

**ANNUAL REPORT OF KVK, SIVASAGAR, 2016-17**

**1. GENERAL INFORMATION ABOUT THE KVK**

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra, Sivasagar, Assam. PO: Dhopabar Via Santak PIN : 785687 <a href="http://www.kvksivasagar.nic.in">www.kvksivasagar.nic.in</a>	NA	NA	kvk_sivasagar@aau.ac.in

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

Address	Telephone		E mail
	Office	FAX	
Assam Agricultural University, Jorhat -785013	0376-2340029	0376-2310708	registrar@aau.ac.in

1.3. Name of the Programme Coordinator with Phone & Mobile No.

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.PhuleswarNath	NA	9954411012	phuleswarnath@rediffmail.com

1.4. Year of sanction: 2003

1.5. Staff Position (**As on 31<sup>st</sup> March, 2017**)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST / OBC/ Others)
1	Sr. Scientist and Head	Dr. Phuleswar Nath	Sr. Scientist and Head	Plant Pathology	37400-67000	65520	31.03.05	Permanent	OBC
2	Subject Matter Specialist	Mr.Rupjyoti Borah	Subject Matter Specialist	Soil Science	15600-39100	27390	10.10.01	Permanent	OBC
3	Subject Matter Specialist	Mrs.Toslina Sultana Begum	Subject Matter Specialist	Home Science	15600-39100	27390	08.11.08	Permanent	General
4	Subject Matter Specialist	Mrs. Nayanmoni Buragohain	Subject Matter Specialist	Horticulture	15600-39100	25050	08.08.11	Permanent	OBC
5	Subject Matter Specialist	Mrs. Trishnalee Saikia	Subject Matter Specialist	Agril. Economics	15600-39100	22950	07.11.08	Permanent	MOBC
6	Subject Matter Specialist	Dr. Debajit Dekka	Subject Matter Specialist	Animal Science	15600-39100	21630	27.10.15	Permanent	General

7	Subject Matter Specialist	Miss Priyanka Dutta	Subject Matter Specialist	Agronomy	15600-39100	21630	19.10.15	Permanent	OBC
8	Programme Assistant	Mr.Priyabrot Bordoloi	Prog. Asstt.	Agri. Extension	8000-35000	13690	29.12.15	Permanent	General
9	Computer Programmer	Sri Juga Rashmi Borah	Prog. Asstt. (Comp)	Computer	8000-35000	18920	11.11.08	Permanent	OBC
10	Farm Manager	Mr. Debashish Baruah	Farm Manager	Agronomy	8000-35000	13290	31.8.15	Permanent	General
11	Accountant / Superintendent	Mrs. Rashmirekha Saikia	Office Superintendent cum Accountant	Agri-Business Management	8000-35000	14540	22.02.12	Permanent	OBC
12	Stenographer	Mrs. Karabi Borgohain Phukan	Jr. Steno cum computer operator		5200-20200	11220	18.02.12	Permanent	OBC
13	Driver	Sri Phanidhar Gogoi	Driver cum Mechanic		5200-20200	9390	22.02.12	Permanent	OBC
14	Driver	Mr.Jitu Baruah	Driver cum Mechanic		5200-20200	7400	30.11.2016	Permanent	OBC
15	Supporting staff	Baneswar Gogoi	Grade -IV		4560-15600	11710	09.02.96	Permanent	OBC
16	Supporting staff	Vacant							
	Total		15/16						

Note: No column in the table must be left blank

- 1.6. a. Total land with KVK (in ha) :13.7 ha  
b. Total cultivable land with KVK (in ha) :10.5 ha  
c. Total cultivated land (in ha) :2.5 ha

SL. No.	Item	Area (ha)
1	Under Buildings (Administrative building+ Farmers' Hostel+ Staff Quarters)	0.800
2.	Under Demonstration Units	0.014
3.	Under Crops (Cereals, pulses, oilseeds etc.)	2.0 ha
4.	Under vegetables	

5.	Orchard/Agro-forestry	0.5
6.	Others (Fishery)	0.65

## 1.7. Infrastructural Development:

## A) Buildings

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	19.7.2014	238	8498471.75		-	100% Complete
2.	Farmers Hostel	-do-	-			14.4.2009	305	Incomplete
3.	Staff Quarters (6)	-do-				14.4.2008	298	95% Complete
4.	Demonstration Units (2)	RKVY	9.10.2013 11.2.2014	237.87	2037304.00			100% Complete
5	Fencing	ICAR	26.7.2012	723	1425899.00	-	823	45% Complete

## B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Marshall Jeep	AS-03E-0029	2005-06		108700	Good
Power Tiller		2009	148000.00		Good

## C) Equipments &amp; AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Kilburn Mita Digital Copier	2006	48,360.00	Good
Digital photo copier	2010-11	101920.00	Good
2KVA Voltage stabilizer	2006	3,375.00	Good
Duplicating machine	2005	43,686.00	Out of order
Desktop Computer	2006	27,101.00	Good
Desk Top Computer	2010	55,094.00	Good
Laptop	2010	31547.00	Out of order
Laser Printer	2006	9,605.00	Out of order
Laser Printer	2010	5475.00	Out of order
1KVA UPS	2006	5,951.00	Out of order
Scanner	2006	3,549.00	Out of order
Scanner	2010	2724.00	Needs to repair
Digital Camera	2005-06	15,080.00	Not up to date
Digital Camera	2010	19000.00	Good
Fax Machine	2005-06	25,792.00	Not in use
Fax Machine	2010	15190.00	Not in use
Cassette Player with Amplifier	2005-06	5,625.00	Good
Microphone with stand	2005-06	6,300.00	Good

300 watts Sound Box with 15" Speaker	2005-06	11,250.00	Good
LCD Projector	2005-06	55,016.00	Good
UPS	2009-10	2150.00	Not in working condition
Weather station	2012	45,000.00	Good

1.8. A). Details SAC meeting\* conducted in the year 2016-17

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1.	23.03.2017	Dr. K. M. Bujarbaruah, Vice-Chancellor, AAU, Jorhat	Attached under	Attached under
		Dr. H. C. Bhattacharya, DEE, AAU, Jorhat		
		Dr. M. Neog, ADEE (T), AAU, Jorhat		
		Dr. T. Ahmed, Chief Scientist, RARS, Titabar		
		DR. K. DevGoswami, DVO, Sivasagar		
		Mr. H. C. Deori, GM, DLCC, Sivasagar		
		Dr. A. Changkakoti, DAO, Charaideo		
		Dr. A. Barthakur, DAO, Sivasagar		
		Ashok Bora, Extension Officer, Sericulture		
		DibyajyotiDoley, Range Officer, Soil Conservation, Sivasagar		
		SimantaJyotiBaruah, Farmer		
		ArotiChetia, Farm Women		
		SaratGogoi, Farmer		
		LohitGogoi, Founder, KASS-NASS		
		Dr. S. K. Dutta, ATMA, Sivasagar		
		PremaDharDeka, DFDO, Sivasagar		
		DeepsikhaSaikia, Jr. Engineer		
		UshaKonwar, Jr. Engineer		
		L. Mahanta, DDM, NABARD		
		M. Setty, LDM, Sivasagar and Charaideo		
		SantanuBaruah, Asstt. Conservator of Forest, Sivasagar		
		AbhijitBaruah, DDC, Sivasagar		
		Ram Kanu, Suraksha NGO		
		SumanjitLahan, SHAP NGO		

**\* Attach a copy of SAC proceedings along with list of participants**

Salient recommendations:

- During interaction with district fishery officer, Chairman said that one fishery expert from FRC, AAU, Jorhat-13 will be appointed in KVK Sivasagar.
- Recommendation for farmers producers organization (FPO) on mushroom, fishery and other agricultural value added products.
- During interaction with farmers, the Chairman asked to go for trial on short duration Arhar crop.
- It was advised to work collaboratively with Dr.RamaniKantaThakuria, Deptt. of Water Management, AAU, Jorhat for ground water recharging procedure in the needed areas.
- It was advised to develop an ideal farming system model by DAO, Cheraideo along with help of KVK, Sivasagar if needed.

**Action taken report**

Sl no.	Action Point	Action taken
1	The tomato variety ArkaRakshak is to be tested against bacterial wilt instead of ArkaShrestha	Testing of triple resistant tomato variety ArkaRakshak under field condition.
2	Rechecked the occurrence of Brown Spot disease in Ranjit Sub-1	Brown Spot disease recorded in negligible severity with resistant reaction
3	Workshop on “Problems and prospects of multicropping : exploring potentialities in upper Assam” was to be organized.	Could not be done due to time constraints.
4	Attention should be given to create Farmers Producers Organization (FPO) with commodities like mushroom, vermicompost, fish production and other value added products with necessary support from NABARD	Only two Farmers Clubs (FC) have been created with full support from DDM, NABARD
5	To implement SMART farming concept for small farmers where technology inputs could be obtained from Govt. of India’s programme such as organic farming which includes organic crop production, organic livestock production and certified accordingly as organic	Already about 100 ha area has been selected for organic production and 50 ha for double cropping. Report will be submitted soon.
6	The process of soil health Card (SHC) to the farmers should be continued with full zeal and the areas deficient in specific nutrients should be amended properly.	Issued 1961 nos. Soil Health Card to the farmers despite of having own lab facility. The uploading in KVK Portal is on.
7	Some new fruit crops like apple, almond, new varieties of Mango should be tried in the district for crop diversification.	Necessary arrangement has been made to plant Mango variety Amrapali at KVK, Farm
8	Special attention on pulse crop should be given in the district	Already done
9	On Farm trial on true Potato Seed should be taken up	Yet to done

## **2. DETAILS OF DISTRICT**

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

Sl. No	Farming system/enterprises
1.	Agri – Hort – AH
2.	Agri – Hort – AH – Fishery
3.	Agri – Hort – AH – Seri
4.	Hort – Agri
5.	AH
6.	AF – Agri

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

Sl. No	Agro-climatic Zone	Characteristics
1	Upper Brahmaputra Valley Zone	<ul style="list-style-type: none"> <li>❖ This zone covers 160789 sq/ km</li> <li>❖ Hot and wet summer climate</li> <li>❖ Maximum temperature 37°C</li> <li>❖ Minimum temperature 7°C</li> <li>❖ Relative Humidity : 96%</li> <li>❖ Heavy rainfall: March, April and May</li> <li>❖ Very cold during January and February</li> <li>❖ Dry weather: Mid October – Mid December</li> </ul>

