# Annual Action Plan

**2.Training programme to be organized (April 2019 to March 2020)**

**Discipline: Crop Production**

**(a) Farmers and farmwomen**

| Thematic area | Title of Training | No. | Duration | Venue On/Off | Tentative Date | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | | M | F | M | F | M | F | M | F | T |
| Nursery management | Different technique of raising healthy nursery of paddy | 1 | 1 | OFF | April, 2019 to June 2019 | 3 | 2 | - | - | 20 | - | 23 | 2 | 25 |
| Resource conservation Technology | Scientific cultivation of direct seeded rice | 1 | 1 | ON | | 2 | 3 | - | - | 20 | - | 22 | 3 | 25 |
| | SRI method of rice cultivation | 1 | 1 | ON | | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |
| Cropping Systems | Hybrid rice production technique for higher yield and income | 1 | 1 | OFF | | 4 | 1 | - | - | 17 | 3 | 21 | 4 | 25 |
| Crop Diversification | Role of green manure and bio-fertilizer in crop production and soil fertility | 1 | 1 | OFF | | 4 | 1 | - | - | 16 | 4 | 20 | 5 | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Scientific cultivation of summer moong | 1 | 1 | ON | | 3 | 2 | - | - | 18 | 2 | 21 | 4 | 25 |
| Crop production | Cultivation technique of soybean in kharif | 1 | 1 | ON | July, 2019 to September 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Resource conservation technology | SRI method of rice cultivation | 1 | 1 | OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Direct seeded rice production technique | 1 | 1 | OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Integrated nutrient management | Integrated nutrient management in kharif crop | 1 | 1 | ON | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Crop production | Cultivation technique of Rabi Pulses | 1 | 1 | ON | October 2019 to December 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Introduction of different corps as inter crop in autumn Sugarcane | 1 | 1 | ON | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Resource conservation technology | Scientific cultivation of wheat cultivation | 1 | 1 | OFF | | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |
| | Zero tillage technique of wheat sowing | 1 | 1 | OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Weed management | Integrated weed management in Rabi crops | 1 | 1 | ON | | 3 | 2 | - | - | 20 | - | 23 | 2 | 25 |
| Integrated nutrient management | Integrated nutrient management in Rabi crop | 1 | 1 | ON | | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water management | Water management techniques in different Rabi crops | 1 | 1 | OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Cultivation of sugarcane by single bud method | 2 | 2 | OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Crop Diversification | Cultivation of summer moong | 1 | 1 | OFF | Jan 2020 to March, 2020 | 4 | 1 | - | - | 17 | 3 | 21 | 4 | 25 |
| | Green manuring for improving soil fertility & yield of kharif crop | 2 | 2 | ON | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Cultivation of different fodder crops | 1 | 1 | ON | | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |
| Water management | Scope of micro irrigation in Sugarcane | 1 | 1 | OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Residue management | 1 | 1 | OFF | | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |
| | Sugarcane based intercropping system | 2 | 2 | ON | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| **Total** | | 27 | 27 | | | 98 | 22 | - | - | 453 | 27 | 551 | 49 | 600 |

**(b) Rural youths**

| Thematic area | Title of Training | No. | Duration | Venue On/Off | Tentative Date | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | | M | F | M | F | M | F | M | F | T |
| Nursery management | Modern technique of raising Rice seedling for commercial purpose | 1 | 3 | ON | April 2019 to June 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Integrated farming | Paddy cum fish culture for higher income per unit area | 1 | 3 | ON | July 2019 to September 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Integrated nutrient management | Different methods of vermin-compost production | 1 | 3 | ON | | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |
| Crop Production | Seed Production technique in field crop | 1 | 3 | ON | October 2019 to December 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Value addition | Potato based industries | 1 | 3 | ON | | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Integrated nutrient management | Role of Bio-fertilizer and vermin-compost in crop production | 1 | 3 | ON | Jan, 2020 to March, 2020 | 3 | 2 | - | - | 17 | 3 | 20 | 5 | 25 |
| Integrated nutrient management | Agricultural waste management | 1 | 3 | ON | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| **Total** | | 7 | 21 | | | 29 | 6 | - | - | 131 | 9 | 160 | 15 | 175 |

**(c) Extension functionaries**

| Thrust area/ Thematic area | Title of Training | No. | Duration | Venue On/Off | Tentative Date | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | | M | F | M | F | M | F | M | F | T |
| Productivity enhancement in field crops | Hybrid rice production technique | 1 | 2 | ON | April , 2019 to June, 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Resource conservation technologies | Direct seeded rice production technique | 1 | 2 | ON | July, 2019 to September, 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Crop production | Seed Production technique in sugarcane | 1 | 1 | ON | | 3 | 2 | - | - | 20 | - | 23 | 2 | 25 |
| Integrated nutrient management | Role of Bio-fertilizer, Vermi-compost and green manure in crops Production | 1 | 2 | ON | Jan, 2020 to March, 2020 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| **Total** | | 4 | 7 | | | 18 | 2 | - | - | 80 | - | 98 | 2 | 100 |

**Discipline: Plant Protection**

**(a) Farmers and farmwomen**

| Thematic area | Title of Training | No. | Duration | Venue On/Off | Tentative Date | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | | M | F | M | F | M | F | M | F | T |
| Integrated Pest Management | Integrated insect pest management in paddy | 2 | 1 | ON/OFF | April, 2019 to June, 2019 | 8 | 2 | - | - | 30 | 10 | 38 | 12 | 50 |
| | Integrated disease management in maize | 2 | 1 | ON/OFF | | 7 | 3 | - | - | 30 | 10 | 37 | 13 | 50 |
| | Integrate Disease management in paddy | 2 | 1 | ON/OFF | July, 2019 to September, 2019 | 10 | - | - | - | 32 | 8 | 42 | 8 | 50 |
| | Integrated disease management sugarcane | 2 | 1 | ON/OFF | | 10 | | - | - | 40 | | 50 | - | 50 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Integrated Disease management in wheat | 1 | 1 | ON | October, 2019 to December, 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Integrated insect pest management of sugarcane | 1 | 1 | ON | | 5 | | - | - | 20 | - | 25 | - | 25 |
| | Integrated insect pest management in oilseed & pulses | 2 | 1 | ON/OFF | | 10 | - | - | - | 40 | - | 50 | - | 50 |
| | Integrated disease management of mango | 2 | 1 | ON/OFF | | 10 | - | - | - | 40 | - | 50 | - | 50 |
| | Integrated insect pest management in Mango | 2 | 1 | ON/OFF | Jan, 2020 to March, 2020 | 10 | - | - | - | 40 | - | 50 | - | 50 |
| | Integrated disease off time vegetables maize | 2 | 1 | ON/OFF | | 10 | - | - | - | 40 | - | 50 | - | 50 |
| | Integrated insect pest management in sugarcane | 1 | 1 | OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Integrated disease | 2 | 1 | OFF | | 7 | 3 | - | - | 33 | 7 | 40 | 10 | 50 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | management of mango | | | | | | | | | | | | | |
| | Integrated pest management in vegetables | 2 | 1 | ON/OFF | | 8 | 2 | - | - | 35 | 5 | 43 | 7 | 50 |
| | Integrated insect pest management of litchi | 1 | 1 | ON/OFF | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| **Total** | | 24 | 14 | | | 110 | 10 | | | 440 | 40 | 550 | 50 | 600 |

**(b) Rural youths**

| **Thematic area** | **Title of Training** | **No.** | **Duration** | **Venue On/Off** | **Tentative Date** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **SC** | | **ST** | | **Other** | | **Total** | | |
| | | | | | | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **T** |
| Vermi- culture | Vermi- Compost production | 1 | 3 | ON | April, 2019 to June, 2019 | 7 | 3 | - | - | 34 | 6 | 41 | 9 | 50 |
| | Integrated disease management of vegetable | 1 | 3 | ON | | 10 | - | - | - | 40 | - | 50 | - | 50 |
| Mushroom production | Mushroom cultivation | 1 | 3 | OFF | July, 2019 to September, | 6 | 4 | - | - | 35 | 5 | 41 | 9 | 50 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Production of Botanical pesticide | Production of Botanical pesticide | 1 | 3 | ON | 2019 | 5 | - | - | - | 15 | - | 20 | - | 20 |
| | Integrated disease & insect management of off time vegetable cultivation | 1 | 3 | ON | | 5 | - | - | - | 15 | - | 20 | - | 20 |
| Disease management Nursery | Nursery management of vegetable & papaya from pests | 1 | 3 | ON | October, 2019 to December, 2019 | 5 | - | - | - | 15 | - | 20 | - | 20 |
| **Total** | | 6 | 18 | | | 38 | 7 | | | 154 | 11 | 192 | 18 | 210 |

