

**ICAR-ATARI, Pune**  
**DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2018-19**  
(1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)

**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)
Krishi Vigyan Kendra (Dr. PDKV), Waghapur road, Yavatmal I – 445 001 (MS)	Office 07232 (248235)	FAX	pckvktyl@yahoo.co.in	www.kvkyavatmal.pdkv.ac.in (9521)

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

Address	Telephone		E mail	Website address
	Office	FAX		
Registrar, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola	Office-0724- 2258200-217	FAX -0724- 2258219, 2259248	vc@pdkv.mah.nic.in deepdkv@yahoo.com	www.pdkv.ac.in

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

Name	Telephone / Contact		
Dr. S. U. Nemade	Office	Mobile	Email
	07232-248235	9421771374	pckvktyl@yahoo.co.in

**1.4. Year of sanction: 2004**

**1.5. Staff Position (as on March 31, 2019)**

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	Dr. S. U. Nemade	Agronomy	37400-67000	9000	01/07/2017	Permanent
2.	Subject Matter Specialist	Mrs. Nilima V. Patil	SMS (Home Science)	15600-39100	27390	21/02/2008	Permanent
3.	Subject Matter Specialist	Mr M. B..Dhole	SMS(AgrilExtn)	15600-39100	21000	22/09/2016	Permanent
4.	Subject Matter Specialist	Dr. K.W.Sarap	SMS (AHDS)	15600-39100	21,000	01/10/2016	Permanent
5.	Subject Matter Specialist	Dr. Sukesani Saumitra Wane	SMS (Agril Engg)	15600-39100	21,000	04/10/2016	Permanent
6.	Subject Matter Specialist	Dr. P. N. Magar	SMS (Entomology)	15600-39100	21,000	26/12/2016	Permanent
7.	Subject Matter Specialist	Vacant	SMS (Agronomy)	15600-39100	21,000	Vacant	
8.	Programme Assistant	Mr V.D. Rathod	Programme Assi (Lab Tech)	9300-34800	13,500	05/08/2016	Permanent
9.	Computer Programmer	Mr R.M. Deshmukh	Programme Assi (Comp)	9300-34800	13,500	08/08/2016	Permanent
10.	Farm Manager	Mr K.D. Shirsat	Farm Manager	9300-34800	13,500	04/01/2017	Permanent
11.	Accountant/Superintendent	Mr N. S. Kate	ASO	9300-34800	13,500	10/08/2016	Permanent
12.	Stenographer	Mr L. S. Gaikwad	Stenographer	5200-20200	9910	08/09/2016	Permanent
13.	Driver 1	Shri.V. B. Borse	Driver	5200-20200	8460	10/10/2016	Permanent
14.	Driver 2	Shri. A. R. Kadu	Driver	5200-20200	8460	13/10/2016	Permanent
15.	Supporting staff 1	Ku. Ashwini D. Mahurkar	Skill Helper	5200-20200	1800	04/10/2018	Permanent
16.	Supporting staff 2	Mr. Baratshing Sulane	Skill Helper	5200-20200	1800	10/10/2018	Permanent

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

S. No.	Item	Area (ha)
1.	Under Buildings	3.40
2.	Under Demonstration Units	1.00
3.	Under Crops	15.00
4.	Horticulture	--
5.	Pond	0.40
6.	Others if any	0.20
	Total	20.00

**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	Dec 2010 March 2007	552	34.00 --	Sept.2009	--	Completed
2.	Farmers Hostel	ICAR		400	--	--	--	--
3.	Staff Quarters (6)	ICAR	Dec 2010	400	--	Sept.2009	--	Completed
4.	Demonstration Units (2)	ICAR	June, 2010	72.270	4.00	06.09.09	--	Completed
5.	Fencing	--	--	--	--	--	--	Need to Established
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
TATA SUMO SE+	2005	4,52,455.00	3,30,000	Working
HERO HONDA SPL +	2006	50000.00	32729	Not in Working
Tractor	2012	4,50,000	1700 hrs	Under Repair

**C) Equipments & AV aids**

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
MEGA Phone	2006	2500.00	Working
Solar Tunnel Dryer	2018	9500.00	Working
Portable Zero Energy Cool chamber (CRIDA Model)	2018	3000.00	Working
Cooking Gas with Stove	2018	6000.00	Working
Mixer/ Grinder	2018	3600.00	Working
Boom Sprayer	2007	75200.00	Under Repair
V Pass	2008	12981.00	Working
Dr. PDKV Cotton Slasher	2009	84000.00	Working
5 Tyne cultivator	2008	17788.00	Working
M.B. Plough	2008	20625.00	Under Repair
9 Tyne Cultivator	2007	20625.00	Under Repair

**1.8. Details SAC meeting conducted in the year**

Date	Name and Designation of Participants	Salient Recommendations	Action taken
02/04/2018	Hon'ble Dr. V. M Bhale, VC, Dr. PDKV, Akola Dr. Dr. D. M. Mankar, DEE, Dr. PDKV, Akola	Cultivation of different fodder crop varieties demo unit at KVK farm and awareness among the farmer	CO-4, CO-5, DHN-10 cultivation at KVK farm
		Organize training programme and demonstration on cotton picking apron	2 demonstration on farmer field & 4 training programme among farm women
		Organize Awareness, training programme and Economical importance among Farmer about Solar turmeric boiler for turmeric processing	2 training programme conducted on Solar turmeric boiler for turmeric processing
		Update information of soil Testing report on Portal	Information updated
		Update information of KVK programme on KVK portal	Update daily information on KVK portal
		Organize sericulture plantation demo unit at KVK farm	G-4 variety cultivation at demo unit
		Organize training programme on importance of custom hiring center for Farmer	5 trainings programme conducted on custom hiring center for farmers

09/07/2018	Hon'ble Dr. V. M Bhale, VC, Dr. PDKV, Akola Dr. Dr. D. M. Mankar, DEE, Dr. PDKV, Akola	Each Scientist oragine own Demo unit at KVK center	Kdakanath Unit, Azolla, Vermicompost, Farm equipments,
		Send extension activity programme news to DEE office for News Letter	Monthly & qurtarly send report to DEE office
		Update M-Kisan, Youtube, Mobile App, portal trough extension activity	Send massage on M-kisan portal, Create Youtube channel on KVK, Yavatmal
		Awareness among district on safe use of pesticide while spraying	Organized 23 trainings programme on safe use of pesticide while spraying

## 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 + Poultry
3	Agriculture + Dairy
4	Agriculture + Fishery (Seasonal) in govt. subsidies farm pond
5	Agriculture + Goatry
6	Agriculture + Silviculture

### 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	Agro-climatic Zone No.8	Moderate Rainfall Zone. Only small western part of Darwha&NerTahsils falls under assured rainfall zone No. 7. The Average rainfall received in this Zone usually exceeds 900 m. m. The climate is hot and dry. More than 75% rainfall in this zone is received in Kharif season; hence Kharif cropping system predominates in the zone. In general, all types of soils are observed in this zone. Preferably, medium and heavy in texture, fairly high in clay content, alkaline in reaction, high lime reserve with high base saturation of the exchange complex. The soils are severely eroded & shallow. They are uneven in depth and are underlain by stony substrata. They are intercepted by gullies having rapid run off resulting in severe erosion & prone to droughtiness.

#### b)Topography

S. No.	Agro ecological situation	Characteristics
1	I	Medium to heavy soils, rainfed area
2	II	Light to medium soils, command area and well irrigation
3	III	Mostly Rainfed Medium to heavy soils, Surrounded by forest.
4	IV	Light to heavy soils, irrigation through wells, Horticulture crop pocket
5	V	Mostly rainfed light to Medium soils

### 2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Shallow	Very dark brown clay, blocky, slightly hard, crack visible, disintegrated murum	50 %
2	Deep	Dark brown clay, cloddy, hard, lime nodules present thought the profile, Disintegrated murum	30 %
3	Very deep	Very dark brown clay, cloddy, hard, full of lime concretion increasing with depth	20 %

### 2.4. Area, Production and Productivity of major crops cultivated in the district (2018-19)

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
1	Cotton	459532	236001.00	864
2	Jawar	14471	11833.10	389
3	Redgram	130209	107075.27	770
4	Soybean	277504	224186.32	1240
5	Greengram	8533	4661.16	--
6	Blackgram	7228	4177.31	--
7	wheat	34612	12236.00	--
8	Chickpea	99180	55166.04	--

Source: \* Source: SAO office, Yavatmal

### 2.5. Weather data (2018-19)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
June	178	35.2	23.1	69.16	52.76
Jully	151	28.3	22.0	84.22	82.67
August	133	28.1	21.2	81.83	73.22
September	153	32.2	21.1	70.3	62.83
Total	615	123.8	87.4	305.51	271.48

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

Category	Population	Production	Productivity
<b>Cattle</b>		243078	
Crossbred	6162	5.824	--
Indigenous	97332	4.124	--
<b>Buffalo</b>	31232	5.742	--
<b>Sheep</b>	26661	--	--
<b>Goats</b>	81691	0.206	--
<b>Pigs</b>	--	--	--
Crossbred	--	--	--
Indigenous	--	--	--

<b>Rabbits</b>	--	--	--
<b>Poultry</b>		<b>189490</b>	
Hens	31418		--
Desi	158072		--
<b>Category</b>		<b>Production (Q.)</b>	<b>Productivity</b>
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
Ralegaon	Ralegaon	Pimpri	Groundnut	Yellowing or Groundnut	INM
		Ralegaon	Groundnut	Pod formation due to delay sowing in groundnut crop	ICM & Weather
		Dordapur	Cotton	Pink bollworm infestation	IPM & Pest Management
		Zadkinhi	Cotton	Pink bollworm infestation	IPM & Pest Management
Ghatanji	Ghatanji	Yeranda	Groundnut	Pod formation due to delay sowing in groundnut crop	ICM & Weather
		Sawangisaangam	Groundnut	Pod formation due to delay sowing in groundnut crop	ICM & Weather
		Kopari	Cotton	Pink bollworm infestation	IPM & Pest Management
		Shivani	Cotton	Para wilt in cotton	ICM
pusad	pusad	Shevanagar	Cotton	Para wilt in cotton	ICM
		Valtur Railway	Groundnut	Less pod filling due to delay sowing	ICM & Weather
Ner	Ner	Yelgunda	Mango	Drying of mango orchard	Faulty planting system
		Javmal	Soybean	Low bearing in soybean	INM
		Manikwada	Cotton	Pink bollworm infestation	IPM & Pest Management
		Mangal	Cotton	Pink bollworm infestation	IPM & Pest Management
		Mangaladevi	Cotton	Pink bollworm infestation	IPM & Pest Management
Kalamb	Kalamb	Magrul	Groundnut	Pod formation due to delay sowing in groundnut crop	ICM & Weather
		Pahur	Cotton	Pink bollworm infestation	IPM & Pest Management
		Dongarkharda	Cotton	Pink bollworm infestation	IPM & Pest Management
Yavatmal	Yavatmal	Pandhari, Pandhurna,	Soybean	Low soybean seed germination	ICM
		AkpuriAsola	Cotton	Pink bollworm infestation	IPM & Pest Management
		WadegaonRaod	Cotton	Pink bollworm infestation	IPM & Pest Management
		Belora	Cotton	Pink bollworm infestation	IPM & Pest Management
		Saykheda	Fodder	Insufficient green fodder	Fodder Management
Yavatmal	Yavatmal	Shivani	Poultry	Low weight gain in local poultry bird.	Poultry management
		BorgaonPunji	Goat	Low weight gain & high mortality in goat kid	Goat Management
		BorgaonPunji	Buffalo	Mineral deficiency	Nutritional Management
		Dabha, Kelapur,	Cotton	Pink bollworm infestation	IPM & Pest Management
Pandharkawada	Pandharkawada	Mauda	Cotton	Pink bollworm infestation	IPM & Pest Management
		Kinhala	Cotton	Pink bollworm infestation	IPM & Pest Management
		Kelapur	Cotton	Pink bollworm infestation	IPM & Pest Management
		Hiwra	Cotton	Pink bollworm infestation	IPM & Pest Management
ZariJamani	ZariJamani	KataliBorgaon	Cotton	Pink bollworm infestation	IPM & Pest Management
Umarkhed	Umarkhed	Belkheda	Soybean	Low Germination of Soybean	ICM
		Nagapur	Soybean	Low Germination of Soybean	ICM
		Parsodi	Soybean	Low Germination of Soybean	ICM
		Ganjegaon	Soybean	Low Germination of Soybean	ICM
		Govindpur	Soybean	Excess growth of soybean & bear less No. of Pod	ICM
		Tiwadi	Soybean	Less No of Pod formation in soybean crop	ICM
		Gunj	Soybean	Low germination in soybean	ICM
Mahagaoon	Mahagaoon	GanjegaonSoit	Soybean	Poor Seed germination of Soybean	ICM
		Pendhi	Soybean	Yellowing of soybean	ICM
		Amboda	Cotton	Para wilt in cotton	ICM
		Khadka,	Cotton	Pink bollworm infestation	IPM & Pest Management
		Rasa	Cotton	Pink bollworm infestation	IPM & Pest Management
Wani	Wani	Naygaon	Soybean	Low bearing in soybean	ICM
		Kelog	Cotton	Para wilt in cotton	ICM
Maregaon	Maregaon	Mangrul	Cotton	Pink bollworm infestation	IPM & Pest Management

## 2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Agronomy	<ul style="list-style-type: none"> <li>Improving productivity of cotton, chickpea, soybean, pigeonpea, Jowar, wheat, greengram and blackgram.</li> <li>Approaching to advance cropping system.</li> <li>Crop diversification in cotton based cropping system.</li> <li>Approach towards sustainable agriculture.</li> <li>Approach towards INM</li> <li>In-situ moisture conservation techniques</li> <li>Motivation of the farmers towards the adoption of new improved cultivars</li> </ul>
Animal Science	<ul style="list-style-type: none"> <li>Fodder cultivation for self sufficiency in feed &amp; fodder</li> <li>Reducing the cost of feed due to enrichment</li> <li>Identifying mineral Deficiency</li> <li>Improper feeding management in poultry</li> </ul>
Home Science	<ul style="list-style-type: none"> <li>Lack of knowledge about post harvest techniques and value addition in fruits and vegetable.</li> <li>Awareness regarding drudgery reduction in household and farm activities for rural women.</li> <li>Improvement in livelihood of rural women and children by educating health and hygiene.</li> <li>Empowerment of rural women through alternate self employment through SHG.</li> <li>Improvement in group activities of rural women.</li> <li>Awareness about care and nutrition of pregnant, lactating women and Diet management among rural woman and child.</li> <li>Awareness of nutritional kitchen gardening in rural area.</li> <li>Lack of knowledge about efficient method of food grain storage.</li> </ul>
Plant protection	<ul style="list-style-type: none"> <li>Technology dissemination for cost effective and efficient plant protection.</li> <li>Introduction of high yielding varieties with appropriate plant protection strategy</li> <li>Improvement in productivity and quality of Onion, Okra production</li> <li>Utilization of biocontrol agents in the pest and disease management</li> <li>Lack of knowledge regarding recommended insecticides with label claim</li> <li>Poor knowledge of eco-friendly plant protection measures</li> <li>Safe use of pesticide</li> </ul>
Agril Engg	<ul style="list-style-type: none"> <li>Farm Mechanization</li> <li>Water management and Micro-irrigation</li> <li>Agro processing and value addition</li> <li>Watershed Management</li> <li>Renewable energy sources</li> <li>Post harvest technology</li> </ul>
Exten. Education	<ul style="list-style-type: none"> <li>Effective Transfer of Technology through Group Commodity</li> <li>Entrepreneurship development of Farming Community.</li> <li>Farm Mechanization</li> <li>Technology dissemination through training &amp; extension activities.</li> <li>Promotion of cultivation technologies for group commodity</li> </ul>