### 2.3 Soil type/s

Sl. No	Soil type	Area in ha
1.	Inceptisol (Old Alluvial)	136863
2.	Entisol (Recent Alluvial)	68116

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

Sl. No	Crop	Area (ha)	Production (Mt)	Productivity (kg/ha)
1	Winter paddy	95535	236386	2474.34
2	Autumn Paddy	129	150	1163
3	Summer paddy	172	510	2965.12
4	Wheat	9	12	1333.33
5	Black Gram	278	153	550.36
6	Lentil	7	3	428.57
8	Rapeseed & Mustard	1887	932	494
9	Sugarcane	84	2992	35619
10	Jute	25	211	8440
11	Banana	1569	25708	16385
12	Orange	293	2867	9785
13	Pineapple	137	1990	14526
14	Papaya	158	3847	24348

15	Litchi	176	1178	6693
16	Mango	288	3362	11674
17	Guava	219	4159	18991
18	Jackfruit	893	6858	7680
19	Assam lemon	504	2885	5724
20	Potato	745	3296	4424
21	Onion	55	153	2782

### 2.5. Weather data

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
		Maximum	Minimum	
April, 2016	213.8	33.9	17.9	89.5
May, 2016	395.8	38.4	19.3	89
June, 2016	148.8	38.1	23	87.8
July, 2016	335	37.3	24.8	90.8
Aug, 2016	240	39.5	23.5	88
Sept, 2016	373.6	35.8	23.5	93.1
Oct, 2016	86.4	36.6	19.5	90.5
Nov, 2016	35	31.6	10.6	88.5
Dec, 2016	11.8	28.2	7.6	86.5
Jan, 2017	6	27.8	6.6	83.5
Feb, 2017	76	31.5	9.1	82.6
Mar, 2017	134	32.3	12.3	84.6

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

Category	Population	Production	Productivity
Cattle	413355		
Indigenous cattle	345063		
Crossbreed cattle	15607		
Buffalo	18653		
Sheep	111		
Goats	114689		
Horses and ponies	323		
Pigs	79714		
Total livestock	690980		
Fowls	457127		
Ducks	172094		

### Numbers and Area of fishery, fish production in Sivasagar District

Sl. No.	Item	Unit	2011-12	2012-13
1	Registered beel	Nos.	14	260
2	Area under registered beel	Hect.	1920	260
3	Unregistered beel	Nos.	117	133
4	Area under unregistered beel	Hect.	1469.22	2665
5	Registered River Fisheries	Hect.	-	
6	Fish production		-	
	Department	Kg	-	
	Private	M.T.	11558.93	10579.82
7	Seed Production			
	Department	Lakh		
	Private	Lakh	173.80	81.20
8	Imp. Fish from outside the state	Tonnes	240	210

Source: Office of the Deputy Director of Economics and Statistics, Sivasagar

## 2.6 Details of Operational area / Villages (2016-17)

No	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Sivasagar sub-Division	Sivasagar block	Betbari, Cherekapar, Nemuguri, Hanhsora, Gargaon, Rajabari, Rajmai, Bakata.	Rice, Tea, Horticulture crops, Vermicompost, Mushroom, Backyard poultry	Pests and diseases, flood	Rice, Tea, dairy, piggery, fishery, Horticulture crops, Vermicompost, Mushroom,
		Demow block	Rajabari, Netaipukhuri, Sukhanpukhuri, Demow, Disangmukh, Panbesa, Konwarpur, Jhanji, Sesamukh, Bhekurichapori	Rice, mustard, vegetables and horticultural crops, Vermicompost, Mushroom, Backyard poultry	Low productivity, pests and diseases.	Rice, mustard, vegetables, pea, black gram. Mushroom, Backyard poultry
		Gaurisagar block	Rangpur, Rudrasagar, Magarhat, Dikhowmukh, Khanamukh, Rupohimukh, Discial, Bhorolua, Garbhoga, NakataniKalugaon, Charing Duwarahpar, Khanikargaon	Rice, vegetables, fishery, poultry, piggery. Vermicompost, Mushroom,	Low productivity, pests and diseases. Flood occurrence.	Rice, fishery, vegetable crops, contingency planning, Vermicompost, Mushroom, Backyard poultry
2.	Amguri sub-division	Amguri block	Namti, Amguri, Lalimchiga, Khanikar, Samguri, Tarabari, Haluating, phulpanichiga	Rice, mustard, wheat, horticultural crop.	Pests and diseases. Low productivity of citrus.	Rice, horticultural crop, rejuvenation of citrus plantations.
3.	Nazira Sub-division	Nazira block	Nazira, Simologuri, Namti, Galeki, Dhopabar, Hanhsora, Bartala, Ligiripukhari, Chauak, Bihubar, Mesagarh, Rohdoipukhuri, mezenga, sundarpukhuri	Rice, wheat, jute, potato, sugarcane, piggery, fishery, dairy Vermicompost, Mushroom, Backyard poultry	Low production, pest and disease incidence.	Management of production technology. Vermicompost, Mushroom, Backyard poultry



4.	Sonari sub-division	Sonari block	Lakua, Safrai, Mathurapur, Dolbagan, Borhat, Bhojo, Tengapukhuri, Sepon, Abhoipur, Maibela, Charaideo,	Rice and horticultural crops, banana, pine apple, coconut,	Nursery raising, pest and disease problem	Rice, horticultural crops, pine apple, papaya, banana, coconut, mustard.
		Mahmora block	Nirmalia, Nizkhaloighugura, Kochupathar, Moranjan, Doba, Lessaihabi, Laiseng, Barbarua, Moudumoni, Himpara, Bistrampur, Nabajyoti, Bogoriting, Holmari	Rice and horticultural crops, banana, pine apple, coconut, tea	Nursery raising, pest and disease problem	Rice, horticultural crops, pine apple, papaya, banana, mustard, Vermicompost, Mushroom, Backyard poultry
		Sapekhati block	Balikheta, Chotianaguri, Kanubari, Balijan,	Rice and horticultural crops, banana, pine apple, pea,	Nursery raising, pest and disease problem	Rice, horticultural crops, pine apple, papaya, banana, coconut, mustard.

### 3. TECHNICAL ACHIEVEMENTS

#### **3. A. Details of target and achievements of mandatory activities by KVK during 2016-17**

Discipline	OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Maize, Other Crops/Enterprises)			
	Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
Agronomy	3	3	9	9	4	3	8	8
Horticulture	3	2	8	4	4	3	8	10
Animal Science	2	2	20	20	2	2	30	30
Soil Science	3	3	15	15	2	2	17	17
Home Science	0	1	0	3	0	1	0	3
Plant protection	3	2	9	3	2	1	28	4
Agril. Economics	2	0	200	0	2	0	175	0
<b>Total</b>	<b>16</b>	<b>13</b>	<b>261</b>	<b>54</b>	<b>16</b>	<b>12</b>	<b>266</b>	<b>72</b>

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	17	35	750	845	75	90	100	2000
Rural youth	21	13	855	355	50	65	40	1575
Extn. Functionaries	9	2	300	49	11	20	20	75
<b>Total</b>	<b>137</b>	<b>53</b>	<b>1905</b>	<b>1249</b>	<b>136</b>	<b>175</b>	<b>160</b>	<b>3650</b>
Seed Production (ton.)				Planting material (Nos. in lakh)				
5				6				
Target		Achievement		Target		Achievement		

Note: Target set during last Annual Zonal Workshop

**3. B. Abstract of interventions undertaken during 2016-17**

Sl. No	Thrust area	Crop/ Enterprise	Identified problems	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1	Varietal Evaluation	Rice	Requirement of suitable flood tolerant variety for 4.46% land area of Sivasagar district	OFT on submergence tolerant rice variety Ranjit Sub1, Swarna Sub1 and Bahadur Sub1		An introduction to newly developed rice varieties			Seed,fertilizer ,plant protection chemicals
		Rice-Lathyrus	Monocropping leads less profit to the farmers	INM in Lathyrus under Rice utera condition					Seed,fertilizer ,plant protection chemicals
		Rice-Toria	Monocropping leads less profit to the farmers	Rice-Toria cropping sequence					Seed,fertilizer ,plant protection chemicals
		Rice	High incidence of bacterial wilt disease	Evaluation of Ranjit Sub-1 against brown spot disease under field condition					Seed,fertilizer ,plant protection chemicals

		Tomato		Performance of tomato variety ArkaRakshak against bacterial wilt under field condition					Seed, fertilizer, plant protection chemicals
		Toria			Popularization of HYV toria var. TS-67 under late sown condition				
		Sesamum			Popularization of sesamum variety Koliabor local in summer season				
		Quail	Cholesterol level in Meat and egg	Evaluation of quail in Sivasagar district					Day old chick, pre starter feed and medicine
		Kamrupa	Evaluation of improved dual type of poultry Kamrupa in Sivasagar District as backyard system	Non availability of improved variety	Rearing of improved dual type of poultry Vanaraja in Sivasagar District under backyard system				Day old chick, pre starter feed and medicine

		Pig			Popularization of improved crossbred Hampshire pig			Piglet, medicine
2	Crop production	Rice			Popularization of medium duration high yielding Sali rice var.TTB-404	Production technology of ahu rice-3		Seed, fertilizer, plant protection chemicals
3	Integrated crop management	Oilseeds (NMOOP)			1.CFLD on kharif oilseed crop sesamum 2. CFLD on Rabi oilseed crop Toria	1.Scientific sesamum cultivation-2 2.Scientific cultivation of toria		Seed, Bioagent, Biofertilizer, plant protection chemical
		Pulses(NFSM)			1.CFLD on kharif pulses Greengram 2. CFLD on kharif pulses crop Blackgram 3. CFLD on summer pulses crop Greengram 4. CFLD on summer pulses crop Blackgram	1.Scientific cultivation of kharif pulses 2.Scientific cultivation of Blackgram 3.Scientific cultivation of Greengram 4.Scientific cultivation of Lentil-2 5.Scientific cultivation of pea 6.Scientific method of cultivation of major pulses		Seed, Bioagent, Biofertilizer, plant protection chemical

