

# **ANNUAL REPORT OF KVKs, 2018-19**

## **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, AAU, Kokrajhar, Telipara, Gossaigaon, Dist.- Kokrajhar, Pin.: 783360, Assam	03669- 292704	-	kvvkokrajhar@gmail.com kvk_kokrajhar@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, Assam	0376-2340029	-	kvk.aau@gmail.com dee@aau.ac.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Manoj Kumar Bhuyan	-	9435084843	pcmkbhuyan@gmail.com

### 1.4. Year of sanction: 1985

### 1.5. Staff Position (As on 31<sup>st</sup> March, 2019)

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 & Head	Dr. Manoj Kumar Bhuyan	Sr. Scientist & Head	Soil Science	37400/- 67000/ G.P. 9000/-	62420 /-	11-08-2011	Permanent	Gen
2	Subject Matter Specialist	Mr. Goutom Bhagawati	Subject Matter Specialist	Plant Protection	15600/- 39,100 G.P. 5400/-	61300 /-	03.02.2014	Permanent	Gen
3	Subject Matter Specialist	Ms. Puja Basumatary	Subject Matter Specialist	Horticulture	15600/- 39,100 /- G.P. 6000/-	61300 /-	16.10.15	Permanent	ST
4	Subject Matter Specialist	Dr. Bhupen Kumar Baishya	Subject Matter Specialist	Soil Science	15600/- 39,100 /- G.P. 5400/-	61300 /-	19.10.2016	Permanent	Gen
5	Subject Matter Specialist	Mrs. Porna Sarmah	Subject Matter Specialist	Community Science	15600/- 39,100 /- G.P. 5400/-	61300 /-	31/01/2015	Permanent	Gen

6	Subject Matter Specialist	Ms. Pompy Dekka	Subject Matter Specialist	Agronomy	15600/- - 39,100 /- G.P. 6000/-	56100 /-	10.08.18	Permanent	Gen
7	Subject Matter Specialist	Dr. Nilotpal Das	Subject Matter Specialist	Animal Science		56100 /-	11.08.18	Permanent	Gen
8	Programme Assistant	-	-	-	-	-	-	-	-
9	Computer Programmer	Mr. Mridul Kumar Haloi	Programme Assistant	Computer Application	8000/- - 35000/ - G.P. 4900/-	41100 /-	13-09-11	Permanent	SC
10	Farm Manager	-	-	-	-	-	-	-	-
11	Accountant / Superintendent	Mr. Akhil Roy Choudhury	Accountant / Superintendent	Accountancy	8000/- - 35000/ - G.P. 4900/-	38700 /-	10-11-14	Permanent	Gen
12	Stenographer	Mr. Bikram Borah	Stenographer cum Computer Operator	Stenography (English)	5200/- GP 2400	7600/-	31.01.19	Permanent	OBC
13	Driver	Mr. Sabed Ali Sheikh	Driver cum Mechanic	-	5200/- - 20200/ - G.P 2200/-	26000 /-	22-02-12	Permanent	Gen
14	Driver	Mr. Sikandar Basumatary	Driver cum Mechanic	-	5200/- - 20200/ - G.P 2200/-	23100 /-	28.11.16	Permanent	ST
15	Supporting staff	Mr. Robindra Nath Narzary	Watchman	-	5200/- - 20200/ - G.P 2200/-	40010 /-	01-11-85	Permanent	ST
16	Supporting staff	-	-	-	-	-	-	-	-
	<b>Total</b>	<b>14</b>							

- 1.6. a. Total land with KVK (in ha) : 11  
b. Total cultivable land with KVK (in ha) : 7.5  
c. Total cultivated land (in ha) : 6.0

S. No.	Item	Area (ha)
1	Under Buildings (Administrative building+ Farmers' Hostel+ Staff Quarters)	1.5
2.	Under Demonstration Units	0.50
3.	Under Crops (Cereals, pulses, oilseeds etc.)	7.5
4.	Under vegetables	-
5.	Orchard/Agro-forestry	1.5
6.	Others (specify)	-

