PROFORMA FOR ANNUAL REPORT OF KVKS 2021 (January- December)

1. GENERAL INFORMATION ABOUT THE KVK

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

|  |  |  |
| --- | --- | --- |
| Address | Telephone | E mail |
|  | Office | FAX |  |
| KVK YisemyongPost Box No-23Mokokchung Nagaland-798601 |  0369-2225121 | 0369-2225121 | kvkmokokchung@gmail.com |

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

|  |  |  |
| --- | --- | --- |
| Address | Telephone | E mail |
| Office | FAX |  |
| Directorate of AgricultureNagaland Kohima | 0370-2243116 | 0370-2243970 | agrkvk@yahoo.com |

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

|  |  |
| --- | --- |
| Name | Telephone / Contact  |
|  | Residence | Mobile | Email  |
| Dr. Keviletsu Khate | Yisemyong | 7085879890 | keviletsu@gmail.com |

1.4. Year of sanction:2003

1.5. Staff Position

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.No. | Sanctioned post | Name of the incumbent | Designation | Discipline | Pay Scale (Rs.) | Present basic (Rs.) | Date of joining | Category (SC/ST/OBC/Others) |
| 1 | Sr. Scientist & Head  | Dr. Keviletsu Khate | Sr. Scientist & Head | Vety & A.H | 162300 |  | 16.08.10 | ST |
| 2 | Subject Matter Specialist | Dr.Sarendi walling | ACTO | Animal science | 85800 |  | 19.02.07 | ST |
| 3 | Subject Matter Specialist | Khekali sema | ACTO | Horticulture | 85800 |  | 11.07.08 | ST |
| 4 | Subject Matter Specialist | Tokiho Achumi | ACTO | Agronomy | 85800 |  | 20.02.07 | ST |
| 5 | Subject Matter Specialist | Imtisenla | ACTO  | Agronomy | 85800 |  | 31.05.07 | ST |
| 6 | Subject Matter Specialist | Imtilemla | ACTO | Soil science | 85800 |  | 11.11.07 | ST |
| 7 | Subject Matter Specialist | Martha chakruno | ACTO | Entomology | 85800 |  | 19.02.07 | ST |
| 8 | Programme Assistant | Moainla | Programme Assistant | Horticulture | 60400 |  | 24.05.06 | ST |
| 9 | Computer Programmer | I.Tangitla | Programme Assistant(Computer) | BLIS | 60400 |  | 24.05.06 | ST |
| 10 | Farm Manager | Ilika v achumi | Programme AssistantFarm manager | Horticulture | 58600 |  | 19.02.07 | ST |
| 11 | Superintendent / Accountant  | Kiyelu Chophoy | Office Supt-cum-Accountant | Account | 56900 |  | 15.02.07 | ST |
| 12 | Stenographer | Imosangla | Jr. Steno-cum-Computer Operator  | PU | 40400 |  | 01.06.06  | ST |
| 13 | Driver  | Supongmeren | Driver | Matriculate  | 32300 |  | 01.06.06  | ST |
| 14 | Driver | Jongpongyanger | Driver | Matriculate | 29600 |  | 01.03.10  | ST |
| 15 | Supporting staff | Imkonglemla | Peon  | Matriculate | 24900 |  | 01.06.06  | ST |
| 16 | Supporting staff | Aotoshi | Chowkidar | Matriculate | 21500 |  |  01.03.10 | ST |
|  | Total |  |  |  |  |  |  |  |

Note: No column in the table must be left blank

1.6. a. Total land with KVK (in ha) :23.9

 b. Total cultivable land with KVK (in ha):18

 c. Total cultivated land (in ha):6.5

|  |  |  |
| --- | --- | --- |
| S. No. | Item | Area (ha) |
| 1 | Under Buildings | 1 |
| 2. | Under Demonstration Units | 1 |
| 3. | Under Crops (Cereals, pulses, oilseeds etc.) (Pl. specify separately)i.Cereal-Milletsii.Pulses –beans,soybeaniii. Toria | 1.5 |
| 4.  | Under vegetables | 3 (Instructional Farm) |
| 5. | Orchard/Agro-forestry | 2 ha |
| 6. | Others (specify) |  |

1.7. Infrastructural Development:

A) Buildings

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Name of building | Source of funding  | Stage |
| Complete | Incomplete |
| CompletionDate | Plinth area (Sq.m) | Expenditure (Rs.) | Starting Date | Plinth area(Sq.m) | Status of construction |
| 1. | Administrative Building | ICAR | 20.06.09 | 400 | 53.5 lakhs | 28.09.07 | 400 | completed |
| 2. | Farmers Hostel | NA | NA | NA | NA | NA | NA | NA |
| 3. | Staff Quarters (6) | ICAR | NA | 200 |  | 2011 | 100 | Completed |
| 4. | Demonstration Units (2) | ICAR, Host & ATMA | 2008 &2010 | 40 | 24,55,500 lakh | 2008 &2013 | - | Completed  |
| 5 | Fencing  | ICAR | NA | 7500mtr | 3.5 lakhs | 2011 | - | Completed |
|  | Rain Water harvesting system | ICAR | 30.09.11 | 800mtr |  17.0 lakhs | 2011 | - | Completed  |
|  | Threshing floor  |  |  |  |  |  |  |  |
|  | Farm godown |  |  |  |  |  |  |  |

B) Vehicles

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type of vehicle | Regd. No. | Year of purchase | Cost (Rs.) | Total kms. Run | Present status |
| Bolero | NL-10 C0679 | 2016 | 8.0 Lakhs | 82000 | Good  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

C) Equipments& AV Aids

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the equipments | Year of purchase | Cost (Rs.) | Present status |
| 1. Computer | 2004, 2016 | 70000 | 2004 unserviceable |
| 2. Sound system | 2005 | 60000 | Good |
| 3. Digital camera | 2020 | 50000 | Good |
| 4. OHP | 2004 | 5000 | Good  |
| 5. Laptop | 2008 | 37,000 | Need replacement |
| 6. Handycam | 2008 | 16,000 | Out of order |
| 7. Photocopier  | 2010 | 1,20,000 | Unserviceable  |
| 8. Handycam | 2010 | 18,000 | Good |
| 9. Computer | 2010 | 45,000 | Good |
| 10. LCD projector | 2020 | 55,000 | Good |
| 11. Computer  | 2016 | Provided by Host | Good |
| 12.Computer | 2016 | -do- | Good  |
| 13. Computer | 2016 | * -do -
 | Good |
| 14. Printer with Scanner (2 nos) | 2016 | * Do -
 | Good |
| 15. Printer Epson L110  | 2016 | 3500 | Good |
| 16. Xerox Ricoh  | 2016 | Provided by Host | Unserviceable  |
| 17. Xerox Cannon Image Scanner  | 2017 | Provided by Host | Good |
| 18. Epson Printer L3110 | 2018 | 12,300 | Good |
| 19. Generator  | 2018 | 30,000 | Good  |

1.8. A). Details SAC meeting\* conducted in 2021

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Name and Designation of Participants  | Salient Recommendations | Action taken on last SAC recommendation |
| 18/02/21 | Dr. Nuchetla Dy, DAO, Dr. Sanen VAS, Roko DSCO, Rongsenungla Dy PD,ATMA, Moangsangla SDO. Mejong, Progressive farmer, Meyatoshi Progressive farmer and the staffs of KVK Mokokchung | 1. Technologies fund suitable for the dist. Should be made known to allied depts.. for better spread amongst farmers.
2. Indigenous knowledge on farming should be considered while testing new technologies to analyze if these help in reduction insect pest infestation
3. KVK should take the lead to put suitable mechanism in place in order to reduce jhum cycle
4. More emphasis should be given on cropping system module and IFS to enchance income of farmers
5. Area under HYV should be increased.
6. To re-introduce and promote cultivation of high yielding varieties of millets and coarse cereals
7. Explore the possibility of promoting duckery.
 | Successfully conducted. |

*\* Attach a copy of SAC proceedings along with list of participants*

2. DETAILS OF DISTRICT

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

|  |  |
| --- | --- |
| Sl.no | Farming system/enterprises |
| 1. | Agriculture +Horticulture |
| 2. | Agriculture + Veterinary |
| 3. | Agriculture + Fishery |

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

|  |  |  |
| --- | --- | --- |
| Sl. No | Agro-climatic Zone | Characteristics |
| **1.** | Mid Tropical hill Zone | **Hot and humid in the foot hills to moderate in the mid and high with heavy rainfall during summer** |
| **Moderate to extreme cold and dry in higher altitude during winter**  |

2.3 Soil types

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No | Soil type | Characteristics | Area in ha  |
| 1. | Sandy clay loam | 20-35% clay28% silt45% more sandpH 4-5 | 1,20,000 |
| 2. | Clay Loam | 27-40% clay20-45% sandMedium organic matterpH 4-5 | 40,000 |
| 3. | Forest Soil | Broad leaves rain forest, evergreen, temperate climate, high organic matter, dark brown soil with pH 4 | 50 |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl. No | Crop | Area (ha) | Production (ton) | Productivity (Qtl /ha) |
| A |  |  |  |  |
| 1. | Jhum Paddy | 8294 | 18247 | 22 |
| 2. | WTRC Paddy | 2420 | 7744 | 32 |
| 3. | Maize | 575 | 1260 | 22 |
| 4. | Beans | 98 | 132 | 13.5 |
| 5. | Pea | 78 | 125 | 16 |
| 6. | Rapeseed/ Mustard | 103 | 98 | 9 |
| 7. | Potato | 158 | 917 | 65 |
| 8. | Tapioca | 213 | 4579 | 215 |
| 9. | Orange | 1739 | 59126 | 340 |
| 10. | Banana | 1155 | 71610 | 620 |
| 11. | Litchi | 970 | 24250 | 250 |
| 12. | Pineapple | 820 | 13284 | 162 |
| 13. | Tomato | 38 | 9880 | 2600 |
| 14. | Chilli | 76 | 5099.6 | 671 |

2.5. Weather data

|  |  |  |  |
| --- | --- | --- | --- |
| Month | Rainfall (mm) | Temperature 0 C | Relative Humidity (%) |
|  |  | Maximum | Minimum |  |
| January’21 | 0.12 | 14.9 | 7.4 | 61.74 |
| February’21 | 0.21 | 14.86 | 7.61 | 57.57 |
| March’21 | 2.15 | 20.825 | 11.096 | 64.29 |
| April’21 | 1.78 | 25.52 | 14.23 | 68.1 |
| May’21 | 8.1 | 24.75 | 14.53 | 67.58 |
| June’21 | 12.76 | 32.64 | 18.50 | 79.466 |
| July’21 | 13.19 | 25.258 | 18.887 | 82.838 |
| August’21 | 10.16 | 27.04 | 20.406 | 81.516 |
| September’21 | 12.126 | 27.99 | 21.126 | 80.1 |
| October’21 | 2.06 | 27.009 | 18.819 | 78.74 |
| November’21 | 0.006 | 23.21 | 14.04 | 71.9 |
| December’21 | 0.43 | 19.13 | 9.6 | 65.96 |