4	Fodder production					1. Scientific cultivation of fodder crops-2 2. Scientific cultivation of fodder, toxic plants, toxicity and its treatment			
5	Flower production (contd. from 2015-16)	Marigold	Lack of high yielding variety during summer season	Evaluation of summer marigold 'seracole'	Popularization of tuberose 'Calcutta double'	-	-	-	Planting material, fertilizer, plant protection chemicals
6	Vegetable production	Okra Pumpkin	Low temperature and moisture reduces the early yield	Plastic mulching in okra	FLD on Pumpkin Var. Arjuna F1 in Sivasagar District	1. Production technology of cucurbits 2. Production technology of low volume high value vegetables	-	-	Seed, black polythene mulch, fertilizer, plant protection chemicals
7	Organic farming	Cabbage	Organic farming is the need of hour	Cultivation of cabbage using organic source of nutrients	-	-	-	-	Seed, biopesticide, biofertilizer, vermicompost
8	Spice production	Black pepper			Scientific cultivation of Black pepper in existing Arecanut Orchard				Planting material (bulb), fertilizer, plant protection chemicals

9.	Fruit production				Demonstration on papaya var. Red Lady and Sapna	1.Improved production technology of Banana-2 2.Improved production technology of pineapple			Seed, plant protection chemicals
10	Nutritional garden					Establishment and management of nutritional garden			
11	Soil fertility management	Rice-pea		Water and fertility management in rice-pea cropping sequence	Effect of Zinc in rice productivity	Management of soil resources for the future Principles of fertilizer application and increasing its efficiency		Field day Training	Critical inputs
12	INM	Toria		INM in toria		Azolla culture and production o enriched compost Integrated Nutrient Management-2			
13	Soil amendment	Blackgram		Acid soil management in blackgram		Soil management practices for sustained soil fertility		Field day,	Critical inputs
14	Production of organic inputs					Vermiculture and vermicomposting – 5			
15	Goat farming					Scientific management of goat			
16	Livestock Production					Recent Advances in Livestock and poultry production-2			

17	Pig farming					Scientific management of pig-2			
18		Paddy	Drudgery in agricultural operations reduces productivity and cause health hazards.	Suitability/Acceptability Assessment of Protective clothing/accessories for agricultural workers specially for Harvesting and post harvesting operation like threshing,dehusking/cleaning					
19	Value addition					Preparation of value added milk products			
20	Designing low/minimum cost diet					Hands on training on Design and Development of low/minimum cost diet			
21	Women and child care					Reproductive health care of Adolescent girls			



22	Organic dye				Demonstration for enterprise on Natural and Chemical dye on Endi and cotton fibre and fabrics and designing for diversified items				
23	IPM	Rice			Seed treatment with Mancozeb and Carbofuran and placing bird perch (need based IPM component)				Critical inputs







## A.5. Results of On Farm Testing

Sl. No	Title of OFT	Problem Diagnosed	Name of Technology Assessed	Crop/Cropping system/ Enterprise	No. of Trials	Results of Assessment/ Refined (Data on the parameter should be provided)	Feedback from the farmer	Feedback to the Researcher	B.C . Ratio (if applicable)
1	OFT on submergence tolerant rice variety Ranjit Sub1, Swarna Sub1 and Bahadur Sub1	Requirement of suitable flood tolerant variety for 4.46% land area of Sivasagar district	Submergence tolerant rice variety Ranjit Sub1, Swarna Sub1 and Bahadur Sub1 Check variety: Jalashree	Rice fallow	3 (Gowalpothar, NapaamKhor, Mautgaon)	<p><b>Swarna Sub 1:</b> DS:2.6.16-8.6.16 DT:13.7.16-26.7.16 Period of Submergence: i)23.7.16-25.7.16 ii)10.8.16-12.8.16 No of tillers after 30 days: 60-68 Plant height after 45 days: 73.67cm Days to 50% flowering: 5.10.16-18.10.16 ET:15-17 Length of panicle: 25.50cm No of effective grains per panicle:320-355 No of uneffective grains per panicle: 10-15 Yield :4.5 t/ha</p> <p><b>Ranjit Sub 1:</b> DS:2.6.16-8.6.16 DT:13.7.16-26.7.16 Period of Submergence: i)23.7.16-25.7.16 ii)10.8.16-12.8.16 No of tillers after 30 days: 53-55 PH after 30 days: 83.82 cm Days to 50% flowering: 3.10.16-12.10.16 ET:18-20 Length of panicle: 30.25cm No of effective grains per panicle:390-402</p>	Farmers are satisfied with the performance of the variety. Specially Ranjit Sub 1 and Swarna Sub 1 because of its medium slender grain type. As these varieties can tolerate submerged condition upto 10-12 days, so farmers express their	Yield is found to be good in each variety. But in case of Ranjit Sub 1 it was observed that after 2 <sup>nd</sup> top dressing of urea brown spot disease appear but it does not hamper the yield.	Swarna Sub 1: 1.04 RanjitSub-1: 1.29 Bahadur Sub 1: 1.26 Jalashree: 0.97

						<p>No of ineffective grains per panicle:10-12 Yield : 5.6t/ha <b>Bahadur Sub 1:</b> DS:2.6.16-8.6.16 DT:13.7.16-26.7.16 Period of Submergence: i)23.7.16-25.7.16 ii)10.8.16-12.8.16 No of tillers after 30 days: 60-65 PH after 30 days: 88.90 cm Days to 50% flowering:7.10.16-18.10.16 ET: 20-22. Length of panicle:30.40cm No of effective grains per panicle:350-400 No of ineffective grains per panicle:12-18 Yield :5.45t/ha <b>Check variety:Jalashree:</b> DS:2.6.16-8.6.16 DT:13.7.16-26.7.16 Period of Submergence: i)23.7.16-25.7.16 ii)10.8.16-12.8.16 No of tillers after 30 days: 45-51 PH after 30 days: 99.60 cm Days to 50% flowering:10.10.16-19.10.16 ET: 18-20. Length of panicle: 24.76m No of effective grains per panicle:295-320 No of un-effective grains per panicle:10-15 Yield :4.2t/ha</p>	willingness to accept these varieties		
2	INM in Lathyrusun	Monocropping leads less	INM in double	Rice fallow	3 (Dihingmukh)	<b>Rice:</b> DS:10.6.16-17.6.16	Lathyrus has the	After 30-40	

	der Rice utera condition	profit to the farmers	cropped Lathyrus under rice utera condition. (Rice variety :Mashuri, Lathyrus variety: Ratan)		, Kochupothar and Deodhaigao n)	DT:5.7.16-16.7.16 No of tillers at the time of maturity: 18-20 No of ET: 15-18 PH at maturity: 120 cm Days to 50% flowering: 1.10.16-9.10.16 Length of panicle: 27.50cm No of effective grains/panicle: 320-355 No of uneffective grains/panicle:5-10 Yield: 4.3t/ha <b>Lathyrus:</b> DS: 3.10.16-9.10.16 Other characters: Crop is at pod formation stage	capacity to survive under drought condition. So farmers point of view is that lathyrus has tremendous scope in Sivasagar district if irrigation can be provided in critical stages.	sowing lathyrus faces drought stress condition . But the crop is able to overcome stress condition . It has a great possibility of acceptance by the farmer	
3	Rice-Toria cropping sequence	Monocropping leads less profit to the farmers	Winter rice (TTB-404-Toria (TS 38) Check variety: MashuriRanjit	Rice fallow	3(Dihingmukh, Nizkhaloig hogora and Di khowmukh)	<b>TTB 404:</b> DS:10.6.16-17.6.16 DT:5.7.16-16.7.16 No of tillers at the time of maturity: 18-20 No of ET: 14-16 PH at maturity: 120 cm Days to 50% flowering: 28.09.16-5.10.16 Length of panicle: 24.76m No of effective grains per panicle:350-415 No of un-effective grains per panicle:8-15 Yield :4.6 t/ha	Farmers are satisfied with the performance of both the rice variety and toria variety.		TTB-404:1.21 Mashuri: 1.19 Ranjit:1.16 Toria: 2.00 Rice (TTB-404) equivalent yield of toria:7.61 t/ha B:C ratio of cropping sequence is:1.95

						<p><b>Toria:</b>  DS: 4/11/2016  Plant height: 1.10cm  Date of harvesting: 6/2/17  No of siliqua per plant: 300-370  No of seed per siliqua: 20-24  Yield: 9.45 q/ha</p> <p><b>Mashuri:</b>  DS:10.6.16-17.6.16  DT:5.7.16-16.7.16  No of tillers at the time of maturity: 15-17  PH at maturity: 125cm  Days to 50% flowering: 26.09.16-4.10.16  Length of panicle: 23.75m  No of effective grains per panicle:290-345  No of un-effective grains per panicle:10-12  Yield :4.25t/ha</p> <p><b>Ranjit:</b>  DS:10.6.16-17.6.16  DT:5.7.16-16.7.16  PH at maturity: 105.5cm  Days to 50% flowering: 12.10.16-16.10.16  No of effective tillers :15-18  Length of panicle: 28.50m  No of effective grains per panicle:305-410  No of un-effective grains per panicle:12-18  Yield :4.8t/ha</p>			
4	Water and fertility	Underutilization of residual	Rice-relay pea with	Rice- fallow	5 (Deodhaigao)	Rice: Mashuri No of ET: 12-16	The technolog	The technolog	B:C Ratio : Double crop



	managem ent in rice- pea system under relay	effect of fertilizers in rice and decline in soil conditions in heavy textured soil	basal application of vermicomp ost (@ 1 t/ha) and FYM (@ 2.5 t/ha) to rice crop and 1 irrigation of 4 cm at flowering stage of pea		n, Khanikar, Kochupothar , Gorukhutiga on)	PH at maturity: 110 cm No of effective grains/panicle: 300-340 Yield : 4.25t/ha Pea: Pod no per plant: 12-15 Grain no per pod: 3-5 Grain yield : 8.76 q/ha Ranjit (monocrop) PH at maturity: 107.5cm No of effective tillers per plant : 18 No. of grains per panicle : 310- 405 Yield : 4.9t/ha The available N, P <sub>2</sub> O <sub>5</sub> , K <sub>2</sub> O and Organic carbon in the OFT recorded an increase of 2.95, 10.6, 2.02 and 21.43 per cent over initial and 4.67, 13.09, 1.55 and 13.34 percent over farmers' practice (Rice monocrop).	y is acceptable if irrigation facilities are available and considera ble soil moisture is there.	y seems to have a limitation of performi ng well in heavy soil with low organic matter content. However, increasin g organic inputs in the first crop may meet the problem to some extent in such soils.	: 1.67; Rice monocrop : 1.10
5	INM in Toria	Deteriorating soil health due to overdepende nce on chemical fertilizers	Fertilizer @ 45 : 22.5 : 30 kg (N : P <sub>2</sub> O <sub>5</sub> : K <sub>2</sub> O)/ ha along with Azotobacter and PSB each @ 40g/ kg seed	Rice-Toria	5	Plant Height: OFT -108 cm FP -105 cm No. of Siliqua/plant : OFT -358, FP- 321 No. of seeds/siliqua: OFT-24, FP- 15 Yield: The OFT recorded 11.22% increasing yield(9.8q/ha) over farmers practice (8.7q/ha). The available N, P <sub>2</sub> O <sub>5</sub> , K <sub>2</sub> O and Organic carbon recorded an increase of 17.26, 6.90, 1.12 and 3.44 per cent over farmers'	Satisfied with the technolog y owing to equivalent yield at a minimal cost and soil health restoratio n	The technolog y is acceptabl e to the farming system of the district.	BC Ratio: OFT-2.98 FP-2.75

