**ANNUAL ACTION PLAN**

**2018-19 (April to March)**



**KRISHI VIGYAN KENDRA**

**GIRIDIH**



**BIRSA AGRICULTURAL UNIVERSITY**

**KANKE, RANCHI**

**JHARKHAND**

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**KRISHI VIGYAN KENDRA, GIRIDIH**

**(April, 2018 to March, 2019)**

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 |  |
| Krishi Vigyan Kendra, Giridih, Topaiya Farm , Bengabad, Giridih-815312 |  |  | [kvkgiridihbau@rediffmail.com](mailto:kvkgiridihbau@rediffmail.com)  [kvkgiridih@gmail.com](mailto:kvkgiridih@gmail.com) |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Address | Telephone | | E mail |
| Office | FAX |  |
| Vice Chancellor, Birsa Agricultural University, Ranchi | 0651-2450500 | 0651-2450850 | [vcbau@rediffmail.com](mailto:vcbau@rediffmail.com)  vc@bauranchi.org |

1.3. Name of the Head with phone & mobile No.

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Telephone / Contact | | |
|  | Residence | Mobile | Email |
| Dr. Devkant Prasad |  | 09471535524 | [kvkgiridihbau@rediffmail.com](mailto:kvkgiridihbau@rediffmail.com)  [kvkgiridih@gmail.com](mailto:kvkgiridih@gmail.com) |

1.4. Year of sanction of KVK: 2004

**2. District level data on agriculture, livestock and farming situation (2017-18)**

|  |  |  |
| --- | --- | --- |
| Sl. no. | Item | Information |
| 1 | Major Farming system/enterprise |  |
| 2 | Agro-climatic Zone | 7 (IV) – Central & North Eastern Plateau Sub – zone |
| 3 | Agro ecological situation | Rain fed – upland |
| 4 | Soil type | Loamy-skeletal, mixed, hyperthermic Lithic Ustorthents  Fine loamy, mixed, hyperthermic Ultic Haplustalfs  Fine-loamy, mixed, hyperthermic Typic Haplustepts  Fine-loamy, mixed, hyperthermic Typic Haplustalfs  Fine, mixed, hyperthermic Typic Paleustalfs  Fine, mixed, hyperthermic Rhodic Paleustalfs  Fine, mixed, hyperthermic Typic Haplustalfs  Fine, mixed, hyperthermic Typic Paleustalfs  Fine-loamy, mixed, hyperthermic Typic Paleustalfs  Fine-loamy, mixed, hyperthermic Typic Haplustalfs  Loamy-skeletal, mixed, Typic Haplustepts  Fine-loamy, mixed, hyperthermic Typic Haplustalfs  Fine-loamy, mixed, hyperthermic Typic Haplustepts  Coarse loamy, mixed,hyperthermic Typic Ustorthents  Fine loamy, mixed, hyperthermic Typic Paleustalfs  Fine-loamy, mixed, hyperthermic Typic Rhodustalfs  Loamy-skeletal, mixed, hyperthermic Lithic Ustorthents  Fine-loamy, mixed, hyperthermic Typic Haplustalfs  Fine, mixed, hyperthermic Typic Paleustalfs  Fine loamy, mixed, hyperthermic Typic Rhodustalfs  Fine loamy, mixed, hyperthermic Typic Haplustepts  Fine loamy, mixed, hyperthermic Typic Haplustalfs  Coarse loamy, mixed, hyperthermic Typic Ustorthents  Fine loamy, mixed, hyperthermic Typic Paleustalfs  Fine, mixed, hyperthermic Aeric Endoaquepts  Fine loamy, mixed, hyperthermic Typic Haplustepts  Fine loamy, mixed, hyperthermic Typic Haplustepts  Coarse loamy, mixed, hyperthermic Typic Ustorthents  Fine loamy, mixed, hyperthermic Typic Haplustepts  Fine, mixed, hyperthermic Typic Haplustalfs  Loamy, mixed, hyperthermic Lithic Ustorthents  Fine, mixed, hyperthermic Typic Paleustalfs  Loamy, mixed, hyperthermic Lithic Ustorthents  Fine loamy, mixed, hyperthermic Typic Haplustepts  Loamy-skeletal, mixed, hyperthermic Typic Haplustepts  Coarse loamy, mixed, hyperthermic Typic Ustorthents  Coarse loamy, mixed, hyperthermic Typic Ustorthents  Fine, mixed, hyperthermic Typic Haplustalfs  Fine loamy, mixed, hyperthermic Typic Haplustepts  Fine, mixed, hyperthermic Aeric Endoaqualfs  Fine, mixed, hyperthermic Typic Rhodustalfs  Fine, mixed, hyperthermic Rhodic Paleustalfs  Fine loamy, mixed, hyperthermic Typic Haplustalfs  Fine loamy, mixed, hyperthermic Typic Paleustalfs  Miscellaneous |
| 5 | Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others | Paddy - 4.84 q/ha  Maize – 13.85 q/ha  Arhar – 5.92 q/ha  Urd – 4.00 q/ha  Kulthi – 3.03 q/ha  Mustard / Rai / Toria - 4.10 q/ha  Wheat –15.91 q/ha |
| 6 | Mean yearly temperature, rainfall, humidity of the district | Temperature - Max. – 35.1, Min. - 14.1  Rainfall - 1350 mm  Humidity – Morning – 80 % , Afternoon – 69.1 % |
| 7 | Production of major livestock products like milk, egg, meat etc. |  |

