order to popularize improved varieties in different parts of Kurnool district

**Paddy** **Soil test based Nutrient Management :**

Farmers are continuously applying higher doses of chemical fertilizers than recommended particularly for irrigated crops like Paddy, Cotton, Chilies and Groundnut etc., which in turn increase the cost of production towards fertilizers and pesticides. Farmers are resorting to top dressing of complex fertilizers which was not recommended. High phosphorus content was observed in irrigated areas due to indiscriminate usage of complex fertilizers. Crop yields are declining due to conventional blanket and imbalanced usage of fertilizers. Soil test based nutrient application helps to realize higher response ratio and benefit: cost ratio as the nutrients are applied in proportion to the magnitude of the deficiency of a particular nutrient and the correction of the nutrient imbalances in soil helps to harness the synergistic effects of balanced fertilization). Fertilizer application based on quantitative approaches such as Soil test crop response (STCR) can assist in improving yields and nutrient use efficiency in paddy.

**Sunflower,and ground nut** **Promotion of Sulphur and boron nutrition in Oil seed crops like Sunflower and Groundnut.**

Soil testing data of the district revealed that sulphur and boron are found more deficient level in dry land areas where continuously applying inorganic fertilizers and sulphur free fertilizers like DAP, urea. Sulphur and boron deficiency also observed in light textured and low organic matter soils. Farmers are not aware about the use of sulphur and boron which improves oil content and filling percentages in sunflower. Sulphur usage can be promoted by application of SSP in place of DAP to supply sulphur along with phosphorus.

**Sulphur and zinc management in Bengalgram areas:**

**Bengal gram**

The KVK soil test reports revealed that sulphur and zinc is found more deficient level bengalgram cultivating areas where continuously applying sulphur free fertilizers like DAP, urea etc. and poor application of organic manures and zinc sulphate. Sulphur and zinc deficiency also observed in alkaline, light textured and low organic matter soils. Farmers are not aware about the use of sulphur and zinc in productivity enhancement of bengalgram. Sulphur usage can be promoted by application of SSP in place of DAP to supply sulphur along with phosphorus. Gypsum and bentonite sulphur also use to supply sulphur and zinc sulphate for zinc.

**Problematic soils**

**Reclamation of alkaline soils :**

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

## B. TECHNICAL ACHIEVEMENTS:

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

| OFT (Technology Assessment and Refinement) | | | | FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises) | | | |
|---|---|---|---|---|---|---|---|
| 1 | | | | 2 | | | |
| Number of OFTs | | Number of Farmers | | Number of FLDs | | Number of Farmers | |
| Targets | Achievement | Targets | Achievement | Targets | Achievement | Targets | Achievement |
| 16 | 16 | 80 | 80 | 29 | 29 | 340 | 340 |

| Training (including sponsored, vocational and other trainings) | | | | | Extension Activities | | | |
|---|---|---|---|---|---|---|---|---|
| 3 | | | | | 4 | | | |
| Number of Courses | | | Number of Participants | | Number of activities | | Number of participants | |
| Clientele | Targets | Achievement | Targets | Achievement | T | A | T | A |
| Progressive farmers | 61 | 61 | 1651 | 1651 | | | | |
| Rural Touth | 8 | 8 | 250 | 250 | | | | |
| Extention functionari | 13 | 13 | 1433 | 1433 | | | | |

| Seed Production (Qtl.) | | | Planting material (Nos.) | | |
|---|---|---|---|---|---|
| 5 | | | 6 | | |
| | Target | Achievement | | Target | Achievement |
| NDLR-7- | 150 | 155.70 | Chilli - | 300000 | 329700 |
| BPT-5204- | 500 | 590.10 | Tomato - | 20000 | 20000 |
| Redgram | 6.0 | 16.4 | Brinjal - | 15000 | 17500 |
| Seteria | 8.0 | 23.44 | Others | | 15000 |
| Blackgram | | 5.00 | | | |

### 3.B. Abstract of interventions undertaken:

| S. No | Thrust area | Crop/ Enterprise | Identified Problem | Interventions | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Title of OFT if any | Title of FLD if any | Title of Training if any | Title of training for extension personnel if any | Extension activities | Supply of seeds, planting materials etc. |
| 1 | Improving the productivity | Redgram | Low yields with local varieties | - | Varietal demo | Production technology | - | Field Days, Exposure Visits | Supply of improved variety LRG-41 |
| 2 | | Bengalgram | Low yields with local varieties | - | Varietal demo | Production technology | | -do- | Supply of seed Nandyala sanaga-1 |
| 3 | Improving productivity under rainfed situation | Seteria Bengalgram and Castor | Low productivity with monocropping | Castor Based intercropping system | Double cropping and Intercropping | Cropping systems | - | Field Days, Exposure Visits - | Supply of korra seed and Introduction of Intercrops |
| 4 | Improving productivity under Irrigated situation | Rice Btcotton | Increased cost of cultivation due to scarcity of manual labour | | Semi dry rice cultivation, weed management in Rice and Bt cotton | iCM | - | Field Days, Exposure Visits | Arrangement of Critical inputs i.e Herbicides . |
| 5 | IDM | Chillis | Viral diseases | | Management of viral disease complex | | | Seed treatment with TSOP | |
| 6 | IDM | Chillis | Root rot | Management of root rot disease | | Use of biopesticides in agriculture | | | |
| 7 | IPM | Bt Cotton | Sucking pests | | Management of sucking pests | Management of pests and diseases | | Method demonstration on stem | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 8application | |
| 8 | IPM | Onion | Thrips and leaf blotch | Management of thrips and blotch in onion | | Management of pests and diseases | | | |
| 9 | IDM | Rice | Blast and Sheath blight | | IDM for management of Blast and Sheathblight | | | | |
| 10 | IDM | Blackgram | YMV | Evaluation of different varieties of blackgram against YMV | | | | | |
| 11 | IPM | Blackgram | Maruca, PM and YMV | | Contingent management of pests and diseases | | | | |
| 12 | IPM | Rice | Stem borer | Management of stem borer in rice | | | | | |
| 13 | IPM | Maize | Stem borer and blight | | Contingent managementof pests and diseases | | | | |

### 3.1 Achievements on technologies assessed and refined:

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

| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Varietal Evaluation | | | 2 | | 1 | | 1 | | | 4 |
| Seed / Plant production | | | | | | | | | | |
| Cropping systems | 1 | 1 | | | | | | | | 2 |
| Integrated Crop Management | | | | | | | | | | |
| Integrated Nutrient Management | 1 | 1 | | | | | | | | 2 |
| Crop Geometry | | | | | | | | | | |
| Mushroom cultivation | | | | | | | | | | |
| Drudgery reduction | | | | | | | | | | |
| Farm machineries | | | | | | | | | | |
| Value addition | | | | | | | | | | |
| Integrated Pest Management | | | | | 2 | | | | | 2 |
| Integrated Disease Management | | | | | | | | | | |
| Resource conservation technology | | | | | | | | | | |
| Small Scale income generating enterprises | | | | | | | | | | |
| **TOTAL** | **2** | **2** | **2** | | **3** | | **1** | | | **12** |

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

| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Varietal Evaluation | | | | | | | | | | |
| Seed / Plant production | | | | | | | | | | |
| Weed Management | | | | | | | | | | |
| Integrated Crop Management | | | | | | | | | | |
| Integrated Nutrient Management | | | | | | | | | | |
| Cropping System | | | | | | | | | | |
| Mushroom cultivation | | | | | | | | | | |
| Drudgery reduction | 2 | | | | | | | | | 2 |
| Farm machineries | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| Integrated Pest Management | | | | | | | | | | |

| | | | |
|---|---|---|---|
| Integrated Disease Management | | | |
| Resource conservation technology | | | |
| Small Scale income generating enterprises | | | |
| **Total:** | **1** | | **1** |

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

| Thematic areas | Cattle | Poultry | Sheep | Goat | Piggery | Rabbitary | Fisheries | TOTAL |
|---|---|---|---|---|---|---|---|---|
| Evaluation of Breeds | | | | | | | | |
| Nutrition Management | | | 2 | | | | | 2 |
| Disease of Management | | | | | | | | |
| Value Addition | | | | | | | | |
| Production and Management | | | | | | | | |
| Feed and Fodder | 2 | | | | | | | 1 |
| Small Scale income generating enterprises | | | | | | | | |
| **TOTAL** | **2** | | **2** | | | | | **4** |

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

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

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

## A. Technology Assessment:

**OFT-1**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | Assessment of castor based intercropping Systems in rainfed situation**.** |
| 2 | Problem diagnosed/refinement | : | In Kurnool district generally castor is being cultivated in an area of 60533 ha and yields are limited by the amount and distribution of rainfall during monsoon period. Farmers are getting low net returns/ha due to changes in price of the marketable produce and incidence of pest and diseases also increasing year by year due to monocropping |
| 3 | Details of technologies selected for assessment/refinement | : | T1: Castor + Greengram (1:2)<br>T2: Castor + cluster bean (1:2)<br>T3: castor ( Sole) |
| 4 | Source of technology | : | RARS, Palem |
| 5 | Production system | : | Redsoils, Rainfed |
| 6 | Thematic Area | : | Cropping System |
| 7 | Performance of the Technology with performance indicators | : | ✓ LER<br>✓ Yield / ha<br>✓ Economics |
| 8 | Final recommendation for micro level situation | : | The results shows that intercropping of castor with greengram 1 :2 / cluster bean 1:2 ratio resulted in highest castor equivalent yield and gross returns/ha than sole crops. Intercropping of greengram with castor in 1:2 row proportion resulted in the highest LER value of 1.24 coupled with highest yield of castor |
| 9 | Constraints identified and feedback for research | : | - |
| 10 | Process of farmers participation and their reaction | : | ➢ Farmers were participated in planning, execution, monitoring.<br>➢ Convinced with Castor based intercropping System than that of solecrops. |

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Castor | Rainfed | Low productivity in castor with sole crop | Assessment of castor based intercropping Systems in rainfed situation. | 5 | T1: Castor + Greengram (1:2) | Yield<br>LER<br>Gross Returns(Rs/ha) | 813+249<br>1.27<br>44640/- | The results shows that intercropping of castor with greengram 1.2 7/ cluster bean 1.16 ratio resulted in highest castor equivalent yield and gross returns/ha than sole crops . | . |
| | | | | | T2: Castor + cluster bean (1:2) | Yield<br>LER<br>Gross Returns(Rs/ha) | 649+1022<br>1.16<br>41111/- | | |
| | | | | | T3: castor ( Sole) | Yield<br>LER<br>Gross Returns(Rs/ha) | 990<br>-<br>34650/- | | |

| Technology Assessed | Production per unit | Net Return (Profit) in Rs./unit | BC Ratio |
|---|---|---|---|
| 11 | 12 | 13 | 14 |
| **Castor + Greengram** | 813+249 | 19003-00 | **1:1.7** |
| **Castor + Clusterbean** | 649+1022 | 15896-00 | **1:1.6** |
| **Castor sloe** | 990 | 13263-00 | **1:1.6** |

**OFT 2**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Performance of Redgram Hybrids under rainfed situation ( Scrace rainfall zone)** |
| 2 | Problem diagnosed/refinement | : | In Kurnool district Redgram being cultivated in an area of 45000 ha under rainfed situation. The productivity levels are low with ruling varieties and Wilt incidence. So farmers are searching for a wilt tolerant and high yielding Varieties. |
| 3 | Details of technologies selected for assessment/refinement | : | T1 –ICPL-85063<br>T2 – ICPH-2740<br>T3 – ICPH-2671 |
| 4 | Source of technology | : | ICRISAT |
| 5 | Production system | : | Rainfed, Black soils |
| 6 | Thematic Area | : | Hybridsl evaluation |
| 7 | Performance of the Technology with performance indicators | : | The results indicated that the hybrid ICPH-2671 has recorded highest Yield (1265 Kg/ha) followed by ICPH-2740- (1198Kg/ha) as compared with local varietiey ICPl-85063. . |
| 8 | Final recommendation for micro level situation | : | - |
| 9 | Constraints identified and feedback for research | : | - |
| 10 | Process of farmers participation and their reaction | : | Farmers were participated in planning execution, monitoring, evaluation of Hybrids and their reaction towards the performance and, adoptability etc. of the improved varieties were assessed. |

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Redgram | Rainfed | Low productivity of local varieties | Hybrids evaluation | 5 | 1. ICPL-85063 | Yield Kg/ha | 1023 | The results indicated that the hybrid ICPH-2671 has recorded highest Yield (1265Kg/ha) followed by ICPH-2740- (1198Kg/ha) as compared with local varietiey ICPl-85063 | |
| | | | | | 2. ICPH-2740 | Yield Kg/ha | 1198 | | |
| | | | | | 3ICPH-2671 | Yield Kg/ha | 1265 | | |

| Technology Assessed 11 | Production per unit 12 | Net Return (Profit) in Rs. / unit 13 | BC Ratio 14 |
|---|---|---|---|
| 1.ICPL-85063 | 1023 | 86975-00 | 1:3.42 |
| 2. ICPH-2740 | 1198 | 80945-00 | 1:4.01 |
| 3. ICPH-2671 | 1265 | 65165-00 | 1:4.23 |

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

**OFT 3**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Assessment of alternate crops for paddy under limitted irrigated conditions in paddy-padddy cropping sequences** |
| 2 | Problem diagnosed/refinement | : | Rice is one of the popular food crops being grown in canal, tank fed and under bore wells of the kurnool district. In recent years farmers are growing winter crops. But still majority of farmers grow rice as summer crop if the water is available. It is established that rice requires more water along with more quality farm inputs and low net returns/ha due to high cost of cultivation.. |
| 3 | Details of technologies selected for assessment/refinement | : | T1: Paddy- Mustard<br>T2: Paddy- seteria<br>T3: Paddy- Blackgram |
| 4 | Source of technology | : | RARS |
| 5 | Production system | : | Irrigated, Black soils |
| 6 | Thematic Area | : | Cropp[ng sequences |
| 7 | Performance of the Technology with performance indicators | : | The results shows that among different rice based cropping sequences Paddy- Blackgram and Paddy- Mustard has recorded maximum net returns per unit area and time. But the CB ratio was highest with Paddy-Mustard sequence followed by paddy-setaria.<br>. |
| 8 | Final recommendation for micro level situation | : | - |
| 9 | Constraints identified and feedback for research | : | - |
| 10 | Process of farmers participation and their reaction | : | Farmers were participated in planning execution, monitoring, evaluation of different rice based cropping sequences and their reaction towards the performance and, adoptability etc. |

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Rice | Irrigated | Low net returns/ha due to high cost of cultivation in paddy-padddy cropping sequences. | Assessment of alternate crops for paddy under limitted irrigated conditions in paddy-padddy cropping sequences. | | T1:Paddy-Mustard<br><br>T2:Paddy-Setaria<br><br>T3: Paddy-Blackgram<br><br>Paddy-paddy | Yield:805 kg/ha<br>G. returns(Rs/ha):64416<br>N. returns(Rs/ha:43096<br>Yield:2407kg/ha<br>G. returns(Rs/ha):43333<br>N. returns(Rs/ha:27153<br>Yield:960 kg/ha<br>G.returns(Rs/ha):96000<br>N. returns(Rs/ha:47450<br>Yield:6366 kg/ha<br>G. returns(Rs/ha):97590<br>N. returns(Rs/ha:37820 | | The results shows that among different rice based cropping sequences Paddy-Blackgram and Paddy- Mustard has recorded maximum net returns per unit area and time. But the CB ratio was highest with Paddy- Mustard sequence followed by paddy-setaria. | . |

| Technology Assessed<br>11 | Production per unit<br>12 | Net Return (Profit) in Rs./unit<br>13 | BC Ratio<br>14 |
|---|---|---|---|
| T1: Paddy- Mustard | 805 | 43096-00 | **1:3.01** |
| T2: Paddy- Setaria | 2407 | 24153-00 | **1:2.67** |
| T3: Paddy- Blackgram | 960 | 47450-00 | **1:1.84** |
| T4:Paddy- paddy | 6366 | 37820-00 | **1:1.63** |

**OFT 4**

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

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Onion | ID Red soil | Indiscriminate use of pesticides for management of Thrips and Purple blotch | Management of Thrips and Blotch in Onion | 5 | T1 – Farmers practice – Spraying Carbosulfon @ 2 ml/lt and COC @ 3 g/lt | * Thrips (No./plant)<br>* Blotch (%)<br>*Cost of PP<br>* yield /ha. | 14.1<br>9.39%<br>19,219-00<br>17406 kg/ha | The result indicated that recommended practice gave 9 % higher yield compared to farmers practice (17406 kg/ha). The incidence of thrips and blotch reduced 37.64% and 32.22% respectively in the OFT. | . |
| | | | | | T2 – Recommended Practice-<br>• Use of Sticky traps.<br>• Spraying of Chlorofenapyr 20% EC @ 2 ml/l or Fipronil @ 2 ml/lt + Chlorothalonil @ 2 g/l at 30, 45 DAS and 60 DAS (3 sprays). | * Thrips (No./plant)<br>* Blotch (%)<br>*Cost of PP<br>* yield /ha. | 8.8<br>6.36%<br>15,281-00<br>18969 kg/ha | | |

| Technology Assessed<br>11 | Production per unit<br>12 | Net Return (Profit) in Rs. / unit<br>**13** | BC Ratio<br>**14** |
|---|---|---|---|
| T1: Farmers practice – Spraying Carbosulfon @ 2 ml/lt and COC @ 3 g/lt | 17,406 kg/ha | 2,80,469-00 | 1:2.81 |
| T2: Recommended Practice-<br>• Use of Sticky traps.<br>• Spraying of Chlorofenapyr 20% EC @ 2 ml/l + Chlorothalonil @ 2 g/l at 30, 45 DAS and 60 DAS (3 sprays). | 18,969 kg/ha | 3,23,469-00 | 1:3.15 |

**OFT 5**

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

| Crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ Refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Chillis | Irrigated Dry | Incidence of root rot causing upto 20 % loss in severe cases. | Evaluation of Bioagents viz., Tv & Pf for Management of root rot disease. | 5 | T1 – Farmer practice – COC @ 3g/lt or Carbendazim @ 1 g/lt | *Cost of Plant protection<br>*Root rot% | 48,800 /ha<br>5.66 % | With Bioagents application, the wilt disease could be better managed compared to fungicides. Resulted in 4.55 % increased yield. | The method involves tedious process of incubation with FYM, but gives better control of diseases as the methods are prophylactically taken up. |
| | | | | | T2 – Technology assessed – Application of *Pseudomonas flourescense, Trichoderma viride* @ 2kg/acre incubated in FYM | *Cost of Plant protection<br>*Root rot % | 53,675 /ha<br>4.02 % | | |

| Production per unit (Kg/ha) | Net Return (Profit) in Rs. / ha | BC Ratio |
|---|---|---|
| 13 | 14 | 15 |
| 5,060 | 4,05,925-00 | 1:3.02 |
| 5,290 | 4,28,650-00 | 1:3.08 |

**OFT 6**

| | | | |
|---|---|---|---|
| 1. | Title | : | Assessing the Performance of different varieties of Blackgram against YMV. (1st Yr) |
| 2. | Problem diagnosed / defined | : | In Kurnool district, the major diseases of Blackgram occurring regularly are YMV, powdery mildew and leaf spots. YMV can cause damage more than 50% in severe cases. |
| 3. | Details of technologies selected for assessment/refinement | : | **Assessment** of various available varieities of blackgram for their level of resistance/tolerance to YMV.<br>T1- Farmers Practice – LBG 752<br>T2 – Technology assessed –<br>• Resistant Varieties – PU 31 and Mash 337<br>• Management of whitefly with yellow sticky traps and need based pesticide sprays. |
| 4. | Source of technology | : | NARS |
| 5. | Production System | : | Fallow – Blackgram (Rainfed Black) |
| 6. | Thematic Area | : | Integrated Disease Management |
| 7. | Performance of the Technology with performance indicators | : | 1. Incidence of YMV (%) : Incidence of YMV is least both in PU31 and MASH 338 compared to LBG 752.<br>2. Yield (Q/ha) : Both PU31 and MASH 338 yielded better than check.<br>3. Cost benefit ratio: In both the tested varieties the B:C ratio is more than the check. |
| 8. | Final recommendation for micro level situation | : | As of now, it is better to choose PU 31 or MASH 338 for YMV endemic areas. |
| 9. | Constraints identified and feedback for research | : | A variety with shiny seed which is totally immune to YMV may be developed. |
| 10. | Process of farmers participation and their reaction | : | Farmers actively participated in observations of YMV incidence in the field. |

| Crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ Refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Blackgram | Rainfed | Incidence of YMV is an imp. Constraining in achieving potential yields. | Assessing the Performance of different varieties of Blackgram against YMV. | 5 | **T1** – Farmers practice – LBG 752<br><br>**T2** – Technology assessed-<br>• Resistant variety – PU 31 and MASH 338<br>• Mgmt. of whiteflies with yellow sticky traps and need based spray of pesticides.. | * Incidence of YMV (%)<br><br>* Incidence of YMV (%) | LBG752-3.06<br><br>PU31 -0.46<br>Mash 338-0.44 | Among the three varieties tested, PU 31 is found better both in YMV resistance and Yield followed by Mash 338 | - |

| Treatments | Production per unit (Kg/ha) | Net Return (Profit) in Rs. / ha | BC Ratio |
|---|---|---|---|
| | 13 | 14 | 15 |
| T1 - LBG 752 | 1,585 | 1,10,190-00 | 1:3.84 |
| T2 – PU 31 | 1,860 | 1,36,040-00 | 1:4.51 |
| MASH - 338 | 1,715 | 1,22,410-00 | 1:4.15 |

**OFT 7**

| S. No. | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | Performance of IPM module for management of Yellow Stem Borer in Rice. (3rd year) |
| 2 | Problem diagnosed/defined | : | In Kurnool district, the major pest of Rabi rice is yellow stem borer and it is causing considerable loss in yield. |
| 3 | Details of technologies selected for assessment/refinement | : | **Assessment** of Integrated Pest Management module.<br>T1 – Farmer practice – Indiscriminate use of insecticides.<br>T2 – Technology assessed – IPM<br>• Application of Carbofuran 3G granules @160 gm/cent of nursery one week before pulling the seedlings<br>• Clipping leaf tips before transplanting<br>• Mass trapping of male moths with pheromone traps @ 20 /ha<br>• Use of *Trichogramma japanicum* @ 20 Tricho cards/ha (4 cards/release, 5 releases starting from 35 DAT at 10 days interval)<br>• Need based pesticide spray (Cartaphydrochloride @2g/lt) |
| 4 | Source of technology | : | NARS |
| 5 | Production system | : | Irrigated Black Soils |
| 6 | Thematic Area | : | Integrated Pest Management |
| 7 | Performance of the Technology with performance indicators | : | • % dead hearths and white ears<br>• Cost of Plant protection.<br>• Yield (Q/ha).<br>• C:B Ratio |
| 8 | Final recommendation for micro level situation | : | During first two years it is observed that with IPM package, the incidence of stem borer could be managed to a greater extent. |
| 9 | Constraints identified and feedback for research | : | Clipping of seedling tips before transplanting is tedious. Availability of tricho cards is a problem. |
| 10 | Process of farmers participation and their reaction | : | Farmers actively involved in counting of dead hearts, white ears and imposing treatmenets. |

| Crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ Refined | Parameters of assessment | Data on the parameter | Results of assessment | Feed back from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Rice | Irrigated | Incidence of stem borer is regular in rabi season with considerable damage. | Performance of IPM module for management of stem borer in Rice. | 5 | T1 – Farmer practice – Indiscriminate use of insecticides. | *Cost of Plant protection<br>*% dead hearts & white ears<br>*Yield<br>*B:C Ratio | - | - | - |
| | | | | | T2 – Technology assessed – IPM<br>• Application of Carbofuran 3G granules @160 gm/cent of nursery one week before pulling the seedlings<br>• Clipping leaf tips before transplanting<br>• Mass trapping of male moths with pheromone traps @ 20 /ha<br>• Use of *Trichogramma japanicum* @ 20 Tricho cards/ha (4 cards/release, 5 releases starting from 35 DAT at 10 days interval)<br>• Need based pesticide spray (Cartaphydrochloride @2g/lt) | *Cost of Plant protection<br>*% dead hearts & white ears<br>*Yield<br>*B:C Ratio | - | | |

| **Technology Assessed** | ***Production per unit** | **Net Return (Profit) in Rs. / unit** | **BC Ratio** |
|---|---|---|---|
| **11** | **12** | **13** | **14** |
| 1. Indiscriminate use of pesticides (Farmers Practice) | | | |
| 2. IPM Module for stem borer management | | | |

