ANNUAL PROGRESS REPORT

2017-18

Submitted to

Dr. Lakhan Singh
Director,
ICAR-ATARI, Zone-VIII, Pune.

Submitted by

Sr. Scientist & Head
KRISHI VIGYAN KENDRA, POKHARNI, NANDED

I N D E X

ICAR-ATARI, Pune
DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2017-18
(1st April 2017 to 31st March 2018)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra, Pokharni, Purna Road, Nanded (MS) Pin code-431 735	8975899504	--	kvk_nanded @yahoo.co.in	www.kvknanded.com, Hits- 11085 Visitors

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

Address	Telephone		E mail	Website address
	Office	FAX		
Jawaharlal Nehru Institute of Education, Science and Technological Research Trust, Nanded 1, HIG, Colony, Near ITI, Nanded (MS)	02462 - 253643	--	kvk_nanded@yahoo.co.in	www.kvknanded.com

1.3. Name of the Senior Scientist and Head with phone & mobile no.

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. Devikant Amrutrao Deshmukh	8975899504	9423140598	drdad1976@gmail.com

1.4. Year of sanction: 1993

1.5. Staff Position (as on March 31, 2018)

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate		Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Current Grade Pay		
1.	Senior Scientist and Head	Vacant					
2.	Subject Matter Specialist	Dr.Deshmukh D. A.	Horticulture	21220	5400	20/01/2009	Permanent
3.	Subject Matter Specialist	Mrs Nadre S. R.	Home Science	20440	5400	03/08/2010	Permanent
4.	Subject Matter Specialist	Mr. Kalyankar M. G.	Plant Protection	19690	5400	04/07/2011	Permanent
5.	Subject Matter Specialist	Mr. Jaybhaye S. H.	Agronomy	18240	5400	01/07/2013	Permanent
6.	Subject Matter Specialist	Dr. Ambore M. N.	Veterinary science	18240	5400	01/07/2013	Permanent
7.	Subject Matter Specialist	Dr.Deshmukh G. P.	Agricultural Extension	17550	5400	15/12/2014	Permanent
8.	Jr.Clerk	Ms. Hadoltikar P S	Clerk	9400	2000	02/06/2003	Permanent
9.	Computer Programmer	Mr. Wadile R. T.	Computer	11950	4200	06/07/2011	Permanent
10.	Farm Manager	Mr. Ingole R. R.	Farm manager	11010	4200	01/07/2013	Permanent
11.	Accountant/Superintendent	Mr. Bhalerao A. G.	Accountant	21090	4200	01/07/1995	Permanent
12.	Stenographer	Mr. Jadhav S. S.	Stenographer	7850	2400	01/08/2007	Permanent
13.	Driver	Mr. Wathore M. S.	Driver	10580	2000	06/05/1997	Permanent
14.	Supporting staff 1	Mr. Gaikwad S. S.	Peon	9150	1800	01/07/1995	Permanent
15.	Supporting staff 2	Mr. Konapure S. R.	Watchman	9150	1800	01/07/1995	Permanent
16.	Supporting staff 3	Mr. Kadam D R	Messenger	7100	1800	02/04/2009	Permanent

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	01
2.	Under Demonstration Units	01
3.	Under Crops	12
4.	Horticulture	10
5.	Pond	0.20
6.	Others if any	01

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	31.03.1999	2272.73	3614539/-	1998	--	Complete
2.	Farmers Hostel	ICAR	31.03.2005	308.02	2423000/-	2003	--	Complete
3.	Staff Quarters (6)	ICAR	-	380.14	3034000/-	2006	--	Complete
4.	Demonstration Units (2)	ICAR	31.03.1997	3060.45 Sq. ft	1242661/-	1996	--	Complete
5	Fencing	--	--	--	--	--	--	
6	Rain Water harvesting system	--	--	--	--	--	--	--
7	Threshing floor	--	--	--	--	--	--	--
8	Farm godown	--	--	--	--	--	--	--
9	ICT lab	--	--	--	--	--	--	--
10	Other	--	--	--	--	--	--	--

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor	2003	4,50,000/-	4970 hrs	Good
Motorcycle	1996	43,804/-	--	Scraped
Bolero Jeep	2006	5,61,000/-	263968 km	Good

C) Equipments& AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Zenith Camera	1995	4950	Good
Kodak Camera	1997	800	Good
Television	1996	14240	Good
Slide Projector and Overhead Projector	1996	31925	Good
Furniture	1995	64195	Good
Bench	2005	100000	Good
Typewriters	1995	22560	Good
Computer With printer etc	2000	54850	Good
Chairs	2000	22500	Good
Fans	2000	2440	Good
Soil and Water Testing Lab	2004	860000	Good
Fax Machine	2006	15000	Good
Mridaparikshak Mini Lab	2015	75000	Good

1.8. Details SAC meeting conducted in the year

Date	Name and Designation of Participants	Salient Recommendations	Action taken
--	--	--	--

2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	Agriculture + Horticulture.
2	Agriculture + Siliviculture.
3	Agriculture + Dairy.
4	Agriculture + Vegetables.
5	Horticulture. + Animal Husbandry. + Agriculture.
6	Agriculture + Animal Husbandry.

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

a) Soil type

Sl. No.	Agro-climatic Zone	Characteristics
1	Assured Rainfall Zone	--
2	Moderate to Moderately High Rainfall Zone (Central Maharashtra Plateau Zone)	--

b)Topography

S. No.	Agro ecological situation	Characteristics
1	Assured Rainfall Zone	--
2	Moderate to Moderately High Rainfall Zone (Central Maharashtra Plateau Zone)	--

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Shallow black Soil	Depth 15-20 cm	576.26
2	Medium deep black Soil	More calcium & carbonate percentage	101.12
3	Deep black	High soil moisture, holding capacity	394.65

2.4. Area, Production and Productivity of major crops cultivated in the district (2017-18)

S. No	Crop	Area (ha)(00')	Production (Qt/ha)	Productivity (Qt./ha)
1	Kharif Sorghum	614.98	3971.72	6.45
2	Green gram	283.51	838.45	2.95
3	Black gram	334.29	880.82	2.63
4	Red gram	634.36	5659.18	8.92
5	Soybean	3179.57	25417.48	7.99
6	Cotton	2697.79	14476.34	5.36
7	Rabi sorghum	293.25	3754.99	12.80
8	Wheat	186.87	2681.47	14.34
9	Bengal gram	1144.27	14265.61	12.46
10	Safflower	23.29	186.49	08
11	Maize	5.99	131.48	21.95
12	Sugarcane	00	00	00
13	Summer Groundnut	38.68	401.38	10.97
14	Sesamum	5.96	12.09	2.03

Source: District agriculture department.

2.5. Weather data (2017-18)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April 2017	0.1	43.05	24.4	37.6	22.1
May 2017	5.8	43.6	29.16	35.4	21.5
June 2017	167.7	38.33	26.11	54.3	27.4
July 2017	108.4	31.66	24.44	74.0	69.1
August 2017	233.2	31.11	24.4	67.9	27.7
September 2017	65.3	33.88	23.88	47.8	24.6
October 2017	59.0	33.33	21.38	70.4	40.4
November 2017	00	33.38	18.05	47.8	37.6
December 2017	00	31.11	15.83		
January 2018	00	32.77	15	78.4	75.9
February 2018	12.7	32.5	18.61	79.5	69.4
March 2018	5.1	32.5	18.88	74.3	39.5
Total	**657.3**	**417.22**	**260.14**	**667.4**	**455.2**

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

Category	Population	Production	Productivity
Cattle			
Crossbred	15287	161.372 lakh kg milk	3.51 kg/day/cow
Indigenous	635016	912.070 lakh kg	0.47 kg/day/cow
Buffalo	211721	1174.402 lakh kg	1.84 kg/day/buffalo
Sheep			
Crossbred	2510	--	--
Indigenous	38663	0.54 lakh kg wool	1.02 kg/wool/sheep
Goats	253302	89.54 lakh kg milk	0.002 kg/goat/day
Pigs	13004	--	--
Crossbred	1490	--	--
Indigenous	11514	--	--
Rabbits	553	--	--
Poultry			
Hens	361487	--	--
Desi	173000	213.06 lakh eggs	123 egg/bird/annum
Category		Production (Q.)	Productivity
Fish (Reservoir)			

2.7. Details of Operational area / Villages

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Hadgaon	Hadgoan	Manatha	Soybean, cotton, turmeric, Bengal gram, Agriculture, Horticulture, Animal Husbandry	Lack of knowledge, adoption of improved variety	Horticulture, Agriculture
Hadgaon	Hadgoan	Manatha	Cotton	- Sowing of Cotton in light soil &rainfed situation. - Management practices(wider spacing, Seed treatment, No proper gap filling, Protective irrigation at critical stages) - Imbalance nutrient management (Soil test Based Fertilizer application Inadequate & low Quality organic matter used) -Improper Pest, diseases management.	Method, quantity & time of fertilizer application. -Integrated Nutrient Management -Integrated pest & diseases management
Hadgaon	Hadgoan	Manatha	Soybean	Unawareness about New variety, - No use of good utility Seed - Imbalance nutrient management (No use of 2%foliar spray of Urea) - Improper Pest, diseases mag	New Varity - Integrated Nutrient Management -Proper Pest & Diseases management.
Hadgaon	Hadgoan	Manatha	Red gram/green gram/black gram	-Imbalance nutrient Management -Excess Urea Application Improper pest & disease management	Integrated Nutrient Management. -Foliar Application of 2% Urea - Integrated pest & Diseases management.
Hadgaon	Hadgoan	Manatha	Wheat	Low yield due to use of traditional crop varieties -Improper Sowing time -Imbalance nutrient management	Importance of New High Yielding Varieties. - Nutrient management.
Hadgaon	Hadgoan		Groundnut	- Unawareness about New Technology Secondary and micronutrient deficiencie	BBF or Polyethelin Mulching -Nutrient Management. -Proper Pest & Diseases management.

Mudkhed	Mudkhed	Rohi pimpalgaon tanda, Amdura, Vasantwadi (sansad adarsh gram)	Sugarcane, Banana, Soybean, cotton, turmeric, Agriculture, Horticulture, Animal Husbandry	Chlorosis content water, Adoption of micro irrigation	Animal Husbandry, Agriculture
Ardhapur	Ardhapur	Kamtha, Deloob, Shelgaon	Red gram, Green gram, Black gram, Soybean, Bengal gram	Lack of Knowledge on improved variety, Less awareness about seed treatment	Agriculture

2.8. Priority thrust areas:

Crop / Enterprise	**Thrust Area**
Cereals	
Maize	Integrated Nutrient Management, Weed Management, Crop Diversification
Sorghum	Integrated Nutrient Management , pest Management
wheat	Variety, Integrated Nutrient Management
Oilseed	
soybean	Variety, Integrated Nutrient Management, Integrated pest
Management Mechanization	Variety, INM, IPM, Improved technology (Use of polythene
Mulch & BBF)	Pulses
Greengram/Blackgram Variety, Integrated Nutrient Management, pest management	Pigeon pea Variety, Integrated Nutrient Management, pest management
Bengal gram Variety, Integrated Nutrient Management, pest management	Fiber crop
Cotton Integrated Nutrient Management, Integrated pest Management,	Mechanization.
Crop / Enterprise Thrust Area	Cereals
Maize Integrated Nutrient Management, Weed Management, Crop	Diversification
Sorghum Integrated Nutrient Management , pest Management	Wheat Variety, Integrated Nutrient Management
Oilseed	Soybean Variety, Integrated Nutrient Management, Integrated pest
Management Mechanization	Groundnut Variety, INM, IPM, Improved technology (Use of polythene
Mulch & BBF)	Pulses
Greengram/Blackgram Variety, Integrated Nutrient Management, pest management	Pigeon pea Variety, Integrated Nutrient Management, pest management

3. TECHNICAL ACHIEVEMENTS

3.1. 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
13	11	80	60	22	19	800	711

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
110	89	3000	2654	550	460	15000	12332

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
200	145.5	17500	16104

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
60	51	600	535

3.1. B. Operational areas details during 2017-18

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)
01	Cotton	Low productivity of cotton hybrids High cost of cultivation Dry spell at critical stages Inefficient water use.	100	Manatha, Niwgha, Niwgha(bz).	OFT.
02	Soybean	Low productivity of soybean under rainfed medium black	50	Vasantwadi, Pandharwadi, Bhosi, Kharbi	OFT, Training
		Pod Shattering problems			
03	Pigeon pea	Low productivity of pigeon pea	70	Dhanora, Sayal, Waghi, Dhoki	FLD, Training
04	Banana	Inadequate nutrition	100	Shemboli, Barad, Lahan, lone	OFT, FLD, Training
		Heavy attack of insect and pest			
		Supply of fertilizers less than recommended			
		Non availability of irrigation water during summer.			
		Less use of drip irrigation			
		Incidence of Sigatoga			
		High cost of inputs and high cost of production.			
05	Chilly Tomato	Unscientific raising of seedling	25	Vasantwadi, Chikala, Shankarwadi	FLD, Training
		Heavy pest & disease infestation			
		Imbalance Nutrient management.			
		Unscientific raising of seedling.			
		Heavy pest & disease infestation Imbalance Nutrient management			
06	Turmeric	Small Size of Rhizome, Long Duration of Variety, Less curcumin percentage , Less Dry recovery, Less Average yield (kg/ha).	70	Nageli, Dongargaon, Waghi, Dhoki, Sayal, Talni.	OFT, Training