## 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
10	10	130	130	11	11	266	266

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
152	152	8737	8737	243	243	49086	49086

Seed Production (Qtl.)				Planting materials (Nos.)			
5				6			
Target		Achievement		Target		Achievement	
78		78		Nil		Nill	

Livestock, poultry strains and fingerlings (No.)				Bio-products (Kg)			
7				8			
Target		Achievement		Target		Achievement	
Nil		Nil		306		306	

### 3.1. B. Operational areas details during 2018-19

S.No.	Major crops & enterprises being practiced in cluster of villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/No.) affected by the problem in the district	Name of Cluster Villages identified for interventions	Interventions (OFT, FLD, Training, extension activity etc.)*
1	Cotton	Low yield of cotton due to weed management that leads to Enhance the cost of cultivation	--	Yavatmal Taluka	OFT, Training
2	Soybean	conventional method of weed control are very laborious expensive and time consuming & High cost of cultivation	--	Babhulgaon Taluka	OFT, Training
3	Chick pea	Low yield in chickpea due to lack of ICM technology including use of high yielding variety	--	Ghatanji & Kalamb Taluka	FLD, Training
4	Pigeon pea	Lack of awareness regarding new high yielding, bold seeded variety of Pigeon pea & in-balance use of nutrients	--	Yavatmal & Babhulgaon Taluka	FLD, Training
5	ICM practices in chickpea	Integrated Crop Management		Ralegaon Taluka	FLD, Training
6	Soybean	Stem fly and girdle beetle	--	Babhulgaon	OFT, Training, Extension activity
7	Cotton	Pink Bollworm infestation	--	Kalamb	OFT, Training, Extension activity
8	Soybean	Root rot infestation	--	Babhulgaon	FLD, Training
9	Chickpea	Pod borer infestation	--	Yavatmal	FLD, Training
10	Phule Gunvant fodder	Insufficient green fodder in summer	0.12	Borgaon Punji (Yavatmal)	OFT, Training
11	5 % azolla powder in poultry birds	Less weight gain	13	Belona (Yavatmal)	OFT, Training
12	Urea treated wheat straw.	Insufficient green fodder in summer	25 (no. of Animal 50)	Shivani (Yavatmal)	FLD, Training
13	Azolla	Lack of knowledge about supplementary feed	25 (No. of Animal 50)	Kalamb	FLD, Training
14	Tractor Drawn Slasher	No awareness about machine for slashing the stalk and in cooperation in soil.	-	Yavatmal & Kalamb	OFT
15	Mini Solar tunnel dryer for drying vegetable like chilli, onion etc.	Storage problem of vegetable	--	Yavatmal	OFT
16	Manual weeder developed by CRIDA, Hyderabad for weeding.	Lack of laours for manual weeding. Which is exensive.	4000 ha	Yavatmal & Kalamb	FLD
17	PDKV developed BBF planter	Sowing and furrow making is expensive. Plant to plant distance can not maintain by local seed drill.	5000 ha	Kalamb	FLD
18	Vegetable	Portable preservation		Rui, Yavatmal	OFT Trainings
19	Soybean	Drudgery reduction	2000 ha	Lasina Yavatmal	OFT, Traings
20	Insect Probe Trap	Storages technique		Belona, Yavatmal	FLD ,training and field Day
21	Thermo Efficient Cook Stove	Use of energy saving		Rui, Wai	FLD ,training and field Day

### 3.2. Technology Assessment

#### 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	--	--	--	--	--	--	--	--	--	--
Varietal Evaluation	--	01	01	--	--	--	--	--	--	02
Integrated Pest Management	--	01	--	01	--	--	--	--	--	02
Integrated Crop Management	--	--	--	--	--	--	--	--	--	--
Integrated Disease Management	--	--	--	--	--	--	--	--	--	--
Small Scale Income Generation Enterprises	--	--	--	--	--	01	--	--	--	01
Weed Management	--	01	--	01	--	--	--	--	--	02
Resource Conservation Technology	--	--	--	--	02	--	--	--	--	02
Farm Machineries	--	--	--	01	--	--	--	--	--	01
Integrated Farming System	--	--	--	--	--	--	--	--	--	--
Seed / Plant production	--	--	--	--	--	--	--	--	--	--
Value addition	--	--	--	--	--	--	--	--	--	--
Drudgery Reduction	--	--	--	--	--	--	--	--	--	--
Storage Technique	--	--	--	--	--	--	--	--	--	--
Mushroom cultivation	--	--	--	--	--	--	--	--	--	--
Total	0	03	01	03	02	01	0	0	0	10

#### A2. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds	--	--	--	--	--	--
Nutrition Management	01	01	--	--	--	02
Disease of Management	01	01	--	--	--	02
Value Addition	--	01	--	--	--	01
Production and Management	01	01	--	--	--	02
Feed and Fodder	01	01	--	01	--	03
Small Scale income generating enterprises	--	02	--	01	--	03
TOTAL	04	08	--	02	--	13

### B. Achievements on technologies Assessed

S. N o.	Crop/ enterprise	Prioritized problem	Title of intervention	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the intervention( Rs.)	Parameters to be studied	Team members
1	Soybean	The conventional method of weed control (i.e. hoeing, handweeding) are very laborious expensive and time consuming 2. Heavy weed infestation in Soybean during critical crop weed competition resulted in low yield of Soybean 3. Difficulty in weeding operation during continuous rains & labour	Herbicide Weed management in Soybean.	1	Krishi Sanwadini, 2018, Dr. PDKV, Akola Page No. 209	Spray Combination of Imazethapyr + Imazamox (premix) 70WG @ 0.070 kg ai/ha PoE 20 DAS.	13	1900	13	24700	Weed population ( $M^{-2}$ ), Grain yield ( $qha^{-1}$ ), GMR, NMR & B:C ratio	13

		availability for weeding 4. High cost of cultivation										
2	Cotton	Heavy weed infestation in Cotton during critical period of crop weeds competition & difficulty in weeding operation during continuous rains and labour unavailability for weeding.	Herbicidal weed management practices in Cotton (Bt)	1	Krishi Sanwadini, 2018, Dr. PDKV, Akola Page No. 205	Pendimethalin 30 EC @ 1.00 kg a.i./ha followed by directed spray (by using protective shield) of non-selective herbicide Paraquat 20 SL @ 0.60 kg a.i./ha at 45 DAS of cotton	13	2200	13	28600	Weed population ( $M^{-2}$ ), Cotton Yield ( $qha^{-1}$ ), GMR, NMR & B:C ratio	13
3	Cotton	Pink bollworm management	Management of pink bollworm in Bt cotton	1	IPM Package for Cotton 2014, DPPQS, Faridabad	Installation of pheromone traps @ 2/acre for monitoring at flower initiation, Spray Azadirachtin 300 PPM @ 50 ml/ 10 L water at flower initiation, 6 to 7 inundative releases of Trichogramma chilonis @ 60000/acre, Plucking of rosette flowers, ETL based application of Thiodicarb 75 WP @ 20 gm. 10 L water at boll formation followed by Deltamethrin 2.8 EC @ 10 ml/ 10 L water	13	1500	13	19500	Per cent Green Boll damage Per cent loculi damage at harvest, yield $qha^{-1}$ B:C ratio	13
4	Soybean	Stem fly and girdle beetle infestation	Management of stem fly and girdle beetle on soybean	1	Krishi Sanwadini 2017-Dr. PDKV, Akola and CIB&RC, Faridabad	Ethion 50EC, Chlorantraniliprole 18.5 SC	13	680	13	8840	Per cent stem fly and girdle beetle infestation	13
5	Phule Gunvant fodder	Unavailability of Green fodder throughout the year	Introduction and expansion area under perennial fodder variety Phule Gunvant for feeding and Fodder production	Fodder sets	MPKV, Rahuri, Krishidarshani 2017	Sets	250 sets /farmer (13 Farmer)	500 Rs/Farmer	13	6500/-	Green Fodder yield, Milk Yield	13
6	Poultry	Low weight gain	Assessment on inclusion of azolla powder 5% in feed for low input	Dry Azolla powder	Dr. PDKV, Akola	Azolla culture	1 Kg Azolla culture/Farmer (13 Farmer)	230 Rs/Farmer	13	2990/-	Body weight gain	13



			poultry bird				mer )					
7	Tractor Drawn slasher	Management of crop residues in the field	Perfor mance assessm ent of Tractor operate d Slasher	Tracto r Drawn slasher	Dr. PDKV, Akola	Tractor Drawn slasher	1	1500	13	19500/-	Field capacity (ha/hr), Fuel Consumpti on(lit/ha) Cost of Operation (Rs./ha)	Dr. S. S. Wane
8	Mini Solar tunnel dryer	Drying of Chilli	Perfor mance assessm ent of Mini Solar tunnel dryer	Mini Solar tunnel dryer	Dr. PDKV, Akola	Mini Solar tunnel dryer	1	1000	13	13000	Time requirem ent (ha/hr) - Temperat ure (degree centigrad e) - Efficiency (%)	Dr. S. S. Wane
9	Vegeta ble	Portable Preservation	Assess ment of portabl e fruits and vegeta ble Preser vator – CRID A Model (Janta Freeze )	Zero energ y fruits and veget able Preser vator (Janta Freeze )	CRIDA Hyderabad	Tomato		450 per farm er	13	5850/-	Shelf life of the produce extended to 6-10 days based on the vegetable products.	SMS Home Scienc e
10	Soybea n	Drudgery Reduction	Asses Suitabil ity of mittens in harvesti ng of soybea n	1Conven tional metho d 2Soy Mitten s develo ped by AICR P, VNM AU,Pa rbhani 3Multi purpos e Mitten s develo ped by VNM AU,	AICRP, College of Home Science VNMAU Parbhani	Soy Mittens and Multipurpose Mittens	One pair of each	700/-	13	9100/-	Area covered / hour	SMS Home Scienc e

## 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					
Integrated Pest Management	Cotton	Management of pink bollworm in Bt cotton	13	13	5.2
	Soybean	Management of stem fly and girdle beetle on soybean	13	13	5.2
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management	Soybean	Herbicidal Weed management in Soybean.	13	13	5.2
	Cotton	Herbicidal weed management practices in Cotton (Bt)	13	13	5.2
Resource Conservation Technology					
Farm Machineries	Tractor Slasher	Tractor operated Slasher	13	13	5.2
	Mini Solar tunnel dryer	Mini Solar tunnel dryer	13	13	--
Integrated Farming System					
Seed / Plant production					
Value addition	Vegetable	Assessment of portable fruits and vegetable Preservator –CRIDA Model (Janta Freeze )	13	13	--
Drudgery Reduction	Soybean	Asses Suitability of mittens in harvesting of soybean	13	13	--
Storage Technique					
Mushroom cultivation					
<b>Total</b>					

## B.2. 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	Cattle	Urea treated wheat straw	50	25
	Poultry	Inclusion of azolla powder in feed of poultry	13	13
	Goat	Inclusion of green azolla in feed	50	25
	buffalo	Use of mineral mixture	25	25
Disease management	Cattle, Poultry, Goat, buffalo	Vaccination according to season	1	75
Value addition	-	-	--	--
Production and management	Azolla cultivation	Azolla mother cultivation	50	50
Feed and fodder	Improved variety of fodder	CO-5,CO-4, DHN-10	10	100
Small scale income generating enterprises	Poultry	Backyard Poultry	2	2
<b>Total</b>			<b>201</b>	<b>152</b>

**C1.Results of Technologies Assessed : 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	Irrigated	1. The conventional method of weed control (i.e. hoeing, hand weeding) are very laborious expensive and time consuming 2. Heavy weed infestation in Soybean during critical crop weed competition resulted in low yield of Soybean 3. Difficulty in weeding operation during continuous rains & labour availability for weeding 4. High cost of cultivation	Herbicide Weed management in Soybean	13	<b>T<sub>1</sub></b> : Farmers practice (Imazethapyr) <b>T<sub>2</sub></b> : Spray Combination of Imazethapyr + Imazamox (premix) 70WG @ 0.070 kg ai/ha PoE 20 DAS	Weedicide Grain yield	B:C ratio of farmer practice is 2.22 & B:C ratio of Technology Demonstrated practice is 2.32 6.18% more grain yield received as compare to farmer practice	Spray Combination of Imazethapyr + Imazamox (premix) 70WG @ 0.070 kg ai/ha PoE 20 DAS (T <sub>2</sub> ) increase the yield and B:C ratio over farmers practice (T <sub>1</sub> )	Use of demonstrated weedicide is very effective and economical	--	--

**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)	Farmers practice (Imazethapyr)	1699	Kg/ha	31751	2.22
Technology option 2	Spray Combination of Imazethapyr + Imazamox (premix) 70WG @ 0.070 kg ai/ha PoE 20 DAS	1804	Kg/ha	34970	2.32

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

1 Title of Technology Assessed : Herbicidal weed management practices in Soybean

2 Problem Definition : 1. The conventional method of weed control (i.e. hoeing, hand weeding) are very laborious expensive and time consuming 2. Heavy weed infestation in Soybean during critical crop weed competition resulted in low yield of Soybean 3. Difficulty in weeding operation during continuous rains & labour availability for weeding 4. High cost of cultivation

3 Details of technologies selected for assessment : assessment of weedicide for effective control of weed in soybean crop.

4 Source of technology: Krishi Sanwadini, 2018, Dr. PDKV, Akola Page No. 205

5 Production system and thematic area : weed management

6 Performance of the Technology with performance indicators : grain yield & weed infestation

7. Feedback, matrix scoring of various technology parameters done through farmer's participation /other scoring techniques : farmers are very happy that the effective weed management by demonstrated weedicide

8 Final recommendation for micro level situation : the weedicide Imazethapyr + Imazamox (premix) 70WG @ 0.070 kg ai/ha PoE 20 DAS is very effective for weed control in soybean crop

9 Constraints identified and feedback for research : timely application of weedicide is most important i.e. It should be applied before 20 DAS of the Soybean crop.