						practice.			
6	Acid Soil Management in Blackgram	Reduced P availability due to acidity resulting in low pod formation	Application of 33% lime requirement and 2% urea spray at pod initiation stage along with recommended doses of fertilizer @ 15:35:15 kg/ha N:P2O5:K2O	Blackgram	5	Initial pH of soil : 4.42 Lime Requirement : 9.82 q/ha Crop in growth stage	On going		
7	Evaluation of Marigold var.Seracole (contd. From 2015-16)	Lack of high yielding variety in summer season	Evaluation of Marigold var. Seracole	Marigold	3	Plant height : 74.5 cm No. of primary branches/plant : 13.8 no Days to first harvest : 85 days No.of flower /plant (115 days): 175 flower weight of flower: 2.5 g yield/ha: 21.55 q/ha (loose flower) Crop duration : 7 months	Maintaining the planting material is a problem	Variety performed well and accepted by the farmer	<b>3.54 : 1</b>
8	Cultivation of cabbage using organic source of nutrients	Organic farming is the need of hour	Cultivation of cabbage using organic source of nutrients	Cabbage	2	Tech: Diameter of head:15.3 cm Avg.head weight:0.5 kg Yield:138 q/ha  Check: Diameter of head:16.5 cm Avg.head weight:0.65 kg Yield:180 q/ha	Organic nutrients and other plant protection inputs are voluminous and not	-	3.03:1(tech.) 3.42:1(check)

							available locally		
9	Plastic mulching in okra	Low soil moisture and temperature reduces the early yield of crop	Plastic mulching in okra	okra	2	At vegetative stage	-	-	-
10	Performance of tomato variety ArkaRakshak against bacterial wilt under field condition	High incidence of bacterial wilt disease	Triple resistant variety	Tomato	2	7% disease incidence in ArkaRakshak with resistant reaction  Total collapse of variety Abinash as control	Very good variety in regards to disease resistance and fruit quality also good.	can be extensively cultivated	NA
11	Evaluation of Ranjit Sub-1 against brown spot disease under field condition	Suggest by SAC	Variety	Rice	1	Insignificant incidence of brown spot	-	very good variety	NA
12	Evaluation of quail in Sivasagar district	cholesterol level in Meat and egg	Brooding, feeding, general management Vaccination of quail	Intensive system (cage)	10 nos Hahchara Chetiagaon	1. Average Body weight at 15 days : 42 g 2. Average Body weight at 30 days : 78 g	They are satisfied with the growth rate of quail		On going

13	Evaluation of improved dual type of poultry Kamrupa in Sivasagar District as backyard system	Non availability of improved variety	dual type of poultry Kamrupa	Backyard system	10 nos Barbarua hhandiquega on	1. Average Body weight at 15 days : 125 g 2. Average Body weight at 30 days : 235 g	The farmers are satisfied with the growth rate over local poultry		On going
14	Suitability/ Acceptability Assessment of Protective clothing/accessories for agricultural workers specially for Harvesting and post harvesting operation like threshing, dehusking/ cleaning	Drudgery in agricultural operations reduces productivity and cause health hazards.	Developed protective clothing/accessories of agricultural workers during different activities ( Harvesting/ Threshing/ Dehusking/ Cleaning)	Paddy	15 Nos ( 03 location)	- LISTED UNDER	-	-	-

**\*Field crops – ton/ha, \* for horticultural crops -= kg/t/ha, \* milk and meat – litres or kg/animal, \* for mushroom and vermicompost kg/unit area.**

**\*\* Give details of the technology assessed or refined and farmer's practice**

Results of Assessment/ Refined (Data on the parameter should be provided)Parameter ( Questionnaire designed by AICRP- Clothing & Textile)	Overall acceptability/Suitability ( Technology )N=15	Overall acceptability/Suitability ( Local Dress: Long sleeve shirt )	Feed back from the farmer	Feed back to the researcher
Protective clothing and accessories/Check are easy to wear and remove	Yes = 100%	Yes =100%	-	<p>1.For increasing efficiency of the worker farm women required cotton fabrics as they felt more hotness in the field specially in the paddy harvesting operations which was performed during day time and the weather is comparatively hot during the harvesting month of November and december.They specially asked for a cotton apron.</p> <p>2.Farm women required more sun light protective head gear like a cap.</p> <p>3.For the apron farm women need some additional accessories specially in the shoulder they need a heavy fabric ; jeans like material so that they kept the sickle in between roping of paddy bunch in harvesting operation.</p> <p>4.Designing of a hand glove will be very much useful for farm women to protect their hands.</p>
Protective clothing/Check does not look awkward	Yes = 100%	Yes=100%	Women hesitates to wear it in front of their in -laws	
Functional feather/ fasteners used in garment /Check are do not cause pinching	Yes =100%	Yes=45%	-	
Protective clothing do not have adverse	Yes =100% for paddy	Yes=50%	*Need cotton	

effect on workers efficiency/Check	threshing, and winnowing * but for harvesting they feel uncomfortable (100%) as it cause more hotness so they tired easily. The Net cause blurring in vision in day time		Apron and cotton Head wear with cotton net for working in day time in the field as during the harvesting time(winter paddy) the weather is comparatively hot in Sivasagar district of Assam (month of November & December)	
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### 3.2 Achievements of Frontline Demonstrations during 2016-17

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

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

Sl. No	Crop/ Enterprise	Technology demonstrated	Horizontal spread of technology		
			No. of villages	No. of farmers	Area in ha
1	Toria	Toria var. TS-38	22	285	25
2	Vermicompost	Vermicomposting in low cost bamboo lathe structure	15	175	-
3	Oyster mushroom	Oyster mushroom production technology	20	310	-
4	Winter paddy.	Var-Gitesh	5	30	10
5	Poultry	Evaluation of improved dual type of poultry Kamrupa in Sivasagar District as backyard system	3	90	1800
6	Poultry	Rearing of dual improved Vanaraja poultry variety as backyard system	10	200	5000
7	Pig	Rearing of crossbred Hampshire pig	8	25	75

*\* Thematic areas as given in Table 3.1 (A1 and A2)*

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

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed / Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
<b>Cereals</b>														
1.	Rice	Crop production	Rice var. TTB-404(Shraboni)	Kharif, 2016	2	2	-	2	2	Nil	Rainfed	250.9	112.5	25.46
2	Rice	Nutrient Management	Effect of Zinc in Rice Productivity (Basal application of Zn @ 25 kg/ha)	Kharif 2016	1.5	1.5	0	4	4	Nil	Rainfed	326.11	59.08	270.15
3	Rice	IPM	Seed treatment with mancozeb&Carbofuran and placing bird perch (IPM component)	Kharif 2016	2	1.5	-	4	4	Delay in transplanting due to social problem	Rainfed	301.06	11.44	118.68
<b>Oilseeds</b>														
1	Toria	Varietal trial	Var. TS-67	Rabi, 2016	10	2	-	4	4	Non availability of seed	Rainfed	250.9	112.5	25.46
2	Sesamum (summer)	Varietal trial	Var. Koliabor local INM, IPM	Summer	2	1	-	2	2	Non availability of seed	Rainfed	301.06	11.05	60.35
3	Sesamum	Varietal	Var. AST-1	kharif	20	2	20	26	46	Nil	Rainf	301.0	11.0	60.35



	(NMOOP)	trial	INM, IPM			0					ed	6	5		
4	Toria (NMOOP)	Varietal trial	Var. TS-67 INM, IPM	Rabi	30	30	3	50	53	Nil	Rainfed	250.9	112.5	25.46	
	<b>Pulses</b>														
1	Blackgram (NFSM)	Varietal trial	Var. PU-31 INM, IPM	Kharif	20	20	2	29	26	55	Nil	Rainfed	301.06	11.05	60.35
2	Greengram (NFSM)	Varietal trial	Var. IPM-2-3 INM, IPM	Kharif	30	30	3	15	30	45	Nil	Rainfed	301.06	11.05	60.35
3	Lentil (NFSM)	Varietal trial	Var. Moitree INM, IPM	Rabi	20	20	2	2	48	50	Nil	Rainfed	250.9	112.5	25.46
4	Field pea (NFSM)	Varietal trial	Rachna INM, IPM	Rabi	30	16.66	10	10	36	46	Non availability of seed	Rainfed	250.9	112.5	25.46
5	Summer Blackgram (NFSM)	Varietal trial	Var. IPU-94-1 INM, IPM	Summer	20	20	20	7	36	43	Nil	Rainfed	250.9	112.5	25.46
6	Summer Greengram (NFSM)	Varietal trial	Var. IPM-2-3 INM, IPM	Summer	30	30	30	-	52	52	Nil	Rainfed	250.9	112.5	25.46
	<b>Horticultural crops</b>														
1	Tuberose	Flower production	Popularization of tuberose var. Calcutta Double	Kharif, 2016	0.25	0.25	-	3	3		Rainfed	329.0	53.10	501.2	
												210.1	33.50	247.44	
2	Pumpkin	Vegetable production	Demonstration on Pumpkin var. Arjuna F1	Rabi, 2016	0.1 ha	0.33	-	2	2		Rainfed	250.8	11.05	54.30	
												338.69	20.65	52.28	
3	Blackpepper	Spice production	Scientific Cultivation of Black pepper in Arecanut orchard	Kharif, 2016, perennial	1	0.5	-	3	6		Rainfed	275.97	44.67	40.19	
4	Papaya	Fruit Producti	Demonstration of papaya var. Red	Rabi, 2017,	0.1	0.1	2	0	2		Rainfed	326.11	59.08	270.15	

		on	Lady and Sapna	perennial														
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**c. Performance of FLD on Crops**