**OFT 8**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | Yield maximization through Boron application in Rice |
| 2 | Problem diagnosed/refinement | : | Micronutrients are essential for the normal growth of plants. Deficiencies of micronutrient drastically affects the growth, metabolism and reproductive phase in plants, animal and human beings. Wide spread deficiencies of micronutrients has been found in Indian soils. About 3 billion people in the world are affected with micronutrient malnutrition. Boron helps in pollination and seed formation, so foliar sprays are helpful in better pollination, seed and yield. |
| 3 | Details of technologies selected for assessment/refinement | : | $T_1$- Control ( No Practice)<br>$T_2$- Basal application-15 Kg/ha<br>$T_3$- Foliar application of Borax @0.2% at tillering ,panicle initiation and panicle emergence phases |
| 4 | Source of technology | : | ICRISAT |
| 5 | Production system | : | black soils - irrigated(Clay loams) |
| 6 | Thematic Area | : | Micronutrient management |
| 7 | Performance of the Techynology with performance indicators | : | Yield (q/ha) |
| 8 | Final recommendation for micro level situation | : | The result indicated that the yield in both $T_{-2}$ (7352kg/ha) and T3 (7291kg/ha) were on par and higher than farmer's practice -$T_1$( (6618 Kg./ha ) |
| 9 | Constraints identified and feedback for research | : | |
| 10 | Process of farmers participation and their reaction | : | Pre seasonal training on soil sampling and testing, fertilizer application and mid seasonal field visits finally field days were organized at initial stages, but application of boron is more effective in yield improvement. |

**Results of On Farm Trials:**

| Crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Rice | Irrigated black soil | Riceyields are declining boron deficient soils | Yield maximization through Boron application in Rice | 5 | $T_1$- Control ( No Practice)<br><br>$T_2$- Basal application-15 Kg/ha<br><br>$T_3$- Foliar application of Borax @0.2% at tillering ,panicle initiation and panicle emergence phases | * Yield Kg/ha<br>*Production cost(Rs./ha)<br>* Yield Kg/ha<br>*Production cost(Rs./ha)<br>* Yield Kg/ha<br>*Production cost(Rs./ha) | 6618<br>70738<br>7352<br>71938<br>7291<br>71438 | The result indicated that production cost is less in T2 over T1 | STCR based nutrient application is more effective to get higher returns.<br>. |

| Technology Assessed | Production per unit | Net Return (Profit) in Rs. / unit | BC Ratio |
|---|---|---|---|
| 11 | 12 | 13 | 14 |
| $T_1$ -Farmers' practice (No boron application | 6618Kg/ha | 68240 | 1.97 |
| $T_2$- Basal application-15 Kg/ha | 7352kg/ha | 82450 | 2.15 |
| $T_3$- Foliar application of Borax @0.2% at tillering ,panicle initiation and panicle emergence phases | 7291kg/ha | 81673 | 2.14 |

**OFT 9**

| S.No. | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Nutrient management in groundnut based on STCR equation under I/D situation** |
| 2 | Problem diagnosed/refinement | : | Groundnut yields are declining due to conventional blanket and imbalanced usage of fertilizers. Soil test based nutrient application helps to realize higher response ratio and benefit: cost ratio as the nutrients are applied in proportion to the magnitude of the deficiency of a particular nutrient and the correction of the nutrient imbalances in soil helps to harness the synergistic effects of balanced fertilization. Fertilizer application based on quantitative approaches such as Soil test crop response (STCR) can assist in improving yields and nutrient use efficiency in groundnut. |
| 3 | Details of technologies selected for assessment/refinement | : | $T_1$ - $N_1P_1K_1$( Farmers Practice) NPK-128-146-52 Kg./ha<br>$T_2$- $N_2P_2K_2$ (STCR for 45q/ha) - NPK-40-20-25 Kg./ha |
| 4 | Source of technology | : | All India Coordinated project on Soil Test Crop Response.<br>STCR formula developed for groundnut in scarce rainfall zone. |
| 5 | Production system | : | Bore well irrigated - sandy clay loams |
| 6 | Thematic Area | : | Soil testing |
| 8 | Final recommendation for micro level situation | : | The result indicated that the average yield of $T_1$ (3778kg/ha)and $T_2$ (3802 kg/ha) were on par. However, production cost is less in $T_2$ (Rs.46860 /ha) than $T_1$(Rs.54960/ha) hence it may be continued for one more year. |
| 9 | Constraints identified and feedback for research | : | |
| 10 | Process of farmers participation and their reaction | : | Pre seasonal training on soil sampling and testing, fertilizer application and mid seasonal field visits finally field days were organized at initial stages, but balanced fertilizer usage is more effective with low cost. |

| Crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Groundnut | Irrigated black soil | Increased cost of production due to excess and imbalanced use of chemical fertilizers | Nutrient management in groundnut based on STCR equation under irrigated situation | 5 | $T_1$Farmers' practice NPK: 128-146-52 Kg/ ha $T_{2-}$ NPK:40-20-25 kg/ha | * Yield Kg/ha<br>*Production cost(Rs./ha)<br>* yield Kg/ha<br>*Production cost(Rs./ha) | 3778<br>54960<br>3802<br>46860 | The result indicated that product cost is less in T2 over T1 | STCR based nutrient application is more effective to reduce production costs towards fertilizers. |

| Technology Assessed | Production per unit | Net Return (Profit) in Rs. / unit | BC Ratio |
|---|---|---|---|
| 11 | 12 | 13 | 14 |
| $T_1$ -Farmers' practice | 3778Kg/ha | 77270 | 2.41 |
| $T_2$ -STCR | 3802kg/ha | 86196 | 2.84 |

**OFT: 10**

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

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Potato cultivation | Irrigated | Less profits from the traditional vegetables in local market due to frequent glut | Introduction of Potato as alternate crop | 5 | T1 : Farmers practice (Tomato) | * Yield /ha.<br>* Cost of cultivation (Rs./ha) | 45.21 t/ha<br>1,07,982-00 | Net returns are high with Potato and its duration is also less. | Harvesting of Potato is one time activity and lees labour intensive. |
| | | | | | T2. : Potato | * Yield t/ha.<br>* Cost of cultivation (Rs./ha) | 20.38 ton/ha<br>1,15,536-00 | | |

| Technology Assessed<br>11 | Production per unit<br>12 | Net Return (Profit) in Rs. / unit<br>13 | BC Ratio<br>14 |
|---|---|---|---|
| T1: Tomato | 45.21 t/ha | 70,145-00 | 1 : 1.64 |
| T2:Potato | 20.38 t/ha | 1,73,903-00 | 1 : 2.5 |

**OFT 11**

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

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Chrysanthemum | Irrigated Red soil | Less profits from the local varieties | Performance of high yielding varieties | 5 | T1 : Farmers practice (Local) | * Yield /ha. | 9.34t/ha | Net returns are high with Kundan and Chandra kiran | Shelf life is more for Both varieties. |
| | | | | | | * Cost of cultivation (Rs./ha) | 2,50,124-00 | | |
| | | | | | T2. : Kundan | * Yield /ha. | 21.14 t/ha. | | |
| | | | | | | * Cost of cultivation (Rs./ha) | 2,64,325-00 | | |
| | | | | | T3 : Chandra kiran | *Yield /ha<br>*Cost of cultivation (Rs./ha) | 24.69 t/ha<br>2,76,151-00 | | |

| Technology Assessed 11 | Production per unit 12 | Net Return (Profit) in Rs. / unit 13 | BC Ratio 14 |
|---|---|---|---|
| T1: Local | 9.34t/ha | 2,66,114-00 | 1 :2.06 |
| T2: Kundan | 21.14 t/ha | 13,34,704-00 | 1 : 6.04 |
| T3: Chandra kiran | 24.69 t/ha | 15,06,467-00 | 1: 5.45 |

**OFT-12:**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Effect of creep feeding on growth rate in pre weaned lambs** |
| 2 | Problem diagnosed/refinement | : | The growth rate in lambs is low at farmers flocks due to imbalanced feeding |
| 3 | Details of technologies selected for assessment/refinement | : | $T_1$ - Farmers practice<br>$T_2$ – Creep feeding @ 50g / day |
| 4 | Source of technology | : | S.V. Veterinary University |
| 5 | Production system | : | Lambs |
| 6 | Thematic Area | : | creep feeding |
| 7 | Performance of the Technology with performance indicators | : | ✓ Body weight gain<br>✓ Growth rate |
| 8 | Final recommendation for micro level situation | : | The results indicated that 26.4% increased body weight gain was recorded in lambs by creep feeding over farmers practice. |
| 9 | Constraints identified and feedback for research | : | - |
| 10 | Process of farmers participation and their reaction | : | Farmers well accepted the technology. |

**Villages: Pasupula and Charlakothuru of Banaganapalle (M)**

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

| Technology Assessed 11 | Production per unit 12 | Net Return (Profit) in Rs. / unit 13 | BC Ratio 14 |
|---|---|---|---|
| T1 | 4.02 | 825.00 | 5.58 |
| T2 | 5.63 | 1191.50 | 6.52 |

**OFT-13**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Feeding of groundnut haulms supplemented feed on growth rate in ram lambs.** |
| 2 | Problem diagnosed/refinement | : | The growth rate in post weaned ram lambs is low due to low protein value in the ration. |
| 3 | Details of technologies selected for assessment/refinement | : | $T_1$ - Farmers practice(grain feeding)<br>$T_2$ –Feeding of GN based concentrate feed (CP-17%) |
| 4 | Source of technology | : | S.V. Veterinary University |
| 5 | Production system | : | Ram lambs |
| 6 | Thematic Area | : | Feeding of concentrates |
| 7 | Performance of the Technology with performance indicators | : | ✓ Body weight gain<br>✓ Growth rate |
| 8 | Final recommendation for micro level situation | : | The results indicated that 42.49% increased body weight gain by feeding gn based concentrate feed over farmers practice. |
| 9 | Constraints identified and feedback for research | : | - |
| 10 | Process of farmers participation and their reaction | : | Farmers well accepted the technology |

**Villages: Yagantipalle of Banaganapalle (M)**

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of FLD | No. of trials* | Technology demonstrated | Parameters | Data on the parameter | Results | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Sheep farming | Ram lamb rearing | The growth rate in post weaned ram lambs is low due to low protein value in the ration. | Effect of groundnut based concentrate feed on growth rate in ram lambs. | 25 ram lambs (5 farmers) | **T1-** Farmers practice (grain feeding)<br>**T2** –Feeding of G.N.based concentrate feed. | Initial body weight | 14.53Kg (C)<br>14.21 Kg (D) | The results indicated that 37.65% increased body weight gain by feeding groundnut based concentrate feed over farmers practice. |
| | | | | | | Final body weight | 20.88 Kg (C)<br>22.96 Kg (D) | |
| | | | | | | Body weight gain (90 days) | 6.35 Kg (C)<br>8.74 Kg (D) | |

| Technology Assessed 11 | Production per unit 12 | Net Return (Profit) in Rs. / unit 13 | BC Ratio 14 |
|---|---|---|---|
| T1 | 6.35 | 932.90 | 1 :3.76 |
| T2 | 8.74 | 1490.00 | 1 : 6.75 |

**OFT-14**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Assessment of performance of Phule Jayavanth and CO-4 fodder varies** |
| 2 | Problem diagnosed/refinement | : | Farmers cultivating APBN-1 hybrid Napier variety which is spiny and moderate fodder yield. |
| 3 | Details of technologies selected for assessment/refinement | : | $T_1$ –APBN-1<br>$T_2$ – CO-4<br>$T_3$ – Phule Jayavanth |
| 4 | Source of technology | : | MPKV Rahuri |
| 5 | Production system | : | Mixed farming |
| 6 | Thematic Area | : | Cultivation of perennial fodder |
| 7 | Performance of the Technology with performance indicators | : | Fodder Yield |
| 8 | Final recommendation for micro level situation | : | The results indicated that 14.68% increased fodder yield in T2 and 9.88% increased fodder yield in T3 over T1 |
| 9 | Constraints identified and feedback for research | : | |
| 10 | Process of farmers participation and their reaction | : | Farmers shown interst towards cultivation of improved fodder varieties. |

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

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

**OFT-15(1st Year)**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Effect of Lucerne meal on milk yield in milch buffaloes** |
| 2 | Problem diagnosed/refinement | : | Farmers feeding non legume crops especially hybrid napier and concentrates as per milk production. Lucerne can be cultivated during Rabi season and can be used throughout the year in the form of Lucerne meal. |
| 3 | Details of technologies selected for assessment/refinement | : | $T_1$ –Farmers practice<br>$T_2$ –FP + Lucerne meal @1kg/day/animal |
| 4 | Source of technology | : | S.V. Veterinary University |
| 5 | Production system | : | Milch Buffaloes |
| 6 | Thematic Area | : | Animal Feeding |
| 7 | Performance of the Technology with performance indicators | : | ✓ Milk yield<br>✓ B:C ratio |
| 8 | Final recommendation for micro level situation | : | The results indicated that 8.28% increased milk yield with improvement of fat and additional income of Rs.2012.40 was observed on supplementation of Lucerne meal compare to farmers practice. |
| 9 | Constraints identified and feedback for research | | Availability of lucerne meal in local markets |
| 10 | Process of farmers participation and their reaction | | Well accepted the technology by the farmers. |

Villages: Koilakuntla and Nallagtla

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of FLD | No. of trials* | Technology demonstrated | Parameters | Data on the parameter | Results | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Dairy farming | Dairy farming | Low protein supplementation to milch animals and also non availability of lucerne throughout the year | Effect of Lucerne meal supplementation on milk yield in milch buffaloes | 5 | **T1-** Farmers practice (concentrates)<br>**T2-** Concentrates + Lucerne meal 1kg/day | Milk yield (l)<br>% fat in milk | 228.3 (T1)<br>247.2 (T2))<br>5.03 (T1)<br>6.57 (T2) | The results indicated that 8.28% increased milk yield by supplementation of Lucerne meal over farmers practice. | . |

| **Technology Assessed** | **Production per unit** | **Net Return (Profit) in Rs. / unit** | **BC Ratio** |
|---|---|---|---|
| **11** | **12** | **13** | **14** |
| T1 | 228.3 | 4682.40 | 1 :3.73 |
| T2 | 247.2 | 6252.80 | 1 : 3.90 |

**OFT-16**

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

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Farm Implements to reduce drudgery | - | Farm women face drudgery in harvesting operations by using local sickles with heavy weight. | Assessment of performance of Improved sickles with Local sickles | 20 | T1 – Local sickles (350-380)<br>T2 –Improved Sickles(175 gms) | Area covered/day | 1.0ac | 1.0ac | Farm felt that with the use of improved sickles body strain,drudgery at harvest ranged from less to normal |
| | | | | | T1- Local Sickles (350-380)<br>T2 –Improved Sickles(175 gms) | Time taken for harvest (hrs)/ac/day | 3.20hrs<br>8 | 3.00hrs<br>6 | |
| | | | | | T1-Local Sickles (350-380)<br>T2 –Improved Sickles(175 gms) | Labour required/ac/day | | | |
| | | | | | | Feed back on work related stress factors | | | |

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

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

**Matrix ranking of Drudgery for Farm women in Agriculture Operations:**

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

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

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

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

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

| **Name of the Implement** | **User** | **Feel of Activity** | | |
|---|---|---|---|---|
| | | **Time Taken for the Activity** | **Area Covered** | **Energy Spent for work** |
| Modified Sickles | Farmwomen | 4 | 3 | 4 |

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

**OFT-16: Assessment of fertilizer dispenser for applying fertilizer in chillies to reduce drudgery of farm women**

| S.No | Item | | Particulars |
|---|---|---|---|
| 1 | Title | : | **Assessment of fertilizer dispenser for applying fertilizer in chillies to reduce drudgery of farm women** |
| 2 | Problem diagnosed/refinement | : | 1.Farm women face lot of strain and body pains in applying fertilizers in agriculture operations by wrong postures<br>2. Farm women are not aware of improved implements for agriculture operations. |
| 3 | Details of technologies selected for assessment/refinement | : | T1 – Manual Application<br>T2 – Application with fertilizer dispenser |
| 4 | Source of technology | : | MANAGE-Agripreneurs. |
| 5 | Production system | : | - |
| 6 | Thematic Area | : | Drudgery of farm women |
| 7 | Performance of the Technology with performance indicators | : | ✓ Labour required/ac/crop period<br>✓ Cost saving on labour for application of fertilizer/ac<br>✓ Saving Of fertilizer/Ac<br>✓ Feed Back on work related stress factors |
| 8 | Final recommendation for micro level situation | : | The results indicated that, with the use of fertilizer dispenser 10 labour per acre per crop period is required than their regular practice i.e, 15 labour per day per acre and cost on labour was saved by 33.3% per acre and saving of fertilizer was Rs.2430/- /ac and the use of fertilizer dispenser body strain, drudgery at fertilizer application , Estimation of feel and stress was reduced from less to moderate than their regular practice which was recorded from moderate to severe. Regarding user acceptance on the implement it was ranged from satisfied to moderately satisfied. |
| 9 | Constraints identified and feedback for research | : | - |
| 10 | Process of farmers participation and their reaction | : | - |

| crop/ enterprise | Farming situation | Problem Diagnosed | Title of OFT | No. of trials* | Technology Assessed/ refined | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Farm Implements to reduce drudgery | - | Farm women face lot of strain and body pains in applying fertilizer and are not aware of improved implements for agriculturwe operations knowledge on improved weeding implements | Assessment of performance of fertilizer dispensor for applying fertilizer in chillies to reduce drudgery of farm women | 5 | T1 – Manual application<br>T2 –Application with fertilizer dispensor<br><br>T1- Manual application<br>T2 –Application with fertilizer dispensor<br><br>T1- Manual application<br>T2-fertilizer dispensor | Labour required/ac/crop period<br><br>Cost saving on labour for application of fertilizer/ac<br>Saving of fertilizer/ac<br><br>Feed back on work related stress factors | 15<br><br>Rs. 2250/-<br><br>Rs. 1500/-<br><br>- Rs. 2430/- | 10 | Farm women felt thatbody strain, drudgery,stress was reduced from less to moderate. |

| Technology Assessed | Production /unit | Net return (profit) in Rs./unit | BC Ratio |
|---|---|---|---|
| 11 | 12 | 13 | 14 |
| T1 – Manual application - | - | - | |
| T2 –Application with fertilizer dispenser | | | |

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

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

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

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

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

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

**Inferences:** It was opinioned that, with the use of fertilizer dispenser, time taken for the activity, area covered and energy spent for the work ranges from satisfied to moderately satisfied. They also expressed that with the use of fertilizer dispenser, the strain while fertilizer application and fatigue was reduced.

### 3.2. Achievements of Frontline Demonstrations:

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

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

| S. No | Crop/ Enterprise | Thematic Area* | Technology demonstrated | Details of popularization methods suggested to the Extension system | Horizontal spread of technology | | |
|---|---|---|---|---|---|---|---|
| | | | | | No. of villages | No. of farmers | Area in ha |
| 1 | Bengalgram | Varietal Evaluation | Varietal Demonstration in Bengalgram with Jaki-9218, digvijay and Nandyala sanaga-1 | Demonstrations, Exposure visits, Field Days Seed village Concept | 20 | 15000 | 35000 |
| 2 | Cotton and Paddy | Weedmanagement | Post-emrgence herbicides | Demonstrations, Exposure visits, Field Days, Seed village Concept | 10 | 12000 | 50000 |
| 3 | Paddy | Resource conservation | Direct Seeding | Demonstrations, Exposure visits, and Field Days | 12 | 100 | 250 |
| 4 | Paddy | Resource conservation | Zero tillage | Demonstrations, Exposure visits, and Field Days | 8 | 200 | 250 |
| 5 | Seteria | Varietal Evaluation | Varietal Demonstration with Suryanandi | Demonstrations, Exposure visits, and Field Days | 50 | 5000 | 25000 |
| 6 | Redgram Seteria | Cropping system | Redgram+ seteria Inter cropping System | Demonstrations, Exposure visits, and Field Days | 35 | 4000 | 8000 |
| 7 | Redgram | Varietal Evaluation | Varietal Demonstration in Redgram-PRG-158 & LRG-41 | Demonstrations, Exposure visits, Field Days Seed village Concept | 50 | 5000 | 18000 |
| 8 | Rice | Soil testing | Soil testing crop response based nutrient application in rice | Demonstration, exposure visits, Field Days . | 20 | 696 | 1250 |
| 9 | Bt Cotton | IPM | IPM | Demonstrations, Exposure visits, and Field Days | 8 | 200 | 600 |
| 10 | Redgram | IPM | Realtime contingent mgmt. of pests & diseases | Spray of Chloro + Dichlorvos at flowring, | 8 | 160 | 120 |
| 11 | Bengalgram | IDM | Biopriming for soil borne disease management | Biopriming with T.viride @ 10g/kg + 30 g Powdered FYM | 18 | 240 | 260 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | as paste. | | | |
| 12 | Castor | IPM | Realtime contingent mgmt. of pests & diseases | Chloro for Capsule borer & Spray of Carbendazim pre & post rain for Botrytis | 4 | 40 | 50 |
| 13 | Brinjal | IPM | Mgmt of fruit & shoot borer | Ph.traps, Neem oil, Neem cake. | 6 | 40 | 25 |
| 14 | Onion | IPM | Thrips & Leaf blight | Fipronil, Thiophanate methyl | 6 | 80 | 60 |
| 15 | Blackgram | IPM | Realtime contingent mgmt. of pest s & diseases | Chloro + Dichlorovos, Yellow sticky traps | 6 | 60 | 60 |