10 Process of farmers participation and their reaction: farmers were very happy & interested to used recommended technology as compare to only use of weedicide Imazethapyr.

## C1.Results of Technologies Assessed : Agronomy

### 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
Bt. Cotton	Irrigated	Low yield of cotton due to Heavy weed infestation in Cotton during critical period of crop weeds competition & difficulty in weeding operation during continuous rains and labour unavailability for weeding.	Herbicide weed management practices in Cotton (Bt)	13	<b>T1</b> :- Farmer practice (conventional hand weeding & hoeing ) <b>T2</b> :- PE application of Pendimethalin 30 EC@ 1.00 kg a.i./ha followed by directed spray (by using protective shield) of non-selective herbicide Paraquat 20 SL @ 0.60 kg a.i./ha at 45 DAS of cotton	Weedicide Grain yield	B:C ratio of farmer practice is & B:C ratio of Technology Demonstrated practice is 1.92 4.75 % more grain yield received as compare to farmer practice	PE application of Pendimethalin 30 EC@ 1.00 kg a.i./ha followed by directed spray (by using protective shield) of non-selective herbicide Paraquat 20 SL @ 0.60 kg a.i./ha at 45 DAS of cotton (Bt) found significantly superior over Farmer practice (conventional hand weeding & hoeing ) (T <sub>1</sub> ) and recorded <b>4.75 %</b> higher yield.	Use of demonstrated weedicide is very effective and economical	--	--

### 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)	Farmer practice (conventional hand weeding & hoeing )	2231	Kg/ha	71755	1.66
Technology option 2	PE application of Pendimethalin 30 EC@ 1.00 kg a.i./ha followed by directed spray (by using protective shield) of non-selective herbicide Paraquat 20 SL @ 0.60 kg a.i./ha at 45 DAS of cotton	2337	Kg/ha	79243	1.92

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

1 Title of Technology Assessed : Herbicidal weed management practices in Cotton (Bt)

2 Problem Definition : Low yield of cotton due to Heavy weed infestation in Cotton during critical period of crop weeds competition & difficulty in weeding operation during continuous rains and unavailability of labour for weeding..

3 Details of technologies selected for assessment : PE application of Pendimethalin 30 EC@ 1.00 kg a.i./ha followed by directed spray (by using protective shield) of non-selective herbicide Paraquat 20 SL @ 0.60 kg a.i./ha at 45 DAS of cotton

4 Source of technology: Krishi Sanwadini, 2018, Dr. PDKV, Akola Page No. 205

5 Production system and thematic area : weed management

6 Performance of the Technology with performance indicators : seed cotton yield & weed infestation

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : farmers are very happy that the effective weed management by demonstrated weedicide

8 Final recommendation for micro level situation : the weedicide PE application of Pendimethalin 30 EC@ 1.00 kg a.i./ha followed by directed spray (by using protective shield) of non-selective herbicide Paraquat 20 SL @ 0.60 kg a.i./ha at 45 DAS of cotton

9 Constraints identified and feedback for research : timely application of weedicide is most important

10 Process of farmers participation and their reaction: farmers were very happy & interested to used recommended technology as compare to conventional method of weed control.

## C1.Results of Technologies Assessed : Entomology

### Results of On Farm Trial : 1

Crop/enterpr rise	Farmi ng situati on	Problem definition	Title of OFT	No. of trial s	Technology Assessed	Parameters of assessment	Data on the para meter	Results of assessment	Feed back from the farm er	Any refinem ent needed	Justificat ion for refineme nt
1	2	3	4	5	6	7	8	9	10	11	12
Soybea n	Irrigate d	Stem fly and girdle beetle infestation can cause 16-30% yield losses, if infestation occurs at seedling stageresults in re-sowing of crop.	Manage ment of stem fly and girdle beetle on soybean	13	T <sub>1</sub> - Farmers practice- Profenofos + Cypermethrin @ 20 ml>Flubendiamide 39.35 SC @ 3 ml> Emeactin benzoate 5 SG @ 4 g in 10 liter water(Avg. 3 sprays) T <sub>2</sub> - ETL based spraying of Ethion 50 EC @ 30 ml followed by Chlorantraniliprole 18.5 SC @ 2ml per 10 L water	1. Percent infestation of stem flies and girdle beetles in T1 & T2 2. Cost of Plant Protection 3. Recovery of yield of soybean 4. Economics of stem fly management in all the treatments	--	Lower infestation of stem fly and girdle beetle with 14.06 % increased yield of soybean over farmers practise was observed in the Technology intervened.	Low cost pest management	--	--

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)	Farmer's practice	14.08	qt/ha	26,168	1:1.24
Technology option 2	Krishi Sanwadini- 2017 Dr. PDKV, Akola and CIB & RC, Faridabad	16.06	qt/ha	34,051	1:1.72

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

1 Title of Technology Assessed : Management of stem fly and girdle beetle on soybean)

2 Problem Definition : Stem fly and girdle beetle infestation can cause 16-30% yield losses, if infestation occurs at seedling stageresults in re-sowing of crop.

3 Details of technologies selected for assessment : ETL based spraying of Ethion 50 EC @ 30 ml followed by Chlorantraniliprole 18.5 SC @ 2ml per 10 L water

- 4 Source of technology: Krishi Sanwadini- 2017 Dr. PDKV, Akola and CIB & RC, Faridabad
- 5 Production system and thematic area : integrated pest management
- 6 Performance of the Technology with performance indicators : technology demonstrated is found superior over
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : the technology demonstrated is cost effective in management of stem fly and girdle beetle in soybean and the pesticide are according to label claim
8. Final recommendation for micro level situation : it is recommended the ETL based spraying of Ethion 50 EC @ 30 ml followed by Chlorantraniliprole 18.5 SC @ 2ml per 10 L water for the management of stem fly and girdle beetle in soybean
- 9 Constraints identified and feedback for research : high yielding & pest resistant variety
- 10 Process of farmers participation and their reaction: horizontal

### Results of On Farm Trial :2

Crop/enterprise	Farmer's 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
Bt. Cotton	Rainfed	Severe infestation of pink bollworm on Bt cotton during 2017-18	Management of Pink bollworm in Bt cotton	13	T <sub>1</sub> - Farmers practice- Chlorantraniliprole 18.5 SC @ 3 ml, Chlorpyrifos + Cypermethrin @ 30 ml, Emaxectin benzoate 5SC @ 5 g, Flubendiamide 39.35 SC/10 lit water (Avg. 4 sprays) T <sub>2</sub> - Installation of pheromone traps @ 2/acre for monitoring at flower initiation, Spray Azadirachtin 1500 PPM @ 50 ml/ 10 L water at flower initiation, 3 to 4 inundative releases of <i>Trichogramma chilonis</i> @ 60000/ acre, Plucking of rosette flowers, ETL based application of Thiodicarb 75 WP @ 20 gm. 10 L water at boll formation followed by Deltamethrin 2.8 EC @ 10 ml/ 10 L water	1. Percent Green Boll damage 2. Percent loculi damage 3. Yield qha <sup>-1</sup> 4. B: C Ratio	--	Lower infestation of Pink bollworm with 12.21 % increased yield over farmers practice was observed in the Technology intervened.	--	--	--

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)	Farmer's practice	21.88	Qt/ha	66600	1.96
Technology option 2	IPM Package for Cotton 2014, DPPQS, Faridabad	19.50	Qt/ha	78852	2.33

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

1. Title of Technology Assessed : Management of Pink bollworm in Bt cotton
2. Problem Definition : Severe infestation of pink bollworm on Bt cotton during 2017-18
3. Details of technologies selected for assessment : Installation of pheromone traps @ 2/acre for monitoring at flower initiation, Spray Azadirachtin 1500 PPM @ 50 ml/ 10 L water at flower initiation, 3 to 4 inundative releases of *Trichogramma chilonis* @ 60000/ acre, Plucking of rosette flowers, ETL based application of Thiodicarb 75 WP @ 20 gm. 10 L water at boll formation followed by Deltamethrin 2.8 EC @ 10 ml/ 10 L water
4. Source of technology: IPM Package for Cotton 2014, DPPQS, Faridabad

5. Production system and thematic area : integrated pest management
6. Performance of the Technology with performance indicators : the module demonstrated is found to be cost effective and superior in pink bollworm management than farmers practice
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : : the technology demonstrated is cost effective in pink bollworm management
8. Final recommendation for micro level situation : it is recommended to Install 2 pheromone traps /acre for monitoring at flower initiation followed by Spraying of Azadirachtin 1500 PPM @50 ml/ 10 L water at flower initiation followed by 3 to 4 inundative releases of *Trichogramma chilonis* @60000/ acre & Plucking of rosette flowers followed by ETL based application of Thiodicarb 75 WP @ 20 gm. 10 L water at boll formation followed by Deltamethrin 2.8 EC @ 10 ml/ 10 L water
9. Constraints identified and feedback for research : pink bollworm resistant variety
10. Process of farmers participation and their reaction: horizontal

## 1. Results of Technologies Assessed : AHDS

### 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
Phule Gunvant	Irrigated	1. Unavailability of green fodder throughout the year 2. Low milk yield	Assessment of introduction of new variety Phule Gunvant for fodder production	13	1. T1- Farmers practice (Phule Yashwant) 2. T2- Improved variety (Phule Gunvant)	1. Green Fodder Yield 2. Increase of milk yield	--	64.26 % increase milk yield	Gunvant is a Excellent variety of fodder	No.	--

### 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)	Farmer's practice	1420	Liter /Animal	34400	1:3.10
Technology option 2	MPKV, Rahuri	1600	Liter /Animal	71200	1:3.06

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

1. Title of Technology Assessed : Assessment of introduction of new variety Phule Gunvant for fodder production

2. Problem Definition : 1. Unavailability of green fodder throughout the year 2. Low milk yield

3. Details of technologies selected for assessment : fodder production

4. Source of technology: MPKV ,Rahuri

5. Production system and thematic area : fodder production

6. Performance of the Technology with performance indicators : Treatment T<sub>2</sub> was found superior over T<sub>1</sub>.

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : gunvant fodder having more number of leaves as compared to local fodder varieties also the stem of gunvant is more succulent than other fodder crop

8. Final recommendation for micro level situation : It is recommended use of improved fodder variety phule gunvant is benefited for dairy owners and farmers as its yield is more than traditional fodder crop and also helps in fulfilling the nutrient requirement of ruminants and helps in increasing milk production.

9. Constraints identified and feedback for research : Unavailability of water.

10. Process of farmers participation and their reaction: horizontal

## 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
Azolla powder, Poultry	Rainfed	Low weight gain  Drooping of mouth	Assessment on utilization of 5 % Azolla powder on growth performance of broiler	13	T <sub>1</sub> : Farmers practice (No use of Supplement)  T <sub>2</sub> : 5 % Azolla powder in Feed	1. Body Weight (Weekly) Gain 2. B:C Ratio	--	Treatment T <sub>2</sub> was found superior over T <sub>1</sub> . Inclusion of Azolla powder in the broiler chicks diet at level of 5 % improved performance than T <sub>1</sub> without any side effect	Azolla powder in the broiler chick diet at level of 5 % improved performance without any side effect	No.	--

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. / bird	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	Farmer's practice	2.31 kg/bird	kg/bird	12 Rs/bird	1:43
Technology option 2	BSKKV,Dapoli	2.55 kg/bird	kg/bird	21 Rs/bird	1:74

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

1.Title of Technology Assessed : Assessment on utilization of 5 % Azolla powder on growth performance of broiler

2.Problem Definition : Low weight gain Drooping of mouth

3.Details of technologies selected for assessment : Assessment on utilization of 5 % Azolla powder on growth performance of broiler

4.Source of technology: BSKKV,Dapoli

5.Production system and thematic area : nutrition

6.Performance of the Technology with performance indicators : Treatment T<sub>2</sub> was found superior over T<sub>1</sub>. Inclusion of Azolla powder in the broiler chicks diet at level of 5 % improved performance than T<sub>1</sub> without any side effect.

7. Feedback, matrix scoring of various technology parameters done through farmer's participation other scoring techniques : inclusion of azolla powder in ration of poultry increase weight without any side effect.

8.Final recommendation for micro level situation : It is recommended inclusion of Azolla powder in the broiler chick diet at level of 5 % improved performance without any side effect.

9.Constraints identified and feedback for research : Poultry farmers were satisfied with the body gain of birds. In winter season, due to medicinal property of Azolla powder incidence of drooping of water from mouth decreased which indirectly decreased rate of mortality and increased weight gain.

10.Process of farmers participation and their reaction : horizontal spread



**C1.Results of Technologies Assessed : Agril Engg  
Results of On Farm Trial :1**

Crop/ enterprise	Farmin g situati on	<b>Problem definition</b>	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment t	Feedbac k from the farmer	Any refine ment neede d	Justificati on for refinemen t
1	2	3	4	5	6	7	8	9	10	11	12
Tractor drawn Dr. PDKV Slasher	Rainfed	1.Uprooting of cotton stalks and its transportatio n is labour intensive operation 2.Labour availability is less. 3. Fuel cost is high	Assessm ent of tractor drawn Slasher	13	T <sub>1</sub> : Cultivator followed by rotavator T <sub>2</sub> : Tractor drawn slasher	Field Capacity, ha/hr	Labour - Time - Expendit ure	Tractor drawn Slasher was observed satisfactor y for slashing the cotton stalks. Slashing of Cotton stubbles using tractor drawn slasher save time upto 52.83% and reduces expenditu re upto 48% as compare to cultivator followed by rotavator	Tractor drawn Slasher was observe d satisfac tory for slashin g the cotton stalks.	No.	--

**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)	Farmer's practice	-	Liter /Animal	-	-
Technology option 2	Dr. PDKV, Akola	-	Liter /Animal	-	-

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

- 1 Title of Technology Assessed : Assessment of PDKV Tractor drawn slasher
- 2 Problem Definition : Management of cotton and tur residues.
- 3 Details of technologies selected for assessment : PDKV Tractor drawn slasher
- 4 Source of technology: Dr. PDKV, Akola
- 5 Production system and thematic area : Farm Mechanization
- 6 Performance of the Technology with performance indicators : Field Capacity, Fuel consumption and time requirement
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :
- 8 Final recommendation for micro level situation : PDKV Tractor drawn slasher can be use for the management of crop residues and increasing organic carbon in the soil.
- 9 Constraints identified and feedback for research : PDKV Tractor drawn slasher can introduce to increase farm mechanization..
- 10 Process of farmers participation and their reaction: horizontal.