**(c) Extension functionaries**

| **Thrust area/ Thematic area** | **Title of Training** | **No.** | **Duration** | **Venue On/Off** | **Tentative Date** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **SC** | | **ST** | | **Other** | | **Total** | | |
| | | | | | | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **T** |
| Integrated pest management | Safe use of pesticide | 1 | 1 | ON | April, 2019, to June, 2019 | 5 | - | - | - | 15 | - | 20 | - | 20 |
| Production and use of Bio-pesticides | Bio pesticides production, Integrated Disease management in paddy | 1 | 1 | OFF | July, 2019 to September, 2019 | 3 | - | - | - | 17 | - | 20 | - | 20 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Integrated disease & insect management of off time vegetable | 1 | 1 | OFF | | 3 | - | - | - | 17 | - | 20 | - | 20 |
| **Total** | | 3 | 3 | | | 11 | | | | 49 | | 60 | | 60 |

**Discipline: Horticulture (Vegetable)**

**(a) Farmers and farmwomen**

| **Thematic area** | **Title of Training** | **No.** | **Duration** | **Venue On/Off** | **Tentative Date** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **SC** | | **ST** | | **Other** | | **Total** | | |
| | | | | | | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **T** |
| Nursery management | Different technique of raising healthy nursery of summer vegetables | 1 | 1 | OFF | April, 2019 to June 2019 | 3 | 2 | - | - | 20 | | 23 | 2 | 25 |
| Resource conservation Technology | Scientific cultivation of tomato | 1 | 1 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| | Nutrient management in summer vegetables | 1 | 1 | ON | | 4 | 1 | - | - | 20 | | 24 | 1 | 25 |
| Cropping Systems | Hybrid brinjal production technique for higher yield and income | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| Crop Diversification | Role of green manure and bio-fertilizer in crop | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | production and soil fertility | | | | | | | | | | | | | |
| | Scientific cultivation of summer bottle gourd | 1 | 1 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| Crop production | Cultivation technique of okra in kharif | 1 | 1 | ON | July, 2019 to September 2019 | 02 | 3 | - | - | 20 | | 22 | 3 | 25 |
| Resource conservation technology | Management of young orchards | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| | Rootstock raising technique in nursery | 1 | 1 | OFF | | 3 | 2 | - | - | 20 | | 23 | 2 | 25 |
| Integrated nutrient management | Integrated nutrient management in kharif vegetable crop | 1 | 1 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| Crop production | Cultivation technique of Chilli | 1 | 1 | ON | October 2019 to December 2019 | 5 | | - | - | 20 | | 25 | | 25 |
| | Production technology of cauliflower crop | 1 | 1 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| Resource conservation technology | Scientific cultivation of pointed gourd | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| | Nursery raising technique in Rabi vegetable crops | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| Weed management | Integrated weed management in Rabi vegetable crops | 1 | 1 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| Integrated nutrient management | Integrated nutrient management in Rabi crop | 1 | 1 | ON | | 5 | | - | - | 20 | | 25 | | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water management | Water management techniques in different Rabi crops | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| | Cultivation of peas for vegetable | 2 | 2 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| Crop Diversification | Management potato crops for seed | 1 | 1 | OFF | Jan 2020 to March, 2020 | 5 | | - | - | 20 | | 25 | | 25 |
| | Cultivation of cucurbitaceous vegetables | 2 | 2 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| | Production technique of summer okra | 1 | 1 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| Water management | Scope of micro irrigation in cucurbitaceous vegetable crops | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| | Cultivation of better quality onion | 1 | 1 | OFF | | 5 | | - | - | 20 | | 25 | | 25 |
| | Potato based intercropping system | 2 | 2 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| **Total** | | 27 | 27 | | | 112 | 8 | | | 480 | | 592 | | 600 |

**(b) Rural youths**

| Thematic area | Title of Training | No. | Duration | Venue On/Off | Tentative Date | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | | M | F | M | F | M | F | M | F | T |
| Nursery management | Modern technique of raising summer vegetable seedling for commercial purpose | 1 | 3 | ON | April 2019 to June 2019 | 4 | 1 | - | - | 20 | | 24 | 1 | 25 |
| Integrated farming | Scientific cultivation of different kharif vegetable crops | 1 | 3 | ON | July 2019 to September 2019 | 3 | 2 | - | - | 20 | | 23 | 2 | 25 |
| Integrated nutrient management | Integrated nutrient management in different kharif vegetable crops | 1 | 3 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| Crop Production | Protected cultivation of vegetable crops | 1 | 3 | ON | October 2019 to December 2019 | 5 | | - | - | 20 | | 25 | | 25 |
| Value addition | Post-harvest management in vegetable crops | 1 | 3 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| Integrated nutrient management | Role of Bio-fertilizer and vermin-compost in vegetable crop production | 1 | 3 | ON | Jan, 2020 to March, 2020 | 5 | | - | - | 20 | | 25 | | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Integrated nutrient management | Agricultural waste management | 1 | 3 | ON | | 5 | | - | - | 20 | | 25 | | 25 |
| **Total** | | 7 | 21 | | | 35 | 3 | | | 140 | | 172 | 3 | 175 |

**(c) Extension functionaries**

| **Thrust area/ Thematic area** | **Title of Training** | **No.** | **Duration** | **Venue On/Off** | **Tentative Date** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **SC** | | **ST** | | **Other** | | **Total** | | |
| | | | | | | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **T** |
| Protected Cultivation | Cultivation of off season vegetables | 1 | 2 | ON | April , 2019 to June, 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Resource conservation technologies | Rejuvenation of old mango orchard | 1 | 2 | ON | July, 2019 to September, 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Crop production | Production technique in Kharif vegetables | 1 | 1 | ON | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Integrated nutrient management | Role of Bio-fertilizer, Vermi-compost and green manure in | 1 | 2 | ON | Jan, 2020 to March, 2020 | 5 | | - | - | 20 | - | 25 | - | 25 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | vegetable crops Production | | | | | | | | | | | | | |
| **Total** | | 4 | 7 | | | 20 | | | | 80 | | 100 | | 100 |

**Discipline: Agricultural Engineering**

**(a) Farmers and farmwomen**

| **Thematic area** | **Title of Training** | **No.** | **Duration** | **Venue On/Off** | **Tentative Date** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **SC** | | **ST** | | **Other** | | **Total** | | |
| | | | | | | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **T** |
| Post-Harvest Technology | Harvesting Implements and thresher | 2 | 1 | OFF | April, 2019 to June, 2019 | 15 | | - | - | 45 | | 60 | | 60 |
| Repair & Maintenance of farm machinery& Implements | Implements for seed bed preparation for paddy cultivation | 2 | 1 | ON | | 15 | | - | - | 50 | | 65 | | 65 |
| | Use of weeding Implements/ Machine in Sugarcane crop | 2 | 1 | ON | | 15 | | - | - | 50 | | 65 | | 65 |
| Repair & Maintenance of | Implements for paddy | 2 | 2 | ON | | 15 | | - | - | 50 | | 65 | | 65 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| farm machinery& Implements | transplanting/ sowing | | | | July, 2019 to September, 2019 | | | | | | | | | |
| Production of small tools & implements | Implements for inter culturing operation | 2 | 1 | ON/OFF | | 15 | | - | - | 50 | | 65 | | 65 |
| | Use & Benefits of poly tunnel and poly house | 2 | 1 | ON/OFF | | 15 | | - | - | 50 | | 65 | | 65 |
| Repair & Maintenance of farm machinery& Implements | Implements for sowing wheat | 2 | 2 | ON/OFF | October, 2019 to December, 2019 | 15 | | - | - | 50 | | 65 | | 65 |
| Installation and maintenance of micro irrigation system | Use of micro irrigation | 2 | 2 | ON/OFF | | 5 | | - | - | 50 | | 55 | | 55 |
| | Care & maintentenance of tractor drann implements in Agril.Use | 2 | 2 | ON/OFF | | 15 | | - | - | 50 | | 65 | | 65 |
| | Repair & maintenance of poly tunnel & poly house | 2 | 1 | ON/OFF | | 5 | | - | - | 50 | | 55 | | 55 |
| Use of plastics in farming practices | Use of plastic in farming practices | 2 | 1 | ON/OFF | Jan, 2020 to March, 2020 | 10 | | - | - | 50 | | 60 | | 60 |
| | Working function of seed processing equipments | 2 | 1 | ON/OFF | | 6 | | - | - | 14 | | 20 | | 20 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total** | 24 | 16 | | | 156 | | | | 559 | | 705 | | 705 |

