**ANNUAL REPORT 2009-10**

**FOR THE PERIOD**

**APRIL 2009 TO MARCH 2010**

KRISHI VIGYAN KENDRA,

BELGAUMPART I - GENERAL INFORMATION ABOUT THE KVK

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| KVK Address | Telephone | | E mail | **Web Address** |
|  | Office | FAX |
| Krishi Vigyan Kendra  BIRDS Campus  Tukkanatti- 591224,  Gokak-Tq,  Belgaum-Dist | (08332)  284978 | (08332) 284978 | kvk\_birds@naganur.com | www.birds-naganur.org |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Address | Telephone | | E mail | **Web Address** |
| Office | FAX |
| 1. Shri. R. M. Patil, 2. Executive Director   Belgaum Integrated RuralDevelopmentSociety  Naganur, Gokak-Tq,  Belgaum-Dist | (08334)288622,288612 | (08334)  288655 | birds@naganur.com | www.birds-naganur.org |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Telephone / Contact | | |
|  | Residence | Mobile | Email |
| Dr. S. Shashikumar | 094489 20747 | 09343835898 | kvk\_birds@naganur.com  pcbelgaum@naganur.com |

1.4. Year of sanction : September 1994

\*. Year of start of activities : **March 1995**

**1.5. Staff Position (as 31st March 2010)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Sanctioned post** | **Name of the**  **incumbent** | **Designation** | **M/F** | **Discipline** | **Highest Qualification** | **Basic Pay** | **Pay**  **Scale** | **Date of joining** | **Permanent**  **/Temporary** | **Category** |
| 1 | Programme  Coordinator | Dr. Shashikumar, S. | Programme coordinator | Male | Extension | M.Sc. (Agri. Extn.), Ph.D. | 15360 | 12000-18000 | 06.04.2004 | Permanent | Gen. |
| 2 | Subject Matter  Specialist | Mr. D. C. Chougala | Subject Matter  Specialist | Male | Plant Protection | M.Sc.  (Agri. Ent) | 11300 | 8000-13500 | 20.06.1995 | Permanent | Gen. |
| 3 | Subject Matter  Specialist | Dr. Gangadhar. B | Subject Matter  Specialist | Male | Fisheries | M.Sc.  Ph.D. | 10475 | 8000-13500 | 06.04.2004 | Permanent | Gen. |
| 4 | Subject Matter  Specialist | Mr. M. N. Malawadi | Subject Matter  Specialist | Male | Agronomy | M.Sc.  (Agronomy) | 9375 | 8000-13500 | 06.04.2004 | Permanent | SC |
| 5 | Subject Matter  Specialist | Shweta Biradar | Subject Matter  Specialist | Female | Home Science | M.Sc. | 8000 | 8000-13500 | 14.09.2009 | Permanent | OBC. |
| 6 | Subject Matter  Specialist | Vacant | Subject Matter  Specialist | - | Animal Science | - | - | 8000-13500 | - | Permanent | - |
| 7 | Subject Matter  Specialist | Mr. S. S. Sharma | Programme  Assistant | Male | Horticulture | M.Sc.  (Hort) | 7075 | 5500-9000 | 28.08.2000 | Permanent | Gen. |
| 8 | Programme Assistant | Mr. N. R. Salimath | Programme  Assistant | Male | Sericulture | M.Sc.  (Seri) | 8125 | 5500-9000 | 23.03.1995 | Permanent | Gen. |
| 9 | Computer  Programmer | Mr. U.Y. Patil | Programme  Assistant | Male | Computer  Programmer | M.C.A. | 5675 | 5500-9000 | 01.04.2008 | Permanent | Gen. |
| 10 | Farm Manager | Mr. G. S. Patted | Farm Manager | Male | Farm Manager | B.Sc.(Agri) | 7950 | 5500-9000 | 29.11.1996 | Permanent | Gen. |
| 11 | Accountant / Superintendent | Mr. Mahantesh, M. | Accountant/  Supdt. | Male | Accountant/  Supdt. | B.Com., | 5675 | 5500-9000 | 01.05.2008 | Permanent | OBC. |
| 12 | Stenographer | Shri. B. P. Ambiger | Stenographer | Male | Degree | - | 4110 | 3050-4950 | 20.03.1995 | Permanent | OBC |
| 13 | Driver | Shri. L. S. Pujari | Driver – Jeep | Male | SSLC | - | 4110 | 3050-4950 | 20.03.1995 | Permanent | OBC |
| 14 | Driver | Shri. K. K. Shidabagol | Driver – Tractor | Male | SSLC | - | 4035 | 3050-4950 | 16.11.1996 | Permanent | OBC |
| 15 | Supporting staff | Shri. G. S. Shingadi | Supporting staff | Male | SSLC | - | 3380 | 2550-3200 | 20.03.1995 | Permanent | OBC |
| 16 | Supporting staff | Shri. A. M. Koli | Supporting staff | Male | SSLC | - | 3380 | 2550-3200 | 20.06.1995 | Permanent | OBC |

**1.6. Total land with KVK (in ha) : 22.0 ha**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Item** | **Area (ha)** |
| 1 | Under Buildings | 0.15 |
| 2. | Under Demonstration Units | 0.07 |
| 3. | Under Crops | 3.00 |
| 4. | Agro-forestry | 6.01 |
| 5. | Fodder development | 8.00 |
| 6 | Orchard | 4.33 |
| 7 | Others | 0.44 |
| 8 | **Total** | **22.0** |

**1.7. Infrastructural Development:**

1. **Buildings**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Admn. Building** | | | **Trainees Hostel** | | | Staff Quarters | | | **Demonstration Unit** | | |
| **Plinth area**  **(m2)** | **Cost (Rs. in lakhs)** | **Year** | **Plinth area**  **(m2)** | **Cost (Rs. in lakhs)** | **Year** | **Plinth area**  **(m2)** | **Cost (Rs. in lakhs)** | **Year** | **No.** | **Plinth area**  **(m2)** | **Cost (Rs. in lakhs)** |
| **Adm. Building** | **Farmer’s Hostel** | **Staff Quarters** | **Details of Demonstration Units** |  |  |  |  |  |  |  |  |
| Plinth area  (m2) | Cost (lakhs) | Year  of const’n | Plinth area (m2) | Cost  (lakhs) | Year of const’n | Numbers | Plinth area  (m2) | Cost  (lakhs) | Year  of const. | Name | Plinth area (m2) |
| 686 | 24.43 | 1996 | 305 | 20.93 | 2006 | 1- Prg. Coordinator | 90.27 | 5.95 | 2003 | Green house (ICAR) | 75  sq. mt |
|  |  |  |  |  |  | 2 - Trg. Associate | 129.00 | 7.89 | 1997 | Dairy demo unit (ICAR) | 90.00 Sq.mt |
|  |  |  |  |  |  | 2 – Trg. Assistant | 70.94 | 5.82 | 2003 | Fishery Demo. Unit (DST, New Delhi) | 231 Sq.mt. |
|  |  |  |  |  |  | 2 - Supp. Staff | 49.90 | 7.68 | 2004 | Guppy Breeding unit (BIRDS) | 3 Sq.Mt. |
|  |  |  |  |  |  |  |  |  |  | Water tank (BIRDS) | 72 Sq.Mt |
|  |  |  |  |  |  |  |  |  |  | Threshing floor (ICAR) | 144.0 |
|  |  |  |  |  |  |  |  |  |  | Azolla (ICAR) | 22.7 Sq Mt |

B) Vehicles

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of vehicle** | **Year of purchase** | **Cost (Rs.)** | **Total kms. Run** | **Present status** |
| Mahindra XYLO Jeep (Mahindra) | March 2010 | 7,46,000 | 7,246 | Very good condition |
| Motor cycle (Suzuki) | December 1995 | 35,652 | 1,94,232 | Major repair |
| Motor cycle (Yamaha) | February 1996 | 38,967 | 1,98,364 | Major repair |

**C) Equipments & AV aids**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Name of Equipments** | **Date of purchase** | **Cost (Rs. in lakhs)** | **Present status** |
| 1 | Tractor | 09.03.1995 | 2,05,706/- | OK |
| 2 | Public Addressing system | 15.03.1995 | 8,603/- | OK |
| (Amplifier -1, Micro phone -2 |
| Unit – 2,Column speakers box – 2 |
| Horn – 2, Mic. stand-1,Table stand – 1) |
| 3 | Type Writer - Godrej - English | 15.03.1995 | 10265 | OK |
| 4 | Over head projector | 16.03.1995 | 15015 | OK |
| 5 | Table Chief Executive | 17.03.1995 | 6880 | OK |
| 6 | Table Junior Executive | 17.03.1995 | 4965 | OK |
| 7 | Table Writing | 17.03.1995 | 16085 | OK |
| 8 | Chairs with arms | 17.03.1995 | 5946 | OK |
| 9 | Chairs with arms and Cussions | 17.03.1995 | 2000 | OK |
| 10 | Chairs without arms | 17.03.1995 | 4578 | OK |
| 11 | Cabinet for files | 17.03.1995 | 5334 | OK |
| 12 | Cabinet Steel almera | 17.03.1995 | 5494 | OK |
| 13 | Agro spray pump | 07.08.1995 | 850 | OK |
| 14 | Auto stove with gas accessories | 11.08.1995 | 840 | OK |
| 15 | Motor Cycle | 05.12.1995 | 35652 | OK |
| 16 | Tractor Trolly | 30.12.1995 | 71364 | OK |
| 17 | Disc plough | 30.12.1995 | 22150 | OK |
| 18 | Type Writer - Kannada | 03.02.1996 | 11400 | OK |
| 19 | Motor Cycle | 24.02.1996 | 39000 | OK |
| 20 | Cycle | 11.03.1996 | 1550 | OK |
| 21 | Camera (K-1000 Pentium with vivital Flash) | 13.03.1996 | 10800 | OK |
| 22 | Vertical High Pressure Stream Sterilizer | 21.03.1996 | 22360 | OK |
| 23 | Steel Almera | 06.03.1996 | 16332 | OK |
| 24 | Chairs with arms steel | 06.03.1996 | 15840 | OK |
| 25 | Chair typist revolving | 06.03.1996 | 1109 | OK |
| 26 | Table Steel | 06.03.1996 | 8138 | OK |
| 27 | Table Supdt. | 06.03.1996 | 3388 | OK |
| 28 | Table typist | 06.03.1996 | 1897 | OK |
| 29 | Table writing steel | 06.03.1996 | 8472 | OK |
| 30 | Cabinet files steel | 06.03.1996 | 5313 | OK |
| 31 | Slotted angel rack steel | 06.03.1996 | 2638 | OK |
| 32 | Slotted angel rack steel | 06.03.1996 | 2250 | OK |
| 33 | Stool Steel | 06.03.1996 | 544 | OK |
| 34 | Colour TV | 27.03.1996 | 20195 | OK |
| 35 | Godrej Refrigerator 165 ltr | 28.03.1996 | 9000 | OK |
| 36 | 5 HP Mono block Pumpset | 29.03.1996 | 8000 | OK |
| 37 | Slide projector | 18.03.1996 | 15000 | OK |
| 38 | Boards 3 panel /4 stand pinning type display | 30.03.1996 | 11233 | OK |
| 39 | Sewing machine | 13.03.1997 | 6000 | OK |
| 40 | Floor Fan | 31.03.1997 | 1700 | OK |
| 41 | Oven | 31.03.1998 | 2600 | OK |
| 42 | Poly set Plastic Chairs | 31.03.1998 | 42000 | OK |
| 43 | Chair Wooden with Cushion | 30.03.1999 | 7000 | OK |
| 44 | Ceiling fan | 31.03.1999 | 9400 | OK |
| 45 | Ceiling fan | 31.03.1999 | 10200 | OK |
| 46 | Stage Set for Seminar Hall | 31.03.1999 | 23394 | OK |
| 47 | Steel Almera | 29.02.2000 | 7500 | OK |
| 48 | Steel Almera big size | 30.03.2001 | 4700 | OK |
| 49 | Steel slotted angle rock | 27.03.2002 | 4391 | OK |
| 50 | DVD player | 25.08.2003 | 9895 | OK |
| 51 | Steel Almera large | 28.02.2003 | 8000 | OK |
| 52 | Rack with components steel | 28.02.2003 | 1800 | OK |
| 53 | Steel Almera | 29.03.2004 | 14400 | OK |
| 54 | Digital Copier | 28.05.2004 | 75000 | OK |
| 55 | Assembled Computer with Printer HP, Scanner | 18.06.2004 | 75000 | OK |
| 56 | Furniture : | 28.08.2004 | 50000 | OK |
| 57 | Pumpset with irrigation system | 03.02.2005 | 100000 | OK |
| 58 | News paper stand double & single | 01.03.2005 | 8000 | OK |
| 59 | Flip chart clip | 01.03.2005 | 425 | OK |
| 60 | Ease(tripod) stand | 01.03.2005 | 1480 | OK |
| 61 | Revolving stool | 01.03.2005 | 1600 | OK |
| 62 | Spiral binder | 01.03.2005 | 6500 | OK |
| 63 | Combination board | 01.03.2005 | 6400 | OK |
| 64 | Camera | 16.11.2005 | 19850 | OK |
| 65 | Furniture for Hostel | 10.11.2005 | 100000 | OK |
|  | **Soil Testing Laboratory Equipments (Rs.8,60,000/-)** |  |  | OK |
| 66 | Spectrophotometer(67588+48942) | 05.01.2006, 31.01.2006 | 116530 | OK |
| 67 | Physical balance(Electronic weighing machine) (61252+13976) | 13.12.05 | 75228 | OK |
| 68 | Water distillation still | 27.01.2006 | 66431 | OK |
| 69 | Keldahl digestion & distillation | 10.01.2006 | 213062 | OK |
| 70 | Shaker, Oven, Hot plate, Grinder | 27.01.2006 | 79200 | OK |
| 71 | Refrigerator | 11.01.2006 | 16875 | OK |
| 72 | Lab setup table | 20.05.2006 | 292674 | OK |
| 73 | Computer | 21.02.2007 | 20644 | OK |
| 74 | LPG Cylinder | 22.04.2006 | 3400 | OK |
| 75 | Coin Box phone | 02.05.2006 | 5000 | OK |
| 76 | LCD Projector | 01.09.2006 | 72500 | OK |
| 77 | Computer Accessories | 01.09.2006 | 9500 | OK |
| 78 | Portable Hard Disk | 01.09.2006 | 18000 | OK |
| 79 | Cotton Tarpaulin | 21.02.2007 | 4320 | OK |
| 80 | Rotavator | 31.03.2007 | 55000 | OK |
| 81 | Mist blower, power sprayer | 01.12.2006 | 45000 | OK |
| 82 | Air Conditioner | 31.03.2007 | 70470 | OK |
| 83 | Colour Television | 31.03.2007 | 6990 | OK |
| 84 | Laptop | 14.12.2006 | 53232 | OK |
| 85 | Computer accessories | 15.07.2007 | 19968 | OK |
| 86 | UPS | 04.10.2007 | 15000 | OK |
| 87 | Teapoy | 25.06.2007 | 2700 | OK |
| 88 | Steel Rack 16 \* 46 | 25.06.2007 | 2165 | OK |
| 89 | Nokia 6275 Handset with accessories | 27.12.2007 | 9750 | OK |
| 90 | DI power Tiller 15 Hp | 16.06.2007 | 97000 | OK |
| 91 | Computer Battery | 19.02.2008 | 6500 | OK |
| 92 | Steel cot with Mosquito net stands | 29.09.2007 | 42000 | OK |
| 93 | Movable Teapoy | 29.09.2007 | 1080 | OK |
| 94 | Fax Machine | 25.02.2009 | 17679 | OK |
| 95 | Lab Items | 14.10.2006 | 8046 | OK |
| 96 | Microscope with Tube | 14.10.2006 | 5625 | OK |
| 97 | Lab items | 14.10.2006 | 4801 | OK |
| 98 | Lab items | 18.10.2006 | 33254 | OK |
| 99 | Lab items | 18.10.2006 | 4278 | OK |
| 100 | Lab items | 2006-07 | 9100 | OK |
| 101 | Lab items | 2006-07 | 2429 | OK |
| 102 | Refrigerator | 31.03.2007 | 12490 | OK |
| 103 | Presto Squash | 31.03.2007 | 21280 | OK |
| 104 | Lab items | 31.03.2007 | 40615 | OK |
| 105 | Mixer grinder, Food Processor | 01.04.2007 | 8645 | OK |
| 106 | Digital Camera | 18/06/2007 | 12600 | OK |
| 107 | Exide Battery | 04/04/2007 | 7200 | OK |
| 108 | Motor Cycle | 31/08/2007 | 50306 | OK |
| 109 | Computer accessories | 25/08/2007 | 6750 | OK |
| 110 | Almera | 29/09/2007 | 10800 | OK |
| 111 | Office Table 1203 | 29/09/2007 | 3400 | OK |
| 112 | Office Table 1203 | 29/09/2007 | 3600 | OK |
| 113 | AIS CH | 29/09/2007 | 3300 | OK |
| 114 | UPS Battery, chair, table | 31/03/2008 | 11100 | OK |
| 115 | Printer | 31/03/2008 | 11900 | OK |
| 116 | Desktop, DVD, Hard disk 250 GB, Antivirus | Sep-09 | nil | OK |
| 117 | LaserJet Printer | Sep-09 | nil | OK |
| 118 | Scanner Scan jet | Sep-09 | nil | OK |
| 119 | UPS | Feb-09 | nil | OK |
| 120 | GPS System | Feb-09 | nil | OK |
| 121 | Chairs, table, Executive chairs, Computer table | Oct-09 | 34762 | OK |
|  | **Village Resource (VRCs)** |  |  |  |
| 122 | Kiosks : display size :43.2 CM LCD, Pentium 4 Processor, | 31/08/2008 | 124569 | OK |
| 123 | Computer Chairs with Revolving cushioned seat with arm | Sep-09 | 1646 | OK |
| 124 | Computer Tables (4\*2) | Sep-09 | 2558 | OK |
| 125 | Sony DVCAM Portable Camera | 26/10/2009 | 184000 | OK |
|  | **Information Communication Technology (ICT)** |  |  |  |
| 126 | Desk Top Computers | 2009-10 | ICAR | OK |
| 127 | Server Computer | 2009-10 | ICAR | OK |
| 128 | Dot Matrix Printer | 2009-10 | ICAR | OK |
| 129 | Laser Printer | 2009-10 | ICAR | OK |
| 130 | Scanner | 2009-10 | ICAR | OK |
| 131 | MS Window Server | 2009-10 | ICAR | OK |
| 132 | MS Office 2007 | 2009-10 | ICAR | OK |
| 133 | Anti Virus | 2009-10 | ICAR | OK |
| 134 | Lan Switch (7- Computer room, 3-Server) | 2009-10 | ICAR | OK |
| 135 | UPS (5-Computer room, 1-Server) | 2009-10 | ICAR | OK |
| 136 | V SAT Antenna | 2009-10 | ICAR | OK |
| 137 | Computer Tables | 2009-10 | ICAR | OK |
| 138 | Printer Tables | 2009-10 | ICAR | OK |
| 139 | Chairs | 2009-10 | ICAR | OK |
| 140 | Air Condition | 2009-10 | ICAR | OK |
| 141 | Aluminium Partitioning up to Roof height | 2009-10 | ICAR | OK |
| 142 | Vinyl Flooring - Thickness 1.5mm | 2009-10 | ICAR | OK |
| 143 | LAN Connection | 2009-10 | ICAR | OK |
| 144 | Electrical Cabling | 2009-10 | ICAR | OK |
| 145 | Dedicated Earthing | 2009-10 | ICAR | OK |
| 146 | E-Com (Web cam) + CD | 31/12/2009 | ICAR | OK |
| 147 | Multimedia Speaker | 31/12/2009 | ICAR | OK |
| 148 | Head Phone with mic | 31/12/2009 | ICAR | OK |
|  |  |  |  |  |

**1.8. A). Details SAC meeting conducted in 2009-10**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Date :** | **Salient Recommendations** | **Action taken** |
| 1. | **Number of Participants** | **Suggestions** | **Action taken between August 2009 till June 2010** |
| 2. | **No. of absentees** | Recharging of underground water to be given utmost concern by all heads of the development department and work in tandem.  Submission of proposal on drought relief to central government, farmers should come forward and express their grievances  Measures should be taken on soil and water conservation in 4 taluks declared as drought prone area in Belgaum district  In Belgaum district 8 rivers are flowing but proper irrigation systems are not working, all concerned to work on this. | Contour bunding and resource conservation technology have been taken to ensure recharge of ground water by KVK. Director WALMI has proposed umbrella project involving KVK for efficient water usage  CRIDA has called for pilot project on climate resilient project to implement at Belgaum.  Conducted training programmes prepared tips on drought mitigating technologies.  CADA, watershed department, UAS and KVK are jointly working for irrigation management and best harvest of water resource |
|  |  | Promotion of single cross maize hybrids, QPM and baby corn maize for quality protein maize, pop corn, baby corn, poultry feed, fodder and maize seed production  Suggested to purchase KAMIS software for KVK activity data base  Acton photographs- series of photographs from seed to harvest, series of activity photos and video clips should be presented in SAC meetings for better reflection of work done and achievement.  Promotion of IFS through promoting fisheries, animal husbandry and Horticulture on 1 acre land preparation of soil fertility profile of Belgaum district.  Organise awareness programme on climate change.  There is urgent need to establish commodity groups.  Identify at least 10 farmers as commodity leaders to work with KVK as techno agent to learn and share their experiences.  Suggested to promote association of commodity groups and register.  Suggested to promote both domestic and export market.  Trainings, FLDs and all developments from seed to market, plough to plate to be introduced and standardised in farmer fields on IFS mode.  One acre IFS model to be established at KVK farm as one lakh per acre income model and “technology week” should be conducted  Suggested to equip so as to reflect KVK as resource knowledge centre. | Conducted programme on production of male and female maize seeds.  Purchased and updating is going on  Photographs and video clips recorded and documented  IFS concept is introduced in farmers fields at Sunadoli, Patagundi  Lectures on climate change delivered at schools, contingent crop planning designed.  10 IFS farmers have been identified and 10 farmer for maize, sugarcane, Greengram, Bengalgram, Tomato Brinjal Banana and floriculture have been identified.  Developing to establish direct link between cotton and soybean farmer with mill or ginning owners  Survey and land layout work was done  Soil samples from 32 villages of 8 taluks are already, analysed, more villages will be covered during this year.  KVK is equipped with KIOSK, lCT data base of individual crop scenario and advisories, publications and crop demonstration plots for latest technology information. |
|  |  | Suggested to take up more crop production in KVK land which will be useful both as demonstration units and for income generation to KVK  Suggested for production and provision of bio agents by KVK staff.  Emphasis to be given on maize, soybean, sugarcane and low cost vegetable production. Use of improved varieties in Bengal gram (JG-11), Sunflower (KBSH-53).  Popularization of micronutrients like Zinc, Ferrous, Boron etc., in maize, sugarcane, soybean and efficient use of water. Training and demonstration on drip irrigation  Dissemination of advanced technologies through mobile messages  Arowana Vasthu Fish and Rohu breed cultivation in the centre  IPM model to be standardised in one village for Soybean Spodoptera. | Majority of land is harder fodder and best land is under seed production and crop production programme.  Effort has been made to produce, M. Anisopliae and B. bassiana.  Conducted Front Line demonstration with new technologies in maize, soybean and sugarcane.  Conducted Front Line Demonstrations for popularization of micronutrients in maize, sugarcane and soybean and conducted training programmes on efficient use of water  Delivering Advisory service through SMS to registered farmers weekly  Discussed regarding Arowana breeding with Dr T.K. Tiwari CIFE, Mumbai. It was suggest that it was not successful in India.  IPM module developed in consultation with respective crop scientist and demonstrated during Kharif 2009-10 |
|  |  | Suggested to survey whether teak cultivation is done scientifically or not if not organise trainings and seminar on High tech teak cultivation.  Suggested for promotion of bio fuel plants on waste lands. | Teak cultivation is done on scientific lines only, however skill technical input is required on teak parallel plantation for hilly areas and uncultivated lands  Effort are made Bio fuel park Hassan and Dharwad are ready to extend their support with supply |
|  |  | Production and supply of fodder slips and Lucerne seeds to farmers of Belgaum district.  Suggested to produce fodder seeds and slips for income generation and water utilisation. | APBN-1 fodder slips supplied to 5 famers under FLD. Azolla seed material supplied to 36 farmers.  Different fodder varieties are being maintained at KVK farm and provided to farmers |
|  |  | The results of FLD and OFT to be sent to respective state development department for further dissemination. | Department officials are involved in farmer selection, harvesting etc. In KVK OFT, FLD,s |
|  |  | Promotion of shoot feeding technology. | Already promoted through FLD, trainings and Extension activities. |
|  |  | Suggested to recommend for bank finance to KVK trainees for adaptation of technologies  Suggested for functional linkage with SIRD NGO in organising SJSY trainings of Zilla Panchayath both by involving in SIRD training and inviting SIRD experts at KVK training. | More than 500 farmers have been advised during on campus training for financial institutional Linkage  Linkage has been established for mutual transfer of information for organising SJSY training. |
|  |  | Submit proposal on High tech agriculture.  Suggested for functional linkage with NABARD | Proposal is under preparation however worth of Rs 4 crore  proposal under TDF has been submitted to NABARD for funding. |
|  |  | Soil and water testing fee should be reduced. | Considering the cast of chemicals, reduction of cost cannot be considered. |
|  |  | There is need to create awareness on soil fertility status and its management in irrigated lands. | During implementation of all FLDs and OFs of KVK importance of soil and water testing is being explained through trainings and other extension activities. |
|  |  | Publicity of proven and best technologies through mass media is to be taken by KVK, scientist.  Farmer need of the hour is low cost production technologies and hence suggested for promotion. | Publicity by way of literature, print media, radio talks and video tele films for wider awareness and transfer of technology information.  Low cost production technologies like zero tillage, on farm production of inputs, ITK formulations for pest and disease control have been spread across the farming system. |