## Results of On Farm Trial :2

Crop/enterprise	Farmer's 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
Mini solar tunnel dryer	Rainfed	1. Labour availability is less. Time requirement for drying is more.	Assessment of Dr. PDKV Mini solar tunnel dryer	13	T <sub>1</sub> : Open sun drying T <sub>2</sub> : Mini Solar tunnel dryer	Time required for drying	--	Dr. PDKV mini solar tunnel dryer was observed satisfactory for drying the chilies and save time upto 31.57% during drying of chilies as compared to open sun drying.	--	--	--

## 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)	Farmer's practice	--	--	--	--
Technology option 2	Dr. PDKV	--	--	--	--

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

1 Title of Technology Assessed : Assessment of Dr. PDKV Mini solar tunnel dryer

2 Problem Definition : Labour availability is less. Time requirement for drying is more.

3 Details of technologies selected for assessment : T<sub>1</sub>: Open sun drying T<sub>2</sub>: Mini Solar tunnel dryer

4 Source of technology: Dr. PDKV, Akola

5 Production system and thematic area : post harvest technology

6 Performance of the Technology with performance indicators : solar tunnel dryer is more suitable than open sun drying

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : Mini solar tunnel dryer is profitable for drying chilies

8 Final recommendation for micro level situation : this technology is suitable for small group of farmer or women self help group or household use

9 Constraints identified and feedback for research : moisture losses during drying of chilies

10 Process of farmers participation and their reaction: horizontal

**C1.Results of Technologies Assessed : Home Science****Assessment Trial (I) – Assessment of Soybean harvesting mittens and Multipurpose Mittens for Soybean harvesting.****Objectives:** To minimize the health hazards of farm woman in soybean harvesting.**Progressive year** : Second**Problem identified:** Due to dried pod, injuries and itching problem arises to the harvesting operations done by farm women and it directly affects working efficiency.**Intervention planned:** Use of soybean harvesting mittens and multipurpose mittens for Soybean harvesting.**Treatments** T1 – Farmers practice: Bear hand harvesting operation.

T2 – Soybean Harvesting Mittens

T3 – Multipurpose Mittens.

**Source of technology:** VNMKV, Parbhani**No. of farm women : 26****Observations/ parameters of study:** Time required for 0.4 ha. No. of injuries**Title of the Trial:** To assess the effect of Soya Harvesting Mittens and Multipurpose Mittens.

S. N.	Crop	Season	Problems Identified	Treatment	No. of Farmers
1	Soybean	Kharif 2018-19	Soybean harvesting is Time consuming and while harvesting scratches and injuries observed	T <sub>1</sub> : Conventional method T <sub>2</sub> : Soybean harvesting with Soybean Mittens T <sub>3</sub> : Soybean harvesting with Multipurpose mittens	--  13  13

Parameter	Technology assessed	Observations	Observations for 0.40 ha area			Result
			T1	T2	T3	
Time  No of Scratches	Soybean harvesting with Soybean Mittens and Multipurpose mittens	- Time takes -no of injuries	Time - 85.5%  No of Scratches – 92 %	Time reduced– 28.5%  No of Scratches reduced - 61.2%	Time reduced– 33% No of Scratches reduced - 68.1%	Soy harvesting Mittens reduce time by 28.5% and use of Multipurpose Mittens reduce time by 33% as compared to T1 and scratches reduce by 61.2% respectively.

**C2.** Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details1 Title of Technology Assessed: **Assessment of Soybean harvesting mittens and Multipurpose Mittens for Soybean harvesting.**

2 Problem Definition : Labour availability is less. Drudgery observed.

3 Details of technologies selected for assessment : T<sub>1</sub> : Conventional method T<sub>2</sub> : Soybean harvesting Mittens T<sub>3</sub> Multipurpose Mittens.4 Source of technology: **VNMKV, Parbhani**

5 Production system and thematic area: Drudgery Reduction

6 Performance of the Technology with performance indicators: Multipurpose Mittens are more drudgery Reducing. than Soybean Harvesting Mittens.

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques: Working Efficiency increases by using Multipurpose Mittens.

8 Final recommendation for micro level situation: this technology is suitable for small farmer or women self help group for EDP use

9 Constraints identified and feedback for research: Time required for practice

10 Process of farmers participation and their reaction: horizontal

**Assessment Trial (II) – Assessment of Fruit and Vegetable Preservator CRIDA model.****Objectives:** To extend the shelf life, and minimise the storage loss of harvested fruit and leafy vegetables.**Progressive year** : Second**Problem identified:** Conventional method with wet gunny bag was observed less effective and storage loss was occurred results less income during post harvest season of fruit and vegetable growers.**Intervention planned:** Use of Fruit and Vegetables Preservator CRIDA model.**Treatments** T1 – Farmers practice: Conventional method

T2 – Use of Fruit and Vegetables Preservator CRIDA model.

**Source of technology:** CRIDA Hyderabad.**No. of farm women** : 13.**Observations/ parameters of study:** Increased Shelf Life Weight loss***Title of the Trial:*** To assess the effect of Fruit and Vegetable Preservator CRIDA model

S. N.	Crop	Season	Problems Identified	Treatment	No. of Farmers
1	Vegetable	Summer 2018-19	Storage loss. Keeping quality.	T <sub>1</sub> : Wet Gunny Bag T <sub>2</sub> : CRIDA portable vegetable Preservator	13

**Observations-**

Parameter	Technology assessed	Observations	For fruit vegetable		Result
			T1	T2	
Keeping Time	CRIDA portable vegetable Preservator	Keeping Time	Mean 6.2 days	Mean 14.5 days	Using CRIDA portable vegetable Preservator Tomatoes and Brinjals increased their Keeping time by 42.7%

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

1 Title of Technology Assessed: Assessment of Fruit and Vegetable Preservator CRIDA model.

2 Problem Definition: Shelf life is minimum and non availability of cold storage facility for small farmers.

3 Details of technologies selected for assessment: T<sub>1</sub>: Wet gunny Bag T<sub>2</sub>: Use of Fruit and Vegetables Preservator CRIDA model

4 Source of technology: CRIDA Hyderabad

5 Production system and thematic area : post harvest technology and Storage technique

6 Performance of the Technology with performance indicators : Fruit and Vegetable Preservator CRIDA model is more efficient.

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : Fruit and Vegetable Preservator CRIDA model increases shelf life.

8 Final recommendation for micro level situation : this technology is suitable for small vegetable growers and small vendors.

9 Constraints identified and feedback for research : Requires regular monitoring and water supply.

10 Process of farmers participation and their reaction: horizontal and vertical.

### 3.3. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2018-19 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	ICM	Use PKV Tara Variety + Bio fertilizer + Soil Tested Based Fertilizer Application (25:50:30 NPK kg/ha) + IPM	Improved, midlate, resistance to wilting & High yielding variety	01	50	20
2	Soybean	ICM	Use MAUS-158 Variety + Bio fertilizer + Soil Tested Based Fertilizer Application (25:75:30 NPK kg/ha) + IPM	Improved & High yielding variety	01	50	20
3	Chick pea	ICM	Integrated Crop Management (ICM) Practices in Chick pea variety: RVG-203	Improved & High yielding variety	01	50	20
4	Chick pea	Pest Management	Management of pod borer in chickpea	Spraying of HaNPV 2% AS @10 ml at 50% flowering and ETL based spraying of Emamectin benzoate 5SG @ 5 g/ 10 L water at 15 days interval	01	13	5.2
5	Soybean	Disease management	Seed treatment of Carboxin 37.5% + Thiram 37.5% for the management of soybean root rot	Seed treatment of Carboxin 37.5% + Thiram 37.5% @ 2g/ Kg seeds	01	13	5.2
6	Azolla	Goat management	Demonstration of effect of feeding of Azolla on weight gain in goat kid.	Extensive feeding + conc. As per thumb rule + 100 gm green azolla per day	01	25	50 (animal )
7	Buffalo	Buffalo management	Demonstration on effect of feeding urea treated wheat straw on intake and milk yield of buffalo	(for 50 kg wheat straw 1 kilo urea + 5 kilo jaggary + 1 kilo salt in 20 lit water required)	01	25	50 (animal )
8	Broad Bed	Farm Mechanization	Demonstration of Broad Bed	Demonstrations and training	01	10	4.00

	Furrow Planter		Furrow Planter				
9	Wheel Hand hoe	Farm Mechanization	Hoeing using Wheel hand hoe	Hoeing using Wheel hand hoe	01	10	4.00
10	Wheat grain	Use Insect Probe Trap	Storages Technique	Demonstation & Trainings	01	10	--
11	Cooking/ Boiling	Use Thermo Efficient Cook Stove	Fuel Saving	Demonstation & Trainings	01	10	--

#### 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					
Soybean: MAUS 158	Kharif	Rainfed	Entisol	Low	Medium	Medium	Cotton/ pigeon pea	June,2018	Oct-2018	712.06	46
Pigeon Pea: PKV TARA	Kharif	Rainfed	Entisol	0	0	0	fallow	June, 2018	Dec-2018	712.06	46
Chick Pea : Rajvijay 203	Kharif	Rainfed	Entisol	0	0	0	soybean	Oct/Nov, 2018	Feb-2019	712.06	46
Cotton	Kharif	Irrigated	Entisol	0	0	0	Soybean/ pigeon pea	June-2018	March 2019	712.06	46

#### Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Soybean – var. demo High yielding, non shattering variety
2	Pigeonpea – ICM Good technology required to be demonstrated widely
3	Chickpea - var. demo High yielding variety with ICM practice is effective for quality production.
4	Chick pea- ICM Feasible technology for high crop yield
5	Cotton (INM in Bt cotton) High yield in irrigated condition with intensive fertilizer use
6	Sowing and furrow making by using BBF planter save time upto 23.53% and increases production upto 41.67 % as compare to local method.
7	Hoeing using Wheel hand hoe reduces the labour requirement upto 70 %, it also save time upto 77 % and expenditure upto 56.52 % as compare to Manual hoeing. In addition to this it also reduces drudgery of farm women. .
8	using insect trap in household grain storage chemicals such as boric powder & mercury tablets is totally stopped & damage grain is reduced in 57.14 %.
9	Result shows that time required for boiling point was reduce by 45.4 % while using Thermo Efficient Cook Stove & 25% fuel was save

#### Farmers' reactions on specific technologies

S. No	Feed Back
1	Soybean – var. demo Accepted and demand for next season
2	Pigeonpea – ICM Accepted and demand for next season
3	Chickpea - var. demo Accepted and demand for next season
4	Chick pea- ICM Accepted and demand for next season
5	Cotton (INM in Bt cotton) Accepted and demand for next season
6	BBF planter is good for sowing the Soybean.
7	Wheel hand hoe is suitable for the men rather than women labour.

## Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	04	05.10.2018,14.01.2019, 15.01.2019,16.02.2019	269	
2	Farmers Training	12	26.06.2018,10.08.2018, 25.08.2018,01.09.2018, 05.09.2018,05.10.2018, 04.12.2018,17.12.2018, 05.01.2019,07.01.2019, 09.01.2019,14.01.2019	362	
3	Media coverage	12	--	12	--
4	Training for extension functionaries	01	18.01.2019	32	--

## 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 High	Low	Average	Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Groundnut	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sesamum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mustard	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toria	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Linseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sunflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Soybean	Disease management	Seed treatment of Carboxin 37.5% + Thiram 37.5% @ 2g/ Kg seeds	Jaki 9218	13	5.2	16.200	14.60	15.2	13.9	9.35	21000	50920	29920	2.42	23000	46565	23565	2.02

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

\*\* BCR= GROSS RETURN/GROSS COST

[illegible]

\*\* BCR= GROSS RETURN/GROSS COST

[illegible]



Vegetables																		
Bottlegourd	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bittergourd	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cowpea	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Spongegourd	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Petha	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tomato	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Frenchbean	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Capsicum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chilli	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Brinjal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vegetable pea	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Softgourd	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Okra	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Colocasia (Arvi)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Broccoli	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cucumber	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Onion	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Coriender	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lettuce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cabbage	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cauliflower	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elephant fruit	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Flower crops																		
Marigold	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bela	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tuberose	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Gladiolus	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fruit crops																		
Mango	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Strawberry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Guava	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Banana	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Papaya	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Muskmelon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Watermelon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Spices & condiments																		
Ginger	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Garlic	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turmeric	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Commercial Crops																		
Sugarcane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potato	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Medicinal & aromatic plants																		
Mentholment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Kalmegh	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ashwagandha	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fodder Crops																		
Sorghum (F)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cowpea (F)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maize (F)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lucern	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Berseem	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oat (F)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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

\*\* BCR= GROSS RETURN/GROSS COST

## FLD on Livestock

[illegible]

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

\*\* BCR= GROSS RETURN/GROSS COST

## FLD on Fisheries

[illegible]

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

\*\* BCR= GROSS RETURN/GROSS COST

## FLD on Other Enterprises

[illegible]

## FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
Fuel Saving	Thermo Efficient Cook Stove	10	1. Time 2. Fuel	6 min 90 gm	11 min 120 gm
Storage Technique	Insect Probe Trap	10	1. No. of Insect/ Trap/Month 2. % Grain Damages	107 9 %	Nil 21 %

## 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	Labor	Irrigation	Total
BBF	Soybean	Sowing and making furrow using BBF Planter	10	4.0	Field capacity ha/day, fuel consumption lit/hour	0.42	0.34	19.04	4	--	11	15	--	3000	--	3000
Wheel Hand hoe	Chick pea	Hoeing using Wheel hand hoe	10	4.0	Field capacity ha/day	0.11	0.06	45.45	--	--	7	7	--	1400	--	1400

## 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)	--	--	--	--	--	--	--	--	--	--	--	--	--

**Note :** Remove the Enterprises/crops which have not been shown

## D. Performance of Cluster Frontline Demonstrations (CFLD)

### CFLD on Oilseed crops

Crop	Thema tic Area	technolog y demonstra ted	Varie ty	No. of Farm ers	Area (ha)	Yield (q/ha)				% Increa se in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Che ck		Gross Cost	Gross Retu rn	Net Retu rn	BC R (R/ C)	Gross Cost	Gross Retu rn	Net Retu rn	BC R (R/ C)
						High	Low	Average										
Ground nut	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sesamu m	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mustard	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Niger	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Linseed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sunflow er	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Soybea n	ICM	Use MAUS- 158 Variety + Bio fertilizer + Soil Tested Based Fertilizer Application (25:75:30 NPK kg/ha) + IPM	MAU S-158	50	20	37.5	15.0	19.00	16.75	13.43	2649 0	6458 1	3809 1	1.4 4	2680 0	5693 3	3013 3	1.1 2
Castor	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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