Details of FLDs implemented during 2015-16 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

| Sl. No. | Crop | Thematic area | Technology Demonstrated | Season year | Area (ha) | | No. of farmers/ demonstration | | | Reasons for shortfall |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Pro | Actu | SC/S | Other | Total | |
| 1 | sunflower | ICM | Spacing and micro nutrient | R-15 | 24 | 24 | 6 | 24 | 30 | |
| 2 | Bengalgram | ICM | Varietal | R-15 | 22 | 22 | 16 | 39 | 55 | |
| **Other Demonstrations** | | | | | | | | | | |
| 1 | Setaria | varietal | varietal | K-15 | 4 | 4 | 4 | 6 | 10 | |
| 2 | jowar | Weed management | Herbicides+ Manual weeding | M-15 | 4 | 4 | 4 | 6 | 10 | |
| 3 | Maize | Weed management | Herbicides+ Manual weeding | K-15 | 4 | 4 | 4 | 6 | 10 | |
| 4 | Paddy | Crop Establishment | Semi dry Rice cultivation | K-15 | 2. | 2 | 2 | 3 | 5 | |
| 5 | Seteria-Bengalgram | Cropping sequence | ICM | K-15 | 4 | 4 | 2 | 3 | 5 | |
| 6 | Bt cotton | Crop geometry | spacing | K-15 | 4 | 4 | 2 | 2 | 5 | |
| 9 | Paddy | Micronutrient | Zinc management | K-15 | 4 | 4 | 3 | 7 | 10 | |
| 10 | Bt.cotton | Macro and micro nutrient | Integrated Nutrient Management | K-15 | 4 | 4 | 2 | 8 | 10 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | Chilli | Soil testing | STCR | K-15 | 4 | 4 | 4 | 6 | 10 | |
| 12 | Bengalgram | Secondary and micronutrient | Sulphur and zinc management | Rabi-15 | 4 | 4 | 3 | 7 | 10 | |
| 13 | Rice | Reclamation | Gypsum application | Rabi-15 | 4 | 4 | 3 | 7 | 10 | |
| 14 | Maize | Micronutrient | Zinc management | Rabi-15 | 4 | 4 | 3 | 7 | 10 | |
| 15 | Bt Cotton | IPM | Sucking pest management | K 2016 | 4.0 | 4.0 | 2 | 8 | 10 | |
| 16 | Chillis | IDM | Viral disease management | K 2016 | 4.0 | 4.0 | 1 | 9 | 10 | |
| 17 | Rice | IDM | Mgmt.of blast and sheath blight | K 2016 | 4.0 | 4.0 | 2 | 8 | 10 | |
| 18 | Blackgram | IPM | Contingent mgmt of pests and diseases | R 2016 | 4.0 | 4.0 | 2 | 8 | 10 | |
| 19 | Maize | IPM | Contingent mgmt of pests and diseases | R 2016 | 4.0 | 4.0 | 2 | 8 | 10 | |
| 20 | Mango | INM | Micronutrient management | - | 4 | 4 | 3 | 7 | 10 | |
| 21 | Turmeric | IDM | Management of rhizome rot | K 15 | 4 | 4 | 2 | 8 | 10 | |
| 22 | Chilli | ICM | Integrated Crop Management | K 15 | 4 | 4 | 2 | 8 | 10 | |
| 23 | Banana | INM | Micronutrient management | R 15 | 4 | 4 | 2 | 8 | 10 | |
| 24 | Carrot | ICM | Demonstration of alternate vegetable | R 15 | 4 | 4 | 2 | 8 | 10 | |

**Details of farming situation:**

| S. No. | Crop | Season | Farming situation (RF/ Irrigated) | Soil type | Status of soil | | | Previous crop | Sowing date | Harvest date | Seasonal rainfall (mm) | No. of rainy days |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | N | P | K | | | | | |
| 1 | sunflower | R-2015 | Rainfed | Medium Black | L | M | H | Jowar | 3 rd week of oct | 1st Week of January | | |
| 2 | Bengalgram | R-2015 | Rainfed | Black soil | L | H | H | Jowar | 2nd week of october | 3d week of January | | |
| | **Other Demonstrations:** | | | | | | | | | | | |
| 3 | Setaria | K-2015 | Rainfed | Black | L | M | H | Redgram | 2nd FN of July | 1st FN of Oct | | |
| 4 | jowar | M-2015 | irrigated | Black soil | L | M | H | Jowar | 2nd week of july | 2nd Week of Dec | | |
| 5 | Maize | K-2014 | irrigated | M.Black soils | L | M | M | Chillies | 1st week of August | Last Week of January | | |
| 6 | Paddy | K-2015 | irrigated | Clay loam | L | M | M | Blackgram | 2nd week of july | 2nd Week of Dec | | |
| 7 | Seteria-Bengalgram | K-2015 | Rainfed | Black soil | L | H | H | Jowar | 3nd week of July | 3rd week of January | | |
| 8 | Bt cotton | K-2015 | Rainfed | Black Soil | L | M | H | Jowar | 2nd week of july | 2nd Week of Dec | | |
| 9 | Paddy | 15 | Irrigated | Black soil | L | H | M-H | Paddy | 2nd to 3rd week of August. | Last week of December. | | |
| 10 | Bt.cotton | Kharif-15 | I/D | Black soil | L | M | M to H | Jowar | Last week of July | Last picking 3rd week of February | | |
| 11 | Chilli | Kharif-15 | I/D | Black soil | L | H | M to H | Maize | 2nd to 3rd week of August. | Last week of February | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | Bengalgram | Rabi-15 | Rainfed | Black | L | M to H | M to H | Bengalgram | 3rd week of Oct. | 3rd week of Jan. | | |
| 13 | Rice | Rabi-15 | Irrigated | Black | L | H | M to H | | 2nd week of December | 3rdweek of March | | |
| 14 | Maize | Rabi-15 | I/D | Black | L | H | M-H | Paddy | 2nd to 3rd week of January. | Last week of April | | |
| 15 | Bt Cotton | K 2016 | RF | BC soil | L | M | H | Jowar | 4th week of July | 4th wk of Jan | | |
| 16 | Chillis | K 2016 | Irrigated | BC soil | L | M | H | Cotton | 1st wk of Sep | 1st wk of Mar | | |
| 17 | Rice | K 2016 | Irrigated | BC soil | L | M | H | Rice | 2nd wk of Aug | 4th wk of Dec | | |
| 18 | Blackgram | R 2016 | RF | BC soil | L | M | H | Chillis | 2nd wk of Oct | 4th wk of Jan | | |
| 19 | Maize | R 2016 | Irrigated | BC soil | L | M | H | Rice | 1st wk of Jan | | | |
| 20 | Mango | R 2015 | ID | Red soil | L | M | High | - | 3rd week of July. | 1st week of January. | | |
| 21 | Turmeric | K 15 | ID | Red soil | L | L | Med | Chilli | 1st Wk of July | Last week of March. | | |
| 22 | Chilli | K-15 | ID | Black Soil | L | M | H | Chilli | 1st week of September | Last week of February | | |
| 23 | Banana | R 15 | ID | Black soil | L | H | M to H | Cotton | 1st week of october | Last week of February | | |
| 24 | Carrot | R 15 | ID | Red Soila | L | M | H | Veg | 2nd week of October | Last wek of January | | |

**Performance of FLD:**

| Sl. No. | Crop | Technology Demonstrated | Variety | No. of Farmers | Area (ha.) | Demo. Yield Qtl/ha | | | Yield of local Check Qtl./ha | Increase in yield (%) | Data on parameter in relation to technology demonstrated | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | H | L | A | | | Demo | Local |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1 | sunflower | Component technologies | Sunbred-275 | 15 | 6.0 | 11.87 | 9.75 | 10.38 | 8.46 | 22.60 | | |
| 2 | | Component technologies | Sunbred-275 | 15 | 6.0 | 20.50 | 18.50 | 19.42 | 16.83 | 15.38 | | |
| 3 | Bengalgram | Component | Nandyala sanaga-1/JG-11 | 50 | 20 | 15.0 | 12.5 | 13.77 | 11.65 | 18.19 | 26.6 pods/plant | 22.0 pods/plant |
| **Other demonstrations** | | | | | | | | | | | | |
| 3 | Setaria | varietal | Suryanadi | 10 | 4 | 26.25 | 19.75 | 24.33 | 21.93 | 10.9 | | |
| 4 | jowar | Herbicides+ Manual weeding | Mahendra male | 10 | 4 | 40.0 | 31.25 | 34.85 | 33.72 | 3.33 | Weed density/$m^2$ 7.22 | Weed density/m 27.80 |
| 5 | Maize | Herbicides+ Manual weeding | Kaveri-51 | 10 | 4 | 66.25 | 54.75 | 59.95 | 57.45 | 4.35 | Weed density/$m^2$ 8.56 | Weed density/$m^2$ 36.66 |
| 6 | Paddy | Semi dry Rice cultivation | BPT-5204 | 5 | 2 | 74.87 | 69.76 | 72.73 | 70.50 | 3.16 | Cost on production-47280/- | Cost on production-56540/- |
| 7 | Seteria-Bengalgram | Cropping sequence | Suryanadi/JG-11 | 5 | 4 | 26.25+7.50 | 19.75+7.50 | 24.33+9.10 | 12.39 | | | |
| 8 | Bt cotton | Crop geometry | Swapna | 5 | 4 | 21.87 | 18.90 | 20.72 | 19.32 | 7.24 | | |
| 9 | Paddy | Zinc management | BPT-5204 | 10 | 4 | 69.75 | 66.50 | 68.16 | 59.28 | 14.97 | C.P and yield | C.P and yield |
| 10 | Bt.cotton | Integrated Nutrient Management | Jadhu Bt. | 10 | 4 | 28.70 | 23.62 | 26.46 | 23.45 | 12.83 | C.P and yield | C.P and yield |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | Chilli | STCR | Improved variety | 10 | 4 | 55.25 | 48.75 | 51.21 | 51.38 | - | C.P and yield | C.P and yield |
| 12 | Bengalgram | Sulphur and zinc management | JG-11 | 10 | 4 | 15.2 | 12.5 | 13.62 | 11.97 | 13.78 | C.P and yield | C.P and yield |
| | Paddy | Reclamation of sodic soils | BPT-5204 | 10 | 4 | 62.30 | 51.40 | 58.75 | 48.60 | 20.88 | C.P and yield | C.P and yield |
| 14 | Maize | Zinc management | Private hybrids | 10 | 4 | Under progress | | | | | C.P and yield | C.P and yield |
| 15 | Bt Cotton | Sucking pest management | Jadoo | 10 | 4.0 | 21 | 17 | 18.75 | 16.90 | 10.95 | Aphids – 11.06% Whiteflies – 12.5% Jassids – 9.98% | Aphids – 6.11% Whiteflies – 7.03% Jassids – 4.06% |
| 16 | Chillis | Viral disease management | Super 10 | 10 | 4.0 | 61.25 | 50.75 | 55.68 | 49.38 | 12.76 | Viral disease – 9.96 % | Viral disease – 15.03 % |
| 17 | Rice | Mgmt.of blast and sheath blight | BPT 5204 | 10 | 4.0 | 76.87 | 65.63 | 69.75 | 64.50 | 8.10 | Blast - 2.73 % Sheath Blight – 3.75 % | Blast - 5.63 % Sheath Blight – 7.39 % |
| 18 | Blackgram | Contingent mgmt of pests and diseases | LBG 752 | 10 | 4.0 | 17.50 | 12.50 | 14.50 | 13.15 | 10.27 | Maruca damage – 3.69% PM – 2.87% YMV – 2.84% | Maruca damage – 6.92% PM – 5.79% YMV – 4.57% |
| 19 | Maize | Contingent mgmt of pests and diseases | Hybrid | 10 | 4.0 | | | | | | Stem borer – 7.09% Blight – 0.97% | Stem borer – 13.48% Blight – |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | 2.16% |
| 20 | Mango | Micronutrient management | Banaganapalli | 10 | 10 | 156.4 | 124.6 | 144.04 | 113.5 | 26.91 | | |
| 21 | Turmeric | Management of rhizome rot | Mydukuru | 10 | 4 | 88.76 | 71.44 | 74.97 | 61.76 | 21.39 | CP and yield | CP and yield |
| 22 | Chilli | ICM | Hybrids | 10 | 4 | 68.32 | 54.71 | 56.57 | 50.89 | 11.16 | CP and yield | CP and yield |
| 23 | Banana | Micronutrient management | Grand nine | 10 | 4 | 742.6 | 655.7 | 684.7 | 609.1 | 12.41 | CP and yield | CP and yield |
| 24 | Carrot | Introduction of alternate vegetable | Hybrid | 10 | 10 | 212.6 | 183.91 | 205.42 | 463.2 (tomato) | - | - | - |
| 25 | Dairy animals | Feeding of SF heads supplemented feed | Graded murrah | 10 | 10 | 811.04 | 675.2 | 752.2 | 708.1 | 6.22 | % fat Demo.- 6.78 | 5.75 |
| 26 | Dairy animals | Supplementation of Regional Specific Mineral Mixture | Graded murrah | 20 | 20 | 469.6 | 433.8 | 412.6 | 376.5 | 9.58 | Animals exhibited heat Demo: 8 (40%) FP:2 10%) | |
| 27 | Poultry | Azolla supplementation to Backyard poultry | Rajasri | 10 | 100 | 1456.4 | 1009.0 | 1327.1 | 1164.4 | 13.97 | - | - |
| 28 | Dairy animals | Supplementation of Urea Molasses Mineral Blocks | Graded murrah | 10 | 10 | 324.7 | 292.3 | 222.4 | 186.7 | 19.28 | % fat Demo.- 7.65 Control – 7.1 | |
| 29 | Dairy animals | Feeding of hydroponic maize fodder | Graded murrah | 5 | 10 | 146.2 | 121.6 | 130.5 | 122.1 | 6.96 | - | |

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

| S. No | Average Cost of cultivation (Rs./ha) | | Average Gross Return (Rs./ha) | | Average Net Return (Profit) (Rs./ha) | | Benefit-Cost Ratio (Gross Return / Gross Cost) |
|---|---|---|---|---|---|---|---|
| | Demonstration | Local Check | Demonstration | Local Check | Demonstration | Local Check | |
| | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 1 | 22690-00 | 22390-00 | 37580-00 | 30860-00 | 14890-00 | 8470-00 | 1:1.65/1.37 |
| 2 | 25096-00 | 24706-00 | 69220-00 | 60155-00 | 44124-00 | 35449-00 | 1:2.75/1.2.4 |
| | 25450-00 | 23587-00 | 64742-00 | 54778-00 | 39292-00 | 23587-00 | 1:2.54/1.2.47 |
| | 26300-00 | 23680-00 | 85399-00 | 74495-00 | 59099-00 | 50815-00 | 1:3.24/1.3.14 |
| | | | | | | | **Other Demonstrations** |
| 3 | 16100-00 | 16020-00 | 50677-00 | 45476-00 | 34577-00 | 24664-00 | 1:3.14/2.83 |
| 4 | 28150-00 | 29375-00 | 55760-00 | 53952-00 | 27610-00 | 24577-00 | 1:1.98/1.3 8 |
| 5 | 35750-00 | 36550-00 | 80932-00 | 77557-00 | 45182-00 | 41007-00 | 1:2.26/1.2.12 |
| 6 | 47280-00 | 56540-00 | 160006-00 | 155100-00 | 112726-00 | 98560-00 | 1:3.38/1.2.7 |
| 7 | 42550-00 | 28450-00 | 93442-00 | 58233-00 | 50892-00 | 31783-00 | 1:2.1/1.2.0 |
| 8 | 51225-00 | 50275-00 | 79772-00 | 74382-00 | 28547-00 | 24107-00 | 1:1.55/1.46 |
| 9 | 69214 | 68304 | 143132 | 124494 | 73918 | 56190 | 2.07(D)/1.82(C) |
| 10 | 52710 | 58289 | 103190 | 91455 | 50481 | 33166 | 1.97(D)/1.57(C) |
| 11 | 127880 | 148496 | 614460 | 616512 | 509741 | 468017 | 4.80(D)/4.15(C) |
| 12 | 33936 | 32186 | 64014 | 56259 | 30078 | 24073 | 1.88(D)/1.75(C) |
| 13 | 52145 | 49895 | 123375 | 102060 | 71230 | 52165 | 2.37(D)/2.05(C) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 14 | 69214 | 68304 | 143132 | 124494 | 73918 | 56190 | 2.07(D)/1.82(C) |
| 15 | 69214 | 68304 | 143132 | 124494 | 73918 | 56190 | 2.07(D)/1.82(C) |
| 16 | 52710 | 58289 | 103190 | 91455 | 50481 | 33166 | 1.97(D)/1.57(C) |
| 17 | 127880 | 148496 | 614460 | 616512 | 509741 | 468017 | 4.80(D)/4.15(C) |
| 18 | 33936 | 32186 | 64014 | 56259 | 30078 | 24073 | 1.88(D)/1.75(C) |
| 19 | 52145 | 49895 | 123375 | 102060 | 71230 | 52165 | 2.37(D)/2.05(C) |
| 20 | 85324.00 | 83629.00 | 288351.00 | 227342.00 | 203027.00 | 143713.00 | 3.37/2.7 |
| 21 | 275895.00 | 237905.00 | 618502.00 | 509520.00 | 342607.00 | 235615.00 | 2.24/1.86 |
| 22 | 193540.00 | 210851.00 | 684495.00 | 615769.00 | 490955.00 | 404919.00 | 3.53/2.92 |
| 23 | 215639.00 | 217497.00 | 445055.00 | 365460.00 | 229416.00 | 178418.00 | 2.06/1.60 |
| 24 | 86315.00 | 88130.00 | 246530.00 | 138925.00 | 160215.00 | 50795.00 | 2.8/1.57 |
| 25 | 4643.75 | 5100.00 | 26327.00 | 21243.00 | 21683.25 | 16143.00 | 5.66/4.16 |
| 26 | 4933.00 | 4443.00 | 13551.00 | 11401.00 | 8618.00 | 6957.00 | 1:2.75/1:2.56 |
| 27 | 720.00 | 650.00 | 1845.00 | 1545.00 | 1125.00 | 895.00 | 1:2.56/1:2.37 |
| 28 | 1965.00 | 1395.00 | 9990.00 | 6770.40 | 8025.00 | 5375.40 | 5.08/4.85 |
| 29 | 930.00 | 1240.00 | 8358.40 | 7081.80 | 7428.40 | 5841.80 | 8.98/5.71 |

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

| S.No | Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|---|---|---|---|---|---|---|---|
| 1 | sunflower | Rabi 2015 | ICM | Rainfed | 10.38 | 8.46 | 22.60 |
| 2 | | | | Irrigated | 19.42 | 16.83 | 15.38 |
| | Bengalgram | Rabi -15 | ICM on Nandyala sanaga-1 | Rianfed | 13.77 | 11.65 | 18.19 |
| | Bengalgram | | | Irrigated | 18.17 | 15.85 | 14.63 |
| | **Other demonstrations** | | | | | | |
| 3 | Setaria | K-15 | varietal | Rainfed | 24.33 | 21.93 | 10.9 |
| 4 | jowar | M-15 | Herbicides+ Manual weeding | Rainfed | 34.85 | 33.72 | 3.33 |
| 5 | Maize | K-14 | Herbicides+ Manual weeding | irrigated | 59.95 | 57.45 | 4.35 |
| 6 | Paddy | K-14 | Semi dry Rice cultivation | irrigated | 72.73 | 70.50 | 3.16 |
| 7 | Seteria-Bengalgram | K-14 | Cropping sequence | Rainfed | 24.33+9.10 | 12.39 | - |
| 8 | Bt cotton | K-13 | Crop geometry | irrigated | 20.72 | 19.32 | 7.24 |
| 9 | Paddy | 15 | Zinc management | Irrigated | 68.16 | 59.28 | 14.97 |
| 10 | Bt.cotton | K-15 | Integrated Nutrient Management | I/D | 26.46 | 23.45 | 12.83 |
| 11 | Chilli | K-15 | STCR | I/D | 51.21 | 51.38 | - |
| 12 | Bengalgram | Rabi-15 | Sulphur and zinc management | Raifed | 13.62 | 11.97 | 13.78 |
| 13 | Rice | Rabi-15 | Reclamation of sodic soils | Irrigated | 58.75 | 48.60 | 20.88 |
| 14 | Maize | Rabi-15 | Zinc management | I/D | Under progress | | |
| | Bt Cotton | K 16 | IPM for sucking pests | RF Black Soil | 18.75 | 16.90 | 10.95 |
| | Chillis | K 16 | IDM for viral disease management | Irri. Black soil | 55.68 | 49.38 | 12.76 |
| | Rice | K 16 | IDM for blast and sheath blight | Irri. Black | 69.75 | 64.50 | 8.10 |
| | Blackgram | R 16 | IPM for maruca, YMV and powdery mildew | RF Black | 14.50 | 13.15 | 10.27 |
| 20 | Mango | R-2013 | Micro Nutrient Management | Irrigated Sandy Soils | 154.2 | 113.5 | 26.91 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 21 | Turmeric | R-2013 | Rhizome rot management | Irrigated Loamy Soils | 845 | 697 | 21.2 |
| 22 | Chilli | R-2013 | Chemical weed management | Irrigated Black Soils | 48.86 | 54.78 | 12.11 |
| 23 | Banana | R-2013 | Micronutrient management | Irrigated Loamy Soils | 697.2 | 614.5 | 13.45 |
| 24 | Dairy animals | K- 14 | Feeding of SF heads supplemented feed | - | 752.2 | 708.1 | 6.22 |
| 25 | Dairy animals | K- 14 | Supplementation of Regional Specific Mineral Mixture | - | 412.6 | 376.5 | 9.58 |
| 26 | Poultry | Rabi14 | Azolla supplementation to Backyard poultry | - | 1327.1 | 1164.4 | 13.97 |
| 27 | Dairy animals | Rabi14 | Supplementation of Urea Molasses Mineral Blocks | - | 222.0 | 186.0 | 19.28 |
| 28 | Dairy animals | Rabi15 | Feeding of hydroponic maize fodder | - | 130.5 | 122.1 | 6.96 |

**Sunflower:** The results indicated that sunflower hybrid sunbred-275 with Improved production technologies (seed treatment, Pre-emergence application of pendimethalin @ 2.5 lit/ha, Soil test based fertilizer application, spacing and thinning at 10-15 DAS, application of Boron @0.2% and sucking pestmanagement) gave higher yield(10.38/ha), which was 22.6 per cent than that of obtained with farmers practice yields of 8.46 q/ha in black soils under rainfed situation. The same Hybrid gave higher grain yield (19.42q/ha), which was 15.3 per cent than that of obtained with farmers practice under Irrigated condition.

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 1:1.65/1.37 and1:2.75/2.43 under rainfed and irrigated situation respectively

**Bengalgram:** In Bengalgram variety Nandyala sanaga-1 with Improved production technologies (Improved variety, seed treatment, Soil test based fertilizer application, Sulphur @20 kg/ha and IPM measures against Helicoverpa and S.exigua) gave higher grain yield(13.77q/ha), which was 17.19 per cent than that of obtained with farmers practice yields of 11.75 q/ha in black soils under rainfed situation. The same variety gave higher grain yield (18.17q/ha), which was 14.63 per cent than that of obtained with farmers practice with one protective irrigation at 30-35 DAS. The increased grain yield with Improved production technologies was mainly because of more no of pods/plant and higher 100 grain weight

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 1:2.54/2.47 and1:3.24/3.14 under rainfed and with protective irrigation respectively.

**Demonstration on Seteria Variety Suryanandi:**

During Kharif-2015 five FLDs were organized with **Suryanandi** variety of seteria at different locations of Banaganapalli mandal. The data revealed that the grain yield of improved variety was increased by 10.9 per cent with additional returns of Rs 9913/- per ha. The improved variety proved to be superior as compared to local variety both in terms of grain and fodder yield

**Weed Management in jowar:**

FLDs on Weed management were taken up in an area of 4ha at Yagantipalli Village with pre–emergence application Atrazine@2.0Kg/ha + Post–emergence application of 2,4D sodium salt@ 1.0 kg/ha on striga. The results indicated that post–emergence application 2,4D sodium salt@ 1.0 kg/ha have reduced the weed density most effectively. It was revealed that Post emergence application of herbicide along with one hand weeding most economic method for weed control in jowar.