3.2. Technology Assessment and Refinement

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
Integrated Nutrient Management				01						
Varietal Evaluation		01			01		01			
Integrated Pest Management										
Integrated Crop Management						01				
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology		01								
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total										

A2. Abstract on the number of technologies refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	Total
Integrated Nutrient Management										
Varietal Evaluation										
Integrated Pest Management										
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total										

A3. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Goatary	Fisheries	Total
Evaluation of Breeds						
Nutrition Management						
Disease of Management	01			01		02
Value Addition						
Production and Management						
Feed and Fodder						
Small Scale income generating enterprises						
TOTAL	01			01		02

A4. Abstract on the number of technologies refined in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	Total
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder						
Small Scale income generating enterprises						
TOTAL						

B. Achievements on technologies Assessed and Refined

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management	cotton	Assessment of effect of soil quality index (SQI)on productivity of cotton based cropping system under rain fed condition			
Varietal Evaluation	Tomato	Assessment of High yield F1 Triple disease resistant of Tomato Arka Rakshak	05	05	1 ha
Integrated Pest Management	Tomato	Assessment of Integrated Pest Management in Tomato with triple disease resistant cultivar Arka Rakshak	05	05	1 ha
Integrated Crop Management	Banana	Application of Panchagavya	10	10	2 ha
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

B.2. Technologies Refined under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

B.3. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management	Cattle	Integrated Control of Ticks & Fly in Cattle shed	05	05
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises	Goat	Use of Oxyclozanide dewormer & Mineral mixture in Goats.	05	05
Total			10	10

B.4. Technologies Refined under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total				

C1.Results of Technologies Assessed-
Discipline- Agronomy
Results of On Farm Trial - 1

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
soybean	rainfed	No use of improved variety its due to low productivity. 2) Yellow mosaic disease problem 3) Unbalanced fertilizer application.	Assessments of improved variety of soybean (MACS 1188) and KDS 344 with local variety to increase productivity	5	Local variety JS 335	1) No of pods / Plant	60 to 80	The result showed that the cultivation of varieties MACS 1188 and KDS 344 gave number of pods/plant 170 and 175 Respectively and Grain yield 22. 5qt/ha and 19.75 qt /ha respectively with BC ratio of 2. 61 and 2.29 respectively as against farmers variety of JS 335 with number of pods/plant – 60 to80 and Grain yield of 14.8 qt/ha with BC ratio of 1.82	1) Bold seeded variety. 2) Number of branches and number of pods per plant is more seed yield is obtaining as compare to local. 4) One life saving irrigation is required. 5) Less infestation of pest and diseases. 6)No pod shuttering	--	--
						2) No of grain/pod.	2 to 3				
					Assessment of improved variety MACS-1188 and KDS-344	2) No of pods / Plant	170 and 175				
						3)No of grain/pod	3 to 4				

cott on	irrigat ed	). In rain fed farming areas, farmers use fertilizers without any recommen dations resulting in poor crop yield.	Assess ment of Effect of soil quality index (SQI) on product ivity of cotton based croppin g system under rain fed conditi on	05	use of chemical fertilizer only.	Number of branches.	8-10	Use of FYM 5 ton/ha + Bio-fertilizers + RDF as per ST applied all nutrients resulted in increase number of branches, plant, Boll weight of cotton, yield against the farmers practice	As per soil test based fertilizer applicatio n reduced the fertilizer cost and dose	--	--
						Boll weight of cotton	4-5				
						Yield of cotton					
						B:C ratio					
					Assessm ent of Soil test based use of recomme nded dose of fertilizer organic manure, biofertiliz er along with micronutri ent. (FYM 5 t/ha + Bio-fertilizers + STBF & micronutri ents.	values of soil organic carbon at rhizosphere	N-L/M P-L K-Mod				
						Number of Branches	14-17				
						Boll weight of cotton	5-7				

soybean	rainfed	1. Irregular behaviour of rainfall. 2.Less moisture at important critical growth stages 3. Intensity - 25% reduction in yield due to moisture stress at growth stage.	Assessment of Moisture conservation in Soybean under medium black Cotton soil.		Assessment of Soil moisture conservation by opening furrow						

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Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	Use local variety Js 335	14.8	Qt/ha	20100	1.82
Technology option 2	MACS 1188	22. 5	Qt/ha	41700	2. 61
Technology option 3	KDS 344	19.75	Qt/ha	33450	2.29

C1.Results of Technologies Assessed-
Discipline- Plant Protection
Results of On Farm Trial - 1

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Tomato	Irrigated	Particularly the pest and disease like white fly, Thrips, leaf curl etc. near about 65% yield losses were found due to only leaf curl virus disease.	Assessment of Integrated Pest Management in Tomato with triple disease resistant cultivar Arka Rakshak	05	IPM Technology with Triple disease resistant F1 hybrid variety Arka Rakashak	1)% incidence of diseases	4.8 to 15.5	The average % of incidence of disease recorded in the recommended practice is 4.8 to 15.5 % and it was 12 to 47% in farmers practice. The average % incidence of insect pest is 2.7 to 16.5%. and it was observed 7 to 36% in farmers practice.	The Arkarakshak Variety of Tomato resistant to leaf curl virus disease, early blight and bacterial wilt is suitable with IPM technology for reducing the cost of plant protection.	--	--
						2) % incidence of pest	2.7 to 16.5				

Contd...

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	Spraying of chemical insecticides and fungicides	54000	Kg/ha	340000	1:2.70
Technology option 2	IPM technology	61500	Kg/ha	470000	1:4.35

Discipline- Plant Protection
Results of On Farm Trial - 2

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Sericulture	Irrigated	Poor Quality & Low Cocoon Yield	Effect of growth hormone On cocoon yield and quality	05	Regular feeding of Mulberry leaves with Spray of Spray of Sammridhi or Serimore@ 5ml Ampul/50 DFL	1.Cocoon (gm)	0.38	16.55% Cocoon yield increased over local check	--	--	--
						2.Yield (kg / 100 DFL)	84.50				

Contd..

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	-	72.50	kg	20925	2.78
Technology option 2	Central Silk Research and Training Institute, Mysore	84.50	kg	26125	3.19

Discipline- Home science
Results of On Farm Trial - 1

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Bengal gram	Irrigated	Dust & Pollution in Threshing. 1) Low work efficiency. 2) More drudgery prone.	To access the suitability of Noise and dust controlling mask in threshing operation	10	Use of Noise and dust controlling mask	1) Heart rate energy expenditure	105 (b.m) 7.97				
						2) Working efficiency	46%				
						3) Health Problem	40%				

Contd...

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	VNMKV Parbhani	Rs.150 per day	--	Rs.150/-	
Technology option 2	Noise & Dust controller	Rs.300 per day	--	Rs.300/-	1.2

Discipline- Home science
Results of On Farm Trial - 2

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Vegetable	Irrigated	Spoilage of vegetable less price due to lack storage, Lack of knowledge regarding scientific storage	Assessment of Zero energy chambers for vegetable storage	05	Zero energy chambers for vegetable storage	1)Temperature	23			--	--
						2) Humidity	82				
						3) Weight losses	10 to 12 %				

Contd...

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	--	Rs.200/-	--	Rs.200/-	
Technology option 2	PDKV Akola	Rs.1000/-	--	Rs.1000/-	1.2

Discipline- Home science
Results of On Farm Trial - 3

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Watertrolly	--	1) Pain in hand fingers shoulder, Knees, Low work capacity. 2) More time & energy consumption fatigues	Assessment the suitability of water trolly	05	Water trolly	1)Energy expenditure	8.17	The average % of energy expenditure recorded in recommended practices 8.77 & it was reduction in 90.15 % in energy expenditure farmer practice 40 liter water in 15 minute. Recommender practice is 80 liters water coming in 15 minute.	--	--	--
						2) Distance covered	10 meter				
						3) Output	80 liter water				

Contd...

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	--	40 liter water	--	--	
Technology option 2	--	80 liter water	--	--	1.2

Discipline- Veterinary science
Results of On Farm Trial - 1

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Cattle	--	Ectoparasites like ticks & fly are very common and due to that the production in Milking animals were affected	Integrated Control of Ticks & Fly Cattle Shed	05	Spraying of neem oil 30 ml, Karanj oil 15 ml and 20 gm soap solution / liter with Knap sack sprayer @ 30 ml/m^2 area	1) Milk production 2) % of disease occurrence	T1- Spraying of 1% Cypermethrin and Amitraz.	1.5 lit/ days increasing	--	--	--

Contd...

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	--	3 liter/ day / animal	Lit/animal	3000/- per unit	
Technology option 2	MAFSU, Nagpur	4.5 lit/day/animal	Lit/animal	4890/- per unit	
Technology option 3					

Results of On Farm Trial - 2

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Goat	Rain fed area	In rainy season from last two years snails area found in large which area carriers of liver fluke worms in Goats. Due to lack of minerals and vitamins reproductive disorders are more periparturant and after parturition.	Use of Oxyclozanide dewormer & Mineral mixture in Goats.	05	T2- Oxyclozanide & Levamisol combination suspension was drenched according to the body weight and age of Goats before rainy season i.e in last week of May.	1) Conception rate. 2) Mortality %	1) Conception rate in %- 76% 2) Conception rate in %- 84%	1) Yield mortality- 10.43 %. 2) Yield mortality- 2%	--	--	--

Contd..

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	--	3 liter/ day / animal	Lit/animal	3000/- per unit	
Technology option 2	MAFSU, Nagpur	4.5 lit/day/animal	Lit/animal	4890/- per unit	

C1.Results of Technologies Assessed- Discipline- Horticulture
Results of On Farm Trial - 1

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 needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Banana	Irrigated	Panchagavya an organic product has the potential to play the role of promoting growth and providing immunity in plant system	Assessment of application of Panchagavya (an organic product) in Banana	05	Application of Panchagavya (an organic product) in Banana	1) % of Sucking pest attack on bunch.	10%	In addition to adding with irrigation water (50 lit/ha) and spraying , 3% solution (100 ml) was tied up at Naval end of bunch, after the male bud is removed due to this application bunch size all banana plots becomes uniform and size of top and bottom hands. Beside this in some plots one month early harvest was witnessed.	Farmers were greatly influenced by this technology of Panchagavya application in Banana. Because all the ingredients used for this preparation were available on farmers field and locally beside this cost of assessment is very low as compared to other Bio-products available in market.	--	--
						2) Size of bunch.	Medium				
						3) Weight of bunch.	22.5				
						4) Duration of crop.	270 days				
						5) Overall health of crop/ look.	Healthy				

Contd..

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)	--	12.5 tones per unit	t/ha	139575/-	2.21
Technology option 2	TNAU Combatore	19.60 tones per unit	t/ha	236475/-	1.53

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

Discipline:- Agronomy- OFT-1:-

1. Title: Assessments of improved variety of soybean (MACS 1188) and KDS 344 with local variety to increase productivity.
2. Problem diagnose/defined: 1) Higher cost of cultivation & No use of improved variety its due to low productivity.
   2) Yellow mosaic disease problem.
   3) Unbalanced fertilizer application.
3. Details of technologies selected for assessment/refinement :
   T1: Farmers practice –JS-335 (low yield susceptible to mosaic pod shattering)
   T2: Improved varieties- MACS-1188 and KDS-344 (High yielding, and resistant to mosaic, pod borer)
4. Source of technology : ARI Pune and MPKV Rahuri.
5. Production system: Soybean/cotton/Sorghum- Bengal gram.
6. Thematic area : Varietal evaluation.
7. Performance of the Technology with performance indicators: The result showed that the cultivation of varieties MACS 1188 and KDS 344 gave number of pods/plant 170 and 175 respectively and Grain yield 22. 5qt/ha and 19.75 qt /ha respectively with BC ratio of 2. 61 and 2.29 respectively as against farmer's variety of JS 335 with number of pods/plant – 60 to 80 and Grain yield of 14.8 qt/ha with BC ratio of 1.82.
8. Final recommendation for micro level situation: The variety of KDS 344 less pod per plant was more but seed size and grain weight is less as compare to variety of soybean MACS 118.
9. Constraints identified and feedback for research: both the variety of soybean MACS 1188 and KDS 344 yield potentially was more but
10. Process of farmers participation and their reaction: Assessment has been taken as per problem diagnosed, after that village-wise meeting was conducted for selection of farmers. After selecting farmers, training has been given and made aware about complete procedure for assessment. Regular visit of farmers were arranged and necessary suggestions were given to farmers.