**(b) Rural youths**

| **Thematic area** | **Title of Training** | **No.** | **Duration** | **Venue On/Off** | **Tentative Date** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **SC** | | **ST** | | **Other** | | **Total** | | |
| | | | | | | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **T** |
| Post-Harvest Technology | Use of different types of threshers, safety and storage structures | 1 | 2 | ON | April 2019 to June 2019 | 5 | | - | - | 15 | | 20 | | 20 |
| Repair and maintenance of farm machinery and implements | Maintenance of implements for paddy cultivation | 2 | 3 | ON | July 2019 to Sept. 2019 | 8 | | - | - | 16 | | 24 | | 24 |
| Repair and maintenance of farm machinery and implements | Maintenance of implements for wheat cultivation | 1 | 3 | ON | Oct. 2019 to Dec. 2019 | 5 | | - | - | 15 | | 20 | | 20 |
| Repair and maintenance of farm machinery and implements | Maintenance of implements for Sugarcane production | 1 | 3 | ON/OFF | Jan 2020 to March 2020 | 8 | | - | - | 18 | | 26 | | 26 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Care & maintenance of different type of plant protection equipments | 1 | 3 | ON/OFF | | 8 | | - | - | 18 | | 26 | | 26 |
| **Total** | | 6 | 14 | | | 34 | | | | 82 | | 116 | | 116 |

**(c) Extension functionaries**

| **Thrust area/ Thematic area** | **Title of Training** | **No.** | **Duration** | **Venue On/Off** | **Tentative Date** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **SC** | | **ST** | | **Other** | | **Total** | | |
| | | | | | | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **T** |
| Care and maintenance of farm machinery & implements | Implements for paddy cultivation | 1 | 1 | ON | April, 2018 to September, 2018 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| Care and maintenance of farm machinery & implements | Implements for wheat cultivation | 1 | 1 | ON | Oct. 2019 to March, 2019 | 5 | - | - | - | 20 | - | 25 | - | 25 |
| | Care & maintenance of plant protection equipments | 1 | 1 | ON | | 5 | - | - | - | 20 | - | 25 | - | 25 |
| **Total** | | 3 | 3 | | | 15 | - | - | - | 60 | - | 75 | - | 75 |

## Abstract of Training: Consolidated table (ON and OFF Campus)

## Farmers and Farm women

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| **I. Crop Production** | | | | | | | | | | | | | |
| Weed Management | 1 | 15 | 5 | 20 | 5 | - | 5 | | | | 20 | 5 | 25 |
| Resource Conservation Technologies | 3 | 45 | 15 | 60 | 10 | 5 | 15 | | | | 55 | 20 | 75 |
| Cropping Systems | 1 | 14 | 6 | 20 | 5 | - | 5 | | | | 19 | 06 | 25 |
| Crop Diversification | 5 | 78 | 22 | 100 | 15 | 10 | 25 | | | | 93 | 32 | 125 |
| Integrated Farming | | | | | | | | | | | | | |
| Water management | 2 | 28 | 12 | 40 | 7 | 3 | 10 | | | | 35 | 15 | 50 |
| Seed production | | | | | | | | | | | | | |
| Nursery management | 1 | 12 | 8 | 20 | 5 | - | 5 | | | | 17 | 8 | 25 |
| Integrated Crop Management | | | | | | | | | | | | | |
| Fodder production | | | | | | | | | | | | | |
| Production of organic inputs | | | | | | | | | | | | | |
| Others, (cultivation of crops ) | 3 | 45 | 15 | 60 | 10 | 5 | 15 | | | | 55 | 20 | 75 |
| TOTAL | **16** | **237** | **83** | **320** | **57** | **23** | **80** | | | | **294** | **106** | **400** |
| **II. Horticulture** | | | | | | | | | | | | | |
| **a) Vegetable Crops** | | | | | | | | | | | | | |
| Integrated nutrient management | | | | | | | | | | | | | |
| Water management | | | | | | | | | | | | | |
| Enterprise development | | | | | | | | | | | | | |
| Skill development | | | | | | | | | | | | | |
| Yield increment | | | | | | | | | | | | | |

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| Production of low volume and high value crops | 8 | 143 | 17 | 160 | 28 | 12 | 40 | | | | 171 | 29 | 200 |
| Off-season vegetables | | | | | | | | | | | | | |
| Nursery raising | 1 | 13 | 7 | 20 | 5 | - | 5 | | | | 18 | 7 | 25 |
| Exotic vegetables like Broccoli | | | | | | | | | | | | | |
| Export potential vegetables | | | | | | | | | | | | | |
| Grading and standardization | | | | | | | | | | | | | |
| Protective cultivation (Green Houses, Shade Net etc.) | | | | | | | | | | | | | |
| Others, if any (Cultivation of Vegetable) | 5 | 80 | 20 | 100 | 19 | 6 | 25 | | | | | | 125 |
| TOTAL | **14** | **236** | **44** | **280** | **52** | **18** | **70** | | | | **288** | **62** | **350** |
| **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 | | | | | | | | | | | | | |
| Others, if any(INM) | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **c) Ornamental Plants** | | | | | | | | | | | | | |
| Nursery Management | | | | | | | | | | | | | |
| Management of potted plants | | | | | | | | | | | | | |
| Export potential of ornamental plants | | | | | | | | | | | | | |
| Propagation techniques of Ornamental Plants | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **d) Plantation crops** | | | | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **e) Tuber crops** | | | | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| **f) Spices** | | | | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | | | | |
| Processing and value addition | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **g) Medicinal and Aromatic Plants** | | | | | | | | | | | | | |
| Nursery management | | | | | | | | | | | | | |
| Production and management technology | | | | | | | | | | | | | |
| Post harvest technology and value addition | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **III. Soil Health and Fertility Management** | | | | | | | | | | | | | |
| Soil fertility management | | | | | | | | | | | | | |
| Soil and Water Conservation | | | | | | | | | | | | | |
| Integrated Nutrient Management | | | | | | | | | | | | | |
| Production and use of organic inputs | | | | | | | | | | | | | |
| Management of Problematic soils | | | | | | | | | | | | | |
| Micro nutrient deficiency in crops | | | | | | | | | | | | | |
| Nutrient Use Efficiency | | | | | | | | | | | | | |
| Soil and Water Testing | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **IV. Livestock Production and Management** | | | | | | | | | | | | | |
| Dairy Management | | | | | | | | | | | | | |
| Poultry Management | | | | | | | | | | | | | |
| Piggery Management | | | | | | | | | | | | | |
| Rabbit Management | | | | | | | | | | | | | |
| Disease Management | | | | | | | | | | | | | |
| Feed management | | | | | | | | | | | | | |
| Production of quality animal products | | | | | | | | | | | | | |
| Others, if any (Goat farming) | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **V. Home Science/Women empowerment** | | | | | | | | | | | | | |
| Household food security by kitchen gardening and nutrition gardening | | | | | | | | | | | | | |
| Design and development of low/minimum cost diet | | | | | | | | | | | | | |

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| Designing and development for high nutrient efficiency diet | | | | | | | | | | | | | |
| Minimization of nutrient loss in processing | | | | | | | | | | | | | |
| Gender mainstreaming through SHGs | | | | | | | | | | | | | |
| Storage loss minimization techniques | | | | | | | | | | | | | |
| Enterprise development | | | | | | | | | | | | | |
| Value addition | | | | | | | | | | | | | |
| Income generation activities for empowerment of rural Women | | | | | | | | | | | | | |
| Location specific drudgery reduction technologies | | | | | | | | | | | | | |
| Rural Crafts | | | | | | | | | | | | | |
| Capacity building | | | | | | | | | | | | | |
| Women and child care | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **VI.Agril. Engineering** | | | | | | | | | | | | | |
| Installation and maintenance of micro irrigation systems | 3 | 50 | 10 | 60 | 15 | - | 15 | | | | 65 | 10 | 75 |
| Use of Plastics in farming practices | 4 | 80 | - | 80 | 20 | - | 20 | | | | 100 | - | 100 |
| Production of small tools and implements | 4 | 80 | - | 80 | 20 | - | 20 | | | | 100 | | 100 |
| Repair and maintenance of farm machinery and implements | 7 | 120 | 20 | 140 | 35 | - | 35 | | | | 155 | 20 | 175 |
| Small scale processing and value addition | | | | | | | | | | | | | |
| Post Harvest Technology | 2 | 40 | - | 40 | 10 | - | 10 | | | | 50 | - | 50 |
| Others, if any | 1 | 20 | - | 20 | 5 | - | 5 | | | | 25 | - | 25 |
| TOTAL | **21** | **390** | **30** | **420** | **105** | | **105** | | | | **495** | **30** | **525** |
| **VII. Plant Protection** | | | | | | | | | | | | | |
| Integrated Pest Management | 24 | 440 | 40 | 480 | 102 | 18 | | | | | 542 | 58 | 600 |
| Integrated Disease Management | | | | | | | | | | | | | |
| Bio-control of pests and diseases | | | | | | | | | | | | | |
| Production of bio control agents and bio pesticides | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | **24** | **440** | **40** | **480** | **102** | **18** | **120** | | | | **542** | **58** | **600** |