\*\* BCR= GROSS RETURN/GROSS COST

### CFLD on Pulse crops

Crop	Them atic Area	Technology demonstrate d	Varie ty	No. of Farm ers	Area (ha)	Yield (q/ha)				% Incre ase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Che ck		Gross Cost	Gross Retur n	Net Retur n	BC R (R/C )	Gro ss Cost	Gros s Retu rn	Net Retu rn	BC R (R/ C)
						Hig h	Lo w	Aver age										
Pigeonp ea	ICM	Use PKV Tara Variety + Bio fertilizer + Soil Tested Based Fertilizer Application (25:50:30 NPK kg/ha) + IPM	PKV Tara	50	20	12. 2	8.1 3	9.3	7.5	24	22834	52777	29943	2.31	2265 0	4256 2	1991 2	1.8 8
Blackgra m	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Greengr am	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chickpe a	ICM	Integrated Crop Management Practices in Chick pea (ICM) variety: RVG-203	RVG- 203	50	20	21. 25	13. 12	14.7 0	12.7 5	15.29	24900	67914	43014	1.73	2526 6	5890 5	3363 9	1.3 3
Fieldpea	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lentil	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Horsegr am	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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

\*\* BCR= GROSS RETURN/GROSS COST

### 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	01	16	4	20	12	8	20	28	12	40
Resource Conservation Technologies	02	23	16	29	10	9	19	33	25	58
Cropping Systems	01	25	-	25	12	4	16	37	4	41
Crop Diversification	--	--	--	--	--	--	--			
Integrated Farming	01	18	9	27	9	6	15	27	15	42
Micro Irrigation/irrigation	--	--	--	--	--	--	--			
Seed production	01	13	7	20	16	4	20	29	11	40
Nursery management	--	--	--	--	--	--	--			
Integrated Crop Management	01	14	5	19	9	6	15	23	11	34
Soil & water conservatioin	--	--	--	--	--	--	--			
Integrated nutrient management	01	26	13	39	17	8	25	43	21	64
Production of organic inputs	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
Total	08	135	51	186	85	45	130	220	99	319
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	--	--	--	--	--	--	--	--	--	--
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)	--	--	--	--	--	--	--	--	--	--

<b>Total (g)</b>	--	--	--	--	--	--	--	--	--	--
<b>GT (a-g)</b>										
<b>III Soil Health and Fertility Management</b>										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
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)										
<b>Total</b>										
<b>IV Livestock Production and Management</b>										
Dairy Management	03	60	15	75	15	-	15	75	15	90
Poultry Management	01	20	5	25	5	-	5	25	5	30
Piggery Management	--	--	--	--	--	--	--	--	--	--
Rabbit Management	--	--	--	--	--	--	--	--	--	--
Animal Nutrition Management	01	20	5	25	5	-	5	25	5	30
Disease Management	--	--	--	--	--	--	--	--	--	--
Feed & fodder technology	01	27	12	39	11	04	15	38	16	54
Production of quality animal products	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>06</b>	<b>127</b>	<b>37</b>	<b>164</b>	<b>36</b>	<b>04</b>	<b>40</b>	<b>163</b>	<b>41</b>	<b>204</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	1	00	11	11	00	13	13	00	24	24
Design and development of low/minimum cost diet	--	--	--	--	--	--	--			--
Designing and development for high nutrient efficiency diet	1	00	18	18	00	08	08	00	26	26
Minimization of nutrient loss in processing	1	00	10	10	00	05	05	00	15	15
Processing and cooking	1	00	35	35	05	36	41	05	71	76
Gender mainstreaming through SHGs	--	--	--	--	--	--	--			--
Storage loss minimization techniques	1	00	09	09	00	04	04	00	13	13
Value addition	1	00	11	11	00	05	05	00	16	16
Women empowerment	1	00	06	06	00	10	10	00	16	16
Location specific drudgery reduction technologies	1	00	16	16	00	09	09	00	25	25
Rural Crafts	--	--	--	--	--	--	--	--	--	--
Women and child care	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>07</b>	<b>00</b>	<b>106</b>	<b>106</b>	<b>05</b>	<b>90</b>	<b>95</b>	<b>05</b>	<b>206</b>	<b>211</b>
<b>VI Agril. Engineering</b>										
Farm Machinery and its maintenance	2	43	4	47	12	1	13	55	4	60
Installation and maintenance of micro irrigation systems	1	39	0	39	19	0	19	58	0	58
Use of Plastics in farming practices	1	21	5	26	8	3	11	29	8	37
Production of small tools and implements	1	14	4	18	11	5	16	24	10	34
Repair and maintenance of farm machinery and implements	1	16	4	20	9	3	12	25	7	32
Small scale processing and value addition	1	33	8	41	9	6	15	42	14	56
Post Harvest Technology	--	--	---	--	--	--	--	--	--	--
Others (pl specify)										
<b>Total</b>	<b>07</b>	<b>166</b>	<b>25</b>	<b>191</b>	<b>68</b>	<b>18</b>	<b>86</b>	<b>233</b>	<b>43</b>	<b>277</b>
<b>VII Plant Protection</b>										
Integrated Pest Management	11	367	219	586	157	173	330	524	392	916
Integrated Disease Management	04	163	97	260	59	53	112	222	150	372
Bio-control of pests and diseases	05	236	113	349	128	97	221	364	210	574
Production of bio control agents and bio pesticides	03	113	83	196	83	27	110	196	110	306
Others (pl specify)	--	--	--	--	--	---	--	--	--	--
<b>Total</b>	<b>23</b>	<b>879</b>	<b>512</b>	<b>1391</b>	<b>427</b>	<b>350</b>	<b>777</b>	<b>1306</b>	<b>862</b>	<b>2168</b>
<b>VIII Fisheries</b>										
Integrated fish farming	--	--	--	--	--	---	--	--	--	--
Carp breeding and hatchery management	--	--	--	--	--	---	--	--	--	--
Carp fry and fingerling rearing	--	--	--	--	--	---	--	--	--	--
Composite fish culture	--	--	--	--	--	---	--	--	--	--
Hatchery management and culture of freshwater prawn	--	--	--	--	--	---	--	--	--	--



Grading and standardization	--	--	--	--	--	--	--	--	--	--
Protective cultivation	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total (a)</b>	--	--	--	--	--	--	--	--	--	--
<b>b) Fruits</b>	--	--	--	--	--	--	--	--	--	--
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)	--	--	--	--	--	--	--	--	--	--
<b>Total (b)</b>	--	--	--	--	--	--	--	--	--	--
<b>c) Ornamental Plants</b>	--	--	--	--	--	--	--	--	--	--
Nursery Management	--	--	--	--	--	--	--	--	--	--
Management of potted plants	--	--	--	--	--	--	--	--	--	--
Export potential of ornamental plants	--	--	--	--	--	--	--	--	--	--
Propagation techniques of Ornamental Plants	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total ( c)</b>	--	--	--	--	--	--	--	--	--	--
<b>d) Plantation crops</b>	--	--	--	--	--	--	--	--	--	--
Production and Management technology	--	--	--	--	--	--	--	--	--	--
Processing and value addition	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total (d)</b>	--	--	--	--	--	--	--	--	--	--
<b>e) Tuber crops</b>	--	--	--	--	--	--	--	--	--	--
Production and Management technology	--	--	--	--	--	--	--	--	--	--
Processing and value addition	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total (e)</b>	--	--	--	--	--	--	--	--	--	--
<b>f) Spices</b>	--	--	--	--	--	--	--	--	--	--
Production and Management technology	--	--	--	--	--	--	--	--	--	--
Processing and value addition	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total (f)</b>	--	--	--	--	--	--	--	--	--	--
<b>g) Medicinal and Aromatic Plants</b>	--	--	--	--	--	--	--	--	--	--
Nursery management	--	--	--	--	--	--	--	--	--	--
Production and management technology	--	--	--	--	--	--	--	--	--	--
Post harvest technology and value addition	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total (g)</b>	--	--	--	--	--	--	--	--	--	--
<b>GT (a-g)</b>	--	--	--	--	--	--	--	--	--	--
<b>III Soil Health and Fertility Management</b>	--	--	--	--	--	--	--	--	--	--
Soil fertility management	--	--	--	--	--	--	--	--	--	--
Integrated water management	--	--	--	--	--	--	--	--	--	--
Integrated Nutrient Management	--	--	--	--	--	--	--	--	--	--
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)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	--	--	--	--	--	--	--	--	--	--
<b>IV Livestock Production and Management</b>										
Dairy Management	01	35	07	42	28	4	32	63	11	74
Poultry Management	01	28	17	45	16	09	25	44	26	70
Piggery Management	--	--	--	--	--	--	--	--	--	--
Rabbit Management	--	--	--	--	--	--	--	--	--	--
Animal Nutrition Management	--	--	--	--	--	--	--	--	--	--
Disease Management	--	--	--	--	--	--	--	--	--	--
Feed & fodder technology	--	--	--	--	--	--	--	--	--	--
Production of quality animal products	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>02</b>	<b>63</b>	<b>24</b>	<b>87</b>	<b>44</b>	<b>13</b>	<b>57</b>	<b>107</b>	<b>37</b>	<b>144</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	1	00	12	12	00	22	22	00	34	34



Design and development of low/minimum cost diet	--	--	--	--	--	--	--	--	--	--
Designing and development for high nutrient efficiency diet	1	00	21	21	00	17	17	00	38	38
Minimization of nutrient loss in processing	--	--	--	--	--	--	--	--	--	--
Processing and cooking	--	--	--	--	--	--	--	--	--	--
Gender mainstreaming through SHGs	1	00	24	24	00	19	19	00	43	43
Storage loss minimization techniques	--	--	--	--	--	--	--	--	--	--
Value addition	--	--	--	--	--	--	--	--	--	--
Women empowerment	--	--	--	--	--	--	--	--	--	--
Location specific drudgery reduction technologies	--	--	--	--	--	--	--	--	--	--
Rural Crafts	--	--	--	--	--	--	--	--	--	--
Women and child care	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>03</b>	<b>00</b>	<b>57</b>	<b>57</b>	<b>00</b>	<b>58</b>	<b>58</b>	<b>00</b>	<b>173</b>	<b>173</b>
<b>VI Agril. Engineering</b>	--	--	--	--	--	--	--	--	--	--
Farm Machinery and its maintenance	01	66	5	71	18	01	19	84	7	91
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	01	35	08	43	31	05	36	66	13	79
Production of small tools and implements	01	14	12	26	12	10	22	26	22	48
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>03</b>	<b>115</b>	<b>25</b>	<b>140</b>	<b>61</b>	<b>16</b>	<b>77</b>	<b>176</b>	<b>42</b>	<b>218</b>
<b>VII Plant Protection</b>										
Integrated Pest Management	06	190	25	215	70	05	75	260	30	290
Integrated Disease Management	02	45	29	74	21	13	34	66	42	108
Bio-control of pests and diseases	02	39	12	51	25	07	32	64	19	83
Production of bio control agents and bio pesticides	01	35	09	44	28	04	32	63	13	76
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	<b>11</b>	<b>309</b>	<b>75</b>	<b>384</b>	<b>144</b>	<b>29</b>	<b>173</b>	<b>453</b>	<b>104</b>	<b>557</b>
<b>VIII Fisheries</b>										
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)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	--	--	--	--	--	--	--	--	--	--
<b>IX Production of Inputs at site</b>										
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)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	--	--	--	--	--	--	--	--	--	--
<b>X Capacity Building and Group Dynamics</b>	--	--	--	--	--	--	--	--	--	--
Leadership development	01	13	07	20	15	05	20	28	12	40



e) Tuber crops	--	--	--	--	--	--	--	--	--	--
Production and Management technology	--	--	--	--	--	--	--	--	--	--
Processing and value addition	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
Total (e)	--	--	--	--	--	--	--	--	--	--
f) Spices	--	--	--	--	--	--	--	--	--	--
Production and Management technology	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--
Integrated water management	--	--	--	--	--	--	--	--	--	--
Integrated Nutrient Management	--	--	--	--	--	--	--	--	--	--
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	04	95	22	117	43	04	47	138	26	164
Poultry Management	02	48	22	70	21	09	30	69	31	100
Piggery Management	--	--	--	--	--	--	--	--	--	--
Rabbit Management	--	--	--	--	--	--	--	--	--	--
Animal Nutrition Management	01	20	5	25	05	-	05	25	05	30
Disease Management	--	--	--	--	--	--	--			
Feed & fodder technology	01	27	12	39	11	04	15	38	16	54
Production of quality animal products	--	--	--	--	--	--	--	--	--	--
Others (pl specify)	--	--	--	--	--	--	--	--	--	--
Total	08	190	61	251	80	17	97	270	78	348
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	02	00	23	23	00	35	35	00	58	58
Design and development of low/minimum cost diet	--	--	--	--	--	--	--	--	--	--
Designing and development for high nutrient efficiency diet	02	00	39	39	00	25	25	00	64	64
Minimization of nutrient loss in processing	1	00	10	10	00	10	10	00	20	20
Processing and cooking	1	00	35	35	05	36	41	05	71	76
Gender mainstreaming through SHGs	01	00	24	24	00	19	19	00	43	43
Storage loss minimization techniques	1	00	09	09	00	04	04	00	13	13
Value addition	1	00	11	11	00	05	05	00	16	16
Women empowerment	1	00	06	06	00	10	10	00	16	16
Location specific drudgery reduction technologies	1	00	16	16	00	09	09	00	25	25
Rural Crafts	--	--	--	--	--	--	--	--	--	--
Women and child care	--	--	--	--	--	--	--	--	--	--
Total	11	00	173	173	05	153	158	05	326	331
VI Agril. Engineering										
Farm Machinery and its maintenance	3	109	9	118	30	2	32	139	11	150
Installation and maintenance of micro irrigation systems	1	39	0	39	19	0	19	58	0	58
Use of Plastics in farming practices	2	56	13	69	39	8	47	95	21	116
Production of small tools and implements	2	28	16	44	21	27	48	49	43	92
Repair and maintenance of farm machinery and implements	1	16	4	20	9	3	12	25	7	32
Small scale processing and value addition	1	33	8	41	9	6	15	42	14	56
Post Harvest Technology	--	--	---	--	--	--	--	--	--	--
Others (pl specify)										
Total	10	281	50	331	127	46	173	408	96	504
VII Plant Protection										



Mushroom Production	--	--	--	--	--	--	--	--	--	--
Bee-keeping	04	125	48	173	53	26	79	187	74	261
Sericulture	02	43	26	69	26	18	44	69	44	113
Repair and maintenance of farm machinery and implements	02	48	14	62	23	09	32	71	23	94
Value addition	03	00	78	78	00	65	65	00	143	143
Small scale processing	02	00	48	48	00	32	32	00	80	80
Post Harvest Technology	--	--	--	--	--	--	--	--	--	--
Tailoring and Stitching	--	--	--	--	--	--	--	--	--	--
Rural Crafts	--	--	--	--	--	--	--	--	--	--
Production of quality animal products	01	22	04	26	9	-	9	31	4	35
Dairying	01	22	04	26	9	-	9	31	4	35
Sheep and goat rearing	01	22	04	26	9	-	9	31	4	35
Quail farming	--	--	--	--	--	--	--	--	--	--
Piggery	--	--	--	--	--	--	--	--	--	--
Rabbit farming	--	--	--	--	--	--	--	--	--	--
Poultry production	01	22	04	26	9	-	9	31	4	35
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)	02	39	27	66	21	16	37	60	43	103
<b>TOTAL</b>	<b>21</b>	<b>399</b>	<b>285</b>	<b>684</b>	<b>201</b>	<b>187</b>	<b>388</b>	<b>586</b>	<b>463</b>	<b>1049</b>