**Weedmanagement in Maize:**

During khairf15 FLDs were taken up at Yagantipalli and Meerapuram villages of Banaganapalli mandal with pre–emergence application Atrazine@2.5Kg/ha + Post–emergence application of 2,4D sodium salt@ 1.0 kg/ha. The results indicated that weed density was significantly reduced and 79.0 per cent weed control efficiency was recorded. The hand weeding is laborious and generally more expensive. It was revealed that Post emergence application of herbicide followed by one intercultivation was most economic method for weed control in maize

**Semi Dry method of Rice cultivation:**

Under late on set of monsoon conditions and late release of in canals may become erratic and untimely leading to delayed transplanting (beyond August) resulting low yields. To tide over such predicaments, KVK organized demonstrations on Semi Dry method of Rice cultivation. In this method early seeding by taking advantage of early rains received just one month before canal supplies was imminent success with farmers.

- The data clearly indicated that direct seeding paddy seeds with gorru in the month of July recorded on par grain yield over transplanting. The mean yield of direct seeding was 7273Kg/ha as compared to 7050 kg/ha in case transplanting. The success of DSR mainly attributed to:.
- Tmely sowing
- Redduced cost of cultivation as compared to transplanting( Labour,Puddling costs)
- Reduced seedr ate ( 8-12 KG /acre as against 30kg /acre )
- Saves 35-40 per cent water.
- Reduced fertilizers and pesticides uses
- Equal or higher yields with reduced production costs and higher net income.

**Demonstration on Setaria- Bengalgram cropping sequence in Rainfed black soils:**

The results indicated that highest net returns was obtained with Korra-Bengalgram sequence (Rs 50892/ha) than fallow –bengalgram(Rs 31783/ha.The additional net income of the farmers was also increased in Korra- Bengalgram sequence which is calculated as Rs. Rs19019/- more than the Fallow-Bengalgram. This shows the increased profitability through Korra- Bengalgram sequence.

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

**Optimum Spacing in Bt cotton**: The results on Bt.cotton with spacing of 90X60cm (2072 kg) has recorded increased yield 7.24% over farmer practice i.e 120X60cm. 1932kg/ha.

**Zinc Management in rice:** Ten Demonstrations were organized on Zinc management in rice at I.Kothapet village of Banaganapalle mandal. The average yield of rice under Zinc foliar application was high (6816Kg/ha) as compared to controlled practice (5928Kg/ha). An amount of Rs.17728/ha

was realized as additional income due to yield increments (14.97 %)in demonstrations. Benefit-cost ratio was high in demonstrations (1:2.07) as compared to controlled practice (1:1.82) due to higher gross income.

**INM in Bt.Cotton:** Ten Demonstrations were organized on integrated nutrient management in Bt.cotton at Meerapuram village of Banagnapalle mandal. The average yield of cotton was high (2646Kg/ha) in INM practice when compared to farmer's practice (2345Kg/ha) . An amount of Rs. 17335/ha was realized as additional income due to low production costs and yield increments (12.83%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:1.97) as compared to farmers practice (1:1.57) due to low cost of Production and higher gross income.

**Nutrient management in chilli based on STCR equation:** The results indicated that the average pod yield of Chilli under STCR (5121Kg/ha) and pod yield produced under controlled practice (5138Kg/ha) were onpar.Net income was high in demonstration plots (Rs.509741 $ha^{-1}$) as compared to controlled practice (Rs.468017 $ha^{-1}$). It was also observed that an amount of Rs.18564/ha was realized as additional income due to low production costs and yield increments in demonstrations. Benefit-cost ratio was also high in demonstrations (1:4.80) as compared to check (1:4.15) due to low cost production.

**Sulphur and zinc management in Bengalgram based on soil test:** Ten Demonstrations were organized in bengalgram at K.Sunkesula village of Owk mandal. The average yield of bengalgram under Sulphur and zinc management was high (1362Kg/ha) as compared to control (1197Kg/ha). An amount of Rs. 6005/ha was realized as additional income due to yield increments (13.78%) in demonstrations. Benefit-cost ratio was high in demonstrations (1:1.88) as compared to farmers practice (1:1.75) due to higher gross income.

**Reclamation of sodic soils with gypsum:** Ten Demonstrations were organized on reclamation of sodic soils with gypsum at Yagantipalle village of Banaganapalle mandal. The initial soil pH was ranged from 9.18 to 9.42 and after reclamation it is ranged from 8.52 to 8.84. The Paddy crop was cultivated after reclamation. The average yield of paddy in demonstration plots was high (5875Kg/ha) as compared to controlled plots (4860 Kg/ha). The results indicated that 20.88 percent yield increase in demonstration plots over the controlled plots. An amount of Rs. 19065/ha was realized as additional income in demonstrations due to yield increments.

**Zinc management in maize:** Organised ten demonstrations at Yagantipalle village. Zinc sulphate applied @50 kg/ha at basal. Now the crop is at grain development phase

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

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

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

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

**Feeding of sunflower heads supplemented ration to milch buffaloes:** The demonstration was conducted at Amadala and Koilakuntla villages. 30% SF heads mixed ration was fed to the animals for 120 days. The results indicated that 6.22% increased milk production by feeding SF heads supplemented feed over farmers method. Difference of Rs.5540/- as net income was observed in demo over control.

**Supplementation of Regional Specific mineral mixture to milch buffaloes:** The demonstration was conducted at Mandaluru of Rudravaram (M) and C.K.Dinne of Allagadda (M) selecting 20 graded murrah buffaloes having post partum anoestrus condition. RSSM was supplemented @ 80grams per day along with regular concentrate feed. The results indicated that 40% animals exhibited heat symptoms and 9.58 % increase in milk yield was noticed over farmers practice.

**Azolla supplementation to Rajasri birds at backyards:** The demonstration was conducted at Charlakothuru and Pathapadu villages of Banaganapalle mandal. Azolla units were established and azolla was supplemented to Rajasri birds @50grams per day along with scavenging for 90 days. The results indicated that 13.97% increase in body weight was observed in treatment over control

**Supplementation of UMMB to milch buffaloes:** The demonstration was conducted at Seetaramapuram village of Bethamcherla mandal selecting 10 graded murrah buffaloes. UMMB was given to hang before the animals and allowed to lick for an hour daily. The results indicated that 19.28% increase in milk yield was observed in demo over farmers practice.

**Feeding of Hydroponic maize fodder to milch buffaloes:** The demonstration was conducted at Nallagtla, Meerapuram and Yagantipalle villages selecting 10 graded murrah buffaloes at five

farmers. 12kg hydroponic maize fodder fed to animals along with dry jowar stover. The results indicated that 6.96% increase in milk yield was observed in demo over farmers practice.

**Technical Feedback on the demonstrated technologies:**

| S. No | Feed Back |
|---|---|
| 1 | **sunflower:**<br>• No significant difference in duration of sunflower hybrids cultivated by farmers.<br>• Due to adoption of 60cm spacing between the rows and practicing thinning at 10-15DAS crop was not affected with moisture stress.<br>• Under irrigated situation adoption of paired method of sowing with thinning performing better than farmer practice.<br>• Basal application of P in form of SSP & boron spray @ 0.2% had positive effect on seed filling & test weight |
| 2 | **Bengalgram:**<br>• Plant height, no. of branches/plant, No. of pods/plant were on par with JG-11<br>• Plant was bushy with basal branching habit<br>• Seeds are bold and attractive<br>• 100 seed weight is more compared to JG-11<br>• The incidence of wilt is comparatively less than local check.<br>• It is Tolerant to drought due to its deep root system |
| 3. | **Integrated weed management in Rice, Bt cotton**<br>• Cost on manual weeding was reduced (Rs 950/- per ha)<br>• Weed control efficiency was 82-86.0Per cent<br>• Weed density was less in demo plot up to critical periods |
| 4 | **Cropping systems:**<br>• Castor and greengram intercropping system found to be remunerative than sole crop of Castor/ Greengram even under drought conditions.<br>• While maintaining the yield levels of the sole crop, additional yields with the intercropping component have been realized.<br>• Since, a food legume is involved in the system, it will not only enhance the income of the farmer, but also provide with the much- needed protein to supplement the predominantly cereal diet of farmers. |

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

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

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

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

7 **Zinc management in Rice :**

- Foliar application of chelated zinc performed equally as basal application.
- Zinc deficiency correction gave higher yield than control

8 **INM in Bt Cotton :** Integrated nutrient management gave higher yield than control

9 **Reclamation of Sodic Soils:** Application of gypsum helped in reduction of soil pH.

10 **Sulphur and Zinc Management in Bengalgram** : Productivity enhancement due application of sulphur and zinc in respective nutrient deficient soils

**Farmer's reaction on Specific technologies:**

| Feed Back |
|---|
| • Nandyala sanaga-1 variety is performing well & it is occupying 15 % of bengalgram area in the district.<br>• It is tolerant to wilt & moisture stress<br>• Soil application of T. viride effective for managing wilt.<br>• Farmers were convinced & adopted the recommended seed rate.<br>• Observed Colletotrichum blight in Nandyala sanaga-1 variety |
| **Integrated weed management in Rice, Bt cotton and Rabi Groundnut**<br>• Cost on manual weeding was reduced (Rs 950/- per ha)<br>• Weed control efficiency was 82-86.0Per cent<br>• Weed density was less in demo plot up to critical periods |
| **Semi dry method of Rice cultivation:**<br>• Reduced cost of cultivation as compared to transplanting( Labour,Puddling costs)<br>• Reduced seedr ate ( 8-12 KG /acre as against 30kg /acre )<br>• Saves 35-40 per cent water.<br>• Reduced fertilizers and pesticides uses<br>Equal or higher yields with reduced production costs and higher net income. |
| **STCR in Rice:** Farmers were satisfied with crop performances and expressed that Soil test based nutrient management is a viable technology in Rice, because of less cost of chemical fertilizers and without reduction in yield compared to their own practice. They realized that they are resorting to higher expenditure on fertilizers in absence of soil testing of their fields. They are now willing to adopt the STCR technology in succeeding seasons for raising crops. |
| **Zinc Management in Rice:** Foliar application of zinc is more economical than basal. |
| **INM in Bt Cotton:** Soil quality improved and cost of fertilizers reduced. |
| **Reclamation of Sodic Soils:** Sodic soil reclamation by gypsum application is more effective than others. |
| **Sulphur and Zinca Management in Bengalgram:** Need based application of Sulphur and zinc is more essential for bengalgram yield increments. |
| **Sucking pest management in Bt cotton:** Stem application with Imidacloprid and Monocrotophos at 40 and 60 DAS offered good control of sucking pests especially Jassids and Aphids. Sticky traps @ 10/ ac offered good protection against whiteflies later in the season. |
| **Contingent management of pests and diseases in Redgram:** Spraying Chloro + Dichlorovos at |

| |
|---|
| flowering on observing initials of leaf webbing, offered well control of Maruca. |
| **Contingent management of pests and diseases in Blackgram:** Yellow sticky traps offer good catch of whiteflies in the field. Spraying Chloro + Dichlorovos at flowering offered good control of pod borer. |

**Extension and Training activities under FLD :**

| S. No. | Activity | No. of activities organized | Date | Number of participants | Remarks |
|---|---|---|---|---|---|
| 1 | Field days | 2 | 23-1-2016<br>28-1-2016 | 87<br>98 | |
| 2 | Farmers Training | 4 | 28-9-2015<br>9-12-2015<br>25-9-2015<br>18-11-2015 | 30<br>30<br>55<br>55 | |
| 3 | Training for extension functionaries | 1 | 18-12.2015 | 40 | |

c) **Farm Implements:**

| Name of the implement | Crop | No. of farmers | Area (ha) | Performance parameters / indicators | * Data on parameter in relation to technology demonstrated | | % change in the parameter | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | Demo | Local check | | |
| Cotton Hand Gloves | APBN-I | 20 | 0.4 | Feed back on work related stress factors presented in a separate table | Harvesting with Gloves | Harvesting with bare hands | 33.3 | With the introduction of cotton hand gloves for Green Fodder harvesting, the farm women protects her hands from itching and irritation caused while harvesting of green fodder. drudgery was reduced from less to normal than their regular practice recorded from moderate to severe |
| Bhendi Cutter | Bhendi | 5 | 0.4 | Qty. harvested in kgs/ day/person | 61.0 | 52.5 | 16.1 | With the introduction of Bendi cutter(from MPKV,Rahuri) the harvesting rate increased by 16.1% and labour cost saved by 25% and the drudgery was reduced from normal to moderate than their regular practice which was recorded Severe. |
| | | | | Labour required In Rs /day | 450 | 600 | 25.0 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mogi Improved Wheelhoe | Groundnut | 3 | 0.4 | Labour required/ acre/day | 3 | 8 | 62.5 | With the introduction of Mogi improved wheelhoe, the cost on weeding was saved by 600/- and labour saved by 62.5% for one weeding. The drudgery was reduced from less to moderate than their regular practice i.e, from moderate to severe. |
| | | | | Reduction on cost on weeding / acre | 360 | 960 | | |

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

**Introduction of Cotton hand gloves for harvesting of Green Fodder:**

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

**Matrix ranking of Drudgery for Farm women in Agriculture Operations:**

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

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

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

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

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

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

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

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

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

**Matrix ranking of Drudgery for Farm women in Agriculture Operations:**

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

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

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

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

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

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

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

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

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

**Matrix ranking of Drudgery for Farm women in Agriculture Operations:**

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

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

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

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

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

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

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

**(ii) Livestock Enterprises:**

| Enterprise | Breed | No. of farmers | No. of animals, poultry birds etc. | Performance parameters / indicators | * Data on parameter in relation to technology demonstrated | | % change in the parameter | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | Demon. | Local check | | |
| Dairy animals | Graded murrah | 10 | 10 | Milk yield (120 days) | 752.2 | 708.1 | 6.22 | |
| Dairy animals | Graded murrah | 20 | 20 | Milk yield (90 days) and animals exhibited heat | 412.6 | 376.5 | 9.58 | |
| Poultry | Rajasri | 10 | 100 | Body weight gain/120days | 1327.1 | 1164.4 | 13.97 | |
| Dairy animals | Graded murrah | 10 | 10 | Milk yield/60days | 222.0 | 186.0 | 19.28 | |
| Dairy animals | GM | 5 | 10 | Milk Yield 30 days | 130.5 | 122.1 | 6.96 | |

* Milk production, meat production, egg production, reduction in disease incidence etc.

**(iii) Other Enterprises:**

| Enterprise | Variety/ breed/Species/ others | No. of farmers | No. of Units | Performance parameters / indicators | Data on parameter in relation to technology demonstrated | | % change in the parameter | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | Demo | Local check | | |

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

**A) ON Campus:**

| Thematic area | | Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Others | | | SC/ST | | | Grand Total | | |
| | | M | F | Total | M | F | Total | M | F | Total |
| (A) Farmers & Farm Women | | | | | | | | | | |
| I Crop Production | | | | | | | | | | |
| Weed Management | 1 | 25 | - | 25 | 10 | - | 10 | 35 | - | 35 |
| Resource Conservation Technologies | 1 | 25 | - | 25 | 5 | - | 5 | 30 | - | 30 |
| Cropping Systems | 1 | 30 | - | 30 | 5 | - | 5 | 35 | - | 35 |
| Crop Diversification | 1 | 40 | - | 40 | 10 | - | 10 | 50 | - | 50 |
| Integrated Farming | | | | | | | | | | |
| Water management | 1 | 28 | - | 28 | 4 | - | 4 | 32 | - | 32 |
| Nursery management | | | | | | | | | | |
| Integrated Crop Management | 5 | 113 | - | 113 | 39 | - | 39 | 152 | - | 152 |
| Fodder production | 1 | 25 | - | 25 | - | 2 | 2 | 25 | 2 | 27 |
| Production of organic inputs | | | | | | | | | | |
| II Horticulture | | | | | | | | | | |
| a) Vegetable Crops | | | | | | | | | | |
| Production of low volume and high value crops | | | | | | | | | | |
| Off-season ve getables | | | | | | | | | | |
| Nursery raising | | | | | | | | | | |
| Exotic vegetables like Broccoli | | | | | | | | | | |
| Export potential vegetables | | | | | | | | | | |
| Grading and standardization | | | | | | | | | | |
| Protective cultivation (Green Houses, Shade Net etc.) | | | | | | | | | | |
| b) Fruits | | | | | | | | | | |
| Training and Pruning | | | | | | | | | | |
| Layout and Management of Orchards | | | | | | | | | | |
| Cultivation of Fruit | | | | | | | | | | |
| Management of young plants/orchards | | | | | | | | | | |
| Rejuvenation of old orchards | | | | | | | | | | |
| Export potential fruits | | | | | | | | | | |
| Micro irrigation systems of orchards | | | | | | | | | | |
| Plant propagation techniques | | | | | | | | | | |
| c) Ornamental Plants | | | | | | | | | | |
| Nursery Management | | | | | | | | | | |
| Management of potted plants | | | | | | | | | | |
| Export potential of ornamental plants | | | | | | | | | | |
| Propagation techniques of Ornamental Plants | | | | | | | | | | |
| d) Plantation crops | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| e) Tuber crops | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| f) Spices | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| g) Medicinal and Aromatic Plants | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Production and management technology | | | | | | | | | | |
| Post harvest technology and value addition | | | | | | | | | | |
| III Soil Health and Fertility Management | | | | | | | | | | |
| Soil fertility management | | | | | | | | | | |
| Soil and Water Conservation | | | | | | | | | | |
| Integrated Nutrient Management | | | | | | | | | | |
| Production and use of organic inputs | 4 | 39 | | 39 | 11 | - | 11 | 50 | - | 50 |
| Management of Problematic soils | 1 | 20 | | 20 | 5 | - | 5 | 25 | - | 25 |
| Micro nutrient deficiency in crops | | | | | | | | | | |
| Nutrient Use Efficiency | | | | | | | | | | |
| Soil and Water Testing | 3 | 19 | | 19 | 6 | - | 6 | 25 | - | 25 |
| IV Livestock Production and Management | | | | | | | | | | |
| Dairy Management | 1 | - | - | - | - | 25 | 25 | - | 25 | 25 |
| Poultry Management | | | | | | | | | | |
| Piggery Management | | | | | | | | | | |
| Rabbit Management | | | | | | | | | | |
| Disease Management | | | | | | | | | | |
| Feed management | | | | | | | | | | |
| Production of quality animal products | | | | | | | | | | |
| V Home Science/Women empowerment | | | | | | | | | | |
| Household food security by kitchen gardening and nutrition gardening | | | | | | | | | | |
| Design and development of low/minimum cost diet | | | | | | | | | | |
| Designing and development for high nutrient efficiency diet | | | | | | | | | | |
| Minimization of nutrient loss in processing | | | | | | | | | | |
| Gender mainstreaming through SHGs | | | | | | | | | | |
| Storage loss minimization techniques | | | | | | | | | | |
| Value addition | 3 | | 48 | 48 | - | 32 | 32 | - | 80 | 80 |
| Income generation activities for empowerment of rural Women | | | | | | | | | | |
| Location specific drudgery reduction technologies | | | | | | | | | | |
| Rural Crafts | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| Women and child care | | | | | | | | | | |
| VI Agril. Engineering | | | | | | | | | | |
| Installation and maintenance of micro irrigation systems | | | | | | | | | | |
| Use of Plastics in farming practices | | | | | | | | | | |
| Production of small tools and implements | | | | | | | | | | |
| Repair and maintenance of farm machinery and implements | | | | | | | | | | |
| Small scale processing and value addition | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| VII Plant Protection | | | | | | | | | | |
| Integrated Pest Management | 1 | 6 | 0 | 6 | 24 | 0 | 24 | 30 | 0 | 30 |
| Integrated Disease Management | 1 | 3 | 0 | 3 | 12 | 0 | 12 | 15 | 0 | 15 |
| Bio-control of pests and diseases | 2 | 21 | 0 | 21 | 119 | 0 | 119 | 140 | 0 | 140 |
| Production of bio control agents and bio pesticides | | | | | | | | | | |
| IX Production of Inputs at site | | | | | | | | | | |
| Seed Production | | | | | | | | | | |
| Planting material production | | | | | | | | | | |
| Bio-agents production | | | | | | | | | | |
| Bio-pesticides production | | | | | | | | | | |
| Bio-fertilizer production | | | | | | | | | | |
| Vermi-compost production | | | | | | | | | | |
| Organic manures production | | | | | | | | | | |
| Production of fry and fingerlings | | | | | | | | | | |
| Production of Bee-colonies and wax sheets | | | | | | | | | | |
| Small tools and implements | | | | | | | | | | |
| Production of livestock feed and fodder | | | | | | | | | | |
| Production of Fish feed | | | | | | | | | | |
| X Capacity Building and Group Dynamics | | | | | | | | | | |
| Leadership development | | | | | | | | | | |
| Group dynamics | | | | | | | | | | |
| Formation and Management of SHGs | | | | | | | | | | |
| Mobilization of social capital | | | | | | | | | | |
| Entrepreneurial development of farmers/youths | | | | | | | | | | |
| WTO and IPR issues | | | | | | | | | | |
| XI Agro-forestry | | | | | | | | | | |
| Production technologies | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Integrated Farming Systems | | | | | | | | | | |
| **TOTAL** | **27** | **394** | **48** | **442** | **250** | **57** | **307** | **644** | **103** | **749** |
| (B) RURAL YOUTH | | | | | | | | | | |
| Mushroom Production | | | | | | | | | | |
| Bee-keeping | | | | | | | | | | |
| Integrated farming | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| Seed production | 1 | 25 | - | 25 | 10 | - | 10 | 35 | - | 35 |
| Production of organic inputs | 2 | 24 | 0 | 24 | 41 | 8 | 49 | 65 | 8 | 73 |
| Planting material production | | | | | | | | | | |
| Vermi-culture | | | | | | | | | | |
| Sericulture | | | | | | | | | | |
| Protected cultivation of vegetable crops | | | | | | | | | | |
| Commercial fruit production | | | | | | | | | | |
| Repair and maintenance of farm machinery and implements | | | | | | | | | | |
| Nursery Management of Horticulture crops | | | | | | | | | | |
| Training and pruning of orchards | | | | | | | | | | |
| Value addition | | | | | | | | | | |
| Production of quality animal products | | | | | | | | | | |
| Dairying | | | | | | | | | | |
| Sheep and goat rearing | | | | | | | | | | |
| Quail farming | | | | | | | | | | |
| Piggery | | | | | | | | | | |
| Rabbit farming | | | | | | | | | | |
| Poultry production | | | | | | | | | | |
| Ornamental fisheries | | | | | | | | | | |
| Para vets | | | | | | | | | | |
| Para extension workers | | | | | | | | | | |
| Composite fish culture | | | | | | | | | | |
| Freshwater prawn culture | | | | | | | | | | |
| Shrimp farming | | | | | | | | | | |
| Pearl culture | | | | | | | | | | |
| Cold water fisheries | | | | | | | | | | |
| Fish harvest and processing technology | | | | | | | | | | |
| Fry and fingerling rearing | | | | | | | | | | |
| Small scale processing | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| Tailoring and Stitching | | | | | | | | | | |
| Rural Crafts | | | | | | | | | | |
| **TOTAL** | **3** | **39** | **-** | **39** | **51** | **8** | **59** | **100** | **8** | **108** |
| (C) Extension Personnel | | | | | | | | | | |
| Resource Conservation Technologies | 1 | 35 | - | 35 | - | - | - | 35 | - | 35 |
| Integrated Pest Management | | | | | | | | | | |
| Integrated Nutrient management | | | | | | | | | | |
| Rejuvenation of old orchards | | | | | | | | | | |
| Protected cultivation technology | | | | | | | | | | |
| Formation and Management of SHGs | | | | | | | | | | |
| Group Dynamics and farmers organization | | | | | | | | | | |
| Information networking among farmers | | | | | | | | | | |
| Capacity building for ICT application | | | | | | | | | | |
| Care and maintenance of farm | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| machinery and implements | | | | | | | | | | |
| WTO and IPR issues | | | | | | | | | | |
| Management in farm animals | | | | | | | | | | |
| Livestock feed and fodder production | 1 | 20 | | 20 | 15 | | 15 | 35 | | 35 |
| Household food security | | | | | | | | | | |
| Women and Child care | | | | | | | | | | |
| Low cost and nutrient efficient diet designing | | | | | | | | | | |
| Production and use of organic inputs | 1 | 25 | | 25 | | | | 25 | | 25 |
| Gender mainstreaming through SHGs | | | | | | | | | | |
| **TOTAL** | **3** | **80** | **-** | **80** | **15** | **-** | **15** | **95** | **-** | **95** |