Technology Assessed	Source of Technology	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	18
Technology option 1 (Farmer's practice)		12.2	Qt/ha	27490	1.77
Technology option 2		17.4	Qt/ha	50410	2. 28

Discipline:- Agronomy- OFT-2:-

1. Title: Effect of soil quality index (SQI) on productivity of cotton based cropping system under rainfed condition Village: At. manatha, Tq. hadgaon

2) Problem diagnose/defined: Without application of FYM, bio-fertilizers & other composting martial, cotton under rainfed condition gives low yield. The cultivation is mainly on shallow and light soils.

3) Details of technologies selected for assessment/refinement:

T 1 – Farmers practice: Farmers practice use of chemical fertilizer

T 2 – Recommended practice: FYM 5 ton/ha + Bio-fertilizers + RDF based on ST+ RDF of micronutrients.

4) Source of technology: CICR Nagpur/ VNMKV Parbhani.

5) Production system/thematic area: Cotton based cropping system.

6) Thematic area: ICM

7) Performance of the Technology with performance indicators: The result indicated that use of FYM 5 ton/ha + Bio-fertilizers + RDF based on ST+ RDF of micronutrients resulted in increase number of branches – 14-17/plant, Boll weight of cotton – 5-7 gm, Yield – 17.4 qt/ha with B:C ratio of 2.28 against the farmers practice use of chemical fertilizer having number of branches – 8 10/plant, Boll weight of cotton – 4-5 gm, Yield – 12.2 qt/ha with B:C ratio of 1.77.

8) Final recommendation for micro level situation:

9) Constraints identified and feedback for research: Heavy attack of pink bollworm at after 3rd picking its due to reduction yield.

10) Process of farmers participation and their reaction: Selection of villages – Selection of farmers– Selection of fields – Soil testing – Experimental layout in farmer's field as per the treatments –Input collection – Sowing – Field visits - Data collection on various yield attributes – observation on various parameters – yield data collection

Technology Option	**No. of trials**	**Yield (Q/ha)**	**Net Returns (Rs. in lakh./ha)**	**B:C ratio**	**Data on Other performance indicators**
Farmers Practice: No opening furrow.	05	14.2	18300	1.75	Number of plant Height-80-85 cm. No. of branches-58 .87 No. of pod – -85.. No. of root nodule – 18-22. Moisture% - 10% Yield q/ha- 14.2
Technology 1:- Opening furrow after 4th row.		19.4	32900	2.30	Number of plant Height-80-90 cm. No. of branches-7 No. of pod – 90-100. No. of root nodule – 30-32. Moisture% - 25-30% Yield q/ha- 19.4

Discipline:- Agronomy- OFT-3:-

1.Title: Assessment of Moisture conservation in Soybean under medium black Cotton soil.
Village: At. manatha, Tq. hadgaon

2. Problem diagnose/defined: 1) Irregular behaviour of rainfall. 2) Less moisture at important critical growth stages.
3) Intensity - 25% reduction in yield due to moisture stress at growth stage.

3. Details of technologies selected for assessment/refinement:

T 1 – Farmers practice: Farmers practice no opening furrow.

T 2 – Recommended practice: opening furrow after four row.

4. Source of technology: VNMKV Parbhani

5. Production system/thematic area: moisture soybean Bengal gram

6. Thematic area :moisture conservation technology

7. Performance of the Technology with performance indicators: Result indicate that the opening of furrow after 4th row in soybean crop stand are very good and increase the plant height- 80-90 cm, number of pods / plant – 90-100, number of branches – 7., number of root nodules- 30.-32, Moisture and seed yield- 19.4 qtl/ha with B:C ratio of 2.30 was recorded under one long dry spell situation in August month. 25-30% soil moisture conservation was recorded by the opening furrow after 4th row as compare to no opening furrow. The conserve moisture are increase the plant height root growth and sustain the growth of plant without any reduction at the time of dry spell situation

8) Final recommendation for micro level situation:

9) Constraints identified and feedback for research: .

10) Process of farmers participation and their reaction: Selection of villages – Selection of farmers– Selection of fields – Soil testing – Experimental layout in farmer's field as per the treatments –Input collection – Sowing – Field visits - Data collection on various yield attributes – observation on various parameters – yield data collection.

Discipline:- Plant Protection- OFT-1:-

1 Title of Technology Assessed: - Assessment of Integrated Pest Management in Tomato with triple disease resistant cultivar Arka Rakshak.

2 Problem Definition:- Tomato is one of the major vegetable crops cultivated in Nanded district. The farmers have face different problems in cultivating this crop. Particularly the pest and disease like white fly, Thrips, leaf curl etc. near about 65% yield losses were found due to only leaf curl virus disease. The farmers use only chemical pesticides for managing there problem. It leads the increase in cost of cultivation as well as increasing pesticide pollution which leads hazardous for human health.

3 Details of technologies selected for assessment: Nursery.

- Sowing of seeds in Pro tray.
- Mixing of Trichoderma in trays.
- Growing of leaf curl, Bacterial wilt and early blight resistant hybrid Arka Rakshak.
- Covering nursery insect proof nylon net.

Main field:-

- Drenching with streptocycline.
- Sowing of maize and cow pea crop as barrier crop at border of the main field, 20-25 days before transplanting of tomato seedlings.
- Poly mulching with drip irrigation for early blight and sucking pest.
- Need based spray of Imidaclorpride 17.5 SL@0.4 ml/lit for white fly/thrips.
- Installation of Pheromons traps @5 / ha each for monitoring H. armigora (Fruit borer) and Tuta absulata (Leaf minor).
- Installation of yellow and Blue sticky traps @15/ha each.
- Regular collection and destruction of borer damaged fruit.
- Need based spray of pesticides like Rynaxypyr 20 EC.
- Pophylactic spray of Mancozeb@2.5 g/lit for early and late blight followed by need based application of systematic Propiconazole/ Hexaconarole for early blight and Metalyxyl based fungicides like Ridomil gold (Metalyxyl 80% + Mancozeb 64%), Cymoxanil based fungicide like curret (Cymoxanil 8% + Mancozeb 64%) for late blight.
- Rouging/ Uprooting of leaf curl affected plants.

4 Source of technology :- IIHR, Bangalore.

5 Production system and thematic area:- Integrated Pest and Disease Management

6 Performance of the Technology with performance indicators:-

Technology Option	No.of trials	Yield (t/ha)	Net Returns (Rs. in lakh./ha)	B:C ratio	Data on Other performance indicators	
					Parameter	Data on parameter
Farmers Practice: Spraying of chemical insecticides and fungicides	05	54 t/ha	340000	1:2.70	Avg.% incidence of diseases	12 to 47%
					Avg.% incidence of pest	7 to 36%
Technology assessed: IPM technology		61.5 t/ha	470000	1:4.35	Avg.% incidence of diseases	4.8 to 15.5
					Avg.% incidence of pest	2.7 to 16.5%.

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

8 Final recommendation for micro level situation:-

9 Constraints identified and feedback for research

10 Process of farmers participation and their reaction:-

Discipline:- Plant Protection- OFT-2:-

1 Title of Technology Assessed: - Effect of growth hormone On cocoon yield and quality.

2 Problem Definition:- Poor Quality & Low Cocoon Yield.

3 Details of technologies selected for assessment:

T1 :- Farmers practice : Regular feeding of Mulberry leaves.

T2:- Technology Assessed: Regular feeding of Mulberry leaves with Spray of Sammridhi on silkworm @ 5ml Ampul/50 DFL.

4 Source of technology :- Central Silk Research and Training Institute, Mysore

5 Production system and thematic area:- Spray of growth Harmone on silkworm to enhance feeding of mulberry leaves.

6 Performance of the Technology with performance indicators:-

Technology Option	No. of trials	Yield (kg/ha/crop)	Net Returns (Rs. in lakh./ha/Crop)	B:C	Data on Other performance indicators	
					Parameter	Data on parameter
Farmers Practice: Regular feeding of Mulberry leaves	05	181.25	81562.5	2.78	1.Cocoon wt (g)	0.38
					2.Yield (kg / 100 DFL)	72.50
Technology assessed: Regular feeding of Mulberry leaves with Spray of Sammridhi or Serimore@ 5ml Ampul/50 DFL		211.25	95062.5	3.19	1.Cocoon wt (g)	0.32
					2.Yield (kg/ 100 DFL)	84.50

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

8 Final recommendation for micro level situation:-

9 Constraints identified and feedback for research

10 Process of farmers participation and their reaction:-

Discipline:- Horticulture - OFT-1:-

1 Title of Technology Assessed: - Assessment of Application of Panchagavya (an organic product) in Banana.

2 Problem Definition:- Panchagavya an organic product has the potential to play the role of promoting growth and providing immunity in plant system.

3 Details of technologies selected for assessment: Application of Panchagavya (an organic product) in Banana.

4 Source of technology: - TNAU Coimbatore.

5 Production system and thematic area:- Bunch quality improvement.

6 Performance of the Technology with performance indicators:-

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

8 Final recommendation for micro level situation:- The oxydozanide suspension & mineral mixture used get better results so combination of this improves Herd Health.

The deworming medicine in last week of April to 1st week of may drenched to Goats & mineral mixture should be given in breeding season & last trimester of pregnancy.

9 Constraints identified and feedback for research

10 Process of farmers participation and their reaction:-.

Discipline: - Home Science - OFT-1:-

1. Title of Technology Assessed: - To Assess the suitability of Noise and dust controlling Mask in threshing operation.

2. Problem Definition: - Dust and noise pollution in threshing
   - Low work efficiency.
   - More drudgery prone .Fatigues.

3. Details of technologies selected for assessment: - T1 – Farm women practice.
   T2 – Use of Noise and dust controlling mask.

4 Source of technology: - VNMKV Parbhani.
5 Production system and thematic area: Drudgery prone activity
6 Performance of the Technology with performance indicators: To reduction of Drudgery
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

No. of Beneficiaries	Performance Parameters/Indicator	Data of parameter in relation of technology demonstrated		Change in parameter
		Before	After	
10	Heart rate(b.m-1)	110	105	05(b.m-1)
	Energy	8.77	7.97	0.8
	Working efficiency	12bandals	21 bandals	48%
	Health problems	80	40	50%

8. Final recommendation for micro level situation
9. Constraints identified and feedback for research: - It is very useful to rural women for Drudgery reduction &health hazards.

10. Process of farmers participation and their reaction: - One of the most exciting things is that men also prefer to use it as a tool for easy transportation of water.

Discipline: - Home Science - OFT-2:-

Title of Technology Assessed:- Assessment of Zero energy chambers for vegetables storage

2 Problem Definition: - Spoilage of vegetable
- Less price due to lack of storage
- Lack of knowledge regarding scientific storage

3 Details of technologies selected for assessment:- T1:- Farmer practices.
T2:- Use of Zero energy chambers for vegetables and fruits storage.

4 Source of technology:- PDKV Akola.

5 Production system and thematic area:-

6 Performance of the Technology with performance indicators:-

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

No. of Beneficiaries	Performance Parameters/Indicator	Data of parameter in relation of technology demonstrated		Change in parameter
		Before	After	
5	Temperature c Humidity%	34C 28%	23C 82%	67%
	Physiological weight losses	88%	20%	22.72%
	Physical characteristics Colour ,Texture ,Aroma , Overall freshness	98%	22%	22.44

8. Final recommendation for micro level situation: It is very useful for vegetable storage in rural area.

9. Constraints identified and feedback for research: It is low cost technology drop down the temperature &increase the humidity suitable for vegetable storage

10. Process of farmers' participation and their reaction: Farm women were greatly influenced by demonstration of Zero energy chamber and reduction of physiological weight losses of vegetables Low cost cooling system for storage of vegetable

Discipline:- Home Science- OFT-3:-

1. Title of Technology Assessed - To assess the suitability of water trolley for fetching water.
2. Problem Definition:
   - Pain in hand fingers shoulder knees.
   - Low work efficiency,More time and energy consumption Fatigues.
3. Details of technologies selected for assessment:-
   T1 .Farm women practices
   T2 Use of water trolley for fetching water.
4. Source of technology: - ANGRAU, Hyderabad.
5. Production system and thematic area: - suitability of water trolley for fetching water.
6. Performance of the Technology with performance indicators:-Reduction the drudgery
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques.