#### 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	--	--	--	--	--	--	--	--	--	--
Planting material production	--	--	--	--	--	--	--	--	--	--
Vermi-culture	--	--	--	--	--	--	--	--	--	--
Mushroom Production	02	00	48	48	00	32	32	00	80	80
Bee-keeping	--	--	--	--	--	--	--	--	--	--
Sericulture	04	125	48	173	53	26	79	187	74	261
Repair and maintenance of farm machinery and implements	01	22	04	26	9	-	9	31	4	35
Value addition	--	--	--	--	--	--	--	--	--	--
Small scale processing	--	--	--	--	--	--	--	--	--	--
Post Harvest Technology	--	--	--	--	--	--	--	--	--	--
Tailoring and Stitching	--	--	--	--	--	--	--	--	--	--
Rural Crafts	--	--	--	--	--	--	--	--	--	--
Production of quality animal products	--	--	--	--	--	--	--	--	--	--
Dairying	--	--	--	--	--	--	--	--	--	--
Sheep and goat rearing	--	--	--	--	--	--	--	--	--	--
Quail farming	01	22	04	26	9	-	9	31	4	35
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	33	9	42	13	2	15	46	11	57
<b>TOTAL</b>	<b>09</b>	<b>202</b>	<b>113</b>	<b>315</b>	<b>84</b>	<b>60</b>	<b>144</b>	<b>295</b>	<b>173</b>	<b>468</b>

### 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	02	56	28	84	42	12	54	98	40	138
Seed production	--	--	--	--	--	--	--	--	--	--
Production of organic inputs	--	--	--	--	--	--	--	--	--	--
Planting material production	--	--	--	--	--	--	--	--	--	--
Vermi-culture	--	--	--	--	--	--	--	--	--	--
Mushroom Production	02	00	48	48	00	32	32	00	80	80
Bee-keeping	04	125	48	173	53	26	79	187	74	261
Sericulture	06	168	74	242	79	44	123	247	118	365
Repair and maintenance of farm machinery and implements	03	70	18	88	32	09	41	102	27	129
Value addition	03	00	78	78	00	65	65	00	143	143
Small scale processing	02	00	48	48	00	32	32	00	80	80
Post Harvest Technology	--	--	--	--	--	--	--	--	--	--
Tailoring and Stitching	--	--	--	--	--	--	--	--	--	--
Rural Crafts	--	--	--	--	--	--	--	--	--	--
Production of quality animal products	01	22	04	26	9	-	9	31	4	35
Dairying	01	22	04	26	9	-	9	31	4	35
Sheep and goat rearing	02	44	8	52	18	-	18			
Quail farming	--	--	--	--	--	--	--	--	--	--
Piggery	--	--	--	--	--	--	--	--	--	--
Rabbit farming	--	--	--	--	--	--	--	--	--	--
Poultry production	01	22	04	26	9	-	9	31	4	35
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)	03	72	36	108	34	18	52	106	54	160
<b>TOTAL</b>	<b>30</b>	<b>601</b>	<b>398</b>	<b>999</b>	<b>285</b>	<b>238</b>	<b>523</b>	<b>833</b>	<b>628</b>	<b>1461</b>

### 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	03	87	27	114	48	13	61	135	40	175
Integrated Pest Management	11	315	108	423	154	52	206	469	160	629
Integrated Nutrient management	--	--	--	--	--	--	--	--	--	--
Rejuvenation of old orchards	--	--	--	--	--	--	--	--	--	--
Protected cultivation technology	--	--	--	--	--	--	--	--	--	--
Production and use of organic inputs	--	--	--	--	--	--	--	--	--	--
Care and maintenance of farm machinery and implements	02	41	21	62	13	11	24	54	32	86
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	01	28	11	39	12	05	17	40	16	56
Capacity building for ICT application	--	--	--	--	--	--	--	--	--	--
Management in farm animals	--	--	--	--	--	--	--	--	--	--
Livestock feed and fodder production	04	86	32	118	42	13	55	128	45	173
Household food security	--	--	--	--	--	--	--	--	--	--
Any other (pl.specify)	--	--	--	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>21</b>	<b>557</b>	<b>199</b>	<b>756</b>	<b>269</b>	<b>84</b>	<b>363</b>	<b>826</b>	<b>293</b>	<b>1119</b>

### **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	09	288	156	444	153	98	251	441	254	695
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	01	32	12	44	26	05	31	58	17	75
Management in farm animals	--	--	--	--	--	--	--	--	--	--
Livestock feed and fodder production	01	28	15	43	12	05	17	40	20	60
Household food security	--	--	--	--	--	--	--	--	--	--
Any other (pl.specify)	--	--	--	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>11</b>	<b>348</b>	<b>183</b>	<b>531</b>	<b>191</b>	<b>108</b>	<b>299</b>	<b>539</b>	<b>291</b>	<b>830</b>

**Training programmes for Extension Personnel including sponsored training – CONSOLIDATED (On + Off campus)**

Area of training	No. of Course s	No. of Participants								
		General			SC/ST			Grand Total		
		Mal e	Femal e	Tota l	Mal e	Femal e	Tota l	Mal e	Femal e	Tota l
Productivity enhancement in field crops	03	87	27	114	48	13	61	135	40	175
Integrated Pest Management	20	603	264	867	307	150	457	910	369	1279
Integrated Nutrient management	--	--	--	--	--	--	--	--	--	--
Rejuvenation of old orchards	--	--	--	--	--	--	--	--	--	--
Protected cultivation technology	--	--	--	--	--	--	--	--	--	--
Production and use of organic inputs	--	--	--	--	--	--	--	--	--	--
Care and maintenance of farm machinery and implements	02	41	21	62	13	11	24	54	32	86
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	01	28	11	39	12	05	17	40	16	56
Capacity building for ICT application	01	32	12	44	26	05	31	58	17	75
Management in farm animals	--	--	--	--	--	--	--	--	--	--
Livestock feed and fodder production	05	114	47	161	54	18	72	168	65	233
Household food security	--	--	--	--	--	--	--	--	--	--
Any other (pl.specify)	--	--	--	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>32</b>	<b>905</b>	<b>382</b>	<b>1287</b>	<b>460</b>	<b>202</b>	<b>662</b>	<b>1365</b>	<b>539</b>	<b>1904</b>

## Sponsored training programmes

[illegible]





Agril. para-workers, para-vet training	--	--	--	--	--	--	--	--	--	--
Others (pl. specify)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	--	--	--	--	--	--	--	--	--	--
<b>Agricultural Extension</b>	--	--	--	--	--	--	--	--	--	--
Capacity building and group dynamics	--	--	--	--	--	--	--	--	--	--
Others (pl. specify)	--	--	--	--	--	--	--	--	--	--
<b>Total</b>	--	--	--	--	--	--	--	--	--	--
<b>Grand Total</b>	<b>03</b>	<b>72</b>	<b>42</b>	<b>114</b>	<b>37</b>	<b>18</b>	<b>55</b>	<b>109</b>	<b>60</b>	<b>169</b>

### Details of trainings organized under ASCI

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
--	--	--	--	--	--	--	--	--	--	--

## 3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	19	45000	00	45000
Diagnostic visits	54	215	17	232
Field Day	04	162	12	174
Group discussions	01	45	0	45
KisanGhoshthi	03	227	03	230
Film Show	01	159	02	161
Self -help groups	0	0	0	0
Kisan Mela	02	817	12	834
Exhibition	02	1565	80	1645
Scientists' visit to farmers field	42	348	0	348
Plant/animal health camps	0	0	0	0
Farm Science Club	00	0	0	0
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	0	0	0	0
Method Demonstrations	01	49	0	49
Celebration of important days	01	96	00	96
Special day celebration	01	205	04	209
Exposure visits	02	63	0	63
<b>Total</b>	<b>133</b>	<b>48951</b>	<b>130</b>	<b>49086</b>

### Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	00
Extension Literature	07
Newspaper coverage	57
Popular articles	21
Radio Talks	12
TV Talks	13
Animal health camps (Number of animals treated)	00
Others (pl. specify)	00
<b>Total</b>	<b>110</b>

### 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	--	--	--	--	--	--
Oilseeds	Soybean	NRC-37	T	32.00	--	--
	Soybean	JS9305	T	30.00	--	--
	Soybean	NRC-37	B	16.00		
Pulses	--	--	--	--	--	--
Commercial crops	Cotton	AKH-081	T	40kg		
Vegetables	--	--	--	--	--	--
Flower crops	--	--	--	--	--	--
Spices	--	--	--	--	--	--
Fodder crop seeds	--	--	--	--	--	--
Fiber crops	--	--	--	--	--	--
Forest Species	--	--	--	--	--	--
Others	--	--	--	--	--	--
<b>Total</b>	--	--	--	<b>76.40</b>	--	--

#### 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	--	--	--	--	--	--
Fruits	--	--	--	--	--	--
Ornamental plants	--	--	--	--	--	--
Medicinal and Aromatic	--	--	--	--	--	--
Plantation	--	--	--	--	--	--
Spices	--	--	--	--	--	--
Tuber	--	--	--	--	--	--
Fodder crop saplings	--	--	--	--	--	--
Forest Species	--	--	--	--	--	--
Others	Azolla mother culture	Azolla pinnata	-	1167	80	567
<b>Total</b>				<b>1167</b>	<b>80</b>	<b>567</b>

#### Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers	--	--	--	--
Bio-pesticide	--	--	--	--
Bio-fungicide	--	--	--	--
Bio Agents	Trichogramma Cards	306 No.	15300	63
Others	--	--	--	--
<b>Total</b>		<b>306</b>	<b>15300</b>	<b>63</b>

#### Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>	--	--	--	--
Cows	--	--	--	--
Buffaloes	--	--	--	--
Calves	--	--	--	--
Others (Pl. specify)	--	--	--	--
<b>Poultry</b>	--	--	--	--

Broilers	--	--	--	--
Layers	--	--	--	--
Duals (broiler and layer)	--	--	--	--
Japanese Quail	--	--	--	--
Turkey	--	--	--	--
Emu	--	--	--	--
Ducks	--	--	--	--
Others (Pl. specify)	--	--	--	--
<b>Piggery</b>	--	--	--	--
Piglet	--	--	--	--
Others (Pl. specify)	--	--	--	--
<b>Fisheries</b>	--	--	--	--
Indian carp	--	--	--	--
Exotic carp	--	--	--	--
Others (Pl. specify)	--	--	--	--
<b>Total</b>	--	--	--	--

#### 4. Literature Developed/Published (with full title, author & reference)

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

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	Effect of integrated weed management on quality yield of onion	Prof. N. V. Patil	--
	A Method to minimize the global warming and environment pollution	Prof. N. V. Patil	--
	Studies on preparation and storage of ready to s beverage from beet root juice blended with orange and ginger juice	Prof. N. V. Patil	--
Technical reports	--	--	--
News letters	--	--	--
Technical bulletins	--	--	--
Popular articles	IPM in cotton, pink bollworm management, Goat rearing management, feed management, Soil water conservation	--	21
Extension literature	09	--	9000
Others (Pl. specify)	Shelipalan: book	Dr.K.W.Sarap, Prof. N. V. Patil Dr.S.U.Nemade	120
<b>TOTAL</b>			

#### C. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette) and Video Clippings developed	Title of the programme	Number
--	--	--	--

## D. Success Stories

### Sustainable income through subsidiary business

**Name :-** Sau. Joshna Suresh Devtale

**Address :-** Belona Ta + Dist Yavatmal

**Contact No. :-** 07350095189

**Age :-** 35 Years

**Education :-** 8<sup>th</sup>

### Background

In 1999 I got marriage my husband is daily wages worker he has go every day for work on daily wages till 2010 years. After that we have decided for sources of income 03 acre land on lease @ 5000 Rs/Acre. As useful farming we are not satisfied from farming income so we are plan farming through subsidiary business

### Guidance of Krishi Vigyan Kendra

- In month of September 2016 I got technical knowledge about goat farming poultry farming subsidiary business training from KVK Yavatmal
- With the help of training we motivate for subsidiary business.

### Achievement

- In the month of February 2017 goat farming business started from 15 goat in which 10 goat & 1 male goat & 04 kids for this invest 56000 from this business at the end of July 2017 sale 5 kids earn 19500 from labor cost 6000 minus profit income 13500/-
- After that buck yard poultry farming stated from 275 chicks batch with the help of traditional progress increase in number of poultry birds simultaneously we have plan purchase 800 birds included giriraj, Wanraj, RIR & Khadknath each varieties birds invest 20,000 /-
- Through developed farming management in backyard poultry farming I got weight gain 2-2.5 kg bird every month we sale one birds @ 450- 500 Rs. Form place
- A except 28000/- one month feed & labor cost of Rs 3000 per month accepted net profit form business 36500 per month.
- The sale of Kadaknath egg near about 100-130 egg @ 30/- per egg earn 3000-3500 per month
- Jointly subsidiary business of Duck & Squil started by traditional method of hatching 03 egg of duck till date 28 duck number maintain from this business sale of duck eggs @ 20 per eggs.
- For subsidiary business dairy farming purchase 8 cow of Rs 280000 investment for business from 15-16 liter milk collect per day @ 60/- per liter.
- From above mentioned business earn net profit 56300/- per month.