Sl. No.	Crop	Thematic area	Area (ha.)	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Data on parameters other than yield, e.g., disease incidence, pest incidence etc.	Econ. of demo. (Rs./ha.)				Econ. of check (Rs./Ha.)				
				Dem o.	Che ck		H*	L*		GC*	GR**	NR*	BCR**	GC	GR	NR	BC R	
												Demo	Local					
1	Rice	Crop production	2	43.5	32.2	5.41	43.5	39.35	No disease and pest		41125	47850	6725	1.16	41125	35420	-5705	0.86
2	Rice	IPM	1.33	4.7	-	-	-	-	affected by flood	damaged by flood	41625	51700	10075	1.24	-	-	-	-
3	Toria	Varietal trial	2	9.75	4.60	52.82	9.75	8.24	Aphid		19330	34125	24420	1.77	19330	16100	-3230	0.83
4	Sesamum	Varietal trial	1	Sowing is done														
5	Sesamum	Varietal trial	20	7.35	nil	100	8.2	6.5	Phytophthora blight pest		24680	73500	48820	2.98	nil	nil	nil	nil
6	Toria	Varietal trial	30	11.31	8.03	29	12.12	10.5	Aphid		19330	39585	20255	2.05	16500	28105	11605	1.7
7	Blackgram (Kharif)	Varietal trial	20	10.67	7.2	32.52	11.23	10.1			25619	85360	59741	3.33	24479	57600	33121	2.35
8	Greengram	Varietal	30	8.54	nil	100	9.7	7.3			256	8540	5978	3.33	nil	nil	nil	nil

	(kharif)	trial					5	3			19	0	1					
9	Lentil	Varietal trial	20	8.29	nil	100	9.45	7.14			25619	49770	24151	1.94	nil	nil	Nil	nil
10	Field pea	Varietal trial	16.66	7.62	nil	100	8.20	7.05			25619	38100	12481	1.48	nil	nil	Nil	nil
11	Blackgram(summer)	Varietal trial	30	Crop is in active vegetative stage														
12	Greengram(Summer)	Varietal trial	20	Crop is in active vegetative stage														
13	Rice	Effect of Zinc in increasing productivity	1.5	5.20	4.40	30.70	5.46	4.26	Plant height: OFT-109 cm No. of effective tillers: OFT-20 No. of grains per panicle: OFT-315	Plant height: FP-102 cm No. of effective tillers: FP-12 No. of grains per panicle : FP-220	49225	57200	7975	1.16	46725	48400	1675	1.04
14	Tube rose	Flower production	0.25	Plant height: 87 cm Days to first flowering : 82 days Avg. floret : 18/spike Spike length : 80 cm Yield : sporadic flowering came with very less percentage of flower. Ratoon crop will be followed														
15	Black Pepper	Spice production	0.5	Yield will be obtained in 3 <sup>rd</sup> year. Planting done in August,2016														

16	Pumpkin	Vegetable production	0.3	124	68	82.35	130	118	No. of fruit -5, Avg, fruit weight=3.1 kg Days to flowering :104	No. of fruits/plant: 3 Avg. fruit weight: 2.2 kg Days to flowering: 98 days	35820	186000	150180	5.19	27,500	1,31,000	1,03,500	4.76
17	Papaya	Fruit production	0.1	Seed sowing completed														
18	Vegetables	Nutrition gardening	0.04														Ongoing	

\*H-Highest recorded yield, L- Lowest recorded yield, \*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio

Produce Sale Price must be as per MSP or Registered Marketing Society

Pl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC

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

## d. Extension and Training activities under FLD on Crops

Sl.No.	Activity	No. of activities organised	Date	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field days						
	1. Greengram	1	5/01/2017	18	16	34	
	2. Sesamum	1	27/12/2016	16	9	25	
	3. Toria	1	04/02/2017	42	5	47	
	4. Toria	1	14/02/2017	25	14	39	
	5. Lentil	1	14/02/2017	0	50	50	
	6. Pea	1	17/03/2017	10	20	30	
	7. Zinc in rice	1	21/11/2016	33	0	33	
2	Farmers Training	1	14/09/2016	0	33	33	
		1	15/09/2016	27	0	27	
		1	15/09/2016	27	0	27	
		1	30/09/2016	0	29	29	
		1	06/10/2016	25	0	25	
		1	16/11/2017	25	0	25	
		1	16/11/2017	29	0	29	
		1	25/11/2017	25	0	25	
		1	25/11/2017	25	0	25	
		1	05/01/2017	4	22	26	

		1	25/02/2017	8	23	31	
		1	17/03/2017	20	0	20	
		1	17/03/2017	1	22	23	
		1	15/11/2016- 16/11/2016	25	0	25	
3	Media coverage	5	07/01/2017				Asomiya Pratidin
			10/01/2017				Asomiya Khabor
			04/01/2017				The Sentinel
			10/12/2016				Dordarshan
			12/12/2016				DY 365
4	Training for extension functionaries						
5	Group discussion under CFLD	6	15/09/2016	27	0	27	
			25/11/2016	21	4	25	
			15/09/2016	27	0	27	
			30/09/2016	3	26	29	
			06/10/2016	23	2	25	
			16/11/2016	21	4	25	
	<b>Total</b>	<b>32</b>		<b>363</b>	<b>165</b>	<b>528</b>	



							weigh t (Kg) at 8 <sup>th</sup> week : 17.75 Disea se incide nce : Diarr hoea	weigh t (Kg) at 8 <sup>th</sup> week : 11.25 Disea se incide nce : Diarr hoea													
2	Poultry	Reari ng of impro ved dual type of poult ry Vanar aja in Sivas agar Distri ct under backy ard syste m	Meat and egg produ ction	20	20	200	Avera ge Body weigh t (g) at 1 <sup>st</sup> week : 110	Avera ge Body weigh t (g) at 1 <sup>st</sup> week : 85													On going

**\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio**

**Produce Sale Price must be as per MSP or Registered Marketing Society**

**Pl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC**

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





2	Demonstration for enterprise on Natural and Chemical dye on Endi and cotton fibre and fabrics and designing for diversified items	Organic dye	Organic Dyeing method	25	02	1. Shades of colour 2. Colour fastness by rubbing, washing, ironing and sunlight 3. Economics	1. Shades of colour 2. Colour fastness by rubbing, washing, ironing and sunlight 3. Economics	33.33 % for coloured yarn	1. Different yellow shades obtained from marrigold and nigjtasmine, Brown shades obtained from teak leaves 2. All the dyed colour shows good colour fastness by	White coloured yarn is used for cotton and eri origin al coloured yarn is used	C. Yarn =300	C. Yarn =450	C. Yarn =150	C. Yarn =1.5	C. Fabric =450	C. Dyed Fabric =900	C. Fabric =450	C. Dyed Fabric =900	C. Fabric =28	C. Dyed Fabric =560	Farm women preferred the technology as unique colour can be obtained from their garden
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*f. Performance of FLD on Crop Hybrids*

Sl. No.	Crop	Name of hybrids	Area (ha.)	No. of farmers	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				
					Demo	Check		H*	L*	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	

*\*H-Highest recorded yield, L- Lowest recorded yield*

*\*\* GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio*

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





















technologies																						
Nursery management																						
Integrated Farming Systems																						
<b>TOTAL</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>10</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>18</b>

**3.3.2. Achievements on Training of Farmers and Farm Women in Off Campus including Sponsored Off Campus Training Programmes means Off Campus training programmes sponsored by external agencies)**

(\*Sp. Off

Thematic area	No. of Courses/ prg.			Participants																		Grand Total
	Off	Sp Off *	Total	General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
				Of f	Sp Off *	Of f	Sp Off *	Off	Sp Off *	Of f	Sp Off *	Off	Sp Off *	Off	Sp Off *	Off	Sp Off *	Off	Sp Off *	Off	Sp Off *	

**I. Crop Production**

Weed Management																						
Resource Conservation Technologies																						
Cropping Systems																						
Crop Diversification																						
Integrated Farming																						
Water management	1	0	1	4	0	0	0	4	0	8	0	14	0	22	0	12	0	14	0	22	0	22









Production and management technology																							
Post harvest technology and value addition																							
<b>III Soil Health and Fertility Management</b>																							
Soil fertility management	1	0	1	25	0	0	0	25	0	0	0	0	0	0	0	25	0	0	0	25	0	25	
Soil and Water Conservation																							
Integrated Nutrient Management	2	0	2	12	0	13	0	25	0	6	0	24	0	30	0	18	0	37	0	55	0	55	
Production and use of organic inputs	7	0	7	48	0	118	0	166	0	14	0	0	0	14	0	62	0	118	0	180	0	180	
Management of Problematic soils																							
Micro nutrient deficiency in crops																							
Nutrient Use Efficiency	1	0	1	3	0	28	0	31	0	0	0	0	0	0	0	3	0	28	0	31	0	31	
Soil and Water Testing																							
<b>IV Livestock Production and Management</b>																							
Dairy Management																							
Poultry Management																							
Piggery Management	1	0	1	7	0	8	0	15	0	6	0	4	0	10	0	12	0	13	0	25	0	25	





















Dairying	1	0	1	27	0	3	0	30	0	0	0	0	0	0	0	27	0	3	0	27	3	30
Sheep and goat rearing	1	0	1	17	0	21	0	38	0	0	0	0	0	0	0	17	0	21	0	17	21	38
Quail farming																						
Piggery	1	0	1	17	0	10	0	27	0	0	0	0	0	0	0	17	0	10	0	17	10	27
Rabbit farming																						
Poultry production																						
Ornamental fisheries																						
Para vets																						
Para extension workers																						
Composite fish culture																						
Freshwater prawn culture																						
Shrimp farming																						
Pearl culture																						
Cold water fisheries																						
Fish harvest and processing technology																						
Fry and fingerling rearing																						
Small scale processing																						
Post Harvest Technology																						
Tailoring and Stitching																						
Rural Crafts																						
<b>TOTAL</b>	10	0	10	18	0	92	0	27	0	0	0	0	0	0	0	184	0	92	0	21	60	276