## 1.7. Infrastructural Development:

## A) Buildings

S. 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. A	Administrative Building (Old)	ICAR	1987-88	157.45	2.00 lakh	-	-	-
B	Administrative Building (New)	ICAR	2015	332	86.73 lakh	-	-	Completed
2.	Farmers Hostel	ICAR	1987-88	910.10	14.00 lakh	-	-	Damaged, need major repairing
3.	Staff Quarters (1)	ICAR	2003	132.76	5.98 lakh	-	-	Working
4.	Demonstration Units							
A	Poultry unit	RKVY	2010	45.00	2.19 lakh			Working
B	Piggery unit	RKVY	2010	145.00	6.06 lakh			Working
C	Goatery Unit	RKVY	2010	18.0	1.32 lakh			Working
D	Display & demonstration unit	RKVY	-	6 m in hexagonal shape	4.48 lakh			Working
E	Rice-fish vegetable farming unit	RKVY	2010	224 running meter	2.0 lakh			Working
F	Polyhouse	ATMA	2011		1.0 lakh			Working
G	Vermicompost unit	RKVY	2010	50.0	1.12 lakh			Working
H	IFS (Poultry-Fish-Horticulture farming)	RKVY	2012	2600msq	5.95 lakh			Working
I	Azolla	RKVY	2012		2.72 lakh			Working
J	Compost & Vermicompost	RKVY	2012		2.20 lakh			Working
5	Fencing	ICAR	1995	0.80km	4.92 lakh	-	-	Need repairing
		ICAR	2015	300 rm	13.24 lakh			Working

## B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep	AS-03E-0023	2006	490503.00/-	181845	Running
Tractor	AS-16C-0706	2003	Transferred from RARS, Diphu	1242	Not running
	AS-16D-0010	2013	570925.00	6118	Running

## C) Equipments &amp; AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Amplifier	1988	3202.00	Repairable
Black Board	1987	150.00	Damaged
Calculator Machine	1986	252.00	Damaged
Camera	1987	5544.00	Repairable
Desktop Computer	2005	46206.00	Damaged

Digital Camera	2006	15080.00	Damaged
Digital Camera (Sony)	2010	19000.00	Damaged
Duplicating Machine (Manual)	1986	6708.26	Damaged
Duplicating Machine (Automatic)	1995	39050.00	Repairable
Fax Machine (Brother)	2010	15,190.00	Working
Film Rewinder	1988	179.20	Repairable
Flash Gun	1988	570.00	Damaged
Generator	1987	17360.00	Damaged
Horn	1988	358.00	Working
Line Connecting Transformer	1988	616.00	Damaged
Microphone	1988	1891.00	Repairable
Microphone Stand	1988	276.00	Working
Photophone OHP	1988	4256.00	Damaged
Photophone Superlite Sound Projector	1988	12152.00	Repairable
Projection Screen	1988	856.80	Working
Projector Roll (Cinema)	1988	196.00	Damaged
Projector Screen	1988	442.90	Working
Slide Projector	1988	4256.00	Damaged
Television Set	1988	10145.00	Damaged
Xerox Machine (KM – 1635 MFP Printer)	2007	50440.00	Working
Xerox Machine (Kilburn )	2010	101920.00	Working
Digital Inverter (Electra – EEDI 800)	2007	13540.00	Battery damaged
LCD Projector	2010	98331.00	Damaged
UPS (Uniline-800VA FBLI UPS)	2010	5964.00	Damaged
Mechanized Grass Cutter	2009	28000.00	Working
Multipurpose power weeder	2009	42078.00	Working
Power paddy weeder	2009	36254.00	Working
Rice transplanter	2009	188198.00	Working
Earth Auger	2009	56749.00	Working
Water pumps (3 nos.)	2009 & 2010	30,000.00	Working
Seed cleaner	2009	311012.00	Working
Rotavator (2 nos.)	2009	95805.00	Working
Puddler	2009	25896.00	Working
Chaff cutter	2009	15496.00	Working
Voltage stabilizer	2007	3999.00	Working
Poly Sealing Machine	2012	2838.00	Damaged
Desktop Computer	2010	27547.00	Working
Balance	2011	9591.00	Working
BOD Incubator	2011	-	Working
Horizontal Laminar Flow	2011	-	Working
Ph meter	2011	2270.00	Working
Autoclave	2011	93638.00	Working
Hot Air Oven	2011	36888.00	Working
Incubator	2012	-	Working
Laminar Flow	2012	-	Working
Refrigerator	2012	15990.00	Working
Bharat paddy thresher (2)	2013	390001.50	Working
Front mounted vertical conveyance reaper	2013	260001.00	Working
Projector	2013	-	Working
Motorized screen with remote	2013	-	Working
Dehumidifier	2013	-	Working
Digital pH = temperature metre	2013	-	Working
Portable FRP carp Hatchery	2014	-	Working