*Source: Soil & Water Conservation Deptt.Mokokchung*

* 1. Production and productivity of livestock, Poultry, Fisheries etc. in the district

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Population | Production | Productivity |
| Cattle |
| *Crossbred* | 726 | 520 MT | 3.5 lit/day lactation period of 270 days |
| *Indigenous* | 265 | 1 | 120kg in 12 months |
| *Crossbred* | 23900 | 1787.2 MT | 110 kg in 12 months |
| Goats | 415 | 972 kg | 10-14 kg per year |
| Pigs |  |  |  |
| *Crossbred* | 23900 | 1787.2 MT | 110 kg in 12 months |
| poultry |
| Hens | - | - | - |
| *Desi* | 156750 | 83.8MT | 1 Kg in 6months |
| *Improved* | 18000 | 10MT | 1.5 kg in one month |
| Fish |
| *Marine* |  |  |  |
| *Inland* | 408.50 ha | 1534 MT | 2581.5 kg/ha |

Note: Pl. provide the appropriate Unit against each enterprise

2.7 Details of Operational area / Villages (2021)

| Sl.No. | Taluk/ Eleka | Name of the block | Name of the village  | Major crops & enterprises | Major problemIdentified | Identified thrust area |
| --- | --- | --- | --- | --- | --- | --- |
| 1 |  | Ongpangkong (N) | Longkhum,Longsa,Mokokchung | Paddy, Maize, TapiocaGinger, Passion fruit Tea, Piggery, Poultry, weaving | Low productivity due to non adoption of improved technology, Majority of the farmers involved in cultivation of mix crops, lack of awareness on potentialities of floriculture, lack of irrigation facilities, unavailability of HYV seeds, post harvest management problem, lack of proper infrastructure and marketing network | Create awareness on fallow management and jhum intensification, Cultivation of both kharif and rabi vegetables, production of passion fruit, ginger, tapioca, tea on commercial scale, popularization of floriculture, handloom and handicraft, promotion of infrastructures and marketing network  |
| 2 |  | Opangkong (s) | Chungtia, Aliba,Khensa | Paddy, Maize, Tapioca Cucumber, Passion fruit, Ginger, Orange | Low productivity due to non adoption of improved technology, Indiscriminate use of inorganic products in cucumber cultivation, lack of awareness on INM, lack of upgrade dairy breeds, inadequate availability of fodder , insect pest problem, lack of extension activities  | Create awareness on fallow management and jhum intensification, Organic Off season cucumber cultivation, development of dairy and fodder crops, production of orange. |
| 3 |  | Kobulong | Mopungchuket, Impur | Paddy, Tapioca, MaizePassion fruit, ginger, Banana, Piggery, Poultry, Dairy, Sericulture  | Low productivity due to non adoption of improved technology, lack of irrigation facilities, unavailability of HYV seeds, post harvest management problem, pest /disease problem in crops and silkworm, lack of processing unit and marketing, lack of spinning & weaving centers , lack of awareness on citronella cultivation, Inbreeding, disease and nutrition in piggery | Create awareness on fallow management and jhum intensification, To increase productivity of passion fruit, ginger and vegetables, promotion on spinning and weaving centre of sericulture, popularization of citronella cultivation, awareness on breeding programme, prevention and control of disease, scientific feeding management |
| 4 |  | Changtongya | Chuchuyimlang,Unger, Akhoya | Paddy, Tapioca, Maize, Coloccasia, banana, Orange, Pineapple Tea, piggery, Poultry, Fishery  | Low productivity due to non adoption of improved technology, lack of awareness on value addition products, insect pest and disease problem, poor transportation and marketing facilities, lack of upgraded breeds and health centre | Create awareness on fallow management and jhum intensification, To increase production of banana, tapioca, orange, pineapple, development of tea, arecanut, betel vine, improvement of piggery, fishery and sericulture,  |
| 5 |  | Mangkolemba | Longsemdang, Khar | Paddy, Maize, Tapioca, Orange, Pineapple, Arecanut, Tea, betel vine, fishery, cattle, piggery | Unavailability of HYV ( lowland paddy), Lack of knowledge on improved method of cultivation , lack of processing unit, insect pest and disease problem, lack of awareness on INM, poor skill in fishery pond management, financial constraint to take up in commercial scale, inadequate availability of ploughing bullock, swine diseases | Promotion of HYV (paddy), production of oilseed and pulses, production of orange, pineapple, arecanut, tea and fish. Breeding programme for cattle and training of draught animals, prevention & control of swine diseases |
| 6 |  | Longchem | JapuNokpu | Paddy, Tapioca, Maize, colocassia, Agar, Arecanut, betel vine, cattle, piggery  | Unavailability of HYV ( lowland paddy), Lack of knowledge and awareness on improved method of cultivation on plantation crops, lack of processing unit, lack of awareness on INM, financial constraint for commercial cultivation, inadequate availability of ploughing bullock, swine diseases | Promotion of HYV (paddy), Commercial cultivation of arecanut, tea, rubber, betel vine, colocassia, orange, production of oilseeds and pulses, Breeding programme for cattle and training of draught animals, prevention & control of swine diseases |

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2021-22

|  |  |  |
| --- | --- | --- |
| Discipline | OFT (Technology Assessment and Refinement) | FLD (Oilseeds, Pulses, Maize, Other Crops/Enterprises) |
| Number of OFTs | Number of Farmers  | Number of FLDs | Number of Farmers  |
| Targets  | Achievement  | Targets  | Achievement  | Targets  | Achievement  | Targets  | Achievement  |
| Agronomy | 4 | 4 | 12 | 12 | 6 | 6 | 30 | 33 |
| Horticulture | 2 | 4 | 6 | 12 | 4 | 12 | 28 | 41 |
| Soil conservation | 2 | 2 | 6 | 11 | 2 | 2 | 22 | 33 |
| PP | 2 | 2 | 12 | 12 | 2 | 2 | 26 | 26 |
| A.Sc | 2 | 2 | 6 | 6 | 1 | 1 | 25 | 30 |
| Total | **12** | **14** | **42** | **53** | **15** | **23** | **131** | **163** |

Note: Target set during last Annual Zonal Workshop

|  |  |
| --- | --- |
| Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit) | Extension Activities  |
| Number of Courses | Number of Participants  | Number of activities  | Number of participants  |
| Clientele | Targets | Achievement  | Targets  | Achievement  | Targets  | Achievement  | Targets  | Achievement  |
| **Agronomy** |  |  |  |  |  |  |  |  |
| Farmers | 12 | 15 | 283 | 336 | 66 | 75 | 564 | 596 |
| Rural youth | 1 | - | 20 | - |  |  |  |  |
| Extn.Functionaries | 1 | 1 | 20 | 20 |  |  |  |  |
| **Horticulture** |  |  |  |  |  |  |  |  |
| Farmers | 10 | 11 | 250 | 270 | 20 | 22 | 250 | 258 |
| Rural youth | 03 | 04 | 60 | 80 |  |  |  |  |
| Extn.Functionaries | 02 | - | 40 | - |  |  |  |  |
| **Soil conservation** |  |  |  |  |  |  |  |  |
| Farmers  | 7 | 10 | 140 | 158 | 40 | 69 | 270 | 813 |
| Rural youth | - | 1 | - | 11 |  |  |  |  |
| Extn.Functionaries |  |  |  |  |  |  |  |  |
| **PP** |  |  |  |  |  |  |  |  |
| Farmers | 5 | 5 | 150 | 101 | 45 | 58 | 225 | 385 |
| Rural youth | 1 | 1 | 30 | 26 |  |  |  |  |
| Extn.Functionaries | 1 | 1 | 20 | 17 |  |  |  |  |
| Total | **43** | **49** | **1013** | **1019** | **171** | **224** | **1309** | **2052** |
| Seed Production (ton.) | Planting material (Nos. in lakh)  |
| Target | Achievement  | Target | Achievement  |
| 11.5 qt | 12 qt | 50000 | 56000 |
|  |  |  |  |

