

|                                  |   |                            |
|----------------------------------|---|----------------------------|
| <b>Title of the FLD</b>          | <b>Demonstration of Paddy TKM(R) 13 variety for yield and income potential</b>  |                            |
| Discipline                       | Agronomy  | Intervention : <b>FLD1</b> |
| Farming situation                | Irrigated   |                            |
| Problem diagnosed with intensity | <ul style="list-style-type: none"> <li>• Use of old varieties like CR 1009</li> <li>• Incidence of leaf folder (20 %) and stem borer (30%)</li> <li>• Occurrence of bacterial leaf blight and blast during samba season</li> <li>• Lodging problem</li> <li>• Yield loss 15%</li> </ul> |                            |
| Crop/ Technology                 | Paddy   |                            |
| Source of Technology             | TNAU, 2015  |                            |
| Year of initiation               | 2017  | Season : Rabi              |
| No. of locations                 | 10  | Area (ha): 4               |
| Treatments                       | T1: Technology demonstrated - Demonstration of Paddy TKM(R) 13 variety  |                            |
|                                  | T2 : Farmers practice: Use of old variety CR 1009   |                            |

**Contd...**

## Observations recorded

Ariyalur KVK

| Particulars                     | Check     | Demo |
|---------------------------------|-----------|------|
| No. of productive tiller /plant | 15.5      | 18.7 |
| % of leaf folder incidence      | 14.0      | 8.0  |
| % of stem borer incidence       | 8.0       | 4.5  |
| % of blast incidence            | 4.0       | 1.6  |
| Whether continued / concluded   | Concluded |      |

## Results of FLDs

FLD (1/5)

| Treatments                 | Yield (t/ha.)        | Net returns (Rs.) | B:C Ratio | Any other parameter                                       |
|----------------------------|----------------------|-------------------|-----------|---|
| Demo (TKM 13)              | 5.24<br><b>(17%)</b> | 30,570            | 1.64      | TKM 13 variety is medium slender when compared to CR 1009 |
| Farmers practice (CR 1009) | 4.45                 | 26,928            | 1.54      |   |

## Remarks/Feedback

- As the TKM 13 rice variety is medium slender, the market preference was good
- Less pest and disease incidence reduce the chemical sprays
- Dept. of Agriculture is informed to take up seed production activities and further mass adoption.

**Contd...**

# Intervention



# Farmers practice

Ariyalur KVK



|                                  |  |                            |
|----------------------------------|--|----------------------------|
| <b>Title of the FLD</b>          | <b>Demonstration of Bajra CO 10 for yield and income potential</b>   |                            |
| Discipline                       | Agricultural Extension   | Intervention : <b>FLD2</b> |
| Farming situation                | Rainfed  |                            |
| Problem diagnosed with intensity | <ul style="list-style-type: none"> <li>• Use of unnamed local variety (Naatu Cumbu)</li> <li>• Non adoption of Improper spacing</li> <li>• High Downy mildew incidence</li> <li>• Yield loss upto 30%</li> </ul> |                            |
| Crop/ Technology                 | Bajra variety (C1 10)  |                            |
| Source of Technology             | TNAU, 2016   |                            |
| Year of initiation               | 2017   | Season : Kharif            |
| No. of locations                 | 10   | Area (ha): 4               |
| Treatments                       | T1: Technology Demonstrated - Demonstration of Bajra CO 10 variety   |                            |
|                                  | T2 : Farmers practice - Unknown local variety  |                            |

**Contd...**

| Observations recorded         |           | Ariyalur KVK |
|-------------------------------|-----------|--------------|
| Particulars                   | Check     | Demo         |
| No. of plants /m <sup>2</sup> | 12.0      | 15.0         |
| No. of tillers                | 2.0       | 4.0          |
| Ear head weight (g)           | 16.0      | 26.0         |
| % of downy mildew incidence   | 11.0      | 1.5          |
| Whether continued / concluded | Concluded |              |

| Results of FLDs          |                       |                       | FLD (2/5) |
|--------------------------|-----------------------|-----------------------|-----------|
| Treatments               | Yield (q/ha.)         | Net returns (Rs./ha.) | B:C Ratio |
| Demo (CO 10)             | 23.5<br><b>(39 %)</b> | 24,700                | 2.4       |
| Farmers practice (Local) | 16.9                  | 18,200                | 1.9       |