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| **VIII. Fisheries** | | | | | | | | | | | | | |
| Integrated fish farming | | | | | | | | | | | | | |
| Carp breeding and hatchery management | | | | | | | | | | | | | |
| Carp fry and fingerling rearing | | | | | | | | | | | | | |
| Composite fish culture & fish disease | | | | | | | | | | | | | |
| Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **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 | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **X. Capacity Building and Group Dynamics** | | | | | | | | | | | | | |
| Leadership development | | | | | | | | | | | | | |
| Group dynamics | | | | | | | | | | | | | |
| Formation and Management of SHGs | | | | | | | | | | | | | |
| Mobilization of social capital | | | | | | | | | | | | | |

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| Entrepreneurial development of farmers/youths | | | | | | | | | | | | | |
| WTO and IPR issues | | | | | | | | | | | | | |
| Others, if any | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **XI Agro-forestry** | | | | | | | | | | | | | |
| Production technologies | | | | | | | | | | | | | |
| Nursery management | | | | | | | | | | | | | |
| Integrated Farming Systems | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | |
| **XII. Others (Pl. Specify)** | | | | | | | | | | | | | |
| **TOTAL** | **75** | **1303** | **197** | **1500** | **316** | **59** | **375** | | | | **1619** | **256** | **1875** |

## Rural youth

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| Mushroom Production | 2 | 30 | 10 | 40 | 10 | 10 | 20 | - | - | - | 40 | 20 | 60 |
| Bee-keeping | 2 | 30 | 10 | 40 | 10 | 10 | 20 | - | - | - | 40 | 20 | 60 |
| Integrated farming | 2 | 32 | 8 | 40 | 6 | 4 | 10 | - | - | - | 38 | 12 | 50 |
| Seed production | | | | | | | | | | | | | |
| Production of organic inputs | | | | | | | | | | | | | |
| Planting material production | | | | | | | | | | | | | |
| Vermi-culture | | | | | | | | | | | | | |
| Sericulture | | | | | | | | | | | | | |
| Protected cultivation of vegetable crops | 2 | 30 | 10 | 40 | 6 | 4 | 10 | - | - | - | 50 | - | 50 |
| Commercial fruit production | | | | | | | | | | | | | |
| Repair and maintenance of farm machinery and implements | 4 | 48 | 16 | 64 | 10 | 6 | 16 | - | - | - | 58 | 22 | 80 |
| Nursery Management of Horticulture crops | 2 | 40 | - | 40 | 10 | - | 10 | - | - | - | 50 | - | 50 |
| Training and pruning of orchards | | | | | | | | | | | | | |
| Value addition | 2 | 40 | - | 40 | 10 | - | 10 | - | - | - | 50 | - | 50 |

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| 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 | 2 | 30 | - | 30 | 10 | - | 10 | - | - | - | 40 | - | 40 |
| Tailoring and Stitching | | | | | | | | | | | | | |
| Rural Crafts | | | | | | | | | | | | | |
| Enterprise development | | | | | | | | | | | | | |
| Others if any (ICT application in agriculture) | | | | | | | | | | | | | |
| TOTAL | **18** | **280** | **54** | **334** | **72** | **34** | **106** | | | | **352** | **88** | **440** |

## Extension functionaries

| Thematic Area | No. of Courses | No. of Participants | | | | | | | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Other | | | SC | | | ST | | | | | |
| | | M | F | T | M | F | T | M | F | T | M | F | T |
| Productivity enhancement in field crops | 1 | 15 | 5 | 20 | 5 | - | 5 | - | - | - | 20 | 5 | 25 |
| Integrated Pest Management | 1 | 20 | - | 20 | 3 | 2 | 5 | - | - | - | 23 | 2 | 25 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Integrated Nutrient management | 1 | 13 | 7 | 20 | 4 | 1 | 5 | - | - | - | 17 | 8 | 25 |
| Rejuvenation of old orchards | 1 | 20 | - | 20 | 5 | - | 5 | - | - | - | 25 | - | 25 |
| Value addition | | | | | | | | | | | | | |
| Protected cultivation technology | 1 | 16 | 4 | 20 | 5 | - | 5 | - | - | - | 21 | 4 | 25 |
| 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 | 3 | 48 | 12 | 60 | 8 | 7 | 15 | | | | 56 | 19 | 75 |
| WTO and IPR issues | | | | | | | | | | | | | |
| Management in farm animals | | | | | | | | | | | | | |
| Livestock feed and fodder production | | | | | | | | | | | | | |
| Household food security | | | | | | | | | | | | | |
| Women and Child care | | | | | | | | | | | | | |
| Low cost and nutrient efficient diet designing | | | | | | | | | | | | | |
| Production and use of organic inputs | | | | | | | | | | | | | |
| Gender mainstreaming through SHGs | | | | | | | | | | | | | |
| Crop intensification | | | | | | | | | | | | | |
| Others if any | | | | | | | | | | | | | |
| TOTAL | **8** | **132** | **28** | **160** | **30** | **10** | **40** | | | | **162** | **38** | **200** |

## 3. Frontline demonstration to be conducted*

**Crop**: Wheat

**Thrust Area**: Promotion of productivity of wheat
**Thematic Area**: Crop production
**Season**: Rabi 2019-20
**Farming Situation**: Irrigated

**Crop**: Lentil
**Thrust Area**: Promotion of productivity of Lentil
**Thematic Area**: Crop production
**Season**: Rabi 2019-20
**Farming Situation**: Irrigated

**Crop**: Paddy
**Thrust Area**: Promotion of productivity of Paddy
**Thematic Area**: Crop production
**Season**: Kharif 2019-20
**Farming Situation**: Irrigated

**Crop**: Mustard
**Thrust Area**: Promotion of productivity of Mustard
**Thematic Area**: Crop production
**Season**: Rabi 2019-20
**Farming Situation**: Irrigated

| Sl. No. | Crop & variety / Enterprises | Proposed Area (ha)/ Unit (No.) | Technology package for demonstration | Parameter (Data) in relation to technology demonstrated | Cost of Cultivation (Rs.) | | | No. of farmers / demonstration | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | Name of Inputs | Demo | Local | M | F | M | F | M | F | M | F | T |
| 1 | Wheat HD 2967 | 5 | Variety and application weedicides for weed management | Yield attributes, dry weight of weed per unity area | Seed and herbicides | 34000 | 29000 | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |
| | | | | | | | | | | | | | | | | |

| Sl. No. | Crop & variety / Enterprises | Proposed Area (ha)/ Unit (No.) | Technology package for demonstration | Parameter (Data) in relation to technology demonstrated | Cost of Cultivation (Rs.) | | | No. of farmers / demonstration | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | Name of Inputs | Demo | Local | M | F | M | F | M | F | M | F | T |
| 1 | Lentil | 10 | Use of Chemical pesticides , biofertilizer and biopesticide | Disease incidence, disease severity | Hexaconazole/ Propiconazole/ PSB/ Rhizobium/ Use of *Trichoderma viride* | 22000 | 17000 | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |
| | | | | | | | | | | | | | | | | |

| Sl. No. | Crop & variety / Enterprises | Proposed Area (ha)/ Unit (No.) | Technology package for demonstration | Parameter (Data) in relation to technology demonstrated | Cost of Cultivation (Rs.) | | | No. of farmers / demonstration | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | Name of Inputs | Demo | Local | M | F | M | F | M | F | M | F | T |
| 1 | Paddy | 5 | Co-51 | Yield attributes | Seed | 30000 | 28000 | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |
| | | | | | | | | | | | | | | | | |

| Sl. No. | Crop & variety / Enterprises | Proposed Area (ha)/ Unit (No.) | Technology package for demonstration | Parameter (Data) in relation to technology demonstrated | Cost of Cultivation (Rs.) | | | No. of farmers / demonstration | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | Name of Inputs | Demo | Local | M | F | M | F | M | F | M | F | T |
| 1 | Mustard | 5 | Use of chemical pesticide for management of stem rot and aphid | Yield attributes, disease incidence, disease severity, insect infestation per cent | Seed | 21000 | 17000 | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |
| | | | | | | | | | | | | | | | | |

**Extension and Training activities under FLD:**

| Activity | Title of Activity | No. | Clientele | Duration | Venue On/Off | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | SC | | ST | | Other | | Total | | |
| | | | | | | M | F | M | F | M | F | M | F | T |
| Training | Scientific cultivation of wheat | 01 | | 1 | ON | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |
| Training | Scientific cultivation of Lentil | 01 | | 1 | ON | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |
| Training | Scientific cultivation of Paddy | 01 | | 1 | ON | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |
| Training | Scientific cultivation of Mustard | 01 | | 1 | ON | 2 | 1 | - | - | 20 | 2 | 22 | 3 | 25 |

* Repeat the above tables and information in Point no. 4 for EACH FLD being proposed.