No. of Beneficiaries	Performance Parameters/Indicator	Data of parameter in relation of technology demonstrated		Change in parameter In times
		Before	After	
10	No. of trips	80	40	50%
	Time	2 hour	1 hour	50%
	Health Problem	98%	40%	40.81%
	Distance travel	20meter	10meter	

8. Final recommendation for micro level situation: - it is very useful for carrying water.
9. Constraints identified and feedback for research: - It is very useful to rural women for drudgery reduction.
10. Process of farmers' participation and their reaction: - One of the most exciting things is that men also prefer to use it as a tool for easy transportation of water.

Discipline:- Veterinary Science- OFT-1:-

1 Title of Technology Assessed: - Use of Oxyclozanide dewormer & Mineral mixture in Goats..

2 Problem Definition:- In rainy season from last two years snails area found in large which area carriers of liver fluke worms in Goats. Due to lack of minerals and vitamins reproductive disorders are more periparturant and after parturition..

3 Details of technologies selected for assessment:

T1:- Farmers practice spraying of 1% Cypermethrin and Amitraz.

T2:- Spraying of neem oil 30 ml, Karanj oil 15 ml and 20 gm soap solution / liter with Knap sack sprayer @ 30 ml/m^2 area.

4 Source of technology: - MAFSU, Nagpur.

5 Production system and thematic area:- Disease management.

6 Performance of the Technology with performance indicators:- Milk Prodcution increased by 1.5 lit/day. Incidence of disease occurrence is very low.

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

8 Final recommendation for micro level situation:- The spray of 30 ml neem oil + 15 ml Karanj oil + 10 ml soap solution used at an interval of 15 days in rainy season.

9 Constraints identified and feedback for research:-

10 Process of farmers participation and their reaction:- Butox i.e. Cypermethrin in very risky to use in Cattle shed if by mistake animal lies the chemical spray of neem oil and Karanj oil had no chances of poisoning as it was Herbal also the physical method that the eggs were burned by flame & scrubbing and burning in fire.

Discipline:- Veterinary Science- OFT-2:-

1 Title of Technology Assessed: - Integrated Control of Ticks & Fly Cattle Shed.

2 Problem Definition:- In the area the ectoparasites like ticks & fly are very common and due to that the production in Milking animals were affected i.e Decreased milk production, occurrence of disease i.e. vector born. Also the ticks and flies are resistant to 1% Cypermethrin and Amitraz.

3 Details of technologies selected for assessment:

T1 :- Farmers were not use the dewormer & mineral mixture but some were used Albendazole.

T2:- Oxyclozanide & Levamisol combination suspension was drenched according to the body weight and age of Goats before rainy season i.e in last week of May. Goats which were pregnant among this were fed with mineral mixture for 1 month in last trimester of pregnancy and 15 days after parturition.

4 Source of technology :- WBUAFS, Kolkatta.

5 Production system and thematic area:- Disease and Health management.

6 Performance of the Technology with performance indicators:- 75% Goats were conceive. Health status was good, lustrous skin, kids birth weight is 1 prox 2.4 kg, Conception rate is good.

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

8 Final recommendation for micro level situation:- The oxydozanide suspension & mineral mixture used get better results so combination of this improves Herd Health.The deworming medicine in last week of April to 1st week of may drenched to Goats & mineral mixture should be given in breeding season & last trimester of pregnancy.

9 Constraints identified and feedback for research

10 Process of farmers participation and their reaction:-.

3.3. FRONTLINE DEMONSTRATION

Discipline – Agronomy:-

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

List of technologies demonstrated during previous year and popularized during 2016-17 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Red gram+ Green gram	ICM	To demonstrate the intercropping of Red gram + Green gram (1:3)	FLD, Field day, Training programme, Publication.	4	98	10
2	Soybean	ICM	To show the yield potential performance of Soybean variety DS-228 & MAUS-162 as compare to local check JS-335	FLD, Field day, Training programme, Publication.	3	38	10

B. Details of FLDs implemented during 2017-18 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	sorghum	Varietal trail		Rabi 2017	04	04	03	07	10	
2	Grenn gram	ICM		Kharif 2017	10	10	10	15	25	
3	Black gram	ICM		Kharif 2017	10	10	7	13	20	
4	Red gram	ICM		Kharif 2017	10	10	10	15	25	

5	soybean	ICM		Kharif 2017	30	30	20	55	75	
6	Bengal gram	ICM		Rabi 2017	20	20	15	35	50	
7	Ground nut	ICM		Summer 2018	20	20	15	35	50	
8	seaseme	ICM		Summer 2018	10	8	7	12	19	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
sorghum	Rabi 2017-18	irrigated	Medium black	Low	Low	High	soybean	2nd week of nov 2017	Last week of march 2018	657.3	59
Green gram	Kharif 2017	rainfed	Medium black	Low	Low	High	Bengal gram	2nd week of june 2017	Last week of Aug 2017	657.3	59
Black gram	Kharif 2017	rainfed	Medium black	Low	Low	High	Bengal gram	2nd week of june 2017	3 rd week of sep 2017	657.3	59
Red gram	Kharif 2017	rainfed	Medium black	medium	Low	High	cotton	2nd week of june 2017	Last week of jan 2018	657.3	59
soybean	Kharif 2017	rainfed	Medium black	Low	medium	High	Bengal gram	2nd week of june 2017	Last week of oct 2017	657.3	59
Bengal gram	Rabi 2017	Irrigated	Medium black	Low	Low	High	sorghum	2nd week of nov 2017	Last week of feb 2018	657.3	59
Ground nut	Summer 2018	Irrigated	Medium black	Low	medium	High	soybean	3 rd week of jan 2018		657.3	59
sesamum	Summer 2018	Irrigated	Medium black	Low	medium	High	soybean	1st week of feb 2018		657.3	59

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1) Sorghum	1.Sorghum variety of parbhani moti is dual purpose variety it is obtained more seed yield and good quality fodder 2. it is suitable for rainfed situation
2) Green gram / black gram	1.The thrives best in rainfed areas 2.Little tolerance to wilt and PM
3) Red gram	White colour variety Less flower drop was observed Shattering was less Wilt tolerant It's come to one time harvesting It is early duration variety of BDN-711 It is suitable for dry land situation
4) Soybean	Soybean variety of MAUS-162 is better for mechanical harvesting it is obtain good results number of pod per plant is higher and bold grain size by the application of soil test base fertilizer with seed treatment
5) Bengal gram	It is suitable for rainfed as well as irrigated condition it is obtained more yield as compare to locl check

Farmers' reactions on specific technologies

S. No	Feed Back
1) Sorghum	Sorghum variety of parbhani moti is shiney grain colour and white color variety and keeping quality of fodder is very good and it is best for animal feeding.
2) Green gram/black gram	Less infestion of powdery mildew, Green gram variety bold seeded variety shiny color seed
3) Red gram	Preferred due to its white colour More number of branching Less duration
4) Soybean	The variety is suitable for mechanical harvesting Shattering percentage is less Application of sulphur & zinc was profitable for grain size & colour Number of pod per plant was more as compare to JS-335.
5) Bengal gram	Its bold seed variety and high no of pod per plant

Discipline – Horticulture-

A. Follow-up for results of FLDs implemented during previous years
List of technologies demonstrated during previous year and popularized during 2016-17 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Banana	Integrated Crop management	Use of skirting bag for improving bunch quality in Banana	This FLD had been conducted at village pandharwadi, Tq. Mudkhed with the following objectives. 1) To Reduce attack of sucking pest on bunch. 2) To improve bunch quality. 3) To increase bunch weight.	07	35	01
2	Tomato	Introduction of Triple Disease resistant F1	Demosntration of New Tomato F1 Hybrid	1) Field visit. 2) Trial.	08	55	4.5

B. Details of FLDs implemented during 2017-18 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Banana	Integrated Crop manageme nt	Use of skirting bag for improving bunch quality in Banana	June 2017	01	01	15	20	35	--
2	Tomato	Irrigation Balanced system	New Varietal Demonstration	Kharif 2017	05	4.5	20	35	55	--

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Banana	Kharif 2017	Irrigated	Medium Black	High	Medium	High	Summer Groundnut	27th June 2017	10th April 2018	657.3	59
Tomato	Kharif 2017	Irrigated	Medium Black	High	Medium	High	Wheat	20th June 2017	February 2018	657.3	59

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	This F1 fruit size is oval in shape and cannot tolerate high temperature above 42 ºC. Hence, there some limitations to this F1. Mostly consumers Marathwada region prefers round shape fruit instead of oval sided fruit.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Farmers were highly satisfied with this introduction, because this F1 fetch better price in market and it is triple disease resistant and cost is less as compare to private popular F1 available in the market.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	01	Feb 2018	55	--
2	Farmers Training	01	July 2017	102	
3	Media coverage	02			
4	Training for extension functionaries				

Discipline – Plant Protection:-

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

List of technologies demonstrated during previous year and popularized during 2016-17 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Pigeon pea	IPM	Demonstration IPM technology	1) Organize demonstration on 10 farmer's field. 2) Conduct trainings, FFS in FLD plot. 3) Organize a frequent field visit to FLD plot.	08	50	25
2	Bengal gram	IPM	Demonstration of IPM technology	1) Organize demonstration on 10 farmer's field. 2) Conduct trainings, FFS in FLD plot. 3) Organize a frequent field visit to FLD plot.	08	50	25
3	Soybean	IPM	Demonstration of IPM and IDM technology	1) Organize demonstration on 10 farmer's field. 2) Conduct trainings, FFS in FLD plot. 3) Organize a frequent field visit to FLD plot.	10	100	50
4	Cotton	IPM	Demonstration of Yellow sticky traps and spraying of Azadiractin 300 ppm, Acetamiprid 20 sp, Triazophos.	1) Organize demonstration on 10 farmer's field. 2) Conduct trainings, FFS in FLD plot. 3) Organize a frequent field visit to FLD plot.	04	25	10
5	Chili	IPM	Demonstration of IPM technology	1) Organize demonstration on 5 farmer's field. 2) Conduct training. 3) Organize frequent field visits.	01	02	01
6	Turmeric	IPM & IDM	Demonstration of Rhizome seed treatment with Redomil Gold Metalaxyl-M8% + Mancozeb 64% & Quinalphos 26 EC.	1) Organize demonstration on 5 farmer's field. 2) Conduct training. 3) Organize frequent field visits.	05	35	25

B. Details of FLDs implemented during 2017-18 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Pigeon pea	IPM	IPM	Kharif 2017	10	10	04	06	10	
2	Bengal gram	IPM	IPM	Rabi 2017	10	10	02	08	10	
3	Soybean	IPM	IPM	Kharif 2017	10	10	05	05	10	
4	Cotton	IPM	IPM	Kharif 2017	10	10	03	07	10	
5	Chilli	IPDM	IPM & IDM	Summer 2018	05	00	--	-	-	Due to drought condition no cultivation by the farmers
6	Turmeric	IPDM	IPM & IDM	Kharif 2017	05	05	02	03	05	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Pigeon pea	Kharif 2017	Rainfed	Medium to heavy	Medium	Low	High	Bengal gram	24 June to 30June 2017	1st week of Jan 2018 to 3rd week	657.3	59
Bengal gram	Rabi 2017	Rainfed	Medium to heavy	Medium	Low	High	Soybean/ Jawar	10 Nov to 20 Nov 2017	14 Feb 2018to 22 Feb 2018	657.3	59
Soybean	Kharif 2017	Rainfed	Medium to heavy	Medium	Low	High	Cotton/Rabi Jawar	24June to 30 2017	25 oct. 2017to 5 nov. 2017	657.3	59
Cotton	Kharif 2017	Rainfed	Medium to heavy	Medium	Low	High	Bengal gram/Rabi Jawar	22 June to 26 June 2017	Mid Nov.2017 to last week of Jan 2018	657.3	59
Chilli	Summer 2018	-	-	-	-	-	-	-	-	--	--
Turmeric	Kharif 2017	Irrigated	Medium to heavy	Medium	Low	High	Cotton/ Bengal gram	15 June to 22 June 2017	10 March to 20 March 2018	657.3	59

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1) IPM technology	IPM technology is very useful in every crop for reducing cost of plant protection up to 40 to 60 %.
2)Pheromone traps	Installation of Pheromone traps for monitoring and trapping of the pest is very cost effective method for reducing the pest population
3)Light Traps	Mass trapping of White Grub adults by using light trap is effective and easy.
4) Field days	Field days celebration helps to aware the forum about IPM technology.