Care and maintenance of farm machinery and implements																							
WTO and IPR issues																							
Management in farm animals	2	0	2	39	0	0	0	39	0	10	0	0	0	10	0	49	0	0	0	49	0	49	
Livestock feed and fodder production																							
Household food security																							
Women and Child care																							
Low cost and nutrient efficient diet designing																							
Production and use of organic inputs																							
Gender mainstreaming through SHGs																							
<b>TOTAL</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>0</b>	<b>49</b>	

Note: Please furnish the details of above training programmes as Annexure in the proforma given below



**Annexure 1: Details of Training Programme (On Campus including Sponsored On Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel**

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Soil Science	Soil Fertility Management	Management of soil resources for the future	26.09.16	1	KVK	NGO Personnel	2	1	3	6	0	6	8	1	9
	Production of organic inputs	Vermiculture and vermicomposting	3.11.16	1	KVK	NGO Personnel	6	2	8	0	0	0	6	2	8
	Soil Fertility Management	Need of soil health management	12.01.17	1	KVK	RY	17	14	31	0	0	0	17	14	31

**Annexure 2: Details of Training Programme (Off Campus including Sponsored Off Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel**

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
<b>Agronomy</b>	Crop production	Scientific sesamum cultivation	14/9/16	1	Milankur	Farmer & Farm women	22	11	33	-	-	-	22	11	33
	Crop production	Scientific sesamum cultivation	15/9/16	1	Baputigarh	RY	21	6	27	-	-	-	21	6	27
	Crop production	Scientific cultivation of kharif pulses	15/9/16	1	Baputigarh	RY	21	6	27	-	-	-	21	6	27
	Crop production	Scientific cultivation of Blackgram	30/9/16	1	Bhekurichapori	Farmer & Farm women	-	-	-	23	5	28	23	5	28
	Crop production	Scientific cultivation of Greengram	6/10/16	1	DeodhaiShantipur	Farmer & Farm women	18	7	25	-	-	-	18	7	25
	Crop production	Scientific cultivation of Lentil	16/11/17	1	Khonajan	Farmer & Farm women	-	-	25	-	-	-	25	-	25
	Crop production	Scientific cultivation of Lentil	16/11/17	1	Teteliguri	Farmer & Farm women	27	2	29	-	-	-	27	2	29
	Crop production	Scientific cultivation of toria	25/11/17	1	Garukhutigaon	RY	25	-	25	-	-	-	25	-	25
	Crop production	Scientific cultivation of pea	25/11/17	1	Garukhutigaon	RY	25	-	25	-	-	-	25	-	25

	Water management	Water management and quality seed production in toria	5/1/17	1	Kotior i	Farmer & Farm women	4	-	4	8	14	22	12	14	26
	Crop production	Production technology of ah rice	25/2/17	1	Dehajan	Farmer & Farm women	8	-	8	12	11	23	20	11	31
	Crop production	An introduction to newly developed rice varieties	17/3/17	1	KanubariBali jan	Farmer & Farm women	-	-	-	2	18	20	2	18	20
	Crop production	Scientific method of cultivation of major pulses	18/3/17	1	Garuk hutiga on	Farmer & Farm women	-	1	1	12	1	21	2	21	23
	Fodder production	Scientific cultivation of fodder crops	1/3/17	1	Koribosti	Farmer & Farm women	10	4	14	10	1	11	20	5	25
	Fodder production	Scientific cultivation of fodder crops	6/3/17	1	Bihubor	Farmer & Farm women	15	3	18	5	2	7	20	5	25
	Crop production	Scientific production technology of Ah rice	2/3/17	1	Gotonga	Farmer & Farm women	20	5	25	0	0	0	0	0	25
	Crop production	Scientific production technology of Ah rice	8/3/17	1	Kotior i	Farmer & Farm women	7	5	12	8	5	13	15	10	25
	Seed production	Certified seed production in pulse crop	20/3/17	1	Nitaipukhuri	Farmer & Farm women	10	5	15	7	3	10	17	8	25
<b>Horticulture</b>	Fruit production	Improved production technology of banana	12/05/16	1	Nirmolia	Farmer & Farm women	3	22	26	-	-	-	3	22	26
	Nutritional garden	Establishment and management of nutritional garden	24/08/16	1	Khokamurag aon	Farmer & Farm women	16	9	25	-	-	-	16	9	25
	Vegetable production	Production technology of cucurbits	04/11/16	1	DeodhaiKh anikor	Farmer & Farm women	14	13	27	-	-	-	14	13	27
	Vegetable production	Production technology of low volume high value vegetables	25/01/17	1	Bhoro lua	Farmer & Farm women	28	-	-	-	-	-	28	-	28
	Fruit production	Improved production technology of pineapple	17/03/17	1	Balija n	Farmer and Farm women	2	24	26	-	-	-	2	24	26

	Fruit production	Improved production technology of Banana	20/03/17	1	Kochu pathe r	Rural youth	22	3	25	-	-	-	22	3	25
<b>Soil Science</b>	Organic inputs	Azollaculture and production of enriched compost	28.09.16	1	Hanch oraCh etiaGa on	Farmer & Farm women	3	32	35	0	0	0	3	32	35
	Soil Fertility Management	Soil management practices for sustained soil fertility	3.10.16 – 4.10.16	2	Deod haiGa on	Farmer & Farm women	25	0	25	0	0	0	25	0	25
	Organic inputs	Vermiculture and vermicomposting	4.11.16	1	Khani korGa on	Farmer & Farm women	19	6	25	0	0	0	19	6	25
	INM	INM	15.11.16 - 16.11.16	2	Lalims iga	Farmer & Farm women	12	13	25	0	0	0	12	13	25
	INM	INM	21.11.16 – 22.11.16	2	Nakati Kalug aon	Farmer & Farm women	0	0	0	6	24	30	6	24	30
	Production of Organic inputs	Vermiculture and vermicomposting	23.12.16	1	Phulp anisig a	Farmer & Farm women	3	27	30	0	0	0	3	27	30
	Production of Organic inputs	Vermiculture and vermicomposting	24.12.16	1	Patorg aon	Farmer & Farm women	1	23	24	0	0	0	1	23	24
	Production of Organic inputs	Production of Organic inputs	27.12.16	1	Lahon gaon	RY	7	16	23	0	0	0	7	16	23
	Nutrient use efficiency	Principles of fertilizer application and increasing its efficiency	24.01.17, 1.03.17	2	Kham un	Farmer & Farm women	3	28	31	0	0	0	3	28	31
<b>Animal Sc</b>	Fodder cultivation	Scientific cultivation of fodder, toxic plants, toxicity and its treatment	07.11.16	1	Mech agarh	RY	27	3	30	0	0	0	27	3	30

	Goat farming	Scientific management of goat	10.11.16	1	Charing	RY	17	21	38	0	0	0	17	21	38
	Livestock Production	Recent Advances in Livestock and poultry production	29.11.16	1	DAHVO, Sivasa gar	EF	20	0	20	4	0	4	24	0	24
	Livestock Production	Recent Advances in Livestock and poultry diseases	30.11.16	1	DAHVO, Sivasa gar	EF	20	0	20	5	0	5	25	0	25
	Pig farming	Scientific management of pi	18.02.17	1	Khani karga on	RY	17	10	27	0	0	0	17	10	27
	Value addition	Preparation of value added milk products	6 <sup>th</sup> to 14 <sup>th</sup> March, 2017	7	Nazira Milk Proce ssing Plant	RY	3	26	29	0	0	0	3	26	29
	Piggery	Scientific management of pig farming	28.03.17	1	Gelekey	Farmer & Farm women	7	8	15	6	4	10	13	12	25
<b>Home Science</b>	Designing low/minimum cost diet	Hands on trining on Design and Development of low/minimum cost diet	23.11.16	01	Hahsora	Farm women	-	27	-	-	-	-	-	27	27
	Women and child care	Reproductive health care of Adolescent girls	03.03.17	01	Adabari PHE	Farm women and RY	-	26	-	-	-	-	-	26	26

## (D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date (From – To)	Duration (days)	Area of training	Training title*	No. of Participants									Impact of training in terms of Self employment after training				Whether Sponsored by external funding agencies
					General			SC/ST			Total			Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	
					M	F	T	M	F	T	M	F	T					
Value addition of milk	6.03.17 to 14.03.17	7	Value addition of milk	Preparation of value added milk products	3	26	29	0	0	0	3	26	29					No
Value addition	13/03/2017 to 20/03/2017	7	Gender mains training through SHG	Vocational training on Artificial Flower making – an identified income generating venture for SHG	-	19	19	-	02	02	-	21	21	-	-	-	-	No

\*training title should specify the major technology /skill transferred

**Annexure 3: Only Sponsored Training Programmes (On, Off and Vocational)**

On/ Off/ Vocational	Beneficiary group (F/ FW/ RY/ EP)	Date (From- To)	Duration (days)	Disciplin e	Area of training	Title	No. of Participants									Spon soring Age ncy	Amou nt of fund receiv ed (Rs.)
							General			SC/ST			Total				
							M	F	T	M	F	T	M	F	T		
Off	F/FW	6.09.16	1	Soil Science	Producti on of organic inputs	Vermicompo sting											
<b>Total</b>																	

**3.4. Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, KisanMela, Exhibition, Diagnostic Visit, etc) during 2016-17**