**4. a) Seed and planting material production by utilization of instructional farm (Crops / Enterprises)**

| Name of the Crop / Enterprise | Variety / Type | Period From…… to …….. | Area (ha.) | Details of Production | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Type of Produce | Expected Production (quintals) | Cost of inputs (Rs.) | Expected Gross income (Rs.) | Expected Net Income (Rs.) |
| Paddy | R. Shweta | July 2019 to October 2019 | 2 | F/S | 70-80 | 56000 | 325000 | 269000 |
| Wheat | HD 2733 | Nov 2019 to April 2020 | 2.5 | F/S | 90 | 55000 | 355000 | 300000 |
| Lentil | HUL 57 | Nov 2019 to March 2020 | 1 | F/S | 7 | 18000 | 98000 | 80000 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**b) Village Seed Production Programme**

| Name of the Crop / Enterprise | Variety / Type | Period From…… to …….. | Area (ha.) | No. of farmers | Details of Production | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Type of Produce | Expected Production(q) | Cost of inputs (Rs.) | Expected Gross income (Rs.) | Expected Net Income (Rs.) |
| | | | | | | | | | |
| | | | | | | | | | |

## 5. Extension Activities

| Sl. No. | Activities/ Sub-activities | No. of activities proposed | Farmers | | | | Extension Officials | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | M | F | T | SC / ST (% of total) | Male | Female | Total | Male | Female | Total |
| 1. | Field Day | 04 | 125 | 07 | 132 | - | - | - | - | 125 | 07 | 132 |
| 2. | KisanMela | 01 | 88 | - | 88 | - | - | - | - | 88 | - | 88 |
| 3. | KisanGhosthi | 02 | 76 | 05 | 81 | - | - | - | - | 76 | 05 | 81 |
| 4. | Exhibition | | | | | | | | | | | |
| 5. | Film Show | | | | | | | | | | | |
| 6. | Method Demonstrations | | | | | | | | | | | |
| 7. | Farmers Seminar | | | | | | | | | | | |
| 8. | Workshop | | | | | | | | | | | |
| 9. | Group meetings | | | | | | | | | | | |
| 10. | Lectures delivered as resource persons | 14 | 1388 | 25 | 1413 | | | | | 1388 | 25 | 1413 |
| 11. | Advisory Services | | | | | | | | | | | |
| 12. | Scientific visit to farmers field | | 112 | - | 112 | - | - | - | - | 112 | - | 112 |
| 13. | Farmers visit to KVK | | 1785 | 192 | 1977 | - | - | - | - | 1785 | 192 | 1977 |
| 14. | Diagnostic visits | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15. | Exposure visits | | | | | | | | | | | |
| 16. | Ex-trainees Sammelan | | | | | | | | | | | |
| 17. | Soil health Camp | | | | | | | | | | | |
| 18. | Animal Health Camp | 02 | 155 | 33 | 188 | - | - | - | - | 155 | 33 | 188 |
| 19. | Agri mobile clinic | | | | | | | | | | | |
| 20. | Soil test campaigns | | | | | | | | | | | |
| 21. | Farm Science Club Conveners meet | 01 | 99 | 26 | 125 | - | - | - | - | 99 | 26 | 125 |
| 22. | Self Help Group Conveners meetings | | | | | | | | | | | |
| 23. | MahilaMandals Conveners meetings | | | | | | | | | | | |
| 24. | Celebration of important days (specify) | 01 | 78 | 22 | 100 | - | - | - | - | 78 | 22 | 100 |
| 25. | Sankalp Se Siddhi | | | | | | | | | | | |
| 26. | Swatchta Hi Sewa | 01 | 40 | 06 | 46 | - | - | - | - | 40 | 06 | 46 |
| 27. | Mahila Kisan Diwas | 01 | - | 39 | 39 | - | - | - | - | - | 39 | 39 |
| 28. | Any Other (Specify) | | | | | | | | | | | |
| | Total | 27 | 3946 | 355 | 4301 | | | | | 3946 | 355 | 4301 |

**6. Revolving Fund (in Rs.)**

| Opening balance of 2019-2020 (As on 01.04.2019) | Amount proposed to be invested during 2019-2020 | Expected Return |
|---|---|---|
| **5,90,400** | **3,00,000** | **7,00,000** |

**7. Expected fund from other sources and its proposed utilization**

| Project | Source | Amount to be received (Rs. in lakh) |
|---|---|---|
| | | |
| | | |
| | | |

**9. On-farm trials to be conducted***

**i.** **Season: Summer**

1. **Title of the OFT:** Potentiality of Sugarcane based intercropping system

**ii.** **Thematic Area:** Crop production

**iii.** **Problem diagnosed:** Improper utilization of cultivable space in sugarcane at initial stage leads to suffer additional income

**iv.** **Important Cause:** Farmers are getting less income

**v.** **Production system:** Rice-wheat

**vi.** **Micro farming system:** Irrigated, mid land and sandy loam

**vii.** **Technology for Testing: Sugarcane based intercropping**

**viii.** **Existing Practice:** Sole crop of Sugarcane

**ix.** **Hypothesis: Introduction of Sugarcane based intercropping to remunerate the farmers more**

**x.** **Objective(s): Economical upgradation of farmers**

**xi.** **Treatments:**

Farmers Practice (FP): Sole crop of Sugarcane

Technology option-I (TO-I): Sugarcane + Cowpea

Technology option-II (TO-II): Sugarcane + Green gram

**xii.** **Critical Inputs: Seed, fertilizer and pesticide**

xiii. **Unit Size: 0.5 acre**
xiv. **No of Replications: 06**
xv. **Unit Cost: 3000**
xvi. **Total Cost: 18000**
xvii. **Monitoring Indicator:** Germination %, number of tillers, plant height, cane girth, single cane weight, yield ( t $ha^{-1}$), yield equivalence, LER and B:C ratio
xviii. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** Indian Institute of Sugarcane Research, Lucknow, UP

xix. **Season: Winter**

2. **Title of the OFT:** Weed management in Sugarcane
xx. **Thematic Area:** Crop production
xxi. **Problem diagnosed: infestation of weed causes heavy loss**
xxii. **Important Cause: yield loss**
xxiii. **Production system: Rice - wheat**
xxiv. **Micro farming system:** Irrigated, mid land and sandy loam
xxv. **Technology for Testing: Weed management**
xxvi. **Existing Practice:** No use of weedicide
xxvii. **Hypothesis: Timely application of herbicides for weed management**
xxviii. **Objective(s): To increase the yield of farmers**
xxix. **Treatments:**
Farmers Practice (FP): No use of weedicide
Technology option-I (TO-I): Atrazine @ 3 kg/ha as pre-emergence application + 2,4- D @ 1kg/ ha after 60 DAP
Technology option-II (TO-II): Atrazine @ 3 kg/ha as pre-emergence application + 2,4- D @ 1kg/ ha after 60 DAP + Carfentrazone @ 20 gm a.i./ ha at 120 DAP
xxx. **Critical Inputs: Labour and herbicides**
xxxi. **Unit Size: 0.5 acre**
xxxii. **No of Replications: 07**
xxxiii. **Unit Cost: 2000**
xxxiv. **Total Cost: 14000**
xxxv. **Monitoring Indicator: Dry weight of weed per unit area, yield attributing character, yield and economcs**
xxxvi. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify): IISR, Lucknow**

**xxxvii.** **Season: Kharif**

3. **Title of the OFT:** Management of Root - Knot nematode *Meloidogyne incognita* in Tomato

**xxxviii.** **Thematic Area:** Plant protection

**xxxix.** **Problem diagnosed:** Galls in root, Stunting of Plants , hampering bearing

**xl.** **Important Cause: economic losses**

**xli.** **Production system: Rice- wheat**

**xlii.** **Micro farming system:** Irrigated, mid land and sandy loam

**xliii.** **Technology for Testing: Management of root knot nematode in tomato**

**xliv.** **Existing Practice:** Improper use of pesticide

**xlv.** **Hypothesis: Management of root knot nematode**

**xlvi.** **Objective(s):To increase the yield and income of farmers**

**xlvii.** **Treatments:**

Farmers Practice (FP): Improper use of pesticide

Technology option-I (TO-I): Soil solarization + use of neem cakes @ 1 t/ha

Technology option-II (TO-II): Soil solarization 15 days + Carbofuran 1 kg a.i./ha

Technology option-III (TO-III): Use of *Pseudomonas fluorescens* 1 % WP @ 50g/$m^2$

Technology option-IV (TO- IV): Soil solarization 15 days + P. fluorescens 1 % WP @ 50g/$m^2$