Note: Target set during last Annual Zonal Workshop

3.B. Abstract of interventions undertaken during 2021

| Sl. No | Thrust area | Crop/Enterprise | Identified problems | 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 | Crop production | foxtail millet | Poor yield and long duration  | Performance trial on foxtail millet (SiA 3085)  | - | - | - | Training, Demonstration and Field visit | Seeds  |
| 2 | Crop production | cowpea | Low income due to mono cropping system | Performance trial on Cowpea (Var. Arka Mangala) | - | Mixed and double cropping | - | Method demonstration & Field visit | Seeds  |
| 3 | Tillage management | Pea/zero tillage | Intensive tillage leads to high soil erosion | Performance of pea under zero tillage. | - | - | - | Method demonstration and field visit | seeds |
| 4 | Integrated crop management | Maize and beans | No proper cropping system | Performance of maize and beans intercropping system for rainfed condition. | - | - | - | Method demonstration and field visit | seeds |
| 5 | Crop production | Paddy | Long duration and poor yield | - | Demonstration on PaddyCAU R-1 | Cultivation of mid duration paddy | - | Field visit, field day | Seeds  |
| 6 | Crop production | Maize | Long duration, tall varieties and low yield | - | Demonstration on MaizeAll rounder | Cultivation of HYV Maize | - | Field visit, field day | Seeds  |
| 7 | Pulse production | Soybean | Early sowing and use of age old varieties | - | Demonstration on SoybeanVL - 65 | Cultivation of Soybean | - | Field visit, field day | Seeds  |
| 8 | Oilseed production | Toria | Less adaption of Toria cultivation, leave field fallow during rabi | - | Demonstration on Toria TS-67 | Cultivation practices of Toria | - | Field visit, field day | Seeds  |
| 9 | Pulse production | Field pea | Low yield in existing varieties | - | Popularization of pea(Aman) | Cultivation practices of pulse crop. | - | Field visit, field day | Seeds  |
| 10 | Integrated water management | SRI | No proper spacing, Low production in normal cultivation practices | - | Modified system of rice intensification for higher productivity | Training on SRI system | - | Field visit, field day | Seeds  |
| 11 | Vegetable production | Chilli | Low yield in local cultivars | Performance evaluation onChillivar. ArkaKhyati | - | -- | - | Advisory service, Field day, awareness programme | Seed, plant protection chemicals. |
| 12 | Vegetable production | Onion  | Low yield and low seed replacement | Performance evaluation ononion var. ArkaKirthiman | - | - | -- | Field day, awareness programme Advisory service | Seed, plant protection chemicals. |
| 13 | Vegetable production | Cauliflower  | Low yield and poor quality in local cultivars | Performance evaluation oncauliflower var. Madhuri | - | - | - | Advisory service, Field day, awareness programme | Seed, plant protection chemicals. |
| 14 | Mulching | Chilli | Low production in normal cultivation practices | Performance of chilli under polymulching | - | - | - | Field day, awareness programme Advisory service | Seed, plant protection chemicals, mulching material |
| 15 | Vegetable production | Okra  | Low yield in local cultivars | - | Popularization of okra var. ArkaAnamika | - | - | Advisory service, Field day, awareness programme | Seed, plant protection chemicals. |
| 16 | Vegetable production | Tomato  | Low yield in local cultivars | - | Popularization of tomato var.ArkaSamrat | - | - | Field day, awareness programme Advisory service, | Seed, plant protection chemicals. |
| 17 | Vegetable production | Chilli | Low yield in existing varieties | - | Popularization ofchilli var. ArkaMeghana | - | - | Advisory service, Field day, | Seed, plant protection chemicals. |
| 18 | Vegetable production | Okra  | Low production in normal cultivation practices | - | Demonstration on okra under polymuching | - | - | Advisory service, Field day, awareness programme | Seed, plant protection chemicals, mulching material |
| 19 |  Citrus rejuvenation | Orange | Citrus decline | - | FLD on rejuvenation of khasi mandarin orchard | - | - | Advisory service, Field day, awareness programme | Lime, CuSO4, other necessary inputs |
| 20 | Vegetable production | Broccoli  | Lack of awareness in high value crops | - | Demonstration on Broccoli var. Green Magic | - | - | Field day, awareness programme Advisory service, | Seed, plant protection chemicals. |
| 21 | Vegetable production | Cabbage  | Lack of awareness in HYV | - | FLD on improved cabbage variety BC 76  | - | - | Field day, awareness programme Advisory service | Seed, plant protection chemicals. |
| 22 | Resource conservation | Bio-terracing | Non use of the bio-terracing technology | Assessment of bio-terracing for slow conversion of hill slopes into terraced land | - | - | - | Monitoring, field visits | Citronella, napier slips, arhar & pea seeds |
| 23 | Soil management | Biochar  | No management of acidic soil | Assessment of acid soil management through use of biochar in winter vegetables  | - | - | - | Monitoring, field visits | Biochar & agri lime  |
| 24 | Soil health management | Paddy  | Non use of dhaincha in TRC | - | Green manuring with *Dhaincha* in Terraced Rice Cultivation | - | - | Monitoring, field visits | Dhaincha seeds |
| 25 | Soil nutrient management | Soyabean  | Non use of organic inputs/ biofertilizers | - | Popularisation of use of biofertilizers in soyabean | - | - | Monitoring, field visits | Biofertilizers& seeds |
| 26 | Duckery  | Duckery | Preference for duck meat but less local production and availability | Performance evaluation of White Pekin Duck | - | - | - | awareness programme Advisory service | Distribution of duckling,minerals and vitamins |
| 27 | Goatery | Goatery | Less body weight and growth of existing local goats | Performance evaluation of Beetle cross Assam Hill goat  | - | - | - | awareness programme Advisory service | Distribution of kids minerals and vitamins |
| 28 | poultry | Poultry | - | - | Dual purpose backyard poultry | - | - | Monitoring, Advisory service | Distribution of chicks minerals and vitamins |
| 29 | Biological control | cucumber | Pre-mature dropping of fruits due to fruit fly | **Management of Fruit fly in Cucumber**  | - | Management of insect pests in cucurbits | - | Method demonstration Diagnostic visit,Field visit | Supply of Pheromone trap and lure. |
| 30 | Biological control | Tomato | Late blight | **Organic management of Late blight in Tomato**  | - | Integrated disease management in Tomato | - | Method demonstration Diagnostic visit,Field visit | Supply of Seedsand C0C. |
| 31 | Beneficial insect | Honey bee | Low production per unit due to indigenous beekeeping technique | - | **Popularization of Scientific Beekeeping**  | Seasonal management of Honey bee | - | Diagnostic visit,Field visit | Supply of scientif Honey boxes |
| 32 | Integrated disease management. | pea | Powdery mildew due to late sown | - | **Integrated Diseases Management of powdery mildew in Pea**  | IDM in pulses with special reference to pea. | - | Method demonstration Diagnostic visit,Field visit | Supply of Seeds,and wettable sulphur. |

3.1 Achievements on technologies assessed and refined during 2021

A.1 Abstract of the number of technologies assessed\* in respect of crops/enterprises

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | TOTAL |
| Varietal Evaluation | 1 |  | 1 |  | 4 |  |  |  |  | 6 |
| Seed / Plant production |  |  |  |  |  |  |  |  |  |  |
| Weed Management |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management  | 1 |  |  |  |  |  |  |  |  | 1 |
| Integrated Nutrient Management  |  | 1 |  |  |  |  |  |  |  | 1 |
| Integrated Farming System |  |  |  |  |  |  |  |  |  |  |
| Mushroom cultivation  |  |  |  |  |  |  |  |  |  |  |
| Drudgery reduction  |  |  |  |  |  |  |  |  |  |  |
| Farm machineries /tillage management |  |  | 1 |  |  |  |  |  |  | 1 |
| Value addition |  |  |  |  |  |  |  |  |  |  |
| Integrated Pest Management  |  |  |  |  | 1 |  |  |  |  | 1 |
| Integrated Disease Management  |  |  |  |  | 1 |  |  |  |  | 1 |
| Resource conservation technology |  |  | 1 |  | 1 |  |  |  |  | 2 |
| Small Scale income generating enterprises |  |  |  |  |  |  |  |  |  |  |
| TOTAL | 2 | 1 | 3 |  | 7 |  |  |  |  | 13 |

*\* Any new technology, which may offer solution to a location specific problem but not tested earlier in a given micro farming situation.*

A.2. Abstract of the number of technologies refined\* in respect of crops/enterprises

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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  |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming System |  |  |  |  |  |  |  |  |  |  |
| Mushroom cultivation  |  |  |  |  |  |  |  |  |  |  |
| Drudgery reduction  |  |  |  |  |  |  |  |  |  |  |
| Farm machineries  |  |  |  |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  |  |  |  |  |  |  |  |  |
| Integrated Pest Management  |  |  |  |  |  |  |  |  |  |  |
| Integrated Disease Management  |  |  |  |  |  |  |  |  |  |  |
| Resource conservation technology |  |  |  |  |  |  |  |  |  |  |
| Small Scale income generating enterprises |  |  |  |  |  |  |  |  |  |  |
| TOTAL |  |  |  |  |  |  |  |  |  |  |

*\* Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.*

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Thematic areas | Cattle | Poultry | Sheep  | Goat | Piggery | Rabbitery | Fisheries | TOTAL |
| Evaluation of Breeds |  |  |  | 1 |  |  |  |  |
| Nutrition Management |  |  |  |  |  |  |  |  |
| Disease of Management |  |  |  |  |  |  |  |  |
| Value Addition |  |  |  |  |  |  |  |  |
| Production and Management |  |  |  |  |  |  |  |  |
| TOTAL |  |  |  |  |  |  |  |  |