**OFF Campus**

| Thematic area | | Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Others | | | SC/ST | | | Grand Total | | |
| | | M | F | Total | M | F | Total | M | F | Total |
| (A) Farmers & Farm Women | | | | | | | | | | |
| I Crop Production | | | | | | | | | | |
| Weed Management | 1 | 20 | 5 | 30 | 5 | - | 5 | 25 | 5 | 30 |
| Resource Conservation Technologies | | | | | | | | | | |
| Cropping Systems | | | | | | | | | | |
| Crop Diversification | 1 | 25 | 5 | 30 | 10 | - | 10 | 35 | 5 | 40 |
| Integrated Farming | | | | | | | | | | |
| Water management | | | | | | | | | | |
| Seed production | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Integrated Crop Management | 2 | 47 | - | 47 | 18 | - | 18 | 65 | - | 65 |
| Fodder production | | | | | | | | | | |
| Production of organic inputs | | | | | | | | | | |
| II Horticulture | | | | | | | | | | |
| a) Vegetable Crops | | | | | | | | | | |
| Production of low volume and high value crops | | | | | | | | | | |
| Off-season vegetables | | | | | | | | | | |
| Nursery raising | | | | | | | | | | |
| Exotic vegetables like Broccoli | | | | | | | | | | |
| Export potential vegetables | | | | | | | | | | |
| Grading and standardization | | | | | | | | | | |
| Protective cultivation (Green Houses, Shade Net etc.) | | | | | | | | | | |
| b) Fruits | | | | | | | | | | |
| Training and Pruning | | | | | | | | | | |
| Layout and Management of Orchards | | | | | | | | | | |
| Cultivation of Fruit | | | | | | | | | | |
| Management of young plants/orchards | | | | | | | | | | |
| Rejuvenation of old orchards | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| Export potential fruits | | | | | | | | | | |
| Micro irrigation systems of orchards | | | | | | | | | | |
| Plant propagation techniques | | | | | | | | | | |
| c) Ornamental Plants | | | | | | | | | | |
| Nursery Management | | | | | | | | | | |
| Management of potted plants | | | | | | | | | | |
| Export potential of ornamental plants | | | | | | | | | | |
| Propagation techniques of Ornamental Plants | | | | | | | | | | |
| d) Plantation crops | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| e) Tuber crops | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| f) Spices | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| g) Medicinal and Aromatic Plants | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Production and management technology | | | | | | | | | | |
| Post harvest technology and value addition | | | | | | | | | | |
| III Soil Health and Fertility Management | | | | | | | | | | |
| Soil fertility management | 1 | 21 | | 21 | 4 | - | 4 | 25 | - | 25 |
| Soil and Water Conservation | | | | | | | | | | |
| Integrated Nutrient Management | 1 | 20 | | 20 | 5 | - | 5 | 25 | - | 25 |
| Production and use of organic inputs | | | | | | | | | | |
| Management of Problematic soils | | | | | | | | | | |
| Micro nutrient deficiency in crops | 1 | 24 | | 24 | 8 | - | 8 | 32 | - | 32 |
| Nutrient Use Efficiency | 1 | 20 | | 20 | 6 | - | 6 | 26 | - | 26 |
| Soil and Water Testing | | | | | | | | | | |
| IV Livestock Production and Management | | | | | | | | | | |
| Dairy Management | 3 | 48 | - | 48 | 28 | - | 28 | 76 | - | 76 |
| Poultry Management | | | | | | | | | | |
| Sheep Management | 1 | 14 | - | 14 | 4 | - | 4 | 18 | - | 18 |
| Rabbit Management | | | | | | | | | | |
| Disease Management | 1 | 14 | - | 14 | 4 | - | 4 | 18 | - | 18 |
| Feed management | 6 | 92 | 13 | 105 | 36 | 12 | 48 | 128 | 25 | 153 |
| Production of quality animal products | | | | | | | | | | |
| V Home Science/Women empowerment | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Household food security by kitchen gardening and nutrition gardening | 2 | - | 30 | 30 | - | 20 | 20 | - | 50 | 50 |
| Design and development of low/minimum cost diet | 1 | - | 17 | 17 | - | 12 | 12 | - | 29 | 29 |
| Designing and development for high nutrient efficiency diet | | | | | | | | | | |
| Minimization of nutrient loss in processing | | | | | | | | | | |
| Gender mainstreaming through SHGs | | | | | | | | | | |
| Storage loss minimization techniques | 1 | - | 17 | 17 | - | 8 | 8 | - | 25 | 25 |
| Value addition | 2 | - | 40 | 40 | - | 15 | 15 | - | 55 | 55 |
| Income generation activities for empowerment of rural Women | 3 | - | 45 | 45 | - | 30 | 30 | - | 75 | 75 |
| Location specific drudgery reduction technologies | 1 | - | 22 | 22 | - | 8 | 8 | - | 30 | 30 |
| Rural Crafts | 1 | - | 8 | 8 | - | 2 | 2 | - | 10 | 10 |
| Women and child care | 1 | - | 18 | 18 | - | 7 | 7 | - | 25 | 25 |
| VI Agril. Engineering | | | | | | | | | | |
| Installation and maintenance of micro irrigation systems | | | | | | | | | | |
| Use of Plastics in farming practices | | | | | | | | | | |
| Production of small tools and implements | | | | | | | | | | |
| Repair and maintenance of farm machinery and implements | | | | | | | | | | |
| Small scale processing and value addition | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| VII Plant Protection | | | | | | | | | | |
| Integrated Pest Management | 3 | 21 | 0 | 21 | 84 | 0 | 84 | 105 | 0 | 105 |
| Integrated Disease Management | | | | | | | | | | |
| Bio-control of pests and diseases | | | | | | | | | | |
| Production of bio control agents and bio pesticides | | | | | | | | | | |
| VIII Fisheries | | | | | | | | | | |
| Integrated fish farming | | | | | | | | | | |
| Carp breeding and hatchery management | | | | | | | | | | |
| Carp fry and fingerling rearing | | | | | | | | | | |
| Composite fish culture | | | | | | | | | | |
| Hatchery management and culture of freshwater prawn | | | | | | | | | | |
| Breeding and culture of ornamental fishes | | | | | | | | | | |
| Portable plastic carp hatchery | | | | | | | | | | |
| Pen culture of fish and prawn | | | | | | | | | | |
| Shrimp farming | | | | | | | | | | |
| Edible oyster farming | | | | | | | | | | |
| Pearl culture | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| Fish processing and value addition | | | | | | | | | | |
| IX Production of Inputs at site | | | | | | | | | | |
| Seed Production | | | | | | | | | | |
| Planting material production | | | | | | | | | | |
| Bio-agents production | | | | | | | | | | |
| Bio-pesticides production | | | | | | | | | | |
| Bio-fertilizer production | | | | | | | | | | |
| Vermi-compost production | | | | | | | | | | |
| Organic manures production | | | | | | | | | | |
| Production of fry and fingerlings | | | | | | | | | | |
| Production of Bee-colonies and wax sheets | | | | | | | | | | |
| Small tools and implements | | | | | | | | | | |
| Production of livestock feed and fodder | | | | | | | | | | |
| Production of Fish feed | | | | | | | | | | |
| X Capacity Building and Group Dynamics | | | | | | | | | | |
| Leadership development | | | | | | | | | | |
| Group dynamics | | | | | | | | | | |
| Formation and Management of SHGs | | | | | | | | | | |
| Mobilization of social capital | | | | | | | | | | |
| Entrepreneurial development of farmers/youths | | | | | | | | | | |
| WTO and IPR issues | | | | | | | | | | |
| XI Agro-forestry | | | | | | | | | | |
| Production technologies | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Integrated Farming Systems | | | | | | | | | | |
| **TOTAL** | **34** | **366** | **210** | **576** | **212** | **114** | **326** | **578** | **324** | **902** |
| (B) RURAL YOUTH | | | | | | | | | | |
| Mushroom Production | | | | | | | | | | |
| Bee-keeping | | | | | | | | | | |
| Integrated farming | | | | | | | | | | |
| | | | | | | | | | | |
| Production of organic inputs | | | | | | | | | | |
| Integrated Farming | | | | | | | | | | |
| Planting material production | | | | | | | | | | |
| Vermi-culture | | | | | | | | | | |
| Sericulture | | | | | | | | | | |
| Protected cultivation of vegetable crops | | | | | | | | | | |
| Commercial fruit production | | | | | | | | | | |
| Repair and maintenance of farm machinery and implements | | | | | | | | | | |
| Nursery Management of Horticulture crops | | | | | | | | | | |
| Training and pruning of orchards | | | | | | | | | | |
| Value addition | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| Production of quality animal products | | | | | | | | | | |
| Dairying | | | | | | | | | | |
| Sheep and goat rearing | | | | | | | | | | |
| Quail farming | | | | | | | | | | |
| Piggery | | | | | | | | | | |
| Rabbit farming | | | | | | | | | | |
| Poultry production | | | | | | | | | | |
| Ornamental fisheries | | | | | | | | | | |
| Para vets | | | | | | | | | | |
| Para extension workers | | | | | | | | | | |
| Composite fish culture | | | | | | | | | | |
| Freshwater prawn culture | | | | | | | | | | |
| Shrimp farming | | | | | | | | | | |
| Pearl culture | | | | | | | | | | |
| Cold water fisheries | | | | | | | | | | |
| Fish harvest and processing technology | | | | | | | | | | |
| Fry and fingerling rearing | | | | | | | | | | |
| Small scale processing | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| Tailoring and Stitching | 2 | - | 31 | 31 | - | 16 | 16 | - | 47 | 47 |
| Rural Crafts-Quilt Bag Making | | | | | | | | | | |
| Fabric Painting | 1 | - | 13 | 13 | - | 17 | 17 | - | 30 | 30 |
| Maggam Embroidery Works | | | | | | | | | | |
| Handmade Paper bag Making | 1 | - | 11 | 11 | - | 4 | 4 | - | 15 | 15 |
| Life skills development for Adolescent Girls | 1 | - | 39 | 39 | - | 11 | 11 | - | 50 | 50 |
| **TOTAL** | **5** | **-** | **94** | **94** | **-** | **48** | **48** | **-** | **142** | **142** |
| | | | | | | | | | | |
| (C) Extension Personnel | | | | | | | | | | |
| | | | | | | | | | | |
| Integrated Pest Management | | | | | | | | | | |
| Integrated Nutrient management | 2 | 127 | 173 | 300 | | | | 127 | 173 | 300 |
| Rejuvenation of old orchards | | | | | | | | | | |
| Protected cultivation technology | | | | | | | | | | |
| Formation and Management of SHGs | | | | | | | | | | |
| Group Dynamics and farmers organization | | | | | | | | | | |
| Information networking among farmers | | | | | | | | | | |
| Capacity building for ICT application | | | | | | | | | | |
| Care and maintenance of farm machinery and implements | | | | | | | | | | |
| WTO and IPR issues | | | | | | | | | | |
| Management in farm animals | | | | | | | | | | |
| Livestock feed and fodder production | | | | | | | | | | |
| Household food security | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| Women and Child care | | | | | | | | | | |
| Low cost and nutrient efficient diet designing | | | | | | | | | | |
| Production and use of organic inputs | 8 | 85 | 70 | 155 | 483 | 400 | 883 | 568 | 470 | 1038 |
| Gender mainstreaming through SHGs | | | | | | | | | | |
| **TOTAL** | **10** | **212** | **183** | **455** | **483** | **400** | **883** | **695** | **643** | **1338** |

**Consolidated:**

| Thematic area | | Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Others | | | SC/ST | | | Grand Total | | |
| | | M | F | Total | M | F | Total | M | F | Total |
| (A) Farmers & Farm Women | | | | | | | | | | |
| I Crop Production | | | | | | | | | | |
| Weed Management | 1 | 20 | 5 | 30 | 5 | - | 5 | 25 | 5 | 30 |
| Resource Conservation Technologies | | | | | | | | | | |
| Cropping Systems | | | | | | | | | | |
| Crop Diversification | 1 | 25 | 5 | 30 | 10 | - | 10 | 35 | 5 | 40 |
| Integrated Farming | | | | | | | | | | |
| Water management | | | | | | | | | | |
| Seed production | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Integrated Crop Management | 2 | 47 | - | 47 | 18 | - | 18 | 65 | - | 65 |
| Fodder production | | | | | | | | | | |
| Production of organic inputs | | | | | | | | | | |
| II Horticulture | | | | | | | | | | |
| a) Vegetable Crops | | | | | | | | | | |
| Production of low volume and high value crops | | | | | | | | | | |
| Off-season vegetables | | | | | | | | | | |
| Nursery raising | | | | | | | | | | |
| Exotic vegetables like Broccoli | | | | | | | | | | |
| Export potential vegetables | | | | | | | | | | |
| Grading and standardization | | | | | | | | | | |
| Protective cultivation (Green Houses, Shade Net etc.) | | | | | | | | | | |
| b) Fruits | | | | | | | | | | |
| Training and Pruning | | | | | | | | | | |
| Layout and Management of Orchards | | | | | | | | | | |
| Cultivation of Fruit | | | | | | | | | | |
| Management of young plants/orchards | | | | | | | | | | |
| Rejuvenation of old orchards | | | | | | | | | | |
| Export potential fruits | | | | | | | | | | |
| Micro irrigation systems of orchards | | | | | | | | | | |
| Plant propagation techniques | | | | | | | | | | |
| c) Ornamental Plants | | | | | | | | | | |
| Nursery Management | | | | | | | | | | |
| Management of potted plants | | | | | | | | | | |
| Export potential of ornamental plants | | | | | | | | | | |
| Propagation techniques of Ornamental Plants | | | | | | | | | | |
| d) Plantation crops | | | | | | | | | | |
| Production and Management | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| e) Tuber crops | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| f) Spices | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | |
| g) Medicinal and Aromatic Plants | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Production and management technology | | | | | | | | | | |
| Post harvest technology and value addition | | | | | | | | | | |
| III Soil Health and Fertility Management | | | | | | | | | | |
| Soil fertility management | 1 | 21 | - | 21 | 4 | | 4 | 25 | | 25 |
| Soil and Water Conservation | | | | | | | | | | |
| Integrated Nutrient Management | 1 | 20 | | 20 | 5 | | 5 | 25 | | 25 |
| Production and use of organic inputs | 4 | 39 | | 39 | 11 | | 11 | 50 | | 50 |
| Management of Problematic soils | 1 | 20 | | 20 | 5 | | 5 | 25 | | 25 |
| Micro nutrient deficiency in crops | 1 | 24 | | 24 | 8 | | 8 | 32 | | 32 |
| Nutrient Use Efficiency | 1 | 20 | | 20 | 6 | | 6 | 26 | | 26 |
| Soil and Water Testing | 3 | 19 | | 19 | 6 | | 6 | 25 | | 25 |
| IV Livestock Production and Management | | | | | | | | | | |
| Dairy Management | 4 | 48 | - | 48 | 28 | 25 | 53 | 76 | 25 | 101 |
| Poultry Management | | | | | | | | | | |
| Sheep Management | 1 | 14 | - | 14 | 4 | - | 4 | 18 | - | 18 |
| Rabbit Management | | | | | | | | | | |
| Disease Management | 1 | 14 | - | 14 | 4 | - | 4 | 18 | - | 18 |
| Feed management | 6 | 92 | 13 | 105 | 36 | 12 | 48 | 128 | 25 | 153 |
| Production of quality animal products | | | | | | | | | | |
| V Home Science/Women empowerment | | | | | | | | | | |
| Household food security by kitchen gardening and nutrition gardening | 2 | - | 30 | 30 | - | 20 | 20 | - | 50 | 50 |
| Design and development of low/minimum cost diet | 1 | - | 17 | 17 | - | 12 | 12 | - | 29 | 29 |
| Designing and development for high nutrient efficiency diet | | | | | | | | | | |
| Minimization of nutrient loss in processing | | | | | | | | | | |
| Gender mainstreaming through SHGs | | | | | | | | | | |
| Storage loss minimization | 1 | - | 17 | 17 | - | 8 | 8 | - | 25 | 25 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| techniques | | | | | | | | | | |
| Value addition | 5 | - | 88 | 88 | - | 47 | 47 | - | 135 | 135 |
| Income generation activities for empowerment of rural Women | 3 | - | 45 | 45 | - | 30 | 30 | - | 75 | 75 |
| Location specific drudgery reduction technologies | 1 | - | 22 | 22 | - | 8 | 8 | - | 30 | 30 |
| Rural Crafts | 1 | - | 8 | 8 | - | 2 | 2 | - | 10 | 10 |
| Women and child care | 1 | - | 18 | 18 | - | 7 | 7 | - | 25 | 25 |
| VI Agril. Engineering | | | | | | | | | | |
| Installation and maintenance of micro irrigation systems | | | | | | | | | | |
| Use of Plastics in farming practices | | | | | | | | | | |
| Production of small tools and implements | | | | | | | | | | |
| Repair and maintenance of farm machinery and implements | | | | | | | | | | |
| Small scale processing and value addition | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| VII Plant Protection | | | | | | | | | | |
| Integrated Pest Management | 4 | 27 | 0 | 27 | 108 | 0 | 108 | 135 | 0 | 135 |
| Integrated Disease Management | 1 | 3 | 0 | 3 | 12 | 0 | 12 | 15 | 0 | 15 |
| Bio-control of pests and diseases | 2 | 21 | 0 | 21 | 119 | 0 | 119 | 140 | 0 | 140 |
| Production of bio control agents and bio pesticides | | | | | | | | | | |
| VIII Fisheries | | | | | | | | | | |
| Integrated fish farming | | | | | | | | | | |
| Carp breeding and hatchery management | | | | | | | | | | |
| Carp fry and fingerling rearing | | | | | | | | | | |
| Composite fish culture | | | | | | | | | | |
| Hatchery management and culture of freshwater prawn | | | | | | | | | | |
| Breeding and culture of ornamental fishes | | | | | | | | | | |
| Portable plastic carp hatchery | | | | | | | | | | |
| Pen culture of fish and prawn | | | | | | | | | | |
| Shrimp farming | | | | | | | | | | |
| Edible oyster farming | | | | | | | | | | |
| Pearl culture | | | | | | | | | | |
| Fish processing and value addition | | | | | | | | | | |
| IX Production of Inputs at site | | | | | | | | | | |
| Seed Production | | | | | | | | | | |
| Planting material production | | | | | | | | | | |
| Bio-agents production | | | | | | | | | | |
| Bio-pesticides production | | | | | | | | | | |
| Bio-fertilizer production | | | | | | | | | | |
| Vermi-compost production | | | | | | | | | | |
| Organic manures production | | | | | | | | | | |
| Production of fry and fingerlings | | | | | | | | | | |
| Production of Bee-colonies and | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| wax sheets | | | | | | | | | | |
| Small tools and implements | | | | | | | | | | |
| Production of livestock feed and fodder | | | | | | | | | | |
| Production of Fish feed | | | | | | | | | | |
| X Capacity Building and Group Dynamics | | | | | | | | | | |
| Leadership development | | | | | | | | | | |
| Group dynamics | | | | | | | | | | |
| Formation and Management of SHGs | | | | | | | | | | |
| Mobilization of social capital | | | | | | | | | | |
| Entrepreneurial development of farmers/youths | | | | | | | | | | |
| WTO and IPR issues | | | | | | | | | | |
| XI Agro-forestry | | | | | | | | | | |
| Production technologies | | | | | | | | | | |
| Nursery management | | | | | | | | | | |
| Integrated Farming Systems | | | | | | | | | | |
| **TOTAL** | **61** | **760** | **258** | **1018** | **462** | **171** | **633** | **1222** | **429** | **1651** |
| (B) RURAL YOUTH | | | | | | | | | | |
| Mushroom Production | | | | | | | | | | |
| Bee-keeping | | | | | | | | | | |
| Integrated farming | | | | | | | | | | |
| Seed Production | 1 | 25 | | 25 | 10 | | 10 | 35 | | 35 |
| Production of organic inputs | 5 | 24 | 0 | 24 | 41 | 8 | 49 | 65 | 8 | 73 |
| Integrated Farming | | | | | | | | | | |
| Planting material production | | | | | | | | | | |
| Vermi-culture | | | | | | | | | | |
| Sericulture | | | | | | | | | | |
| Protected cultivation of vegetable crops | | | | | | | | | | |
| Commercial fruit production | | | | | | | | | | |
| Repair and maintenance of farm machinery and implements | | | | | | | | | | |
| Nursery Management of Horticulture crops | | | | | | | | | | |
| Training and pruning of orchards | | | | | | | | | | |
| Value addition | | | | | | | | | | |
| Production of quality animal products | | | | | | | | | | |
| Dairying | | | | | | | | | | |
| Sheep and goat rearing | | | | | | | | | | |
| Quail farming | | | | | | | | | | |
| Piggery | | | | | | | | | | |
| Rabbit farming | | | | | | | | | | |
| Poultry production | | | | | | | | | | |
| Ornamental fisheries | | | | | | | | | | |
| Para vets | | | | | | | | | | |
| Para extension workers | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Composite fish culture | | | | | | | | | | |
| Freshwater prawn culture | | | | | | | | | | |
| Shrimp farming | | | | | | | | | | |
| Pearl culture | | | | | | | | | | |
| Cold water fisheries | | | | | | | | | | |
| Fish harvest and processing technology | | | | | | | | | | |
| Fry and fingerling rearing | | | | | | | | | | |
| Small scale processing | | | | | | | | | | |
| Post Harvest Technology | | | | | | | | | | |
| Tailoring and Stitching | 2 | - | 31 | 31 | - | 16 | 16 | - | 47 | 47 |
| Rural Crafts-Quilt Bag Making | | | | | | | | | | |
| Fabric Painting | 1 | - | 13 | 13 | - | 17 | 17 | - | 30 | 30 |
| Maggam Embroidery Works | | | | | | | | | | |
| Handmade Paper bag Making | 1 | - | 11 | 11 | - | 4 | 4 | - | 15 | 15 |
| Life skills development for Adolescent Girls | 1 | - | 39 | 39 | - | 11 | 11 | - | 50 | 50 |
| **TOTAL** | **8** | **39** | **94** | **133** | **51** | **56** | **107** | **100** | **150** | **250** |
| | | | | | | | | | | |
| (C) Extension Personnel | | | | | | | | | | |
| Resource conservation technologies | 1 | 35 | | 35 | | | | 35 | | 35 |
| Integrated Pest Management | | | | | | | | | | |
| Integrated Nutrient management | 2 | 127 | 173 | 300 | | | | 127 | 173 | 300 |
| Rejuvenation of old orchards | | | | | | | | | | |
| Protected cultivation technology | | | | | | | | | | |
| Formation and Management of SHGs | | | | | | | | | | |
| Group Dynamics and farmers organization | | | | | | | | | | |
| Information networking among farmers | | | | | | | | | | |
| Capacity building for ICT application | | | | | | | | | | |
| Care and maintenance of farm machinery and implements | | | | | | | | | | |
| WTO and IPR issues | | | | | | | | | | |
| Management in farm animals | | | | | | | | | | |
| Livestock feed and fodder production | 1 | 20 | | 20 | 15 | | 15 | 35 | | 35 |
| Household food security | | | | | | | | | | |
| Women and Child care | 1 | - | 19 | 19 | - | 16 | 16 | - | 35 | 35 |
| Low cost and nutrient efficient diet designing | | | | | | | | | | |
| Production and use of organic inputs | 8 | 85 | 70 | 155 | 483 | 400 | 883 | 568 | 470 | 1038 |
| Gender mainstreaming through SHGs | | | | | | | | | | |
| **TOTAL** | **13** | **292** | **183** | **525** | **498** | **400** | **898** | **790** | **643** | **1433** |