**PART II - DETAILS OF DISTRICT**

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

|  |  |
| --- | --- |
| S. No | Farming system/enterprise |
| Kharif crops | Paddy, Jowar, Bajra, Maize, Greengram, Redgram, Horsegram, Cowpea, Soybean, Sunflower, Chilli, Cotton, Sugarcane, Tobacco and Mulberry. |
| Rabi crops | Rabi Jowar, Wheat, Kapali wheat, Maize, Sugarcane, Sunflower, Safflower, Bengalgram |
| Farming systems |  |
| Summer crops | Sugarcane, Maize, Groundnut, Soybeans, Greengram |
| Horticulture crops: | 1. **Vegetables:** Tomato, Brinjal, Chilli, Coriander, Onion, Garlic, Carrot, Radish, Palak, Menthe, Sepu ( Sabbasagi), Beans, Bhendi, Chavali 2. **Flowers:** Rose, Chrysanthemum, Galardia, Marigold, Kanakambara 3. **Fruits:** Banana, Papaya, Citrus, Grape, Mango, Sapota, Ber, Guava, Pomegranate, Custard apple, Jamun |
| Intercropping | Bajra + Red gram, Groundnut + Red gram, Ragi + Sesame, Groundnut + Sunflower, Sunflower + Wheat, Bajra + Greengram, Safflower + Bengalgram, Rabi Jowar + Bengalgram, Sunflower + Bengalgram |
| Sequential cropping | Soybean-Maize, Greengram-Wheat, Greengram-Sunflower, Maize-Maize, Groundnut-Rabi jowar, Greengram-Rabi Jowar, Onion-Bengalgram |
| High density planting | Mango, Banana, |
| **Other Enterprises** | Dairy Farming, Poultry Farming, Sheep and Goat Rearing, Kitchen Gardening, Mushroom Cultivation, Jaggery Processing, Milk and Milk Products, Raisin Making, Value Addition to Cereals, Pulses, Oil Seeds and Horticulture Crops, Processing of Tomato, Brinjal, Tamarind etc. Inland Fishery, Ornamental Fish Production, Cut Flower Production, Horticulture Nursery for Plant Propagation, Beetle vine Plantation, Tailoring, Embroidery, Income Generating Self-Employed Home Industry Products etc. |

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

|  |  |  |
| --- | --- | --- |
| S. No | Agro-climatic Zone | Characteristics |
| 1 | Region II and Zone III  (Northern Dry Zone) | It includes Gokak, Ramadurg, Athani, Saudatti and Raibag Taluks. This area comes under arid to semi arid region. Temperature of this area is moderate to hot and rainfall is uncertain. The average rainfall of this area is 500-600mm.Out of this 80% of the rainfall occurs during June-August and remaining 20% occurs during September-November. |
| 2 | Region IV and Zone VIII  (Transition Zone) | It includes four Taluks of Belgaum district namely Chikkodi, Hukkeri, Belgaum and Bailhongal. Average rainfall of this area is 632-1303 and 60 per cent of rain occurs during pre monsoon-to-monsoon season. |
| 3 | Region IV and Zone IX  (Hilly Zone) | It includes only one taluk Khanapur of Belgaum district. Average rainfall of this area is 1683 mm and 75 per cent rain occurs during Kharif season. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Agro ecological situation | Characteristics | | |
| Principle crops | Intercropping | Location |
| Northern Dry-Zone | | | | |
| 1  2  3  4  5  6 | Soil-Deep black, Medium black, and Red sandy and Red loam and shallow black  Rain fall- 574 mm  Rainy day- 50 rainy days  Temp.- Max 39.50 C Min 150 C  Relative Humidity-35-70%  Source of Irrigation-Canal (M & G), Open wells and Bore wells | Kharif :  Bajra, Jowar, Greengram, Horsegram, Red gram, Black gram, Groundnut, Sunflower, Cotton  Kharif-Irrigated:  Maize, Sugarcane, Soybean, Sunflower, Hybrid cotton, Turmeric  Rabi : Jowar : Wheat, Bengalgram, Safflower, Sunflower  Rabi/Summer : Irrigated Sugarcane, Sunflower, Wheat, Kapali wheat cotton, | Bajra + Red gram  Groundnut + Red gram  Groundnut + Sunflower  Bajra + Greengram  Cotton + Chilli  Mono cropping  Rabi Jowar + Bengalgram  Wheat + Safflower + Coriander  Safflower + Bengalgram  Rabi Jowar + Groundnut  Rabi Jowar + Linseed  Mono cropping | Athani  Raibag  Gokak  Ramadurg  Savadatti |
| Transitional Zone | | | | |
| 1  2  3  4  5  6 | Medium to deep black soils Light red and shallow soils  619-1303 mm. Rainfall occurs during pre monsoon to monsoon season  56 rainy days  Temp.- Max 39.50 C Min 140 C  Relative Humidity-69-90%  Source of irrigation- Open wells and Bore wells, Canals | Kharif Dray land  Paddy, Jowar, Potato, Peas, Groundnut, Greengram, Onion and Sunflower, Tobacco, Chilli, Cotton  Kharif Irrigated  Sugarcane, cotton, Chilli,  Rabi-Dry land  Wheat, Bengalgram, Sunflower  Rabi irrigated  Sugarcane, Wheat Bengalgram | Maize + Cowpea  Chilli + Groundnut  Jowar + Red gram  Sunflower + Groundnut  Chilli + Tobacco  Cotton + Chilli  Jowar + Bengalgram  Summer – Sugarcane, Groundnut, Soybean, Maize, Cotton,  Safflower + Bengalgram  Mono cropping | Chikkodi  Hukkeri  Belgaum  Bailhongal |
| Hilly Zone | | | | |
| 1  2  3  4  5  6 | Red loamy and Laterite soils  1475-1683 mm  90 rainy days  Temp.- Max 29.50 C Min 140 C  Relative Humidity-  Source of irrigation Open wells and Bore wells | Kharif : Paddy, Sugarcane, Sweet potato, Potato, Lentil  Rabi : Suger cane, Pulses, Groundnut, Maize, Ragi, Chilli,  Rabi/Summer:  Sugar cane, Groundnut, Cotton | Mono cropping | Khanapur |

2.3 Soil type/s

|  |  |  |
| --- | --- | --- |
| S. No | Soil type | Characteristics |
| 1 | Deep black soils | Deep, moderately well drained, Dark greyish brown to very dark greyish brown, calcareous cracking clay to salty clay soils moderately to severely eroded |
| 2 | Medium deep black soil | Moderately deep, moderately well drained, dark brown to very dark grayish brown, non calcareous cracking clay to salty clay soils, moderately to severely eroded |
| 3 | Shallow black soils | Shallow, well-drained grey to dark grey and brown clay loam to salty clay loam soils, severely eroded. |
| 4 | Red sandy soils | Shallow well drained to excessively drained, reddish brown to Yellowish brown, gravely sandy loam to sandy clay loam, moderate to severely eroded |
| 5 | Red loam Soils | Shallow, excessively drained to well drained, reddish brown to yellowish red, sandy clay loam to sandy loam soils, moderately to severely eroded. |
| 6 | **Laterite soils** | Deep, well drained to excessively drained yellowish red to dark reddish brown, gravely, sandy clay and clay surface soils moderately to severely eroded with surface crusting. |

|  |  |  |
| --- | --- | --- |
| **Major Soils** | **Area (‘000 ha)** | **Percent (%) of total** |
| 1. Black | 612.419 ha | 46 |
| 2. Red | 346.079 ha | 26 |
| 3. Sandy Soils | 161.031 ha | 12 |
| 4. Sandy loam | 63.256 ha | 5 |
| 5. Others |  |  |
| Others (specify): | 161597 | 11 |
| Agricultural land use | Area (‘000 ha) | Cropping intensity % (125%) |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Crop | Area (ha) | Production (Metric tons) | Productivity (kg /ha) |
| 1 | Paddy | 73000 | 171950 | 2355 |
| 2 | Jowar | 166700 | 186635 | 4002 |
| 3 | Bajra | 14000 | 7980 | 570 |
| 4 | Maize | 152000 | 607600 | 11746 |
| 5 | Ragi | 1000 | 1100 | 1100 |
| 6 | Wheat | 68000 | 133500 | 1963 |
| 7 | Red gram | 7000 | 5300 | 757 |
| 8 | Black gram | 8000 | 6375 | 797 |
| 9 | Horsegram | 7500 | 5315 | 1603 |
| 10 | Greengram | 32000 | 24125 | 754 |
| 11 | Bengalgram | 65000 | 68125 | 1048 |
| 12 | Groundnut | 59200 | 90050 | 3024 |
| 13 | Soybean | 115500 | 163625 | 3663 |
| 14 | Sunflower | 38500 | 42813 | 3420 |
| 15 | Safflower | 6500 | 3250 | 500 |
| 16 | Cotton | 25000 | Bales 287574 | Bales 11053 |
| 17 | Sugarcane | 160000 | Tonnes 15200000 | Tonnes 95 |
| 18 | Tobacco | 17000 | 17000 | 1000 |

\* Please provide latest data from authorized sources. Please quote the source

\* Source : JOINT DIRECTOR OFAGRICULTURE, BELGAUM DISTRICT, BELGAUM

2.5. Weather data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Month | Rainfall (mm) | Temperature 0 C | | Relative Humidity (%) |
| Maximum | Minimum |
| January-2009 | - | 28.46 | 12.07 | 78.04 |
| February-2009 | - | 28.90 | 14.89 | 72.89 |
| March-2009 | 4.2 | 33.14 | 17.01 | 64.65 |
| Aprial-2009 | 13.2 | 37.10 | 21.85 | 56.41 |
| May-2009 | 82.4 | 36.59 | 23.70 | 66.38 |
| June-2009 | 145.0 | 30.28 | 23.10 | 73.68 |
| July-2009 | 328.5 | 27.38 | 22.90 | 83.67 |
| August-2009 | 73.1 | 27.40 | 21.90 | 85.65 |
| Sepember-2009 | 197.7 | 29.90 | 23.25 | 78.95 |
| October – 2009 | 212 | 31.25 | 21.45 | 69.98 |
| November – 2009 | 64.9 | 26.65 | 20.56 | 80.16 |
| December - 2009 | 3.3 | 31.40 | 15.47 | 83.48 |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Population** | **Production** | **Productivity** |
| **Cattle** | | | |
| *Crossbred* | 63,424 | Milk - 5.21 lakh m. tons | Cattle meat 102.45 kg |
| *Indigenous* | 4,44,148 | - | - |
| **Buffalo** | 7,01,196 | - | Buffalo meat - 106.21 kg |
| **Sheep** |  | Meat – 6205 lakh tons | Sheep meat –14.42 kg |
| Crossbred | - | - | - |
| *Indigenous* | 9,02,555 | Wool – 521 m. tons | Wool –748gms/sheep/year |
| **Goats** | 5,08,776 | - | Goat meat – 14.11 kg |
| **Pigs** |  | **-** | - |
| *Crossbred* | 172 | **-** | **-** |
| *Indigenous* | 27,811 | **-** | **-** |
| **Poultry** | 8,47,189 | **-** | Poultry meat – 1.372 kg |

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Area** | **Production** | **Productivity** |
| Fish | | |  |
| *Inland* |  |  |  |
| Tank | 3,322 ha | 3068 MT | 900-1,000 kg/ha/yr |
| Reservoir | 22,626 ha | 203 MT | 9 kg /ha/yr |
| Prawn | | |  |
| Scampi | Nil | **-** | **-** |

\* Please provide latest data from authorized sources. Please quote the source

* 1. Details of Operational area / Villages

| **Sl. No** | **Taluk** | **Name of the block** | **Name of the village** | **How long the village is covered under operational area of the KVK (specify the years)** | **Major crops & enterprises** | **Major problem identified** | **Identified Thrust Areas** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Savadatti | Muragod | Muragod | 1year | Soybean | Reduction of viability of farm saved JS-335 seeds and No seed treatment with biofertilizers | Varietal (JS-9305) demonstration with INM |
| 2 | Chikodi | Sadalga | Bedakihal | 3years | Soybean | Reduction of viability of farm saved JS-335 seeds and No seed treatment with biofertilizers | Varietal (JS-9305) demonstration with INM |
| 3 | Savadatii | Muragod | Muragod | 1year | Groundnut | Reduction of viability of farm saved TMV - 2 seeds and no seed treatment with bio fertilizer | Varietal (GPBD-4) + Seed treatment with Biofertilizers |
| 4 | Hukkeri | Hukkeri | Yaragatti | 4years | Groundnut | Reduction of viability of farm saved TMV - 2 seeds and no seed treatment with bio fertilizer | Varietal (GPBD-4) + Seed treatment with Biofertilizers |
| 5 | Ramadurg | Sureban | Avaradi | 1year | Sunflower | Low yield of existing morden variety  Improper use of NPK doses (75:50:40 kgs/ha). Incomplete ear head filling and seed choppiness. Helicoverpa Infestation | Integrated crop management |
| 6 | Ramadurg | Sureban | Avaradi | 1year | Groundnut | Reduction of viability of farm saved TMV - 2 seeds and no seed treatment with bio fertilizer | Varietal (Dh-86) + Seed treatment with Biofertilizers |
| 7 | Hukkeri | Hukkeri | Hattialur | 2years | Groundnut | Reduction of viability of farm saved TMV - 2 seeds and no seed treatment with bio fertilizer | Varietal (Dh-86) + Seed treatment with Biofertilizers |
| 8 | Ramdurga | Bagojikoppa | Bhagojikoppa | 1year | Greengram | Low yield of existing chinamung variety  No seed treatment with biofertilizers  Less application of organic manures  Pod borer infestation  Powdery mildew disease incidence | Integrated crop management |
| 9 | Savadatti | Murgod | Murgod | 1year | Bengalgram | Reduction of seed viability of farm saved A-1 seeds.  No seed treatment with biofertilizers  Helicoverpa infestation  Wilt disease incidence | Integrated crop management |
| 10 | Savadatti | Savadatti | Karikatti | 2years | Bengalgram | Reduction of seed viability of farm saved A-1 seeds.  No seed treatment with biofertilizers  Helicoverpa infestation  Wilt disease incidence | Integrated crop management |
| 11 | Savadatti | Savadatti | Govanakoppa | 1year | Bengalgram | Reduction of seed viability of farm saved A-1 seeds.  No seed treatment with biofertilizers  Helicoverpa infestation  Wilt disease incidence | Integrated crop management |
| 12 | Gokak | Arabhavi | Tukkanatti | 1year | Bengalgram | Reduction of seed viability of farm saved A-1 seeds.  No seed treatment with biofertilizers  Helicoverpa infestation  Wilt disease incidence | Integrated crop management |
| 13 | Gokak | Arabhavi | Ganeshwadi | 1year | Maize | Chlorosis and stunted growth of maize Incidence of blight & rust diseasese and | Application of FeSo4 and ZnSO4 @ 25 kgs/ha each, |
| 14 | Chikodi | Sadalga | Bedakihal | 3years | Sorghum | Use of farm saved seeds M-35 - 1 | Varietal (ICCV – 22) demonstration |
| 15 | Gokak | Arabhavi | Betageri | 2years | Wheat | Reduction of viability of farm saved – Bijaga haladi seeds | Varietal demonstration of UAS - 415, and Raj-4037 |
| 16 | Gokak | Mudalagi | Mudalagi | 2years | Sugarcane | Chlorosis and stunted growth of sugarcane | Application of FeSo4 and ZnSO4 @ 25 kgs/ha each. |
| 17 | Raibag | Raibag | Jodatti | 2years | Maize | Reduction of seed viability of farm saved Deccan 103 seeds. | Varietal demonstration of Arjun |
| 18 | Gokak | Arabhavi | Ganeshwadi | 1 year | Maize | Chlorosis and stunted growth of maize  Incidence of blight & rust diseases | Application of FeSo4 and ZnSO4 @ 25 kgs/ha each..  Spray of fungicides mancozeb for blight and hexaconazole for rust |
| 19 | Gokak | Arabhavi | Sanganakeri | 1 year | Tomato | Early leaf blight incidences | Promotion of integrated approach - Clipping of lower leaves to avoid initial infestation, scheduled foliar sprays with mancozeb, chlorothalonil,& difenaconazole. |
| Virus disease incidence in seedlings | Production of virus free seedlings in protected (40 mesh nylon net) condition |  |
| 20 | Gokak | Mudalagi | Munyal | 1 year | Sugarcane | Root grub menace | Assessment of efficacy of *Metarrhizium anisoplae* @ 12.5 kg/ha along with phorate @ 25 kg/ha in root grub management of sugarcane |
| 21 | Saudatti | Karikatti | Karikatti | 2 year | Onion | Incidence of purple blotch disease | Spray of systemic fungicide difenaconazole |
| 22 | Khanapur | Kittur | Bidi | 1 year | Mango | Hopper incidence causing flower drop in mango | Assessment of the efficacy of *new molecule insecticides against* sucking pest hopper of mango |
| 23 | Athani, Chikkodi, Hukkeri | ------ | Shiraguppi, Examba, Hulloli | 3 year | Grape | Mealy bug infestation leading to less market value of fruit | To control mealy bug by spraying *V. lecanii* |
| 24 | Hukkeri,  Saudatti | Parakanatti,  Karikatti (S) | Parakanatti, Mavanur,  Karikatti(S)  Asundi, Yadahalli | 2 year | Cotton | Less price for medium staple cotton,  Leaf redenning,  Leaf curling and stunted growth due to sucking insect infestation, boll damage by bollworms and leaf damage by rust disease | Promotion of long staple cotton (MRC 7918 Bt)  Leaf reddening management by the spray foliar sray of KNO3 @ 2%  Cultivation of ecofeast crops and trap crops for natural enemy development, need based spray of neem pesticides, endosulfan, thiodicarb, mancozeb. |
| 25 | Belgaum,  Gokak,  Hukkeri,  Saudatti | Hudali,  Budihal  Parakanatti,  Karikatti(S) | Karikatti(B), Hudali,  Budihal  Parakanatti, Mavanur,  Karikatti(S)  Asundi, Yadahalli | 1 year | Cotton | Leaf curling and stunted growth due to sucking insects infestation, boll damage by bollworms leaf damage by rust disease and leaf reddening | IPM technology transfer -cultivation of ecofeast crops, trap crops, need based spray of neem pesticides, endosulfan, profenophos, mancozeb etc. and leaf reddening by the spray of MgSO4 2% & DAP 2% |
| 26 | Saudatti | Karikatti(S) | Karikatti(S) | 2 year | Cotton | Chemical pesticides are lethal to natural enemy till 60 days of crop growth | Assessment of NE friendly insecticides, *Verticillium lecanii* in the management of sucking insects. |
| 27 | Raibag | Bendwad | Mavinahonda | 8years | Brinjal | Hindrance for cultural operation due to closer spacing in brinjal.  Fruit and shoot borer | Assessment of crop geometry in brinjal.  Training on brinjal fruit and shoot borer |
| 28 | Raibag | Bendwad | Mavinahonda | 8 years | Tomato | Low yield in tomato due to low yielding local variety | Demonstration of DMT-2 tomato variety |
| 29 | Khanapur  Bailhongal | Beedi  Kittur | Beedi, Hindalga,  Kittur, Kulvalli, Kalbavi | 3years  3years | Mango | High cost of production | Organic farming |
| 30 | All taluks | - | - | 3years | Vegetables | Low quantitative and qualitative yield | Training the farmers on advanced production technology in vegetables |
| 31 | Bailhongal  Khanapur | Belavadi  Beedi | Belavadi  Beedi | 2years  3years | Mango, vegetables, sunflower | Low yield due to poor pollination,  Low income | Training on honey bee rearing |
| 32 | Raibag  Gokak  Hukkeri | Kankanwadi,Gudas,Kulgod | Nipnal, Shirdon, Beeranagaddi, Sunadoli | 3 years | Silkworm | High mortality of double hybrid (FC1 X FC2) in winter season | Assessment of mortality of double hybrid (FC1 X FC2) in winter season |
| 33 | Gokak | Kulgod | Beeranagaddi, Wadaratti, Avaradi  Betageri Tigadi and Sunadoli, | 2 years | Silkworm | Low yield of existing breed (MYS X NB4D2) | High yielding improved breed CSR (2X4) |
| 34 | Gokak  Hukkeri | Kulgod  Gudas | Hunashal, Tigadi, Sunadoli, Shirdon. | 3 years | Silkworm | Mortality due to un equal size of worms | Promotion of Juvenile hormone for uniform maturation of silkworms and quality cocoons. |
| 35 | Gokak | Kulgod | Beeranagaddi, Wadaratti, Sunadoli Tigadi | 3 years | Silkworm | Reduced egg hatching percent | Promotion of incubation frame for loose eggs |
| 36 | Gokak Hukkeri | Kulgod  Gudas | Tigadi, Sunadoli,  Shirdon | 3 years | Mulberry | Waterlogged saline soils in mulberry | Reclamation of waterlogged saline soils |
| 37 | Gokak Hukkeri | Kulgod  Gudas | Beeranagaddi, Wadaratti, Avaradi  Betageri Tigadi and Sunadoli, | 2 years | Silkworm | Grassarie and flacherie disease | Disinfection by stabilized chlorine dioxide and bed disinfection by Resham Jyothi |
| 38 | Gokak | Arabhavi | Rajapur | 2 years | Eri Silkworm | Un use of caster leaves | Popularization of Eri silkworm |
| 39 | Raibag | Kabbur | Kabbur | 3 years | Mulberry | Returns only from mulberry sole crop | Promotion of soybean as intercrop under mulberry paired row |
| 40 | Gokak | Kulgod | Beeranagaddi, Wadaratti, Avaradi  Betageri Tigadi and Sunadoli, | 3 years | Silkworm | Uzi infestation | Uzi trap for control of Uzi fly |
| 41 | Gokak | Mudalagi | Mudalagi | 3 | Inland fisheries | Low availability of cattle dung for fertilizing the culture ponds | Uses of alternative sources of nutrients for fertilizing |
| 42 | Gokak | Mudalagi | Mudalagi | 3 | Dairying | Low milk yield due to feeding with less nutritious feed | Promotion of azolla as a feed supplement |
| 43 | Gokak | Mudalagi | Patagundi | 2 | Inland fisheries | Low availability of cattle dung for fertilizing the culture ponds | Uses of alternative sources of nutrients for fertilizing |
| 44 | Gokak | Mudalagi | Patagundi | 2 | Dairying | Low milk yield due to feeding with less nutritious feed | Promotion of azolla as a feed supplement |
| 45 | Gokak | Gokak | Tukkanatti | 4 | Dairying | Low milk yield due to feeding with less nutritious feed | Promotion of azolla as a feed supplement |
| 46 | Gokak | Gokak | Tukkanatti | 4 | Inland fisheries | Low availability of cattle dung for fertilizing the culture ponds | Uses of alternative sources of nutrients for fertilizing |
| 47 | Gokak | Mudalagi | Patagundi | 3 | Inland fisheries | Low survival (25-30%) of stocked fish seed | Production of advanced carp fingerlings in cages for stocking |
| 48 | Gokak | Gokak | Sunadoli | 2 | Inland fisheries | Low survival (25-30%) of stocked fish seed | Production of advanced carp fingerlings in cages for stocking |
| 49 | Gokak | Gokak | Sunadoli | 2 | Dairying | Low milk yield due to feeding with less nutritious feed | Promotion of azolla as a feed supplement |
| 50 | Gokak | Gokak | Dandapur | 1 | Dairying | Low milk yield due to feeding with less nutritious feed | Promotion of azolla as a feed supplement |
| 51 | Gokak | Gokak | Naganur | 5 | Dairying | Low milk yield due to feeding with less nutritious feed | Promotion of azolla as a feed supplement |
| 52 | Saudathi | Saudathi | Matolli, Hosur | 1 | Inland fisheries | Low survival (25-30%) of stocked fish seed | Assessment of the potential of storage cum irrigation tanks for production of advanced carp fingerlings |
| 53 | Saudathi | Saudathi | Murgod | 2 | Inland fisheries | Low availability of cattle dung for fertilizing the culture ponds | Uses of alternative sources of nutrients for fertilizing |
| 54 | Saudathi | Saudathi | Murgod | 2 | Dairying | Low milk yield due to feeding with less nutritious feed | Promotion of azolla as a feed supplement |
| 55 | Bailhongal | Bailhongal | Kadarvalli | 1 | Inland fisheries | Low availability of fish | Assessment of the potential of storage cum irrigation tanks for production of advanced carp fingerlings |
| 56 | Belgaum | Belgaum | Belgaum | 1 | Inland fisheries | Lesser income generation opportunities for SHGs | Promotion of ornamental fish culture |
| 57 | Khanapur | Khanapur | Villages of Khanapur taluk | 1 | Inland fisheries | Lesser income generation opportunities for SHGs | Promotion of ornamental fish culture |
| 58 | Ramdurga | Ramdurga | Salahalli | 1 | Inland fisheries | Low availability of cattle dung for fertilizing the culture ponds | Uses of alternative sources of nutrients for fertilizing |
| 59 | Hukkeri | Hukkeri | Arjunwad | 0 | Inland fisheries | Low fish catch in riverine fisheries | Scientific management of riverine fisheries |
| 60 | Chikkodi | Chikkodi | Karadga | 3 | Inland fisheries | Low fish catch in riverine fisheries | Scientific management of riverine fisheries |
| 61 | Gokak, Hukkeri and Raibag | Gokak, Hukkeri and Raibag | Tukkanatti, Sunadoli, Paraknatti, and Bendiwad | 2 | Envirofit chulha | Farmwomen face shortage of firewood and drudgery involved in collecting it, health problems due to inhalation of smoke. | Drudgery reduction |
| 62 | Hukkeri | Hukkeri | Hattialur | 2 | Groundnut stripper | Labour scarcity, Time consuming and health hazard | Drudgery reduction |
| 63 | Raibag | Raibag | Harugeri, Bendiwad and Nipnal | 3 | Cycle weeder | Labour scarcity, higher labour wages. Drudgery experience by farm women | Drudgery reduction |