**2.1 Priority thrust areas**

|  |  |
| --- | --- |
| **S. No** | **Thrust area** |
| 1. | Quality seed production through seed village. |
| 2. | Breed and Health management in Pig and poultry. |
| 3. | Promotion of Pulses and oilseeds. |
| 4. | Rice- Fallow management. |
| 5. | Mushroom Cultivation and secondary agriculture |
| 6. | Promotion of short duration varieties / hybrids of paddy to take the problem of short duration, erratic, flush & low rainfall in the district |
| 7. | Promotion of fruit crops like Aonla, Ber, Mango, Guava & Lemon |
| 8. | Improving the production technology of Maize, Arhar, Black gram & Till |
| 9. | Promotion of breed improvement of dairy cattle through artificial insemination |

**3.0 - Abstract of Training Programme to be proposed during 2018-19 (Including the sponsored and FLD training programmes)**

1. **Farmers and farmwomen**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Thematic Area\*** | **Title** | **No. of courses** | **Duration** | **No. of participants** | | | | | | | |
| **SC** | | **ST** | | **Others** | | | **Total** |
| **I. Crop Production** | | | | | | | | | | | |
| Weed management | Weed management in cereal, pulses and oilseed crops | 1 | 2 | 7 | | 7 | | 16 | | 30 | |
| Cropping system | Pegion pea based cropping system in upland and Rice based cropping system in medium land | 1 | 2 | 15 | | 15 | | 30 | | 60 | |
| Crop diversification | Crop diversification in upland and medium land | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Seed Production | Paddy seed production –Practie, Package and Benefit | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Integrated crop management | Management of pulses and oilseeds along with cereal crop | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Fodder production | Importance and production of fodder crops in district | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Crop intensification | SRI in Paddy | 1 | 1 | 4 | | 19 | | 7 | | 30 | |
| Weed management | Weed control in paddy | 1 | 1 | - | | 30 | | - | | 30 | |
| Seed treatment | Use in Rhizobium culture in rabi pulses | 1 | 1 | 2 | | 25 | | 3 | | 30 | |
| Seed treatment | Seed treatment in pulses crop | 1 | 1 | 6 | | 22 | | 2 | | 30 | |
| Seed Production | Potato seed production | 1 | 1 | - | | 24 | | 6 | | 30 | |
| Seed Production | Production technology of mustard | 1 | 1 | 3 | | 27 | | - | | 30 | |
| Seed Production | Production Technology of gram | 1 | 1 | 8 | | 14 | | 8 | | 30 | |
|  | Irrigation management in wheat | 1 | 1 | - | | 30 | | - | | 30 | |
| Seed Production | Production Technology of summer moong | 2 | 1 | 6 | | 15 | | 9 | | 30 | |
| **Total** | | **16** | **21** | **71** | | **248** | | **161** | | **480** | |
| **II. Horticulture** | | | | | | | | | | | |
| a. Vegetable crops |  |  |  |  | |  | |  | |  | |
| Nursery raising | Techniques of nursery raising | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Off season vegetables | Cultivation of Dolicus bean during off season | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Integrated nutrient management | Integrated nutrient management in soloneceous crops | 2 | 2 | 15 | | 10 | | 35 | | 60 | |
| Cultivation of fruits | Cultivation of fruits with respect of Giridih distrsct | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Rejuvenation of old orchards | Rejuvenation of old Mango orchards | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
|  | Rejuvenation of old Guava orchards | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Plant propagation techniques | Plant propagation techniques in fruit crops | 2 | 2 | 15 | | 15 | | 30 | | 60 | |
| Production and management technology | Production and management of Elephant foot yam | 1 | 2 | 5 | | 5 | | 20 | | 30 | |
| Production and management technology | Improved Production and management technology Turmeric and Ginger | 2 | 2 | 15 | | 15 | | 30 | | 60 | |
| Production and management technology | Improved Production and management technology Onion and Garlic | 2 | 2 | 15 | | 15 | | 30 | | 60 | |
|  | Climate change implication in fruit production and mitigation strategy. | 1 | 1 | 5 | | 5 | | 20 | | 30 | |
| Use of Plastics in farming practices | Use of plastic in agriculture | 1 | 1 | 5 | | 5 | | 20 | | 30 | |
| Petroleum conservation | Petroleum conservation technique in production of crops | 1 | 1 | 5 | | 5 | | 20 | | 30 | |
| Total | | **17** | **23** | **105** | | **100** | | **305** | | **510** | |
| **III. Soil Health and Fertility Management** | | | | | | | | | | | |
| Micronutrient deficiency in crops | Symptoms and remedies of deficiencies Micronutrients in vegetables | 2 | 2 | 20 | | 10 | | 30 | | 60 | |
| Soil and water testing | Soil testing- Why, Where, When and How | 2 | 2 | 15 | | 15 | | 30 | | 60 | |
| **Total** | | **4** | **4** | **35** | | **25** | | **60** | | **120** | |
| **VII. Plant Protection** | | | | | | | | | | | |
| Integrated pest management | Integrated pest management in vegetables | 1 | 2 | 8 | 7 | | 15 | | 30 | | |
| Integrated disease management | Integrated disease management in vegetables | 1 | 2 | 8 | 7 | | 15 | | 30 | | |
| **Total** | | **2** | **4** | **16** | **14** | | **30** | | **60** | | |

1. **Rural youths**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Thematic Area\*** | **Title** | **No.of courses** | **Duration** | **No. of participants** | | | |
| **SC** | **ST** | **Others** | **Total** |
| Mushroom production | Mushroom production | 1 | 7 | 10 | 10 | 15 | 35 |
| Planting material production | Plant propagation of fruit crops | 2 | 7 | 10 | 10 | 40 | 60 |
| Seed production | Seed production through seed village | 1 | 7 | 5 | 5 | 20 | 30 |
| Integrated farming | Importance of Integrated farming system for income generation | 1 | 7 | 5 | 5 | 20 | 30 |
| Nursery management of horticultural crops | Nursery management of horticultural crops | 2 | 7 | 10 | 10 | 40 | 60 |
| **Total** | | **7** | **35** | **40** | **40** | **135** | **215** |

1. **Extension functionaries**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Thematic Area\*** | **Title** | **No. of courses** | **Duration** | **No. of participants** | | | |
| **SC** | **ST** | **Others** | **Total** |
| Productivity enhancement in field crops | New technology for Productivity enhancement in field crops | 2 | 2 | 10 | 10 | 40 | 60 |
| Integrated nutrient management | Integrated nutrient management in different crops | 2 | 2 | 10 | 10 | 40 | 60 |
| Integrated Pest management | Integrated Pest management in Solaneceous vegetables | 1 | 2 | 5 | 5 | 20 | 30 |
| IPM | Integrated Pest management in Cole crops | 1 | 2 | 5 | 5 | 20 | 30 |
| Organic farming | Production of vermicompost | 2 | 2 | 10 | 10 | 40 | 60 |
| **Total** | | **8** | **10** | **40** | **40** | **160** | **240** |
| **Grand Total** | | **51** | **96** | **292** | **452** | **791** | **1535** |

1. **Vocational**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thematic Area\*** | **Title** | **Duration** | **No. of participants** | | | |
| **SC** | **ST** | **Others** | **Total** |
| Plant propagation, maintainance of garden, production of horticultural crops | Mali Training | 15 days | 5 | 5 | 20 | 30 |
| Production of organic inputs | Bio fertilizer production | 10 days | 5 | 5 | 20 | 30 |
| **Total** |  |  | 10 | 10 | 40 | 60 |

**4. Front Line Demonstration : Liable to fund availability**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Season** | **Crop** | **Variety** | **No. of demonstration** | **No. of area (ha)** |
| **Kharif** | Rice | Naveen | 30 | 10.0 |
|  | Maize | Saktiman-1 | 30 | 10.0 |
|  | Pegionpea | Narendra Deo Arhar-1 | 15 | 5.0 |
|  | Jowar | CSV 20 | 15 | 3.0 |
|  | Groundnut | AK-12-24 | 18 | 5.0 |
|  | Blackgram | Pant Urd -31 | 15 | 5.0 |
|  | Green gram | HUM-16 | 15 | 5.0 |
|  | Chilli | KA-2 | 15 | 2.0 |
|  | Ridge guard | Swarna Sawani | 10 | 1.0 |
|  | Spounge guard | Swarna prabha | 10 | 1.0 |
|  | Bottle gourd | Swarna sneha | 10 | 1.0 |
|  | Brinjal | Swarn Ajay | 15 | 2.0 |
| **Rabi** | Wheat | HD- 2967 | 15 | 5.0 |
|  | Mustard | Pusa Mahak | 15 | 5.0 |
|  | Chickpea | JAKI 9219 | 20 | 5.0 |
|  | Linseed | Azad alsi-1 | 15 | 5.0 |
|  | Summer Green gram | HUM-16 | 20 | 5.0 |
|  | Duck | Khakhi campbell | 2 | 50pcs |

**Name of the Trial Conductor :** Dr. Devkant Prasad, Scientist (Agron)

**Collaborator :**

**Signature of Chairman , Agronomy , BAU, Ranchi :**

**Director, Extension Education Director Research**

**BAU, Ranchi BAU, Ranchi**

**ON Farm Trial I (Agronomy), KVK, Giridih**

**a). Title:** Evaluation of Rice (Naveen) based cropping systems in Medium lands

**b). Problem Diagnose :** Maximum area under rice is either left fallow or cultivated by traditional crops) in Rabi which is uneconomical cropping system. A number of crops have been recommended for cultivation after paddy like lentil, Gram, Mustard, Wheat, Potato, Pea etc. An OFT has been therefore, designed here under to assess the profitability of different rice based crop sequences in agro climate of Giridih

**Details of technologies selected for assessment**

**Farmer Practice :** Rice-Fallow

**TO1 :** Rice-Gram (KPG-59)

**TO2 :** Rice-Wheat (K-9107)

**TO3 :** Rice-Potato (Kufri Ashoka)

**Details of the Experiment**

Name of the crop : Rice, Gram, Wheat, Potato

Year of experiment : 2018-19

Design : Randomized Block Design

Treatments : 4

Replications : 20

Plot size **:** 500m2

**(d) Source of technology :** BAU, Ranchi

**(e) Production system & thematic area :** Rice – Fallow & Cropping System

**(f) Monitoring Indicators :** REY, Plant Height at different stage, Plant Population, 1000

grain wt, Grain yield, Straw Yield, Economics, Nutrient status

initial and after harvest

**Name of the Trial Conductor :** Dr. Devkant Prasad Scientist (Agron)

**Collaborator :**

**Signature of Chairman , Agronomy , BAU, Ranchi :**

**Director, Extension Education Director Research**

**BAU, Ranchi BAU, Ranchi**

**ON Farm Trial II (Agronomy), KVK, Giridih**

**a). Title:** Assessment of Planting Methodology in Potato(Kufri Ashoka)

**b). Problem Diagnose :** Potato covers an extensive area in the district during Rabi season under irrigated conditions. Farmers generally prefer close planting of potato at spacing of 45x15-20 cm. The recommended spacing of 60x20 cm has been found best for higher tuber yield primarily by increasing tuber size and weight. Most of experimental trials on spacing included single row planting on ridges but planting of paired rows 15 cm apart at 60x20 cm spacing have also potentiality to increase tuber yield by increasing plant population and number of tubers in unit area particularly in sandy loams with high organic content and water imbibition capacity as observed in Giridih district. With this view, an On Farm Trial has been designed hereunder:

**Details of technologies selected for assessment**

**Farmer Practice :** Single row per ridge at 45x15-20 cm spacing

**TO1 :** Singlerow per ridge at 60x20 cm spacing (Recommended)

**TO2 :** 15 cm apart duplicate rows per ridge at 60x20 cm spacing

**Details of the Experiment**

Name of the crop : Potato

Year of experiment : 2018-19

Design : Randomized Block Design

Treatments : 3

Replications : 10

Plot size **:** 500m2

**(d) Source of technology :** PAU, Ludhiana

**(e) Production system & thematic area :** Resource conservation

**(f) Monitoring Indicators :** Yield, B:C ratio, Pre and post soil analysis

**Name of the Trial Conductor :** Dr. Devkant Prasad Scientist (Agron)

**Collaborator :**

**Signature of Chairman , Agronomy , BAU, Ranchi :**

**Director, Extension Education Director Research**

**BAU, Ranchi BAU, Ranchi**

**ON Farm Trial IV (SSAC), KVK, Giridih**

**a). Title**: **Assessment of Improved Backyard composting method.**

**b). Problem Diagnose :**

**Details of technologies selected for assessment**

**Farmer Practice :** Dumping of cowdung and household/ field waste in hip (Size-

unspecified)

**TO1 :** Dumping of cowdung and household/field waste mixing with

DAP @ 500 gm/m2 after filling every feet of pit of 2mt x 1 mt

x 1 mt size

**TO2 :** Dumping of cowdung and household/field waste mixing with

DAP @ 500 gm/m2 after filling every feet + PSB, Azotobacter

& Tricoderma @ 1 packet each/pit of 2mt x 1 mt x 1 mt size.

**Details of the Experiment**

Name of the item : Cowdung

Year of experiment : 2018-19

Design : Randomized Block Design

Treatments : 3

Replications : 10

Pit size **:** 2 mt x1 mt x 1 mt

**(d) Source of technology :**

**(e) Production system & thematic area :** Organic fertilizer Production

**(f) Monitoring Indicators :** Yield, B:C ratio, Pre and post soil analysis

**Name of the Trial Conductor :** Dr. Devkant Prasad, Scientist (Agron)

**Collaborator :**

**Signature of Chairman , SSAC , BAU, Ranchi :**

**Director, Extension Education Director Research**

**BAU, Ranchi BAU, Ranchi**

1. **Extension Activities**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nature of Extension Activity** | **No. of activities** | **Farmers** | | | **Extension Officials** | | | **Total** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **Field Day** | **4** | **150** | **50** | **200** | **30** | **5** | **35** | **180** | **55** | **235** |
| **Kisan Mela** | **2** | **400** | **200** | **600** | **20** | **0** | **20** | **420** | **200** | **600** |
| **Kisan Ghosthi** | **4** | **150** | **25** | **200** | **10** | **0** | **10** | **160** | **10** | **170** |
| **Newspaper coverage** | **30** |  |  |  |  |  |  |  |  | **30** |
| **Film show** | **4** | **90** | **20** | **110** | **30** | **-** | **30** | **120** | **20** | **140** |
| **Radio talks** | **8** |  |  |  |  |  |  |  |  | **8** |
| **TV talks** | **8** |  |  |  |  |  |  |  |  | **8** |
| **Popular articles** | **5** |  |  |  |  |  |  |  |  | **5** |
| **Extension Literature** | **5** |  |  |  |  |  |  |  |  | **5** |
| **Scientific visit to farmers field** | **55** | **185** | **15** | **200** |  |  |  | **185** | **15** | **200** |
| **Farmers visit to KVK** |  | **600** | **100** | **700** | **50** | **0** | **50** | **650** | **100** | **750** |
| **Diagnostic visits** | **60** | **55** | **5** | **60** | **15** | **0** | **15** | **70** | **5** | **57** |
| **Technology week** | **1** | **300** | **50** | **350** | **10** | **3** | **13** | **310** | **53** | **363** |
| **Seed Village programme** | **40 SV** | **100** | **15** |  |  |  |  | **100** | **15** | **115** |
| **Total** |  |  |  |  |  |  |  |  |  |  |

1. **Seed and planting material production Of KVK Farm**

|  |  |
| --- | --- |
| Seed | |
| Crop | Area |
| Paddy | 5.0 |
| Planting Material | |
| Guava | 300 pcs |
| Mango | 200 pcs |

**Head**

**KVK, Giridih**

**Director, Extension Education Director Research**

**BAU, Ranchi BAU, Ranchi**