**Annexures**

**A. KVK funded:**

**Agronomy:**

| S. No | Date | Client (PF/ RY/ EF) | Title | Thematic area | Duration (days) | Venue (Off/ On campus) | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Others | | | SC/ST | | | Total | | |
| | | | | | | | M | F | T | M | F | T | M | F | T |
| 1 | 18.6.15 | PFM | Crops and cropping system for dry land black soils/red soils | Crop & cropping system | 1 | On | 30 | - | 30 | 5 | - | 5 | 35 | - | 35 |
| 2 | 20.6.15 | PFM | Production technologies in Rainfed crops. | Crop diversification | 1 | on | 35 | - | 35 | 15 | - | 15 | 50 | - | 50 |
| 3 | 16.7.15 | PFM | Low cost production technologies in rainfed oil seeds. | ICM | 1 | OFF | 20 | - | 25 | 5 | - | 5 | 25 | - | 25 |
| 4 | 25.7.15 | PFM | Integrated weed management in practices in rainfed crops | Weed management | 2 | On | 25 | - | 25 | 10 | - | 10 | 35 | - | 35 |
| 5 | 30.7.15 | PFM | Integrated weed management in practices in rainfed crops | Weed management | 1 | off | 20 | 5 | 25 | 5 | - | 5 | 25 | 5 | 30 |
| 6 | 18.8.15 | PFM | Rice production technologies | ICM | 1 | on | 35 | - | 35 | 10 | - | 10 | 45 | - | 45 |
| 7 | 22.8.15 | PFM | Production technologies for oil seed crops | ICM | 2 | on | 47 | - | 47 | 13 | - | 13 | 60 | - | 60 |
| 8 | 25.8.15 | PFM | Production technologies for cotton | ICM | 1 | on | 25 | - | 25 | 10 | - | 10 | 35 | - | 35 |
| 9 | 14.9.15 | PFM | Critical technologies for enhancing yield in rabi pulses | ICM | 1 | On | 41 | - | 41 | 9 | - | 9 | 50 | - | 50 |
| 10 | 5.10.15 | PFM | Production technologies in Redgram and Bengalgram | ICM | 1 | Off | 25 | 5 | 30 | 10 | - | 10 | 35 | 5 | 40 |
| 11 | 17.10.15 | RYM | Seed production technology and importance of seed village concepts | Seed production | 2 | On | 27 | - | 27 | 8 | - | 8 | 35 | - | 35 |
| 12 | 24.11.15 | EFM | Resource conservation technologie | Resource conservation | 1 | On | 30 | - | 30 | 5 | - | 5 | 35 | - | 35 |
| 13 | 25.11.15 | PFM | Rice based cropping systems with reference to Zero tillage concepts. | Resource conservation | 1 | on | 25 | - | 25 | 5 | - | 5 | 30 | - | 30 |
| 14 | 20.1.16 | PFM | Water management in ID crops | Water | 1 | on | 28 | - | 28 | 4 | - | 4 | 32 | - | 32 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | management | | | | | | | | | | | |
| 15 | 2.2.16 | PFM | Fodder production technology | Fodder production | 1 | on | 25 | - | 25 | 2 | - | 2 | 27 | - | 27 |
| **Total** | | | | | **18** | | **438** | **10** | **453** | **116** | | **116** | **554** | **10** | **564** |

**Plant Protection:**

| S. No | Date | Client (PF/ RY/ EF) | Title | Disciplin | Thematic area | Duration (days) | Venue (Off/ On campus) | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Others | | | SC/ST | | | Total | | |
| | | | | | | | | M | F | T | M | F | T | M | F | T |
| **Practicing Farmers** | | | | | | | | | | | | | | | | |
| 1 | 27.05.15 | PF | Seed treatment and Viral disease management in Chillis | pp | IDM | 1 | On | 3 | 0 | 3 | 12 | 0 | 12 | 15 | 0 | 15 |
| 2 | 02.07.15 | PF | Pest and Disease management in Chillis and Turmeric | | IPM | 1 | Off | 4 | 0 | 4 | 19 | 0 | 19 | 23 | 0 | 23 |
| 3 | 25.08.15 | PF | Organic farming in Rice – scope of certification | | Organic Inputs | 1 | On | 3 | 0 | 3 | 17 | 0 | 17 | 20 | 0 | 20 |
| 4 | 07.09.15 | PF | Non Chemical Pest Management methods for rainfed crops | | Organic Inputs | 1 | On | 6 | 0 | 6 | 24 | 0 | 24 | 30 | 0 | 30 |
| 5 | 11.10.15 | PF | Pest and Disease management in Bengalgram | | IPM | 1 | Off | 12 | 0 | 12 | 43 | 0 | 43 | 55 | 0 | 55 |
| 6 | 10.11.15 | PF | Diagnosis and management of Pests and Diseases in Chillis | | IPM | 1 | Off | 5 | 0 | 5 | 22 | 0 | 22 | 27 | 0 | 27 |
| 7 | 5.11.15 | PF | Management of pests and diseases in organic farming | | Organic Inputs | 1 | On | 18 | 0 | 18 | 102 | 0 | 102 | 120 | 0 | 120 |
| 9 | 29 & 30. 09.15 | RY | Organic farming methods and Best Agricultural Practices in Redgram. | | Organic Inputs | 2 | On | 3 | 0 | 3 | 20 | 5 | 25 | 23 | 5 | 28 |
| | | | **Sub Total** | | | **9** | | **207** | **-** | **207** | **43** | **-** | **43** | **250** | **-** | **250** |
| **Rural Youth** | | | | | | | | | | | | | | | | |
| 10 | 27.8.14 to 28.8.14 | RY | Mushroom cultivation as an income generating activity | | IG Activity | 2 | On | 25 | - | 25 | 5 | - | 5 | 30 | - | 30 |
| | | | **Sub Total** | | | **11** | | **232** | **-** | **232** | **48** | **-** | **48** | **280** | **-** | **280** |

**Soil Science**

| Sl.no | Date | Clientele | Title of the training programme | Disciplin | Thematic Area | Duration (days) | Venue | Number of other participants | | | Number of SC/ST | | | Total number of participants | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | M | F | T | M | F | T | M | F | T |
| **Practicing Farmers** | | | | | | | | | | | | | | | | |
| 1 | 15.4.15 | PF | Soil sampling procedure and importance of soil testing | | Soil and water testing | 3 | on | 19 | | 19 | 6 | - | 6 | 25 | - | 25 |
| 2 | 28.5.15 | PF | Reclamation of problematic soils | | Management of problematic soils | 1 | on | 20 | | 20 | 5 | - | 5 | 25 | - | 25 |
| 3 | 15.06.15 | PF | Methods to improve fertilizers use efficiency | | Nutrient use efficiency | 1 | off | 20 | | 20 | 6 | - | 6 | 26 | - | 26 |
| 4 | 8.7-15 | PF | Calculation of fertilizers based on nutrient recommendations | | Soil fertility management | 1 | off | 21 | | 21 | 4 | - | 4 | 25 | - | 25 |
| 5 | 10.08.15 | PF | Integrated Nutrient Management in rice and Cotton | | INM | 1 | off | 20 | | 20 | 5 | - | 5 | 25 | - | 25 |
| 6 | 14.9.15 | PF | Diagnosis and correction of micronutrient deficiencies in young mango orchards | | Micronutrient deficiency in crops | 1 | off | 24 | | 24 | 8 | - | 8 | 32 | - | 32 |
| 7 | 9.12.15 | PF | Preparation of organic inputs viz. vermicompost, NADEP compost, Jeevamruth etc | | Production and use of organic inputs | 3 | on | 19 | | 19 | 6 | - | 6 | 25 | - | 25 |
| 8 | 21.1.16 | PF | Preparation of organic inputs viz. vermicompost, NADEP compost, Jeevamruth etc | Soil Science | Production and use of organic inputs | 1 | ON | 20 | | 20 | 5 | | 5 | 25 | | 25 |
| Sub total | | | | | | **12** | | **163** | | **163** | **45** | | **45** | **208** | | **208** |

Soil Science:

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rural Youth** | | | | | | | | | | | | | | | |
| 1 | 12.10.15 | RY | Preparation of organic inputs viz. CPP compost, Bio dynamic compost, vermicompost,etc. | Production of Organic inputs | 3 | On | **19** | | **19** | **6** | | **6** | **25** | | **25** |
| **Sub total** | | | | | **15** | | **182** | | **182** | **51** | | **51** | **233** | | **233** |
| **Extension Functionaries** | | | | | | | | | | | | | | | |
| 10 | 05-11-15 | EF | Preparation of organic inputs viz. CPP compost, Bio dynamic compost, vermicompost,etc. | Production of Organic inputs | 3 | on | 25 | | 25 | | | | 25 | | 25 |
| 11 | 22.2.2016 | EF | Soil fertility management and Preparation of organic inputs viz.vermicompostNADEP compost, Jeevamruth etc | Soil fertility management | 1 | off | 45 | 55 | 100 | | | | 45 | 55 | 100 |
| z | 15.3.2016 | EF | Soil fertility management and Preparation of organic inputs viz.vermicompostNADEP compost, Jeevamruth etc | Soil fertility management | 1 | off | 82 | 118 | 200 | | | | 82 | 118 | 200 |
| | | | **Sub Total:** | | **5** | | **152** | **173** | **325** | **-** | **-** | **-** | **152** | **173** | **325** |
| | | | **Total:** | | **20** | | **334** | **173** | **507** | **51** | | **51** | **385** | **173** | **558** |

**Horticulture:**

| S. No | Date | Clintele | Title | Thematic area | Duration (days) | Venue | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | No. of Others | | | SC/ST | | | Total | | |
| | | | | | | | M | F | T | M | F | T | M | F | T |
| 1 | 21-05-15 | PF | Package practices for cultivation of chrysanthemum | ICM | 1 | Off | 14 | - | 14 | 5 | - | 5 | 19 | - | 19 |
| 2 | 21-06-15 | PF | Management of mango orchards after harvest | Training & Pruning | 1 | Off | 22 | - | 22 | 10 | - | 10 | 32 | - | 32 |
| 3 | 13-08-15 | PF | Package of practices for cultivation of Chilli | ICM | 1 | Off | 18 | - | 18 | 6 | - | 6 | 24 | - | 24 |
| 4 | 12-09-15 | PF | Package of practices for cultivation of Jasmine | INM | 1 | On | 15 | - | 15 | 3 | - | 3 | 18 | - | 18 |
| 5 | 8-10-15 | PF | Package of practices for cultivation of sweet orange | ICM | 1 | Off | 12 | - | 12 | 5 | - | 5 | 17 | - | 17 |
| 6 | 07-11-15 | PF | Cultivation of Tissue culture Banana | ICM | 1 | On | 42 | - | 42 | 23 | - | 23 | 65 | - | 65 |
| 7 | 23-01-16 | PF | Package of practices for cultivation of papaya | ICM | 1 | Off | 9 | - | 9 | 3 | - | 3 | 12 | - | 12 |
| 8 | 03.02.16 | PF | Integrated pest management in Mango | ICM | 1 | Off | 22 | - | 22 | 2 | - | 2 | 24 | - | 24 |
| | | | **Total** | | **8** | | **154** | | **154** | **57** | | **57** | **211** | | **211** |
| 11 | 13-01-16 | RY | Vegetable nursery cultivation in portrays under shade net | Nursery | 2 | On | **14** | **-** | **14** | **4** | **-** | **4** | 18 | **-** | 18 |
| **Grand TOTAL** | | | | | **10** | | **168** | **-** | **168** | **61** | **-** | **61** | **229** | **-** | **229** |

**Animal Husbandry :**

| Date | Clientele | Title of the training programme | Thematic area | Duration in days | Venue (Off / On Campus) | No. of other participants | | | Number of SC/ST | | | Total number of participants | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | M | F | T | M | F | T | M | F | T |
| 25.04.15 | PFM | Management of animals during summer | Dairy management | 1 | Off | 18 | - | 18 | 6 | | 6 | 24 | - | 24 |
| 26.05.15 | PFM | Preventive measures against contagious | Health management | 1 | Off | 14 | - | 14 | 4 | | 4 | 18 | - | 18 |
| 23.06.15 | PFM | Reproductive problems in milch animals and preventive measures | Reproduction management | 1 | Off | 16 | - | 16 | 14 | - | 14 | 30 | - | 30 |
| 02.07.15 | PFM | Milk improvement technologies | Dairy management | 1 | Off | 14 | - | 14 | 8 | - | 8 | 22 | - | 22 |
| 21.07.15 | PFM | Hydroponic fodder production | Feed management | 1 | Off | 19 | - | 19 | 6 | - | 6 | 25 | - | 25 |
| 15.09.15 | PFM | Production of green fodder through hydroponic technology | Feed management | 1 | Off | 24 | - | 24 | 12 | - | 12 | 36 | - | 36 |
| 17.10.15 | PFM | Cultivation of different fodder varieties and conservation technologies | Feed management | 1 | On | 18 | - | 18 | 10 | - | 10 | 28 | - | 28 |
| 01.11.15 | PFM | Clean milk production | Dairy management | 1 | Off | - | - | - | - | 25 | 25 | | 25 | 25 |
| 24.11.15 | PFM | Milk improvement technologies | Feed management | 1 | Off | 15 | - | 15 | 5 | - | 5 | 20 | - | 20 |
| 26.12.15 | PFM | Management of sheep under extensive system | Sheep management | 1 | Off | 14 | - | 14 | 4 | - | 4 | 18 | - | 18 |
| 09.01.16 | PFM | Utilization of agricultural by products in livestock feeding | Feed management | 1 | Off | | 13 | 13 | | 12 | 12 | | 25 | 25 |
| 10.02.16 | PF | Cultivation of Azolla | Feed management | 1 | Off | 16 | | 16 | 3 | | 3 | 19 | - | 19 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **12** | | **168** | **13** | **181** | **72** | **37** | **109** | **240** | **50** | **290** |
| 7.10.15 to 8.10.15 | EF | Advance technologies in animals feeding | Feed management | 2 | On | 20 | | 20 | 15 | | 15 | 35 | | 35 |
| | | | | **14** | | **188** | **13** | **201** | **87** | **37** | **124** | **275** | **50** | **325** |

**Home Science :**

| Date | Clientele | Title of the training programme | Thematic area | Duration in days | Venue (Off / On Campus) | Number of SC/ST participants | | | Number of Other | | | Total number of participants | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | M | F | T | M | F | T | M | F | T |
| 23.6.15 | PFF | Training Programme nutritional deficiency disorders among pregnant and lactating mothers | Design and development of low/minimum cost diet | 1 | Off | - | 12 | 12 | - | 17 | 17 | - | 29 | 29 |
| 16.7.15 | PFF | Importance of raising of homestead nutrition gardens | Household food security by kitchen gardening | 1 | Off | - | 9 | 9 | - | | 16 | 16 | 25 | 25 |
| 21.7.15 | PFF | Awareness programme on value added with millets | Value addition | 1 | On | - | 17 | 17 | - | 21 | 21 | - | 38 | 38 |
| 15.9.15 | PFF | Training on drudgery reducing implements | Location specific drudgery reducing implements | 1 | Off | - | 8 | 8 | - | 22 | 22 | - | 30 | 30 |
| 16.9.15 | PFF | Preparation of value added products with tomato | Value addition | 1 | Off | - | 6 | 6 | - | 24 | 24 | - | 30 | 30 |
| 28.10.15 | PFF | Preparation of Masala powders as IG Activity | Household food security by kitchen gardening | 1 | Off | - | 19 | 19 | - | 21 | 21 | - | 40 | 40 |
| 26.11.15 | PFF | Training Programme nutritional deficiency disorders among pregnant and lactating mothers | Design and development of low/minimum cost diet | 1 | Off | - | 7 | 7 | - | 18 | 18 | - | 25 | 25 |
| 27.11.15 | PFF | Importance of raising of homestead nutrition gardens | Household food security by kitchen | 1 | Off | - | 11 | 11 | - | 14 | 14 | - | 25 | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | gardening | | | | | | | | | | | |
| 22.12.15 | PF-F | Preparation Of Milk Powders as IG Activity | Women and child care | 1 | Off | - | 9 | 9 | - | 16 | 16 | | 25 | 25 |
| 23.12.15 | PF-F | Awareness programme on alternate renewable energy sources | Energy Saving | 1 | Off | - | 8 | 8 | - | 17 | 17 | - | 25 | 25 |
| 25.1.16 to 26.1.16 | PF-F | Paper bag making as IG activity for SHGs | IG Activities for empowerment of rural families | 2 | Off | - | 2 | 2 | - | 8 | 8 | - | 10 | 10 |
| 27.1.16 to 28.1.16 | PF-F | Vocational Skill training on Quilt bag making | IG Activities for empowerment of rural families | 2 | Off | - | 4 | 4 | - | 11 | 11 | - | 15 | 15 |
| 3.3.16 to 5.3.16 | PF-F | Preservation of vegetables as IG activity for SHG Women | Value Addition | 2 | Off | - | 9 | 9 | - | 13 | 13 | - | 22 | 22 |
| 9.3.16 to 11.3.16 | PF-F | Preservation of fruits as IG activity fior SHg women | Value addition | 2 | Off | - | 8 | 8 | - | 12 | 12 | - | 20 | 20 |
| 14.3.16 to 21.3.16 | PF-F | Fabric Painting as IG activity for SHG women | IG Activities for empowerment of rural families | 6 | Off | - | 11 | 11 | - | 9 | 9 | - | 20 | 20 |
| 1.5.15 to 31.7.15 | RYF | Vocational Skill training on Basic&advanced tailoring,Fabric painting&bag making | IG Activities for empowerment of rural families | 90 | Off | - | 9 | 9 | - | 18 | 18 | - | 27 | 27 |
| 1.8.15to 25.8.15 | RYF | Long Duration Vocational Skill Training Programme on Fabric Painting | IG Activities for empowerment of rural families | 15 | Off | - | 17 | 17 | - | 13 | 13 | - | 30 | 30 |
| 14.9.15to 30.9.15 | RYF | Vocational skill training programme on Blouse designing as IG activity | IG Activities for empowerment of rural families | 15 | Off | - | 7 | 7 | - | 13 | 13 | - | 20 | 20 |
| 29.1.16 | RYF | Vocational skill training | IG Activities for | 2 | Off | - | 4 | 4 | - | 11 | 11 | - | 15 | 15 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| to 30.1.16 | | programme on polypropelene non woven cloth bag making | empowerment of rural families | | | | | | | | | | | | | |
| 21.8.15 | EFF | Capsule Trg.Prog.on preschool creative activities,Preparation of PSE materials and value added products with millets | Women andchildcare | 1 | | Off | - | 16 | 16 | - | 19 | 19 | - | 35 | 35 |
| 29.10.15 | EF-F | Training Balika mandals on health&hygiene,nutrition education and life skills development | Women and childcare | 1 | | Off | - | 11 | 11 | - | 39 | 39 | - | 50 | 50 |
| **Total** | | | | **148** | | | | **204** | **204** | | **336** | **352** | **16** | **556** | **556** |

**D) Vocational training programmes for Rural Youth:**

*Discipline :Home Science*

| Crop / Enterprise | Date | Training title* | Identified Thrust Area | Duration (days) | No. of Participants | | | Self employed after training | | | Number of persons employed else where |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Male | Female | Total | Type of units | Number of units | Number of persons employed | |
| Women Empowerment | 1) 25.1.16 to 26.1.16 | Skill Training Programme on Paperbag making as I.G.Activity | I.G Activity | 2 | - | 10 | 10 | Individual | 4 | 4 | 2 |
| | 2) 27.1.16to 28.1.16 | Skill training programme on quilt bag making | I.G Activity | 2 | - | 15 | 15 | Individual | 9 | 9 | 3 |
| Women Empowerment | 3)1.5.15 to 31.7.15 | Vocational skill training programme on Basic,Advanced | I.G Activity | 90 | - | 27 | 27 | Individual | 19 | 19 | 4 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Women Empowerment | 10.8.15 to 25.8.15 | Tailoring,Fabric Painting&bag making Training Programme on Fabric Painting | I.G Activity | 15 | - | 30 | 30 | Individual | 17 | 17 | 3 |
| Women Empowerment | 14.9.15 to 30.9.15 | Training Programme on Blouse designing | I.G Activity | 15 | - | 20 | | Individual | 23 | 23 | 2 |
| | | | | **124** | | **102** | **82** | | | **72** | **72** |

**E. Sponsored Training Programmes :**

**Agronomy:**

| S. No | Date | Title | Thematic area | Duration (days) | Client (PF/RY/EF) | No.of courses | No. of Participants | | | | | | | | | Sponsoring Agency | Amount of fund received (Rs.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Others | | | SC/ST | | | Total | | | | |
| | | | | | | | M | F | T | M | F | T | M | F | T | | |
| 1 | 12-11-2016 | Resource conservation technologies | | 1 | EF | 1 | 35 | - | 35 | - | - | - | 35 | - | 35 | Dept Agrl | -- |
| 2 | 18-1-2016 | Seteria production technom | | 1 | PFM | 1 | 30 | - | 30 | 10 | - | 10 | 40 | - | 40 | Dept Agrl | |
| | | Total: | | | | | **64** | **-** | **65** | **10** | **-** | **10** | **75** | **-** | **75** | | |

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

| S. No. | Nature of Extension Activity | Purpose/ topic and Date | No. of activities | Participants | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Farmers (Others) (I) | | | SC/ST (Farmers) (II) | | | Extension Officials (III) | | | Grand Total (I+II+III) | | |
| | | | | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| 1 | Field Day | 23-1-2016 28-1-2016 | 2 | | | | | | | | | | | | 185 |
| 3 | Kisan Mela | | | | | | | | | | | | | | |
| 4 | Kisan Ghosthi & world soil day | 5.12.2016 | 1 | | | | | | | | | | | | 850 |
| 5 | Technology week | | | | | | | | | | | | | | |
| 6 | Exhibition | All activities | 5 | | | | | | | | | | | | 450 |
| 7 | Film Show | | | | | | | | | | | | | | |
| 8 | Method Demonstrations | All aspects | 18 | | | | | | | | | | | | 325 |
| 9 | Farmers Seminar | | | | | | | | | | | | | | |
| 10 | Workshop | | | | | | | | | | | | | | |
| 11 | Group meetings | | 12 | | | | | | | | | | | | 135 |
| 12 | Lectures delivered as resource persons | All disciplines | 16 | | | | | | | | | | | | 960 |
| 13 | Newspaper coverage | All aspects | 60 | | | | | | | | | | | | |
| 14 | Radio talks | Various aspects | 18 | | | | | | | | | | | | |
| 15 | TV talks | AH | 4 | | | | | | | | | | | | |
| 16 | Popular articles | All desplines | 22 | | | | | | | | | | | | |
| 17 | Extension Literature | | 6 | | | | | | | | | | | | |
| 18 | Advisory Services | | 28 | | | | | | | | | | | | 1545 |
| 19 | Scientific visit to farmers field | 324 | | | | | | | | | | | | | 781 |

| S. No. | Nature of Extension Activity | Purpose/ topic and Date | No. of activities | Participants | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Farmers (Others) (I) | | | SC/ST (Farmers) (II) | | | Extension Officials (III) | | | Grand Total (I+II+III) | | |
| | | | | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| 20 | Diagnostic visits | | | | | | | | | | | | | | |
| 21 | Farmers visit to KVK | All topics | 819 | | | | | | | | | | | | 1536 |
| 22 | Exposure visits | | | | | | | | | | | | | | |
| 23 | Ex-trainees Sammelan | | | | | | | | | | | | | | |
| 24 | Soil health Camp | | | | | | | | | | | | | | 240 |
| 25 | Animal Health Camp | | 8 | | | | | | | | | | | | |
| 26 | Agri. mobile SMS | All topics | 28 | | | | | | | | | | | | 1545 |
| 27 | Soil test campaigns | | | | | | | | | | | | | | |
| 28 | ICAR foundation day | ICAR foundation day 16-7 -2015 | | | | | | | | | | | | | |
| 29 | Self Help Group Conveners meetings | | | | | | | | | | | | | | |
| 31 | Celebration of important days (specify) | | 1 | 60 | | | | | | | | | | | |
| | 1.World Food Day | | | | | | | | | | | | | | |
| | 2.International Womens Day | | 1 | - | | | | | | | | | | | |
| | 3.National Nutrition Week | | 1 | 30 | 105 | 105 | - | 75 | 75 | - | 20 | 20 | - | 200 | 200 |
| 32 | Homestead nutritional gardens | | 148 | - | | | | | | | | | | | |
| | **Total:** | | | | | | | | | | | | | | **8481** |