**xlviii.** **Critical Inputs: Pesticides and labours**

**xlix.** **Unit Size:0.5 acre**

**l.** **No of Replications: 05**

**li.** **Unit Cost: 1500**

**lii.** **Total Cost: 7500**

**liii.** **Monitoring Indicator:** No. of root galls, yield & complex disease symptom

**liv.** **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** IARI, New Delhi

**lv.** **Season: Kharif**

4. **Title of the OFT:** Management of Pod Borer (*Helicoverpa armigera* ) in Pigeon Pea

**lvi.** **Thematic Area:** IPM

**lvii.** **Problem diagnosed:** Tunneling in Pods, larval population in pods, caterpillars destroy buds flowers, pods and reduction in yield

**lviii.** **Important Cause: Economic losses to farmers due to pod borer**

**lix.** **Production system: Rice-wheat**

**lx.** **Micro farming system:** Irrigated, mid land and sandy loam

**lxi.** **Technology for Testing: Management of pod borer**

**lxii.** **Existing Practice:** Improper use of Insecticide

**lxiii.** **Hypothesis: Proper application of chemical pesticides for borers**

**lxiv.** **Objective(s): To enhance the yield and economics of farmers**

**lxv.** **Treatments:**

Farmers Practice (FP): Improper use of Insecticide

Technology option-I (TO-I): Installation of *Helicoverpa armigera* pheromone traps @ 10 traps/ha

Technology option-II (TO-II): Spraying of Emamectin Benzoate 5% SG @ 0.5 g/ L after 25% pod stage and second spray after 15 days with Cypermethrin 25 EC @ 0.15% wate

Technology option-III (TO-III): Spraying of Profenophos 50% EC @ 2ml/L water after 25% of pod stage and 2nd spray after 15 days with Indoxacarb 14.5% SC @ 0.3 ml/L water

Technology option-IV (TO- IV): Spraying of Bio-pesticide Bt @ 5g/L + HaNPV 250 LE with 0.5% jaggery & 0.1% Boric acid

**lxvi.** **Critical Inputs: Chemical pesticides and labour**

**lxvii.** **Unit Size:0.5 acre**

**lxviii.** **No of Replications: 05**

**lxix.** **Unit Cost: 2000**

**lxx.** **Total Cost: 1000**

**Monitoring Indicator:** % of Tunneling in pods, Chaffy andshrivelled grains, Low yield

**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** UAS Dharwad, Karnataka

**lxxi. Season: Summer**

**5 . Title of the OFT:** Compatibility assessment of fungicide and insecticide for the management of Alternaria blight and white fly of Bottle Gourd.

**lxxii. Thematic Area:** IPM

**lxxiii. Problem diagnosed: Unawareness about the compatibility betweenpesticide and fungicide**

**lxxiv. Important Cause: Incompatible pesticides mixing creates phytotoxic effect**

**lxxv. Production system: Rice- Wheat**

**lxxvi. Micro farming system:** Irrigated, mid land and sandy loam

**lxxvii. Technology for Testing:** Compatibility assessment of fungicide and insecticide for the management of Alternaria blight and white fly of Bottle Gourd.

**lxxviii. Existing Practice:** Improper and imbalanced application of pesticides

**lxxix. Hypothesis: Incompatible pesticides mixing creates phytotoxic effect**

**lxxx. Objective(s): To save the time, energy and money of the farmers**

**lxxxi. Treatments:**

Farmers Practice (FP): Improper and imbalanced application of pesticides

Technology option-I (TO-I): Three times spray of Hexaconazole 5% EC @ 0.15% solution

Technology option-II (TO-II): Three times spray of Hexaconazole 5% EC + Acetamiprid 20% SP @ 0.03% solution

Technology option-III (TO-III): Three times spray of Acetamiprid 20% SP @ 0.03%

**lxxxii. Critical Inputs: Chemical pesticides and labour**

**lxxxiii. Unit Size:0.5 acre**

**lxxxiv. No of Replications: 05**

**lxxxv. Unit Cost: 1500**

**lxxxvi. Total Cost: 7500**

**lxxxvii. Monitoring Indicator: yield, economics, % disease incidence and number of insects per leaf**

**lxxxviii. Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify): Annamalai University, Tamil Nadu**

**lxxxix. Season: Kharif**

**6. Title of the OFT:** Evaluation of Fungicides Against Sheath Blight (*Rhizoctonia solani*) of Paddy

**xc. Thematic Area:** Plant protection

**xci. Problem diagnosed:** Yield losses due to severe incidence of Sheath blight in paddy

**xcii. Important Cause: Sheath blight reduce yield heavily**

**xciii. Production system:Rice- wheat**

xciv. **Micro farming system:** Irrigated, mid land and sandy loam

xcv. **Technology for Testing: Management of sheath blight in paddy**

xcvi. **Existing Practice:** Control

xcvii. **Hypothesis: Paddy sheath blight management**

xcviii. **Objective(s): Yield enhancement and ultimately income of farmers**

xcix. **Treatments:**

Farmers Practice (FP): Contro

Technology option-I (TO-I): Seedling treatment with Validamycin 3 % SL @ 0.1% solution + two spray of Carbendazim 50% WP @ 0.1% in the main field

Technology option-II (TO-II): Seedling treatment with Propiconazole 25% EC @ 0.15%+ two spray of Propiconazole 25% @ 0.1% in the main field

Technology option-III (TO-III): Seedling treatment with Tabuconazole 25% EC @ 0.15% + two spray of Tabuconazole 25% EC @ 0.15% in the main field

c. **Critical Inputs: Labour and chemical psticides**

ci. **Unit Size:0.5 acre**

cii. **No of Replications: 05**

ciii. **Unit Cost: 1500**

civ. **Total Cost: 7500**

cv. **Monitoring Indicator:** Disease incidence, Disease severity, Yield

cvi. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** Annamalai University, Tamil Nadu

cvii. **Season: Winter**

**7. Title of the OFT:** Influence of Different Planting dates on Late Blight Incidence and Yield of Potato

cviii. **Thematic Area:** Horticulture

cix. **Problem diagnosed:** Low yield of Potato due to severity of late blight

cx. **Important Cause: Untimely sowing of potato invites more severity of late blight**

cxi. **Production system: Rice-wheat**

cxii. **Micro farming system: irrigated, midland and sandy loam**

cxiii. **Technology for Testing: Effect of time of sowing on late blight and yield of potato**

cxiv. **Existing Practice:** Planting date on 15 October

cxv. **Hypothesis: Proper sowing time of potato increases the yield by reducing the late blight incidence**

cxvi. **Objective(s): To enhance yield and economics of farmers**

**cxvii.** **Treatments:**
Farmers Practice (FP): Planting date on 15 October
Technology option-I (TO-I): Planting date on 25 October
Technology option-II (TO-II): Planting date on 5 November
Technology option-III (TO-III): Planting date on 15 November

**cxviii.** **Critical Inputs: Seed and labour**

**cxix.** **Unit Size:0.5 acre**

**cxx.** **No of Replications: 05**

**cxxi.** **Unit Cost: 2000**

**cxxii.** **Total Cost: 10000**

**cxxiii.** **Monitoring Indicator:** Tuber yield, Disease incidence, Disease severity, B:C ratio

**cxxiv.** **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** NDUAT, Faizabad, UP

**cxxv.** **Season: Winter**

**8.Title of the OFT:** Effect of Intercropping on yield and economics of potato

**cxxvi.** **Thematic Area:** Horticulture

**cxxvii.** **Problem diagnosed:** Low income and less risk coverage

**cxxviii.** **Important Cause:** Farmers are getting less income

**cxxix.** **Production system:Rice- wheat**

**cxxx.** **Micro farming system: Irrigated, midland and sandy loam**

**cxxxi.** **Technology for Testing: Potato based intercropping system**

**cxxxii.** **Existing Practice:** Potato (Sole)

**cxxxiii.** **Hypothesis: Introduction of Potato based intercropping to remunerate the farmers more**

**cxxxiv.** **Objective(s): Economical upgradation of farmers**

**cxxxv.** **Treatments:**
Farmers Practice (FP): Potato (Sole)
Technology option-I (TO-I): Potato + Bottle Gourd (4:1)
Technology option-II (TO-II): Potato + Cabbage (1:1)
Technology option-III (TO-III): Potato + Water melon (4:1)