**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
--	--	--	--

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

**A. Practicing Farmers**

- Management of reddening of cotton in due course of germ plasm shifting.
- Effective pest management of sucking pest, foliage feeders
- Improving productivity of cotton, chickpea, soybean, pigeonpea, Jowar, wheat, greengram and blackgram.
- Approaching to advance cropping system.
- Crop diversification in cotton based cropping system.
- Approach towards sustainable agriculture.
- Approach towards INM, ICM
- In-situ moisture conservation techniques
- Motivation of the farmers towards the adoption of new improved cultivars

**B. Rural Youth**

- a) Awareness regarding drudgery reduction in household and farm
- Improvement in livelihood of rural women and children through
- Education, health and hygiene.
- Empowerment of rural women through alternate employment / self
- Employment through SHG.
- Awareness of nutritional gardening in rural area.
- Fodder cultivation for self sufficiency in feed & fodder
- Improper feeding management in poultry

**C. In-service personnel**

- Reducing the cost of feed due to enrichment
- Identifying mineral Deficiency
- Precision farming technology
- Green house technology
- Renewable energy source

**5.2. Indicate the methodology for identifying OFTs/FLDs**

**For OFT:**

**PRA** First developed an understanding of the farmers, their farming systems, resources and established rapport with them. Gathered information on cropping system, present level of use of inputs and productivity of major crops, identified the problem and its causes of the area by group discussion, meeting with opinion leaders, individual contact, visiting villages and farms. A meeting of interested farmers was also organized to spell out the problem. The activities of the KVK were planned and chalked out keeping in view the thrust areas identified. The technological solutions available at hand were compared with the resources available. The solutions for the gaps related to technological, extension and research were identified and were prioritised according to severity and assessed needs of the farmers in question.

ii) Problem identified from Matrix

S.N.	Subject	Matrix ranking problem
1.	Agronomy	<ul style="list-style-type: none"> <li>• Low yield in cotton</li> <li>• Low yield in chickpea</li> <li>• Low yield in soybean</li> <li>• Low yield in Pigeonpea</li> <li>• Low yield in greengram and blackgram</li> <li>• Low yield in wheat</li> <li>• Low yield in Jowar</li> </ul>

2.	<b>Horticulture</b>	<ul style="list-style-type: none"> <li>• Low and poor quality yield of spice crops</li> <li>• Low production of vegetables</li> <li>• Low productivity of Nagpur mandarin with less storage life of produce</li> <li>• Improper selection of soil for cultivation of Nagpur mandarin</li> </ul>
3	<b>Plant protection</b>	<ul style="list-style-type: none"> <li>• Technology dissemination for cost effective and efficient plant protection.</li> <li>• Introduction of high yielding varieties with appropriate plant protection strategy</li> <li>• Improvement in productivity and quality of Onion, Okra production</li> <li>• Utilization of biocontrol agents in the pest and disease management</li> <li>• Lack of knowledge regarding recommended insecticides with label claim</li> <li>• Poor knowledge of eco-friendly plant protection measures</li> <li>• Safe use of pesticide</li> </ul>
4.	<b>Animal science</b>	<ul style="list-style-type: none"> <li>• Fodder cultivation for self sufficiency in feed &amp; fodder</li> <li>• Upgradation of local breeds</li> <li>• Evaluation of Improved breeds</li> <li>• Identification, preventive control measure for controlling of mastitis.</li> <li>• Reducing the cost of feed due to enrichment</li> <li>• Popularising Newly evolved goatary, poultry &amp; cattle breeds</li> <li>• Identifying mineral Deficiency</li> <li>• Upgradation of knowledge of para veterinary workers.</li> <li>• Development of Para- veterinary workers</li> </ul>
5.	<b>Agril.Engineering</b>	<ul style="list-style-type: none"> <li>• Mechanization of small farmers: popularization of new and small agricultural machinery and implements</li> <li>• Low cost technology for soil and water conservation</li> <li>• Repairs and maintenance of farm implements</li> <li>• Green house technology for control environment crop production</li> <li>• Popularization of renewable energy gadgets.</li> <li>• Drainage management</li> </ul>
6.	<b>Home science</b>	<ul style="list-style-type: none"> <li>• Skeleton and dental fluorosis.</li> <li>• Weakness and inefficiency of physical work due to iron deficient diet</li> <li>• Accumulation of smoke in house and irritation in eyes and throat</li> <li>• Pain in hand, fingers, shoulders, neck and back, head and scratches while cotton picking &amp; cotton stalk pulling.</li> <li>• Pain in hand, fingers, shoulders, neck and back, shoulder, head while sieving grain, weeding,</li> <li>• Pain in hand, fingers, shoulders, neck and back while groundnut decortications</li> <li>• Unavailability of vegetables and fruit /nutritious balanced diet</li> <li>• Unemployment during summer season</li> <li>• Nutritional anemia among adolescent girls.</li> </ul>

### 5.3. Field activities

i.Name of villages identified/adopted with block name	Shivani	Saykheda	BorgaonPunji
No. of farm families selected per village	125	137	97
No. of survey/PRA conducted	01	--	--
No. of technologies taken to the adopted villages	03	04	02
Name of the technologies found suitable by the farmers of the adopted villages	Farm Mechanization	Azolla	Poultry
Impact (production, income, employment, area/technological–horizontal/vertical)	--	--	--
Constraints if any in the continued application of these improved technologies	-	-	-

### 5.4 . No. and Name of villages adopted for Doubling Farmers Income. Indicate whether benchmark survey of the villages are done or not.:- Will be conducted in adopted villages

## 6. LINKAGES

### A. Functional linkage with different organizations

Sl.No.	Name of organization	Nature of Linkage
1	District Superintending Agricultural Officer, Yavatmal	A member of Scientific Advisory Committee. Organizes sponsored trainings. Participation in trainings as Master Trainers, organizing joint fortnightly visits to farmers fields and extending technical support in plant protection and related agricultural problems. Two farm ponds under EGS are sanctioned and dug. Obtained NSK powder from T.A.O., Darwha., Activity evolved in action plan of mealy bug by management under programme coordinator, KVK, is a & also for organization of Krishi Doot Training.
2	Project Director, Agricultural Technology Management Agency (ATMA), Yavatmal	Member of Scientific Advisory Committee. Held weekly meeting regarding agricultural development in the District Collector office. Undertaken a joint programme on mass media communication for dissemination of agricultural technology with the involvement of A.I.R., Yavatmal prepared strategic research and extension plan (SREP) of Yavatmal district for implementation under ATMA.
3	District Sericulture Development Officer, Yavatmal	Member of Scientific Advisory Committee programme jointly organized to motivate farmers for sericulture entrepreneurship and scheme convergence.
4	District Fisheries Development Officer, Yavatmal	Member of Scientific Advisory Committee motivating KVK farmers for scheme convergence.
5	Department of Animal Husbandry, Yavatmal	Member of Scientific Advisory Committee the veterinary sciences are utilized by KVK for animal health camps.
6	Agricultural Development Officer, Zilla Parishad, Yavatmal	Member of Scientific Advisory Committee. Participation in meetings, seminar and conduction of diagnostic team visits. Obtained land use and crop cultivation record of the district.
7	Department of Social Forestry, Yavatmal	Member of Scientific Advisory Committee. Extended technical guidance on the problem of drying of teak wood plantation programme executed.
8	M.A.I.D.C. Ltd., Yavatmal	Obtained agro-chemicals for research and demonstration purposes. Joint programme of Krishi Melawa.
9	M.S.S.I.D.C. Ltd., Yavatmal	Member of Scientific Advisory Committee.
10	C.I.C.R., Nagpur	Member of Scientific Advisory Committee. Obtained publications and literature on cotton crop.
11	N.R.C.C., Nagpur	Member of Scientific Advisory Committee. Obtained publications and literature on citrus.
12	All India Radio, Yavatmal	Member of Scientific Advisory Committee. Broadcast the message related to agriculture, radio talks and participation in question and answer / farmers queries programme.
13	Press Information Bureau, Yavatmal	Publicity of popular articles from time to time and occasional interviews of Training Organizer of this KVK centre.
14	NEERI, Nagpur	Defloridation Technology and household unit of water.
15	NHB and NHM	Funding agency for establishment of nursery at KVK, Yavatmal
16	National Medicinal and Aromatic Plant Board	Provide resource persons for different horticultural programmes conducted under NHM.
17	MSSCI, Yavatmal	Act as a supply source of seed material of agronomical and horticultural crops to KVK, Yavatmal for farm demonstrations, OFT and FLDs.
18	ITC ChoupalSagar	Marketing of soybean grains. Extending technical support to ITC cultivators, training and Mela
19	NABARD	Formation KVK- NABARD farmers club and project sanctioning to KVK contacts.
20	ATMA	Funds mobilized for Innovative Extension Education programmes and entrepreneurship development
21	District Dealers Association, Yavatmal	Jointly organization training and Krishi Mela and Technology dissemination through Krishi Sanwadini distribution.
22	District Collectorate and revenue	As a ATMA distict member. Involvement of KVK in 'kkluvkiY:knkih programme.
23	Forest Department, Pandharkawada and Yavatmal Division	Introduction of Lac insects in many a forest range/s through programme of lac cultivation.
24	Joint Forest Management Committee	25 JFMC are under linking with KVK for Lac culture and other entrepreneurship development.
25	World Vision of India	Supporting technical knowledge how for livelihood and area development programme by entrepreneurship development.
26	SRTT	Services providing as a Resource Persons.
27	Chetana Organization, Ghatanji	Services providing as a Resource Persons.
28	Vikas Ganga, Ghatanji	Services providing as a Resource Persons.
29	Swaminathan Research Foundation Trust, Chennai (Branch Yavatmal)	Evolve in Village Knowledge Bench, Promoting through SRTNVA Fellowship to KVK contacts.
30	Vidarbha Rural Reconstruction Trust, Kongara	Technical support and scheme convergence for farmers.
31	District Information Office	Technical dissemination and news publish.
32	Agro-One (Daily News Paper for farmers)	Jointly Krishi Mela organization and technical support in form of resource persons.
33	YASHADA, Pune	Nominated KVK as a District Resource Organization. Jointly organized the training programme under IWMP for farmers.
34	CIAE, Bhopal	Technical support and scheme convergence for farmers.
35	MAVIM, Yavatmal	SHG Training
36	SVNG Medical College, Yavatmal	Medical camp organization
37	PHC, Yavatmal district	Medical camp organization of OFT, FLD's
38	Cottage Hospital, Pandharkawda	Medical camp organization of OFT, FLD's
39	District Health Laboratory, Yavatmal	OFT, FLD's water testing
40	Health Laboratory, Yavatmal	Water Testing
41	MAU Parbhani	Technical FLD, OFT's
42	ANGRAU, Hyderabad	Technical FLD, OFT's
43	District Project Coordination Committee, Yavatmal	Nominated for DPCC
44	RCE, Ltd	Associated as a mass media for technology dissemination through KisanMelawa

		and source of soil testing.
45	RCOF, Nagpur	Organic farming
46	ShramShaktiPratishthan, Wardha	Jointly organization of training programmes and technical support in form of resource persons.
47	Dist. Dairy Devlop. Officer	Technical support and scheme convergence for farmers.
48	APMC, Pusad	Jointly Krishi Mela organization and technical support in form of resource persons.
49	Veterinary Department	Sparing services in Training and Extension services of one other
50	ZilhaParishad, Agriculture	Invited member in Krishi Samiti of ZilhaParishad, heded by ZP Vice Chairman, working as a Nodal Officer in Agriculture Exhibition.
51	Community Social Responsibility Unit of Reliance Sector.	Providing platform of form cables for University's Technology Dissemination.

**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.)
PoCRA	2018-19	ATMA	--
DAESI	2018-19	ATMA	--
NFSM (ICM-PBW)	2018-19	State Government	437500
UPL- Dr. PDKV, Akola	2018-19	--	--

**C. Details of linkage with ATMA**

a) Is ATMA implemented in your district Yes/No

**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	06	12	06	--
02	Research projects	--	-	--	--
03	Training programmes	08	16	08	--
04	Demonstrations	-	-	-	-
05	Extension Programmes				
	Kisan Mela	01	09	01	--
	Technology Week	00	00	00	00
	Exposure visit	00	0	00	00
	Exhibition	01	14	01	00
	Soil health camps	02	05	02	00
	Animal Health Campaigns	00	00	00	00
	Others (Pl. specify)	00	00	00	00
06	Publications				
	Video Films	00	0	00	00
	Books	01	03	00	00
	Extension Literature	07	21	00	00
	Pamphlets	02	04	00	00
	Others (Pl. specify)	00	00	00	00
07	Other Activities (Pl. specify)				
	Watershed approach	00	00	00	00
	Integrated Farm Development	00	00	00	00
	Agri-preneurs development	00	00	00	00

**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
--	--	--	--	--	--

**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
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#### 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
--	--	--	--	--	--

**7. Convergence with other agencies and departments: Activities may be specified under DAESI, YCMOU study centres and others**

#### 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:

S. No	Feed Back
1	Soybean – var. demo High yielding variety
2	Pigeonpea – ICM Good technology required to be demonstrated widely
3	Chickpea - var. demo High yielding variety with quality production.
4	Chick pea- ICM Feasible technology for high crop yield
5	Cotton (INM in Bt cotton)High yield in irrigated condition with intensive fertilizer use
6	Sowing and firrow making using BBF planter save time upto 23.53% and increases production upto 41.67 % as compare to local method.
7	Hoeing using Wheel hand hoe reduces the labour requirement upto 70 %, it also save time upto 77 % and expenditure upto 56.52 % as compare to Manual hoeing. In addition to this it also reduces drudgery of farm women. .
8	using insect trap in household grain storage chemicals such as boric powder & mercury tablets is totally stopped & damage grain is reduced in 57.14 %.
9	Result shows that time required for boiling point was reduce by 45.4 % while using Thermo Efficient Cook Stove & 25% fuel was save

#### 10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:

S. No	Feed Back
1	Soybean – var. demo Accepted and demand for next season
2	Pigeonpea – ICM Accepted and demand for next season
3	Chickpea - var. demo Accepted and demand for next season
4	Chick pea- ICM Accepted and demand for next season
5	Cotton (INM in Bt cotton) Accepted and demand for next season
6	BBF planter is good for sowing the Soybean.
7	Wheel hand hoe is suitable for the men rather than women labour.