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

No.of registered farmers of KVK : 1545

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

| Major Group | Category | Crop/ Enterprise | Thematic Area | Date | Message | No. of messages | Number of Farmers | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Others | | | SC/ST | | | Total | | |
| | | | | | | | M | F | Tot | M | F | Tot | M | F | Tot |
| Agriculture | Soil testing | All crops | INM | 08.5.15 | Ee seasonlo bhoosaara pareeksha cheyinchi, report prakaram yeruvulanu vaadandi. Anavasara pettubadini thagginchukondi. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Crop Production | Bt Cotton | ICM | 22.5.15 | Yendakaaru patthi yendi pokundaa, challani velallo varaniki vokasaari, neeti thadulu ivvandi. Bettanu thattukovataaniki KNO3 10g/lt neetiki prakaram pichikaari cheyyandi. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Soil testing | All crops | INM | 08.5.15 | Ee seasonlo bhoosaara pareeksha cheyinchi, report prakaram yeruvulanu vaadandi. Anavasara pettubadini thagginchukondi. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Crop Production | Bt Cotton | ICM | 22.5.15 | Yendakaaru patthi yendi pokundaa, challani velallo varaniki vokasaari, neeti thadulu ivvandi. Bettanu thattukovataaniki KNO3 10g/lt neetiki prakaram pichikaari cheyyandi. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | Crop Production | Bt Cotton | IPM | 09.6.15 | Pattilo pindinalli nivaranaku Profenophos 3 ml/lt mariyu Dichlorovos 1 ml/lt neetiki prakaram kalipi pichikaari cheyyali. Nalli aasinchinal chettu bhaagaalu sekarinchi kaalcheyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Horticulture | Chillis | IPM | 19.6.15 | Mirapalo Virus, rasampeelchu purugula nivaranaku, vittadaaniki mundu 1 Kg vittanaanni 150 g TSOP kalipina neellalo 30 nimushaalu munchi vadakatti, aarina tharuvaatha 8-10 ml Imidacloprid kalipi suddicheyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commercial crops | Chillis | IPM | 14.7.15 | Mirapalo vittanam dwara virus tegullu rakunda TSOP dravanamlo vittanalu 30 nimushaalu munchi, kadigi tharuvaatha, Rasam peelchu purugulakai Imidacloprid @ 8g/kg ki mariyu tegullakai Mancozeb @ 3 g/kg vittananiki kalipi vittukovali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Crop Production | Bt Cotton | IPM | 21.7.15 | Bettanu thattukovataaniki KNO3 10g/lt neetiki prakaram pichikaari cheyyandi. Pacchadoma nivaranaku Imidacloprid @ 0.5 ml/lt neetiki prakaram kalipi pichikaari cheyyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commercia | Chillis | IPM | 14.8.15 | Mirapalo paimudatha | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | l crops | | | | nivaranaku Fipronil @ 2.0 ml/lt neetiki kalipi pichikaari cheyyali. | | | | | | | | | | |
| Agriculture | Commerici al crops | Onion | IPM | 21.8.15 | Vullilo thamarapurugulu, aaku maadu tegulu nivaranaku Fipronil @ 2 ml/lt mariyu Thiophanate methyl @ 2g/lt neetiki kalipi, pairupai pichikaari cheyyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commercia l crops | Chillis | IPM | 15.9.15 | Mirapalo paimudatha nivaranaku Fipronil @ 2.0 ml/lt neetiki kalipi pichikaari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commerici al crops | Bt cotton | IPM | 22.9.15 | Bt Pattilo rasampeelchu purugula nivaranaku Imidacloprid @ 0.25 ml/lt neetiki kalipi pichikari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commercia l crops | Chillis | IPM | 09.10.15 | Mirapalo paimudatha nivaranaku Fipronil @ 2.0 ml/lt leda Acetamaprid @ 0.3g/lt neetiki kalipi pichikaari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commerici al crops | Bt cotton | IPM | 16.10.15 | Bt Pattilo rasampeelchu purugula nivaranaku Monocrotophos @ 2 ml/lt neetiki kalipi pichikari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Cereals | Rice | IPM | 23.10.15 | Varilo aaku nalli, aaku mudatha, pamu poda asinchindi. Nivaranaku varusagaa Profenophos @ 2 ml/lt, Chloropyriphos @ 2.5 | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ml/lt mariyu Hexaconazole @ 2 ml/lt prakaram pairu thadichela pichikaari cheyyaali. | | | | | | | | | | |
| Agriculture | Commercial crops | Chillis | IPM | 1.12.15 | Mirapalo boodida, pootha purugu nivaranaku kerathane @ 1 ml/lt mariyu Triazophos @ 2.0 ml/lt prakaram kalipi, pairanthaa thadichetatlu pichikaari cheyyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Pulses | Redgram | IPM | 8.12.15 | Mogga, pootha dasalo vunna kandilo kaya eega, kaya tholuchu purugu aasinchakunda, leetar neetiki 2.5 ml chloro leda 5 ml azadarachtin kalipi, mogga pootha baaga thadichela pichikaari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Cereals | Rice | IPM | 13.12.15 | Varilo aggi tegulu aasinchindi. Deeni nivaranaku isoprothiolane 1.5 ml/lt prakaram pairanthaa thadichela pichikaari cheyyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commercial crops | Chillis | IPM | 15.12.15 | Mirapalo virus vyaapthi chese tella domala niyantranaku yekaraku 15-20 pasupu jiguru pallaalu pettadam, traizophos, acetamaprid mariyu vepa noonelanu avasaraanugunangaa pichikaari chesukovali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | Pulses/Comm. Crops | Chillis, Bengalgram | IPM | 9.1.16 | Mirapalo boodida, nivaranaku kerathane @ 1 ml/lt leda Calyxyn @ 2.0 ml/lt prakaram kalipi, pichikaari cheyyaali. Sanagaki Colletotrichum aadu yendukai Hexaconazole 2 ml/lt prakaram pichikari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Cereals/Pulses/Oilseeds | Varieties | ICM | 22.1.16 | Rabilo variki pratyamnayanga aruthadi pantalaina pesara(LGG 460), Minumu (PU 31), Sunflower, Korra (SIA 3088) leda Nuvvulu (Swetha) lanu vittanasuddi chesi vittukovali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Commercial crops | Chillis, Mango | IPM | 25.1.16 | Mirapalo tella boodida niyantranaku azoxystrobin 1 ml/lt prakaram pichikari cheyyali. Mamidilo tenemanchu purugu nivaranaku Carbaryl 3g/lt neetiki kalipi spray cheyyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Oilseeds | Groundnut | IPM | 2.2.16 | Verusanagalo laddepurugu nivaranaku Thiodicarb 1 g leda Novaluron 1.0 ml prakaram litre neetiki kalipi pichikaari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Pulseds | Blackgram | IPM | 5.2.16 | Vari maganullo vesina aparalalo tella doma asinchi, mokkalu gidasabarinayi. Doma nivaranaku Tryzophos 2 ml/lt neetiki kalipi pichikari cheyyaali. Alane 1 yekaraku 20 pasupu rangu jiguru pallaalu | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | amarchukovali. | | | | | | | | | | |
| Agriculture | Pulses | Blackgram | ICM | 16.2.16 | Prastuta vatavaranamlo aparalaku neeti thadulu avasaramu. Panta pootha dasa mundu leda pinde mariyu kaya dasa lalo matrame telika paati neeti thadulu ivvali. Panta pootha meeda vunnacho neeti thadulivvaraadu. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Cereals | Rice | IPM | 19.2.16 | Varilo aakumudatha mariyu kandam tolchu purugu asinchaayi. Nivaranaku Cartap Hydrochloride 2g/lt pichikari cheyyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Oilseeds | Groundnut | IPM | 15.3.16 | Verusanagalo laddepurugu nivaranaku Novaluron 1.0 ml prakaram litre neetiki kalipi pichikaari cheyyali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |
| Agriculture | Cereals | Rice | IPM | 22.3.16 | Varilo kandam tolchu purugu asinchaayi. Nivaranaku Cartap Hydrochloride 2g/lt pichikari cheyyaali. | 1 | 1480 | - | 1480 | 65 | - | 65 | 1545 | - | 1545 |

**HOME SCIENCE**

| Major Group | Category | Crop/ Enterpirse | Thematic Area | Date | Message | No. of messages | Number of Farmers | | | | | | | | | Responses |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Others | | | SC/ST | | | Total | | | |
| | | | | | | | M | F | Tot | M | F | Tot | M | F | Tot | |
| | | | Nil | | | | | | | | | | | | | |

**WEATHER FORECAST**

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | weather | forecast | Short term weather forecast | 01-05-2015 | Forecast of light rainfall for the next five days in Kurnool dist. T max 37-42 oc T min 23-26 oc wind speed 10-25 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 8 |
| Agriculture | weather | forecast | Short term weather forecast | 05-05-2015 | Chances of light rains for the next five days in Kurnool dist. T max 40-42 oc wind speed 16-20 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 4 |
| Agriculture | weather | forecast | Short term weather forecast | 12-05-2015 | Chances of light rains for the next five days in Kurnool dist. T max 38-39 oc wind speed 8-16 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 6 |
| Agriculture | weather | forecast | Short term weather forecast | 19-05-2015 | Forecast of light rainfall for the next five days in Kurnool dist. T max 41-42 oc T min 26-28 oc wind speed 6-8 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 2 |
| Agriculture | weather | forecast | Short term weather forecast | 22-05-2015 | No rainfall forecast for the next 5 days in Kurnool district , temperatures will be increased , T max 41-45 & T min 25-29 oc. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 7 |
| Agriculture | weather | forecast | Short term weather forecast | 05-06-2015 | Forecast of light rainfall for the next five days in Kurnool dist. T max 41-42 oc T min 23-26 oc | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 10 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | wind speed 10-25 kmph. | | | | | | | | | | | |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 09-06-2015 | Chances of light rains for the next five days in Kurnool dist. T max 32-36 oc wind speed 20-25 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 8 |
| Agriculture | weather | forecast | Short term weather forecast | 16-06-2015 | Forecast of light rainfall for the next five days in Kurnool dist. T max 28-33 oc T min 24-25 oc wind speed 15-25 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 15 |
| Agriculture | weather | forecast | Short term weather forecast | 19-06-2015 | Chances of light rains for the next five days in Kurnool dist. T max 25-31 oc wind speed 27-35 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 12 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 23-06-2015 | Forecast of light rainfall for the next five days in Kurnool dist. T max 34-36 oc T min 23-26 oc wind speed 28-32 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 8 |
| Agriculture | weather | forecast | Short term weather forecast | 07-08-2015 | Forecast of light drizzles in the next 5 days in Kurnool dist. T MAX range 30 to 34 oc wind speed 20 to 26 kmph . | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 8 |
| Agriculture | weather | forecast | Short term weather forecast | 11-08-2015 | Chances of light rainfall (2-6 mm) for the next 5 days in | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 15 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Kurnool dits wind speed 24 to 28 kmph. | | | | | | | | | | | |
| Agriculture | weather | forecast | Short term weather forecast | 14-08-2015 | Chances of light rainfall (4-8 mm) for the next 5 days in Kurnool dits wind speed 20 to 20 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 14 |
| Agriculture | weather | forecast | Short term weather forecast | 21-08-2105 | Forecast of light rainfall for the next 5 days in Kurnool dist. T MAX range 30 to 35 oc wind speed 20 to 30 kmph . | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 9 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 25-08-2015 | Forecast of light rains for the next 5 days in krnool dist T MAX 34-36 OC Wind speed 15-25 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 13 |
| Agriculture | weather | forecast | Short term weather forecast | 04-09-2015 | Forecast of light Rains for the next 5 days in Kurnool dist. T MAX range 29 to 35 oc wind speed 10 to 15 kmph . | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 8 |
| Agriculture | weather | forecast | Short term weather forecast | 08-09-2015 | Chances of light rainfall (6-15 mm) for the next 5 days in Kurnool dits, wind speed 10 to 20 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 15 |
| Agriculture | weather | forecast | Short term weather forecast | 15-09-2015 | Chances of light rainfall (5-15 mm) for the next 5 days in Kurnool dits T MAX 31 to 33 oc , wind speed 20 to 30 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 14 |
| Agriculture | weather | forecast | Short term | 22- | Forecast of light | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 9 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | weather forecast | 09-2105 | drizzles for the next 5 days in Kurnool dist. T MAX range 32 to 34 oc wind speed 10 to 15 kmph. | | | | | | | | | | | |
| Agriculture | weather | forecast | Short term weather forecast | 01-10-2015 | Chances of medium rain for the next 5 days in Kurnool dist . T MAX 29-31,TMIN 22-23,Wind speed 5-15 kmph | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 5 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 06-10-2015 | Forecast of light rains for the next 5 days in Kurnool dist T MAX 29-32,TMIN 23-24,Wind speed 10-20 kmph | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 7 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 13-10-2015 | Forecast of light drizzles for the next 5 days in Kurnool dist T MAX 34-36,T MIN 21-23,Wind speed 5-10 kmph | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 9 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 16-10-2015 | Chances of light rains for the next 5 days in Kurnool dist T MAX 31-36,T MIN 23-25 , Wind speed 5-10 kmph | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 12 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 06-11-2015 | Chances of light rain for the next 3 days in Kurnool dist . T MAX 30-32,TMIN 20-21,Wind speed 5-15 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 8 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture | Weather | Forecast | Short term weatheer forecast | 13-11-2015 | No rainfall forecast for the next 5 days in Kurnool dist..T MAX 29-33,TMIN 18-20,Wind speed 10-20 kmph . | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 9 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 20-11-2015 | Forecast of light rains for the next 5 days in Kurnool dist .T MAX 28-30,T MIN 21-23,Wind speed 5-10 kmph . | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 6 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 24-11-2015 | Chances of light rains for the next 5 days in Kurnool dist. T MAX 26-32,T MIN 18-21 , Wind speed 5-10 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 9 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 02-02-2016 | Forecast of no rainfall for the next five days in Kurnool dist. T max 36-38 oc T min 20-22 oc wind speed 5-7 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 6 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 05-02-2016 | Forecast of no rainfall for the next five days in Kurnool dist. T max 35-36 oc T min 21-22 oc wind speed 3-7 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 8 |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 09-02-2016 | Forecast of no rainfall for the next five days in Kurnool dist. T max 34-36 oc T min 21-22 oc wind speed 3-7 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 9 |
| Agriculture | Weather | Forecast | Short term weatheer | 23-02- | No rainfall forecast for the next 5 days in | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 3 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | forecast | 2016 | Kurnool district . T max 38-40 oc T min 24-25 oc wind speed 5-10 kmph. | | | | | | | | | | | |
| Agriculture | Weather | Forecast | Short term weatheer forecast | 04-03-2016 | Chances of light rainfall for the next 5 days in Kurnool district . T max 37-38 oc T min 21-22 oc wind speed 5-10 kmph. | 1 | 292 | 20 | 312 | 32 | - | 32 | 324 | 20 | 344 | 3 |
| | | | Total: | | | 32 | 13432 | 920 | 14352 | 1472 | 0 | 1472 | 14904 | 920 | 15824 | 279 |

### (B) Details of SMSs:

| Content category | No. of Messages | No. of Farmers | Feedback from farmers |
|---|---|---|---|
| Crop Production | 6 | 1545 | 85 |
| Crop Protection | 22 | 1545 | 292 |
| Livestock & Fisheries Advisory | | | |
| Weather Advisory | | | |
| Market information | | | |
| Events information | | | |
| Inputs availability | | | |
| Others (specify) | | | |
| **Total** | **28** | **1545** | **377** |

### 3.5 Production and supply of Technological Products :

**SEED MATERIALS**

| Major group/ class | Crop | Variety | Quantity (Qtl.) | Value (Rs) | Provided to No of Farmers |
|---|---|---|---|---|---|
| Cereals | Paddy | NDLR-7 | 155.70 | 4,64,400-00 | 250 |
| | | BPT-5204 | 590.10 | 16,05,000-00 | 950 |
| Millets | Setaria | Suryanandi | 23.44 | 80,000-00 | 350 |
| | | SIA-3085 | | | |
| Pulses | Redgram | LRG 41 | 2.32 | 25000-00 | 200 |
| | | Asha | 6.60 | 29,400-00 | |
| | | ICPH-2740 | 7.48 | 1,12,200-00 | |
| | Blackgram | LBG-752 | 5.00 | 50,000-00 | 40 |

**Summary**

| S.No. | Major group/ class | Quantity (qtl.) | Value (Rs) | Provided to No of Farmers |
|---|---|---|---|---|
| 1 | Cereals | 745.80 | 20,69,400--00 | 1200 |
| 3 | Millets | 23.44 | 80,000-00 | 350 |
| 4 | Pulses | 21.40 | 2,16,600-00 | 240 |

## PLANTING MATERIALS

| Major group/class | Crop | Variety | Quantity (Nos.) | Value (Rs.) | Provided to No. of Farmers |
|---|---|---|---|---|---|
| FRUITS | | | | | |
| SPICES | | | | | |
| VEGETABLES | | | | | |
| | TOMATO | Hybrids | 20,000 | 6000.00 | 4 |
| | BRINJAL | Poluru | 17,500 | 5250.00 | 3 |
| | CHILLIS | Hybrids | 3,29,700 | 98,910.00 | 28 |
| | Others | - | 15,000 | 4500.00 | 6 |
| | | | **3,82,200** | **1,14,660.00** | **41** |

## SUMMARY

| Sl. No. | Major group/class | Quantity (Nos.) | Value (Rs.) | Provided to No. of Farmers |
|---|---|---|---|---|
| 1 | FRUITS | | | |
| 2 | VEGETABLES | 3,82,200 | 1,14,660.00 | 41 |
| 3 | SPICES | | | |
| 4 | FOREST SPECIES | | | |
| 5 | ORNAMENTAL CROPS | | | |
| 6 | PLANTATION CROPS | | | |
| 7 | OTHERS | | | |
| | **TOTAL** | **3,82,200** | **1,14,660.00** | **41** |

## BIO PRODUCTS

| Sl. No. | Name of the Product | Qty (Kg./Lit./No.) | Amount (Rs.) | | Remarks |
|---|---|---|---|---|---|
| | | | Cost of inputs | Gross income | |
| 1 | Pseudomonas | 928 | 27,840-00 | 92,800-00 | |
| 2 | Trichoderma | 631 | 18,930-00 | 63,100-00 | |
| 3 | Neem powder | 18072 | 2,43,972-00 | 2,93,670-00 | |
| 4 | PSB | 467 | 14,010-00 | 23,350-00 | |
| 5 | Azatobacter | 116 | 3,480-00 | 5,800-00 | |
| 6 | Azospirillum | 45 | 1,350-00 | 2,250-00 | |
| 7 | KMB | 82 | 2,460-00 | 4,100-00 | |
| | | | **3,12,042-00** | **4,85,070-00** | **1,73,028-00** |

## SUMMARY

| Sl. No. | Product Name | Species | Quantity | | Value (Rs.) | Provided to No. of Farmers |
|---|---|---|---|---|---|---|
| | | | No.s | (kg/lts/no) | | |
| 1 | BIOAGENTS | | | | | |
| 2 | BIO FERTILIZERS | 5 | | 18,782 | 3,29,220-00 | |
| 3 | BIO PESTICIDE | 2 | | 1,559 | 1,55,900-00 | |
| | TOTAL | 7 | | 20,341 | 4,84,220-00 | |

## LIVESTOCK

| Sl. No. | Type | Breed | Quantity | | Value (Rs.) | Provided to No. of Farmers |
|---|---|---|---|---|---|---|
| | | | Nos | Kgs | | |
| Cattle | | | | | | |
| SHEEP AND GOAT | Ram lambs | Nellore brown | 28 | 280 | 70,000.00 | 12 |
| | Ewes | Nellore brown | | | | |
| | Culled ewes | Nellore Brown | | | | |
| POULTRY | Backyard poultry | Rajasri | 5480 | - | 3,83,600.00 | 415 |
| FISHERIES | | | | | | |
| Others (Specify) | Mineral mixture | - | - | 267 | 18,690.00 | 14 |
| | Cattle feed | - | - | 2480 | 32240.00 | 8 |
| | Fodder cuttings | | 70,000 | | 19,000.00 | 19 |

## SUMMARY

| Sl. No. | Type | Breed | Quantity | | Value (Rs.) | Provided to No. of Farmers |
|---|---|---|---|---|---|---|
| | | | Nos | Kgs | | |
| 1 | CATTLE | | | | | |
| 2 | SHEEP | Nellore Brown | 28 | 280 | 70,000.00 | 14 |
| 3 | POULTRY | Rajasri | 5480 | - | 3,83,600.00 | 415 |
| 4 | FISHERIES | | | | | |
| 5 | OTHERS | | | | 69,930.00 | 41 |
| | **TOTAL** | | | | **5,23530.00** | **470** |

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

A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

B) Literature developed/published

#### 1. Brochures & Booklets developed :

#### 2. Articles and Scientific Publications:

- An article entitled "Study on effect of Azolla as Supplemental feed on Body weight gain in Rajasri birds" was published in Research Journal of Agricultural Sciences ( An international Journal;NAAS rating-3.51) Vol.6(6):Nov-Dec 2015 pp:1415-1416.
- An abstract entitled "A filed study on effect of Groundnut haulms supplemented feed on body weight gain in Nellore Brown ram lambs" was accepted for oral presentation at International Conference of ISAPM (INDIGENOUS) to be held from 28-31 January 2016 at Hyderabad.