**cxxxvi.** **Critical Inputs: Seed and labour**

**cxxxvii.** **Unit Size:0.5 acre**

**cxxxviii.** **No of Replications: 05**

cxxxix. **Unit Cost: 2000**

cxl. **Total Cost: 10000**

cxli. **Monitoring Indicator:** Tuber yield, Yield equivalence, Plant population, Land equivalent ratio, B:C ratio

cxlii. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh

cxliii. **Season: Kharif**

8. **Title of the OFT:** Assessment of Manpower management through various methods of sowing of rice

cxliv. **Thematic Area:** Agricultural Engineering

cxlv. **Problem diagnosed:** Uneven distribution and crisis of labourers resulting in delay in transplanting and affect the yield

cxlvi. **Important Cause: More cost is incurred on labours**

cxlvii. **Production system: Rice- wheat**

cxlviii. **Micro farming system: Irrigated, midland and sandy loam**

cxlix. **Technology for Testing: Assessment of manpower**

cl. **Existing Practice:** Manual transplanting

cli. **Hypothesis: More cost is involved and to reduce the the cost of cultivation**

clii. **Objective(s): To enhance the B:C ratio**

cliii. **Treatments:**

Farmers Practice (FP): Manual transplanting
Technology option-I (TO-I): Sowing of paddy seeds by rice wheat seeder
Technology option-II (TO-II): Sowing of sprouted paddy seeds by drum seeder

cliv. **Critical Inputs: Seed and Labour**

clv. **Unit Size:0.5 acre**

clvi. **No of Replications: 07**

clvii. **Unit Cost: 1000**

clviii. **Total Cost: 7000**

clix. **Monitoring Indicator:** Weeding in sugarcane crop is generally done by spade which is more time consuming and labour intensive

clx. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** Punjab Agricultural University, Ludhiana, Punjab

clxi. **Season: Summer**

9. **Title of the OFT:** Evaluation of different weeding practices in sugarcane cultivation

clxii. **Thematic Area:** Agricultural Engineering

clxiii. **Problem diagnosed:** Weeding in sugarcane crop is generally done by spade which is more time consuming and labour intensive

clxiv. **Important Cause: Manual weeding is more costly to farmers**

clxv. **Production system: Rice-wheat**

clxvi. **Micro farming system: Irrigated, midland and sandy loam**

clxvii. **Technology for Testing: Introduction of small agricultural tools**

clxviii. **Existing Practice:** Manual weeding by spade

clxix. **Hypothesis: Assessment of different weeding practices in Sugarcane**

clxx. **Objective(s): To enhance the income of farmers**

clxxi. **Treatments:**

Farmers Practice (FP): Manual weeding by spade

Technology option-I (TO-I): Application of atrazine @ 3.0 kg $ha^{-1}$ within 2-3 Days after planting followed by application of 2,4-D @ 1.5 kg $ha^{-1}$ at 55-60 days after planting

Technology option-II (TO-II): Weeding by power weeder

clxxii. **Critical Inputs: Weedicides and labour**

clxxiii. **Unit Size:0.5 acre**

clxxiv. **No of Replications: 07**

clxxv. **Unit Cost: 1500**

clxxvi. **Total Cost: 10500**

clxxvii. **Monitoring Indicator:** Weed mortality (%), yield, net return, B:C ratios

clxxviii. **Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify):** Indian Institute of Sugarcane Research, Lucknow, UP

*Repeat the same format for EACH OFT being proposed.

**10. List of Projects to be implemented by funding from other sources (other than KVK fund)**

| Sl. No. | Name of the project | Fund expected (Rs.) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

**11. No. of success stories proposed to be developed with their tentative titles**

**12. Scientific Advisory Committee**

| Date of SAC meeting held during 2018-19 | Proposed date during 2019-2020 |
|---|---|
| 5 July 2018 | 10 August 2019 |

**13. Soil and water testing**

| Details | No. of Samples | No. of Farmers | | | | | | | | | No. of Villages | No. of SHC distributed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SC | | ST | | Other | | Total | | | | |
| | | M | F | M | F | M | F | M | F | T | | |
| Soil Samples | 250 | 25 | - | - | - | 225 | - | 250 | - | 250 | 8 | |
| Water Samples | | | | | | | | | | | | |
| Other (Please specify) | | | | | | | | | | | | |
| Total | | | | | | | | | | | | |

**14. Fund requirement and expenditure (Rs.)***

| Heads | Expenditure (last year) (Rs.) up to 31.03.2019 | Expected fund requirement (Rs.) |
|---|---|---|
| Pay & Allowances | **58,77,870** | **90,00,000** |
| General Head | **19,57,149** | **11,00,000** |
| Capital Head (Non Recurring) | **0** | **7,00,000** |
| | | |
| | | |
| | | |
| **Total** | **78,35,019** | **1,08,00,000** |

* Any additional requirement may be suitably justified.

**District Profile:**

| Sl. no. | Item | Information |
|---|---|---|
| 1 | Major Farming system/enterprise | Crop based farming system,Horticulture based system,Vermiculture ,Organic farming system |
| 2 | Agro-climatic Zone | The climate of this zone is characterised by three distinct season i.e cool –dry winter, hot dry summer and warm wet rainy season having tropical humid to sub humid type. The average rainfall in the district ranges from 1000 to 1300 mm per annum. Average relative humidity in the morning and evening is 90 and 60 percent respectively. The land of this zone is alluvial plains having sandy loam to clay loam light in texture with neutral to alkaline in reaction (PH 7-8.5) and salt concentration is low to high. Most of the soils are very low to medium in organic carbon, available $P_2O_5$ and $K_2O$ contents. The Soil district is deficient in Zinc (66%),boron (38%) and sulphur (25%) respectively |
| 3 | Agro ecological situation | **Upland-** Sandy loam soil, flat topography, easy in tillage operation, water table medium.<br>**Mid land –**Loamy in texture, flat topography, low water holding capacity, water logging for a shorter period.<br>**Chaur land-**Heavy soil, clay loam in texture, tillage a bit difficult, high water table. |
| 4 | Soil type | **Sandy loam-** Light soil, pH 7.8-8.5, low fertility status, deficient in<br>P, K, Zn, Fe, S and B with low organic carbon.<br>**Loam-**Medium soil, pH 8.0-8.5, low to medium fertility status, deficient in P, K, Zn, Fe, B and S, low in organic carbon.<br>**Clay loam-**Medium to heavy texture, pH 7-8.5, low to medium fertility status, deficient in P, Zn and S with low in organic carbon |

| | | |
|---|---|---|
| 5 | Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others | **Crops** **Productivity (Kg /ha)**<br>Wheat- 3100<br>Maize- 5200<br>Paddy- 3600<br>Lentil- 1157<br>Moong- 860<br>Mustard- 675<br>Sugar Cane- 45000 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | Mean yearly temperature, rainfall, humidity of the district | Yearly Mean (April-2018) to March-19 | Temperature (0°C) | | R. H. (%) | | Rainfall |
| | | | Max. | Min. | 7 AM | 2 PM | |
| | | | **37.26** | **21.86** | | | **0.46** |
| | | | **35.9** | **26.93** | | | **0.83** |
| | | | **32.16** | **26.09** | | | **12.29** |
| | | | **33.00** | **26.00** | | | **06.35** |
| | | | **32.13** | **24.87** | | | **03.80** |
| | | | **31.61** | **20.26** | | | **0** |
| | | | **28.63** | **14.83** | | | **0** |
| | | | **24.52** | **10.71** | | | **0.03** |
| | | | **22.87** | **09.45** | | | **0.13** |
| | | | **26.25** | **11.86** | | | **0.43** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | **29.87** | **16.90** | | | **0.13** |
| | | | **37.20** | **21.87** | | | **0.23** |
| 7 | Production of major livestock products like milk, egg, meat etc. | NA | | | | | |

**Awards:**

| **Sl. No.** | **Name of the Award** | **Year** | **Conferring Authority** | **Amount** | **Purpose** |
|---|---|---|---|---|---|
| 1. | Fellow of CHAI award | 2018 | Confederation of Horticulture Association of India | - | Revived and percolated papaya cultivation in Bihar state. |
| 2. | Excellence in Extension award | 2018 | Agro Environmental Development Society | - | Transferred the technology for the management of gummosis disease in mango |

**Facilities:**

A) Vehicles

| Type of vehicle | Year of purchase | Cost (Rs.) | Total km. Run | Present status |
|---|---|---|---|---|
| Bolero Jeep | 2006 | 440525 | 202723 | Running |
| Tractor | 2006 | 334500 | 1471 | Running |
| Motorcycle (BR55B/0852) | 2016 | 50338 | 2611 | Running |
| Motorcycle (BR55B/0853) | 2016 | 50338 | 2729 | Running |

B) Equipment & AV aids

| Name of equipment | Year of purchase | Cost (Rs.) | Present status | Source of fund |
|---|---|---|---|---|
| a. Lab equipment | | | | |
| Metal Cabinet | 05.12.2014 | 4725.00 | Running | ICAR |
| Imprison digital | 05.12.2014 | 13250.00 | Running | ICAR |
| b. Farm machinery | | | | |
| - | - | - | - | - |
| | | | | |

| | | | | |
|---|---|---|---|---|
| c. AV Aids | | | | |
| HP-DX-2280 (INI 703537) | 2007 | 32000.00 | Out of order | ICAR |
| HP-MT-1000 (CN 64133070) | 2007 | 6800.00 | Out of order | ICAR |
| HP-15 LCD monitor (CN 631QFM8) | 2007 | 3950.00 | Running | ICAR |
| HP-SJ-2400P (CN-67CSR2FD) | 2007 | | Out of order | ICAR |
| Laser Jet-1020 (CNCKS 17291) | 2007 | | Out of order | ICAR |
| SONY Cyber Shot DSLR-A 200 | 14.02.2009 | 24990.00 | Running | ICAR |
| L.C.D Projector | 11.09.2013 | 73100.00 | Running | ICAR |
| Step liger 5kv | 05.06.2014 | 10000.00 | Running | ICAR |
| Inverter | 02.12.2013 | 14537.00 | Running | ICAR |
| Battery | 02.12.2013 | 5238.09 | Running | ICAR |