Farmers' reactions on specific technologies

S. No	Feed Back
1. Training	The training on IPM Technology is very effective for us to identify the different insect pest and Beneficial insects.
2.Use of Botanical pesticides	Use of Neem ark or NSKE 5% is very effective for manage the insect pest in early stages of crops. It is very easy to prepare at home.
3. Use of Metarhizium for white Grub management	Application of Metarhizium anisopli is very effective for controlling the white Grub in Turmeric.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	05		250	--
2	Farmers Training	06		123	
3	Media coverage	02		--	
4	Training for extension functionaries	01		08	

Discipline – Home Science-

A. Follow-up for results of FLDs implemented during previous years
List of technologies demonstrated during previous year and popularized during 2016-17 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Nutritional Garden	Nutritional Management rural family	Demonstration on preparation Nutritional Garden	This FLD has been conducted at Pandharwadi, Tq.Mudkhed to improve family health.	02	75	0.03
2	Demonstration on cycle hoe.	To reduce the drudgery in intercultural operation.	Cycle hoe.	This FLD has been conducted at Pokharni, Dhanora Tq. Nanded	02	15	0.5
3	To access the efficiency of multi crop Mitten for Harvesting.	Save time and increase work capacity and productivity of farm women.	Mitten	This FLD has been conducted at Pawdewadi, Dhanora Tq. Nanded	02	10	0.2

B. Details of FLDs implemented during 2017-18 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Nutritional Garden	Nutritional Management of family	Demonstration on preparation of Nutritional Garden	Oct.2017	10 Unit	10 Unit	02	08	10	--
2	Cycle hoe	Cycle hoe	To reduce the drudgery in intercultural operation.	July 2017	0.5	0.5	03	07	10	--
3	Mitten	Mitten	Save time and increase work capacity and productivity of farm women.	Nov.2017	0.2	0.2	20	05	15	--

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Farm women were highly satisfied with this introducing nutritional garden because it increases consumption of vegetables.
2	Farm women were highly satisfied because these cycles hoe operational area increase 54% than tradition Khurpi.
3.	Mittens are very useful in cutting soybean, Brijal and ladies finger . Its reduces the health hazards 80% and increase the output 22%.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Reduction of monthly expenditure on purchasing the vegetables
	Increase the hemoglobin level

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	01		30	MAVIM Mahila Bachat Gat & Extension functionaries appreciated the programme.
2	Farmers Training	03		47	
3	Media coverage	01		01	
4	Training for extension functionaries	01		15	

C. Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check									
						High	Low	Average			Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Groundnut	ICM	New variety demonstration of Rabi Ground nut TG-37 as compared to local check	TG-37	50	20					Result awaited		--	--	--	--	--	--	--
Sesamum	ICM	New variety demonstration of Rabi Sesamum PKVNT-11 as compared to local check	PKVNT-11	20	08					Result awaited								
Mustard																		
Toria																		
Linseed																		

Sunflower																		
Soybean																		
Soybean	IPM	IPM	MAUS-71 JS-335	10	04	22.5	17.5	20	16.5	21	28500	56000	27500	1.96	32400	46200	13800	1.42
Soybean	ICM	To demonstrate potential yield of Kharif Soyabean variety of MAUS-162 as compare to local check	MAUS-162	75	30	21.75	7.62	17	14.35	18.55	24317	45063	20746	1.85	23420	38027	14607	1.62

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check									
						High	Low	Average			Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Pigeon pea	ICM	New variety demonstration of kharif Pigeon pea variety BDN-711 as compare to local check	BDN-711	25	10	21.25	8.75	12.55	9.62	30.45	10620	65887.5	55267.5	6.20	9250	50505	41255	5.46
Pigeon pea	IPM	IPM	BDN-711	10	04	12.6	10.5	11.55	8.5	35.8	23200	51975	28775	2.24	27500	38250	10750	1.39
Black gram	ICM	New variety demonstration of kharif Black Gram AKU-15 as compare to local check	AKU-15	18	10	3.57	2.3	3.04	6.52	44.76	7210	13984	6774	1.93	6870	9660	2790	1.4
Green gram	ICM	New vareity demonstration of Kharif Green Gram BM-2003-02 2010	BM-2003-02	25	10	10.95	3.1	7.68	5.32	44.36	10250	35328	25078	3.44	9700	24472	14772	2.52

Chickpea																		
Chickpea	IPM	IPM	Jaki-9218 Digvijay	10	04	22	18	20	14.5	37.93	26500	70000	43500	2.64	32500	50750	18250	1.56
Chickpea	ICM	New vareity demonstration of Rabi Chickpea Jaki-9218 as compare to local check	Jaki-9218	50	20	31.25	8.75	23.26	18.05	28.91	22380	86062	63682	3.84	21200	66785	45585	3.15
Field pea																		
Lentil																		
Horsegram																		

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check											
					High	Low	Average			Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cereals																			
Paddy																			
Waterlogged Situation																			
Coarse Rice																			
Scented Rice																			
Wheat																			
Wheat Timely sown																			
Wheat Late Sown																			

Mandua																			
Barley																			
Maize																			
Amaranth																			
Millets																			
Jowar	Varietal evaluation	New vareity demonstration of Rabi Jawar variety Parbhani Moti as compare to local check	10	0.4	45.44	12.92	32.44	22.10	46.78	Test weight-3.40	2.32	22520	81100	58580	3.60	21500	55250	33750	2.56
Bajra																			
Barnyard millet																			
Finger																			

millet																			
Vegetables																			
Bottle gourd																			
Bitter gourd																			
Cowpea																			
Sponge gourd																			
Petha																			
Tomato	Varietal introduction	Assessment of Triple disease resistant Tomato F1 Arkarakshak	10	01	24	20	22	14	157	Pest & disease incidence-10% Yield – High No. of spray-9	35% Medium 20	120000	399840	279840	3.3	150000	333200	183200	2.22
French bean																			
Capsi																			

cum																			
Chilli																			
Chilli	IPM	IPM & IDM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Brinjal																			
Vegetable pea																			
Softgourd																			
Okra																			
Colocasia (Arvi)																			
Broccoli																			
Cucumber																			

Onion																			
Coriender																			
Lettuce																			
Cabbage																			
Cauliflower																			
Elephant fruit																			
Flower crops																			
Marigold																			
Bela																			
Tuberose																			
Gladio																			

lus																			
Fruit crops																			
Mango																			
Straw berry																			
Guava																			
Banana	Integrated Crop Management	Use of skirting bags in Banana	10	05	563	540	551.5	472	116	Sucking pest attack – Very less Bunch weight- Medium to high	More Less to medium	549000	539000	419000	0.98	440000	432000	340000	0.98
Papaya																			
Musk melon																			
Watermelon																			
Spices &																			

condiments																			
Ginger																			
Garlic																			
Turmeric																			
Turmeric	IPM	IPM & IDM	10	04	268	195	231.5	196	18.11	--	--	128500	347250	218750	2.70	147500	294000	146500	1.99
Commercial Crops																			
Sugar cane																			
Potato																			
Cotton	IPM	IPM	10	04	17.5	13.5	15.5	12.75	21.56	--	--	44500	74400	29900	1.67	52500	61200	8700	1.16
Medicinal & aromatic plants																			
Menthol ment																			
Kalme																			

gh																			
Ashwagandha																			
Fodder Crops																			
Sorghum (F)DHN-6	Feed & fodder Management	Feeding of area specific mineral mixture	10	20 R	-	-	Fodder Production tones	African tall 2.10	34 %	Milk fat% Cow 4.2%	Milk fat% Cow 3.8 %	1500	5482	3982	3.65	2300	3600	1300	1.56
Cowpea (F)																			
Maize (F)																			
Lucern																			
Berseem																			
Oat (F)																			

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal / Poultry / Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle																	
Buffalo																	
Buffalo Calf																	
Dairy																	
Poultry																	
Sheep & Goat																	
Vaccination																	

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Common Carps																	
Composite fish culture																	
Feed Management																	

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Oyster Mushroom																
Button Mushroom																
Apiculture																
Maize Sheller																
Value Addition																
Vermi Compost																

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)

FLD on Demonstration details on crop hybrids

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Oilseed crop													
Pulse crop													
Cereal crop													
Vegetable crop													
Fruit crop													
Other (specify)													

3.4. Training Programmes

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies	02	52	75	127	18	33	51	70	108	178
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production	02	40		40	12		12	52		52
Nursery management										
Integrated Crop Management	01	60		60	15		15	75		75
Soil & water conservatioin										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total										
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)										
b) Fruits										

Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology	01	19		19	15	05	20	34	05	39
Processing and value addition	01	15		15	05		05	20		20
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										

Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)										
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs	01	10		10	02		02	12		12
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	01	09	01	10	04		04	13	01	14
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	01	30	04	34	03		03	33	04	37
Feed & fodder technology	01	35		35	05		05	40		40
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	01	54	01	55				54	01	55
Design and development of low/minimum cost diet	01	48		48				48		48
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										

Processing and cooking										
Gender mainstreaming through SHGs	01	10	10	20				10	10	20
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides	01	27		27	03		03	30		30
Others (pl specify)										
Total										
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										

Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics	01	12		12	05		05	17		17
Formation and Management of SHGs										
Mobilization of social capital	02	50	02	52	06		06	50	08	58
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										

XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**18**	**471**	**93**	**564**	**93**	**38**	**131**	**558**	**137**	**695**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies	01	30	05	35	10	05	15	40	10	50
Cropping Systems	01	20		20	08		08	28		28
Crop Diversification	01	25		25	03		03	28		28
Integrated Farming	03	70	25	75	16	02	18	91	27	118
Micro Irrigation/irrigation										
Seed production	01	32		32	07		07	39		39
Nursery management	01	50		50				50		50
Integrated Crop Management	06	133	07	140	57	04	61	190	11	201
Soil & water conservatioin	02	81	03	84	12	02	14	96	05	101
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total										
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops										
Off-season vegetables	02	14	10	24	17	02	19	31	12	43
Nursery raising	01	10		10	02		02	12		12
Exotic vegetables										

Export potential vegetables										
Grading and standardization										
Protective cultivation	01	32		32	15		15	47		47
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards	01	12		12	10		10	22		22
Cultivation of Fruit										
Management of young plants/orchards	01	46		46	16		16	62		62
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards	02	28	12	40	31	09	40	59	21	80
Plant propagation techniques										
Others (pl specify)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										

Production and Management technology	02	74		74	15	10	25	74	10	84
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)										
III Soil Health and Fertility Management										
Soil fertility management	01	24	02	26	15	01	16	39	03	42
Integrated water management										
Integrated Nutrient Management	03	75		75	25	01	26	100	01	101
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management	03	25		25	17		17	42		42
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	01	17		17	02		02	19		19
Feed & fodder technology	01	18		18				18		18
Production of quality animal products										
Others (pl specify)										
Total										

V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	05	07	85	92		08	08	15	93	108
Design and development of low/minimum cost diet	01		40	40		05	05		45	45
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing	02		28	28					28	28
Processing and cooking										
Gender mainstreaming through SHGs	01	12	18	30	--	--	--	12	18	30
Storage loss minimization techniques	01	--	10	10	--	02	02	--	12	12
Value addition	01	05	25	30	--	05	05	05	30	35
Women empowerment										
Location specific drudgery reduction technologies	01		20	20					20	20
Rural Crafts										
Women and child care										
Others (Income generation)	01	05	10	15				05	10	15
Total										
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases	01	09	13	22				09	13	22
Production of bio control agents and bio pesticides	01	19		19	02		02	21		21

Others (pl specify)	01	22	01	23				22	01	23
Total										
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										

Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital	01	04	17	21				04	17	21
Entrepreneurial development of farmers/youths	01	18		18	03		03	21		21
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**53**	**917**	**331**	**1248**	**283**	**56**	**339**	**1201**	**387**	**1588**

Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies	03	82	80	162	46	38	84	128	118	246
Cropping Systems	01	20		20	08		08	28		28
Crop Diversification	01	25		25	03		03	28		28
Integrated Farming	03	70	25	75	16	02	18	91	27	118
Micro Irrigation/irrigation	02	40		40	12		12	52		52
Seed production	03	72		72	59		59	131		131
Nursery management	01	50		50				50		50
Integrated Crop Management	07	193	07	200	72	04	76	265	11	176
Soil & water conservation	02	81	03	84	12	02	14	96	05	101
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total										
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops										
Off-season vegetables	02	14	10	24	17	02	19	31	12	43
Nursery raising	02	25		25	14		14	39		39
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation	01	32		32	15		15	47		47
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										

Layout and Management of Orchards	01	12		12	10		10	22		22
Cultivation of Fruit										
Management of young plants/orchards	01	46		46	16		16	62		62
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards	02	28	12	40	31	09	40	59	21	80
Plant propagation techniques										
Others (pl specify)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology	03	93		93	30	15	45	123	15	138
Processing and value addition	01	15		15	05		05	20		20
Others (pl specify)										

Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)										
III Soil Health and Fertility Management										
Soil fertility management	01	24	02	26	15	01	16	39	03	42
Integrated water management										
Integrated Nutrient Management	03	75		75	25	01	26	100	01	101
Production and use of organic inputs	01	10		10	02		02	12		12
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	01	09	01	10	04		04	13	01	14
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management	03	25		25	17		17	42		42
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	02	47	04	51	05		05	52	09	61
Feed & fodder technology	02	53		53	05		05	58		58
Production of quality animal products										
Others (pl specify)										

Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	06	61	86	147		08	08	61	94	155
Design and development of low/minimum cost diet	01	48		48				48		48
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing	02		28	28					28	28
Processing and cooking										
Gender mainstreaming through SHGs	02	22	28	50				22	28	50
Storage loss minimization techniques	01		10	10		02	02		12	12
Value addition	01	05	25	30		05	05	05	30	35
Women empowerment										
Location specific drudgery reduction technologies	01	--	20	20					20	20
Rural Crafts										
Women and child care										
Others (Income generating)	01	05	10	15				05	10	15
Total										
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										

Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases	01	09	13	22				09	13	22
Production of bio control agents and bio pesticides	02	46		46	05		05	51		51
Others (Organic manual)	01	22	01	23				01	22	23
Total										
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										

Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	01	12		12	05		05	17		17
Formation and Management of SHGs										
Mobilization of social capital	03	54	19	73	06		06	60	19	79
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**72**	**1425**	**384**	**1809**	**455**	**89**	**544**	**1867**	**499**	**2266**

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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming	01	27		27	03		03	30		30
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements	01	29		29	02		02	31		31
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying	01	14		14	06		06	20		20
Sheep and goat rearing	01	09	08	17	08	01	09	17	09	26
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										

Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL	04	79	08	87	19	01	20	98	09	107

Training for Rural Youths 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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs	02	32		32	08		08	40		40
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture	01	26		26				26		26
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										

Rural Crafts										
Production of quality animal products	01	11		11	04	01	05	15	01	16
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (Extension)	01	17		17	02		02	19		19
TOTAL	05	86		86	14	01	15	100	01	101

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + 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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming	01	27		27	03		03	30		30

Seed production										
Production of organic inputs	02	32		32	08		08	40		40
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements	01	29		29	02		02	31		31
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products	01	11		11	04	01	05	15	01	16
Dairying	01	14		14	06		06	20		20
Sheep and goat rearing	01	09	08	17	08	01	09	17	09	26
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)	01	17		17	02		02	19		19
TOTAL	08	139	08	147	33	02	35	172	10	142

Training programmes for Extension Personnel including sponsored training (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
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs	01	22	05	27	08	03	11	30	08	38
Women and Child care										
Low cost and nutrient efficient diet designing	02	10	04	14	07	05	12	17	09	26
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL										

Training programmes for Extension Personnel including sponsored training (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
Productivity enhancement in field crops										
Integrated Pest Management	01	40		40				40		40
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL	01	40		40				40		40

Training programmes for Extension Personnel including sponsored training – CONSOLIDATED (On + 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
Productivity enhancement in field crops										
Integrated Pest Management	01	40		40				40		40
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs	01	22	05	27	08	03	11	30	08	38
Women and Child care										
Low cost and nutrient efficient diet designing	02	10	04	14	07	05	12	17	09	26
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL	**03**	**72**	**09**	**81**	**15**	**08**	**23**	**87**	**17**	**104**

Sponsored training programmes

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 and management										

Increasing production and productivity of crops										
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Processing and value addition										
Others (pl. specify)										
Total										
Farm machinery										
Farm machinery, tools and implements										
Others (pl. specify)										
Total										
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total										
Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
Total										
Agricultural Extension										

CapacityBuilding and Group Dynamics										
Others (Cashless village)	01	18		18	13		13	31		31
Total										
GRAND TOTAL	01	18		18	13		13	31		31

Details of vocational training programmes carried out by KVKs for rural youth

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 and management										
Commercial floriculture										
Commercial fruit production										
Commercial vegetable production										
Integrated crop management										
Organic farming										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Value addition	01	20	15	35	10	10	20	30	25	55
Others (pl. specify)										
Total										
Livestock and fisheries										
Dairy farming	01	20		20				20		20
Composite fish culture										
Sheep and goat rearing	02	27	09	36				36		36
Piggery										
Poultry farming										
Others (pl. specify)										
Total										
Income generation activities										
Vermicomposting										

Production of bio-agents, bio-pesticides,										
bio-fertilizers etc.										
Repair and maintenance of farm machinery										
and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.										
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total										
Grand Total	**04**	**67**	**24**	**91**	**10**	**10**	**20**	**86**	**25**	**111**

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	168	9186	247	9433
Diagnostic visits	17	107	11	118
Field Day	06	112	03	115
Group discussions	09	112	18	130
KisanGhosthi	3	121	12	133
Film Show	1			
Self -help groups	1	15		15
KisanMela	1	147	4	151
Exhibition	9	417	11	428
Scientists' visit to farmers field	18	123	11	134
Plant/animal health camps				
Farm Science Club	17	103	11	114
Ex-trainees Sammelan	4	83	14	97
Farmers' seminar/workshop				
Method Demonstrations	8	103		103
Celebration of important days	8	214	15	229
Special day celebration	14	395	23	418
Exposure visits	7	74	15	89
Others (pl.specify)				
Total	**291**	**11312**	**395**	**11707**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	06
Extension Literature	16
Newspaper coverage	92
Popular articles	28
Radio Talks	22
TV Talks	02
Animal health amps (Number of animals treated)	03
Others (pl. specify)	
Total	**169**

3.6.PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals						
	Wheat	Loc-1		7.5	13875	32
	Kharif Jowar	CSH-9		32.40	42120	44
	Rabi Jowar	Parbhani Moti		14	35000	28
Oilseeds						
	Soybean	MAUS-71		27	216000	12
	Soybean	MAUS-158		13.5	108000	10
	Soybean	KDS-344		19.65	157200	17
	Soybean	MACS-1188		4.5	29250	22
Pulses						
	Green gram	Utkarsha		05	22500	12
	Black gram	TAU-1		3.5	16450	35
	Red gram	BDN-711		5.50	66000	52
	Bengal gram	Jaki-9218		12.5	87500	72
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
	Sugarcane	Co-86032		102 ton	2142000	20
Total				**145.5**	**2935895**	**356**

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings	Drumstick	Coimbatore-1		504	10080	30
	Tomato	S-7		1200	2400	40
	Brinjal	Gaurav		900	1800	40
	Cabbage	N-80		500	1000	50
	Cauliflower	S-996		500	1000	40
	Onion (red)	Nashik Red		1200	2400	50
	Onion (white)	White marglobe		1200	2400	50
Fruits	Mango	Keshar		275	16500	18
	Mango	Dashari		225	13500	14
Ornamental plants	Bougainvillea	Local		500	1000	50
	Croton	Local		500	1000	50
	Golden durenta	Local		500	1000	50
Medicinal and Aromatic						
Plantation						
Spices	Chili	Pusa, Jwala		2500	5000	100
Tuber						
Fodder crop saplings	Hybrid Napier	DHN-6		4900	4900	10
Forest Species	Ashoka	Local		400	800	50
	Almond	Local		200	1000	50
	Bael	Local		100	500	50
Total				**16104**	**66280**	**742**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilisers				
	Vermi culture	30 kg	12000/-	60
Bio-pesticide				
Bio-fungicide	Trichoderma	505 kg	50500/-	187
Bio Agents				
Others				
Total		**535**	**62500**	**247**

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves	Deshi	03	Rs.36000/-	--
Others – Goats	Osmanabadi	10	Rs.42500/-	07
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Indian carp				
Exotic carp				
Others (Pl. specify)				
Total		**13**	**78500**	**07**

4. /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	Production of Azolla in different condition and its comparative study	Dr. Mahesh Ambore	01
Technical reports			
News letters			
Technical bulletins			
Popular articles	Onion cultivation methods	Dr. Devikant Deshmukh	140
	Grampriya - Egg producing poultry bird	Dr. Mahesh Ambore	140
	Management of fodder in drought condition	Dr. Mahesh Ambore	150
	Marathwada region - Quality livestock producing mine	Dr. Mahesh Ambore	145
	Dog production business a		80
Extension literature	Goat farming	Dr.Ambore M.N	500
	Groundnut cultivation	Mr. Sandip Jaybhaye	500
	IPM in Groundnut	Mr. Kalyankar M. G	500
	Ginger cultivation & Processing	Dr. Devikant Deshmukh	500
	IPM in Chick pea	Mr. Kalyankar M.G.	500
	BT- cotton cultivation	Mr. Sandip Jaybhaye	500
	Soybean cultivation	Mr. Sandip Jaybhaye	500
	Green gram & Black gram cultivation	Mr. Sandip Jaybhaye	500
	Kitchen gardening	Dr. Devikant Deshmukh	500
	Custard apple cultivation	Dr. Devikant Deshmukh	500
	Soil testing	Mrs. Nadre S.R. Dr. Devikant Deshmukh, Mr. Ingole R R	500
	Red gram cultivation	Mr. Sandip Jaybhaye	500
	Turmeric cultivation	Dr. Devikant Deshmukh	500
	Fodder cultivation of Phule Jaywant variety	Dr. Mahesh Ambore	500
	Azolla Production for animals	Dr. Mahesh Ambore	500
	Pest management in cotton	Mr. Kalyankar M.G.	500
	Vermi compost management	Mrs. Nadre S. R.	500
	Rabi Sorghum Cultivation	Mr. Sandip Jaybhaye	500
	Wheat cultivation	Mr. Sandip Jaybhaye	500
	KVK at Glance	Mrs. Nadre S. R.,	500
	Drumstick cultivation	Dr. Devikant Deshmukh	500
	Watermelon cultivation, Pest & disease management	Dr. Devikant Deshmukh, Mr. Manik Kalynkar	500
Others (Pl. specify)			
TOTAL			

C. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
01	DVD	Soil testing	01

D. 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).

1. Case study of Successful farm women Sow. Shantabai Ramrao Pawade

Name: Sow. **Sow. Shantabai Ramrao Pawade**
Village :Pawadewadi Tq Nanded Dist. Nanded
Age 52, Education 7th, Land Holdind 2 hector,
Farming Experience: 20 (Traditional Manner)
Recognition: Best Farmwomen awarded by Reliance foundation.

Description of activities

- KVK Pokharni started Laxmi self help group at Pawadewadi in the year 2012.
- Imparted vocational training on Nutritional garden in March 2013.
- Seeds seedling provided for Nutritional garden from KVK Front line program.
- Self Help Group started the venture in june2013 ten Nutritional gardens.
- Within six month started production of vegetables leafy vegetables like Spinach Sepu Methi Chuka,Okra, Bitter guard, Ridge guard, Cowpea, Cluster bean, Cucumber, Pumpkin, Bottle guard, Snake guard, Drumstick, Brinjal, Chilli, Tomato etc. Onion &Garlic.
- By selling vegetables onion ,Garlic grouped earned Rs15000/-
- Visualizing the profit group started increasing area.
- Presently group started selling Vegetables ,onion &garlic in Vegetables market &door to door 15 ton onion 5ookg garlic produced &sell they getRs15000/-to 20000/-.
- Improve the family health.

2. Success Story on Integrated Pest management in Tomato

- Name of Farmer :- Mr. Sunil Shinde
- Village:-Vasantwadi Tq. Mudkhed Dist- Nanded
- Land Holding:- 7 acres (Joint family)
- Crop Cultivated:- Tomato, Brinjal, Bitter guard, Bottle guard etc.
- He continuously cultivate these crops with many difficulties like incidence of pest and diseases like leaf curl virul, early blight, wilting etc. He uses more and more chemical spray for the management of these pest and diseases. But he has unable to manage it completely.
- **Plan of KVK to implement IPM technology:-**

During a training programme at KVK, Pokharni, Mr. Sunil Shinde has come in contact with the KVK scientist and discussed about his problem. The KVK scientists have immediately visited to his field/ village. They observed that there were no proper implementations of Pest Management techniques particularly from Nursery to field and also no use of disease resistance variety.

The technology involves as-

i) Use of 'Arka Rakshak', high yielding F1 Hybrid with triple disease resistance variety for planting.

ii) Raising of seedlings in protray by protecting with insect net structure in nursery.

iii) Plantation of Maize and Cow pea as barrier crop on border of the field.

iv) Use of sticky traps, pheromone traps.

v) Use of plant origin bio pesticides for pest management along with judicious use of chemical pesticides.

The technology was taken up in Vasantwadi Ta. Mudkhed, Dist. Nanded and was successfully demonstrated. The practice of replacing the variety with Arka Rakshak helps in minimizing the pest and disease incidence and so increasing in yield. The entrance of virus vectors like White Fly and Thrips were restricted due to barrier Maize crop. The yellow and blue sticky traps also help to manage the sucking pest. Pheromone traps also helps to monitor the pest like Fruit borer, Tuta absulata Leaf minor.