#### 3. Popular Articles

| Title | Name of the scientist | Particulars |
|---|---|---|
| Benefits of hydroponic fodder production | A.Krishnamurthy | Pasunestam, June'15 pp.54-56 |
| Role of nutrients in reproduction performance of milch animals | A.Krishnamurthy | Pasunestham Feb'16 pp.11-12 |
| **Published in news papers** | | |
| Selection of dairy animals for better production | A.Krishna Murthy | Saakshi (Paadi-panta) 08.01.16 |
| Improvement of fat in milk | A.Krishna Murthy | Saakshi (Paadi-panta) 19.01.2016 |
| Benefits of rajasri birds | A.krishna murthy | Saakshi (Paadi-panta) 02.02.2016 |
| Raniketh disease in poultry | A.Krishna Murthy | Saakshi (Paadi-panta) 08.02.2016 |
| Preparation of cattle feed from Agriculatural by products | A.Krishna Murthy | Saakshi (Paadi-panta) 11.02.16 |
| Silage making in bags | A.Krishna Murthy | Saakshi (Paadi-panta) 25.02.16 |
| Benefits of hydroponic fodder | A.Krishna Murthy | Saakshi (Paadi-panta) 03.02.2016 |

## (C) Details of Electronic Media Produced

| S. No. | Type of media (CD / VCD / DVD / Audio-Cassette) | Title of the programme | Number |
|---|---|---|---|
| 1 | VCD | Hydroponics fodder production | 100 |

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

### Success Stories

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

**Introduction:**

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

**Methodology:**

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

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

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

- Reduced drudgery in searching of firewood and provides social security
- Improved their quality of life and helped them for using their leisure time , labour and freeing them for economic productivity.
- Reduced expenditure ( i.e, Rs.9500/-/year) on other rural energy resources like Wood, Hard coal, kerosene, plant

residues (Saves 32 lts of kerosene & 11/2 of tractor loads of firewood @ Rs 5000/- tractor).

- The dung is effectively utilizing for production of bio-gas and it produces quality compost of 10 tonnes/unit/year.
- The slurry from bio-gas units is using as organic manure in their farm in place of chemical fertilizers in turn reduces cost of cultivation.
- Reduces health risks i.e, respiratory diseases, eye ailments, burning accidents etc.for women and children associated with open fire.
- This Energy form is clean burning and completely natural so it has no adverse effects on the environment. It also reduces the amount of methane and carbon dioxide released into the environment.

- Reduced the risks and tensions associated with LPG when they leave home for farming activity.
- It also improves the sanitary condition of back yard and its surroundings by disposal of plant and animal wastes.

**I. <u>Millet Processing Unit – A Success Story of SHG Women :</u>**

Sri Umamaheswara Self Help Group of Yagantiplle village approached Krishi Vigyan Kendra for establishing income generating unit for their economic and self sustainability. KVK encouraged SHG women to take up Millet processing unit. The Millet Processing Unit sanctioned to Krishi Vigyan Kendra under RKVY Millet Project of Acharya NG Ranga Agricultural University.


The women came forward for the unit establishment in their village. They constructed shed by hiring loan i.e, Rs 2.0 lakhs from Village organization. KVK behind the women group right from the technical guidance in Fixation of machineries, unit registration, Training in products preparation, Sample analysis, Products registration with FSSAI, Advertisement of the products and also marketing for the millet products.

The products produced by the group are Seteria rice, sorghum flour, sorghum bold & fine semolina, sorghum snacks, ragi flour, sorghum and seteria snack items. The women started their production with two qtls per month over a period of eight months geared their production from 80 to 100 qtls/month, with an net income of Rs. 6,000/- to

7,000/-. They also employed three women and paying Rs.100/day for 20 days in a month. They are selling products to departmental stores, Super markets at Nandyal, Kurnool, ANGRAU Foods, Hyderbad, Grovel Foods and Agro Products, Hyderabad.

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

**Millet Foods Centre:**

Smt B. Lakshmi Devi W/o Sambasiva Reddy, a SHG women of Banaganapalle village with technical support from KVK, established "Millet Foods Centre" and supplying Sorghum Poridge, Ragi Poridge, Seteria Rice(Cooked) and Sorghum Rotis by taking orders through mobile phone.She is getting orders locally and also from nearby mandals. She also shown employment for another SHG women in assisting her in preparation and packing of the cooked foods and paying Rs. 125/- per day for 20 days in a month. By establishing Millet Foods Centre, she is earning Rs. 3,300/- to 4,200/- per month as net income and she became popular in that area for Millet Foods.

**Pickle Making Unit:**

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

**Dhal Processing Unit:**

Dhal Processing Unit sanctioned to KVK from AICRP on Post Harvest Technology, Under "Central Sector Scheme" Dr.PDKV, Akola. KVK in order to encourage farm women for their self sustainability KVK spread this message in the villages and Smt B. Sakuntala W/o Ramanath Reddy belongs to Ramakrishnaveni Self Help Group of Yagantipalle Village showed willingness and came to KVK to establish Dhal Processing Unit in their village to become self sustainable by agreeing to the terms and conditions formulated by KVK. KVK Agreed to establish the unit in their village by taking MoU with the SHG Women. She started trail run in the month of March'2016 and got confidence with technical support from KVK. At present she is doing dehulling for redgram and charging Rs.250/- per Qt by hiring one women labour by paying Rs.150/- per day whenever is needed. At present she has done 7 qtls dehulling for redgram and got Rs.1450/- excluding labour and electricity charges over a period of 20 days. With this unit, the Dhal Recovery is 75%, Brokendhal 2.5%, Whole gram 2.5% and husk was 10%. Quality and dhal recovery is good.

**Millet Bakery Unit:**

Smt.A. Padmavathi W/o Subba Reddy belongs to Banaganapalle Village came to KVK to under go training on "Millet Bakery Products". KVK imparted training on preparation of Jowar (Sweet & Salt), Foxtail (Sweet & Salt), Ragi Sweet, Bajra ( Sweet& Salt),Multi grain (Sweet&Salt) etc. various millet bakery products with the commercial Millet Bakery Entrepreneur from Rajamundry. After the training, she started producing millet biscuits under the name" Shri Vaishnavi Millet Bakery Foods" and got registered with municipality. She is selling biscuits locally and also to the DWCRA Bazars and Super markets @ Rs.190/- per Kg. Excluding labour wages she is earning an net income of Rs.2200/- to Rs. 2700/- per month.

## 3. Calf registration and Healthy calf programme:

### Introduction:

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

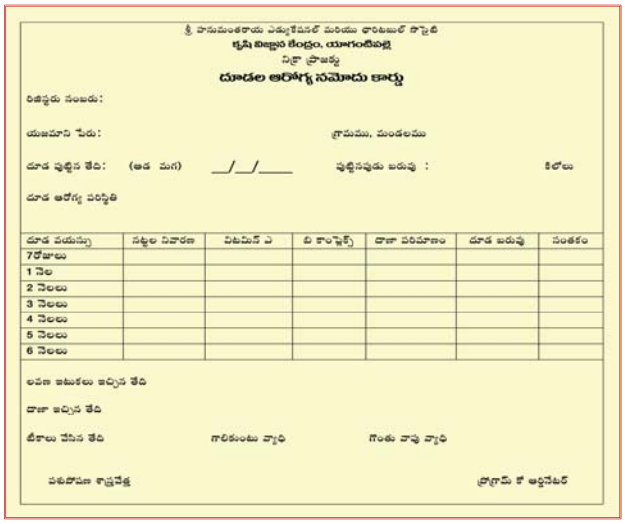
### Methodology:

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

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

## Calf Health Card

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



శ్రీ పాములపర్తి వెంకటసుబ్బారాయ ఎగ్జిక్యూటివ్ మరియు ఛారిటబుల్ ట్రస్టీ
కృషి విజ్ఞాన కేంద్రం, యాగంటిపల్లి
నంద్యాల జిల్లా
**దూడల ఆరోగ్య సమోదు కార్డు**

రిజిస్టరు సంఖ్య:

యజమాని పేరు: గ్రామము, మండలము

దూడ పుట్టిన తేది: (అడ మగ) __/__/____ పుట్టినప్పుడు బరువు : కిలోలు

దూడ ఆరోగ్య పరిస్థితి

| దూడ వయస్సు | సమస్యల వివరణ | విటమిన్ ఎ | బి కాంప్లెక్స్ | దాణా పరిమాణం | దూడ బరువు | సంతకం |
|---|---|---|---|---|---|---|
| 7రోజులు | | | | | | |
| 1 నెల | | | | | | |
| 2 నెలలు | | | | | | |
| 3 నెలలు | | | | | | |
| 4 నెలలు | | | | | | |
| 5 నెలలు | | | | | | |
| 6 నెలలు | | | | | | |

అవసర ఖనిజలవణాలు ఇచ్చిన తేది

దాణా ఇచ్చిన తేది

టీకాలు వేసిన తేది గాలికుంటు వ్యాధి గొంతు వాపు వ్యాధి

పశువైద్యుని సంతకం గ్రామ కో ఆర్డినేటర్

**Schedule of medication:**

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

**Result:**

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

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

The programme was taken up from 2011-12 in Yagantipalle and Meerapuram villages. 250 calves were registered and scientific practices were adopted under NICRA project during the year 2011-16. Among them 33 cow heifers and 9 buffalo heifers exhibited heat and conceived.

| Year | No of calves registered | | No. animals exhibited heat | |
|---|---|---|---|---|
| | White | Black | White | Black |
| 2011-12 | 60 | 40 | 22 | 6 |
| 2012-13 | 50 | 50 | 9 | 3 |
| 2013-14 | 25 | 25 | 7 | 3 |
| 2014-15 | - | 25 | 4 | - |
| 2015-16 | | 50 | - | 6 |
| | **135** | **190** | **42** | **18** |

**Outcome:**

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

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

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

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

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

Identification of courses for farmers/farm women

- Baseline survey
- Family survey
- PRA
- Group discussion

For Rural Youth

- Group discussion
- PRA
- Through interaction with farmers clubs

### 3.11 Field activities

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

### 3.12. Activities of Soil and Water Testing Laboratory

**Status of establishment of Lab:**

1.Year of establishment : 2005

**2.List of equipments purchased with amount :**

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

### 3.Details of samples analyzed so far:

| Details | No. of Samples | No. of Farmers | No. of Villages | Amount realized (Rs. In Lakhs) |
|---|---|---|---|---|
| Soil Samples | 6465 | 5677 | 475 | 8.49 |
| Water Samples | 1660 | 1616 | 297 | 1.58 |
| Plant Samples | 95 | 89 | 8 | 0.50 |
| **Total** | **8220** | **7382** | **780** | **10.57** |

### 3.13. Activities under rainwater harvesting (for those KVKs

| Date | Nature of Activity | Title | Client (PF/RY/EF) | No. of Courses | No. of Participants including SC/ST | | | No. of SC/ST Participants | | | Total Participants | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | M | F | Tot | M | F | Tot | M | F | Tot |

## 4.0 IMPACT

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

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

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

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

Rice (*Oryza sativa* L.) is one of the main staple cereal food crops in the world. In 2007 about 650 million metric tones of unmilled rice was produced globally on about 157 million ha (FAO, 2008). KC canal and TBLLC command area is the most potential belt for paddy cultivation in Kurnool district of Andhra Pradesh. Paddy is being cultivated nearly in one lakh hectares in both Kharif and Rabi seasons. In order to get highest yields farmers resorted to excess use of chemical fertilizers which

leads to adverse effects on soil and crop with nutrient toxicity and deficiency either by over use or inadequate use, which in turn increases the production costs, subsidies on chemical fertilizers and environmental degradation.

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

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

**RESULTS:**

**Soil characteristics:**

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

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

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

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

**IMPACT OF STCR**:

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

**Farmer's feed back**

Farmers were satisfied with crop performances and expressed that Soil test based nutrient management in rice is a viable technology, because of less cost on chemical fertilizers and without reduction in yield compared to their own practice. They finally realized that they are incurring higher

expenditure on fertilizers in the absence of soil testing of their fields. Many farmers have come forward to adopt this methodology in their fields.

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

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

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

**Background:** On black soils of Kurnool district generally one crop Bengalgram/fallow-Jowar is being taken during Rabi (September - October) in an area of 3.02 laksh ha. Farmers are getting low net returns/ha . Foxtail millet (korra), crop being its short duration may fit well in double cropping sequence under rainfed situation in black soils. In order to increase Net returns/ha and cropping intensity in drylands this demonstration was planned.

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

**Initiation taken for follows up action**:

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

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

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

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

## 5.0 LINKAGES:

### 5.1 Functional linkage with different organizations

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

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

| Name of the scheme | Date/ Month of initiation | Funding agency | Amount (Rs.) |
|---|---|---|---|
| Anganwadi Trainings | April, 2015 | Women Development & Child Welfare | 14,00,000-00 |
| National Initiative on Climate Resilient Agriculture | April-2015 | CRIDA | 12,50,000-00 |

## 5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district: Yes

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

## 5.4 Give details of programmes implemented under National Horticultural Mission

| S. No. | Programme | Nature of linkage | Constraints if any |
|---|---|---|---|
| | | **NIL** | |

## 5.5 Nature of linkage with National Fisheries Development Board

| S. No. | Programme | Nature of linkage | Remarks |
|---|---|---|---|
| | | **NIL** | |

## 6.PERFORMANCE OF INFRASTRUCTURE IN KVK :

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

| Sl. No. | Demo Unit | Year of estt. | Area | Details of production | | | Amount (Rs.) | | Net income |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Variety | Produce | Qty. tones | Cost of inputs | Gross income | |
| 1 | Vermi composting unit | 2003 | - | *Udrilus eugeni* | Vermi compost<br>Earthworms | 154<br>551 Kg | 3,60,500 | 861485 | 5,00,985 |
| 2 | IBRC | 2010 | - | Pseudomonas | Pseudomonas | 928 | 27,840-00 | 92,800-00 | |
| | | | | Trichoderma | Trichoderma | 631 | 18,930-00 | 63,100-00 | |
| | | | | Neem powder | Neem powder | 18072 | 2,43,972-00 | 2,93,670-00 | |
| | | | | PSB | PSB | 467 | 14,010-00 | 23,350-00 | |
| | | | | Azatobacter | Azatobacter | 116 | 3,480-00 | 5,800-00 | |
| | | | | Azospirillum | Azospirillum | 45 | 1,350-00 | 2,250-00 | |
| | | | | KMB | KMB | 82 | 2,460-00 | 4,100-00 | |
| | | | | | | | **3,12,042-00** | **4,85,070-00** | **1,73,028-00** |

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

| Name of the crop | Date of sowing | Date of harvest | Area (ha) | Details of production | | | Amount (Rs.) | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Variety | Type of Produce | Qty (Qtl). | Cost of inputs | Gross income | |
| Cereals | | | | | | | | | |
| Paddy | 1 St wk of Aug | Last wk of Dec | 3.0 | NDLR-7 | Seed | 155.70 | 2.00,000 | 4,64,400-00 | |
| | 1 St wk of Aug | 1 St wk of Jan | 9.0 | BPT-5204 | Seed | 590.10 | 7,50,000 | 16,05,000-00 | - |
| Millets | | | | | | | | | |
| Setaria | 3rd wk of July | 2nd wk of Oct. | 0.6 | Suryanandi SIA-3085 | Seed | 23.44 | 50,000- | 80,000.00 | |
| Pulses | | | | | | | | | |
| Pigeonpea | Last wk of July | 2nd wk of Jan | 0.6 | LRG-41 ICPH-2740 Asha | Seed | 16.4 | 65,000- | 1,66,600-00 | |
| Blackgram | Oct | 3rd wk of Jan | 0.4 | LBG-752 | seed | 5.00 | 15,000 | 50,000-00 | |

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

| Sl. No. | Name of the Product | Qty (Kg./Lit./No.) | Amount (Rs.) | | Remarks |
|---|---|---|---|---|---|
| | | | Cost of inputs | Gross income | |
| 1 | Pseudomonas | 928 | 27,840-00 | 92,800-00 | |
| 2 | Trichoderma | 631 | 18,930-00 | 63,100-00 | |
| 3 | Neem powder | 18072 | 2,43,972-00 | 2,93,670-00 | |
| 4 | PSB | 467 | 14,010-00 | 23,350-00 | |
| 5 | Azatobacter | 116 | 3,480-00 | 5,800-00 | |
| 6 | Azospirillum | 45 | 1,350-00 | 2,250-00 | |
| 7 | KMB | 82 | 2,460-00 | 4,100-00 | |
| | | | **3,12,042-00** | **4,85,070-00** | **1,73,028-00** |

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

| Sl. No | Name of the animal / bird / aquatics | Details of production | | | Amount (Rs.) | | Remarks |
|---|---|---|---|---|---|---|---|
| | | Breed | Type of Produce | Qty. | Cost of inputs | Gross income | |
| 1 | Poultry | Rajasri | Chicks | 5480 | 2,74,000.00 | 3,56,200.00 | |
| 2 | Sheep | Nellore Brown | Ram lambs and Ewes & Goats | 28 | 35,000.00 | 70,000.00 | |

## 6.5 Rainwater Harvesting

### Training programmes conducted by using Rainwater Harvesting DemonstrationUnit

| Date | Title of the training course | Client (PF/RY /EF) | No. of Courses | No. of Participants including SC/ST | | | No. of SC/STParticipants | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Male | Female | Total | Male | Female | Total |

### 6.6 Utilization of hostel facilities:

Accommodation available (No. of beds) : 40

| Months | Title of the training course/Purpose of stay | No. of trainees stayed | Trainee days (days stayed) | Reason for short fall (if any) |
|---|---|---|---|---|
| April-15 | | 30 | 30 | |
| **Total** | | **30** | **30** | |
| May,15 | | 29 | 29 | |
| **Total** | | **29** | **29** | |
| June,15 | | | | |
| **Total** | | | | |
| July,15 | | 40 | 80 | |
| **Total** | | **40** | **80** | |
| Aug,15 | | 60 | 90 | |
| **Total** | | **60** | **90** | |
| Sep,15 | | 113 | 176 | |
| **Total** | | **113** | **176** | |
| Oct,15 | | | | |
| **Total** | | | | |
| Nov,15 | | | | |
| **Total** | | | | |
| Dec,15 | | | | |
| **Total** | | | | |
| Jan,16 | | | | |
| **Total** | | | | |
| Feb,16 | | | | |
| **Total** | | | | |
| Mar,16 | | 100 | 100 | |
| **Total** | | **100** | **100** | |
| **Grand total** | | **372** | **505** | |

## 7. FINANCIAL PERFORMANCE

### 7.1 Details of KVK Bank accounts

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

## 7.5 Utilization of KVK funds during the year 2015-16

| S. No. | Particulars | Sanctioned | Released | Expenditure |
|---|---|---|---|---|
| **A. RECURRING ITEMS** | | | | |
| 1 | **Pay & Allowances** | 105.15 | 87.46 | 97.06 |
| 2 | **Traveling allowances** | 1.80 | 1.80 | 1.80 |
| 3 | **Contingencies** | | | |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (purchase of News paper & Magazines) | 5.18 | 5.18 | 5.17 |
| *B* | POL, repair of vehicles, tractor and equipments | | | |
| *C* | Meals/refreshment for trainees (celling upto Rs.40/day/trainee be maintained) | | | |
| *D* | Training material (posters, charts, demonstration material including chemicals etc., required for conducting the training). | | | |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | | | |
| *F* | On farm testing (on need based location specific and newly generated information in themajor production systems of the area) | 6.32 | 6.32 | 6.29 |
| *G* | Training of extension functionaries | | | |
| *H* | Honarorium for Trainers | | | |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory | | | |
| *J* | Libray | | | |
| *K* | Maintenance of farm | | | |
| | ***TOTAL (A)*** | **118.45** | **100.76** | **110.32** |
| | **B.NON RECURRING ITEMS** | | | |
| | 1.Works | | | |
| | 2.Furniture & Equipment | | | |
| | 3.Vehicle | | | |
| | 4.Library | | | |
| | ***TOTAL (B)*** | - | - | - |
| **C.FLD Cotton** | | | | |
| | ***TOTAL (C)*** | | | |
| **D. Non Recurring Contingencies** | | | | |
| 1 | Works | | | |
| 2 | Equipments including SWTL & Furniture | | | |
| 3 | Vehicle (Four wheeler/Two wheeler, please specify) | | | |
| 4 | Library (purchase of assets like books & journals) | | | |
| | ***TOTAL (D)*** | | | |
| | **GRAND TOTAL (A+B+C+D+E)** | ***117.62*** | ***117.62*** | |

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

| Year | Opening balance as on 1st April | Income during the year | Expenditure during the year | Net balance in hand as on 1st April of each year |
|---|---|---|---|---|
| April - 2013 to March - 2014 | 52,10,136-00 | | | 57,30,752-00 |
| April - 2014 to Macrh - 2015 | 57,30,752-00 | | | 69,51,345-00 |
| April - 2015 to March - 2016 | 69,51,345-00 | 52,97,621-00 | 61,28,940-00 | 61,20,026-00 |

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

### 8.1 Constraints:

(a) Administrative

(b) Financial

(c) Technical

## ANNEXURE – 1

### District Profile :

#### 1. General Census :

| | |
|---|---|
| Area | :17658 sq. km |
| Population | :35.29 lakhs |
| Male population | : 17.96 lakhs |
| Female population | : 17.33 lakhs |
| No of households | : 6.99 lakhs |
| Inhabited villages | : 1514 |
| Literates | : 15.92 lakhs |
| Literacy rate | : 53.22 |
| Normal rainfall | : 670.0 mm |
| Revenue villages | : 928 |
| Gram panchayats | : 898 |

#### 2. Agriculturural and Allied Census :

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

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

### 3. Agroclimatic Zones :

| | |
|---|---|
| Scarce rainfall zone | Low scanty and erratic rainfall due to which successful crop production with good yields is unexpectable and dryland agriculture is predominant with a variety of rainfed crops in the zone. |

### 4. Agro –Eco systems :

K.C.Canal irrigated red soils

T.B.Low level canal irrigation red soils

T.B.High level canal irrigation black soils

K.C.Canal irrigation blacksoils

T.B.Low level canal irrigation black soils

T.B.high level canal irrigation black soils

Problem soils

Tank irrigation red soils

Tank irrigation black soils

Well irrigation red soils

Rainfed red soils

Rainfed black soils

### 5. Major and micro farming systems :

1 Agriculture + Horticulture

2 Agriculture + Dairy

3 Agriculture + Horticulture + Dairy

4 Agriculture + Horticulture + Pastural culture

## 6. Major production systems :

Paddy- Paddy,

Greengram- Paddy,

Paddy- Groundnut/ vegetables

Paddy-fallow

Paddy/Groundnut/vegetables-fallow

Paddy- Greengram- Paddy,

Paddy/Groundnut- vegetables

Sunflower/ Groundnut- fallow

Groundnut/ Cotton- fallow

Sunflower- Groundnut

Groundnut- Sunflower

Cotton-fallow

Paddy- Sunflower

Cotton/Onion- fallow

Cotton/Onion/ Chillies- fallow

Sunflower- Groundnut+ Redgram

Groundnut+ Jowar, Cotton

Cotton+ redgram/ Korra/ Redgram-fallow

Jowar/Bengalgram/Tobacco- fallow

Jowar-fallow

Groundnut-fallow

## 7. Major agriculture and allied enterprises

Agriculture

Horticulture

Floriculture

Olericulture

Silviculture

Pastoral culture

Dairy farming

Pisciculture

Sheep farming

Goatry

## ANNEXURE –2

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

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

| Farming situation | Name of the village | Focus area | Target area |
|---|---|---|---|
| | | | |

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

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

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

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

**4. Analysis and conclusions:**

Rainfed red soils:

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

Rainfed black soils:

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

TBP LLC canal irrigated black soils:

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

TBP LLC canal irrigated red soils:

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

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

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

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

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

**Rainfed black soils:**

- Mungari cotton:
  - Proper spacing not adopted.
  - Non awareness of IPM measures.
- Bengalgram:
  - No practice of growing preceding crop to Bengalgram.
  - Latest improved varieties not adopted.
  - Proper management practices not followed.
  - IPM techniques not adopted.

**TBP LLC canal irrigated red soils**:

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

Paddy:

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

Groundnut:

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

**Tank irrigation black soils**:

Chillis:

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

* * *