### Remarks/Feedback

- The farmers preference is towards local varieties than improved varieties / hybrids as there is difficulty in threshing (compact ear heads)
- This variety is less preferred for own household use and sold for feed purpose

**Contd...**



# Intervention



# Farmers practice

# Ariyalur KVK



| Title of the FLD                 | Demonstration of ICM practices in Cotton  |                             |
|----------------------------------|---|-----------------------------|
| Discipline                       | Agronomy  | Intervention : <b>FLD 3</b> |
| Farming situation                | Rainfed   |                             |
| Problem diagnosed with intensity | <ul style="list-style-type: none"> <li>• Shedding of square buds and immature bolls (22%)</li> <li>• Reddening and shedding of leaves (Mg deficiency)</li> <li>• Lack of adoption of bund/inter crop</li> <li>• Low yield due to bacterial blight</li> <li>• Less number of bolls/ plant (20-40)</li> </ul> |                             |
| Crop/ Technology                 | Cotton (ICM)  |                             |
| Source of Technology             | CICR, 2005  |                             |
| Year of initiation               | 2017  | Season : Kharif             |
| No. of locations                 | 10  | Area (ha): 4                |
| Treatments                       | T1: Technology demonstrated - Demonstration of ICM practices in cotton  |                             |
|                                  | T2 : Farmers practice : Non adoption of complete ICM practices  | <b>Contd...</b>             |

## Observations recorded

Ariyalur KVK

| Particulars   | Check     | Demo |
|---|-----------|------|
| No. of bolls/plant                                      | 32.0      | 36.0 |
| Boll setting %  | 38.0      | 43.8 |
| % of <i>Spodoptera</i> and <i>Helicoverpa</i> incidence | 6.8       | 1.6  |
| Whether continued / concluded                           | Concluded |      |

## Results FLDs

FLD (3/5)

| Treatments                                       | Yield (q/ha.)        | Net returns (Rs./ha.) | B:C Ratio |
|--|----------------------|-----------------------|-----------|
| Demo (ICM practices)                             | 20.3<br><b>(18%)</b> | 56,679                | 2.9       |
| Farmers practice (Non adoption of ICM practices) | 17.2                 | 41,990                | 2.3       |

## Remarks/Feedback

- By adopting ICM practices the farmers could able to complete the crop within three chemical sprays (Normal – 5-6 sprays)
- Farmers could realize the effect of Cotton plus in terms of reduction in square shedding and reddening etc.

**Contd...**



# Intervention



# Farmers practice

Ariyalur KVK



|                                  |   |                             |
|----------------------------------|---|-----------------------------|
| <b>Title of the FLD</b>          | <b>Demonstration of IPM practices in Brinjal</b>  |                             |
| Discipline                       | Plant Protection  | Intervention : <b>FLD 4</b> |
| Farming situation                | Rainfed   |                             |
| Problem diagnosed with intensity | <ul style="list-style-type: none"> <li>• Incidence of Shoot &amp; fruit borer damage (42%)</li> <li>• Sucking pests like whitefly, aphids, ash weevil etc.</li> <li>• High cost of cultivation due to usage of more pesticides</li> <li>• Low yield – 8.54t/ha</li> </ul> |                             |
| Crop/ Technology                 | Brinjal   |                             |
| Source of Technology             | TNAU, 2011  |                             |
| Year of initiation               | 2017  | Season : Kharif             |
| No. of locations                 | 10  | Area (ha): 4                |
| Treatments                       | T1: Technology demonstrated - Demonstration of IPM practices in Brinjal includes yellow sticky trap, pheromone trap, light trap, neem cake, release of <i>Trichogramma chilonis</i> , Bt spray, etc.  |                             |
|                                  | T2 : Farmers practice : Repeated spray of chemicals like Profenophos, Monochrotophos, etc. at 5 days interval   |                             |

## Observations recorded

Ariyalur KVK

| Particulars                        | Check     | Demo |
|------------------------------------|-----------|------|
| % of fruit borer affected fruits   | 30.1      | 12.0 |
| % of stem borer affected plants    | 22.0      | 4.0  |
| % of whitefly and aphids incidence | 17.0      | 7.0  |
| Whether continued / concluded      | Concluded |      |

## Results of FLDs

FLD (4/5)

| Treatments                                       | Yield (q/ha.)           | Net returns (Rs.) | B:C Ratio |
|--|-------------------------|-------------------|-----------|
| Demo (IPM practices)                             | 30.8<br><b>(35.7 %)</b> | 1,96,000          | 3.43      |
| Farmers practice (Non adoption of IPM practices) | 22.7                    | 1,24,500          | 2.56      |

## Remarks/Feedback

- There was considerable reduction in stem borer incidence – A seasonal pest
- Reduction in chemical sprays (From 20 sprays to 8 sprays)
- Ease in use of egg cards and less cost of Bt convinced the farmers to use IPM

Contd...



# Intervention

# Farmers practice

# Ariyalur KVK





# Front Line Demonstration - FLD

Ariyalur KVK

|                                  |  |                            |
|----------------------------------|--|----------------------------|
| <b>Title of the FLD</b>          | <b>Demonstration of Fodder crops as intercrop in Cashew Gardens</b>  |                            |
| Discipline                       | Horticulture   | Intervention : <b>FLD5</b> |
| Farming situation                | Rainfed  |                            |
| Problem diagnosed with intensity | <ul style="list-style-type: none"> <li>• Under utilization of resources</li> <li>• Low existing population 90-100/ha. Instead of 200 /ha.</li> <li>• Lack of knowledge on effective land utilization</li> <li>• Scarcity of fodder</li> <li>• Low income from cashew crop</li> </ul> |                            |
| Crop/ Technology                 | Cashew   |                            |
| Source of Technology             | TNAU, 2014   |                            |
| Year of initiation               | 2017   | Season : Kharif            |
| No. of locations                 | 10   | Area (ha): 4               |
| Treatments                       | T1: Technology Demonstrated - Demonstration of Fodder crops (Sorghum and Horse gram) as intercrop in Cashew Gardens  |                            |
|                                  | T2 : Farmers practice : Mono cropping of Cashewnut   |                            |
| Whether continued / concluded    | Concluded  |                            |

**Contd...**

| Results of FLDs                 |               |           | FLD (5/5)         | Ariyalur KVK |
|---------------------------------|---------------|-----------|-------------------|--------------|
| Treatments                      | Yield (q/ha.) |           | Net returns (Rs.) | B:C Ratio    |
|                                 | Fodder        | Cashewnut |                   |              |
| Demo (Intercrop)                | 79.7          | 5.9       | 52,151            | 3.38         |
| Farmers practice (Nil practice) | ---           | 5.5       | 36,642            | 2.61         |

| Nutrient status of soil (Kg/ha.) |       |      |       |
|----------------------------------|-------|------|-------|
|                                  | N     | P    | K     |
| Before                           | 157.0 | 25.1 | 239.0 |
| After                            | 168.0 | 23.7 | 212.0 |

- ### Remarks/Feedback
- Farmers are happy as they got good quantity of fodder biomass (Both cereal + Legume) from unused spaces
  - The health and productivity of animals enhanced as they were deprived of green fodder earlier
  - Scope for conservation of soil and moisture is observed.

**Contd...**

## Photographs (Intervention)



## Photographs (Farmers practice)

Ariyalur KVK