Mr. Sunil Shinde has raised 2800 seedlings in a half an acre plot during summer 2015-2016. He could harvest an average 6.6 kg per plant and fetched high price in summer, earned a net profit of about Rs. 1,85,000/-. Integrated Pest Management techniques have reduced the indiscriminate use of Chemical pesticides. So the cost of a plant protection gets reduced by 50% and also the number of sprays.

Comparative study on Cost of cultivation

Sl. No.	Particular	Demo plot	Farmers plot
1.	Raising of seedlings	In Pro tray with insect Net protection	On raised beds without Insect net protections
2.	Border Barrier crop	Maize and cowpea	No, Barrier crop
3.	Variety	Arka Rakshak	Ganga -505
4.	Pest and disease incidence	10%	35- 50%
5.	No. of spray	9	20
6.	Cost of plant protection	13500	22300
7.	Yield per acre	24 Ton.	20 Ton
8.	Gross profit (Rs.)	3,99,840/-	3,33,200/-
9.	Cost of cultivation	120000/-	150000/-
10	Net Profit	2,79,840/-	1,83,200/-

Training to Tomato Growers on Integrated Pest Management at KVK.

Raising of Seedlings in Nursery protected with Insect proof net.

Use of plastic mulch and trap crop of Maize

Implimentation of Integrated Nutrient management

Installation of Yellow sticky traps for Sucking pest

Installation of Blue sticky traps attached with lure for *Tuta absulata* leaf minor

Visit of Dr B.B.Bhosle, Director of Extension, VNMKV, Parbhani on Demonstration plot at Vasantwadi, Tq. Mudkhed

3. Arakarakshak Tomato F1 becomes boon to Tomato growers of District

Tomato is mostly grown on more or less scale on each and every block of the district. It is most important vegetables of the district but since 3 to 4 years tomato growers they received heavy loss from the tomato due to the attack of pest and disease particularly the tomato growing belt of the district mainly include Vasantwadi, Shankar nagar, Chikala, Rohi Pimpalgoan from Mudkhed Tahsil, Talegaon, Balegaon, Nagthana and Beldara of Umri Tahsil, Loha and Nanded Taluka along with Ardhapur. Due to this Severe attack of pest and disease which mainly include white fly, Tomato leaf curl virus, Blight all Tomato cultivation comes in danger. After the interaction of KVK Pokharni scientist and farmers it was decided to replace old one existing hybrids by 'Arkarakshak' i.e. Triple resistant F1 Hybrid of Tomato release by IIHR, Bangalore. Dr. Deshmukh D.A. Scientist (Horticulture) of KVK Pokharni Nanded MS after communication to Dr. A.T. Sadashiva sir Head vegetable division IIHR Bangalore and Dr. P.K. Gupta Joint director NHRDF Nashik. Receive seed of Arkarakshak and Trial had been conducted at village Vasantwadi, Tq. Mudkhed, Dist- Nanded Maharashtra which is popularly known as tomato village. Thus this Trial has been start by rising of seedling in a seedling tray with sterilize Cocopit and then seed of Arkarakshak dibbled in tray and that tray watered with the help of sprinkler. Thus when seedlings become 24 to 26 days old after primary hardening they were planted on raised bed before this proper tillage operation should be followed by deeploughing and Harrowing by adding well rotten FYM along with Trichoderma powder. Thus the seedling of Arkarakshak which are becomes 5-6 week old they were transplanted on the main field at the distance 2.5 x 4.5 feet by laying drip laterals on the bed and mulching over it. The mulching paper is 1.2 meter in width and 3000 meter in length of 30 micron thickness. Land preparation should be done as per the recommendation by VNMKV Parbhani and IIHR Bangalore. At the time of transplanting care should be taken that seedling should not touch to the drip line and mulch paper.

Immediately after transplanting i.e. on 15th March 2016 light irrigation should be given for 20-40 minutes along with water soluble fertilizer and should be continue after 23 weeks. The total duration of Arkarakshak F1 is 26 week. After fertigation 5gm /lit foliar application of micronutrient along with secondary nutrient it should be continued from 45 days at every 15 days interval. When Arkarakshak F1 start bearing fruits for the proper aeration and sunlight and better growth and less attack of pest and disease it should be given supporting with the help of Bamboo sticks and iron wires. Management of pest and disease is done as per the schedule given by IIHR Bangalore. In this way this innovative farmer earn Rs.350000/- from 1 acre cultivation of Arkarakshak under the guidance and timely inspection by the KVK Pokharni scientist. The result of this successful trial of Arkarakshak communicated to Dr. A.T Sadashiva, Head Division of vegetable IIHR Bangalore and DEE Dr. B.B. Bhosale sir VNMKV Parbhani who visited this trial and gave good remarks regarding the trial. KVK Pokharni also arranged meeting and interaction of Progressive farmers sunil shinde with A T Sadshiva sir in Bangalore and A. T. Sadashiva sir appreciate the work and the trial of Arkarakshak by KVK Pokharni Nanded MS. The success of this F1 also broadcast on SAAM TV through which Arkarakshak reaches every farmers of Maharashtra and its neighboring states. Every KVK in Maharahstra particularly marathawada gave priority to this F1 in their action plan 2017-18 so as to make its maximum reach.

After the successful trial of Arkarakshak now KVK Pokharni conducting trials of "Arkasamrat new F1" of Tomato along with Arkaharita and Khyati at same village.


Dignistic visit by Dr.B.B.Bhosale sir DEE VNMKV,Parbhani with KVK Pokharni scientist


Dr.D.A.Deshmukh Scientist horticulture addressing farmers during field visit on Arkarakshak at village vasantwadi tq mudkhed


Fruits of F1 Arkarakshak & Progressive farmer Sunil shinde

E. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

F. 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	Most of the Banana farmer they are using dry grass and paddy straw to cover and protect the bunch from the sun burn and hot wind injuries.	To protect the bunch from the hot winds and direct exposure of sunlight on the banana stalk to avoid breakage of bunch.
2	Turmeric and Banana	Both Turmeric and Banana Grower they are using old Sarris as a fence around the orchards.	To protect the banana and turmeric crop from the attack and injuries of wild pigs and other animals.
3	Fruit crops	Mostly fruit growers sweet orange, mandarin growers in order to provide water to fruit crops under water deficit condition using plastic bottles few distance away from the main stream by burying down the cutted bottle in the ground so as to supply moisture to the roots to save orchards.	To save the orchards during hot summer under drought condition.
4	Sugarcane	Farmers they are using old saris all around the sugarcane crop field to protect from wild animals such as wild pigs and bears.	To protect the sugarcane attack from wild animals.
5	Sorghum	Tying plastic carry bags to sticks of 2' height and stacked in the boundary with escapement of 2 meter this technique is carried out scare away the squirrel from damaging the sorghum seed sown.	The sound of the whirling wind and bags caused will scare away squirrel & birds.
6	Groundnut	Use of polyethylene covers sticks in field scare off birds in groundnut.	To protect the groundnut from birds and wild animals.
7	Cotton & soybean	Rising of sorghum as mixed crop as cotton & soybean as bird perches.	The farmers raise sorghum as a mix crop scattered in cotton field. The grain of sorghum attacks the birds and served as a perches for the birds to reach the insect of cotton plants.
8	Cotton	Use of Okra crop for pest control for cotton. Farmers grow 2-3 lines of Okra plants surrounding the cotton field. Cotton is more susceptible to insect pest like bollworm, worm and jassid etc. farmers believe that pest prefer okra plant as compare to cotton	pest is control by simply destroying okra plants attack by insect pest

		plant and attack first.	
9	Sugarcane	Mulching the field with trash.	To control the shoot borer in sugarcane leaf minor in groundnut.
10	Cattle	In case of Alopecia topical application of groundnut oil and turmeric paste is apply.	For hilling of the patches and to grow the hairs.
11	Cattle & Buffalo	In case of Alopecia farmers make juice of early stage wheat leaf and apply on the patches of hair loss.	It is used for growing of hairs.
12	Cotton	Fertilizer application directly to putting the fertilizer in between row & after that hoeing this carried on this row.	It saves labor & easy for application. 1-2 labors are sufficient for this.
13	Rabi season	Use of preventive measure waste tapes is binding to Jawar head at the milk stage of jawar.	To protection from birds.

5.1. Indicate the specific training need analysis tools/methodology followed for

A. Practicing Farmers

a) PRA Survey.
b) Farmers and scientist interaction.
c) Field day

B. Rural Youth

a) Group discussion.
b) Skill development counseling.
c) Exposure visit
d)

C. In-service personnel

a) Field visit.
b) Diagnostic visit.
c) Field level observations.

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) **PRA**
ii) **Problem identified from Matrix**
iii) Field level observations
iv) **Farmer group discussions**
v) Others if any- field and Diagnostic visit.

For FLD:

i) New variety/technology
ii) Poor yield at farmers level
iii) Existing cropping system
iv) Others if any- field and Diagnostic visit.

5.3. Field activities

i. Name of villages identified/adopted with block name (from which year) - Hadgaon
ii. No. of farm families selected per village : 50
iii. No. of survey/PRA conducted :02
iv. No. of technologies taken to the adopted villages:- 03
v. Name of the technologies found suitable by the farmers of the adopted villages: Front line Demonstration & Group Discussion.
vi. Impact (production, income, employment, area/technological– horizontal/vertical):-
vii. Constraints if any in the continued application of these improved technologies

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
National Institute of Plant Health Management, Hyderabad.	Transfer of technology for On Farm Production of Bio Pesticides, Bio Fertilizers and Bio Agent.
Vasantrao Naik Marathwada Agricultural University, Parbhani.	Collaborative Symposium on different crop. Continuously provide all possible technical guidance to KVK scientist.
D.S.A.O.	i) Participate in Kisan Mela, Farmers rally & and visits of various research trails.
A.H. Department	Participation in Seminars, Cattle Show, Cattle Camp, Organized by KVK supply inputs like layers, goats, vaccines etc. to ex-trainees gives training on Poultry management, Goat Management.
Dept. of Horticulture	Supplied Horticulture and Forest Plants. Giving Technical advices to selected farmers by KVK. Jointly working on demonstration of fruit crops cultivation.
Dept. of Sericulture	Gives training to KVK farmers, supply mulberry stumps, eggs and other material require for rearing to trainees.
Cotton Research Station, Nanded	Arranging monthly workshop in order to discuss new research and technical achievements in a crop cultivation mainly Cotton.
Krishi vigyan Mandal	Arrange Shetkari Melava on organic farming and shown Video Film in the district.
A.I.R. Nanded & Parbhani	Co-operating in arranging Radio Talks of KVK selected farmers.
District industrial centre	Gives training to the unemployed rural youth
Zilla Parishad (ICDP)	Arranged Training for Anganvadi Sevika, Supervisor in supplemental foods. Diet of permanence Lactating mother.
Maharashtra Council of Agricultural Education and Research (MCAER) Pune.	Consultancy and Self-Employment courses for Rural unemployed youth.
PDBC, Bangalore.	IPM and Biological methods for controlling plant diseases and pests, which is researched by PDBC.
NIAM, Faridabad	Training on Rural Godown
NABARD	Set up of SHG in rural areas. Formation of TTC in the villages.
Dist. Fisheries Dept, Nanded	For conducting training programme.
Govt. Aurvedic College Nanded	Co-ordination and affiliation.
Dept. of health, DOH, Nanded	Joins working on nutrition training programme for the people of SC/ST and below poverty

	line.
ATMA Nanded	Training Programme. Field Visit and other extension activities.
Swami Ramanand Teerth Marathwada University Nanded	Training, Extension & Research.
NES science college Nanded	Training & Research.

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.)
Jalyukt Shivar Abhiyan	July 2017	SAO Nanded	173264/-
Soil testing	May 2017	SAO Nanded	1820000/- (out of this only Rs.780368/- received till date)
National Food Security Mission	July 2017	SAO Nanded	29100/-
MAHABEEJ	May 2017	Mahabeej	19540/-
Kamdhenu	May 2017	Animal Husbandry department	14350/-

C. Details of linkage with ATMA

a) Is ATMA implemented in your district **Yes**

If yes, role of KVK in preparation of SREP of the district?

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	**Meetings**		18	07	
02	**Research projects**		--	--	
03	**Training programmes**		08	12	
04	**Demonstrations**		07	03	
05	**Extension Programmes**				
	Kisan Mela		01	01	

	Technology Week		--	--	
	Exposure visit		01	01	
	Exhibition		01	01	
	Soil health camps		01	01	
	Animal Health Campaigns		01	01	
	Others (Pl. specify)				
06	**Publications**				
	Video Films				
	Books				
	Extension Literature		08	07	
	Pamphlets		10	10	
	Others (Pl. specify)				
07	**Other Activities** (Pl.specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

D. Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any
01	Plant health clinic	Established under NHM, at KVK Nanded	2000000/-	2324941/- (Rs.324941/- borne by KVK)	--
02	Farm Pond	Established under NHM, at KVK Nanded	500000/-	1012000/-	--

E. Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
--	--	--	--	--	--

F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
01	Establishment Of Hatchery Unit At Different Villages Of Nanded District	Project submitted	Not yet	--	Project submitted for sanction to RKVY
02	Establishment Of Kisan Call Centre	Project submitted	Not yet	--	Project submitted for sanction to RKVY
03	Innovative Project For Establishment Of Onfarm Production Unit Of Microbial Biopesticides And Biofertilizer Through Farmers Group	Project submitted	Not yet	--	Project submitted for sanction to RKVY
04	Establishment Of Soybean Processing Centre	Project submitted	Not yet	--	Project submitted for sanction to RKVY
05	Increasing Productivity Of Sugarcane Crop By Farm Mechanization Under Rashtriya Krishi Vikas Yojana	Project submitted	Not yet	--	Project submitted for sanction to RKVY
06	Financial assistance for product of Ground and processed spices	Project submitted	Not yet	--	Project submitted for sanction to RKVY

7. Convergence with other agencies and departments:

8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
	Have you conducted Farm Innovators meet in your district?	No
	Brief report in this regard	

9. Farmers Field School (FFS)

S. No	Thematic area	Title of the FFS	Budget proposed in Rs.	Brief report
--	--	--	--	--

10.1. Technical Feedback of the farmers about the technologies demonstrated and assessed:
1) Feedback from farmers regarding demonstration of Arka Rakshak Tomato.
2) Feedback- Regarding demonstration on use of skirting bag.

10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:
1) Regarding trial of Arka Rakshak F1 in Tomato. Submitted to IIHR, Benguluru to Dr.A.T. Sadashiva, Head, Division of Vegetable IIHR Bangalore.
2) Use of Skirting bag in Banana:- Technical feedback submitted to reliance plastic division for changing the colour of bag from blue to white.

11. Technology Week celebration during 2017-18 No, If Yes

Period of observing Technology Week: From to
Total number of farmers visited :
Total number of agencies involved :
Number of demonstrations visited by the farmers within KVK campus:
Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	--	--	--
Lectures organized	--	--	--
Exhibition	--	--	--
Film show	--	--	--
Fair	--	--	--
Farm Visit	--	--	--
Diagnostic Practicals	--	--	--
Supply of Literature (No.)	--	--	--
Supply of Seed (q)	--	--	--
Supply of Planting materials (No.)	--	--	--
Bio Product supply (Kg)	--	--	--
Bio Fertilizers (q)	--	--	--
Supply of fingerlings	--	--	--
Supply of Livestock specimen (No.)	--	--	--
Total number of farmers visited the technology week	--	--	--

12. Interventions on drought mitigation (if the KVK included in this special programme)

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries
Maharashtra	Chick pea	17	42
	Red gram	05	15
	Soybean	06	20
	Rabi sorghum	05	15
	Safflower	02	05
	Drumstick	0.025	32
	Tomato	0.025	05
	Aonla	0.025	05
	Mango	0.025	05

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	03	10
Pulses	02	07
Cereals	10	22
Vegetable crops	10	48
Tuber crops	20	36
Total	**45**	**123**

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No.of participants
Maharashtra	Cattle & Buffalo	01	26
Maharashtra	Goat	02	48
Maharashtra	Poultry	01	28

D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers
Maharashtra	01	22	45
Total	**01**	**22**	**45**

E. Seed distribution in drought hit states

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
--	--	--	--	--
Total	--	--	--	--

F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Maharashtra	**Soybean, Sugarcane, Banana**	**52**	**104**
Total		**52**	**104**

G. Awareness campaign

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
	01	45	08	1100	08	750	03	350	04	435	04	85
Total	**01**	**45**	**08**	**1100**	**08**	**750**	**03**	**350**	**04**	**435**	**04**	**85**

13. IMPACT

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 production in onion	12	30%	50000/ acre	300000/acre
Dal making	52	60%	2000/-	10000/-
Kitchen Gardening	15	65 %	Nil	10,000/-
Vermi Compost Preparation	32	70 %	Nil	3000 per month
Drudgery Reduction Groundnut Decorticator	20	80%	Nil	3500/-
Goat Farming				
Preparation of Azola for milking animals	20	70%	Nil	4000/-
Post harvesting Technology for Pulses Preparation of Dal	52	72%	Nil	72000/- per season
Package and practices of Pulses	30	70%	50600	60600
Improved varieties of Soybean and Red Gram MAUS-71 and BDN-711	45	35%	12000	15000
Improved varieties of Chick Pea Jaki-9218 and Digvijay	25	75%	10500	23300
Contingency Crop Planning under uncertain Rain fall situation.		65%	--	15000
Use of Skirting bags in Banana	15	10 (66.66%)	18 Kg 18x20 = 360 Rs. Per plant	22 Kg 22x20 = 440 Rs. Per plant
Varietal Replacement (10-01)	15	15 (100%)	12 Kg 12x20 = 240Rs. Per Tree	27 Kg 27x20 = 540 Rs. Per Tree

B. Cases of large scale adoption
(Please furnish detailed information for each case)

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

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2017	03	8407	
May 2017	03	8453	
June 2017	03	8470	
July 2017	03	8402	
August 2017	03	8434	
September 2017	03	9183	
October 2017	01	9183	
November 2017	02	9186	
December 2017	02	9186	
January 2018	02	9186	
February 2018	01	9186	
March 2018	01	9186	
Total	**27**		

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
KVK Nanded-1	Text only	11	05		07	04		27
	Voice only	--	--	--	--	--	--	--
	Voice & Text both	--	--	--	--	--	--	--
	Total Messages	**--**	**--**	**--**	**--**	**--**	**--**	**--**
	Total farmers Benefitted	**60532**	**43680**	**--**	**52107**	**35224**	**--**	**191543**

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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	
01	Azolla unit	2013	150 sq.ft.	--	--	55 kg	200/-	3300/-	--
02	Fodder unit	2013	0.025 ha	DHN-6, Phule Jaywanat	Green fodder	16 ton/ four cuttings	1740/-	2,40,000/-	The fodder is utilized for cattle, bullocks, buffalo of instructional farm.
03	Vermi compost	2011	02 ponds	Eisenia fetida	--	52 kg	--	3000/-	--

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.	Cost of inputs	Gross income	
Cereals									
Wheat	25th November 2017	7th March 2018	0.40	Loc-1	--	7.5 qtl	5500	13875	
Kharif Jowar	19th June 2017	10th October 2017	1.20	CSH-9	--	32.40 qtl	15060	42120	
Rabi Jowar	4th November 2017	3rd April 2018	1.20	Parbhani Moti	Truthful	14 qtl	12500	35000	
Pulses									
Green gram	18th June	2nd	0.80	Utkarsha	--	05 qtl	10000	22500	

	2017	September 2017							
Black gram	18th June 2017	12th September 2017	0.40	TAU-1	--	3.5 qtl	6500	16450	
Red gram	20th June 2017	25th January 2018	0.80	BDN-711	Truthful	5.50 qtl	4500	66000	
Bengal gram	15th December 2017	21st March 2018	1.60	Jaki-9218	Truthful	12.5 qtl	15600	87500	
Oilseeds									
Soybean	19th June 2017	20th October 2017	1.60	MAUS-71	Foundation	27 qtl	50200	216000	
Soybean	20th June 2017	20th October 2017	1.60	MAUS-158	Foundation	13.5 qtl	50200	108000	
Soybean	20th June 2017	25th October 2017	1.60	KDS-344	Foundation	19.65 qtl	50200	157200	
Soybean	21st June 2017	25th October 2017	0.40	MACS-1188	Truthful	4.5 qtl	9500	29250	
Fibers									
Cotton	15th June 2017	25th October 2017	0.80	First class	--	10.5 qtl	22000	51450	
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									
Sugarcane	November 2016	2nd December 2017	1.2	Co-86032	--	102 ton	100200	214200	

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	
01	Vermi culture	30 kg	1700/-	12000/-	
02	Trichoderma	505 kg	10000/-	50500/-	

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Goat	Osmanabadi	Buck	10	12000/-	42500/-	
2	Cow	Deshi/ ND	Bullocks	02	15000/-	--	Not sold yet

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 2017	--	--	--
May 2017	--	--	--
June 2017	--	--	--
July 2017	--	--	--
August 2017	--	--	--
September 2017	--	--	--
October 2017	--	--	--
November 2017	--	--	--
December 2017	--	--	--
January 2018	--	--	--
February 2018	--	--	--
March 2018	--	--	--

F. Database management

S. No	Database target	Database created
--	--	--

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.)		
---	---	--	--	--	--	--	--	--	--

16. FINANCIAL PERFORMANCE

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	State Bank of India	Dr Lane, Nanded	433	JNIESTR	32939437778	431002881	SBIN0000433
With KVK	State Bank of India	Dr Lane Nanded	433	KRISHI VIGYAN KENDRA	32939439159	431002881	SBIN0000433

B. Utilization of KVK funds during the year 2017-18 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	8308000	8308000	8307302
2	**Traveling allowances**	138000	138000	138709
3	**Contingencies**	1044000	1044000	
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			106812
B	POL, repair of vehicles, tractor and equipments			281122
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			18690
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			151327
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			4700
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			33751
G	Melawa Expenses			25685
H	Maintenance of farm			210929
I	Soil Health card, refilling and printing			196353
J	Publication and Literature			1650
	TOTAL (A)			**1031019**
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**			
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**9490000**	**9490000**	**9477030**

C. 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 2015 to March 2016	1,31,129	22,96,924.40	19,72,099	4,55,954.40
April 2016 to March 2017	455954.40	2499855	2617823	337986.40
April 2017 to March 2018	337986.40	3009698.05	2695071.40	652613.05

17. Details of HRD activities attended by KVK staff during year

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Mr. Kalyankar M.G.	Scientist (Plant Protection)	Workshop on Skill Development in Agriculture	NAARM, Hyderabad	20th – 21st January 2017
Mr. Kalyankar M.G.	Scientist (Plant Protection)	One Day training on Sericulture Technology	VNMKV, Parbhani	04th March 2017
Mr. Kalyankar M.G.	Scientist (Plant Protection)	On farm production on Bio-agents and Microbial Bio pesticides	NIPHM, Hyderabad	05th – 14th September 2017
Mr. Kalyankar M.G.	Scientist (Plant Protection)	Participated Training on ETA Module of PFMS	KVK Babhaleshwar	25th – 26th October 2017

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	72	1867	499	2266
Rural youths	08	172	10	142
Extension functionaries	04	87	17	104
Sponsored Training	01	31	00	31
Vocational Training	04	86	25	111
Total	**89**	**2243**	**551**	**2654**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	244	108	04
Pulses	195	90	05
Cereals	10	04	01
Vegetables	57	5.5	02
Other crops	105	36.20	04
Hybrid crops	--	--	--
Total	**611**	**243.7**	**16**
Livestock & Fisheries	--	--	--
Other enterprises	100	0.73	03
Total	**100**	**0.73**	**03**
Grand Total	**711**	**244.43**	**19**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	07	40	40
Livestock	02	10	10
Various enterprises	02	10	10
Total	**11**	**60**	**60**
Technology Refined			
Crops	--	--	--
Livestock	--	--	--
Various enterprises	--	--	--
Total			
Grand Total	**11**	**60**	**60**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	291	11707
Other extension activities	169	625
Total	**460**	**12332**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Mark e-ting	Awar e-ness	Other enterprise	Total
KVK Nanded-1	Text only	11	05		07	04		27
	Voice only	--	--	--	--	--	--	--
	Voice & Text both	--	--	--	--	--	--	--
	Total Messages	**--**	**--**	**--**	**--**	**--**	**--**	**--**
	Total farmers Benefitted	**60532**	**43680**	**--**	**52107**	**35224**	**--**	**191543**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	145.5	1035895
Planting material (No.)	16104	66280
Bio-Products (kg)	535 kg	62500
Livestock Production (No.)	--	--
Fishery production (No.)	--	--

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	4342	434200
Water	100	5000
Plant	--	--
Total	**4442**	**439200**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	02
2	Conferences	03
3	Meetings	05
4	Trainings for KVK officials	02
5	Visits of KVK officials	04
6	Book published	01
7	Training Manual	01
8	Book chapters	00
9	Research papers	03
10	Lead papers	00
11	Seminar papers	03
12	Extension folder	14
13	Proceedings	08
14	Award & recognition	05
15	Ongoing research projects	03