C) Farm implements

| Name of equipment | Year of purchase | Cost (Rs.) | Present status | Source of fund |
|---|---|---|---|---|
| MF 1035 DIT | 2006 | 328738 | Running | ICAR |
| MF-14 disc harrow | 2006 | 21635 | Running | ICAR |

| | | | | |
|---|---|---|---|---|
| MFMB Plough (4 furrow) | 2006 | 16058 | Running | ICAR |
| Hydraulic trailer Ajanta made | 2006 | 62500 | Running | ICAR |
| Cultivator 9/11 | 2006 | 9423 | Running | ICAR |
| Cage wheel | 2006 | 5192 | Running | ICAR |
| Leveler | 2006 | 7692 | Running | ICAR |
| Viking tractor drown reaper | 2011 | 57750 | Running | ICAR |
| Cultivator -11tyne | 2012 | - | Running | ICAR |
| Rotavator | 2012 | - | Running | ICAR |
| Zero tillage multi crop seed cum fertilizer drill | 2006 | 22000 | Out of order | _ |
| Zero tillage multi crop seed cum fertilizer drill (DTSD-T9) | 2011 | 39480 | Out of order | _ |
| Gator Machine | 2013 | 4950 | Running | ICAR |
| Tractor operated Winnower | 2015 | 19300 | Running | Revolving |

**Infrastructure:**

Buildings and others

| S. No. | Name of infrastructure | Completed up to roof level | Totally completed | Plinth area (sq.m) | Under use or not* | Source of funding |
|---|---|---|---|---|---|---|
| 1. | Administrative Building | | Yes | 525 | Use | ICAR |
| 2. | Farmers Hostel | Yes | | 305 | Not | ICAR |
| 3. | Staff Quarters (6) | | Yes | | Use | ICAR |
| 4 | Fencing | | | Yes | | |
| 5 | Threshing floor | - | Damaged | 15x16 sq m | Not | ICAR |

**Success Stories:**

| | |
|---|---|
| Name of farmer | Sri Alok Kumar Singh |
| Address | Villate-Khairwa darp, Block-Sheohar Dist-. Sheohar |
| Contact details (Phone, mobile, email Id) | 9430648703 |
| Landholding (in ha.) | 10 |
| Name and description of the farm/ enterprise | Intercropping of Sugarcane + Potato |
| Economic impact | Earned net profit of Rs. 979500.00 from acres Sugarcane + Potato inter cropping |
| His accept ability as Sugarman is farming community | |
| Environmental impact | Enrichment of soil |
| Horizontal/ Vertical spread | Medium spread of this technology |

**Village- Khairba darp, Block-Sheohar,**

**District- Sheohar, Sate-Bihar**

**1. Name of the State: Bihar**

**2. Name of KVK: Sheohar**

**3. Area of intervention (Mention only):**

**(i) Crop Science** (Crop production, improved technology application and intercropping quality seed production, crop diversification and cultivation of high-value crops)

Improved technology application & intercropping in Sugarcane

**4. Title of the technology:** Sugarcane cultivation through improved techniques and intercropping with potato.

**5. Agro-ecology, Farming Situation Analysis with Problem Statement (not more than 150 words):**

Type of land:- Up land and mid land, Soil type:- Sandy loam and loam, PH- neutal to alkaline, Soils are low to medium in organic carbon.

**Analysis of problem statement:**

(i) Traditional method of Sugarcane cultivation

(ii) Imbalance use of fertilizer,

(iii) Improper use of fungicide & insecticide,

(iv) Improper use of weedicide,

(v) Unawareness about the use of agricultural improved implements & tools.

**6. Brief Description of Technology, Justification Including Innovation, if any, Implementation and Support (not more than 150 words):**

CoP-2061 variety of sugarcane having high cane yield, better juice quality, more ratooning potential and resistance to insect pests and diseases was used in field of Sri Alok Kumar Singh. Paired row plantation of Sugarcane through trench method at a distance of 120 cm was adopted by him for better interception of light and also to maintain optimum plant population. Paired row sowing of potato variety K Pokhraj with early bulking character was done as an intercrop to increase productivity aswell as the profitability. Sugarcane seedling production through single bud method was also adopted to maintain the optimum plant population in main crop as well as in ratoon

crop through gap filling. Sugarcane seed treatment by carbendazim @0.1%integrated with chlorpyriphos @0.3% was practiced by Sri Alok Kumar Singh.

## 7. Impact Analysis:

| Impact factor | Before Adoption | After Adoption |
|---|---|---|
| Farmer Practice | Traditional method | Improved scientific method |
| Yield of Product | 480q/ha | 900/ha |
| Fixed Cost | - | - |
| Recurring Cost | 72000 | 115000 |
| Gross Income | 139200 | 441500 |
| Net Profit | 67200 | 326500 |
| B:C Ratio | 1.93 | 3.8 |
| Marketing | Sugarcane factories at Riga | Sugarcane factories and progressive farmers |
| Dissemination of knowledge in the locality | 3% | 27% |
| Knowledge gain based on 1- 5 scale* | 2 | 4 |
| Feeling of economic security based on 1- 5 scale* | 2 | 4 |

| | | |
|---|---|---|
| Ability to understand and solve problems based on 1- 5 scale* | 2 | 4 |
| Self image in community based on 1- 5 scale* | 3 | 4 |
| Self confidence based on 1- 5 scale* | 4 | 5 |

* 1- 5 scale indicates 1 = lowest and 5 = highest

## 8. Benefits (Economical and Social) (not more than 150 words):

These practices resulted in a bumper crop of sugarcane with higher yield and income which multiplied Alok's farm output considerably. He got a net profit of 9,79,500 lakhs from 7 acres of land by cultivating intercropping of sugarcane variety CoP 2061with potato in scientific mode. The demand of sugarcane is high due to sugarcane factories situated near to his farm at Riga. He also sold some of the sugarcane as seed because this variety CoP 2061 became the first choice by the farmers in the district. Early uprooting of potato and selling in the market also remunerated him additionally. After getting handsome income he built own house and admitted his son in convent school. Today he is known as sugarman of this district and many farmers follow the path of Sri Alok Kumar Singh.

## 9. Adoption, Spread, Up Scaling of Technology and Future Projection (not more than 150 words):

### A. Adoption & spread of technology

The farmers community observes about technical, Social and economical empowerment of Sri Alok Kumar and adopting the technologies applied by Sri Alok Kumar in his field.The following technologies are adopted and spreaded in the farmers fields.

| S.No. | | Adoption % | Spreaded in Area (ha) |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1. | Productivity and production enhancement through potential high yielding variety Cop-206 | 18 | 180 |
| 2. | Production technologies through single bud seedling production and gap filling in the main field of sugarcane | 14 | 140 |
| 3. | Trench method of plantation | 21 | 210 |
| 4. | Protection technologies such as sugarcane set treatment method and mode of pesticide application with proper doze & time | 32 | 320 |
| 5. | Intercropping with potato | 16 | 160 |

**B. Up Scaling of technology:**

(i) Training of farmers, kishan gosthi, workshop, diagnostic visits were organized.

(ii) Availability of quality seed of sugarcane & potato to the farmers.

## C. Future projection

1. Development of integrated seed supply system in combination of systems to popularize new varieties of sugarcane and potato through creation of linkages between research institution, Public sector, private sector and farmers needed for mitigating quality seed shortage

2 Development of seed village concept as a tool to bridge the gap between the quality seed requirement & availability of quality seed involving the end users.

**10. Relevant, action and attractive, clear, high resolution photographs with proper CAPTION related to success stories**

Single bud removal from sugarcane set

Single bud seed treatment of sugarcane

Single bud of sugarcane placement in tray

Farmer Alok Kumar Singh in his Sugarcane field

Intercropping of Sugarcane with potato

**Publications:**

| Name of the author (s) | Year | Title | Name of the Journal | Vol. No. & Page No. |
|---|---|---|---|---|
| Ram Niwas Singh et al | 2018 | Status of papaya viral disease incidence during kharif, rabi and summer seasons in Begusarai district of north Bihar | International Journal of Chemical Studies | 7(1):2035-2039 |