Sl. No	Extension Activity	Topic	Date and duration	No. of activitie s	Participants											
					General (1)			SC/ST (2)			Extension Officials (3)			Grand Total (1+2)		
					M	F	T	M	F	T	M	F	T	M	F	T
1	Advisory services	Telephonic, mobile etc	2016-17	609	338	212	550	37	12	49	1 0	0	1 0	385	224	609
2	Diagnostic visit	Agricultural and veterinary technology, plant		20	180	35	215	68	17	85	0	0	0	248	52	300









		more profit in pig														
		Role of KVK in rural economy	05.11.16	1	-	-	-	-	-	-	-	-	-	-	-	-
23	TV talk															
24	Training manual															
25	Soil health camp			30	-	-	-	-	-	-	-	-	-	-	-	300
26	Awareness camp	PMFBY	29.05.16	1	438	215	653	275	38	313	17	-	17	730	253	983
		Cultivation of fodder for augmenting milk production, toxic plant. Toxicity and its treatment	29.12.16	1	46	24	70	0	0	0	3	0	3	49	24	73
		PPVFRA	11.03.17	1	105	20	125	0	0	0	3	0	3	108	20	128
27	Lecture delivered as resource person	Production technology of major crops	23.04.16	1	47	11	58	0	0	0	0	0	0	47	11	58
		Banana cultivation with nutrient and integrated plant management	31.05.16 10.06.16 17.06.16	3	133	11	144	0	0	0	0	0	0	133	11	144
		Cultivation practices of banana including nutrient & IPM	23.06.16	1	38	7	45	3	2	5	0	0	0	41	9	50
		Cultivation practices of ginger, turmeric and garlic	23.06.16	1	38	7	45	3	2	5	0	0	0	41	9	50
		Vermiculture and vermicomposting	06.09.16	1	14	16	30	0	0	0	0	0	0	14	16	30
		Vermiculture and vermicomposting	04.10.16	1	4	8	12	0	0	0	0	0	0	4	8	12
		Mushroom production technology	03.11.16	1	4	4	8	0	0	0	0	0	0	4	4	8
		Mushroom	16.11.16	1	16	0	16	0	0	0	0	0	0	16	0	16

		production technology														
		Vermiculture and vermicomposting	17.11.16	1	12	13	25	0	0	0	0	0	0	12	13	25
		Production of organic inputs	31.12.16	1	9	0	9	13	0	13	0	0	0	22	0	22
		Backyard poultry	10.01.17	1	0	32	32	0	0	0	0	0	0	32	32	
		Hands on training on vermiculture	17.02.17	1	0	14	14	0	0	0	0	0	0	14	14	
28	PRA	Pulibor Mahan Gaon	25.12.16	1	0	19	19	0	0	0	0	0	0	19	19	
29	Farmer-Scientist interaction	Production technology of field and horticultural crops	28.12.16	1	24	9	33	0	0	0	0	0	24	9	33	
		Production technology of field and horticultural crops	16.06.16	1	39	0	39	5	0	5	0	0	39	5	44	
30	Soil test campaign		26.11.16	8	14	7	21	0	0	0	0	0	14	7	21	
			23.12.16		19	12	31	0	0	0	0	0	19	12	31	
			24.12.16		19	2	21	0	0	0	0	0	19	2	21	
			25.12.16		19	0	19	0	0	0	0	0	19	0	19	
			26.12.16		37	3	40	0	0	0	0	0	37	3	40	
			27.12.16		15	7	22	0	0	0	0	0	15	7	22	
			28.12.16		17	41	58	0	0	0	0	0	17	41	58	
			29.12.16		0	14	14	0	0	0	0	0	0	14	14	
31	MahilaMandalConvener meet															
32	Soil Health Card distribution		28.05.16	1	725	124	849	110	16	126	1	5	1	845	145	990
			26.08.16	1	98	2	100	0	0	0	0	0	5	101	2	103
			05.12.16	1	197	54	251	0	0	0	3	0	3	202	54	256
											5		5			
	<b>Grand Total</b>				434	176	605	111	26	137	9		9	546	231	1458
				799	0	7	7	0	0	0	0	9	7	1	8	0

### 3.5 Production and supply of Technological products during 2016-17

#### A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
CEREALS	Paddy	Ranjit	18.36q	Ready for sale			
OILSEEDS	Toria	TS-67	3.31q	Ready for sale			
PULSES							
VEGETABLES							
FLOWER CROPS							
OTHERS (Specify)							

#### A1. SUMMARY of Production and supply of Seed Materials during 2016-17

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Number of recipient/ beneficiaries		
				General	SC/ST	Total
1	CEREALS	CEREALS	1.836t	Ready for sale		
2	OILSEEDS	OILSEEDS	0.331t	Ready or sale		
3	PULSES					
4	VEGETABLES					
5	FLOWER CROPS					
6	OTHERS					
<b>TOTAL</b>						

**B. Production of Planting Materials(Nos. in lakh)**

Major group/class	Crop	Variety	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
					General	SC/ST	Total
Fruits							
Spices							
Ornamental Plants							
VEGETABLES							
Forest Spp.							
Plantation crops							
Medicinal plants							
OTHERS (Pl. Specify)							

**B1. SUMMARY of Production and supply of Planting Materials (In Lakh) during 2016-17**

Sl. No.	Major group/class	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
				General	SC/ST	Total
1	Fruits					
2	Spices					
3	Ornamental Plants					
4	VEGETABLES					
5	Forest Spp.					
6	Medicinal plants					
7	Plantation crops					
8	OTHERS (Specify)					
<b>TOTAL</b>						

## C. Production of Bio-Products during 2016-17

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
BIOAGENTS								
BIOFERTILIZERS								
BIO PESTICIDES								

## C1. SUMMARY of production of bio-products during 2016-17

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	BIOAGENTS							
2	BIO FERTILIZERS							
3	BIO PESTICIDE							
	<b>TOTAL</b>							

## D. Production of livestock during 2016-17

Sl. No.	Type of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		
			(Nos)	Kgs		General	SC/ST	Total
1	Cattle/ Dairy							
2	Goat	Beetel Cross Breed	2nos. 2nos					
3	Piggery	T&D	43nos piglets 4nos. Adults					

4	Poultry	Kamrupa K.Campbell	20nos. 50nos.				
5	Fisheries	Catla	2lakhs				
6	Others (Specify)						

### D1. SUMMARY of production of livestock during 2016-17

Sl. No.	Livestock category	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	CATTLE							
2	SHEEP & GOAT	Beetel CrossBreed	2nos. 2nos.					
3	POULTRY	Kamrupa K. Campbell	20 nos. 50nos.					
4.	PIGGERY	T&D	43nos.piglets 4nos. Adults		1,14,100.00 90,000.00			
5	FISHERIES	Catla	2lakhs					
6	OTHERS (Pl. specify)							
	<b>TOTAL</b>							

### 3.6. Literature Developed/Published (with full title, author & reference) during 2016-17

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

(B) Articles/ Literature developed/published

Item	Title/and Name of Journal	Authors name	Number of copies
Research papers			
1.			
2.			
3.			



Training manuals	“Matiporikhaarumatirswasthyobyobosthapona” (Soil testing and Soil Health Management)	SanjibRanjan Borah, Rupjyoti Borah, SamiranBarua and RupamBorgohain	Circulated to trainees of Vocational Training
Technical Report			
1.	Annual Report		
2.	Annual Action Plan		
3.			
Book/ Book Chapter			
Popular articles	EmoCharaiPalan (Rearing of Emo Bird)/ GharePathare	Dr.DebajitDeka	Mass Circulation
Technical bulletins			
Extension bulletins	Armyworm management Elements of Soil Testing	P. Dutta. R.J. Borah and P. Nath R.J. Borah	500 200
Newsletter			
Conference/ workshop proceedings			
Leaflets/folders			
e-publications			
Any other (Pl. specify)			
<b>TOTAL</b>	<b>6</b>		

N.B. Please enclose a copy of each. In case of literature prepared in local language, please indicate the title in English

**(C) Details of Electronic Media Produced**

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

**3.7.Success stories on horizontal spread of the technologies/Case studies, if any (two or three pages write-up on each case/ successes with suitable action photographs)**

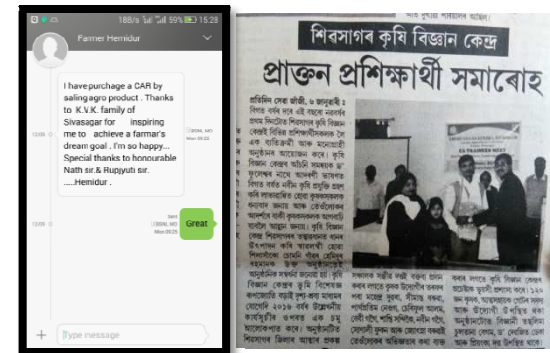
***Trailblazing example of a farmer turned Seed Grower Md. HemidurRahman***

Where there is a will, there is a way - this is the motto of the 48 year old HemidurRahman of Chumoni village of Charaideo district (erstwhile undivided Sivasagar district) who has set an example of how continuous perseverance and sincerity in anyone's work in any field can help in reaping harvest and happiness to the person, family and society. After completing graduation and a degree of B.Ed., he decided to choose the profession of farming to look after the 3.2 ha of land which he obtained hierarchically from his father. This decision, backed up by his experience in farming since childhood and support from the KrishiVigyan Kendra located just 2.5 km away proved right when he turned up to be the most prospective seed grower of the district few years later. Initially, Rahman started farming with a pair of bullocks relying exclusively on FYM as the source of nutrient. With 90% of his fields suited for Rice cultivation, between 2000-2003, he gradually shifted to scientific methods of cultivation with more reliance on chemical fertilizers and introduction of HYV seeds like Ranjit. Doing this, he obtained a jump in productivity which encouraged him to go for adoption of more new varieties of paddy. During the same year, he obtained a power tiller in 50% subsidy from the State Department of Agriculture.

This triggered the farmer in him to take up farming more seriously. In 2010, he successfully completed OFTs on varietal evaluation of the varieties Jalashree, Swarna Sub-1, TTB series and contributed his experiences to the research fraternity at ZREAC programme held at Titabar. Though a regular visitor to the KVK, Sivasagar in 2011-12, he came to KVK, Sivasagar expressing his willingness to adopt the means of Integrated Nutrient Management in his fields for sustained productivity. Rupjyoti Borah, SMS (Soil Science), P. Handique, SMS (Agril. Extension) under the able leadership of Dr. P. Nath, Programme Coordinator of the Kendra framed an action plan for him with a vision to sustain productivity in his land. The Kendra helped him in analysis of his soil and subsequent recommendation of fertilizers. In the subsequent year, he was included in the "Technology Showcasing"



programme undertaken by KVK, Sivasagar at Gowalpothar. In the programme, good agricultural practices were demonstrated. In that programme, Rahman undertook Certified Seed production of Ranjit variety of winter paddy and could obtain a net income of Rs. 85000.00. During that year, he obtained a total of Rs. 145000.00 from Rice cultivation. With the profit, he purchased a pumpset for irrigating his fields. He also was in close association with the RAWE Programme of B.Sc. (Agri.) student supervised by KVK Sivasagar. During their six-month stay, he shared experiences and obtained insight into the newer technologies from the student KamsenKhutiya. After that success, he decided to go for certified seed production in a bigger way from the subsequent year under the close supervision of Dr. P. Nath and Rupjyoti Borah of KVK, Sivasagar. During that year, he brought out his own brand “Oryza Seed Products” and could reap an income of about Rs. 100000 from selling his seed. IN that year the total harvest yielded Rs. 1.88 lakhs with a B:C ratio of 2.15. In the year 2014, he was also a leading farmer in the STCR experiments of Department of Soil Science, AAU. In 2015, he successfully conducted an OFT on Evaluation of promising submergence tolerant varieties under the guidance of PriyankaDutta, SMS (Agronomy). She also guided him in his seed production programme that year. Responding to the heavy demand of Mahsuri seeds, he produced certified seeds of Mahsuri that year and obtained a profit of Rs. 130000 and a total income of Rs. 218000.00. On 05.12.15, he was felicitated and given Soil Health Card – the first one in the massive soil health card programme initiated in the International Year of Soils. On 12<sup>th</sup> September the same year, he purchased a car of his own, thanking the KVK, Sivasagar for their able guidance for which he could achieve the dream of a farmer. In the year 2016-17, he continued with his efforts as a seed grower and currently has 50 quintals of rice certified seed the prominent varieties being Ranjit, Mahsuri, Bahadur and Aghoni Bora with a targeted income of 1,60,000 and a total of 2,50,000 from total rice production. In the coming rice season, he has the aim of producing certified seeds of five promising varieties including few of the submergence tolerant ones. Mr.Rahman has undoubtedly set an example to the other farmers who in most of the times allege that rice production can never be profitable. Aptly, he was felicitated as the Best Farmer of the Year by the KrishiVigyan Kendra, Sivasagar in the ex-trainees meet held at KVK premises on the 1<sup>st</sup> of January, 2017. KVK, Sivasagar wishes all success in his pursuits in the days to come.



### Case study of Spread of Mushroom Production technology in Sivasagar district

Cultivation of oyster mushroom has, of late gaining momentum in the Sivasagar district, thanks to the efforts of the scientists of the KrishiVigyan Kendra, Sivasagar. Traditionally, the village people of the Sivasagar district have the habit of collecting wild mushroom from the forests and eating them. In most cases, they face the menace of food poisoning and even death. Convincing the rural masses from abstaining from eating the wild mushroom and cultivating the non-poisonous oyster mushroom was a real challenge for the scientists and extension workers together. Also the need of alternate and cheap protein source for rural families to ensure nutrition to farm families was another issue to take up as a part of the vision of the KrishiVigyan Kendra, Sivasagar. Keeping this in view, KVK, Sivasagar imparted 14 hands-on trainings on oyster mushroom cultivation technology supported by film shows to 14 villages covering 535 farmers in the year 2016-17. In the absence of SMS (Plant Protection) the trainings were imparted by Ms.PriyankaDutta, SMS (Agronomy) and Mr.Rupjyoti BorahSMS (Soil Science). In each training, mushroom spawn was distributed free of cost initially to encourage interest of the farmers towards cultivation of the same. Especially in the Technology Week (Jai Kisan Jai Vigyan Week), exclusive trainings were imparted on this technology. The harvest and the income generated from the sale of produce has increased interest of the farmers and they started coming to the KVK, Sivasagar for spawn.





Availability of spawn in Assam is a problem and hence, the spawn had to be collected by the Kendra from a private source in Siliguri. Till date, 2.4 q of mushroom spawn has been distributed to 240 farmers. An important fact to consider at this juncture is that this has attracted the rural women in taking up the venture as 90 per cent of the cultivators are women. From this amount of spawn, a minimum of 5 q of fresh mushroom has been produced indicating a turnover of Rs. 1,00,000 in three months. This has invariably increased the farm income and therefore, mushroom production technology can easily be considered as an important component enterprise for doubling the farmers income by 2022.

**3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year**

**3.9 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

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

- Identification of courses for farmers/farm women  
Focussed Group Discussion, PRA exercise, Farmers' demand,
- Rural Youth
- Extension personnel

**3.11 Field activities**

- i. Number of villages adopted : 3
- ii. No. of farm families selected : 120
- iii. No. of survey/PRA conducted : 1

**3.12. Activities of Soil and Water Testing**

Status of establishment of Lab : Not yet established

- 1. Year of establishment :
- 2. List of equipments purchased with amount :

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1					
2					
3					
Total					

**3. Details of samples analyzed (2016-17) :**

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount ( In Rupees) realized
Soil Samples	868	1635	45	Free of cost

Water Samples				
Plant Samples				
Petiole Samples				
Total				

#### 4. Details of Soil Health Cards (SHCs) (2016-17)

- a. No. of SHCs prepared : 1635
- b. No. of farmers to whom SHCs were distributed : 1635
- c. Name of the Major and Minor nutrients analysed : NPK, S, Fe, Zn, B, Org C, pH
- d. No. of villages covered : 30
- e. Soil health card based nutrient management in different crops (pl. submit in brief in separate page)

#### 3.13. Details of SMS/ Voice Calls sent on various priority areas

Message type	Crop		Livestock		Weather		Marketing		Awareness		Other Ent.		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	8	2504	5	1585	39	12285							52	16374
Voice only														
Voice and Text both														
<b>Total</b>	8	2504	5	1585	39	12285							52	16374

### 3.14 Contingency planning for 2016-17

#### a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Proposed Measure	Proposed Area (In ha.) to be covered	Number of beneficiaries proposed to be covered		
			General	SC/ST	Total
	Introduction of new variety or crop				
	Introduction of Resource Conservation Technologies				
Flood contingency measures	Distribution of seeds and planting materials	33.33	27	3	30
	Any other (Please specify)				

#### a. Livestock based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Number of birds/ animals to be distributed	No. of programmes to be undertaken	No. of camps to be organized	Proposed number of animals/ birds to be covered through camps	Number of beneficiaries proposed to be covered		
					General	SC/ST	Total
Flood contingency measures	-	Animal Health camp	1	<ul style="list-style-type: none"> <li>• Cattle : 215</li> <li>• Buffalo : 6</li> <li>• Pig : 52</li> <li>• Goat : 40</li> <li>• Poultry : 384</li> <li>• Duck : 508</li> <li>• Broiler : 100</li> </ul>	50	19	69



#### 4.0. IMPACT

##### 4.1. Impact of KVK activities (Not to be restricted for reporting period only)

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Vermicomposting in low cost vermibeds	12	100%	2000.00	15000.00
Cultivation of Oyster Mushroom	240	78.66	-	4000.00

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

##### 4.2. Cases of large scale adoption

(Please furnish detailed information for each case)

##### 4.3 Details of impact analysis of KVK activities carried out during the reporting period :

#### 5.0. LINKAGES ESTABLISHED

##### 5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
1. District Agricultural Office	Implementation of ATMA programe and selection of participants
2. District Animal Husbandry & Veterinary Office	Joint implementation of programmes
3. District Fishery Development Office	Joint implementation of programmes
4. District Sericulture Office	Joint implementation of programmes
5. District Forest Office	Joint implementation of programmes
6. District Industry and Commerce Office	Joint implementation of programmes
7. DRDA	Joint implementation of programmes
8. Banking Organization	Contribution for infrastructural development
9. KrishakNyas, SHAPE, SHINE, KBKUS, Prerona, KASS (NGO)	Conducting training programmes and demonstration
10. NABARD	Sponsored training, SHG & JLG formation and management and other extension activities.

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

**5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2016-17**

Name of the scheme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
PMFBY	Awareness camp	May, 2017	ATARI	1,81,000.00
PPVFRA	Awareness camp	March, 2017	PPVFRA	80000.00

**5.3 Details of linkage with ATMA**

a) Is ATMA implemented in your district Yes/No

Sl. No.	Programme	Nature of linkage	Remarks
1	Demonstration programmes on Vegetables	Joint field visit, Monitoring	
2	Demonstration on Hybrid paddy	Training, Cefemonial sowing, joint field visit, Monitoring	
3	Upscaling of vermicompost units	Training, Demonstration, Joint field visit	
4	Capacity building programmes on production of organic inputs, protected cultivation and rabi vegetables	Training	
5	ATMA GB Meeting	Role as a Member	

#### 5.4 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any

#### 5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks

### 6. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2016-17

#### 6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estd.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Piggery			T&D	Piglets Adults	43no. 4no		1,14,100.00 90,000.00	
2	Goatery			Beetel Cross Breed	Kids Kids	2 no. 2no.			





### 6.6. Utilization of hostel facilities (Month-Wise) during 2016-17

Accommodation available (No. of beds) :

Months	Title of the training course/Purpose of stay	Duration of Training	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
<b>Total</b>					
<b>Grand total</b>					

Note: (Duration of the training course X No. of trainees)=Trainee days

## 7. FINANCIAL PERFORMANCE

### 7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch	Account Number
With Host Institute	State Bank of India	Jorhat/ AAU	
With KVK	SBI, ADB, Gargaon	Gargaon	11671477783
Revolving Fund	SBI, ADB, Gargaon	Gargaon	30709339138

### 7.2 Utilization of funds under FLD on Maize (Rs. In Lakhs) if applicable

Item	Released by ICAR/ZPD		Expenditure		Unspent balance as on 31 <sup>st</sup> March, 2015
	Year	Year	Year	Year	
Inputs					
Extension activities					
TA/DA/POL etc.					
<b>TOTAL</b>					

## 7.3 Utilization of KVK funds during the year 2016 -17

Sl. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	93.60		9041548.00
2	<b>Traveling allowances</b>	2.50		106792.00
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	19.00		1546381.00
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees			
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>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)			
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>				
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>				

#### 7.4 Status of Revolving Fund (Rs. in lakhs) for last 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 2014 to March 2015	156454.00	216207.00	195492.00	177169.00
April 2015 to March 2016	177169.00	199655.00	260399.00	116475.00
April 2016 to March 2017	116475.00	277067.00	188381.00	205161.00

**Note: No KVK must leave this table blank**

#### 8.0 Please include information which has not been reflected above. (Write in detail)

##### 8.1 Constraints

##### (a) Administrative

- Requirement of one more vehicle to meet the ever increasing responsibilities of the KVK Scientists
- Helping hand in soil analysis and SHG preparation is a necessity

##### (b) Financial

- Delay in release of first half of the budget creates difficulty in undertaking the kharif programmes

##### (c) Technical

- High speed net connectivity and lack of sufficient number of computers

**(Signature)**  
**Sr. Scientist cum Head**

Pl. Take maximum care while filling up the annual report format as per instructions so that no column is left blank. Pl. note that any incomplete individual KVK report shall not be considered and will be returned.