2.7 Priority thrust areas

|  |  |
| --- | --- |
| **S. No** | **Thrust area** |
| 1 | Maintenance of optimum crop geometry and seed treatment with bio fertilizers in groundnut, soybean,and Green gram, varietal evaluation of Kapali wheat |
| 2 | Promotion of Greengram – S- 4, Bengalgram – JG – 11, JS – 335 Soybean, DS – 1 sesame, KBSH – 53 sunflower and UAS 415 and Raj – 4037 in Wheat, Dh – 86 & GPBD – 4 in Ground nut, ICTP – 8203/ ICMV – 221in Bajra and CSV – 22 in Rabi sorghum |
| 3 | Iron and Zinc management in sugarcane and Maize |
| 4 | Integrated crop management in soybean, sunflower, groundnut, Greengram and Bengal gram |
| 5 | Assessment of mortality of double hybrid (FC1 X FC2) in winter season, promotion of high yielding improved breed CSR (2X4), Promotion of Juvenile hormone for uniform maturation of silkworms and quality cocoons, Promotion of incubation frame for loose eggs. |
| 6 | Drudgery reduction |
| 7 | Assessment of alternative sources of nutrients as manure and storage cum irrigation tanks for fish seed raising. |
| 8 | Promotion of fish culture in untapped water bodies and water-logged land, seed rearing in cages, culture of sterile carp ornamental fisheries and poultry farming. |
| 9 | Promotion of azolla as a feed supplement in cattle feed. |
| 10 | Assessment of crop geometry in brinjal. |
| 11 | Demonstration of DMT-2 variety of tomato. |
| 12 | Organic farming in mango |
| 13 | Advanced production technology of horticulture crops |
| 14 | Training on honey bee rearing |
| 15 | Assessment of efficacy of *Metarrhizium anisoplae* along with phorate in root grub management of sugarcane |
| 16 | Assessment of the efficacy of *V. lecanii* against sucking pests of Cotton |
| 17 | Assessment of the efficacy of new molecule insecticides against sucking pest hopper of mango |
| 18 | Insect and disease management in maize, onion, tomato, grape, cotton |

**PART III - TECHNICAL ACHIEVEMENTS**

**3.A. Details of target and achievements of mandatory activities**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OFT** | | | | | | | **FLD** | | | |
| **1** | | | | | | | **2** | | | |
| **Number of OFTs** | | | **Number of farmers** | | | | **Number of FLDs** | | **Number of farmers** | |
| **Targets** | **Achievement** | | **Targets** | | **Achievement** | | **Targets** | **Achievement** | **Targets** | **Achievement** |
| 10 | 10 | | 79 | | 79 | | 26 | 26 | 627 | 750 |
| **Training** | | | | | | | **Extension Activities** | | | |
| **3** | | | | | | | **4** | | | |
| **Number of Courses** | | | | **Number of Participants** | | | **Number of activities** | | **Number of participants** | |
| **Targets** | | **Achievement** | | **Targets** | | **Achievement** | **Targets** | **Achievement** | **Targets** | **Achievement** |
| 137 | | 144 | | 5142 | | 5528 | 559 | 575 | 5299 | 5597 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Seed Production (Qtl.)** | | **Planting material (Nos.)** | |
| **5** | | **6** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
| 43.51 | 43.51 | 399 | 399 |
|  |  | 2500 mango seedlings | 2000 mango seedlings |
| **Livestock (No.)** | | **Bio-products (Kg)** | |
| **7** | | **8** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
|  |  | 10,000 kg Vermicompost | 8,000 kg |

**3.B1. Abstract of interventions undertaken based on thrust areas identified for the district as given in Sl.No.2.7**

| **S. No** | **Thrust area** | **Crop/**  **Enterprise** | | **Identified Problem** | **Interventions** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Title of OFT if any** | **Title of FLD if any** | **Number of Training (farmers)** | **Number of Training (Youths)** | **Number of Training (extension personnel)** | **Extension activities**  **(No.)** | **Supply of seeds (Qtl.)** | **Supply of planting materials (No.)** | **Supply of livestock (No.)** | **Supply of bio products** | |
| **No.** | **Kg** |
| 1 | Varietal Evaluation | Kapali-Wheat | | Crop lodging and more plant height of Np-200 variety | Assessment of different varieties of DDK-1009, DDK-1025 and DDK-1029 | - | 02 | - | - | 05 | 5.25 | - | - | - | - |
| 2 | Varietal Evaluation with INM | Soybean | | Reduction of viability of farm saved JS-9305 seeds and No seed treatment with biofertilizers | - | Varietal Evaluation with INM | 03 | - | 01 | 15 | 30.0 | - | - | - | - |
| 3 | Varietal Evaluation with INM | Groundnut | | Reduction of viability of farm saved TMV - 2 seeds and no seed treatment with bio fertilizer | - | Varietal Evaluation with INM | 01 | - | 01 | 7 | 18.75 | - | - | - | - |
| 4 | ICM | Sesame | | Low yield of existing variety E -8 | - | ICM | 01 | - | 00 | 5 | 0.25 | - | - | - | - |
| 5 | ICM | Sunflower | | Low yield of existing morden variety  Improper use of NPK doses (75:50:40 kgs/ha). Incomplete ear head filling and seed choppiness. Helicoverpa Infestation | - | ICM | 01 | - | 01 | 06 | - | - | - | - | - |
| 6 | Varietal Evaluation with INM | Groundnut | | Low yield of existing variety TMV-2  No seed treatment with biofertilizers |  | Varietal Evaluation with INM | 02 | - | 01 | 07 | 15.0 | - | - | - | - |
| 7 | ICM | Green gram | | Low yield of existing chinamung variety  No seed treatment with biofertilizers  Less application of organic manures  Pod borer infestation  Powdery mildew disease incidence |  | ICM | 02 | - | 01 | 06 | 3.75 |  |  |  |  |
| 8 | ICM | Bengal gram | | Reduction of seed viability of farm saved A-1 seeds.  No seed treatment with biofertilizers  Helicoverpa infestation  Wilt disease incidence |  | ICM | 02 | - | 01 | 11 | 18.75 | - | - | - | - |
| 9 | Nutrient management | Maize | | Chlorosis and stunted growth of maize |  | Nutrient management | 01 | - | 01 | 05 | - | - | - | - | - |
| 10 | Varietal Evaluation | Sorghum | | Reduction of viability of farm saved seeds and low yield potential of existing variety |  | Varietal Evaluation | 01 | - | 00 | 04 | 0.375 | - | - | - | - |
| 11 | Varietal Evaluation | Wheat | | Reduction of viability of farm saved - Bijagahaladi seeds |  | Varietal Evaluation | 01 | - | 01 | 05 | 7.5 | - | - | - | - |
| 12 | Nutrient management | Sugarcane | | Chlorosis and stunted growth of sugarcane |  | Nutrient management | 01 | - | 01 | 03 | - | - | - | - | - |
| 13 | Varietal Evaluation | Maize | | Reduced yield over the year in maize |  | Varietal Evaluation | 01 | - | 01 | 05 | 1.12 | - | - | - | - |
| 14 | - Application of FeSo4 and ZnSO4 @ 25 kgs/ha each..  - Spray of fungicides mancozeb for blight and hexaconazole for rust | Maize | | - Chlorosis and stunted growth of maize  - Incidence of blight & rust diseases | - | Soil application of iron , zinc and management of disease by integrated practice in maize | 2 | 0 | 0 | 3 | - | - | - | - | - |
| 15 | Promotion of integrated approach - Clipping of lower leaves to avoid initial infestation, scheduled foliar sprays with mancozeb, chlorothalonil,& difenaconazole | Tomato | | Early leaf blight incidences | - | Seedling production in protected condotion and integrated management of early blight disease in tomato | 2 | 1 | 0 | 4 | - | - | - | - | - |
| 16 | Production of virus free seedlings in protected (40 mesh nylon net) condition |  | | Virus disease incidence in seedlings |  |  |  |  |  |  |  |  | - | - | - |
| 17 | Integrated management of root grub | Sugarcane | | Root grub menace | Assessment of efficacy of *Metarrhizium anisoplae* @ 12.5 kg/ha along with phorate @ 25 kg/ha in root grub management of sugarcane | - | 2 | 1 | - | 5 | - | - |  |  |  |
| 18 | Spray of systemic fungicide difenaconazole | Onion | | Incidence of purple blotch disease | - | Management of purple blotch disaease in onion | 2 | 1 | - | 4 | - | - | - | - | - |
| 19 | Integrated management of mango pests | Mango | | Hopper incidence causing flower drop in mango | Assessment of neonicotinoide (Thiamethoxam) pesticide against mango hopper management | - | 1 | - | - | 4 | - | - | - | - | - |
| 20 | To control mealy bug by spraying *V. lecanii* | Grape | | Mealy bug infestation leading to less market value of fruit | - | Management of mealy bug in grape | 2 | - | - | 4 | - | - | - | - | 2 kg/ha |
| 21 | Promotion of long staple cotton (MRC 7918 Bt)  Leaf reddening management by the spray foliar sray of KNO3 @ 2%  Cultivation of ecofeast crops and trap crops for natural enemy development, need based spray of neem pesticides, endosulfan, thiodicarb, mancozeb. | Cotton | | Less price for medium staple cotton,  Leaf redenning,  Leaf curling and stunted growth due to sucking insect infestation, boll damage by bollworms and leaf damage by rust disease | - | ELS hybrid promation and leaf reddening management with ICM in Cotton | 2 | 1 | 1 | 8 | 2.5 kg/ha | - | - | - | - |
| 22 | IPM technology transfer -cultivation of ecofeast crops, trap crops, need based spray of neem pesticides, endosulfan, profenophos, mancozeb , etc. and leaf reddening by the spray of MgSO4 2% & DAP 2% | Cotton | | Leaf curling and stunted growth due to sucking insects infestation, boll damage by bollworms leaf damage by rust disease and leaf reddening | - | IPM in cotton | 2 | 1 | 1 | 8 | - | - | - | - | - |
| 23 | Assessment of NE friendly insecticides *Verticillium lecanii* in the management of sucking insects. | Cotton | | Chemical pesticides are lethal to natural enemy till 60 days of crop growth | Assessment of *Verticillium lecanii* in managing cotton sucking pests | - | 2 | - | - | 6 | - | - | - | - | 2 kg/ha |
| 24 | Assessment of crop geometry in brinjal | Brinjal | | Hindrance for cultural activities | Assessment of crop geometry in brinjal | - | 2 | - | - | 15 | 600g | - | - | - | - |
| 25 | Tomato varietal demonstration | Tomato | | Lower yield | - | Demonstration of DMT-2 variety of tomato | 2 | - | - | 12 | 100 g | - | - | - | - |
| 26 | Organic farming in mango | Mango | | High production cost | - | - | 4 | - | - | 25 | - | - | - | - | - |
| 27 | Advanced production technology of vegetables | Vegetables | | Low quantitative and qualitative yield | - | - | 5 | - | - | 17 | - | - | - | - | - |
| 28 | Honey bee rearing | Horticulture crops | | Pollination problem, Low income | - | - | 3 | - | - | 14 | - | - | - | - | - |
| 29 | Mortality of double hybrid (FC1 X FC2) in winter season | | Silkworm | High mortality of double hybrid (FC1 X FC2) in winter season | Assessment of mortality of double hybrid (FC1 X FC2) in winter season | - | 2 | 1 | 1 | 4 | - | - | 600 DFLs | - | - |
| 30 | High yielding improved breed CSR (2X4) | | Silkworm | Low yield of existing breed (MYS X NB4D2) | - | Demonstration of high yielding improved breed CSR (2X4) | 2 | - | 1 | 7 | - | - | 1000 DFLs | - | - |
| 31 | Juvenile hormone for uniform maturation of silkworm and quality cocoons | | Silkworm | Mortality due to un equal size of worms | - | Promotion of Juvenile hormone for uniform maturation of silkworm and quality cocoons | 3 | 1 | 1 | 6 | - | Juvenile hormone  100ml@5ml for50DFLs | - | - | - |
| 32 | Incubation frame for loose eggs | | Silkworm | Reduced egg hatching percent | - | Promotion of incubation frame for loose eggs | 3 | 1 | 1 | 5 | - | 10 Frame | - | - | - |
| 33 | Fertilizer management in fish farming | | Inland Fisheries | Scarcity of cattle dung for application in culture systems leading to poor growth of fish | Assessment of partial replacement of cattle dung with inorganic fertilizers in carp culture | - | 1 | - | - | 12 | - | - | - | - | 10 t Cattle dung |
| 34 | Production of advanced carp fingerlings | | Inland Fisheries | No availability of advanced carp fingerlings for stocking culture systems | Assessment of the potential of storage cum irrigation tanks for production of advanced carp fingerlings | Production of advanced carp fingerlings in cages | 2 | - | - | 20 | - | - | 90,000 carp fry & 6,000 fingerlings | - | - |
| 35 | Culture of fast growing fish varieties | | Inland Fisheries | Poor growth of fish in short-seasonal tanks | - | Culture of sterile common | 1 | - | - | 6 | - | - | - | - | - |
| 36 | Production of low-cost, nutrient rich green fodder | | Dairying | High cost of cattle feed  Low milk yield due to feeding with less nutritious fodder | - | Cultivation and feeding of azolla to milking dairy animals | 3 | - | - | 30 | 10 kg azolla culture | - | - | - | - |
| 37 | Promotion of fish culture in untapped water bodies | | Inland Fisheries | Underutilization of potential water bodies | - | - | 4 | - | - | 55 | - | - | - | - | - |
| 38 | Poultry production | | Poultry | Lack of awareness of poultry farming | - | - | - | 1 | - | 3 | - | - | - | - | - |
| 39 | Scientific management of reservoirs | | Reservoir Fisheries | Low production | - | - | - | - | - | 10 | - | - | - | - | - |
| 40 | Promotion of ornamental fisheries | | Ornamental fisheries | Lesser income generation opportunities for SHGs | - | - | - | - | - | 10 | - | - | - | - | - |
| 41 | Drudgery reduction | | Envirofit chulha | Farmwomen face shortage of firewood and drudgery involved in collecting it, health problems due to inhalation of smoke. | Assessment of envirofit chulha for fuel efficiency and drudgery reduction. | - | 2 | - | - | 8 | - | - | - | 5 | - |
| 42 | Drudgery reduction | | Groundnut stripper | Labour scarcity, Time consuming and health hazard | Assessment of groundnut stripper | - | 2 | - | - | 7 | - | - | - | 2 | - |
| 43 | Drudgery reduction | | Cycle weeder | Labour scarcity, higher labour wages. Drudgery experience by farm women | - | Popularization of cycle weeder | 3 | - | - | 9 | - | - | - | 6 | - |

**3.B2. Details of technology used during reporting period**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No** | **Title of Technology** | **Source of technology** | **Crop/enterprise** | **No.of programmes conducted** | | | |
| **OFT** | **FLD** | **Training** | **Others (Specify) / No. Ext. Activities** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 1 | Assessment of different varieties of DDK-1009, DDK-1025 and DDK-1029 | UAS Dharwad | Kapali-Wheat | 1 | - | 2 | Scientific field visit-2  Advisory service-2  Diagnostic support-1 |
| 2 | Reduction of viability of farm saved JS-335 seeds and No seed treatment with biofertilizers | UAS Dharwad | Soybean |  | 12 | 3 | Scientific field visit-9  Field day - 2  Advisory service-1  Method Demo. – 1  Group meeting - 1  Diagnostic support-1 |
| 3 | Reduction of viability of farm saved TMV - 2 seeds and no seed treatment with bio fertilizer | UAS Dharwad | Groundnut |  | 1 | Scientific field visit-4  Field day - 1  Advisory service-1  Diagnostic support-1 |
| 4 | Low yield of existing variety E -8 | UAS Dharwad | Sesame |  | 1 | Scientific field visit-5 |
| 5 | Low yield of existing morden variety  Improper use of NPK doses (75:50:40 kgs/ha). Incomplete ear head filling and seed choppiness. Helicoverpa Infestation | UAS Dharwad | Sunflower |  | 1 | Scientific field visit-9  Field day - 2  Advisory service-2  Group meeting - 1  Diagnostic support-1 |
| 6 | Low yield of existing variety TMV-2  No seed treatment with biofertilizers | UAS Dharwad | Groundnut |  | 2 | Scientific field visit-4  Field day - 1  Advisory service-1  Group meeting - 1  Diagnostic support-1 |
| 7 | Low yield of existing chinamung variety  No seed treatment with biofertilizers  Less application of organic manures  Pod borer infestation  Powdery mildew disease incidence | UAS Dharwad | Green gram |  | 2 | Scientific field visit - 3  Field day - 1  Advisory service-1  Group meeting - 1  Diagnostic support-1 |
| 8 | Reduction of seed viability of farm saved A-1 seeds.  No seed treatment with biofertilizers  Helicoverpa infestation  Wilt disease incidence | UAS Dharwad | Bengal gram |  | 2 | Scientific field visit - 5  Field day - 2  Advisory service-2  Group meeting - 2  Diagnostic support-1 |
| 9 | Chlorosis and stunted growth of maize | UAS Dharwad | Maize |  | 1 | Scientific field visit-1  Advisory service-1  Group meeting - 1  Diagnostic support-1 |
| 10 | Reduction of viability of farm saved seeds and low yield potential of existing variety | UAS Dharwad | Sorghum |  | 1 | Scientific field visit-1  Advisory service-1  Group meeting - 1  Diagnostic support-1 |
| 11 | Reduction of viability of farm saved - Bijagahaladi seeds | UAS Dharwad | Wheat |  | 1 | Scientific field visit-1  Advisory service-1  Farmers conventional - 1 |
| 12 | Chlorosis and stunted growth of sugarcane | UAS Dharwad | Sugarcane |  | 1 | Scientific field visit-1  Advisory service-1  Group meeting - 1  Diagnostic support-2 |
| 13 | Reduced yield over the year in maize | UAS Dharwad | Maize |  | 1 | Scientific field visit-1  Group meeting - 1  Diagnostic support-1 |
| 14 | Application of FeSo4 and ZnSO4 @ 25 kgs/ha  Spray of fungicides mancozeb for blight and hexaconazole for rust | (UAS Dharwad | Maize | - | 1 | 2 | Field visits-4,  method demonstration-1, advisory service-4 |
| 15 | Promotion of integrated approach - Clipping of lower leaves to avoid initial infestation, scheduled foliar sprays with mancozeb, chlorothalonil,& difenaconazole. | UHS Bagalkot & IIHR Banalore | Tomato | - | 1 | 3 | Field visits-5,  method demonstration-3, advisory service-6 |
| 16 | Production of virus free seedlings in protected (40 mesh nylon net) condition | UHS Bagalkot & IIHR Banalore | Tomato | - | 1 | 2 | Field visits-6,  method demonstration-1, advisory service-12 |
| 17 | Assessment of efficacy of *Metarrhizium anisoplae* @ 12.5 kg/ha along with phorate @ 25 kg/ha in root grub management of sugarcane | UAS Dharwad | Sugarcane | 1 | - | 3 | Field visits-4,  method demonstration-1, advisory service-3 |
| 18 | Spray of systemic fungicide difenaconazole in managing puple blotch disease | UAS Dharwad | Onion | - | 1 | 3 | Field visits-4,  advisory service-4 |
| 19 | Assessment of neonicotinoide (Thiamethoxam) pesticide against mango hopper management | UAS Dharwad | Mango | 1 | - | 1 | Field visits-2,  advisory service-2 |
| 20 | To control mealy bug by spraying *V. lecanii* | UAS Dharwad & NRS grape Pune | Grape | - | 1 | 2 | Field visits-3,  method demonstration-1, advisory service-4 |
| 21 | Promotion of long staple cotton (MRC 7918 Bt)  Leaf reddening management by the spray foliar sray of KNO3 @ 2%  Cultivation of ecofeast crops and trap crops for natural enemy development, need based spray of neem pesticides, endosulfan, thiodicarb, mancozeb. | UAS Dharwad & CICR Nagapur | Cotton | - | 1 | 4 | Field visits-11,  method demonstration-2, advisory service-11 |
| 22 | IPM technology transfer -cultivation of ecofeast crops, trap crops, need based spray of neem pesticides, endosulfan, profenophos, mancozeb , etc. and leaf reddening by the spray of MgSO4 2% & DAP 2% | UAS Dharwad & CICR Nagapur | Cotton | - | 1 | 4 | Field visits-5,  method demonstration-2, advisory service-10 |
| 23 | Assessment of NE friendly insecticides *Verticillium lecanii* in the management of sucking insects. | UAS Dharwad & CICR Nagapur | Cotton | 1 | - | 2 | Field visits-8,  method demonstration-2, advisory service-5 |
| 24 | Wider spacing in brinjal (60X120 cm) | UAS Dharwad | Brinjal | 1 | - | 2 | Field visits-8,  Method demonstration-2, advisory service-5 |
| 25 | High yielding variety in tomato | UAS Dharwad | Tomato | - | 1 | 2 | Field visits-7  Method demonstration-2, advisory service-3 |
| 26 | Organic farming | NCOF | Mango | - | - | 4 | Field visits-10  Method demonstration-5, advisory service-9  Diagnostic support - 1 |
| 27 | Advanced production technologies of vegetables | IIHR Bangalore | Vegetables | - | - | 5 | Exposure visit - 5  Method demonstration-10, advisory service-2 |
| 28 | Honey bee rearing | UAS Dharwad | Bee keeping | - | - | 3 | Method demonstration-1, advisory service-13 |
| 29 | Assessment of mortality of double hybrid (FC1 X FC2) in winter season | CSRTI Mysore | Silkworm DFLs | 1 | - | 4 | Scientific field visit-2  Advisory service-1  Diagnostic support-1 |
| 30 | Demonstration of high yielding improved breed CSR (2X4) | CSRTI Mysore | Silkworm DFLs | - | 1 | 2 | Scientific field visit-5  Group meetings-2 |
| 31 | Promotion of Juvenile hormone for uniform maturation of silkworms and quality cocoons | CSRTI Mysore | Juvenile Hormone | - | 1 | 3 | Scientific field visit-3  Advisory service-2  Diagnostic support-1 |
| 32 | Promotion of incubation frame for loose eggs | CSRTI Mysore | Incubation Frame | - | 1 | 3 | Scientific field visit-3  Advisory service-1  Diagnostic support-1 |
| 33 | Reclamation of waterlogged saline soils | UAS Dharwad | Mulberry | - | - | 9 | Scientific field visit-6  Group meetings-5 |
| 34 | Disinfection by stabilized chlorine dioxide and bed disinfection by Resham Jyothi | CSRTI Mysore | SANITECH  (Stabilized chlorine dioxide)&  Bed disinfactant | - | - | 1 | Scientific field visit-2 |
| 35 | Popularization of Eri silkworm | UAS Dharwad | Eri- SilkwormDFLs | - | - | 2 | Scientific field visit-2 |
| 36 | Promotion of soybean as intercrop under mulberry paired row | UAS Dharwad | Mulberry | - | - | 1 | Advisory service-1 |
| 37 | Assessment of inorganic fertilizers as partial replacement for cattle during in carp culture | CIFRI, Barrackpore | Inland fisheries | 1 | - | 1 | Field visits-6, method demonstration-2, advisory service-14 |
| 38 | Assessment of the potential of storage cum irrigation tanks for production of advanced carp fingerlings | UAS, Bangalore | Inland fisheries | 2 | - | 2 | Field visits-4, method demonstration-2, advisory service-3 |
| 39 | Production of advanced carp fingerlings in cages | CIFE, Mumbai | Inland fisheries | - | 0 | 0 | Field visits-3, method demonstration-1, advisory service-1 |
| 40 | Culture of sterile common | UAS, Bangalore | Inland fisheries | - | 1 | 1 | Field visits-1, method demonstration-1, advisory service-1 |
| 41 | Cultivation and feeding of azolla to milking dairy animals | UAS, Dharwad | Dairying | - | 1 | 3 | Field visits-16, method demonstration-10, advisory service-4 |
| 42 | Promotion of fish culture in potential water bodies | UAS, Bangalore | Inland fisheries | - | - | 4 | Guest lectures-6, field visits-5, method demonstration-2, advisory service-18 |
| 43 | Poultry farming | UAS, Dharwad | Poultry | - | - | 1 | Advisory service-2 |
| 44 | Reservoir fisheries management | CIFRI and UAS, Bangalore | Reservoir fisheries | - | - | - | Guest lectures-3, consultancy-2 |
| 45 | Ornamental fish culture | KVAFSU, Bidar | Ornamental fisheries | - | - | - | Guest lectures-2, consultancy-3 |
| 46 | Assessment of envirofit chulha for fuel efficiency and drudgery reduction. | Envirofit private company, Bangalore | Envirofit chulha | 1 | - | 2 | Field visits-4 , method demonstration-4 |
| 47 | Assessment of groundnut stripper | TNAU, Coimbatore | Groundnut stripper | 1 | - | 2 | Field visits-  2 , method demonstration-2 |
| 48 | Popularization of cycle weeder | Input dealer from Kolhapur | Cycle weeder | - | 1 | 3 | Field visits-3 , method demonstration-3 |

**3.B2 contd..**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No. of farmers covered** | | | | | | | | | | | | | | | |
| **OFT** | | | | **FLD** | | | | **Training** | | | | **Others (Specify)** | | | |
| **General** | | **SC/ST** | | **General** | | **SC/ST** | | **General** | | **SC/ST** | | **General** | | **SC/ST** | |
| **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** |
| **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** |
| 59 | 13 | 4 | 3 | 397 | 83 | 227 | 47 | 3854 | 685 | 743 | 250 | 2668 | 694 | 661 | 271 |

**PART IV - On Farm Trial**

**4.A1. Abstract on the number of technologies assessed in respect of crops**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | **TOTAL** |
| Varietal Evaluation | 1 | - | - | - | - | - | - | - | - | **1** |
| Integrated Pest Management | - | - | - | 2 | - | 1 | - | - | - | **3** |
| Integrated Crop Management | - | - | - | - | 1 | - | - | - | - | **1** |
| Drudgery Reduction | 1 | 1 | - | - | - | - | - | - | - | **2** |
| **Total** | **2** | **1** | **-** | **2** | **1** | **1** | **-** | **-** | **-** | **7** |

**4.A2. Abstract on the number of technologies refined in respect of crops - Nil**

**4.A3. Abstract on the number of technologies assessed in respect of livestock and other enterprises**

|  |  |  |  |
| --- | --- | --- | --- |
| **Thematic areas** | **Fisheries** | **Sericulture** | **TOTAL** |
| Nutrition Management | 1 | - | **1** |
| Production and Management | 1 | 1 | **2** |
| **TOTAL** | **2** | **1** | **3** |

**4.A4. Abstract on the number of technologies refined in respect of livestock enterprises - Nil**

**4.B. Achievements on technologies Assessed and Refined**

**4.B.1. Technologies Assessed under various Crops**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Thematic areas** | **Crop** | **Name of the technology assessed** | **No. of trials** | **Area (ha)** |
| Varietal Evaluation | Kapali-Wheat | Assessment of different varieties of DDK-1009, DDK-1025 and DDK-1029 | 17 | 7.0 |
| Integrated Pest Management | Sugarcane | Assessment of efficacy of *Metarrhizium anisoplae* along with prorate in root grub management of sugarcane | 5 | 2.0 |
| Use of bioagents in the management of sucking pests | Cotton | Assessment of NE friendly insecticides *Verticillium lecanii* in the management of sucking insects | 5 | 2.0 |
| Use of neonicotinoide in the management of sucking pests | Mango | Assessment of neonicotinoide (Thiamethoxam) pesticide against mango hopper management | 5 | 2.0 |
| Drudgery Reduction | Brinjal | Wider spacing | 20 | 2.0 |
| Maize | Cycle weeder | 6 | 2.4 |
| Groundnut | Groundnut stripper | 4 | 1.0 |
| **Total** | | | 62 | 18.4 |

**4.B.2. Technologies Refined under various Crops - Nil**

**4.B.3. Technologies assessed under Livestock and other enterprises**

|  |  |  |  |
| --- | --- | --- | --- |
| **Thematic areas** | **Name of the livestock enterprise** | **Name of the technology assessed** | **No. of trials** |
| Evaluation of breeds | Silk worm | Assessment of FC1xFC2 in Kharif season | 6 |
| Nutrition management | Inland Fisheries | Assessment of inorganic fertilizers as partial replacement for cattle during in carp culture | 5 |
| Production and management | Inland Fisheries | Assessment of the potential of storage cum irrigation tanks for production of advanced carp fingerlings | 6 |
| **Total** | | | **17** |

**4.B.4. Technologies Refined under Livestock and other enterprises - Nil**

**4.C1.** **Results of Technologies Assessed**

**Results of On Farm Trial**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crop/ enterprise** | **Farming situation** | **Problem definition** | **Title of OFT** | **No. of**  **trials** | **Technology Assessed** | **Parameters of assessment** | **Data on the parameter** | **Results of assessment** | **Feedback from the farmer** | **Any refinement done / needed** | **Justification for refinement** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| Kapali wheat | Irrigated | Crop lodging and more plant height of Np-200 variety | Assessment of different varieties of DDK-1009, DDK-1025 and DDK-1029 | 17 | T0- NP-200  T1-DDK-1009  T2-DDK-1025  T2-DDK-1029 | Plant height (cm)  Ear head length (cm)  1000 grain Wt. (g)  Yield (g) in /Sq.mt  Yield (qtl./ha  Plant height (cm)  Ear head length (cm)  1000 grain Wt. (g)  Yield (g) in /Sq.mt  Yield (qtl./ha  Plant height (cm)  Ear head length (cm)  1000 grain Wt. (g)  Yield (g) in /Sq.mt  Yield (qtl./ha  Plant height (cm)  Ear head length (cm)  1000 grain Wt. (g)  Yield (g) in /Sq.mt  Yield (qtl./ha | 111  6.35  86.95  248.35  23.93  78  7.10  83.05  255.00  23.93  83  7.65  83.75  262.50  25.58  82  7.75  84.45  263.90  26.67 | 23.93  24.51  25.58  26.67 | lodging and more plant height of Np-200 variety and More taste  Resistant to Lodging, Medium height and Less grain weight  Resistant to Lodging, Medium height and More grain yield  Resistant to Lodging, Medium height and more diameter length | -  -  -  - | -  -  -  - |
| Cotton | Rain fed | To manage sucking pests till 60 days of crop chemical insecticides are sprayed. This results in reduction of natural enemy population, leading to prevalence of boll worms pests resulting in low cotton yield | Assessment of efficacy of *Verticillium lecanii* as an alternative in managing sucking pests | 5 | **Technology option 1**  Spray of imidacloprid @ 0.5 ml/lit or metasystox @ 1 ml/lit or phosphamidon @ 0.5 ml/lit  **Technology option 2**  Spray of imidacloprid @ 0.5 ml/lit based on ETL    **Technology option 3**  Foliar spray; of V. lecanii @ 2 ml/lit based on ETL | a) No. of sucking pests before and after 3days of spray  b) Yield. Kg lint/ha | **1. Pest population**  a)No. of aphids/leaf  Before spray  T1-98,T2-79,T3-81  After spray  T1-07,T2-05, T3-19  b) No. of Thrips/leaf  Before spray  T1-42,T2-56,T3-48  After spray  T1-04,T2-05, T3-09  c) No. of Jassids/leaf  Before spray  T1-09,T2-08,T3-10  After spray  T1-01,T2-02, T3-03  d)No. of whitefly/Leaf  Before spray  T1-04,T2-04,T3-06  After spray  T1-01,T2-02, T3-02  **2) Yield qtl/ha**  T1-17.01, T2-17.73, T3-18.06 | - | In *V.lecanii* sprayed fields they  observed the natural enemy’s population difference as compared to chemical sprayed fields | - | - |
| Sugarcane | Irrigated | Chemical insecticide phorate found effective for 2-3 months, but root grub infestation causes yield reduction by reducing plant population and cane length throught the crop period hence in order to get sustained & effective measure bioagent *Metarrhizium anisoplea* efficacy is assessed | Assessment of efficacy of *Metarrhizium anisoplae* along with phorate in root grub management of sugarcane | 5 | **Technology option 1** Application of phorate @ 25 kg/ha at the time of planting or once the incidence is noticed  **Technology option 2**  Application of phorate @ 25 kg/ha at the time of planting and once the incidence is noticed drenching of chloropyriphos solution @ 10 ml/lit at affected area  **Technology option 3**  Application *M. anisoplae* @ 12.5 kg/ha along with phorate @ 25 kg/ at the time of planting or once the incidence is noticed | Per cent infestation  Yield t/ha | **Per cent infestation**  T1- 33.5%  T2- 31.5 %  T3- 11.2%  **Yield t/ha**  T1- 76.5 t/ha  T2- 77.6 t/ha  T3- 98.7 t/ha | - |  | - | - |
| Mango | Rainfed | Hopper incidence causing flower drop in mango | Assessment of neonicotinoide (Thiamethoxam) pesticide against mango hopper management | 5 | **Technology option 1** Application of monocrotophos @ 1 ml/l and carbaryl @ 4g/l at the time of flowering  **Technology option 2**  Application of monocrotophos @ 1 ml/l and carbaryl @ 4g/l at the time of flower initiation  **Technology option 3**  Application of thiamethoxam 25 WG (Actra) @ 0.25 g/l at the time of flower initiation and at 20 days after first spray | Population/panicle  Fruit yield/ tree | **Population/panicle**  **T1-**  Pre count: 5.24  6 days after 2nd Spray: 1.23  **T2-**  Pre count: 5.64  6 days after 2nd Spray: 0.31  T**3-**  Pre count: 6.01  6 days after 2nd Spray: 0.23  **Fruit yield kg/tree**  T1- 52.3  T2- 66.2  T3- 70.1 | - | - | - | - |
| Brinjal | Irrigated | Closer spacing (60X60 cm) creates hindrance for harvesting and other cultural operations | Assessment of crop geometry in brinjal | 20 | Wider spacing | Labour cost (irrigation, harvesting, weeding, spraying, fertilizer application) Rs/ha  Total cost of production (Rs/ha)  Ease of operation  Yield /ha | To- 4150/-  T1- 3800/-  T2- 2804/-  To-23150/-  T1-21350/-  T2-18604/-  To- Difficult  T1- Less easy  T2- Easy  To- 32.86t  T1- 33.25t  T2- 35.1t | Wider spacing (60X120 cm) is found superior w.r.t. ease of cultural operations, yield with lesser production cost to farmers practice and recommended practice | Wider spacing in brinjal reduces cost of production, increases yield and facilitates  Cultural operations. | - | - |
| Silk worm | Irrigated | High mortality, reduced yield & quality of ( FC1XFC2 ) silk worm breed in winter season. | Assessment of double hybrid (FC1XFC2) in winter season. | 6 | Double hybrid (FC1XFC2) in winter season. | Egg hatching percentage, silk worm mortality, weight of matured larva, cocoons yield. | Egg hatching percentage increased from 85 to 90,Silk worm mortality decreased from 20.50 to 12.33 percent, | Assessment of double hybrid (FC1XFC2) in winter season. Increased cocoons yield 6.8%over Kharif&  Summer. | Double hybrid (FC1XFC2) rearing in winter season. Comes up well in winter season. | - | - |
| Inland Fisheries | Carp based poly culture | Scarcity of cattle dung for application in fish culture systems leading to poor growth of fish | Assessment of inorganic fertilizers as partial replacement for cattle during in carp culture | 5 | Isonitrogenous and iso-phosphur replacement of cattle dung with urea and SSP at 50% level | Av. length of fish at harvest (cm)  Av. weight of fish at harvest (g)  Survival (%)  Production per unit area (kg) | OFT ongoing | OFT ongoing | OFT ongoing | OFT ongoing | OFT ongoing |
| Inland Fisheries | Carp based poly culture | Non availability of advanced carp fingerlings for stocking culture systems | Assessment of the potential of storage cum irrigation tanks for production of advanced carp fingerlings | 6 | Rearing of catla and rohu fry in storage cum irrigation tanks @ 5/m2 for 4 months. | Av. length of fish at harvest (cm)  Av. weight of fish at harvest (g)  Survival (%)  B:C | Length  TO1-8.20  TO2-9.17  TO3-8.33  Weight  TO1-28.33  TO2-23.50  TO3-22.14  Survival  TO1-30.16  TO2-25.33  TO3-30.83  B:C  TO1-3.02  TO2-2.53  TO3-3.08 | Catla, rohu and common carp fry can be reared in storage cum irrigation tanks with appropriate modifications in the water outlet and management measures | Complete harvest of fish fingerlings is not always possible due to various reasons. | The OFT needs to be repeated for confirmation of result | - |
| Home science | - | Farmwomen face shortage of firewood and drudgery involved in collecting it, health problems due to inhalation of smoke. | Assessment of envirofit chulha for fuel efficiency and drudgery reduction. | 5 | Envirofit chulha | Time taken for heat generation  Fuel wood  Consumption  Cooking time/ 10 roties | 9.54 minutes  0.475 kg  19.40 minutes | 50% less time taken for heat generation compared to traditional chulha 50% less .Fuel consumption compared to traditional chulha | Less irritation in eyes and no health problem due to less smoke | - | - |
| Home science | - | Scarcity of labour, manual stripping of groundnut causes strain and pain in fingers, shoulder and back | Assessment of Groundnut Stripper | 4 | Groundnut stripper | Quantity of groundnut pods stripped/women/day  Percentage of pod loss | 3.52 quintals/ day by 4 Women labour  Nil | Use of groundnut stripper is more efficient than manual stripping and beating against harrow blade in terms of drudgery reduction. | No strain and pain in figure, shoulder and back | - | - |

**Contd..**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Technology Assessed** | **Production** | **Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)** | **Net Return (Profit) in Rs. / unit** | **BC Ratio** |
| **13** | **14** | **15** | **16** | **17** |
| Technology option 1  (Farmer’s practice) | 23.93 | q/ha | 33307 | 1:4.41 |
| Technology option 2 | 24.51 | q/ha | 33507 | 1:4.16 |
| Technology option 3 | 25.58 | q/ha | 35496 | 1:4.37 |
| Technology option 4 | 26.67 | q/ha | 37458 | 1:4.55 |
| TO 1 : Spray of imidacloprid @ 0.5 ml/lit or metasystox @ 1 ml/lit or phosphamidon @ 0.5 ml/lit | 17.01 | q/ha | 56100 | 4.91 |
| T O 2:Spray of imidacloprid @ 0.5 ml/lit based on ETL | 17.73 | q/ha | 59169 | 5.08 |
| TO 3:Foliar spray; of V. lecanii @ 2 ml/lit based on ETL | 18.06 | q/ha | 59598 | 5.24 |
| TO 1 : Application of phorate @ 25 kg/ha at the time of planting or once the incidence is noticed | 76.5 | t/ha | 125300 | 4.54 |
| T O 2:Application of phorate @ 25 kg/ha at the time of planting and once the incidence is noticed drenching of chloropyriphos solution @ 10 ml/lit at affected area | 77.6 | t/ha | 126279 | 4.44 |
| TO 3: Application *M. anisoplae* @ 12.5 kg/ha along with phorate @ 25 kg/ at the time of planting or once the incidence is noticed | 98.7 | t/ha | 169117 | 5.43 |
| TO 1 :Application of monocrotophos @ 1 ml/l and carbaryl @ 4g/l at the time of flowering | 52.3 | Fruit yield kg/ tree | 2353 | 3.8 |
| T O 2:Application of monocrotophos @ 1 ml/l and carbaryl @ 4g/l at the time of flower initiation | 66.2 | Fruit yield kg/ tree | 2979 | 4.1 |
| TO 3:Application of thiamethoxam 25 WG (Actra) @ 0.25 g/l at the time of flower initiation and at 20 days after first spray | 70.1 | Fruit yield kg/ tree | 3154 | 4.9 |
| Technology option 1 (Farmer’s practice) : 60cmX 60cm | 32.86 | t/ha | 75430 | 4.3 |
| Technology option 2 :60cmX75cm | 33.25 | t/ha | 78400 | 4.8 |
| Technology option 3 :60cmX120cm | 35.10 | t/ha | 86696 | 5.66 |
| Technology option 1 (Farmer’s practice) : Assessment of double hybrid (FC1XFC2) in Kharif season.. | 61.98 | Kg/100DFLs | 7106 | 1:2.6 |
| Technology option 2: Assessment of double hybrid (FC1XFC2) in Summer season. | 60.60 | Kg/100DFLs | 5040 | 1:2.2 |
| Technology option 3: Assessment of double hybrid (FC1XFC2) in Winter season. | 65.45 | Kg/100DFLs | 10,611 | 1:3.62 |
| Technology option 1: Application of cattle dung at 6t/ha/yr as and when available | OFT ongoing | OFT ongoing | OFT ongoing | OFT ongoing |
| Technology option 2: Initial application of cattle dung @ 3t/ha followed by fortnightly application of @0.5t/ha | OFT ongoing | OFT ongoing | OFT ongoing | OFT ongoing |
| Technology option 3: Initial cattle dung @1.5t+49.5 kg urea+57 kg SSP/ha, followed by fortnightly cattle dung | OFT ongoing | OFT ongoing | OFT ongoing | OFT ongoing |
| Technology option 1: Rearing of common carp fry in storage cum irrigation tanks @ 5/m2 for 4 months. | Length - 8.20; Weight - 28.33; Survival - 30.16 | Cm; gm;% | Rs.1508/0.1 ha | 3.02 |
| Technology option 2: Rearing of catla fry @ 5/m2 for 4 months. | Length - 9.17; Weight - 23.50; Survival - 25.33 | Cm; gm;% | Rs.1266.5/0.1 ha | 2.53 |
| Technology option 3: Rearing of rohu fry @ 5/m2 for 4 months. | Length - 8.33; Weight - 22.14; Survival - 30.83 | Cm; gm;% | Rs.1541.5/0.1 ha | 3.08 |
| Envirofit chulha | - | Time taken for heat generation - 9.54  minutes  Fuel wood Consumption- 0.475 kg  Cooking time/ 10 roties 19.40 minutes | 2.5 | 1:1.25 |
| Groundnut stripper | - | 3.52 quintals/ day by 4 Women  labour (11 Kgs/hour/women)  Percentage of pod loss - nil | 13700 | 1: 12.59 |

4.C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

**I.**

1 Title of Technology Assessed : Assessment of different varieties of DDK-1009, DDK-1025 and DDK-1029 location

2 Problem Definition : Crop lodging and more plant height of Np-200 variety

3 Details of technologies selected for assessment: Assessment of different varieties of NP-200, DDK-1009, DDK-1025 and DDK-1029

4 Source of technology: UAS Dharwad

5 Production system and thematic area : Cereal Based, black Soil and irrigated situation. Varietal evaluation

6 Performance of the Technology with performance indicators:Plant height (cm),Ear head length (cm),1000 grain Wt. (g) ,Yield (g) in /Sq.mt and Yield (qtl./ha)

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Variety** | **Plant height (cm)** | **Ear head length (cm)** | **1000 grain Wt. (g)** | **Yield (g) in /Sq.mt** | **Yield (qtl./ha)** |
| 1 | NP-200 | 111 | 6.35 | 86.95 | 248.35 | 23.93 |
| 2 | DDK-1009 | 78 | 7.10 | 83.05 | 255.00 | 24.51 |
| 3 | DDK\_1025 | 83 | 7.65 | 83.75 | 262.50 | 25.58 |
| 4 | DDK-1029 | 82 | 7.75 | 84.45 | 263.90 | 26.67 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Treatment** | **No. of farmers** | **Avg. yield (qtl./ha)** | **GR** | **CC** | **NR** | **B:C ratio** |
| T0-farmers practice | 17 | 23.93 | 43,074/- | 9767/- | 33307/- | 1:4.41 |
| T1-Recommended DDK-1009 | 17 | 24.51 | 44,118/- | 10611/- | 33507/- | 1:4.16 |
| T2-Alternative Variety-DDK-1025 | 17 | 25.58 | 46,044/- | 10548/- | 35496/- | 1:4.37 |
| T2-Alternative Variety-DDK-1029 | 17 | 26.67 | 48,006/- | 10548/- | 37458/- | 1:4.55 |

8 Final recommendation for micro level situation :Need to implement in Zone =VIII

9 Constraints identified and feedback for research: How to identify quality of different Kapali wheat variety and researcher may develop lodging resistant in local variety ie.,NP-200

10 Process of farmers participation and their reaction: Gramsabha Groupmeeting and need to develop lodging resistant local variety ie.,NP-200

II.

1. Title of Technology Assessed: Assessment of efficacy of *Verticillium lecanii* as an alternative in managing cotton sucking pests

2. Problem Definition: To manage sucking pests till 60 days of crop chemical insecticides are sprayed. This results in reduction of natural enemy

Population leading to prevalence of bollworm pests resulting in low cotton yield

3. Details of technologies selected for assessment/refinement:

T.O - 1 Spray of monocrotophos @ 1 ml/lit on imidacloprid @ 0.5 ml/lit or etasystox @ 1 ml/lit or phosphamidon @ 0.5 ml/lit

T.O - 2 Spray of imidacloprid @ 0.5 ml/lit based on ETL

T.O - 3 Foliar spray with V.lecanii @ 2 ml/lit based ETL

4. Source of technology: CICR, Nagpur, & PDBC, Bangalore

5. Production system and thematic area: Cotton based, deep black soils in rainfed situation, Kharif season & sucking pest management

6. (A).Performance of the technology with performance indicators:

A. Pest population

T1 T2 T3

1. No. of Aphids /leaf Before 98 79 81

No. of Aphids/leaf After 07 05 19

1. No. of Thrips/leaf Before 42 56 48

No. of Thrips/leaf After 04 05 09

1. No. of White fly/leaf Before 04 04 06

No. of White fly/leaf After 01 02 02

1. No. of Jassids /leaf Before 09 08 10

No. of Jassids /leaf After 01 02 03

B. Yield kg lint/ha 567 591 602

7. Final recommendation for micro level situation: *V. lecanii* spray technology needs to be assessed for one more season to know its consistant effectiveness

8. Constraints identified and feedback for research: *V. lecanii* found effective on far with chemical insecticides

9. Process of farmer participation and their reaction: Farmers participated actively and in *V.lecanii* sprayed fields they observed the natural enemy’s population difference as compared to chemical sprayed fields

**III.**

1. Title of Technology Assessed: Assessment of efficacy of *Metarrhizium anisoplae* along with phorate in root grub management of sugarcane

2. Problem Definition: Chemical insecticide phorate found effective for 2-3 months, but root grub infestation causes yield reduction by reducing plant population and cane length throughout the crop period hence in order to get sustained & effective measure is requirred

3. Details of technologies selected for assessment/refinement:

TO 1: Application of phorate @ 25 kg/ha at the time of planting or once the incidence is noticed

TO 2: Application of phorate @ 25 kg/ha at the time of planting and once the incidence is noticed drenching of chloropyriphos solution @ 10 ml/lit

at affected area

TO 3: Application *M. anisoplae* @ 12.5 kg/ha along with phorate @ 25 kg/ at the time of planting or once the incidence is noticed

4. Source of technology: UAS Dharwad

5. Production system and thematic area: Sugar cane based, deep black soils in irrigated situation, kharif season rootgrub management

6. (A). Performance of the technology with performance indicators:

Treatment T-1 T-2 T-3

Per cent infestation 33.5% 31.5% 11.2%

Yield t/ha 76.5 77.6 98.7

7. Final recommendation for micro level situation: Performance ofM. anisoplae application in addition to Phorate application is found effective but needs one season assessment to know its consistent effectiveness

8. Constraints identified and feedback for research: nil

9. Process of farmer participation and their reaction: Farmers participation is encouraging and they need the technology which protect the crop through out the crop season

**IV.**

1. Title of Technology Assessed: Assessment of neonicotinoide (Thiamethoxam) pesticide against mango hopper management

2. Problem Definition: Hopper incidence causes flower drop and yield reduction

3. Details of technologies selected for assessment/refinement:

TO 1: Application of monocrotophos @ 1 ml/l and carbaryl @ 4g/l at the time of flowering

TO 2: Application of monocrotophos @ 1 ml/l and carbaryl @ 4g/l at the time of flower initiation

TO 3: Application of thiamethoxam 25 WG (Actra) @ 0.25 g/l at the time of flower initiation and at 20 days after first spray

4. Source of technology: UAS Dharwad

5. Production system and thematic area: Mango based, red loam soils in rainfed situation, rabi season hopper management

6. (A). Performance of the technology with performance indicators:

Treatment T-1 T-2 T-3

Population/panicle - Pre count 5.24 5.64 6.01

* 6 days after 2nd spray 1.24 0.31 0.23

Fruit yield kg/tree - 52.3 66.2 70.1

7. Final recommendation for micro level situation: Spray of thiamethoxam @ 0.25 g/l found effective and this chemical may be sprayed to protect flower

8. Constraints identified and feedback for research: nil

9. Process of farmer participation and their reaction: Farmers participation is encouraging and they need cost effective technology

**V.**

1. Title of Technology Assessed: Assessment of double hybrid (FC1XFC2) in winter season.

2. Problem Definition: High mortality, reduced yield & quality of (FC1XFC2) silk worm breed in winter season.

3. Details of technologies selected for assessment: Assessment of double hybrid (FC1XFC2) in winter season.

4. Source of technology CSRTI-Mysore

5. Production system and thematic area: Cereal Based, black & red Soil and irrigated situation: Season. Evaluation

6. Performance of the Technology with performance indicators:Egg hatching percentage, Mortality of silk worms (%),

Average weight of five matured silk worms in 5th instars 6th day (gms), Average weight of 5matured cocoons

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring Techniques

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.No.** | **Technology** | **Egg hatching percentage** | **Mortality of silk worms (%),** | **Average weight of five matured silk worms in 5th instars 6th day (gms),** | | **, Average weight of 5matured cocoons** | **Yield (qtl./ha)** |
| 1 | Technology option 1. Farmer’s practice in Kharif season.(T1-A). | 88 | 20.50 | 15.25 | | 6.55 | 61.98 |
| 2 | Technology option 2: Farmers practice in Summer season.(T1-B ) | 85 | 22.83 | 14.86 | | 6.30 | 60.60 |
| 3 | Technology option 3: Assessment in Winter season.(T2) | 90 | 12.33 | 17.40 | | 7.85 | 65.45 |
| **Treatment** | | **No. of farmers** | **Avg. yield (Kg/100DFLs)** | **GR** | **CC** | **NR** | **B:C ratio** |
| Technology option 1. Farmer’s practice in Kharif season.(T1-A). | | 6 | 61.98 | 11,156/- | 4050/- | 7,106/- | 1:2.6 |
| Technology option 2: Farmers practice in Summer season.(T1-B ) | | 6 | 60.60 | 9,090/- | 4050/ | 5,040/- | 1:2.2 |
| Technology option 3: Assessment in Winter season.(T2) | | 6 | 65.45 | 14,661/- | 4050/ | 10,611/- | 1:3.6 |

8. Final recommendation for micro level situation: Need to implement in Belgaum district.

9. Constraints identified and feedback for research: Breeds are low yield in summer & Kharif season.

10. Process of farmers participation and their reaction: Gramsabha, Group meetings,& Scientific visits.

**VI.**

1. Title of Technology Assessed : Assessment of crop geometry in Brinjal.

2. Problem Definition : Closure spacing (60cmX60cm) creates hindrance for harvesting and other cultural operations in Brinjal.

3. Details of technologies selected for assessment:

Technology option 1 (Farmer’s practice) : 60cmX 60cm

Technology option 2 :60cmX75cm

Technology option 3 :60cmX120cm

4. Source of technology: UAS Dharwad

5. Production system and thematic area: Vegetable based, Red Soil and irrigated situation. Crop geometry

6. Performance of the Technology with performance indicators:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Performance indicator** | **Performance** | | |
| **To** | **T1** | **T2** |
| 1 | Ease of cultural operation | Difficult | Medium | Easy |
| 2 | Cost of Production(Rs/ha) | 23150/- | 21350/- | 18604/- |
| 3 | Yield(t/ha) | 32.86 | 33.25 | 35.1 |
| 4 | B:C ratio | 4.3 | 4.8 | 5.66 |

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques

Feedback: Wider spacing in brinjal reduces cost of production, increases yield and facilitates cultural operations.

|  |  |  |  |
| --- | --- | --- | --- |
| **Technology parameters** | **To** | **T1** | **T2** |
| Ease of cultural operations | 2 | 5 | 9 |
| Cost of production Rs/ha) | 23150/- | 21350/- | 18604/- |
| Yield (t/ha) | 32.86 | 33.25 | 35.10 |
| B:C ratio | 4.3 | 4.8 | 5.66 |

8. Final recommendation for micro level situation : Spacing for hybrid brinjal is 60cmX120cm.

9. Constraints identified and feedback for research: --------

10. Process of farmers participation and their reaction: Farmers participated through group meeting, method demonstration, training. They opined that the

spacing of 60cmX120cm facilitates cultural operations, besides increasing yield in Brinjal.

VII.

1 Title of Technology Assessed: Assessment of partial replacement of cattle dung with inorganic fertilizers in carp culture

2 Problem Definition: Scarcity of cattle dung for application in fish culture systems leading to poor growth of fish

3 Details of technologies selected for assessment: Isonitrogenous and iso-phosphur replacement of cattle dung with urea and SSP at 50% level

4 Source of technology: CIFRI, Barrackpore

5 Production system and thematic area: Carp-based inland poly culture system

6 Performance of the Technology with performance indicators: OFT ongoing

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques: OFT ongoing

8 Final recommendation for micro level situation: OFT ongoing

9 Constraints identified and feedback for research: OFT ongoing

10 Process of farmers’ participation and their reaction: OFT ongoing

VIII.

1 Title of Technology Assessed: Assessment of the potential of storage cum irrigation tanks for production of advanced carp fingerlings

2 Problem Definition: Non availability of advanced carp fingerlings for stocking culture systems

3 Details of technologies selected for assessment: Rearing of catla and rohu fry in storage cum irrigation tanks @ 5/m2 for 4 months.

4 Source of technology: UAS, Bangalore

5 Production system and thematic area: Carp-based inland poly culture system

6 Performance of the Technology with performance indicators:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Treatment** | **Av. length attained (cm/4 months)** | **Av. weight attained (g/ 4 months)** | **Survival (%)** | **B:C ratio** |
| ***Technological Option 1***: Rearing of common carp fry in storage cum irrigation tanks @ 5/m2 for 4 months. | 8.20 | 28.33 | 30.16 | 3.02 |
| ***Technological Option 2***: Rearing of catla fry @ 5/m2 for 4 months. | 9.17 | 23.50 | 25.33 | 2.53 |
| ***Technological Option 3***: Rearing of rohu fry @ 5/m2 for 4 months. | 8.33 | 22.14 | 30.83 | 3.08 |

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques: All the three major species used for inland culture - catla, rohu and common carp fries can be reared in storage cum irrigation tanks with appropriate modifications in the water outlet.

8 Final recommendation for micro level situation: Care to provide adequate nutrition to stocked fish and appropriate modifications in the water outlet of storage cum irrigation tanks are the prerequisites for rearing catla, rohu and common carp fries.

9 Constraints identified and feedback for research: Complete harvest of fish fingerlings is not always possible for lack of complete draining facility/outlet.

10 Process of farmers’ participation and their reaction: Farmers have actively participated in seed stocking, maintaining adequate water level in tanks, bird scaring, sampling, harvesting, etc. They felt that in storage cum irrigation tanks which were otherwise used only for the storage cum irrigation purpose can be also be used for fish rearing.

**IX.**

1. Title of Technology Assessed: Assessment of envirofit chulha for fuel efficiency and drudgery reduction.

2. Problem Definition: Farmwomen face shortage of firewood and drudgery involved in collecting it, health problems due to inhalation of smoke.

3. Details of technologies selected for assessment: Envirofit Chulha

4. Source of technology: Envirofit Private Company Limited, Bangalore

5. Production system and thematic area: Chulha and Drudgery reduction

6. Performance of the Technology with performance indicators

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Treatment** | **No. of farmers** | **Time taken for heat generation** | **Fuel wood consumption** | **Cooking time** |
| ***Technological option 1*: Traditional chulha** | 5 | 19.54 min | 0.975 kg | 19.96 min/10 roties |
| ***Technological option 2*: Sarala chulha** | 5 | 9.78 min | 0.464 kg | 19.46 min/10 roties |
| ***Technological option 3*: Envirofit chulha** | 5 | 9.54 min | 0.475 kg | 19.40 min/10 roties |

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

Techniques: less fuel wood consumption, less cooking time and no health hazards.

8. Final recommendation for micro level situation: Envirofit chulha is suitable for micro level situation because of less fuel wood consumption and less cooking time

9. Constraints identified and feedback for research: modification needed in envirofit chulha to suit macro level situation

10 Process of farmer’s participation and their reaction: Less irritation in eyes and no health problem due to less smoke

**X.**

1. Title of Technology Assessed: Assessment of groundnut stripper

2. Problem Definition: Scarcity of labour, manual stripping of groundnut causes strain and pain in fingers, shoulder and back

3. Details of technologies selected for assessment: Groundnut stripper

4. Source of technology: TNAU, Coimbatore

5. Production system and thematic area: Groundnut stripper and Drudgery reduction

6. Performance of the Technology with performance indicators

|  |  |  |  |
| --- | --- | --- | --- |
| **Treatment** | **No. of farmers** | **Quantity of groundnut pods stripped/women/day** | **Percentage of pod loss** |
| ***Technological option 1*:** Manual stripping | 4 | 4.68 quintals/ day by 9 Women labour  6.5 Kg/hour/women | Nil |
| ***Technological option 2*:** Beating against harroblade | 4 | 3.84 quintals/ day by 6 Women labour  8 Kgs/hour/women | 11.92 |
| ***Technological option 3*:** Groundnut stripper | 4 | 3.52 quintals/ day by 4 Women labour  11 Kgs/hour/women | Nil |

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques. Easy stripping of pods with no stress and strain

1. Final recommendation for micro level situation: stripper should be made out of light weight material so as to facilitate easy handling by farm women.

9. Constraints identified and feedback for research: Though more quantity of pods can be stripped, as there is no separator, mud and leaves get mixed up with pods. As the stripper is made up of iron it becomes little heavy for farm women to carry the stripper to field.

10 Process of farmer’s participation and their reaction: No strain and pain in fingers, shoulders and back.

**PART V - FRONTLINE DEMONSTRATIONS**

**5.A. Summary of FLDs implemented during 2009-10**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Category** | **Farming**  **Situation** | **Season**  **and**  **Year** | **Crop** | **Variety/ breed** | **Hybrid** | **Thematic area** | **Technology Demonstrated** | **Area (ha)** | | **No. of farmers/**  **demonstration** | | | | | | **Reasons for shortfall in achievement** |
| **Proposed** | **Actual** | **SC/ ST** | | **Others** | | | **Total** |
| 1 | Oilseeds | Irrigated | Kharif-2009 | Soybean | JS-9305 | - | Varietal Evaluation with INM | Seeds (JS-9305) -75kg/ ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha and 12.5kg/haZnSO4  And 40:80:25 NPK  Kg/ha | 40.0 | 40.0 | 29 | | 70 | | | 99 | - |
| Irrigated | Kharif-2009 | Groundnut | GPBD-4 | - | Varietal Evaluation with INM | Seeds:125kgs/ha,  Trichoderma  0.5 kgs/ha ,  Rhizobium :  1.25 kgs/h a,  PSB :1.25 kgs/ha and  Gypsum: 500 kg/ha | 15.0 | 15.0 | 10 | | | 27 | | 37 | - |
| Irrigated | Kharif-2009 | Sesame | DS-1 | - | ICM | Seeds;2.5kg/ ha,19:19:19-135kg/ha, Urea -55kg/ha, trichoderma-10/ha, Hexaconozole-625ml/ha and Monocrotophous-625ml/ha | 10.0 | 10.0 | 04 | | | 16 | | 20 | - |
| Irrigated | Rabi-2009 | Sunflower | SB-212 | - | ICM | Sulphur-25kg/ha,  Borax-1.25kg/ha  and HNPV-250LE | 15.0 | 15.0 | 03 | | | 27 | | 30 | - |
| Irrigated | Rabi/Summer-2009-10 | Groundnut | Dh-86 | - | Varietal Evaluation with INM | Seeds:150 kgs/ha,  Trichoderma :  0.5 kgs/ha ,  Rhizobium :  1.25 kgs/h a,  PSB :1.25 kgs/ha | 10.0 | 10.0 | 04 | | | 21 | | 25 | - |
| 2 | Pulses | Rain fed | Kharif-2009 | Green gram | S-4 | - | ICM | Seeds-12.5kgs/ha,Tricoderma- 0.5 kgs/ha ,Rhizobium - 0.5 kgs/h a, PSB - 0.5 kgs/ha, Vermicompost- 500 kg/ha,Quinolphos - 1.25 lit/ha andBavistin-: .25kg/ha | 30.0 | 30.0 | 12 | | | 63 | | 75 | - |
| Irrigated | Rabi-2009 | Bengal gram | JG-11 | - | ICM | Seeds (JG-11) -62.5kg/ha, Tricoder ma-0.5kg/ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha, Helitraps-5 No.s./ha ,Helilures -15 No.s and Endosulphon -1.25lit./ha | 30.0 | 30.0 | 14 | | | 61 | | 75 | - |
| 3 | Cereals | Irrigated | Kharif-2009 | Maize | - | NK-6240 | Nutrient management | Soil application of iron, zinc and management of blight and rust diseases by integrated practice in maize | 05.0 | 05.0 | 04 | | | 08 | | 12 | - |
| Rainfed | Rabi-2009 | Sorghum | CSV-22 |  | Varietal Evaluation | Introduction of high yielding sorghum variety CSV-22 | 05.0 | 05.0 | 03 | | | 07 | | 10 | - |
| Irrigated | Rabi-2009 | Wheat | RAJ-4037 |  | Varietal Evaluation | Popularization of high yielding variety RAJ-4037 | 05.0 | 05.0 | 01 | | | 09 | | 10 | - |
| Irrigated | Rabi-2009 | Sugarcane | CO-8011 |  | Nutrient management | Soil application of iron, zinc | 05.0 | 05.0 | 01 | | | 09 | | 10 | - |
| Irrigated | Rabi/Summer-2009-10 | Maize | - | Arjun | Varietal Evaluation | Varietal Evaluation of Arjun hybrid | 05.0 | 05.0 | 02 | | | 08 | | 10 | - |
| 4 | Tomato | Irrigated | Kharif 2009-10 | Tomato | - | Utsav | Viral and early leaf blight disease management | Seedling production in protected condition and integrated disease management | 05.0 | 05.0 | - | | | 10 | | 10 | - |
| 5 | Onion | Rainfed | Kharif 2009-10 | Onion | Nasik red | - | Disease management | Management of purple blotch disease | 05.0 | 05.0 | - | | | 10 | | 10 | - |
| 6 | Grape | Irrigated | Kharif 2009-10 | Grape | Thomson seedless | - | Insect pest management | Mycoinsecticide  (*V. lecanii*) use in mealy bug management | 05.0 | 05.0 | - | | | 10 | | 10 | - |
| 7 | Cotton | Rainfed | Kharif 2009-10 | Cotton | - | MRC-7918, | ICM& INM with long staple hybrid | ICM with long staple hybrid | 30 | 30 | 00 | | | 75 | | 75 | - |
| 8 | Cotton | Rainfed | Kharif 2009-10 | Cotton | - | MRC-7918 | IPM | IPM with long staple hybrid | 100 | 100 | 109 | | | 49 | | 158 | - |
| 9 | Vegetables | Irrigated, red soil | Rabi  2009-10 | Tomato | DMT-2 | - | Varietal demonstration | Demonstration of DMT-2 variety of tomato | 0.25 | 0.25 | - | | | 5 | | 5 | - |
| 10 | Sericulture | Irrigated | Kharif 2009 | Silkworm | CSR(2x4) | - | CSR (2X4 breed | Demonstration of high yielding improved breed CSR (2X4 | 1000DFLs | 1000DFLs | - | | | 10 | | 10 | - |
| 11 | Juvenile hormone | Irrigated | Rabi 2009 | Silkworm | CSR(2x4) | - | Juvenile hormone for uniform maturation of silkworms and quality cocoons | Promotion of Juvenile hormone for uniform maturation of silkworms and quality cocoons | 100ml | 100ml | - | | | 10 | | 10 | - |
| 12 | Incubation frame | Irrigated | Rabi 2009 | Silkworm | CSR(2x4) | - | Incubation frame for loose eggs | Promotion of incubation frame for loose eggs | 10frame | 10frame | - | | | 10 | | 10 | - |
| 13 | Dairy | Rearing of cows and buffaloes | Kharif 2009 | Azolla | *Azolla pinnata* | - | Production of low-cost, nutrient rich green fodder | Cultivation and feeding of azolla to milking dairy animals | 10 units | 10 units | 1 | | 9 | | | 10 | - |
| 14 | Fisheries | Carp-based inland polyculture | Kharif 2009 | Fish | Sterile common carp | - | Culture of fast growing fish varieties | Culture of sterile common carp | 10 units | 10 units | Sterile carp seed being reared at KVK; Fish seeds will be stocked in 2010-11 | | | | | | Sterile carp seeds were not available in the state; hence it was produced |
| 15 | Fisheries | Carp-based inland polyculture | Kharif 2009 | Fish | Carps | - | Production of advanced carp fingerlings | Production of advanced carp fingerlings in cages | 3 | 3 | - | 3 | | | 3 | | Cages installed in tanks were taken away by the flood in Ghataprabha river during the downpour in North Karnataka in the first week of October 2009. |
| 16 | Home science | Irrigated | Rabi  2009-10 | Home science | Cycle weeder | - | Drudgery reduction | Cycle weeder | 2.4 | 2.4 | - | 06 | | | 06 | | - |

**5.A. 1. Soil fertility status of FLDs plots during 2009-10**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Category** | **Farming**  **Situation** | **Season**  **and**  **Year** | **Crop** | **Variety/ breed** | **Hybrid** | **Thematic area** | **Technology Demonstrated** | **Season and year** | **Status of soil** | | | **Previous crop grown** |
| **N** | **P** | **K** |  |
| 1 | Oilseeds | Irrigated | Kharif-2009 | Soybean | JS-9305 | - | Varietal Evaluation with INM | Seeds (JS-9305) -75kg/ ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha and 12.5kg/haZnSO4  And 40:80:25 NPK  Kg/ha | Kharif-2009 | 195 | 18.4 | 260 | Sugarcane & Maize |
| Irrigated | Kharif-2009 | Groundnut | GPBD-4 | - | Varietal Evaluation with INM | Seeds:125kgs/ha,  Trichoderma  0.5 kgs/ha ,  Rhizobium :  1.25 kgs/h a,  PSB :1.25 kgs/ha and  Gypsum: 500 kg/ha | Kharif-2009 | 215 | 17.10 | 285 | Maize,  Wheat &Rabi-Jowar |
| Irrigated | Kharif-2009 | Sesame | DS-1 | - | ICM | Seeds;2.5kg/ ha,19:19:19-135kg/ha, Urea -55kg/ha, trichoderma-10/ha, Hexaconozole-625ml/ha and Monocrotophous-625ml/ha | Kharif-2009 | 203 | 16.5 | 305 | Bengalgram, Rabi- Jowar &Wheat |
| Irrigated | Rabi-2009 | Sunflower | SB-212 | - | ICM | Sulphur-25kg/ha,  Borax-1.25kg/ha  and HNPV-250LE | Rabi-2009 | 215 | 17.20 | 350 | Soybean and Maize |
| Irrigated | Rabi/Summer-2009-10 | Groundnut | Dh-86 | - |  |  | Rabi/Summer-2009-10 | 240 | 16.70 | 325 | - |
| 2 | Pulses | Rainfed | Kharif-2009 | Green gram | S-4 | - | ICM | Seeds-12.5kgs/ha, Trichoderma- 0.5 kgs/ha, Rhizobium - 0.5 kgs/h a, PSB - 0.5 kgs/ha, Vermicompost- 500 kg/ha, Quinolphos - 1.25 lit/ha and Bavistin-: .25kg/ha | Kharif-2009 | 198 | 17.5 | 320 | Jowar,Bengal gram & wheat |
| Irrigated | Rabi-2009 | Bengal gram | JG-11 | - | ICM | Seeds (JG-11) -62.5kg/ha, Trichoderma ma-0.5kg/ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha, Helitraps-5 No.s./ha, Heli lures -15 No.s and Endosulphon -1.25lit./ha | Rabi-2009 | 210 | 15.70 | 325 | Maize, Soybean and Greengram |
| 3 | Cereals | Irrigated | Kharif-2009 | Maize |  | NK-6240 | Nutrient management | Soil application of iron, zinc and management of blight and rust diseases by integrated practice in maize | Kharif-2009 | 225 | 16.50 | 310 | Wheat Maize |
| Rainfed | Rabi-2009 | Sorghum | CSV-22 | - | Varietal Evaluation | Introduction of high yielding sorghum variety CSV-22 | Rabi-2009 | 205 | 17.00 | 265 | Greengram,& Soybean |
| Irrigated | Rabi-2009 | Wheat | RAJ-4037 | - | Varietal Evaluation | Popularization of high yielding variety RAJ-4037 | Rabi-2009 | 225 | 16.40 | 235 | Soybean Maize & Sunflower |
| Irrigated | Rabi-2009 | Sugarcane | - | - | Nutrient management | Soil application of iron & zinc | Rabi-2009 | 250 | 16.00 | 325 | - |
| Irrigated | Rabi/Summer-2009-10 | Maize |  | Arjun | Varietal Evaluation | Varietal Evaluation of Arjun hybrid | Rabi/Summer-2009-10 | 214 | 17.20 | 340 |  |
| 4 | Irrigated, red soil | Rabi 2009-10 | Tomato | DMT-2 | - | Varietal Demonstration | Demonstration of DMT-2 variety of tomato | Rabi 2009-10 |  |  |  | Maize |  |
| 5 | Tomato | Irrigated | Kharif 2009-10 | Tomato | - | Utsav | Viral and early leaf blight disease management | Seedling production in protected condition and integrated disease management | Kharif 2009-10 | 215 | 19 | 310 | Maize |
| 6 | Onion | Rainfed | Kharif 2009-10 | Onion | Nasik red | - | Disease management | Management of purple blotch disease | Kharif 2009-10 | 305 | 15 | 285 | Jowar |
| 7 | Grape | Irrigated | Kharif 2009-10 | Grape | Thomson seedless | - | Insect pest management | Mycoinsecticide  (*V. lecanii*) use in mealy bug management | Kharif 2009-10 | 312 | 17 | 295 | Grape |
| 8 | Cotton | Rainfed | Kharif 2008-09 | Cotton | - | RAHB-87, MRC-6918, Mallika | ICM with long staple hybrid | ICM with long staple hybrid | Rainfed | 205 | 20 | 278 | Jowar, Bengal gram |
| 9 | Cotton | Rainfed | Kharif 2009-10 | Cotton | - | MRC-7918 | IPM | IPM with long staple hybrid | Rainfed | 197 | 19 | 274 | Cotton |

**5.B. Results of Frontline Demonstrations**

**5.B.1. Oilseeds**:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crop** | **Name of the tech. demo.** | **Variety** | **Hybrid** | **Farming situation** | **No. of Demo.** | **Area**  **(ha)** | **Yield (q/ha)** | | | | **% Increase** | **\*Economics of demonstration (Rs./ha)** | | | | **\*Economics of check**  **(Rs./ha)** | | | |
| **Demo** | | | **Check** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** |
|  |  |  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Soybean | Varietal with INM | JS-9305 | - | Irrigated | 99 | 40.0 | 29.00 | 26.75 | 27.70 | 24.45 | 13.30 | 13302/- | 58170/- | 44868/- | 1:4.37 | 10230/- | 39,120/- | 28,890/- | 1:3.82 |
| Groundnut | Varietal with INM | GPBD-4 | - | Irrigated | 37 | 15.0 | 34.80 | 21.80 | 23.80 | 17.58 | 35.46 | 12,162/- | 66,640 | 54,478/- | 1:5.47 | 11,456/- | 49224/- | 37768/- | 1:4.29 |
| Sesame | ICM | DS-1 | - | Rainfed | 20 | 10.0 | 5.50 | 4.25 | 5.02 | 3.94 | 27.70 | 6338/- | 25,100/- | 18,762/- | 1:3.96 | 5434/- | 19700/- | 14266/- | 1:3.62 |
| Sunflower | ICM | - | SB-212 | Irrigated | 30 | 15.0 | 20.00 | 16.85 | 18.06 | 13.86 | 30.30 | 10520/- | 46956/- | 36336 /- | 1:4.54 | 7410/- | 36036/- | 31326/- | 1:7.65 |
| Groundnut | Varietal with INM | Dh-86 & TAG-24 | - | Irrigated | 25 | 10.0 | 32.10 | 26.80 | 28.78 | 24.24 | 19.12 | 14667/- | 86340/- | 71673/- | 1:5.9 | 12302/- | 72720/- | 60418/- | 1:5.9 |

**Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/diseases etc.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Local** |
| **Soybean** |  |  |
| **Plant height (cm)** | 78 | **92** |
| No. of Pods/hill | 164 | 84 |
| No. of seeds/pod | 2.5 | 2.3 |
| No. of Nodules/hill | 125 | 95 |
| 100 grain weight (g) | 18 | 16.5 |
| **Groundnut** |  |  |
| No. of Pods/hill | 69 | 55 |
| No. of seeds/pod | 2 | 1-2 |
| No. of Nodules/hill | 81 | 45 |
| 100 grain weight (g) | 25 | 22 |
| **Sesame** |  |  |
| **Plant height (cm)** | 105 | 76 |
| No. of Pods/plant | 38 | 32 |
| 1000 grain weight (g) | 3.85 | 3.45 |
| **Sunflower** |  |  |
| **Plant height (cm)** | 123 | 128 |
| Ear head diameter (cm) | 16 | 14 |
| 100 seed weight (g) | 5.40 | 5.10 |
| **Groundnut** |  |  |
| No. of Pods/hill | 97 | 83 |
| No. of seeds/pod | 2-3 | 2 |
| 100 grain weight (g) | 42.5 | 37.5 |

**5.B.2. Pulses**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Crop | Name of the tech. demo. | Variety | Hybrid | Farming situation | No. of Demo | Area  (ha) | Yield (q/ha) | | | | % Increase | \*Economics of demonstration (Rs./ha) | | | | \*Economics of check  (Rs./ha) | | | |
| Demo | | | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Green gram | ICM | S-4 | - | Rain fed | 75 | 30.0 | 8.75 | 6.90 | 7.89 | 6.56 | 20.27 | 5695/- | 33,138/- | 27,443/- | 1:5.81 | 4184/- | 27552/- | 23368/- | 1:6.58 |
| Bengal gram | ICM | JG-11 | - | Irrigated | 75 | 30.0 | 18.75 | 14.90 | 16.75 | 14.28 | 17.42 | 10111/- | 63,650/- | 53,539/- | 1:6.2 | 7108/- | 54264/- | 47156/- | 1:7.63 |

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

\*\* BCR= GROSS RETURN/GROSS COST

**Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/diseases etc.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Local** |
| **Greengram** |  |  |
| **Plant height (cm)** | 47 | 52 |
| No of pods /hill | 55 | 47 |
| No. of seeds/pod | 10 | 6-8 |
| 1000 grain weight (g) | 31.5 | 30.10 |
| **Bengalgram** |  |  |
| No. of seeds/pod | 1-2 | 1-2 |
| No. of Nodules/hill | 62 | 51 |
| 100 grain weight (g) | 22.5 | 18.6 |

**5.B.3. Other crops**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crop** | **Name of the technology demonstrated** | **Variety** | **Hybrid** | **Farming situation** | | **No. of Demo.** | | **Area**  **(ha)** | | **Yield (q/ha)** | | | | | | | | **% Increase** | | **\*Economics of demonstration (Rs./ha)** | | | | | | | | **\*Economics of check**  **(Rs./ha)** | | | | |
| **Demo** | | | | | | **Check** | | **Gross**  **Cost** | | **Gross**  **Return** | | **Net Return** | | | **\*\***  **BCR** | **Gross**  **Cost** | | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** |
|  |  |  |  |  | |  | |  | | H | | L | | A | |  | |  | |  | |  | |  | | |  |  | |  |  |  |
| Maize (k) | Soil application of iron, zinc and management of blight and rust diseases by integrated practice in maize | - | NK-6240 | Irrigated | | 12 | | 05.0 | | 75.00 | | 62.50 | | 68.50 | | 59.41 | | 15.30 | | 22,496/- | | 57,540/- | | 35,044/- | | | 1:2.5 | 16,761/- | | 49904/- | 33143/- | 1:2.98 |
| Sorghum (R) | Introduction of high yielding sorghum variety CSV-22 | CSV-22 | - | Rain fed | | 10 | | 05.0 | | 8.60 | | 7.10 | | 7.92 | | 6.6 | | 20 | | 4015/- | | 11,880/- | | 7865/- | | | 1:2.98 | 3346/- | | 9900/- | 6554/- | 1:2.95 |
| Wheat (R) | Popularization of high yielding variety RAJ-4037 | RAJ-4037 | - | Irrigated | | 10 | | 05.0 | | 32.25 | | 29.25 | | 31.31 | | 27.00 | | 15.96 | | 10669/- | | 48530/- | | 37861 /- | | | 1:4.5 | 8590/- | | 41850/- | 33260/- | 1:4.87 |
| Sugarcane R) | Under progress | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maize (R/S) | Under progress | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vegetables | DMT-2 high yielding variety of tomato | DMT-2 | - | Irrigated | 5 | | 0.25 | | 25.10 | | 24.50 | | 24.80 | | 21.96 | | 12.9 | | 19360/- | | 74400/- | | 55040/- | | | 3.84 | | | 19250/- | 65880/- | 46630/- | 3.42 |
| Tomato | Seedling production in protected condition and integrated management of diseases | - | Utsav | Irrigated | 10 | | 5 | | 587.3 | | 512.4 | | 571.4 | | 473.1 | | 20.78 | | 86963 | | 282321 | | 195358 | | 3.25 | | | 89675 | | 224171 | 134496 | 1.49 |
| Onion | Puple blotch disease management | Arka Kalyan | - | Rainfed | 10 | | 5 | | 23.4 | | 18.4 | | 21.8 | | 16.4 | | 32.92 | | 18956 | | 135148 | | 116192 | | 7.12 | | | 16874 | | 93541 | 76667 | 5.54 |
| Grape | Mycoinsecticide (*V. lecanii*) use in mealy bug management | Thomson seedless | - | Irrigated | 10 | | 5 | | 214.6 | | 181.5 | | 209.6 | | 176.4 | | 18.82 | | 129547 | | 298680 | | 169133 | | 2.30 | | | 141027 | | 180810 | 39783 | 1.28 |

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

\*\* BCR= GROSS RETURN/GROSS COST

**Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/ diseases etc.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Local** |
| **Maize (k)** |  |  |
| Plant height (cm) | 165 | 158 |
| No.of seeds/cob | 1-2 | 1 |
| No.of rows/ cob | 16 | 14 |
| 100 grain weight (g) | 29.5 | 27.5 |
| **Sorghum (R)** |  |  |
| **Plant height (cm)** | 135 | 127 |
| 100 0grain weight (g) | 28.90 | 26.50 |
| **Wheat (R)** |  |  |
| **Plant height (cm)** | 75 | 98 |
| **Grain /Spike** | 52 | 42 |
| 1000 grain weight (g) | 44.0 | 385 |
| **Sugarcane (R)** | Crop under Progress |  |
| **Maize (R/S)** | Crop under progress |  |
| **Keeping quality in days** | **7** | **5** |
| Viral infected plants | 8.4.4 % | 18.9 % |
| Yield tons/ha | 571.4 | 473.1 |
| Purple blotch incidence | 10.2 % | 19.1 % |
| Infested vines | 6.8 % | 44.2 % |
| Infested bunches | 3.65 % | 64.2 % |
| TSS % | 22 % | 20 % |
| Yield (q/ha) | 209.6 | 176.4 |

5.B.4. Livestock

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type of livestock | Name of the technology demonstrated | Breed | No. of Demo | No.  of Units | Yield (q/ha) | | | | % Increase | \*Economics of demonstration (Rs./ha) | | | | \*Economics of check  (Rs./ha) | | | |
| Demo | | | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Dairy | Cultivation and feeding of azolla to milking dairy animals | *Azolla pinnata* | 10 | 10 | 8000 ml/ animal/day | 3000 ml/ animal/day | 4080 ml/ animal/ day | 3495 ml/ animal/day | 16.74 | 19.38 | 73.44 | 54.04 | 3.79 | 19.38 | 62.91 | 43.53 | 3.25 |

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

\*\* BCR= GROSS RETURN/GROSS COST

**Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Local** |
| Milk fat content (%) | 4.2 | 3.42 |

5.B.5. Fisheries

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type of Breed | Name of the technology demonstrated | Breed | No. of Demo | Units/ Area (m2 | Yield (q/ha) | | | | % Increase | \*Economics of demonstration (Rs./ha) | | | | \*Economics of check  (Rs./ha) | | | |
| Demo | | | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Carps | Culture of sterile common carp | Sterile common carp | 10 | 10 | Sterile carp seeds were not available in the state; hence it was produced at KVK during 2009-10; growth trial will be conducted in 2010-11 | | | | | | | | | | | | |
| Carps | Production of advanced carp fingerlings in cages | Indian major carps and common carp | 3 | 3 | Cages installed in tanks were taken away by the flood in Ghataprabha river during the downpour in North Karnataka in the first week of October 2009. Hence FLD is terminated | | | | | | | | | | | | |

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

\*\* BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

**Data on additional parameters other than yield (viz., reduction of percentage diseases, effective use of land etc.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Local** |
| Sterile carp growth trial will be conducted in 2010-11 | Growth trial will be conducted in 2010-11 | Growth trial will be conducted in 2010-11 |
| FLD on cage terminated | FLD terminated | FLD terminated |
|  |  |  |
|  | |  |

5.B.6. Other enterprises

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Enterprise | Name of the technology demonstrated | Variety/ species | No. of Demo | Units/ Area (m2} | Yield (q/ha) | | | | % Increase | \*Economics of demonstration (Rs./ha) | | | | \*Economics of check  (Rs./ha) | | | |
| Demo | | | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Sericulture | Demonstration of high yielding improved breed CSR (2X4) | CSR (2X4) | 10 | 1000DFLs | 75.2 | 48.2 | 64.51 | 58.81 | 9.7 | 3920/- | 12902/- | 8982/- | 1:3.3 | 3920/- | 6410/- | 2490/- | 1:1.6 |
| Juvenile hormone | Promotion of Juvenile hormone for uniform maturation of silkworms and quality cocoons | Juvenile hormone | 10 | 100ml | 74.2 | 58.5 | 66.06 | 60.94 | 8.40 | 4560/- | 10,239/- | 5679/- | 1:2.24 | 4210/- | 7008/- | 2798/- | 1:1.7 |
| Incubation frame | Promotion of incubation frame for loose eggs | Incubation frame | 10 | 10frame | 74.0 | 59.0 | 66.72 | 60.41 | 10.4 | 4375/- | 15,412/- | 11037/- | 1:3.5 | 4375/- | 12082/- | 7707/- | 1:2.8 |
| Apiculture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Home science | Cycle weeder | - | 6 | 2.4 ha | 15 man days/ha | 13 man days/ ha | 13.6 man days/ ha | 39 man days/ha | 3 times | 22,213 | 57,540 | 35,327 | 1:2.59 | 15,461 | 49,904 | 34,443 | 1:3.22 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Data on additional parameters other than yield**

**(viz., additional income realized, employment generation, quantum of farm resources recycled etc.)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Data on other parameters in relation to technology demonstrated** | | |
|  | **Parameter with unit** | **Demo** | **Local** |
| Demonstration of high yielding improved breed CSR (2X4) | Egg hatching percent | 88.3 | 70 |
| Silk worm mortality | 6.6 | 19.5 |
| Cocoons sold @ per kg | CSR(2x4) Rs=200/- | PMXCSR2 Rs=109/- |
| Randitta | 6 | 7.8 |
| Promotion of Juvenile hormone for uniform maturation of silkworms and quality cocoons | Avg .weight of five matured silk worms in fifth instars seventh day(gms) | 17.43 | 14.91 |
| Avg .weight of five cocoons(gms) | 7.50 | 6.10 |
| Cocoons price realized( Rs) | 155/- | 115/- |
| Promotion of incubation frame for loose eggs | Egg hatching percent | 87.6 | 71.7 |
| Silk worm mortality | 9.9 | 21.1 |
| Cocoons price realized( Rs) | 231/- | 200/- |

5.B.7. Farm implements and machinery

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of the implement | Name of the technology demonstrated | No. of Demo | Units/ Area (m2} | Yield (q/ha) | | | | % Increase | \*Economics of demonstration (Rs./ha) | | | | \*Economics of check  (Rs./ha) | | | |
| Demo | | | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Home science | Cycle weeder | 6 | 2.4 ha | 15 man days/ha | 13 man days/ha | 13.6 man days/ha | 39 man days/ha | 3 times | 22,213 | 57,540 | 35,327 | 1:2.59 | 15,461 | 49,904 | 34,443 | 1:3.22 |  |

**Data on additional parameters other than yield (viz., reduction in drudgery, time and labour saving etc.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Local** |
|  |  |  |
|  |  |  |
|  |  |  |

5.B.8. Cotton

Summary of demonstrations conducted under FLD cotton

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Category** | **Technology Demonstrated** | **Variety** | **Hybrid** | **Season and year** | **Area (ha)** | | **No. of farmers/**  **demonstration** | | | **Reasons for shortfall in achievement** |
| **Proposed** | **Actual** | **SC/ST** | **Others** | **Total** |  |
| 1 | Production Technology | ICM (Eco feast – cow pea, trap crop bhendi, border crop maize, pheromone traps 5/ha, leaf reddening (DAP 2% and MgSO4 – 1%), Endosulphon @ 2.5m/lit, Cypermethrin @ 0.5ml/lit, rust disease with hexaconazole @ 1ml/lit) with ELS hybrid | - | MRC7918 Bt | Kharif 2009-10 | 30 | 75 | - | 50 | 50 | - |
| 2 | IPM | Integrated pest management (Eco feast – cow pea, trap crop bhendi, boarder crop maize, pheromone traps 5/ha, Endosulphon @ 2.5m/lit, Cypermethrin @ 0.5ml/lit, rust disease with hexaconazole @ 1ml/lit) | - | RCH 2 Bt BG II &  NCS 145 Bt BG II | Kharif 2009-10 | 100 | 100 | 109 | 49 | 158 | - |

Production technology demonstrations

Performance of demonstrations

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Farming situation** | **Technology Demonstrated** | **Area (ha)** | **No. of demo.** | **Variety** | **Hybrid** | **Yield (q/ha)** | | **% Increase** | **Economics of demonstration (Rs./ha)** | | | | **Economics of local check (Rs./ha)** | | | |
| **Demo** | **Local** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **BCR** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **BCR** |
| Rainfed | ICM (Eco feast – cow pea, trap crop bhendi, border crop maize, pheromone traps 5/ha, leaf reddening (DAP 2% and MgSO4 – 1%), Endosulphon @ 2.5m/lit, Cypermethrin @ 0.5ml/lit, rust disease with hexaconazole @ 1ml/lit) with ELS hybrid | 30 | 75 | - | MRC7918 Bt | 25.31 | 22.37 | 13.14 | 18052 | 105050 | 86997 | 5.8 | 18358 | 92835 | 74476 | 5.1 |

Performance of Bt hybrids, Desi hybrids, non-Bt hybrids and Varieties in Front Line Demonstrations in cotton during 2009-10

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Farming situation** | **Technology Demonstrated** | **Area (ha)** | **No. of demo.** | **Variety** | **Hybrid** | **Yield (q/ha)** | | **% Increase** | **Economics of demonstration (Rs./ha)** | | | | **Economics of local check (Rs./ha)** | | | |
| **Demo** | **Local** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **BCR** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **BCR** |
| PT | Rainfed | ICM (Eco feast – cow pea, trap crop bhendi, border crop maize, pheromone traps 5/ha, leaf reddening (DAP 2% and MgSO4 – 1%), Endosulphon @ 2.5m/lit, Cypermethrin @ 0.5ml/lit, rust disease with hexaconazole @ 1ml/lit) with ELS hybrid | 30 | 75 | - | MRC7918 Bt | 25.47 | 22.35 | 13.87 | 18052 | 105700 | 87648 | 5.8 | 18358 | 91635 | 73277 | 4.9 |
| IPM | Rainfed | Integrated pest management (Eco feast – cow pea, trap crop bhendi, boarder crop maize, pheromone traps 5/ha, Endosulphon @ 2.5m/lit, Cypermethrin @ 0.5ml/lit, rust  disease with hexaconazole @ 1ml/lit) | 46.2 | 72 | - | RCH 2 Bt BG II | 22.14 | 20.28 | 9.17 | 15804 | 91881 | 76077 | 5.81 | 16.322 | 82134 | 65812 | 5.03 |
| IPM | Rainfed | Integrated pest management (Eco feast – cow pea, trap crop bhendi, boarder crop maize, pheromone traps 5/ha, Endosulphon @ 2.5m/lit, Cypermethrin @ 0.5ml/lit, rust  disease with hexaconazole @ 1ml/lit) | 53.8 | 86 | - | NCS 145 Bt BG II | 23.71 | 21.18 | 11.95 | 15834 | 97211 | 81377 | 6.14 | 16727 | 85779 | 69052 | 5.13 |

Integrated pest management demonstrations

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Farming situation** | **Variety** | **Hybrid** | **No. of blocks** | **Total No. of Demo.** | **Area**  **(ha)** | **Incidence of pest and diseases (%)** | | | **Seed Cotton Yield (q/ha)** | | |
| **IPM** | **Non IPM** | **% Change** | **IPM** | **Non IPM** | **% Change** |
| Rainfed | - | RCH 2 Bt BG II | 1 | 72 | 46.2 | 9.06 | 18.24 | 50.68 | 22.14 | 20.28 | 9.17 |
| Rainfed | - | NCS 145 Bt BG II | 2 | 86 | 53.8 | 10.15 | 22.31 | 54.50 | 23.71 | 21.18 | 11.95 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Economics of demonstration (Rs./ha)** | | | | **Economics of local check (Rs./ha)** | | | |
| **Gross Cost** | **Gross**  **Return** | **Net Return** | **BCR** | **Gross Cost** | **Gross**  **Return** | **Net Return** | **BCR** |
| 15804 | 91881 | 76077 | 5.81 | 16.322 | 82134 | 65812 | 5.03 |
| 15834 | 97211 | 81377 | 6.14 | 16727 | 85779 | 69052 | 5.13 |

**Extension Programmes organized in Cotton Demonstration Plots**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Extension activity** | **No. of**  **Programmes** | Participants | | | SC/ST | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Consultancy |  |  |  |  |  |  |  |
| Conventions | 8 | 66 | 8 | 74 | 76 | - | 76 |
| Demonstrations | 8 | 113 | 23 | 136 | 159 | - | 159 |
| Field Days | 4 | 310 | 39 | 349 | 264 | 6 | 270 |
| Field visits | 34 | 190 | 24 | 214 | 168 | - | 168 |
| Gram sabha | 6 | 296 | 44 | 340 | 468 | 11 | 479 |
| Group discussions | 19 | 224 | 35 | 259 | 291 | - | 291 |
| Training for farmers | 10 | 187 | 22 | 209 | 154 | - | 154 |
| T.V. Programme | 4 | - | - | - | - | - | - |
| **TOTAL** | **93** | **1386** | **195** | **1581** | **1580** | **17** | **1597** |

**Technical Feedback on the demonstrated technologies on all crops / enterprise**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Crop / Enterprise** | **Name of the technology demonstrated** | **Feed Back** | |
| 1 | Soybean | Seeds (JS-9305) -75kg/ ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha and 12.5kg/haZnSO4  And 40:80:25 NPK  Kg/ha | Researcher to develop variety with good germination percentage to retain seed viability up to 8 – 10 months |
| 2 | Groundnut | Seeds:125kgs/ha,  Trichoderma  0.5 kgs/ha ,  Rhizobium :  1.25 kgs/h a,  PSB :1.25 kgs/ha and  Gypsum: 500 kg/ha | Researcher to develop variety with good germination percentage and retaining seed viability up to 8 – 10 months |
| 3 | Sesame | Seeds;2.5kg/ ha,19:19:19-135kg/ha, Urea -55kg/ha, trichoderma-10/ha, Hexaconozole-625ml/ha and Monocrotophous-625ml/ha | Researcher to develop variety having short duration with resistant to lodging |
| 4 | Sunflower | Sulphur-25kg/ha,  Borax-1.25kg/ha  and HNPV-250LE | Researchers to develop variety short durated 75-80days, high yielding 25-30 quintals /ha and resistant to alternaria blight disease |
| 5 | Groundnut | Seeds:150 kgs/ha, Trichoderma : 0.5 kgs/ha ,  Rhizobium :1.25 kgs/h a, PSB :1.25 kgs/ha | Researcher to develop variety with good germination percentage and retaining seed viability up to 8 – 10 months |
| 6 | Green gram | Seeds-12.5kgs/ha, Trichoderma- 0.5 kgs/ha ,Rhizobium - 0.5 kgs/h a, PSB - 0.5 kgs/ha, Vermicompost- 500 kg/ha, Quinolphos - 1.25 lit/ha and Bavistin-: .25kg/ha | Researchers to develop short durated variety with tolerant to water  Logged condition of soil and resistant to powdery mildew disease during. Variation in climatic condition |
| 7 | Bengal gram | Seeds (JG-11) -62.5kg/ha, Trichoderma-0.5kg/ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha, Helitraps-5 No.s./ha, Heli lures -15 No.s and Endosulphon -1.25lit./ha | Researcher to develop variety resistant to rust disease |
| 8 | Maize | Soil application of iron, zinc and management of blight and rust diseases by integrated practice in maize | - |
| 9 | Sorghum | Introduction of high yielding sorghum variety CSV-22 | - |
| 10 | Wheat | Popularization of high yielding variety RAJ-4037 | - |
| 11 | Sugarcane | Soil application of iron, zinc | Crop Under Progress |
| 12 | Maize | Varietal Evaluation of Arjun hybrid | Crop Under Progress |
| 13 | Silk worm | Silk worm breed CSR(2x4) | Breed should improve for higher randitta at least from 2-3kg cocoons to 1kg silk. |
| 14 | Juvenile hormone | Juvenile hormone for uniform maturation of silk worm & quality cocoons. | Research on correct exploitation of Juvenile hormone in one or more instars may be undertaken and data may be developed. |
| 15 | Incubation frame | Incubation frame to incubate loose DFLs in silk worm rearing. | There is need to conduct research for development of portable incubation box for chawki worms. |
| 16 | Home science | Envirofit chulha | 50% less time taken for heat generation,  50% less fuel consumption | |
| 17 | Home science | Groundnut stripper | It is more efficient than manual stripping and beating against harrow blade in terms of drudgery reduction | |
| 18 | Home science | Cycle weeder | Three times efficient than manual weeding | |
| 19 | Dairy | Cultivation and feeding of azolla to milking dairy animals | Growth of azolla using various manures like poultry manure, cattle dung, biogas slurry and inorganic fertilizers may be evaluated, as slight smell of cattle dung in the harvested azolla hinders some animals from eating it., if not washed properly. | |
| 20 | Inland fisheries | Culture of sterile common carp | Growth trial will be conducted in 2010-11 | |
| 21 | Inland fisheries | Production of advanced carp fingerlings in cages | FLD terminated | |
| 22 | Tomato | High yielding DMT-2 variety | DMT-2 is high yielding(12.9%), having better keeping quality than PKM-1. | |
| 23 | Tomato | Viral disease management by producing seedling in protected condition | Initial investment is more for 40 mesh nylon net | |
| 24 | Grape | Mycoinsecticide (*V. lecanii*) use in mealy bug management | Availability is the prime hurdle and hence needs to set up bio control agents production laboratory | |
| 25 | Onion | Management of purple blotch disease | Good measure to manage disease | |
| 26 | Cotton | ELS hybrid MRC 7918 | Yielded higher and | |

**Farmers’ reactions on specific technologies**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No** | **Crop / Enterprise** | **Name of the technology demonstrated** | **Feed Back** |
| 1 | Soybean | Seeds (JS-9305) -75kg/ ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha and 12.5kg/haZnSO4And 40:80:25 NPK Kg/ha | **a.Seeds:**  JS – 9305 seeds have good germination percentage of up to 85-90%.  JS – 9305 variety had more number of pods (71 to 86) per hill as compared to JS- 335 (65 to 72).  JS – 9305 plants had 3-4 seeds per pod whereas in JS-335 plants 2-3 seeds per pod  JS – 9305matured 6-8 days early compared to JS-335.  **b. Rhizobium**  Seed treatment with Rhizobium @1.25 kg /ha increased number of root nodules  **c. PSB**  Seed treatment with PSB @ 1.25 kg /ha influenced for increasing rot length   1. **d. Zn So4** 2. Application of ZnSo4 has given vigorous growth of the crop and increased grain weight |
| 2 | Groundnut | Seeds:125kgs/ha,  Trichoderma  0.5 kgs/ha ,  Rhizobium :  1.25 kgs/h a,  PSB :1.25 kgs/ha and  Gypsum: 500 kg/ha | **a. Seeds**  GPBD - 4 seeds have good germination percentage (75-80%)  GPBD - 4 variety have more number of root nodules (60-70) per hill as compared to Untreated ( 35-40).  GPBD - 4 plants have good fodder compared to TMV-2 Variety  **b. Rhizobium**  Seed treatment with Rhizobium @1.25 kg /ha increased number of root nodules  **c. PSB**  Seed treatment with PSB @ 1.25 kg /ha influenced for increasing rot length  **d. Gypsum**  Application of gypsum has given vigorous growth of the crop and increased grain weight |
| 3 | Sesame | Seeds;2.5kg/ ha,19:19:19-135kg/ha, Urea -55kg/ha, trichoderma-10/ha, Hexaconozole-625ml/ha and Monocrotophous-625ml/ha | DS –1 seeds have good germination percentage (98%)  DS-1 variety has more number of branches 6-8 per hill as compared to E-8 (5- |
| 4 | Sunflower | Sulphur-25kg/ha,  Borax-1.25kg/ha  and HNPV-250LE | **Sulphur:** Soil application of Sulphur @ 25kg/ha and foliar spray with Boran @ 1.25kg/ha resulted in increased seed weight and oil content  **HNPV:** Foliar spray with HNPV @ 250LE /ha control the *Helicoverpa armiger* infestation |
| 5 | Groundnut | Seeds:150 kgs/ha,  Trichoderma :  0.5 kgs/ha ,  Rhizobium :  1.25 kgs/h a,  PSB :1.25 kgs/ha | **a. Seeds**  GPBD - 4 seeds have good germination percentage (75-80%)  GPBD - 4 variety have more number of root nodules (60-70) per hill as compared to Untreated ( 35-40).  GPBD - 4 plants have good fodder compared to TMV-2 Variety  **b. Rhizobium**  Seed treatment with Rhizobium @1.25 kg /ha increased number of root nodules  **c. PSB**  Seed treatment with PSB @ 1.25 kg /ha influenced for increasing rot length  **d. Gypsum**  Application of gypsum has given vigorous growth of the crop and increased grain weight |
| 6 | Green gram | Seeds-12.5kgs/ha,Tricoderma- 0.5 kgs/ha ,Rhizobium - 0.5 kgs/h a, PSB - 0.5 kgs/ha, Vermicompost- 500 kg/ha,Quinolphos - 1.25 lit/ha andBavistin-: .25kg/ha | Seeds: seeds are shiny, non-shattering pods and quality seeds harvested   1. Biofertilizers: Seed inoculations with biofertiliser increased the yield (12.5%) 2. Carbondizim: foliar spray with Carbondizim @ 30 & 40 DAS controlled the powdery mildew disease effectively. 3. Foliar spray with quinolphous @ 2ml per liter of water controlled the pod borer |
| 7 | Bengal gram | Seeds (JG-11) -62.5kg/ha, Tricoder ma-0.5kg/ha, Rhizobium -1.25kg/ha, PSB-1.25kg/ha, Helitraps-5 No.s./ha ,Helilures -15 No.s and Endosulphon -1.25lit./ha | **a. Seeds**  JG – 11 seeds have good germination percentage of up to 90%.  JS – 11 Seed are medium size and brown in color  **b. Rhizobium**  Seed treatment with Rhizobium @1.25 kg /ha increased number of root nodules  **c. PSB**  Seed treatment with PSB @ 1.25 kg /ha influenced for increasing rot length |
| 8 | Maize | Soil application of iron, zinc and management of blight and rust diseases by integrated practice in maize | Application of Ferrous Sulphate and Zinc Sulphate has resulted in vigorous growth of the crop and improved grain filling in cobs. |
| 9 | Sorghum | Introduction of high yielding sorghum variety CSV-22 | **Variety:** CSV-22 variety posses compact ear head and vigoures growth |
| 10 | Wheat | Popularization of high yielding variety RAJ-4037 | **Variety :** RAJ-4037 dwarf with Long ear head having more diameter as compared to DWR -162 and also rust resistant |
| 11 | Sugarcane | Soil application of iron, zinc | Crop Under Progress |
| 12 | Maize | Varietal Evaluation of Arjun hybrid | Crop Under Progress |
| 13 | Silk worm | Silk worm breed CSR(2x4) | CSR (2x4 is good quality, high yielding &disease resistant breed fetch higher rate. |
| 14 | Juvenile hormone | Juvenile hormone for uniform maturation of silk worm & quality cocoons. | All the worms at the time of mounting found uniform & healthy..Harvested good cocoon yield. |
| 15 | Incubation frame | Incubation frame to incubate loose DFLs in silk worm rearing. | Incubation frame maintains required humidity and temperature for loose eggs embryo growth and development.Increased egg hatching percent from 71.7 to 87.6.Reduced silk worm mortality from 21.1 to 9.9. |
| 16 | Home science | Envirofit chulha | Less time taken for heat generation, less fuel consumption, no irritation of eyes |
| 17 | Home science | Groundnut stripper | Reduced drudgery and no pain in fingers, shoulders and back |
| 18 | Home science | Cycle weeder | Reduces dependency on labor during peak labour requirement where the wages go remarkably high, operation and maintenance of cycle weeder is easy. |
| 19 | Dairy | Cultivation and feeding of azolla to milking dairy animals | 1. There is increase in milk yield and fat content in milk after feeding azolla. Azolla cultivation is easy. Stopped purchasing cattle feed from KMF after starting feeding with azolla. |
| 20 | Inland fisheries | Culture of sterile common carp | Growth trial will be conducted in 2010-11 |
| 21 | Inland fisheries | Production of advanced carp fingerlings in cages | FLD terminated |
| 22 | Tomato | High yielding DMT-2 variety | DMT-2 is high yielding, suited to long distance transport |
| 23 | Cotton | Hybrid MRC7918 | Yielded better and fetched good price for cotton |
| 24 | Cotton | Potassium nitrate | Reduced leaf reddening and boll size was also more |
| 25 | Cotton | Ecofeast crops | Cost effective and easy to adopt with regular cotton cultivation |
| 26 | Tomato | Viral disease management by producing seedling in protected condition | Though 40 mesh nylon net is costlier but very effective & easy method in managing disease |
| 27 | Grape | *V. lecanii* in mealy bug management . | Mycoinsecticide (*V. lecanii*) is cheaper and effective |
| 28 | Onion | Management of puple blotch disease | Highly effective and economic |

**Extension and Training activities under FLD**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Activity** | **No. of activities organized** | **Number of participants** | **Remarks** | |
| 1 | Field days | 20 | 1336 | Training on azolla cultivation and feeding methods | For monitoring the FLD, water sample analysis |
| 2 | Farmers Training | 63 | 1386 | For monitoring the FLD | For monitoring the FLD |
| 3 | Media coverage | 21 | 18 | For monitoring the FLD | On cage fabrication, installation, seed stocking, feeding |
| 4 | Training for extension functionaries | 18 | 612 | On azolla harvesting, feeding | - |

**PART VI – DEMONSTRATIONS ON CROP HYBRIDS**

**Demonstration details on crop hybrids**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Breed** | **Name of the technology demonstrated** | **Name of the hybrid** | **No. of Demo** | **Units/ Area (m2** | **Yield (q/ha)** | | | | **% Increase** | **\*Economics of demonstration (Rs./ha)** | | | | **\*Economics of check**  **(Rs./ha)** | | | |
| **Demo** | | | **Check** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Tomato | Seedling production in protected condition and integrated management of diseases | - | Utsav | Irrigated | 10 | 5 | 587.3 | 512.4 | 571.4 | 473.1 | 20.78 | 86963 | 282321 | 195358 | 3.25 | 89675 | 224171 |

H-High L-Low, A-Average

**PART VII. TRAINING**

**7.A.. Farmers’ Training including sponsored training programmes (On campus)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | |
| **General** | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **Crop Production** |  |  |  |  |  |  |  |  |  |  |
| Weed Management in Ground nut | 1 | 18 | 2 | 20 | 5 | 0 | 5 | 23 | 2 | 25 |
| Weed Management in Bengalgram | 1 | 9 | 2 | 11 | 3 | 1 | 4 | 12 | 3 | 15 |
| Resource Conservation Technologies | 1 | 16 | 03 | 19 | 04 | 00 | 4 | 20 | 30 | 23 |
| Micro Irrigation/Irrigation | 2 | 21 | 3 | 24 | 5 | 0 | 5 | 26 | 3 | 29 |
| Seed production (Greengram) | 6 | 411 | 79 | 490 | 59 | 41 | 103 | 470 | 52 | 593 |
| Seed Production (Soybean) | 12 | 395 | 71 | 466 | 83 | 45 | 128 | 478 | 116 | 594 |
| Seed Production (Groundnut) | 6 | 219 | 48 | 267 | 31 | 13 | 44 | 250 | 51 | 301 |
| Integrated Crop Management (Bajra) | 2 | 75 | 19 | 95 | 14 | 7 | 21 | 89 | 26 | 115 |
| Integrated Crop Management (Begalgram) | 2 | 32 | 3 | 35 | 5 | 1 | 6 | 37 | 3 | 40 |
| Integrated Crop Management (Sunflower) | 1 | 15 | 3 | 18 | 5 | 2 | 7 | 20 | 07 | 27 |
| Integrated Crop Management (Groundnut) | 1 | 13 | 0 | 13 | 2 | 0 | 02 | 15 | 00 | 15 |
| Integrated Nutrient Management | 2 | 24 | 7 | 31 | 8 | 3 | 11 | 32 | 10 | 42 |
| Nutrient Management in kapali wheat | 1 | 13 | 1 | 14 | 5 | 2 | 7 | 18 | 3 | 21 |
| Pest and Disease Management in Sesame | 1 | 10 | 1 | 11 | 2 | 0 | 2 | 12 | 1 | 13 |
| Pest and Disease Management in Soybean | 1 | 13 | 3 | 16 | 5 | 2 | 7 | 18 | 5 | 23 |
| Pest and Disease Management in Sorghum | 6 | 384 | 94 | 478 | 85 | 41 | 126 | 469 | 135 | 604 |
| Pest and Disease Management in Saffiower | 3 | 54 | 9 | 63 | 9 | 3 | 12 | 63 | 21 | 84 |
| Harvesting and Post harvesting technologies in Greengram | 4 | 291 | 70 | 361 | 56 | 33 | 89 | 347 | 103 | 450 |
| Harvesting and Post harvesting technologies in Soybean | 4 | 416 | 48 | 194 | 48 | 17 | 65 | 194 | 65 | 259 |
| Harvesting and Post harvesting technologies in Groundnut | 2 | 58 | 25 | 83 | 25 | 10 | 35 | 83 | 35 | 118 |
| Harvesting and Post harvesting technologies in Bajra | 2 | 40 | 33 | 73 | 18 | 15 | 33 | 58 | 48 | 106 |
| Harvesting and Post harvesting technologies in Sorghum | 1 | 8 | 1 | 9 | 2 | 0 | 2 | 10 | 1 | 11 |
| **Horticulture** |  |  |  |  |  |  |  |  |  |  |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |  |  |
| Production of low value and high volume crop | 5 | 122 | - | 122 | 5 | -5 | 127 | - | 127 | 5 |
| **b) Fruits** |  |  |  |  |  |  |  |  |  |  |
| Cultivation of Fruit | 5 | 147 | 3 | 150 | 8 | - | 8 | 155 | 3 | 158 |
| **Home Science/Women empowerment** |  |  |  |  |  |  |  |  |  |  |
| Drudgery reduction | 2 | 15 | 1 | 16 | 2 | 0 | 2 | 17 | 1 | 18 |
| Clean milk production and value addition | 1 | 0 | 30 | 30 | 0 | 0 | 0 | 0 | 30 | 30 |
| **Plant Protection** |  |  |  |  |  |  |  |  |  |  |
| Integrated Pest Management | 2 | 84 | 21 | 105 | 0 | 0 | 0 | 84 | 21 | 105 |
| Integrated Disease Management | 4 | 82 | 05 | 87 | 0 | 0 | 0 | 82 | 05 | 87 |
| **Fisheries** |  |  |  |  |  |  |  |  |  |  |
| Integrated fish farming | 2 | 39 | 54 | 141 | 48 | - | - | 87 | 54 | 141 |
| **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| Apiculture | 2 | 100 | 0 | 100 | 24 | 0 | 24 | 124 | 0 | 124 |
| **TOTAL** | **84** | **3124** | **609** | **3512** | **566** | **231** | **879** | **3293** | **931** | **4146** |

**7.B.. Farmers’ Training including sponsored training programmes (Off campus)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | |
| **General** | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **Crop Production** |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management | 5 | 101 | 0 | 101 | 10 | 0 | 10 | 111 | 0 | 111 |
| Integrated Pest Management | 14 | 288 | 23 | 311 | 67 | 0 | 67 | 355 | 23 | 378 |
| Integrated Nutrient Management |  |  |  |  |  |  |  |  |  |  |
| Integrated Disease Management | 4 | 80 | 6 | 86 | 16 | 0 | 16 | 96 | 6 | 102 |
| **Horticulture** |  |  |  |  |  |  |  |  |  |  |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |  |  |
| Production of low value and high volume crop | 3 | 60 | 5 | 65 | 1 | 1 | 2 | 61 | 6 | 67 |
| Nursery raising | 1 | 20 | 2 | 22 | - | - | - | 20 | 2 | 22 |
| **b) Fruits** |  |  |  |  |  |  |  |  |  |  |
| Cultivation of Fruit | 1 | 35 | 4 | 39 | 5 | 2 | 7 | 40 | 6 | 46 |
| **Soil Health and Fertility Management** |  |  |  |  |  |  |  |  |  |  |
| Management of Problematic soils | 1 | 8 | 3 | 11 | 1 | - | 1 | 9 | 3 | 12 |
| Soil and water testing | 12 | 93 | 4 | 97 | 68 | 13 | 81 | 161 | 17 | 178 |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Feed and Fodder technology | 3 | 46 | 10 | 56 | 3 | 0 | 3 | 49 | 10 | 59 |
| Sericulture | 10 | 130 | 17 | 147 | 11 | 7 | 18 | 141 | 24 | 165 |
| **Home Science/Women empowerment** |  |  |  |  |  |  |  |  |  |  |
| Chulha | 3 | 0 | 15 | 15 | 0 | 4 | 4 | 0 | 19 | 19 |
| **Fisheries** |  |  |  |  |  |  |  |  |  |  |
| Carp fry and fingerling rearing | 2 | 25 | 0 | 25 | - | - | - | 25 | 0 | 25 |
| Composite fish culture | 4 | 55 | 5 | 60 | 6 | - | 6 | 61 | 5 | 66 |

**7.C. Training for Rural Youths including sponsored training programmes (on campus)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | | | | | | | | | |
| **General** | | | | | | **SC/ST** | | | | | | **Grand Total** | | | | |
| **Male** | **Female** | | **Total** | | | **Male** | | **Female** | | **Total** | | **Male** | | **Female** | | **Total** |
| Bee-keeping | 2 | 100 | | 0 | | 100 | | 24 | | 0 | | 24 | | 124 | | 0 | | 124 |
| **Total** | **2** | **100** | | **0** | | **100** | **24** | | **0** | | **24** | | **124** | | **0** | | **124** | |

**7.D. Training for Rural Youths including sponsored training programmes (off campus) - Nil**

**7.E. Training programmes for Extension Personnel including sponsored training programmes (on campus)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | | | |
| **General** | | | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | | **Total** | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Integrated Pest Management | 1 | 37 | | 0 | | 37 | 4 | 0 | 4 | 41 | 0 | 41 |
| **Total** | **1** | **37** | | **0** | | **37** | **4** | **0** | **4** | **41** | **0** | **41** |

**7.F. Training programmes for Extension Personnel including sponsored training programmes (off campus)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | | | |
| **General** | | | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | | **Total** | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Integrated Pest Management | 1 | 37 | | 0 | | 37 | 4 | 0 | 4 | 41 | 0 | 41 |
| **Total** | **1** | **37** | | **0** | | **37** | **4** | **0** | **4** | **41** | **0** | **41** |

7.G. Sponsored training programmes

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | |
| **General** | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **1** | **Crop production and management** |  |  |  |  |  |  |  |  |  |  |
| 1.a. | Increasing production and productivity of crops | 46 | 2045 | 477 | 2522 | 423 | 223 | 646 | 2468 | 700 | 3168 |
| 1.b. | Commercial production of vegetables |  |  |  |  |  |  |  |  |  |  |
| **2** | **Production and value addition** |  |  |  |  |  |  |  |  |  |  |
| 2.a. | Fruit Plants |  |  |  |  |  |  |  |  |  |  |
| 2.b. | Ornamental plants |  |  |  |  |  |  |  |  |  |  |
| 2.c. | Spices crops |  |  |  |  |  |  |  |  |  |  |
| **3.** | **Soil health and fertility management** | 13 | 597 | 0 | 597 | 51 | 0 | 51 | 648 | 0 | 648 |
| **4** | **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| **5** | **Methods of protective cultivation** |  |  |  |  |  |  |  |  |  |  |
| **6** | **Others (pl.specify)** |  |  |  |  |  |  |  |  |  |  |
| **7** | **Post harvest technology and value addition** |  |  |  |  |  |  |  |  |  |  |
| 7.a. | Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| 7.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **8** | **Farm machinery** |  |  |  |  |  |  |  |  |  |  |
| 8.a. | Farm machinery, tools and implements |  |  |  |  |  |  |  |  |  |  |
| 8.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **9.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| **10** | **Livestock production and management** | 5 | 0 | 247 | 247 | 0 | 96 | 96 | 0 | 343 | 343 |
| 10.a. | Animal Nutrition Management |  |  |  |  |  |  |  |  |  |  |
| 10.b. | Animal Disease Management |  |  |  |  |  |  |  |  |  |  |
| 10.c | Fisheries Nutrition |  |  |  |  |  |  |  |  |  |  |
| 10.d | Fisheries Management |  |  |  |  |  |  |  |  |  |  |
| 10.e. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **11.** | **Home Science** |  |  |  |  |  |  |  |  |  |  |
| 11.a. | Household nutritional security |  |  |  |  |  |  |  |  |  |  |
| 11.b. | Economic empowerment of women |  |  |  |  |  |  |  |  |  |  |
| 11.c. | Drudgery reduction of women |  |  |  |  |  |  |  |  |  |  |
| 11.d. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **12** | **Agricultural Extension** |  |  |  |  |  |  |  |  |  |  |
| 12.a. | Capacity Building and Group Dynamics |  |  |  |  |  |  |  |  |  |  |
| 12.b. | Apiculture | 2 | 100 | 0 | 100 | 24 | 0 | 24 | 124 | 0 | 124 |
|  | **Total** | **66** | **2742** | **724** | **3466** | **498** | **319** | **817** | **3240** | **1043** | **4283** |

**Details of sponsoring agencies involved**

1. Apiculture training programme - District industries corporation (Khadi Gramodyog), ZP Belgaum
2. Seed village scheme – Ministry of Agricultural and cooperation, New Delhi.
3. Zilla Panchayath, Belgaum
4. University of Agricultural Sciences, Dharwad.

**7.H. Details of vocational training programmes carried out by KVKs for rural youth**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | |
| **General** | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **3.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| 3.e. | Poultry farming | 8 | 1 | - | 1 | 2 | - | 2 | 3 | - | 3 |
| **5** | **Agricultural Extension** |  |  |  |  |  |  |  |  |  |  |
| 5.b. | Apiculture | 2 | 100 | 0 | 100 | 24 | 0 | 24 | 124 | 0 | 124 |
|  | **Grand Total** | **10** | **101** | **0** | **101** | **26** | **0** | **26** | **127** | **0** | **127** |

**PART VIII – EXTENSION ACTIVITIES**

**Extension Programmes (including activities of FLD programmes)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nature of Extension Programme** | **No. of Programmes** | **No. of Participants (General)** | | | **No. of Participants**  **SC / ST** | | | **No.of extension personnel** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Field Day | 11 | 401 | 98 | 499 | 69 | 57 | 126 | 8 | 3 | 11 |
| Kisan Mela | 7 | 215 | 57 | 272 | 16 | 07 | 23 | 5 | 2 | 7 |
| Exhibition | 1 |  |  |  |  |  |  |  |  |  |
| Film Show | 12 | 105 | 60 | 180 | 15 | 23 | 38 | 15 | - | 15 |
| Method Demonstrations | 13 | 200 | 85 | 287 | 9 | 5 | 12 | 3 | 1 | 4 |
| Group meetings | 45 | 541 | 173 | 714 | 19 | 15 | 34 | 16 | 8 | 24 |
| Lectures delivered as resource persons | 87 | 1697 | 642 | 2345 | 222 | 115 | 337 | 66 | 8 | 74 |
| Newspaper coverage | 20 | - | - | - | - | - | - | - | - | - |
| Radio talks | 3 |  |  |  |  |  |  |  |  |  |
| TV talks | 9 | - | - | - | - | - | - | - | - | - |
| Popular articles | 5 | - | - | - | - | - | - | - | - | - |
| Extension Literature | 6 | 975 | 205 | 1180 | 215 | 55 | 270 | 50 | 25 | 75 |
| Advisory Services | 66 | 152 | 21 | 156 | 32 | 5 | 40 | 12 | 3 | 15 |
| Scientific visit to farmers field | 109 | 378 | 92 | 470 | 35 | 11 | 41 | 14 | 3 | 14 |
| Farmers visit to KVK | 125 | 95 | 5 | 100 | 11 | 2 | 13 | 9 | 3 | 12 |
| Diagnostic visits | 13 | 39 | 6 | 45 | 9 | 3 | 12 | 6 | 1 | 7 |
| Soil test campaigns | 3 | 151 | 25 | 176 | 15 | 8 | 23 | 3 | 2 | 5 |
| Celebration of important days (specify) parthenium eradication week | 01 | 255 | 150 | 405 | 75 | 56 | 131 | 12 | 07 | 19 |
| Farmers Conventions | 06 | 55 | 11 | 66 | 15 | 08 | 23 | 2 | 1 | 3 |
| **Total** | **542** | **5259** | **1630** | **6895** | **757** | **370** | **1123** | **221** | **67** | **285** |

**PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS**

**9.A. Production of seeds by the KVKs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Crop category | **Name of the crop** | **Variety** | **Hybrid** | **Quantity of seed**  **(qtl)** | **Value**  **(Rs)** | **Number of farmers to whom provided** |
| Cereals (crop wise) | Wheat  Kapali-Wheat | DWR-225  DDK-1025 | - | 7.96  12.10 | 12,112/-  18,500/- | 18  26 |
| Oilseeds | Soybean  Groundnut  Sesame | JS-335  GPBD-4  DS-1 | - | 9.10  5.00  0.75 | 16050/-  15,000/-  3,375/- | 30  8  37 |
| Pulses | Green gram  Bengal gram | S-4  JG-11 | - | 5.60  3.00 | 22,280/-  12,600/- | 42  08 |
| Commercial crops | Cotton | - | DHH-543 | 2.00 | 7,000/- | 01 |
| **Total** |  |  |  | **45.51** | **106917/-** | **170** |

# 9.B. Production of planting materials by the KVKs

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crop category** | **Name of the crop** | **Variety** | **Hybrid** | **Number** | **Value (Rs.)** | **Number of farmers to whom provided** |
| Fruits | Mango | seedling |  | 2000 | 10000.00 | To be used for grafting this year. |

**9.C. Production of Bio-Products**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bio Products** | **Name of the bio-product** | **Quantity**  **Kg** | **Value (Rs.)** | **Number of**  **farmers to**  **whom provided** |
| Bio Fertilizers | Vermi compost | 8 | 8000 | 10500 |

# 9.D. Production of livestock materials

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Particulars of Live stock | **Name of the breed** | **Number** | **Value (Rs.)** | **Number of farmers to whom provided** |
| Guppy fish | *Poecilia reticulata* | 600 | 600 | Provided freely to 10 farmers each in 3 flood affected villages |

**PART X – PUBLICATION, SUCCESS STORY, SWTL**

**10. A. Literature Developed/Published (with full title, author & reference)**

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

(B) Literature developed/published

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Title** | **Authors name** | **Number** |
| Research papers | Current Trends and Future Prospects in production and of Spice Crops with Special Reference to chillies | M. N. Malawadi ,S Shashikumar and  G.S. Patted | 1 |
| Technical bulletins | Plant Nutrient Deficiency and Remedial Measures | S. Shashikumar, B. Gangadhar,  G.S. Patted and. M. N.Malawadi | 1000 |
| Popular articles | Suryakanti Besay | M.N.Malawadi and G. S Patted | 1 |
| Booklet | Sthaliy Lokrudiy Savayava Krhishi kramagalu | S. Shashikumar,. M.N.Malawadi and  G.S. Patted | 1 |
| Technical bulletins | Sericulture production technologies. | N. R. Salimath. | 1000 |
| Research papers | 1.Performance of *Catla catla* (Ham.) fingerlings fed with carbohydrate rich diets in manured tanks. Asian Fisheries Science 22(3): 991-1004.  2.Effect of mibolerone on the reproductive physiology of *Clarias batrachus* during the preparatory season. In: Recent advances in hormonal physiology of fish and shellfish reproduction (B.N. Singh and A.K. Pandey Eds.). Narendra Publishing, Delhi. p 277-286. | 1.Manjappa, K., Keshavanath, P., and Gangadhar B.  2.Keshavanath, P.,  Sarma, D.K. and Gangdhar B. | Not applicable |
| Technical reports | Antharjala Haagoo Kaluve Neerina Samyothitha Balake. In: Krishi Thanthrika Tharabethi Kaipidi 2009-10, KVK Belgaum and Gadag. p. 46-49. | Gangadhar B. | 1000 |
| News letters | 2 |  |  |
| Extension literature | 1.Azolla cultivation; 2. Enrichment of dry fodder | Shashikumar S., Gangadhar B.,  Patted, G.S. | 1000 each |

**10.B. Details of Electronic Media Produced**

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

**10.C. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).**

**I.**

**Title :** Mulberry is an alternative commercial crop over sugar cane

**Background:** Mr. Govind B. Patil age 52 is from Nipnal village of Raibag taluk. He is a employee of Syndicate Bank, he is having 34 acre of land. Among 34 acre of land 24 acre is irrigated by Ghataprabha left canal and 10 acre is rain fed. He was growing sugar cane in an area of 24 acre irrigated. In dry land at 10 acre he was growing maize & soybean in Kharif and wheat & Kapali wheat in Rabi. He was suffering his domestic problems due to considerable loss in sugar cane, because he was getting up to Rs 700/- per ton & expenditure was up to 500/- per ton. His yield per acre was also declined from 60 to 35 tones. Due to these he was a defaulter in banks and mounting interest of bank loan & house problems made him suffer from tension. The mean while his family was depend on his bank job, but his son Mr. Shreeram G. Patil of age 26 was graduated in B. Sc. and unemployed. Mr. Govind B. Patil was thinking about son to employ in some Govt. jobs, during this period for searching job he came to BIRDS KVK, Tukkanatti & expressed his real problems.

**Interventions**

**Process:** BIRDS KVK Scientist has advised him to cultivate mulberry in an area of 2 acre instead of searching Govt. jobs to his son. His son Mr. Shreeram G. Patil has participated in all KVK trainings on sericulture.

**Technology:** He was trained on new technology in sericulture, particularly 1. 1 acre cultivation of mulberry on paired row system. 2. Methods of harvesting of shoots. 3. Irrigation & fertilizer management. 4. Feeding management to silk worms. 5. Incubation of DFLS. 6. Disinfection methods in rearing house & bed. 7. Chawki & adult rearing technologies etc, He cultivated 2 .5 acre of mulberry with victory-1 variety on paired row system constructed model rearing house, KVK has made linkage with Dept. of sericulture Gokak and supported him to provide subsidy of Rs. 50,000/- for rearing house.

**Impact**

**Horizontal Spread:** Initial he started in an area of 2 acre & increased again 2 acre this success got inspired to other farmers in the village & other neighboring village of Mantoor & Jodatti of Raibag taluk started cultivation of mulberry by 14 farmers

**Economic gains:** He is cultivated 2 acre of mulberry variety V-1 and he is rearing on an average of 500 DFLS in each crop of CSR (2 X 4) & PM X CSR2 breeds. The average of Rs. 210/- per kg cocoons. He is getting average 5 crops per year. Total income realizing is Rs. 3, 41,250/- with an expenditure of Rs. 45000/- to50000/- & net income is Rs. 2,91, 250/-

**Employment Generation:** Mr. Shreeram G. Patil himself employed & given employment to 15 others rural youth. He is calling as person to other farmers of neighboring village

**II.**

**Title: Integrated farming system: an attempt by Sri. Chandrashekar Ganiger**

**Background**: Sri. Chandrashekhar S. Ganiger of Sunadoli village, Gokak tq. is a contact farmer of KVK Belgaum from 2006. He has 20 acres of semi-irrigated land. He purchased 15 HF cattle from Krishnagiri of Tamilnadu during 2006. Now he has 30 cattle. He had 2 acres of flood prone water-body lying derelict earlier to KVK intervention.

**Interventions**

**Process**: Scientists from KVK are providing consultancy and field visit services to the farmer since 2006 on dairying, fisheries, horticulture and sericulture. He was trained under the NFDB sponsored training held at the KVK during 2007.

**Technology:** He was a participant in the FLD on production and cultivation of azolla, carp seed rearing in cages and banana distal end feeding.

**Impact**

**Horizontal spread** : He started composite fish culture in his derelict water-body with minimum investments. In 2008 he started growing banana in 6 acres of land. His 2 acres flood prone land is cultivated with palm. Now he has initiated sericulture by planting mulberry in 2 acres of his land. He has started Milk Producers Co-operative Society in the year 2009. He was trained in apiculture by the KVK and now he is producing honey for his domestic use. His success in Azolla demonstration by the KVK has made him to go for more azolla production units in his farm.

***Economic gain:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Source of income** | **Income before integration (lakh rupees)** | **Income after integration (lakh rupees)** | **Remarks** |
| Agriculture | 3.4 (12 acres) | 2.1( 6 acres) | Farmer has gained Rs. 7.44 lakh from his 15 acres land by adopting integrated farming system. |
| Horticulture (banana) | 0 | 8.0 (6 acres) |
| Dairy farming | 0.12 (4 cows) | 1.44 |
| Fish culture | - | 0.40 |
| Apiculture | - | 0.02 |
| **Total** | **4.52** | **11.96** |

He was awarded the ‘Best Farmer’ award at the Krishi Mela held at Murgod, Saudathi during November 2009.

**Employment generation:** His success in integrated farming has motivated the surrounding farmers to initiate steps in this regard. The surrounding farmers have started dairying in commercial scale to supply milk to the society and increased their income. His relatives at Khanapur taluk were motivated to take up fish culture in their land. Several farmers visit his farm to see his success and to seek his advise in starting their own farming units, particularly dairy.

**III.**

**Title:** **Scientific papaya cultivation has contributed wealth, respect and recognition**.

**Background:** Mr. Raju Bairugol is resident of Rajapur village of Gokak taluk of Belgaum district. This village is irrigated by Ghataprabha river. Availability of groundwater is also good in this belt. Sugarcane, maize and soybean are major agriculture crops and vegetables, banana and turmeric are major horticulture crops being grown here. Mr. Bairugol came in contact with the scientists during field advisory service in 2003-04.

Till that period he was growing sugarcane, maize and vegetables. He was getting good income by vegetable cultivation but there was uncertainity in the market price. Major crop was sugarcane but he was getting less income per acre. So he was in search of suitable crop which will give higher income than sugarcane. During this period he was advised to diversify into fruit crops especially papaya.

He was advised to grow two acres of Red lady variety of papaya which was having good market value both in local and distant markets. He followed the guidance of the KVK scientists for papaya cultivation aspect. He used drip irrigation which is known to enhance water use efficiency, reduce nutrient leaching loss and root rot disease incidence. He applied VAM and required dose of FYM, N,P,K and micronutrients after soil test results. At the end of the year he could harvest the fruits. He sent his produce to Belgaum which is a local market and Mumbai which is distant.

As per his experiences the crop will get premium price during the month of holy Ramzan, since lot of fruits are consumed by the Muslim community. He got the yield of 40t per acre with Rs. 160000/- gross income and 110000/- net income per acre per year.

Looking at the success, he increased the area under papaya to 5 acres. Another 8 farmers of the same village and 19 of villages of adjoining talukas started cultivating papaya. This large scale cultivation facilitated marketing. After getting good benefit from papaya cultivation Mr. Bairugol still diversified into banana and pomegranate cultivation. Since these crops are labour intensive and require labour throughout the year, he employed 10 permanent labourers.

**IV.**

Title: **Impact of KVK Cotton programmes on pest management in the districts**

Cotton is second highest cropped in commercial crop of Belgaum district. Area of cotton crop in the district during 1994-95 was more than 70,000 hectare but it got reduced to 21,000 hectare in 2004-05. How ever it increased to 25,900 hectare during 2009-10. The reason for decrease in the area was severe yield loss caused by insect pest and increased cost of plant protection. The technical grade pesticides consumption in 2004-05 was 52,235 kilograms but it reduced to 13,689 kilograms.

Looking to these facts and to address these problems KVK started implementing front line demonstrations on production technology and integrated pest management technologies in cotton from Kharif 2000 however from kharif 2005-06 onwards pest management programmes were intensified by the KVK on larger area to cover more area in the district. After conducting 5-6 years cotton insect pest management programmes conducted by KVK in the district cotton growers witnessed considerable out come. During 2004-05 non Bt cotton demonstration farmers found to spray 5 – 6 times as against 8 - 10 times by non demonstration farmers. However Bt cotton programme farmers found to follow 2 – 3 times spray schedule as against 4 – 5 times by non demonstration farmers. KVK’s technology transfer activities yielded remarkable out put in terms of reduced pesticide usage and cost of plant protection. Pesticide usage in Bt cotton reduced to 3.43 litre per hectarevin programme villages as compared to 6.28 liters peer hectare in non demonstration villages. Further the cost of plant protection was reduced to 2690 rupees per hectare as against 3600 per hectare in other villages. The horizontal spread of the technology was to an area of 4003 hectare to cover 4500 farmers. The vertical spread of the technology in terms of cost of saving on plant protection chemicals was rupees 910 per hectare and reduction in plant protection chemicals load was 2.8 liters per hectare

**10.D. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year- Nil**

10.E. 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** |
| 1 | Banana, papaya | Botanicals as liquid manure and organic pesticide: Soaking of weeds in water for 21 days. After the decomposition, it is filtered and sprayed to banana and papaya plants @ 150 ml/l | This is used as liquid manure and organic pesticide. |
| 2 | Cotton | Inter cropping of vegetables (Cabbage & Dolichos beans ) with cotton | To utilize space exist in earlier crop period between cotton rows and get more profit from same unit of land |
| 3 | Tomato | Sowing maize in tomato field in summer season with the spacing of 45cm x 60 cm | To get protection from high intensity sun light that hinders the crop growth and by this practice they are getting good crop |

**10.F. Indicate the specific training need analysis tools/methodology followed for**

- Identification of courses for farmers/farm women

- Rural Youth

- Inservice personnel

**10.G. Field activities**

i. Number of villages adopted : 14+5

ii. No. of farm families selected: 413+10

iii. No. of survey/PRA conducted: 14

**10.H. Activities of Soil and Water Testing Laboratory**

Status of establishment of Lab : Good

1. Year of establishment : 2006-07

2. List of equipments purchased with amount :

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No | Name of the Equipment | Qty. | Cost |
| 1 | ESSAE - Electronic weighing machine DS-415 : 150 kg : 1/7500 | 1 no | 13,976/- |
| 2 | ESSAE – Electronic weighing machine Adventure AR2140 210 Gms MC | 1 no | 61,252/- |
| 3 | Pelicon – Electronic Automatic KEL PLUS Micro processor based twelve place macro Block Digestion system model KES 12 L. | 1 no | 93,925/- |
| 4 | Electronic superior automatic distillation system with digital display – model : ELITE-EX | 1 no | 1,59,720 |
| 5 | FGCL 0378/ Flame Photometer (ss) | 1 no | 48,942/- |
| 6 | Double distillation water still (Glass) Capacity – 2 lits/hour | 1 no | 16,000/- |
| 7 | Double distillation water still (Quartz) Capacity – 4 lit/hour | 1 no | 43,000/- |
| 8 | Rotary shaker Size: 18’ X 18’ | 1 no | 19,000/- |
| 9 | Laboratory wily mill | 1 no | 17,000/- |
| 10 | Hot Air Oven | 1 no | 16,400/- |
| 11 | Water bath with 12 concentric Rings with digital indicator | 1 no | 15,500/- |
| 12 | FGCM 183 EC TDS Analyser with CC-03 B & ATC Probe | 1 no | 17,100/- |
| 13 | FGLI 120 Digital pH meter with combined electrode CL-5 | 1 no | 6,950/- |
| 14 | Scanning visible Spectro Photometer | 1 no | 45,000/- |
| 15 | Whirlpool Refrigerator | 1 no | 16,875/- |

Details of samples analyzed so far since establishment of SWTL :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Details** | **Year** | **No. of samples analyzed** | **No. of farmers benefited** | **No. of villages** | **Amount realized(Rs)** |
| Soil samples | 2006-07 | 183 | 133 | 29 | 36,600/- |
| 2007-08 | 215 | 170 | 35 | 36,600/- |
| 2008-09 | 153 | 148 | 11 | 30,600/- |
| 2009-10 | 675 | 581 | 59 | 1,24,200/- |
| Water samples | 2006-07 | 53 | 26 | 11 | 2650/- |
| 2007-08 | 56 | 38 | 22 | 2800/- |
| 2008-09 | 27 | 27 | 27 | 1350/- |
| 2009-10 | 105 | - | - | - |
| Plant samples | 2006-07 | - | - | - | - |
| 2007-08 | 1 | 1 | 1 | 50/- |
| 2008-09 | - | - | - | - |
| 2009-10 | 105 | 88 | 39 | 8,850/-- |
| **Total** | **2006-2010** | **1573** | **1212** | **234** | **2,43,700/-** |

Details of samples analyzed during the reporting period

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Details | No. of Samples analyzed | No. of Farmers benefited | No. of Villages | Amount realized |
| Soil Samples | 675 | 581 | 59 | 1,24,200/- |
| Water Samples | 105 | 88 | 39 | 8,850/-- |
| Plant samples | - | - | - | - |
| Manure samples | - | - | - | - |
| Others (specify) | - | - | - | - |
| Total | 780 | 669 | 98 | 1,33,050/- |

**PART XII IMPACT**

**11.A. Impact of KVK activities (Not to be restricted for reporting period).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of specific technology/skill transferred** | **No. of participants** | **% of adoption** | **Change in income (Rs.)** | |
| **Before (Rs./Unit)** | **After (Rs./Unit)** |
| Seed treatment with biofertiliser | 211 | 83 | 47250/- | 52920/- |
| Juvenile hormone for uniform maturation of silk worm & quality cocoons. | 18 | 100 | 3200/- | 5600/- |
| Cycle weeder | 15 | 100 | 0 | 700/- |
| Culture and feeding of Azolla to milking animals | 14 | 100 | - | 3600/- additional profit/ animal/yr |
| Mettoking in banana | 125 | 48 | 62000/acre | 75000/acre |
| Purple blotch disease management in onion | 12 | 100 | 83251 Rs/ha | 116192 Rs/ha |

**11.B. Cases of large scale adoption**

**(Please furnish detailed information for each case)**

Soybean is an important oilseed cum pulse crop of Belgaum district. It is grown in an area of 86302 ha. ICM module was undertaken in the selected villages of Hukkeri, Chikkodi and Raibag taluka of Belgaum district. Where soybean is potential crop. Extn. Methods like survey, Gramsabha and farmers meetings were conducted to study the field problems and to formulate demonstrations on the basis of specific problem. I am module implemented in an area of 20 ha. At Beniwad, Yaragatti and Yarnal villages of Hukkeri taluk, Bedakihal village f Chikkodi taluka and Nipnal village of Raibag taluk.

Technologies demonstrated by KVK under ICM module were seed treatment with Rhizobium @ 1.25 kgs/ha and PSB @ 1.25 kgs/ha, soil application of ZnSo4 @ 12 kg per ha with RDF. Foliar spray with Nomurae reily @ 1.25 kgs/ha for control of sprodaptera and foliar spray with Hexaconazol @ 1.25 liters/ha (2 sprays at 50-55 DAS and 65 – 70 DAS) for effective control of rust disease. While conducting demonstrations. Problems noticed were use of uncertified seeds, wrong spacing (45 X 15 cms). Improper use of RDF, spodeptera infestation and Rust disease incidence these problems causing low yield in soybean. After demonstration farmers realized increased yield 10.42 % and improved soil fertility by exploitation of Nitrogen through seed treatment with Rhizobium. The methodologies followed on ICM module through extension activities like trainings, field visits diagnostic service, group meetings method demonstrations, farmer scientist inter action on field days and result demonstrations.

Results : I am demonstration showed better results them farmers practice highest yield was obtained from demonstrations as result of technical inputs provided to farmers when ever they need. Average yield obtained from farmers practice was 24..39 qtls/ha and 26.92 qtls/ha from demonstrations

**Comparison of economics on demonstration**

|  |  |  |
| --- | --- | --- |
| **Particulars** | **Demonstration** | **Farmers practice** |
| 1. Yield (qtl/ha) | 26.92 | 24.38 |
| 1. Cost of cultivation | 10386/- | 8703/- |
| 1. Gross Income | 43072/- | 39008/- |
| 1. Net Income | 32686/- | 30305/- |

* Seed cost @ 1600/- per qtl.

**Farmers reaction :** Farmers are happy with good quality seeds, increased weight of seeds and yield (2.5 qtl/ha). Farmers get profit of Rs 2381/ha and gained confidence on ICM module.

**PART XII - LINKAGES**

**12.A. Functional linkage with different organizations**

|  |  |
| --- | --- |
| **Name of organization** | **Nature of linkage** |
| Dept. of Microbiology UAS, DWD | Azolla culture cultivation |
| College of Agril. Engg. | Cycle weeder |
| FTC Arabhavi | Training |
| ARS Arabhavi | Technical guidance from maize breeder |
| ADA Gokak | Lecture given at Kharif workshop |
| AIR Dharwad | Broadcasting of radio talks |
| BSW college | Extension activities. |
| Department of Agriculture, | Conducting training programmes, resource persons for field day |
| CADA (Malaprabha and Ghataprabha), Belgaum | Conducting training programmes |
| UAS Dharwad | KVK has conducted farm trails on Varietal trials of Mesta, Maize, INM in Sugarcane , Purchase of seeds, hodagerides, hodagerides and attend ZREAC meeting |
| ARS Sankeshwar | KVK has conducted farm trails on INM in Sugarcane |
| Zuari industries ltd. | Participated as guest lecturers and workshop |
| Farmers training centre, Arabhavi | Attended training |
| NCDP CLC, BIRDS | Conducted trainings |
| Zilla Panchayat, Belgaum | Conducted training programmes under SJSY scheme for SHGs |
| DE-office Bangalore | Attended FFS training Programme |
| ACB-college Bijapur | Purchase of Sorghum seeds |
| UAS, Dharwad | Collected technical information and purchased bed disinfectant (UASD – 1) for FLD |
| UAS, Dharwad | Collected technical information on soybean intercropping with mulberry for OFT and FLD |
| KSSR & DI, Bangalore | Collected technical information on single feeding with shoot for chawki for OFT |
| Zilla Panchayat, Belgaum | Conducted training programmes under SJSY scheme for SHGs |
| University of Agricultural Sciences, DWD  Women and child development department  Envirofit Private Company Limited, Bangalore  CFTRI, Mysore  Input dealer from Kolhapur  Social welfare department  TNAU, Coimbatore | Out sourcing of technology, NARP meeting  Data base  Purchase of envirofit chulha  Out sourcing of technology  Purchase of cycle weeder  Data base  Purchase of groundnut stripper |
| Dept. of Horticulture | Joint diagnostic survey, Conducting training |
| State Dept. of Horticulture | Joint implementation of crop surveillance |
| KRCCH, Arabhavi | Joint diagnostic survey |
| State Department of Agriculture, Belgaum | Guest Lectures |
| AIR Dharwad | Broadcasting of radio talks |
| Doordarshan | Telecasting Plant protection related technologies |
| UAS Dharwad | Farm trails, purchase of seeds, ZREAC meeting |
| Zuari industries ltd. | Participated as guest lecturers and workshop |
| NCIPM, New Delhi | Collaborative project – Information system for pest management |
| CICR, Nagpur | Collaborative Project – Insect Pest resistance management |
| DIC (KhaGra), ZP, Belgaum | Apiculture trainings |
| IIHR | Technical guidance |

**12.B. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the scheme** | **Date/ Month of initiation** | **Funding agency** | **Amount (Rs.)** |
| Seed village scheme | 2009-10 | Ministry of Agri. and Cooperation | 80.39 (Rs. In lakh) |
| Insecticide Resistance Management in cotton | June 2006 | CICR, Nagapur | 3.50 lakhs |
| National Information System for Pest Management | June 2008 | NCIPM, New Delhi | 5.50 lakhs |
| Apiculture Trainngs | December 2008 | DIC (KhaGra), ZP, Belgaum | 2.55 lakhs |

**12.C. Details of linkage with ATMA**

a) Is ATMA implemented in your district Yes/No

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** | **Remarks** |
| 1 | Trainings | Guest lecturer in trainings | 290 farmers and farm women attended the training and took the benefit |
| 2 | Workshop | Attended as technical expert | Representatives from SAUs, development departments, KVKs have participated |
| 3 | Meeting | Attended as technical expert | Representatives from development departments and KVK have participated |

**12.D. Give details of programmes implemented under National Horticultural Mission**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** | **Constraints if any** |
| 1 | Farmers training | Funding | - |

**12.E. Nature of linkage with National Fisheries Development Board**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** | **Remarks** |
| 1 | Technology up gradation scheme | Proposal on cage culture submitted | - |
| 2 | Training | Proposal on ornamental fisheries training submitted | - |
| 3 | Service provider for organic horticulture | Joint implementation, Conducting trainings and demonstrations | - |

**PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK**

**13.A. Performance of demonstration units (other than instructional farm)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Demo Unit** | **Year of**  **establishment** | **Area**  **(ha)** | **Details of production** | | | **Amount (Rs.)** | | **Remarks** |
| **Variety** | **Produce** | **Qty.** | **Cost of inputs** | **Gross income** |
| 1 | Vermicompost | 2001-02 | 19.0 | Udrilus eujenia | Worms  Vermicopost | 12.0  5000 | 600/-  2500/- | 2400/-  12500/- | 1:5  1:5 |
| 2 | Polyhouse | 2005-06 | 75.0 | Alphanso | Mango grafts | 179 Nos | 1790/-/- | 4475/- | 1:3 |
| 3 | Nursery | 2007-08 | 100.0 | Local | Tamarind seedlings  Curryleaf  Lemon | 100 Nos  50  70 | 250/-  125/-  175/- | 1250/-  250/-  350/- | 1:5  1:2  1:2 |
| 4 | Fish culture | 2006 | 200 sq. m. | Catla and rohu | Edible fish  Ornamental fish  Guppy fish | 50 kg  277 Nos  600/- | 500/-  416/-  150/- | 2500/-  1108/-  600/- | 1:5  1:2.5  1:4 |
| 5 | Sericulture | 2010 | 1000 |  | Cocoon Seed | 200 Kgs | 950/- | 7000/- | 1:7.3 |

**13.B. Performance of instructional farm (Crops) including seed production**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name**  **of the crop** | **Date of sowing** | | **Date of harvest** | | **Area (ha)** | **Details of production** | | | | | | **Amount (Rs.)** | | | **Remarks** | |
| Variety | | Type of Produce | Qty.(Kg) | | | Cost of inputs | Gross income | |
| Cereals |  | |  | |  |  | |  |  | | |  |  | |  | |
| Wheat | October-2009 | | February-2010 | | 0.30 | DWR-225 | | Grain | 796 | | | 3184/- | 12,112/- | | 1:3.8 | |
| Kapali-Wheat | October-2009 | | February-2010 | | 0.30 | DDK-1025 | | Grain | 1210 | | | 4235/- | 18,500/- | | 1:4.3 | |
| **Pulses** | | | | | | | | | | | | | | | | |
| Green gram | June-2009 | | August-2009 | | 0.40 | Chinamung | | Grain | 560/- | | | 3520/- | 22,280/- | | 1:6.3 | |
| Bengal gram | November-2009 | | February-2010 | | 0.15 | JG-11 | | Grain | 300 | | | 2565/- | 12,600/- | | 1:4.9 | |
| Oilseeds |  | |  | |  |  | |  |  | | |  |  | |  | |
| Soybean | June-2009 | | September-2009 | | 0.4 | JS-335 | | Grain | 910 | | | 4038/- | 16050/- | | 1:3.9 | |
| Groundnut | June-2009 | | October-2009 | | 0.20 | GPBD-4 | | Seed | 500 | | | 4585/- | 15,000/- | | 1:3.2 | |
| Sesame | June-2009 | | October-2009 | | 0.06 | DS-1 | | Grain | 75 | | | 725/- | 3,375/- | | 1:4.6 | |
| Fibers |  | |  | |  |  | |  |  | | |  |  | |  | |
| Cotton | July-2009 | | February-2010 | | 0.10 | DHH-543 | | Cotton | 200 | | | 2995/- | 7000/- | | 1:2.33 | |
| Spices & Plantation crops | | | | | | | | | | | | | | | | |
| Tamarind | 1996-97 | March-09 | | 0.87 | | | MT-series | Fruit | | 908.86 | 1275/- | | | 4089/- | | 1:3.2 |
| Fruits |  |  | |  | | |  |  | |  |  | | |  | |  |
| Mango | 1997-98 | April-09 | | 0.80 | | | Alphanso | Fruit | | 2200Nos | 2800/- | | | 17600/- | | 1:6.2 |
| Sapota | 1997-98 | April-09 | | 0.60 | | | Cricket ball | Fruit | | 4900Nos | 1765/- | | | 7350/- | | 1:4.1 |

**13.C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Name of the Product** | **Qty** | **Amount (Rs.)** | | **Remarks** |
| **Cost of inputs** | **Gross income** |
| 1 | Vermi Compost | 5tons | 2500/- | 12,500/- | - |
| 2 | Earth worm | 12 kgs | 600/- | 2,400/- | - |

**13.D. Performance of instructional farm (livestock and fisheries production)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No** | **Name**  **of the animal / bird / aquatics** | **Details of production** | | | **Amount (Rs.)** | | **Remarks**  **B:C** |
| **Breed** | **Type of Produce** | **Qty.** | **Cost of inputs** | **Gross income** |
| 1 | Buffalo (2) | Pandrapury &Surthi | Milk | 1301 ltrs | 8760/- | 22117/- | 1:2.5 |

**13.E. Utilization of hostel facilities**

Accommodation available (No. of beds)

|  |  |  |  |
| --- | --- | --- | --- |
| **Months** | **No. of trainees stayed** | **Trainee days (days stayed)** | **Reason for short fall (if any)** |
| April 2009 | 15 | 1 |  |
| May 2009 | 26 | 5 |  |
| June 2009 | 127 | 5 |  |
| July 2009 |  |  |  |
| Aug. 2009 | 106 | 12 |  |
| Sept. 2009 |  |  |  |
| Oct. 2009 | 64 | 2 |  |
| Nov. 2009 | 427 | 19 |  |
| Dec. 2009 | 103 | 6 |  |
| Jan. 2010 |  |  |  |
| Feb. 2010 |  |  |  |
| March 2010 |  |  |  |

**13.F. Database management**

|  |  |  |
| --- | --- | --- |
| **S. No** | **Database target** | **Database created** |
| 1 | Library | Library Database+ Software completed. |

**13.G. Details on Rain Water Harvesting structure and micro-irrigation system**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Amount sanction (Rs.)** | **Expenditure (Rs.)** | **Details of infrastructure created / micro irrigation system etc.** | **Activities conducted** | | | | | **Quantity of water harvested in ‘000 litres** | **Area irrigated / utilization pattern** |
|  |  |  | **No. of Training programmes** | **No. of Demonstration s** | **No. of plant materials produced** | **Visit by farmers**  **(No.)** | **Visit by officials**  **(No.)** |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**PART XIV - FINANCIAL PERFORMANCE**

**14.A. Details of KVK Bank accounts**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Bank account** | **Name of the bank** | **Location** | **Branch Code** | **Account Name** | **Account Number** | **MICR Number** | **IFSC Number** |
| With Host Institute | SBI, ADB | Gokak |  | Executive Director BIRDS | 10818205756 | 591002307 | SBIN0000840 |
| With KVK | SBI, ADB | Gokak |  | Main KVK A/C | 1081820572 |
|  |  |  |  | FLD (Oilseeds pulses & Cotton) A/C | 10818205734 |
|  | SBI, ADB | Gokak |  | Revolving Fund A/C | 10818205745 |

**14.B. Utilization of funds under FLD on Oilseed *(Rs. in Lakh)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Released by ICAR** | | **Expenditure** | | **Balance as on 1st April 2010** |
| **Kharif**  **2009** | **Rabi**  **2009 -10** | **Kharif**  **2009** | **Rabi**  **2009 -10** |
| Inputs | - | - | 2,19,027 | 87,500 | -3,06,527 |
| Extension activities | - | - | 32,500 | 12,500 | -45,000 |
| TA/DA/POL etc. | - | - | 48,750 | 18,750 | -67,500 |
| **TOTAL** | **-** | **-** | **3,00,277** | **1,18,750** | **- 4,19,027** |

**14.C. Utilization of funds under FLD on Pulses *(Rs. in Lakh)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | **Released by ICAR** | | **Expenditure** | | **Balance as on 1st April 2010** |
| **Kharif**  **2009** | **Rabi**  **2009 -10** | **Kharif**  **2009** | **Rabi**  **2009 -10** |
| Inputs | - | - | 1,01,670 | 70,000 | -1,71,670 |
| Extension activities | - | - | 15,000 | 10,000 | - 25,000 |
| TA/DA/POL etc. | - | - | 22,500 | 15,000 | - 37,500 |
| **TOTAL** | **-** | **-** | **1,39,170** | **95,000** | **-2,34,170** |

**14.D. Utilization of funds under FLD on Cotton *(Rs. in Lakh)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | **Released by ICAR** | | **Expenditure** | | **Unspent balance as on 1st April 2010** |
| **Kharif**  **2009** | **Rabi**  **2009 -10** | **Kharif**  **2009** | **Rabi**  **2009 -10** |
| **1.Production Technology -75ha** |  |  |  |  |  |
| Inputs | 1,05,000 | - | 1,05,000 | - | - |
| TA/DA/POL etc. | 45,000 | - | 45,000 | - | - |
| **TOTAL** | **1,50,000** | - | **1,50,000** | - | - |
| **2.Integrated Pest Management** |  | - |  | - | - |
| 1. Inputs | 1,00,000 | - | 1,00,000 | - | - |
| b. Bio agents, bio pesticides | 76,000 | - | 76,000 | - | - |
| c. TA/DA/POL etc. | 14,000 | - | 14,000 | - | - |
| d. Post harvest management | 4,000 | - | 4,000 | - | - |
| e. Literature/Pamphlets | 6,000 | - | 6,000 | - | - |
| **TOTAL** | **2,00,000** | - | **2,00,000** | - | - |

**14.E. Utilization of KVK funds during the year 2009-10 (Rs. in lakh)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. no** | **Particulars** | **Sanctioned** | **Released** | **Expenditure** |
| **A. Recurring Contingencies** | | | | |
| 1 | **Pay & Allowances** | 37.00 | 37.00 | 35.29 |
| 2 | **Traveling allowances** | 1.00 | 1.00 | 1.00 |
| 3 | **Contingencies** | | | |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 2.00 | 2.00 | 2.00 |
| *B* | POL, repair of vehicles, tractor and equipments | 1.55 | 1.55 | 1.55 |
| *C* | Meals/refreshment for trainees (ceiling up to Rs.40/day/trainee be maintained) | 1.05 | 1.05 | 1.05 |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) | 0.65 | 0.65 | 0.65 |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 1.53 | 1.53 | 1.53 |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 1.17 | 1.17 | 1.17 |
| *G* | Training of extension functionaries | 0.10 | 0.10 | 0.10 |
| *H* | Maintenance of buildings | 0.30 | 0.30 | 0.30 |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory | 0.25 | 0.25 | 0.25 |
| *J* | Library | 0.10 | 0.10 | 0.10 |
| **TOTAL (A)** | | **47.00** | **47.00** | **45.29** |
| **B. Non-Recurring Contingencies** | | | | |
| 1 | **Equipments & furniture** | Nil | Nil | Nil |
| 2 | **Equipments including SWTL & Furniture** | Nil | Nil | Nil |
| 3 | **Vehicle** (Four wheeler- Mahindra Xylo) | 6.00 | 6.00 | 6.00 |
| 4 | **Library** (Purchase of assets like books & journals) | Nil | Nil | Nil |
| **TOTAL (B)** | | **6.00** | **6.00** | **6.00** |
| **C. REVOLVING FUND** | | Nil | Nil | Nil |
| **GRAND TOTAL (A+B+C)** | | **53.00** | **53.00** | **51.29** |

**14.F. Status of revolving fund (Rs. in lakh) for the three years**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Opening balance as on 1st April** | **Income during the year** | **Expenditure during the year** | **Net balance in hand as on 1st April of each year** |
| April 2007 to March 2008 | 2.68 | 70.53 | 63.07 | 10.14 |
| April 2008 to March 2009 | 10.14 | 73.40 | 79.54 | 4.00 |
| April 2009 to March 2010 | 4.00 | 20.49 | 20.25 | 4.24 |