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

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

A.5. Results of On Farm Testing (OFT)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title of OFT | Problem Diagnosed | Name of Technology Assessed | Crop/Cropping system/ Enterprise | No. of Trials | Results of Assessment/ Refined (Data on the parameter should be provided) | Feedback from the farmer | Feedback to the Researcher | B:C Ratio(if applicable) |
| Treatment  | Farmer’s practice |  |  |  |
| 1 | Performance trial on Foxtail millet (var. SiA 3085 )  | Local cultivars were mostly long duration and low yield potential | SiA 3085 | Rainfed.  | 3 | SiA 3085Avg. Pt.ht-156.3 cmNo of eff. tillers- 6.1 nos.Panicle length - 18.75cmYield – 10.25qt/ha | DHFT 109-3Avg. Pt.ht-162 cmNo of eff. tillers- 6 nos.Panicle lenght - 18.54cmYield – 9.5qt/ha | Higher yield than existing varieties.  | - | 2.5:1 |
| 2 | Performance trial on Cowpea (Var. Arka Mangala) | Poor yield, Long duration  | Arka Mangala | Rainfed | 3  | Arka MangalaAve. Pod length - 44 cmNo. of picking- 6nos.Yield- 38q/ha(green pods) | - | Higher yield, long pods and short duration compared to existing varieties | - | 3.16:1 |
| 3 | Performance of pea under zero tillage | Intensive tillage leads to high soil erosion | Aman | Field pea | 3 | O.C at O-15cm depth - 0.86%Yield/ha -15.5 |  Yield/ha-12.5 | Higher yield and labour cost reduced . | Need further assesment | 2.22:2 |
| 4 | Performance of maize and beans intercropping system for rainfed condition. | No proper cropping system | Integrated crop management | Maize and beans | 3 | Yield.i)-maize-20.83q/haii)beans-5q/ha | Yield-18q/ha | Poor or low harvest due to less rainfall | - | 2.18:2 |
| 5 | Performance evaluation on Chilli var. Arka Khyati | Use of Low yielding varieties  | Arka Khyati | Chilli | 3 | **Var.Arka Khyati**Pl.Ht (cm) : 87.8FP (no) : 79.3FW (gm) : 4.42 FL (cm) : 12.05 Yield (Q/ha): 125.2  | **Local** Pl.Ht (cm) : 75.05FP (no) : 56.3FW (gm) : 2.41FL (cm) : 6.59Yield (Q/ha): 111.67 | Yield and shelf life of the new variety is very good | - | 3.3 |
| 6 | Performance evaluation onion var. Arka Kirthiman | Low yield and low seed replacement | Arka Kirthiman | Onion  | 3 | **Arka Kirthiman** Plant height (cm): 58.15BD (cm) : 5.6BW (gm) : 71.6Yield (qt/ha) : 272.3 | **Local** Plant height (cm): 49.8BD (cm) : 4.7BW (gm) : 60.6Yield (qt/ha) : 203.7 | Yield is high as compared to local varieties | - | 2.9 |
| 7 | Performance evaluation on cauliflower var. Madhuri | Low yield and poor quality in local cultivars | Madhuri | Cauliflower  | 3 | **Madhuri** CW (gm) : 416CD (cm) : 14CL (cm) :7.0CC (cm) :40Yield (qt/ha) : 133.13  | **Local** CW (gm) : 312.4CD (cm) : 12.3CL (cm) : 5.7CC (gm) : 32.8Yield (qt/ha): 105.9 | Gives high yield and Very profitable | - | 3.1 |
| 8 | Performance of chilli under polymulching | Low production in normal cultivation practices | Polymulching | Chilli | 3 |  **Polymulching** Plant height(cm): 98.9FP (no) : 83.4 FW (gm) : 4.85FL (cm) : 8.33Yield (qtha) : 128.7 | **Farmer’s practice**Plant height (cm): 96.8FP (no) : 57.7FW (gm) : 2.3FL (cm) : 5.1Yield (qt/ha): 109.2 | Gives high yield and better quality | - | 3.2 |
| 9 | Assessment of bio-terracing for slow conversion of hill slopes into terraced land | No use of the bio-terracing technology | Planting arhar hedgerows and citronella grass across the slopes and cultivating the spaces between the hedgerows | Pea | 3 | Spacing of staggered rowTreatment: 3 m (initial slope- 24%)(final slope- 10%)Plant to plant & Row to row distanceTreatment: 15cm & 15 cm | NA30 cm & 60 cm | The arhar variety UPAS-120 did not perform well, as such identifying suitable variety will help a lot in the success of this technology. | For hedgerow crop specific variety for different locations needs to be identified. | NA |
| 10 | Assessment of acid soil management through use of biochar in winter vegetables | No management of acidic soil | application of biochar @ 5-10 t/ha | Broccoli var.green magic | 3 | Avg. Yield Biochar-150 qt/haLime- 100 qt/haSoil propertiesInitial B.D :Biochar- 1.13Lime- 1.12Final B.D:Biochar- 1.18Lime- 1.37Initial Moisture content (%)Biochar- 26.92Lime-29.18Final Moisture content (%)Biochar- 32.05Lime- 34.44 | Control- 86.5 qt/haControl- 0.812Control- 1.02Control- 24.5Control- 98.18 | Good technology which can be easily adopted by farmers, need popularization of the said technology | - | Treatment:B- 4.32:1L- 3:1Farmer’s practice: C- 2.76:1 |
| 11 | Performance evaluation of White Pekin Duck | Preference for duck meat but less local production and availability | White Pekin | Duckery | 3 | Body weight (Kg)Day old= 0.057±0.054th week=0.35±0.058th week=0.73±0.5612th week=1.12±0.3816th week=1.47±2.5±0.4620th week=1.77±0.1224th week=**2.02±0.15** | Diarrhea was reported in 15 ducks which was resolved after giving medication | Ducklings mortality1st week= 202nd week = 8Total = 28(no morality after 2nd week)Total ducklings = 200Mortality (%) 14 % | Growth performance of the duck is very good, however mortality during first two weeks is high | Sudden death of the ducklings without exhibiting any signs and symptoms during the early stage is a big problem as encountered during the present study |
| 12 | Performance evaluation of Beetle cross Assam Hill goat  | Less body weight and growth of existing local goats | Beetle cross Assam Hill goat | Goatery | 3 | Body weight 20.1±1.4 kg in a year | Diarrhea was reported in 1 goat twice which was resolved after medication | 16% | Growth performance is better than local breed |  |
| 13 | Management of Fruit fly in Cucumber  | Pre-mature dropping of fruits due to fruit fly | Pheromone traps @ 25 trap/ha + Gur based poison bait trap: (50 ml malathion + 200 g gur + 2 litre water).  | Cucumber | 3 | No. of Pre-matured fruit drop/Plot :Treated Plot (T1) :i.60 DAP – 5ii.65 DAP – 6iii.70 DAP – 9Local Check (T0) :i.60 DAP – 8ii.65 DAP – 12iii.70 DAP – 16 |  | Marketable fruit yield is enhanced. |  | NA |
| 14 | Organic management of Late blight in Tomato  | Late blight | Spraying of Copper Oxychloride (COC) @ 0.25% (25 g /10 litres of water) | Tomato | 3 | Incidence Percentage :Treated Plot (T1) :i.30 DAP – 2.5%ii.40 DAP – 4%iii. 50 DAP –12%Arka Samrat (Disease Resistant) (T2) :i.30 DAP – 3.5%ii.40 DAP – 5%iii. 50 DAP –16%Local Check (T0) :i.30 DAP – 8%ii.40 DAP – 20%iii.50 DAP – 25% |  | Disease incidence were significantly reduced |  | NA |

 *\*Field crops – ton/ha, \* for horticultural crops -= kg/t/ha, \* milk and meat – litres or kg/animal, \* for mushroom and vermicompost kg/unit area.*

*\*\* Give details of the technology assessed or refined and farmer’s practice*

3.2 Achievements of Frontline Demonstrations during 2021

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

List of technologies demonstrated during previous years and popularized during 2017-18 and recommended for large scale adoption in the district

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No | Crop and Variety/Enterprise | Technology demonstrated | Horizontal spread of technology |
|  |  |  | No. of villages | No. of farmers  | Area in ha |
| 1 | Paddy | CAU R1 | 2 | 12 | 6 |
| 2 | Soybean | RVS 2001-4 | 2 | 8 | 4 |
| 3 | Toria | TS -38 | 2 | 10 | 5 |
| 4 | Chilli | Popularization of disease resistant chilli varietyArka Meghana | 4 | 19 | 3.0 |
| 5 | Tomato  | Popularization of triple disease resistant tomato variety Arka Samrat | 5 | 21 | 3.5 |

*\* Thematic areas as given in Table 3.1 (A1 and A2)*

b. Details of FLDs conducted during reporting period (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 and year | Area (ha) | No. of farmers/demonstration | Reasons for shortfall in achievement  | Farming situation(Rainfed/ Irrigated, Soil type, altitude, etc) | Status of soil (Kg/ha) |
| N | P | K |
| Proposed | Actual | SC/ST | Others | Total  |  |  |  |  |  |
| 1 | Paddy | Increase in production and productivity | CAUR-1 | Kharif, 2021 | 5 | 5 | 6 | - | 6 | -  | Rainfed, Silt loam, 350- 850msl | - | 9.7 kg/ha | 124 kg/ha |
| 2 | Soyabean | Seed production | VL-65 | Kharif 2021 | 1 | 1 | 3 | - | 3 | - | Rainfed, silt loam, 750-1100msl | - | 9.2 kg/ha | 131 kg/ha |
| 3 | Maize | Seed production | All rounder | Kharif 2021 | 2 | 2 | 4 | - | 4 | - | Rainfed, silt loam, 800-1200msl | - | 9.5kg/ha | 138 kg/ha |
| 4 | Toria | Seed production | TS-67 | Rabi 2021 | 2 | 2 | 8 | - | 8 | - | Rainfed, silt loam, 425-900msl |  | 9.0kg/ha | 141 kg/ha |
| 5 | Field pea | Seed production | Aman | Rabi,2021 | 2 | 2 | 8 | - | 8 | - | Rainfed |  |  |  |
| 6 | TRC Paddy | Integrated water management | SRI | Kharif 2021 | 2 | 2 | 5 | - | 5 | - | Rainfed |  |  |  |
| 7 | Okra  | Vegetable production | ArkaAnamika | Kharif 2021 | 3 | 3 | 3 |  | 6 |  | Rainfed |  |  |  |
| 8 | Tomato  | Vegetable production | ArkaSamrat | Kharif 2021 | 3 | 3 | 6 |  | 6 | - | Rainfed |  |  |  |
| 9 | Chilli | Vegetable production | ArkaMeghana | Kharif 2021 | 3 | 3 | 6 |  | 8 | - | Rainfed |  |  |  |
| 10 | Okra  | Mulching  | Polymulching | Kharif 2021 | 1.0 | 1.0 | 4 |  | 4 | - | Rainfed |  |  |  |
| 11 | Orange  | Citrus decline | Rejuvenation | Kharif 2020 | 1.5 | 1.5 | 3 |  | 4 | - | Rainfed |  |  |  |
| 12 | Broccoli  | Vegetable production | Green Magic  | Rabi 2021 | 3 | 3 | 6 |  | 8 | - | Rainfed |  |  |  |
| 13 | Cabbage  | Vegetable production | BC 76 | Rabi 2020 | 2.0 | 2.0 | 4 |  | 5 | - | Rainfed |  |  |  |
| 14 | Paddy  | Soil health management | Broadcasting of *Dhaincha* spp @50-60 kg/ha in TRC & incorporating by slashing and ploughing it into the soil before transplanting paddy | Kharif 2021 | 2 | 2 | 12 | - | 12 | NA | Rainfed  | 299.3 | 2.862 | 97.16 |
| 15 | Soyabean  | Soil Microbes (beneficial) | Seed treatment with 200gms each of Rhizobium japonicum and phosphotika per 10kgs of seeds, dry in shade for half an hour before sowing | Kharif 2021 | 1 | 1 | 21 | - | 21 | NA | Rainfed  | 203.2 | - | - |
| 16 | Pea | Integrated Disease Management | IntegratedDiseases Management of powdery mildew in Peai.Early sowing in the month of August, Field sanitation and distruction of disease plants.ii. Spraying of wetable sulphur @ 0.2% at 14 days interval as soon as disease incidence is notice | Rabi2021 | 1.5 | 1.5 | 8 | - | 8 | - | - Rainfed-Clay Sandy Loam | - | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

c. Performance of FLD on Crops during 2021

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Crop | Thematic area | Area (ha.) | Avg. yield (Q/ha.) | % increase in Avg. yield | Additional data on demo. yield (Q/ha.) | Data on parameters other than yield, e.g., disease incidence, pest incidence etc. | Econ. of demo. (Rs./ha.) | Econ. of check (Rs./Ha.) |
| Demo. | Check | H\* | L\* | GC\*\* | GR\*\* | NR\*\* | BCR\*\* | GC | GR | NR | BCR |
| Demo | Local |
| 1 | Paddy | Increase in production and productivity | 5 | 34 | 30 | 13.33 | 35.2 | 32.5 | Pl. ht- 124.5cmEff.tiller-14Panicle length-26cm | Pl. ht- 154cmEff.tiller-12Panicle length-24cm | 22000 | 39230 | 17230 | 1.78:1 | 22000 | 34500 | 12500 | 1.56:1 |
| 2 | Soyabean | Increase in production and productivity | 2 | 8.8 | 7.8 | 12.8 | 9 | 8.2 | Avg.pl.ht - 62 cmNo. of bran- 8nosNo. of pods 38Yd - 8.8 q/ha | Avg.pl.ht - 90 cmNo. of bran- 6nosNo. of pods 42Yd - 7.8 q/ha | 18000 | 44000 | 26000 | 2.41 | 18000 | 39000 | 21000 | 2.16:1 |
| 3 | Maize  | Crop production and management | 2 | 34 | 28 | 21.4 | 37 | 32 | No. of cobs/plant=2.5No. of grains /cob= 452Yield (qt/ha)=34 | No. of cobs/plant=2.5No. of grains /cob= 422Yield (qt/ha)=28 | 28000 | 65000 | 37000 | 2.3:1 | 28000 | 53750 | 25750 | 1.92:1 |
| 4 | Toria | Seed production | 2 | 7.4 | 6.5 | 13.85 | 7.7 | 6.8 | Pl.height- 78cmBranches/pl-7.5Siliqua/pl-86 | Pl.height- 65cmBranches/pl-6Siliqua/pl-76 | 12000 | 33300 | 21300 | 2.78:1 | 12000 | 29250 | 17250 | 2.44:1 |
| 5 | Field pea | Seed production | 2 | 14.75 | 11.12 | 22.92 | 15.5 | 14 | - | - | 25700 | 57700 | 32000 | 2.25 | 25000 | 50500 | 25500 | 2.02 |
| 6 | TRC Paddy | Integrated water management(SRI) | 2 | 27.25 | 23 | 18.48 | 29 | 25.5 | - | - | 30000 | 66000 | 36000 | 2.2 | 23000 | 46300 | 23300 | 2.01 |
| 7 | Okra  | Vegetable production | 2.5 | 156 | 133.7 | 14.3 | 158.6 | 153.4 | - | - | 72550 | 209400 | 136850 | 2.8 | 66545 | 115300 | 48755 | 1.7 |
| 8 | Tomato  | Vegetable production | 3 | 386 | 191.3 | 58.8 | 593.4 | 578.6 | - | - | 82013 | 317450 | 235437 | 3.9 | 69948 | 167675 | 97727 | 2.3 |
| 9 | Chilli | Vegetable production | 3 | 203 | 112.4 | 44.6 | 207.3 | 198.7 | - | - | 74550 | 236390 | 161840 | 3.2 | 64663 | 151300 | 86637 | 2.3 |
| 10 | Okra  | Vegetable production | 1.0 | 169.4 | 137.1 | 19.1 | 171.3 | 167.5 | - | - | 74850 | 224150 | 149300 | 3.0 | 68745 | 121875 | 53130 | 1.8 |
| 11 | Orange  | Citrus Rejuvenation | 1.5 | 184.4 | 128.7 | 30.2 | 188.9 | 179.8 | - | - | 67085 | 183400 | 116315 | 2.7 | 53250 | 98980 | 45730 | 1.9 |
| 12 | Broccoli | Vegetable production | 3 | 124.97 | 108.8 | 12.9 | 127.4 | 122.54 | - | - | 74650 | 310221 | 235571 | 4.1 | 69750 | 152180 | 82430 | 2.2 |
| 13 | Cabbage  | Vegetable production | 2.0 | 253 | 209.8 | 17.1 | 257.6 | 248.2 | - | - | 72850 | 202400 | 129550 | 2.8 | 72975 | 144205 | 71230 | 1.9 |
| 14 | Paddy  | Soil health management | 2 | 31.5 | 25.5 | 19.05 | 32.0 | 26.5 | - | - | 39,500 | 94,500 | 50,500 | 2.39:1 | 35,000 | 76,500 | 41,500 | 2.18:1 |
| 15 | Soyabean  | Soil microbes (beneficial) | 1 | 9.69 | 8.0 | 17.44 | 12.0 | 7.0 | - | - | 71,800 | 1,16,280 | 44,480 | 1.6:1 | 69,800 | 96,000 | 27,000 | 1.3:1 |
| 16 | Pea | IDM | 1.5. | 10.1 | 8.8 | 14.77% | 11.5 | 9.7 | %tage. of affected Plants:30 DAS – 2 -3%45 DAT –5%60 DAT –15% | %tage. of affected Plants 30 DAS -5%45 DAS -20%60 DAS–35% | 19,290 | 33,980 | 14,690 | 1.76:1 | 18,080 | 31,480 | 13,400 | 1.74:1 |

\*H-Highest recorded yield, L- Lowest recorded yield\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost RatioProduce Sale Price must be as per MSP or Registered Marketing SocietyPl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC*Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.*

d. Extension and Training activities under FLD on Crops

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks  |
| Gen | SC/ST | Total |
| 1 | Field days | 1 | 10/12/21 |  | 14 | 14 |  |
| 2 | Farmers Training | 10 | 23/2/21, 26/3/21,11/5/21,26/6/21,15/7/21,24/8/21,8/9&15/9/21,25/10/21,13/12/21 |  | 284 | 284 |  |
| 3 | Media coverage |  |  |  |  |  |  |
| 4 | Training for extension functionaries |  |  |  |  |  |  |
| 5 | Any other (Pl. specify) |  |  |  |  |  |  |
|  | Total |  |  |  |  |  |  |

e. Details of FLD on Enterprises

(i) 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 |
| Demon. | Local check |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

*\* Field efficiency, labour saving etc.*

(ii) Livestock Enterprises

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Enterprise/ Category (e.g., Dairy, Poultry etc.) | Thematic area | Name of Technology | No. of farmers | No. of units | No. of animals, poultry birds etc. | Major Performance parameters / indicators | % change in the parameter | Other parameters (if any)  | Econ. of demo. (Rs./Ha.) | Econ. of check (Rs./Ha.) | Remarks |
| Demo | Check | GC\*\* | GR\*\* | NR\*\* | BCR\*\* | GC | GR | NR | BCR |
| Demo | Check |
| 1 | Poultry | Dual purpose backyard poultry | Rainbow Rooster | 30 | 30 | 600 | 1.5±0.11 kg in 12 weeks | 0.68±0.75 Kg in 12 weeks | 45.33% increased in demo as compared with check |  |  | 9500 | 13500 | 4000 | 1.42 | 5300 | 6300 | 1000 | 1.19 | The demo was found to be more profitable  |

(iii) Fisheries

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Category, e.g. Common carp, ornamental fish etc. | Thematic area | Name of Technology | No. of farmers | No. of units | No. of fish/ fingerlings | Major Performance parameters / indicators | % change in the parameter | Other parameters (if any)  | Econ. of demo. (Rs./Ha.) | Econ. of check (Rs./Ha.) | Remarks |
| Demo | Check | GC\*\* | GR\*\* | NR\*\* | BCR\*\* | GC | GR | NR | BCR |
| Demo |  Check |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

*\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio*

*Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.*

 (iv)Other enterprises

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Category/ Enterprise, e.g., mushroom, vermicompost, apiculture etc. | Thematic area | Name of Technology | No. of farmers | No. of units | Major Performance parameters / indicators | % change in the parameter | Other parameters (if any)  | Econ. of demo. (Rs./Ha.) | Econ. of check (Rs./Ha.) | Remarks |
| Demo | Check | GC\*\* | GR\*\* | NR\*\* | BCR\*\* | GC | GR | NR | BCR |
| Demo |  Check |
| 1 | Apiculture | Beneficial Insects | Scientific Beekeeping | 18 | 4 | Honey Production (Kg./Box/Year) :Average Yield/Harvest : 2.5 L /harvest No.of harvest / year : 5Total harvest/Box/Year : 2.5 X 5 = 12.5 L | Honey Production (Kg./Box/Year) :Average Yield/Harvest : 3 -4 L /harvest No. of harvest / year : 1Total harvest/Box/Year : 3.5 X 1 = 3.5 L | 157 % | - | - | 22,000 | 87,500 | 65,500 | 3.97 : 1 | 9,000 | 24,500 | 15,500 | 2.72 : 1 |  |

*\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio*

*Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.*

(v) Farm Implements and Machinery

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Name of implement | Crop | Name of Technology demonstrated | No. of farmers | Area (In ha.) | Field observation (Output/ man-hours) | % change in the parameter | Labour reduction (Man days)  | Cost reduction (Rs. per ha. or Rs. per unit etc.) | Remarks |
| Demo |  Check |
|  |  |  |  |  |  |  |  |  |  |  |  |

*f. Performance of FLD on Crop Hybrids*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Crop | Name of hybrids | Area (ha.) | No. of farmers | Avg. yield (Q/ha.) | % increase in Avg. yield | Additional data on demo. yield (Q/ha.) | Econ. of demo. (Rs./Ha.) | Econ. of check (Rs./Ha.) |
| Demo. | Check | H\* | L\* | GC\*\* | GR\*\* | NR\*\* | BCR\*\* | GC | GR | NR | BCR |
|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

*\*H-Highest recorded yield, L- Lowest recorded yield*

*\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio*

*Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.*

3.3. Achievements on Training during 2021

\*\*(Attached separate in Excel format)

Annexure 1: Details of Training Programme (On Campus including Sponsored On Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Discipline | Area of training | Title of the training programme | Date (From – to) | Duration in days |  Venue | Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel) | General participants | SC/ST | Grand Total |
| M | F | T | M | F | T | M | F | T |
| Agronomy | Integrated farming | IFS - Agri + Horti + Vety | 23/2/21 | 1 | KVK | Farmers | - | - | - | 9 | 11 | 20 | 9 | 11 | 20 |
| Animal Science | Pig Nutrition | Feeding and nutrition for pigs | 3rd-to 4th Aug. 2021 | 2 | KVK Mokokchung | Farmer & Farm women |  |  |  | 10 | 10 | 20 | 10 | 10 | 20 |
| Animal Science | Poultry | Poultry Management | 12th to 19th May 2021 | 7 | KVK Mokokchung | Rural Youth |  |  |  |  | 15 | 15 |  | 15 | 15 |
| Animal Science | Animal Health care | Advances in Livestock Diseases | 8th Dec. 2021 | 1 | KVK Mokokchung | EP |  |  |  | 10 | 10 | 20 | 10 | 10 | 20 |

Annexure 2: Details of Training Programme (Off Campus including Sponsored Off Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Discipline | Area of training | Title of the training programme | Date (From – to) | Duration in days |  Venue | Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel) | General participants | SC/ST | Grand Total |
| M | F | T | M | F | T | M | F | T |
| Agronomy | Cropping system | Improved maize cultivation | 26/3/21 | 1 | Yimchalu | Farmer & Farm women | - | - | - | 5 | 9 | 14 | 5 | 9 | 14 |
| Agronomy | Weed management | Soybean intercropping | 11/5/21 | 1 | Longsa | Farmer & Farm women | - | - | - | 7 | 9 | 16 | 7 | 9 | 16 |
| Agronomy | Cropping system | Cropping system | 26/6/21 | 1 | Mopungchuket | Farmer & Farm women | - | - | - | 7 | 8 | 15 | 7 | 8 | 15 |
| Agronomy | Cropping system | Improved paddy cultivation | 5/7/21 | 1 | Longkhum | Farmer & Farm women | - | - | - | 6 | 9 | 15 | 6 | 9 | 15 |
| Agronomy | Resource conservation | Composting | 24/8/21 | 1 | Asangma | Farmer & Farm women | - | - | - | 12 | 14 | 26 | 12 | 14 | 24 |
| Agronomy | Crop diversification | Winter field crops cultivation | 8/9/21 | 1 | Chuchuyimlang | Farmer & Farm women | - | - | - | 7 | 9 | 16 | 7 | 9 | 16 |
| Agronomy | Crop diversification | Winter field crops cultivation | 15/9/21 | 1 | Merangkong | Farmer & Farm women | - | - | - | 7 | 9 | 16 | 7 | 9 | 16 |
| Agronomy | Cropping system | Oilseed production | 25/10/21 | 1 | Longkhum | Farmer & Farm women | - | - | - | 9 | 13 | 22 | 9 | 13 | 22 |
| Agronomy | Resource conservation | Post harvest management | 13/12/21 | 1 | Longmisa | Farmer & Farm women | - | - | - | 9 | 12 | 21 | 9 | 12 | 21 |
| Agronomy | Integrated water management | SRI for higher productivity | 3/5/21 | 1 | Luyong | Farmer & Farm women | - | - | - | 10 | 15 | 25 | 10 | 15 | 25 |
| Agronomy | Integrated water management | SRI for higher productivit | 19/7/21 | 1 | Longjang | Farmer & Farm women | - | - | - | 9 | 11 | 20 | 9 | 11 | 20 |
| Agronomy | Soil health management | Soil fertility management | 10/8/21 | 1 | Changtongya | Farmer & Farm women | - | - | - | 10 | 5 | 15 | 10 | 5 | 15 |
| Agronomy | Seed production | Pulse production | 14/10/21 | 1 | Changtongya | Farmer & Farm women | - | - | - | 6 | 10 | 16 | 6 | 10 | 16 |
| Agronomy | Seed production | Oilseed production | 25/10/21 | 1 | Longjang | Farmer & Farm women | - | - | - | 5 | 10 | 15 | 5 | 10 | 15 |
| Agronomy | Integrated farming system | Advances of integrated farming system | 8/12/21 | 1 | Mokokchung town | E P |  |  |  | 10 | 10 | 20 | 10 | 10 | 20 |
| Horticulture  | Vegetable production | Improved cultivation practices of tomato | 03.02.21 | 1 | Longkhum | Farmer & Farm women |  |  |  | 10 | 17 | 27 | 10 | 17 | 27 |
| Horticulture  | Orchard layout and planting | Layout and planting of citrus | 08.03.21 | 1 | Molungkong | Farmer & Farm women |  |  |  | 13 | 08 | 21 | 13 | 08 | 21 |
| Horticulture  | Vegetable production | Improved cultivation practices of chilli | 15.03.21 | 1 | Mangmetong | Farmer & Farm women |  |  |  | 10 | 16 | 26 | 10 | 16 | 26 |
| Horticulture | Post harvest management  | Value addition of fruits and vegetables | 04-10 .05.21 | 7 | Alempang | Rural Youth |  |  |  | 8 | 7 | 15 | 8 | 7 | 15 |
| Horticulture  | Mulching  | Mulching in chilli and tomato | 12.05.21 | 1 | Longkhum | Farmer & Farm women |  |  |  | 10 | 13 | 23 | 10 | 13 | 23 |
| Horticulture  | Orchard management | Management of orange orchard | 14.06.21 | 1 | Kupza | Farmer & Farm women |  |  |  | 09 | 14 | 23 | 09 | 14 | 23 |
| Horticulture  | Biofertilizer and green manure | Use of biofertilizers and green manuring in vegetable crop production | 11.08.21 | 1 | Changtongya | Farmer & Farm women |  |  |  | 13 | 10 | 23 | 13 | 10 | 23 |
| Horticulture  | Nursery management | Nursery raising, management and cultivation of winter vegetable crops | 24.08.21 | 1 | Asangma | Farmer & Farm women |  |  |  | 10 | 14 | 24 | 10 | 14 | 24 |
| Horticulture  | Vegetable production | Scientific cultivation of cauliflower | 24.08.21 | 1 | Kinunger | Farmer & Farm women |  |  |  | 10 | 13 | 23 | 10 | 13 | 23 |
| Horticulture  | Nursery management | Nursery raising, management and cultivation of winter vegetable crops | 08.09.21 | 1 | Chuchuyimlang | Rural Youth |  |  |  | 09 | 13 | 22 | 09 | 13 | 22 |
| Horticulture  | Nursery management | Nursery raising, management and cultivation of winter vegetable crops | 13.09.21 | 1 | Longsa | Farmer & Farm women |  |  |  | 11 | 15 | 26 | 11 | 15 | 26 |
| Horticulture  | Nursery management | Nursery raising, management and cultivation of winter vegetable crops | 15.09.21 | 1 | Longsa | Rural Youth |  |  |  | 10 | 13 | 23 | 10 | 13 | 23 |
| Horticulture  | Biofertilizer and green manure | Use of biofertilizers and green manuring in vegetable crop production | 21.09.21 | 1 | Mokokchung | Farmer & Farm women |  |  |  | 12 | 15 | 27 | 12 | 15 | 27 |
| Horticulture  | Vegetable production | Improved production technology of potato | 05.10.21 | 1 | Longjang | Farmer & Farm women |  |  |  | 11 | 16 | 27 | 11 | 16 | 27 |
| Horticulture | Post harvest management | Processing of tomato and chilli | 12.11.21 | 1 | Changtongya  | Rural Youth |  |  |  | 09 | 11 | 20 | 09 | 11 | 20 |
| Soil conservation | Resource Conservation | Awareness on soil conservation | 20th april | 1 | Mulongkong  | Farmer & Farm women |  |  |  | 8 | - | 8 | 8 | - | 8 |
| Soil conservation | Soil fertility management | Soil fertility management in terraced rice cultivation | 27th april | 1 | Satsu  | Farmer & Farm women |  |  |  | 10 | 3 | 13 | 10 | 3 | 13 |
| Soil conservation | Resource conservation | Awareness cum training on rain water harvesting and management | 7th May | 1 | Mokokchung  | Rural youth |  |  |  | 8 | 3 | 11 | 8 | 3 | 11 |
| Soil conservation | Soil microbes | Use of biofertilizers, importance of crop rotations and soil conservation practices | 19th July | 1 | Chuchuyimpang  | Farmer & Farm women |  |  |  | - | 7 | 7 | - | 7 | 7 |
| Soil conservation | Resource conservation | Construcution of low cost rain water harvesting structure (Jalkhund) for supplemental irrigation | 29th July | 1 | Mokokchung  | Farmer & Farm women |  |  |  | 9 | 4 | 13 | 9 | 4 | 13 |
| Soil conservation | Resource conservation | Importance of water management | 21st Sept | 1 | Longmisa  | Farmer & Farm women |  |  |  | - | 41 | 41 | - | 41 | 41 |
| Soil conservation | Resource conservation | Importance of water conservation and management | 7th Oct | 1 | Chuchuyimpang  | Farmer & Farm women |  |  |  | - | 31 | 31 | - | 31 | 31 |
| Soil conservation | Production & use of organic inputs | Use and importance of organic inputs for improved productivity of winter crops | 13th Oct | 1 | Chuchuyimpang  | Farmer & Farm women |  |  |  |  | 10 | 10 | - | 10 | 10 |
| Soil conservation | Resource conservation | Awareness on soil and water conservation | 10th Dec | 1 | Mangkolong  | Farmer & Farm women |  |  |  | 6 | 4 | 10 | 6 | 4 | 10 |
| Soil conservation | Soil fertility management | Soil health and fertility management | 11th Dec | 1 | Mulongkong  | Farmer & Farm women |  |  |  | 6 | 4 | 10 | 6 | 4 | 10 |
| Soil conservation | Soil fertility management | Soil health and fertility management | 17th Dec | 1 | Kupza  | Farmer & Farm women |  |  |  | 4 | 11 | 15 | 4 | 11 | 15 |
| Animal Science | Health care | Biosecurity measures for livestock health | 3rd-4th June 2021 | 2 | Ungma | Farmer & Farm women |  |  |  | 10 | 10 | 20 | 10 | 10 | 20 |
| Animal Science | Cold stress management for livestock | Cold stress management for livestock | 24thNov. 2021 | 1 | Longkum | Farmer & Farm women |  |  |  | 10 | 10 | 20 | 10 | 10 | 20 |
| Animal Science | Poultry | Technology options for improvement of backyard poultry | 9thJan. 2021 | 1 | Longmisa | Farmer & Farm women |  |  |  | 5 | 15 | 20 | 5 | 15 | 20 |
| Animal Science | Livestock enterprises – Options for livelihood sustenance | Livestock enterprises – Options for livelihood sustenance | 22nd to 23rdSep. 2021 | 2 | Longkong | RY |  |  |  | 10 | 10 | 20 | 10 | 10 | 20 |
| Animal Science | Precision Livestock farming | Precision Livestock farming | 2nd July 2021 | 1 | CVO office Mokokchung | EP |  |  |  | 8 | 7 | 15 | 8 | 7 | 15 |
| Plant Protection | Integrated Disease Management  | Integrated Disease Management in Tomato | 26.04.21 | 1 | Longkhum | Farmer & Farm women/ | - | - | - | 19 | 8 | 27 | 19 | 8 | 27 |
| Plant Protection | Integrated Pest Management | Management of Insect Pest in Cucurbits with Special references to off season Cucumber | 27.04.21 | 1 | Aliba | Farmer & Farm women/ | - | - | - | 17 | 12 | 29 | 17 | 12 | 29 |
| Plant Protection | Integrated Pest Management | Integrated Pest Management of FAWin Maize | 26.06.21 | 1 | Yisemyong | Farmer & Farm women/ | - | - | - | 6 | 8 | 14 | 6 | 8 | 14 |
| Plant Protection | Integrated Pest Management | Integrated Pest Management in Rice | 19.07.21 | 1 | Longkong | Extension Personnel | - | - | - | 9 | 8 | 17 | 9 | 8 | 17 |
| Plant Protection | Beekeeping | Seasonal Management of Honey Bee | 15.09.21 | 1 | Aliba | Rural Youth | - | - | - | 9 | 5 | 14 | 9 | 5 | 14 |
| Plant Protection | Integrated Disease Management  | IDM in Pulses with special references to Pea | 23.10.21 | 1 | Yimchalu | Farmer & Farm women | - | - | - | 19 | 7 | 26 | 19 | 7 | 26 |

## (D) Vocational training programmes for Rural Youth

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Crop / Enterprise | Date (From – To) | Duration (days | Area of training | Training title\* | No. of Participants | Impact of training in terms of Self employment after training | Whether Sponsored by external funding agencies (Please Specify with amount of fund in Rs.) |
| General | SC/ST | Total |
| M | F | T | M | F | T | M | F | T | Type of enterprise ventured into | Number of units | Number of persons employed | Avg. Annual income in Rs. generated through the enterprise |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\*training title should specify the major technology /skill transferred

Annexure 3: Only Sponsored Training Programmes (On, Off and Vocational)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| On/ Off/ Vocational | Beneficiary group (F/ FW/ RY/ EP) | Date (From- To) | Duration (days) | Discipline | Area of training | Title | No. of Participants | Sponsoring Agency | Amount of fund received (Rs.) |
| General | SC/ST | Total |
| M | F | T | M | F | T | M | F | T |  |  |
| On | RY | 5th to 11 May 2021 | 7 | Animal Science | Poultry | Poultry Management |  |  |  |  | 15 | 15 |  | 15 | 15 | SAMETI Nagaland | 45000/- |
| Off | Farmer & Farm women/ | 03.02.21 | 1 | Plant Protection | Mushroom Production | Hand on Training & Demonstration on year round cultivation of Oyster mishroom | - | - | - | 4 | 10 | 14 | 4 | 10 | 14 | NICRA, CRIDA, Hyd | 14 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

3.4.Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, Kisan Mela, Exhibition, Diagnostic Visit, etc) during 2021

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No. | Extension Activity  | Topic  | Date and duration | No. of activities | Participants |
| General(1) | SC/ST (2) | Extension Officials(3) | Grand Total(1+2) |
| M | F | T | M | F | T | M | F | T | M | F | T |
|  | Advisory services |  | **Jan-Dec ‘21** | 37 | - | - | - | 110 | 118 | 228 | 3 | 6 | 9 | 110 | 118 | 228 |
|  | Diagnostic visit |  | **Jan-Dec ‘21** | 45 | - | - | - | 151 | 143 | 294 | - | - | - | 151 | 143 | 294 |
|  | Field day |  | **Jan-Dec ‘21** | 4 | - | - | - | 25 | 28 | 53 | - | - | - | 25 | 28 | 53 |
|  | Group Discussion |  | **Jan-Dec ‘21** | 3 | - | - | - | 28 | 23 | 51 | - | - | - | 28 | 23 | 51 |
|  | Method demonstration |  | **Jan-Dec ‘21** |  25 | - | - | - | 107 | 117 | 224 | - | - | - | 107 | 117 | 224 |
|  | Film show | 1.Thematic video on Health Soil Salinization, Boost Soil Productivity2.Importance of soil pH | 5th Dec |  2 | - | - | - | 64 | 10 | 74 | - | - | - | 64 | 10 | 74 |
|  | Scientists visit to farmers fields |  | 23rd Oct & 2nd Nov | 34 | - | - | - | 78 | 88 | 166 | - | - | - | 78 | 88 | 166 |
|  | Field visits | Coverage under mandated activities |  | 51 | - | - | - | 100 | 133 | 233 | - | - | - | 100 | 133 | 233 |
|  | Awareness campaign | 1.Jal Shakti Abhiyan (9)2.Balanced use of fertilizers(2)3.Swachhta campaign (1) | 7th & 22nd May, 11th, 18th & 26th June, 5th, 9th, 16th & 19th July, 16th Oct | 12 | - | - | - |  |  | 382 | - | - | - |  |  | 382 |
|  | Farmers visit/ students visit to KVK | Horti extension personnels | 2nd Dec | 1 | - | - | - | 10 | - | 10 | - | - | - | 10 | - | 10 |
|  | Celebration of important days | 1.World Food Day2.World Soil Day | 16th Oct & 5th Dec | 3 | - | - | - | 80 | 135 | 215 | - | - | - | 80 | 135 | 215 |
|  | Newspaper coverage | Celebration of world soil day, Soil testing | 5th & 6th Dec | 4 | - | - | - |  |  |  | - | - | - |  |  |  |
| 13. | Radio talk | Celebration of world soil day, soil testing, water harvesting and conservation (local dialect & English) | 3rd, 5th & 6th Dec | 5 | - | - | - |  |  |  | - | - | - |  |  |  |
| 14. | Exhibition  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 15. | Lecture delivered as resource person |  |  | 5 | - | - | - | 55 | 85 | 140 | - | - | - | 55 | 85 | 140 |
| 16 | Animal health care camp | Animal health care camp | **15th Oct. 2021** | 1 | - | - | - | 30 | 25 | 55 | 3 |  |  | 33 | 25 | 58 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

3.5 Production and supply of Technological products during 2021

A. SEED MATERIALS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Major group/class | Crop wise | Variety | Quantity (qt) | Value (Rs.) | Number of recipient/ beneficiaries |
| General | SC/ST | Grand Total |
| M | F | M | F |  |
| CEREALS | Paddy | CAU R-1 | 5 | 5770 | - | 8 |  | 8 | 8 |
|  | Maize | All rounder | 2 | 3850 |  | 4 |  | 4 | 4 |
|  |  |  |  |  |  |  |  |  |  |
| OILSEEDS | Toria | TS 67 | 2 | 9000 | 25 |  | 25 |  | 25 |
|  | Soybean | VL -65 | 1 | 6000 | 4 |  | 4 |  | 4 |

A1. SUMMARY ofProduction and supply of Seed Materials during 2021

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No. | Major group/class | Quantity (q) produced | Quantity (q) supplied | Value (Rs.) of quantity produced | Number of recipient/ beneficiaries |
| General | SC/ST |  Grand Total |
| 1 | CEREALS | 7 | 2 | 9620 |  |  | 12 |  | 12 |
| 2 | OILSEEDS | 2 | 0.1 | 9000 |  |  | 4 |  | 4 |
| 3 | PULSES | 2 | 0.35 | 6000 |  |  | 4 |  | 4 |
| 4 | VEGETABLES | 0.56 |  | 121000 |  |  | 610 |  | 610 |
| TOTAL |  |  |  |  |  |  |  |  |

B. Production and supply of Planting Materials(Nos. in No.) during 2021

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Major group/class | Crop | Variety | Quantity (In No.) produced | Quantity (In No.) suppliedced | Value (Rs.) of quantity produced | Number of recipient/ beneficiaries |
| General | SC/ST | Grand Total |
| M | F | M | F |  |
| **VEGETABLES** | Chilli  | Arka Meghana |  | 0.065 | 19500 |  |  |  | 95 | 95 |
|  | Tomato  | Arka Samrat & Chiranjevi |  | 0.11 | 33000 |  |  |  | 135 | 135 |
|  | Cabbage  | BC 76, Rareball |  | 0.085 | 25500 |  |  |  | 110 | 110 |
|  | Broccoli  | Green Magic |  | 0.085 | 25500 |  |  |  | 115 | 115 |
|  | Onion | Arka Kirthiman |  | 0.215 | 43000 |  |  |  | 155 | 155 |

C. Production of Bio-Products during 2021

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Major group/class | Product Name | Species | produced Quantity  | Value (Rs.) | Number of Recipient /beneficiaries |
| No | (Kg) |
| General | SC/ST | Grand Total |
| M | F | M | F |  |
| BIOAGENTS |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| BIOFERTILIZERS |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |
| BIO PESTICIDES |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |

D. Production of livestock during 2021

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No. | Type/ category of livestock | Breed | Quantity | Value (Rs.) | Number of Recipient beneficiaries |
| (Nos) | Kgs |
| General | SC/ST | Total |
| M | F | M | F |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

3.6. Literature Developed/Published (with full title, author & reference) during 2021

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

(B) Articles/ Literature developed/published

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Title /and Name of Journal | Authors name  | Number of copies |
| Produced/ published | Supplied/ distributed |
| Leaflets/folders | Ali tendangba yimya (soil testing programme) | Imtilemla  |  | 100 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| TOTAL |  |  |  |  |

N.B. Please enclose a copy of each. In case of literature prepared in local language, please indicate thetitle in English

(C) Details of Electronic Media Produced

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

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

 **Triple disease resistant tomato F1 hybrid ArkaSamrat brings back smile on farmers face**

Mr. Imtitoba is a farmer from Longkhum village under Mokokchung district, Nagaland. He cultivates mostly horticultural crops like tomato, chilli, cole crops, carrot, radish etc. He never used to miss tomato crop in his crop plan in entire farming experience. However, due to incidences of several diseases he incurred heavy losses in tomato crop for several years due to non-availability of diseases resistant varieties. Therefore, KVK Mokokchung initiated on farm testing on ArkaSamrat, which is a triple disease resistant variety (BW, ToLCV, EB),developed by IIHR, Bangalore. It was found that the variety was very adaptable in that village and hence he was encouraged to grow the variety.

Mr. Imtitoba intitially took up the cultivation of ArkaSamrat cautiously by planting only 1500 plants along with normally cultivated variety during the summer of 2020.  He was impressed with the performance of the new varietyArkaSamratin terms of growth, yield and very less disease incidence especially blight disease as compared to his normally cultivated variety. On an average he harvested about 5-6 kg per plant of tomato fruits. The tomato fruits fetched higher price over other variety because the fruits of ArkaSamrat had attractive deep red colour and the fruits were very firm with very good keeping quality which is suitable for distant market. He harvested around 4000 kgs of marketable fruits earning a net income of Rs. 350000/-.Impressed and convinced, Mr. Imtitoba again raised about 2000 seedlings during August 2020 as second crop. The yield of second crop was little less due to shortage of irrigation as it was grown during dry season. He however harvested about 2800 kgs and earned a net profit of aboutRs 250000. A field day was organized inviting farmers from the village to give awareness about the new variety.

With the success of the variety ArkaSamrat he further increased his area under ArkaSamrat during the summer of 2021 and planted about 4000 seedlings and harvested 5500 kgs and earned a net profit of Rs. 487000/-. Seeing the performance of ArkaSamrat in terms of yield and disease resistance other fellow farmers have also started taking up the variety. Mr. Imtitoba is now cultivating the tomato hybrid ArkaSamrat continuously and in this way he has become a model tomato farmer in adopting and popularizing the triple disease resistant tomato F1 hybrid ArkaSamrat.

It is worth mentioning that seed replacement of old varieties which are low yielding and susceptible to disease by improved varieties which are disease resistant and high yielding is possible if more awareness and encouragement on these varieties is made.

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  |
|  |  |  |  |

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

- Identification of courses for farmers/farm women : Group discussion and PRA analysis

 - Rural Youth : Interaction, skill oriented need based training methodology and demonstration.

 - Extension personnel : Lectures,Demonstration and brain stroming sessions.

3.11 Field activities

 i. Number of villages adopted

 ii. No. of farm families selected

 iii. No. of survey/PRA conducted

3.12. Activities of Soil and Water Testing

Status of establishment of Lab :completed

1. Year of establishment :

2. List of equipments purchased with amount :

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No | Name of the Equipment | Qty. | Cost |
| S&WT lab | Mini lab/ Mridaparikshak | Manufacturer |
| 1 |  | Mridaparikshak  | Nagarjuna  | 2 |  |
| Total |  |  |  |  |

3. Details of samples analyzed (2021) :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Details | No. of Samples analysed | No. of Farmers | No. of Villages | Amount( In Rupees) realized |
| Soil Samples | 60 | 170 | 5 |  |
| Water Samples |  |  |  |  |
| Plant Samples |  |  |  |  |
| Petiole Samples |  |  |  |  |
| Total |  |  |  |  |

1. Details of Soil Health Cards (SHCs) (2021)
2. No. of SHCs prepared:170
3. No. of farmers to whom SHCs were distributed: 170
4. Name of the Major and Minor nutrients analysed: pH, OC, Avl.N, Pand K, S, Fe, Zn, B
5. No. of villages covered:5

3.13. Details of SMS/ Voice Calls sent on various priority areas

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Message type | Crop | Livestock | Weather | Marketing | Awareness | Other Ent. | Total |
| No. of Message  | No. of Ben eficiary | No. of Message | No. of Beneficiary | No. of Message | No. of Beneficiary | No. of Message | No. of Beneficiary | No. of Message | No. of Beneficiary | No. of Message | No. of Beneficiary | No. of Message | No. of Beneficiary |
| Text only | **72** | **1452** | **5** | **375** | **45** | **120560** |  |  | **8** | **1560** | **5** | **225** | **135** | **124172** |
| Voice only |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voice and Text both |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | **72** | **1452** | **5** | **375** | **45** | **120560** |  |  | **8** | **1560** | **5** | **225** | **135** | **124172** |

3.14 Contingency planning for 2021

a. Crop based Contingency planning

|  |  |  |  |
| --- | --- | --- | --- |
| Contingency (Drought/ Flood/ Cyclone/ Any other please specify) | Proposed Measure  | Proposed Area (In ha.) to be covered | Number of beneficiaries proposed to be covered |
| General | SC/ST | Total |
|  | **Introduction of new variety or crop-1)maize-HQPM-1,All rounder,RCM-76****2)Upland rice-Bhalum-3 and SARS-1,TRC Paddy-shahsasang-1,and SRI System** | **30** |  | **50** | **50** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | **Introduction of Resource Conservation Technologies** | **2** |  | **25** | **25** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | **Distribution of seeds and planting materials** | **0.5** |  | **5** | **5** |
|  |  |  |  |  |  |
|  | **Any other (Please specify)** |  |  |  |  |
| Long dry spell | **Already sown crops**i. In-situ moisture conservation to safeguard the standing crop from moisture stress.ii. Mulching with crop residue or thin plastic sheets if the water stress continues. iii. Raising nursery of crops in which transplanting is easily possible for filling the gaps  | 5 |  | 30 | 30 |

a. Livestock based Contingency planning

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Contingency (Drought/ Flood/ Cyclone/ Any other please specify) | Number of birds/ animals to be distributed | No. of programmes to be undertaken | No. of camps to be organized | Proposed number of animals/ birds to be covered through camps | Number of beneficiaries proposed to be covered |
| General | SC/ST | Total |
|  |  |  |
| drought | poultry | 7 | 2 | 3000 |  | 300 | 300 |
|  |  |  |  |  |  |  |  |
| Cold wave | poultry | 2 | 1 | 1000 |  | 50 | 50 |
|  |  |  |  |  |  |  |  |

* 1. IMPACT
	2. Impact of KVK activities (Not to be restricted for reporting period only)

|  |  |  |  |
| --- | --- | --- | --- |
| Name of specific technology/skill transferred | No. of participants | % of adoption | Change in income (Rs.) |
| Before (Rs./Unit) | After (Rs./Unit) |
|  |  |  |  |  |

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

4.2. Cases of large scale adoption

 (Please furnish detailed information for each case)

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

5.0. LINKAGES ESTABLISHED

5.1 Functional linkage with different organizations established during 2021

|  |  |
| --- | --- |
| Name of organization | Nature of linkage |
| State Agricultural Research Station (SARS) Yisemyong | Joint implementation in conducting training, demonstration, meeting, trials etc. |
| DAO, DHO, DVO, DSCO, DFO,LRD in the district | Conducting training, demonstration programmes |
| ICAR, Jharnapani, Nagaland University | Consultation, meeting and exchange of technologies |
|  |  |

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

* 1. List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2021

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the scheme/ special programme | Activity | Date/ Month of initiation | Funding agency | Amount (Rs.) |
| Campaign on Nutri-Garden and tree plantation. | Seeds distribution, Training, Interaction | 17/9/21 | ATARI |  |
| Special swachhta campaign | Cleanliness drive,training,awareness | 2/10/21To31/10/21 | ATARI | - |
| **World Soil Health Day** | Training, Soil card distribution | 5/12/21 |  |  |
|  |  |  |  |  |

5.3 Details of linkage with ATMA

 a) Is ATMA implemented in your district :yes

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No. | Programme  | Nature of linkage  | Remarks  |
| **1.** | Training, trial & Demonstration, Exhibition, Joint field visit | Resource person and programme Planning, implementation and monitoring  | Actively participating in programme implementation  |
|  |  |  |  |

5.4 Give details of programmes implemented under National Horticultural Mission

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

5.5 Nature of linkage with National Fisheries Development Board

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

6. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2021

6.1 Performance of demonstration units (other than instructional farm)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Demo Unit(Name and No.) | Year of estd. | Area | Details of production | Amount (Rs.) | Remarks |
| Variety/ species/ breed | Type of Produce | Qty. | Cost of inputs | Gross income |
| 1 |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |

6.2 Performance of instructional farm (Crops) including seed productionduring 2021

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Nameof the crop | Date of sowing | Date of harvest | Area (ha) | Details of production | Amount (Rs.) | Remarks |
| Variety | Type of Produce | Qty. | Cost of inputs | Gross income |
| broccoli | 16/9/20 | 6/1/21 | .0005 | Doctorgreen | flower | 50kg | 1000 | 2500 |  |
| Mustard | 2/11/20 | 5/1/21 | .0003 | Local | Leaf |  | 600 | 1000 |  |
| Tree bean | 11/1/21 | 9/12/21 | - | - | beanpods | - | - | 7250 |  |
| Tomato | 3/5/21 | 23/7/21 | .0005 | Arka samrat | fruit | 30kg | 250 | 1500 |  |
| okra | 17/4/21 | 12/7/21 | .0135 | Arka anamika | pods | 10kg | 350 | 400 |  |
| cowpea | 19/4/21 | 7/7/21 | .008 | Longyard | pod | 15kg | 250 | 450 |  |
| chilli | 17/5/21 | 23/7/21 | .004 | Meghana | fruit | 10kg | 280 | 500 |  |
| beans | 22/9/21 | 11/11/21 | .0002 | Selection -9 | pod | 25kg | 500 | 625 |  |
| Bittergourd | 19/4/21 | 11/8/21 | .0002 | palee | fruit | 10kg | 250 | 500 |  |

* 1. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.) during 2021

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl.No. | Name of the Product | Qty | Amount (Rs.) | Remarks |
| Cost of inputs | Gross income |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

* 1. Performance of instructional farm (livestock and fisheries production) during 2021

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl.No | Nameof the animal / bird / aquatics | Details of production | Amount (Rs.) | Remarks |
| Breed/ species | Type of Produce | Qty. | Cost of inputs | Gross income |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Unit/ structureduring 2021



| Date | Title of the training course | Client (PF/RY/EF) | No. of Courses | No. of Participants including SC/ST |
| --- | --- | --- | --- | --- |
| Male | Female | Total |
| 7th May 2021 | Awareness cum training on rain water harvesting and management | RY | 1 | 8 | 3 | 11 |
| 29th July | Construction of low cost rain water harvesting structure for supplemental irrigation | PF | 1 | 9 | 4 | 13 |
|  |  |  |  |  |  |  |

6.6. Utilization of hostel facilities (Month-Wise) during 2021

 Accommodation available (No. of beds):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Months | Title of the training course/Purpose of stay | Duration of Training | No. of trainees stayed | Trainee days (days stayed) | Reason for short fall (if any) |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Total  |  |  |  |  |  |

Note: (Duration of the training course X No. of trainees)=Trainee days

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

|  |  |  |  |
| --- | --- | --- | --- |
| Bank account | Name of the bank | Location/ Branch | Account Number |
| With Host Institute | State Bank of India | Lerie, Kohima | 01000050059 |
| With KVK | State Bank of India | Mokokchung, Main Branch | 11361013166 |
| Revolving Fund | Nagaland State Cooperative Bank | Mokokchung | 20003392 |

* 1. Utilization of funds under CFLD on Oilseeds and Pulses (Rs. In Lakhs) if applicable during 2021

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Released by ICAR/ATARI (in lakh) | Expenditure (in lakh) | Unspent balance as on 31st March, 2018 |
| Amount | Amount | Amount | Amount |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| TOTAL |  |  |  |  |  |

7.3 Utilization of KVK funds during the year 2021

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No. | Particulars | Sanctioned (in Lakh) | Released(in Lakh) | Expenditure(in Lakh) |
| A. Recurring Contingencies |
| 1 | Pay & Allowances | 251.29456 | 251.29456 | 251.29456 |
| 2 | Traveling allowances | 2.25000 | 2.25000 | 2.25000 |
| 3 | Contingencies | 17.75000 | 17.75000 | 17.75000 |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 6.21250 | 6.21250 | 6.21250 |
| *B* | POL, repair of vehicles, tractor and equipments |
|  | Working Capital |  |  |  |
| *C* | Meals/refreshment for trainees  | 11.53750 | 11.53750 | 11.53750 |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) |
| *E* | Frontline demonstration except oilseeds and pulses  |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) |
| *G* | Training of extension functionaries |
| *H* | Maintenance of buildings |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory  |
| *J* | Library  |  |  |  |
| *K* | KSHAMTA | .25 | .25 | .25 |
| *L*  | NARI | .25 | .25 | .25 |
| *M*  | HRD | .50 | .50 | .50 |
| TOTAL (A) | 272.29456 | 272.29456 | 272.29456 | 272.29456 |
| B. Non-Recurring Contingencies |
| 1 | Works | 3.00000 | 3.00000 | 3.00000 |
| 2 | Equipments including SWTL & Furniture | 5.50000 | 5.50000 | 5.50000 |
| 3 | Vehicle (Four wheeler, please specify) |  |  |  |
| 4 | Library (Purchase of assets like books & journals) |  |  |  |
| TOTAL (B) | 280.79456 | 280.79456 | 280.79456 | 280.79456 |
| C. REVOLVING FUND |  |  |  |
| GRAND TOTAL (A+B+C) | 280.79456 | 280.79456 | 280.79456 |

7.4 Status of Revolving Fund (Rs. in lakhs) for last three years

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Opening balance as on 1st April | Income during the year | Expenditure during the year | Net balance with KVK (in lakh) |
| 2021(seed money) | 81140 | 13200 | 8500 | 85840 |

Note: No KVK must leave this table blank

8.0 Please include information which has not been reflected above.

(Write in detail)

8.1 Constraints and Suggestion (Provide point-wise if any, for recommendation)

 (a) Administrative

 (b) Financial

 (c) Technical

#  (Signature)

 Sr. Scientist cum Head