#### 11. Technology Week celebration during 2018-19: Yes/No, If Yes

Period of observing Technology Week: From 14/09/2018 to 17/09/2018

Total number of farmers visited :432

Total number of agencies involved : 01

Number of demonstrations visited by the farmers within KVK campus: 432

## Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	02	93	Production technology of Rabi crop, ICM in Rabi crop, IPM in Rabi crop
Lectures organized	06	107	Entrepreneurship development through honey bee, Goat farming, Dairy farming, poultry farming
Exhibition	01	233	Production technology Rabi crop
Film show	03	221	Mushroom production technology, Honey bee, Sericulture
Fair	0	0	--
Farm Visit	05	144	Demonstration unit at KVK
Diagnostic Practicals	02	165	Method Demonstration
Supply of Literature (No.)	06	432	Production technology of Rabi crop, IPM in Rabi Crop, Poultry farming, Goat Farming, fodder crop management
Supply of Seed (q)	0	0	--
Supply of Planting materials (No.)	0	0	--
Bio Product supply (Kg)	0	0	--
Bio Fertilizers (q)	0	0	--
Supply of fingerlings	0	0	-
Supply of Livestock specimen (No.)	0	0	-
Total number of farmers visited the technology week	432	432	

## 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
--	--	--	--

### B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	--	--
Pulses	--	--
Cereals	--	--
Vegetable crops	--	--
Tuber crops	--	--
<b>Total</b>	--	--

### C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No. of participants
Maharashtra	Poultry	02	32
Maharashtra	Disease management of large ruminants	01	41
Maharashtra	Vaccination of Goat	01	13
Maharashtra	Fodder cultivation	03	52
<b>Total</b>		<b>07</b>	<b>138</b>

### D. Animal health camps organized

State	Number of camps	No. of animals	No. of farmers
--	--	--	--
<b>Total</b>			

### E. Seed distribution in drought hit states

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
--	--	---	----	--
<b>Total</b>				

### F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
--	--	--	--

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
Maharashtra	72	453	03	230	04	174	--	--	02	1645	01	161
Total	72	453	03	230	04	174	--	--	02	1645	01	161

### 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)
Integrated weed management in field crop	80	62	--	--
Chickpea Variety JAKI-9218	32	45		
Herbicide weed management practices in Cotton (Bt)	15	52		
introduction of new variety Phule Gunvant for fodder production	13	39		
Azolla powder 5% in feed for low input poultry bird	13	32		
Tractor drawn Slasher.	13	41		
Soybean harvesting mittens and Multipurpose Mittens for Soybean harvesting	13	31		

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

### 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 2018	01	264	--
May	01	512	--
June	02	1206	--
July	07	34009	--
August	07	85701	--
September	03	36729	--
October	02	24489	--
November	03	24576	--
December	01	12246	--
January 2019	02	12713	--
February	03	43848	--
March	01	12411	--
	33	288704	

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Aware-ness	Other enterprise	
Yavatmal-I	Text only	18	5	2	3	3	2	33
	Voice only	--	--	--	--	--	--	-
	Voice & Text both	--	--	--	--	--	--	--
Total Messages		18	5	2	3	3	2	33
Total farmers Benefitted		156999	57094	776	36729	12617	24489	288704

## 15. PERFORMANCE OF INFRASTRUCTURE IN KVK

### A. Performance of demonstration units (other than instructional farm including value added products)

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Bio control lab	2018	12x15 feet	Trichocards production	306 No.	306 No.	Rs 50/cards	15300	--
2	Azolla production	2010	5 Bed (12x4) feet	Azolla pinnata culture	1167 kg	1167 kg	Rs 80/kg	93360	

### 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	--	--	--	--	--	--	--	--	--
Pulses	--	--	--	--	--	--	--	--	--
Oilseeds	20.06.2018	22.10.2018	4.40	JS-9305	--	30	--	--	--
	22.06.2018	23.10.2018	4.00	NRC-37	T	32	--	--	--
	20.06.2018	23.10.2018	2.00	NRC-37	B	16	--	--	--
Fibers	--	--	--	--	--	--	--	--	--
Spices & Plantation crops									
Floriculture	--	--	--	--	--	--	--	--	--
Fruits	--	--	--	--	--	--	--	--	--
Vegetables	--	--	--	--	--	--	--	--	--
Others (specify)									

### C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.)

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Triachogramma Cards	306	50	15300	156 trichocards distributed to farmers on gratis basis

### 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	Osmanabad i	--	21	---	--	Increasing awareness of farmers in Yavatmal district regarding small ruminant farming and scientific management.
2	poultry	Kadknath	egg	02	--	--	Increasing awareness of farmers in Yavatmal district regarding poultry farming and scientific management
3.	Azolla	Azolla pinnata	Azolla mother culture	69504	80 Rs/kg	93360	Azolla is a good alternative fodder having high protein.

### E. Utilization of hostel facilities

Accommodation available (No. of beds): **Under repair**

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018	--	--	--
May 2018	--	--	--
June 2018	--	--	--
July 2018	--	--	--
August 2018	--	--	--
September 2018	--	--	--

October 2018	--	--	--
November 2018	--	--	--
December 2018	--	--	--
January 2019	--	--	--
February 2019	--	--	--
March 2019	--	--	--

#### 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.)		
12000	10000	Demonstration of Gravity Micro irrigation system	04	01	--	165	25	--	2 gunthe

## 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	SBI	Akola	02171	Comptroller, Dr. PDKV, Akola	10428432545	444002048	SBIN0002171
With KVK	SBI	Yavatmal	0506	Programme Coordinator	11150442037	445002967	SBIN0000506

### B. Utilization of KVK funds during the year 2018-19 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	12000000	12000000	8666145
2	<b>Traveling allowances</b>	200000	160000	134289
3	<b>Contingencies</b>	950000	900000	947512
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	--	--	--
B	POL, repair of vehicles, tractor and equipments	--	--	--
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	--	--	--
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	--	--	--
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	--	--	--
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	--	--	--
G	Training of extension functionaries	--	--	--
H	Maintenance of buildings	--	--	--
I	Establishment of Soil, Plant & Water Testing Laboratory	--	--	--
J	Library	--	--	--
<b>TOTAL (A)</b>		<b>13150000</b>	<b>13060000</b>	<b>9747946</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>	--	--	--
2	<b>Equipments including SWTL &amp; Furniture</b>	--	--	--
3	<b>Vehicle</b> (Four wheeler/Two wheeler, please specify)	800000	Not Release	Nil
4	<b>Library</b> (Purchase of assets like books & journals)	--	--	--
<b>TOTAL (B)</b>		<b>800000</b>	<b>Nil</b>	<b>Nil</b>
<b>C. REVOLVING FUND</b>		<b>3210375</b>	<b>00</b>	<b>00</b>
<b>GRAND TOTAL (A+B+C)</b>		<b>17160375</b>	<b>13060000</b>	<b>9747946</b>

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2016 to March 2017	1771791	--	--	2607831
April 2017 to March 2018	2607831	--	--	2455626
April 2018 to March 2019	2455626	--	--	3210375*

**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
Dr. P.N.Magar	Subject Matter Specialist (Entomology)	Integrated vertebrate pest management	NIPHM, Hyderabad	05/02/2019-24/02/2019
Dr. P.N.Magar	Subject Matter Specialist (Entomology)	Agro Entrepreneurship development	Dr. PDKV, Akola	28/02/2019-01/03/2019
Dr.S.S. Wane	Subject Matter Specialist (Agriculture Engineering )	Application of remote sensing and GIS for agriculture development	Extension Education institute AAU, Anand, Gujarat	30/07/2018-03/08/2018

**18. List the other collaborative research/ extension projects and also write brief key achievements of the projects.**

- Pro SOIL
- NARI (Please indicate the name of one adopted village and give the activities carried over on nutri sensitive agriculture)
- VATICA
- Seed Hub
- Others (if any)

**19. Please include any other important and relevant information which has not been reflected above (write in detail).**

## APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

### 1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	84	3116	1829	4945
Rural youths	30	833	628	1461
Extension functionaries	32	1365	539	1904
Sponsored Training	03	153	105	258
Vocational Training	03	109	60	169
<b>Total</b>	<b>152</b>	<b>5576</b>	<b>3161</b>	<b>8737</b>

### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	63	25.2	--
Pulses	50	20.0	---
Cereals	63	25.2	--
Vegetables	--	--	--
Other crops	--	--	--
Hybrid crops	--	--	--
<b>Total</b>	<b>176</b>	<b>70.4</b>	
Livestock & Fisheries	50	--	100
Other enterprises	20	8.0	--
<b>Total</b>	<b>70</b>	<b>8.0</b>	<b>100</b>
<b>Grand Total</b>	<b>246</b>	<b>78.4</b>	<b>100</b>

### 3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	05	05	65
Livestock	02	02	26
Various enterprises	02	02	26
<b>Other</b>	<b>09</b>	<b>09</b>	<b>117</b>
<b>Total</b>	<b>09</b>	<b>09</b>	<b>117</b>

### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	133	49086
Other extension activities	110	--
<b>Total</b>	<b>243</b>	<b>49086</b>

## 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Yavatmal-I	Text only	18	5	2	3	3	2	33
	Voice only	--	--	--	--	--	--	-
	Voice & Text both	--	--	--	--	--	--	--
	<b>Total Messages</b>	18	5	2	3	3	2	33
	<b>Total farmers Benefitted</b>	156999	57094	776	36729	12617	24489	288704

## 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	78	--
Planting material (No.)	00	00
Bio-Products (No) Triachocards	306	15300
Livestock Production (Azolla)(Kg)	69504	93360
Fishery production (No.)	--	--

## 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	3157	696800
Water	00	00
Plant	00	00
<b>Total</b>	<b>3157</b>	<b>696800</b>

## 8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	14
2	Conferences	01
3	Meetings	52
4	Trainings for KVK officials	10
5	Visits of KVK officials	52
6	Book published	01
7	Training Manual	00
8	Book chapters	00
9	Research papers	03
10	Lead papers	00
11	Seminar papers	00
12	Extension folder	09
13	Proceedings	05
14	Award & recognition	02
15	On going research projects	01



**PoCRA activities performed by KVKs in Maharashtra during 2018-19**  
(KVKs in Vidarbha and Marathwada)

Name of the KVK : **KVK, Yavatmal-1**

1. Name of the District: Yavatmal
2. No. of blocks covered: 3 (Yavatmal, kalamb, Pandhrkwada (Out of 7))
3. No. of PoCRA villages covered in 1<sup>st</sup> phase : 74
4. No. of FFS conducted during 2018-19 : 07

Particulars	Kharif	Rabi	Total
No. of FFS	07	07	14
No. of rounds per FFS (Days)	158	74	232
<b>Total No. of FFS Days</b>	<b>165</b>	<b>81</b>	<b>246</b>

5. No. of facilitators engaged during 2018-19 : 07

6. FFS wise Climate resilient technologies identified in the district

Technology identified		
Cotton + Green gram / Black gram (Kharif)	Soybean + Red gram / Any other (Kharif)	Chickpea / Any other (Rabi)
<ol style="list-style-type: none"> <li>1. Use bio fertilizer for seed treatment</li> <li>2. Open ridges and furrow</li> <li>3. Soil test based INM &amp; IWM</li> <li>4. Scheduling for pink bollworm management</li> </ol>	<ol style="list-style-type: none"> <li>1. Use bio fertilizer for seed treatment</li> <li>2. Used high yielding &amp; disease resistance variety</li> <li>3. BBF technology for sowing</li> <li>4. IPM technology for pest management</li> </ol>	<ol style="list-style-type: none"> <li>1. Use bio fertilizer for seed treatment</li> <li>2. Used high yielding &amp; disease resistance variety</li> <li>3. BBF technology for sowing</li> <li>4. IPM technology for pest management</li> <li>5. Follow irrigation schedule</li> </ol>

7. Financial provisions (As per revised guidelines email dated 11/10/2018) and actual amount received at KVK level.

FFS expenditure for Vulnerable villages other than Saline villages (0.4 ha)						
Sr No	Activity / Item	Unit	Cost Norms (Rs)			
			Financial allocation for 1 <sup>st</sup> year	No. of activities carried out	Total receivable amount (Rs)	Actual amount received at KVK level (Rs)
A.	Support to SDAO					
1	Demonstration on Climate Resilient Seed & cultivation technology	Input cost Lump sum	3000			Nil
2	IPM & INM	Input cost Lump sum	2000			Nil
3	FFS kit & Stationary	Lump sum	2000			Nil
4	Refreshment (30 persons & 8 events)	1st yr-Rs. 35 per person, 2nd Yr- Rs 40 per person, 3rd Yr- Rs 45 per person	8400			Nil

5	Incentive to achiever farmer	Lump sum	2,800			Nil
6	Crop cutting, Field day & contingency	Lump sum	2,000			Nil
7	Honorarium to Facilitator for 8 training cum visit days	Rs. 1000 per event	8000			Nil
8	Travel & communication exp. for Facilitator for 8 training cum visit days	1st yr-Rs. 300 per visit, 2nd Yr- Rs 400 per visit, 3rd Yr- Rs 500 per visit	2400			Nil
	<b>Sub-total</b>		<b>30600</b>			Nil
<b>B</b>	<b>Support to Krishi Vigyan Kendra (KVK)/ Technology Provider</b>					
1	Technical Literature/ Informative material	Lump sum	1000	Nil	Nil	Nil
2	Documentation	Lump sum	500	Nil	Nil	Nil
3	Technical Support & contingency	Lump sum	2000	Nil	Nil	Nil
	<b>Sub-Total</b>		<b>3500</b>	Nil	Nil	Nil
	<b>Total</b>		<b>34100</b>			Nil

#### PoCRA activities carried out during 2018-19

S. No.	Activity	No. of activities	No. of man-days used	No. of KVK staff involved other than facilitators	Expenditure if any (Rs)
1	To prepare and publish advertisement for facilitators	01	01	14	<b>2352</b>
2	Selection and appointment of facilitators (Walk-In-Interviews)	--	--	--	--
3	Participation of FFS Coordinator in ToT at RAMETI with facilitators	01	01	02	--
4	Allotment of villages to facilitators	--	--	--	--
5	Field level monitoring visits of KVK head, coordinator and Subject Matter Specialists	91	01	03	--
6	Organizing capacity building trainings of facilitators at KVK level	11	01	09	--
7	Organizing training of PoCRA farmers On / Off campus other than FFSs	03	01	02	--
8	Participation in field days / awareness programmes in PoCRA villages	07	01	02	--
9	Participation in meetings at PMU level	01	01	02	--
10	Participation in district level joint meetings with ATMA / SDAO / DSAO	05	01	02	--
11	Participation in Audio / Video conference at district level	01	01	02	--
12	Participation in HRD trainings organized under PoCRA	01	05	02	--
13	Preparation of FFS schedule / reports / bills, etc	90	01	01	--
14	Preparation of literature as soft / hard copy	0	0	0	--

15	Report preparation and submission of bills	90	01	01	--
16	Any other (Please specify)				

#### Status of payment of facilitators

FFS Round (No.)	Bill submitted (Month)	Payment credited in the account of facilitators (Month)	Delay by (No. of months)
Kharif FFS			
Round - 1	05.07.2018	Payment done by ATMA, Yavatmal	--
Round - 2	29.08.2018		
Round - 3	01.09.2018		
Round - 4	04.10.2018		
Round - 5	01.11.2018		
Round - 6	03.12.2018		
Round - 7	03.01.2019		
Round - 8	30.02.2019		
Rabi FFS			
Round - 1	--	--	--
Round - 2	--	--	--
Round - 3	--	--	--
Round - 4	--	--	--
Round - 5	--	--	--
Round - 6	--	--	--

8. No. of farmers covered through 1980 FFS training days @ 20 farmers attendance on an average = **91 No.**
9. Institutional charges / TA / DA / POL received at KVK level if any : **67000 Rs**
10. No. of villages proposed in second phase for the year 2019-20 : **107 No.**
11. General observations and comments on each component:
  - 11.1** Attachment and accessibility of facilitators : **moderate**
  - 11.2** Involvement and cooperation of host farmers : **moderate**
  - 11.3** Involvement and cooperation of Agril. Assistants in terms of presence in FFS, making logistic arrangements, etc : **moderate**
  - 11.4** Timely availability of critical inputs from SDAO / ATMA : **moderate**
  - 11.5** Controlling system on facilitators and overall coordination at district level: **moderate**
  - 11.6** Stability of facilitators and problems thereof : **moderate**
  - 11.7** Overall impression and feedback of beneficiary farmers about involvement of KVKs in FFS component: **good**
12. Any other point not covered above: