**Annual Action Plan**

**(April 2018 - March 2019)**

**Krishi Vigyan Kendra Manpur, Gaya**

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**Directorate of Extension Education**

**Bihar Agricultural University, Sabour Bhagalpur**

1. Name of the KVK**: KRISHI VIGYAN KENDRA, MANPUR, GAYA**

**2.** Name of the host organization**: B.A.U., SABOUR, BHAGALPUR, BIHAR**

**3. Training Programme to be organized (April 2018 - March 2019)**

**(a) Practising farmer /Farm women**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thematic Area** | **Title** | **Duration** | **No. of participants** | | | |
| **SC** | **ST** | **Others** | **Total** |
| **Crop Production** | | | | | | |
| Integrated Crop Management | Improved package of production for summer mongbean | 1 | 4 | - | 21 | 25 |
| Production of organic inputs | Importance of green manure crops for organic production system | 1 | 5 | - | 20 | 25 |
| Weed Management | Weed management in summer mongbean | 1 | 4 | - | 21 | 25 |
| Integrated Crop Management | Importance of deep summer ploughing to reduce pest population | 1 | 3 | - | 22 | 25 |
| Cropping Systems | Production technique for direct seeded rice | 1 | 4 | - | 21 | 25 |
| Resource Conservation Technologies | Different methods for recharging/conserving ground water | 1 | 2 | - | 23 | 25 |
| Nursery management | Technique for MAT type nursery raising in paddy | 1 | 4 | - | 21 | 25 |
| Nursery management | Technique for raising paddy nursery under deficient/delayed rainfall condition | 1 | 4 | - | 21 | 25 |
| Integrated Crop Management | Production technique for kharif maize | 1 | 4 | - | 21 | 25 |
| Production of organic inputs | Bio-fertilizers-a tool for sustainable /organic crop production | 1 | 4 | - | 21 | 25 |
| Productivity enhancement | Production technique for late sown wheat | 1 | 4 | - | 21 | 25 |
| Integrated Farming | IFS models for doubling farmers income | 1 | 4 | - | 21 | 25 |
| Nutrient management | Fertilizer and irrigation management in wheat | 1 | 4 | - | 21 | 25 |
|  | **Total** | **13** | **50** | **-** | **275** | **325** |
| **Home Science** | | | | | | |
| Gender main streaming through SHGs | Capacity building of farm women through SHGs | 1 | 3 | - | 22 | 25 |
| Storage loss minimization | Home scale method of Safe grain storage | 1 | 5 | - | 20 | 25 |
| Women & Child care | Management and preventive measures against malnutrition among children | 1 | 1 | - | 24 | 25 |
| Income generation | Different avenues of farm women entrepreneurship | 1 | 5 | - | 20 | 25 |
| Design and development of low/minimum cost diet | Nutritional upliftment by low cost locally available less familiar foods | 1 | 4 | - | 21 | 25 |
| Household food security by kitchen gardening | Nutrition garden to maintain food & nutrition security | 1 | 4 | - | 21 | 25 |
| Minimization of nutrients loss in processing | Prevention of nutrition loss during cooking process | 1 | 3 | - | 22 | 25 |
| Income generation & empowerment of women | Mushroom production | 1 | 3 | - | 22 | 25 |
| Value addition | Post harvest management of fruits & vegetables | 1 | 1 | - | 24 | 25 |
| Value addition | Preparation of products from Amla | 1 | 4 | - | 21 | 25 |
| Value addition | Value addition of tomato | 1 | 3 | - | 22 | 25 |
| Value addition | Value addition of potato | 1 | 3 | - | 22 | 25 |
| Women and child care | Importance of nutrients and their deficiency management | 1 | 3 | - | 22 | 25 |
| Women and child care | Adulteration in common food materials | 1 | 5 | - | 20 | 25 |
| Women and child care | Nutritional requirement for pregnant and lactating women | 1 | 1 | - | 24 | 25 |
|  | **Total** | **15** | **48** | **0** | **327** | **375** |
| **Veterinary Science** | | | | | | |
| Dairy Management | Management of dairy animals during summer | 1 | 5 | - | 20 | 25 |
| Disease Management | HS & BQ in dairy animals | 1 | 5 | - | 20 | 25 |
| Disease Management | Vaccination schedule in dairy animals | 1 | 5 | - | 20 | 25 |
| Poultry Management | Income generation through backyard poultry | 1 | 5 | - | 20 | 25 |
| Poultry Management | Commercial broiler farming | 1 | 5 | - | 20 | 25 |
| Feed Management | Formulation of balanced ration | 1 | 5 | - | 20 | 25 |
| Goat farming | Small scale goat farming | 1 | 5 | - | 20 | 25 |
| Fodder production | Fodder production round the year | 1 | 5 | - | 20 | 25 |
| Disease Management | Management of common disease | 1 | 5 | - | 20 | 25 |
| Dairy Management | Clean milk production | 1 | 5 | - | 20 | 25 |
| Dairy Management | Management of cattle in winter season | 1 | 5 | - | 20 | 25 |
| Disease Management | Infertility in dairy animals | 1 | 5 | - | 20 | 25 |
| Disease Management | Common disease of goat | 1 | 5 | - | 20 | 25 |
| Feed Management | Treatment of straw with urea | 1 | 5 | - | 20 | 25 |
|  | **Total** | **14** | **70** | **0** | **280** | **350** |
| **Extension Education** | | | | | | |
| Group dynamics | socio- economic upliftment through farmers group | 1 | 2 | - | 18 | 20 |
| Group dynamics | Farmers field school is the need of the time for farmers | 1 | 2 | - | 18 | 20 |
| Organic farming | Organic farming is the need of the time for farmers | 1 | 2 | - | 18 | 20 |
| Information networking | Use of electronic media for market update | 1 | 2 | - | 18 | 20 |
| Information networking | availability of markets for sale of farmers produce | 1 | 2 | - | 18 | 20 |
| Capacity building | Capacity building of farmers & farm women for seed production | 1 | 2 | - | 18 | 20 |
| Capacity building | Capacity building for vegetable seed production | 1 | 2 | - | 18 | 20 |
| Formation and management of SHGs | Increasing income through SHGs | 1 | 2 | - | 18 | 20 |
| Formation and management of SHGs | Doubling farmers income through group formation | 1 | 2 | - | 18 | 20 |
| Gender mainstreaming | Gender mainstreaming by means of group activities | 1 | 2 | - | 18 | 20 |
| Entrepreneurial development | Generating income through vermicomposting | 1 | 2 | - | 18 | 20 |
| Entrepreneurial development | Increasing income by means of value addition | 1 | 2 | - | 18 | 20 |
| Entrepreneurial development | Entrepreneurship development in agriculture | 1 | 2 | - | 18 | 20 |
|  | **Total** | **13** | **26** | **0** | **234** | **260** |

**(b) Rural Youth**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thematic Area** | **Title** | **Duration** | **No. of participants** | | | |
| **SC** | **ST** | **Others** | **Total** |
| **Crop Production** | | | | | | |
| Seed production | Seed production techniques of field crop (cereals/pulse/oilseed) | 6 | 4 | - | 21 | 25 |
|  | **Total** | **6** | **4** | **-** | **21** | **25** |
| **Extension Education** | | | | | | |
| Entrepreneurship development | Vermi composting is the means of developing entrepreneurship | 6 | 2 | - | 18 | 20 |
| Beekeeping | Doubling income through beekeeping | 6 | 2 | - | 18 | 20 |
|  | **Total** | **12** | **4** | **-** | **36** | **40** |
| **Home Science** | | | | | | |
| Value addition | Fruits & vegetables processing | 6 | 5 | - | 15 | 20 |
| Entrepreneurship development | Mushroom production | 6 | 3 | - | 17 | 20 |
|  | **Total** | **12** | **8** |  | **32** | **40** |
| **Veterinary Science** | | | | | | |
| Dairy Management | Dairy Management | 5 | 5 | - | 20 | 25 |
| Goatry Management | Goatry Management | 4 | 5 | - | 20 | 25 |
|  | **Total** | **9** | **10** | **-** | **40** | **50** |

**(c) Extension Functionaries**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thematic Area** | **Title** | **Duration** | **No. of participants** | | | |
| **SC** | **ST** | **Others** | **Total** |
| **Crop Production** | | | | | | |
| Productivity enhancement | Technical knowhow on ‘App” based fertilizer | 2 | 4 | - | 21 | 25 |
| Productivity enhancement | Package of practices for rabi crop production | 2 | 3 | - | 22 | 25 |
| **Home Science** | | | | | | |
| Kitchen gardening & human health | Household food security by kitchen gardening | 2 | 5 | - | 20 | 25 |
| **Veterinary Science** | | | | | | |
| Dairy Management | Scientific management of dairy animal for improvement in milk production | 2 | 5 | - | 20 | 25 |
| **Extension Education** | | | | | | |
| Entrepreneurship development | Doubling income through vermicompost production | 2 | 2 | - | 18 | 20 |
| Entrepreneurship development | Beekeeping is the means of increasing income | 2 | 2 | - | 18 | 20 |

**Extension Activities 2018-19**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nature of Extension Activity** | **No. of activities** | **Farmers** | | | **Extension Officials** | | | **Total** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Field Day | **10** | **300** | **50** | **350** | **10** | **-** | **10** | **310** | **50** | **360** |
| Kisan Mela | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **Mass** |
| Kisan Ghosthi /Kisan chaupal | **40** | **700** | **100** | **800** | **25** | **10** | **35** | **725** | **110** | **835** |
| Exhibition | **1** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **mass** |
| Method Demonstrations | **6** | **60** | **10** | **70** | **3** | **2** | **5** | **63** | **12** | **75** |
| Workshop | **1** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **Mass** |
| Lectures delivered as resource persons | **25** | **600** | **20** | **620** | **25** | **15** | **40** | **625** | **35** | **660** |
| Newspaper coverage | **30** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **Mass** |
| Radio talks | **04** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **Mass** |
| TV talks | **05** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **Mass** |
| Popular articles | **03** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **Mass** |
| Extension Literature | **05** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| Advisory Services | **500** | **400** | **100** | **500** | **-** | **-** | **-** | **-** | **-** | **500** |
| Scientific visit to farmers field | **100** | **60** | **30** | **90** | **10** | **-** | **10** | **70** | **30** | **110** |
| Farmers visit to KVK | **500** | **400** | **100** | **500** | **-** | **-** | **-** | **-** | **-** | **500** |
| Diagnostic visits | **10** | **40** | **15** | **15** | **-** | **-** | **-** | **40** | **15** | **55** |
| Exposure visits | **5** | **150** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **150** |
| Soil health Camp | **5** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **mass** |
| Animal Health Camp | **10** | **400** | **-** | **400** | **-** | **-** | **-** | **-** | **-** | **400** |
| Soil test campaigns | **4** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **4** |
| Celebration of important days (specify) | **10** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **mass** |
| Any Other (Specify) | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| Krishi Vikas Utsav | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| Technical bulletin | **1** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **1** |
| **Total** | **1261** | **2820** | **425** | **3105** | **73** | **27** | **100** | **1833** | **252** | **3360** |

**Action plan of FLD for the year 2018-19**

1. **FRONT LINE (Cluster) DEMONSTRATION OILSEEDS AND PULSES (2018-19)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.N.** | **Crop** | **Previous crop and cropping system** | | | **Farming situation** | | | **Area**  **(ha)** | **Variety** | **Sowing time** | **Technology Demonstrated** | **Input of demonstration cost. (Rs.)** |
| **Summer** | **Kharif** | **Rabi** | **Rainfed** | **Irrigated** | |
| **Kharif Pulse** | | | | | | | | | | | | |
| 1. | Pigeon pea |  |  |  |  |  | | 10 | NA-1/ Malvi 16 | Jun-July | Bio fungicide+ seed+insecticide | 110000 |
| **Oilseed** | | | | | | | | | | | | |
| 1. | Mustard | Moong | Paddy | Rai | - | | - | 10 | Pusa Mahak/R.Suflam | October- December | Seed+ Sulphur+ insecticide | 60000 |
| **Pulses** | | | | | | | | | | | | |
| 1. | Lentil | Moong | Paddy | Lentil | Rainfed | | - | 50 | Arun/HUL 57 | Nov. | Seed+ Rhizobium /Trichoderma | 175000 |
| 2. | Chickpea |  |  |  |  | |  | 20 | As per variety available | Oct. | Seed+ Rhizobium /Trichoderma | 200000 |
| 3. | Moong | Moong | Paddy | Wheat |  | | Irrigated | 30 | PDM-139 | March | Seed+treatment material+sulpher | 15000 |
| **Total** | | | | | | | | | | | | **390000** |

**(B)FRONT LINE DEMONSTRATION OTHER THAN OILSEED & PULSES (2018-19)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.N.** | **Crop** | **Previous crop and cropping system** | | | **Farming situation** | | | | **Area**  **(ha)** | | **Variety** | **Sowing time** | **Technology Demonstrated** | | **Input of demonstration cost.** |
| **Summer** | **Kharif** | **Rabi** | **Rainfed** | **Irrigated** | | |
| 1. | Paddy | Vegetable | Paddy | Wheat | - | | Rainfed/Irrigated | 10 | | Sahbhagi/R. Sweta | | June- August | Seed+  ZnSo4 | 25000 | |
| 2. | Wheat | Moong | Paddy | Wheat | - | | Irrigated | 20 | | HD 2985/HI1563 | | Nov. | Late sown variety + Herbicide | 150000 | |
| 3. | Kitchen garden | Veg. | Veg. | Veg. |  | | Irrigated | 50nos. | | Veg. seeds | | July-Feb. | Seeds+ seedlings | 20000 | |
| 4. | Mushroom Production | - | - | - | - | | - | 50  nos. | | Oyster | | Oct./Nov. | Seed/spawn+chemicals | 20000 | |
| 5. | Animals | - | - | - | - | | Irrigated | 1 | | Makhan grass | | Sep/Oct | Fodder seed | 10000 | |
| 6. | Paddy | insecticides |  |  |  | |  | 5 ha | | Insecticide | | Jul - Sep |  | 12000 | |
| 7. | Cabbage | Moong | Maize | Vegetable | - | | Irrigated | 2ha | | Hybrid | | Sept.-Nov. | Seed | 32000 | |
| **Total** | | | | | | | | | | | | | | **269000** | |

**ACTION PLAN FOR ON FARM TRIAL 2018-19**

**OFT-1**

**Title of on farm trial:** Assess the foliar application of potassium nitrate in late sown wheat for mitigation of terminal heat stress

**Problem diagnosed:** Low yield in late sown wheat due to terminal heat stress

**Thematic Area**: ICM

**Details of technology**

**Technical option**:

Technology option 1: Farmers Practice: General cultivation of late sown wheat (during 2nd fortnight of Dec.) without any foliar spray

Technology option 2: Foliar spray 0.5% KNO3 at booting and 0.5% KNO3 at anthesis stage

Technology option 3: Foliar spray 1.0 % KNO3 at anthesis stage

**Source:** BAU, Sabour

**Plot size**: 250 sq. m. each farmer

**No. of Replication**: 06 (Farmers)

**Performance Indicator:**

1. No. of grains/ earhead
2. Test weight (gram)
3. Green yield Q/ha
4. Economics

**OFT-2**

**Title of on farm trial**: Assess the Chickpea for enhancing the profitability

**Problem diagnosed**: Low profitability

**Source: BAU, Sabour**

**Thematic Area**: ICM

**Details of technology**

**Technological Option:-**

Technology option 1: PG 186

Technology option 2: Sabour Chana-1

Technology option 3: BGM 547

**Replication:** 10

**Performance Indicator**:

1. Plant height at 30,60,90 days and at maturity
2. Days to 50% flowering and days to maturity
3. No. of branches per plant, pods/plant and 100 seed weight (g)
4. Seed yield (kg/ha), straw yield/ha and harvest index (%)
5. Disease occurrence(Name & severity)
6. Insect infestation(Name & severity)

**OFT-3**

**Title of on farm trial**: Assess the fertilizer dose in short duration paddy

**Problem diagnosed**: injudicious use of fertilisers

**Source: BAU, Sabour**

**Thematic Area**: ICM

**Details of technology**

**Technological Option:-**

Technology option 1: Current recommended dose of fertilizer (80:40:20Kg, N: P2O5: K2O per ha)

Technology option 2: Proposed dose of fertilizer (100:45:30Kg, N: P2O5: K2O per ha)

Technology option 3: Farmers practice (120:20:10::N:P2O5:K2O)

**Replication:** 10

**Performance Indicator**:

1. No. of tillers/m2
2. Grains per ear head
3. 1000 grain weight (gm)
4. Cost of cultivation (Rs/ha)
5. Yield (qt/ha)
6. B:C Ratio

**OFT-4**

**Title of on farm trial:** Assessment of Aonla pricking devices to minimize injuries

**Problem diagnosed:** Difficulty in hand pricking of Aonla (hand injuries)

**Thematic Area**: Drudgery

**Details of technology**

**Technical option**:

Technology option 1: Hand pricking with fork needle (farmer’s practice)

Technology option 2: Hand operated Aonls pricking machine (HAU)

Technology option 3: Manually operated Aonla pricking technique (KVK model)

**Plot size**:

**No. of Replication**: 8

**Source:** HAU (Hissar)

**Performance Indicator:**

1. Capacity in (kg)/hr
2. Time taken in pricking/kg
3. Percentage hand injury/comfortability

**OFT-5**

**Title of on farm trial:** Assessment of potato varieties for value added products

**Problem diagnosed:** Excess supply of potatoes in harvesting season result in lower income and lack of knowledge about suitable variety for value added products and lack of storage facilities

**Details of technology**

**Technical option**:

Technology option 1: Value added product of Kufri Pukraj (F.P)

Technology option 2: Value added product of Kufri Khyati (CPRI)

Technology option 3: Value added product of Kufri Surya (CPRI)

**Plot size**:

**No. of Replication**: 10

**Source of technology:** CPRI

**Performance Indicator:**

1. Acceptability
2. Storability
3. B:C ratio

**OFT-6**

**Title of on farm trial:** Assessment of different extension teaching methods in enhancement of farmers

**Problem diagnosed:** Lack of knowledge of farmers with respect to modern technologies of Paddy cultivation

**Source of technology:** BAU, Sabour

**Thematic Area**: Differ of teaching

**Details of technology**

**Technical option**:

Farmers practice: No extension teaching methods

Technology option 1: Training

Technology option 2: Training + Demonstration

Technology option 3: Training + use of ICT

**Plot size**:

**No. of Replication**: 40 (10 in each)

**Performance Indicator:**

1. Adaptation quotation
2. Change in knowledge gap
3. Change in yield (qtl/ha)
4. Change in B:C ratio

**OFT-7**

**Title of on farm trial:** Assess the different levels of boron on qualities of cauliflower

**Problem diagnosed:** Production of poor quality curd of cauliflower in Gaya district

**Source of technology:** BAU, Sabour

**Thematic Area**: I.N.M.

**Details of technology**

**Technical option**:

Farmers practice: Soil application of borax @ 5kg/ha

Technology option 1: Soil application of borax @ 10kg/ha

Technology option 2: Soil application of borax @ 15kg/ha

Technology option 3: Soil application of borax @ 15kg/ha + foliar application of boron @ 0.2%

**Plot size**:

**No. of Replication**: 10

**Performance Indicator:**

1. Colour of curd
2. Weight of curd
3. Height of plant (cm)
4. Yield (qtl/ha)
5. B:C ratio

**OFT-8**

**Title of on farm trial:** Assessment of herbal drug and micro mineral supplement in postpartum anoestrus in cattle.

**Problem diagnosed:** Infertility in cattle

**Source of technology:** MAPSU, Maharastra

**Thematic Area**: Disease Management

**Details of technology**

**Technical option**:

Farmers practice: Feeding with germinated wheat

Technology option 1: Feeding with germinated wheat

Technology option 2: Use of herbal drugs on 1st and 2nd day and 10th & 11th day

Technology option 3: Albendazole + microminerals for 28 days + TO1

**No. of Replication**: 10

**Performance Indicator:**

1. No. of animals come in heat
2. Nature of discharge
3. Conception rate (%)

**OFT-9**

**Title of on farm trial:** Effect of probiotic and prebiotic on productivity of dairy animals

**Thematic Area:** Feed management

**Problem diagnosed:** Low productivity

**Source of technology:** Dr. PDKV, AKOLA, Maharastra

**Details of technology**

**Technical option**:

Farmers practice: No use of probiotic and prebiotic

Technology option 1: Probiotic @ 10g/day (Saccharomyces cerevisiae)

Technology option 2: Probiotic + Prebiotic @15 g/day

Technology option 3: Albendazole + microminerals for 28 days + TO1 (Saccharomyces cerevisiae + MOS + β Glucans

**No. of Replication**: 10

**Performance Indicator:**

1. Milk production
2. Cost of milk production
3. Gross return
4. Net return
5. B:C ratio

***Chief Scientist-cum-Univ. Prof.***

***In-Charge Head***

***KVK, Gaya***