Hatchery pool	2014	-	Working
Egg/ Spawn collection tank	2014	-	Working
Composite feed mill	2014	-	Working
Egg incubator	2014	-	Not working
Maize shaller	2014	-	Working
Maize dehusker cum sheller	2016	-	Working
Seed cum fertilizer drill	2018-19	80750	Working
Drum seeder (5 no's)	2018	50000	Working
Rice transplanter	2018	227679	Working
Battery operated sprayer (6 no's)	2018	31800	Working
Power weeder	2018	39830.51	Working
Multicrop planter	2018	40000	Working
IRRI super bag (400 no's)	2018	37760	Working

1.8. A). Details SAC meeting\* conducted in the year 2018-19

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1.	11.03.19	1. Dr. Niranjan Kalita, Director of Research (Vety), AAU, Khanapar 2. Dr. Ranjit Sarma, Associate Dean, SCSCA, Dhubri 3. Dr. R.K. Saud, Associate Director of Extension Education (P&I), AAU, Jorhat 4. Dr. Sunil Kumar Paul Chief Scientist, RARS, Gossaigaon 5. Dr. Mrinal Saikia, Associate Director of Research, AAU, Jorhat 6. M.M. Swargiary, District Agriculture Officer, Kokrajhar 7. Ratam Mani Soram, DDM, NABARD 8. Nilu Ram Basumatary Assistant Executive Engineer (Irrigation), Gossaigaon 9. Gopinath Basumatary, UCO Bank, Kokrajhar 10. Kandarpa Barman, Supdt. Of Sericulture, Gossaigaon 11. Dr. Tufan Ch. Basumatary, Veterinary Officer, Kokrajhar 12. Gobinda Basumatary, Fishery Development Officer, Kokrajhar	1. OFT on kadaknath- Compare with local chicken 2. Problem diagnose- look into appropriately for each & every OFT 3. Diagnostic survey on Turkey an quail birds needs to be done 4. ITK validation instead of OFT for community science	1. Testing of strawberry variety having high yield, marketability, processing & shelf-life -OFT conducted with variety Winter Dawn, Sweet Charlie, caramosa, Pijaro 2. The OFT on Avocado & Dragon fruit should be included. - Demonstration at KVK farm will be done 2019-20 3. Linking up of beneficiary with banks for financial help at the end of training programme. - 7 no's of progressive farmers who have obtained training on mushroom cultivation are linked up with banks/NABARD for financial aide (Loan & grant) 4. For improved processing & packaging the farmers should be linked up with the packaging deptt.

				<p>Of CIT, Kokrajhar - 6 days vocational training on preservation of fruits &amp; vegetables were trained to 20 no's of rural youth where resource person from DOCC was invited.</p> <p>5. Collaboration with DIC &amp; CIT, Kokrajhar for improved skill development training on mushroom - Training conducted with 120 farmers, entrepreneurs &amp; extension functionaries at DIC</p> <p>6. Concentration on doubling the income of farmers through utilization of rice fallows and take up the matter with PD, DRDA, Kokrajhar -Toria (TS-67 late sowing variety) cultivation taken up. Satisfactory results obtained.</p> <p>7. Livelihood Training programme for farmers at VCDC level. -Training programme conducted</p>
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## **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 + Horti + Dairy Cow + Goatery + Poultry + Duckery
2	Agri + Horti + Dairy Cow + Goatery + Piggery + Poultry + Duckery + Pigeon + Fishery
3	Agri + Horti + Dairy Cow + Piggery + Poultry
4	Agri + Horti + Dairy Cow + Buffalo + Piggery + Poultry + Duckery + Pigeon
5	Agri + Horti + Dairy Cow + Goatery + Poultry + Duckery + Fishery

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

Sl. No	Agro-climatic Zone	Characteristics
1.	Lower Brahmaputra Valley Zone (LBVZ) of Assam	The climate is humid sub-tropical in nature characterised by warm – humid summer cool – dry winter. The monsoon months (June-September) are wet receiving 65-70% of the total rainfall while the winter months (December-February) remain virtually dry. The mean maximum and minimum temperature varies from 33-38°C and 8-10°C respectively.
	Agro ecological situation	
a.	Foot hills old mountain valley	Foot hills of Bhutan in northern part of the district. The soil is loamy to clay, rich in organic matter
b.	Flood free riverine old alluvial plain	Plain areas, sandy to sandy loam soil free from flood
c.	Flood prone riverine alluvial plain	Flood prone areas affected by river Champabati, Gaurang, Saralbhag and Sankosh
d.	Hills and hillocks	Hills and Hillocks areas, red clay soil
e.	Beels	Marshy/Swampy land, water logging, low lying areas and covered with water hyacinth

## 2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area in ha
1	Alfisols (mountain valley)	Soil is loamy to clay and built up alluvial materials washed down from the hills slope. Medium to heavy textured soil	93658
2	Inceptisols (old alluvium)	Soils are old riverine alluvial type. Sandy loam to loamy soil and free from flood	162962
3	Entisols (recent alluvium)	Soils are recent riverine alluvial plain. Sandy or loamy sand and light textured soil	20758
4	Ultisols (laterised red)	Old alluvial soils are found. The surface soils are generally red to reddish brown and acidic in nature	37824

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

Sl. No	Crop	Area (ha)	Production ( M ton)	Productivity (Qtl /ha)
1	Autumn Rice	52514	164.081.15	31.25
2	Winter Rice	250561	973587.16	38.86
3	Summer Rice	19745	82178.78	41.62
4	Wheat	3504	6286.22	17.94
5	Other Cereals & small Millets	715	1627.365	22.76
6	Gram	1613	4954.978	30.38
7	Maize	3808	9050.99	23.77
8	Total Rabi pulse	23071	18410.658	7.98
9	Mesta	1595	2479.429	15.55
10	Cotton	19	92.08	48.46
11	Jute	10170	21051.90	20.70
12	Black Pepper	726	3136.664	43.20
13	Chillies	3552	17638.74	49.66
14	Turmeric	2527	36696.354	145.22
15	Onion	1067	11506.402	107.84
16	Ginger	2496	9774.275	39.16
17	Rapeseed & mustard	53820	53820	10.00
18	Coriander	2933	9954.275	33.94
19	Linseed	1195	2922.939	24.46
20	Sesamum	2087	1352.092	6.48
21	Banana	11719	189847.8	162.00

22	Garlic	1714	9349.398	54.55
23	Tea	1672	35814.24	214.20
24	Arecanut	14069	176636.295	125.55
25	Coconut	3117	19481.25	62.50
26	Sugarcane	1709	76905	450.00
27	Castor	73	250.78	34.35
28	Tobacco	72	32.832	4.56
29	Potato	23228	224423.2	96.62
30	Kharif Vegetable	15392	119080.41	77.37
31	Rabi Vegetables	19426	286454.91	147.46
32	Tur	1819	1794.806	9.87

**Source:** Statistical Handbook of BTC (2015-2016)

## 2.5. Weather data

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Morning	Evening
April, 18	322.0	30.5	19.6	87.5	62.9
May, 18	492.4	30.3	21.5	88.9	71.0
June, 18	555.0	32.4	24.5	92.3	75.7
July, 18	748.8	32.7	25.5	91.5	77.5
August, 18	500.2	33.4	25.5	92.1	71.9
September, 18	804.9	32.3	24.1	94.5	75.0
October, 18	83.3	30.8	19.3	86.9	61.6
November, 18	0	28.7	13.8	88.2	55.6
December, 18	3.1	26.0	9.4	90.5	48.7
January, 19	0.0	26.1	7.3	88.2	41.7
February, 19	46.3	26.5	11.6	91.0	51.5
March, 19	66.6	29.2	14.9	82.6	48.6

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	536	15,22,156 ltrs (Milk)	6 ltrs/day/ Animal
<i>Indigenous</i>	353253		750 ml/day/Animal
<b>Buffalo</b>	<b>14983</b>		1.5 ltrs/day/Animal
<b>Sheep</b>			
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	13686	14,84,350 kgs (Meat)	8 kg/ Animal
<b>Goats</b>	<b>159979</b>		5 kg /animal
<b>Pigs</b>	<b>98970</b>		
<i>Crossbred</i>	32927		60 kg /Animal
<i>Indigenous</i>	66043		30 kg / Animal
<b>Poultry</b>			
Hens	189999	4,51,800 Nos.	160 Nos./ year/Bird
<i>Desi</i>			
<i>Improved</i>			
Ducks	132610		120 Nos. /year/ Bird
<b>Turkey and others</b>	-	-	-

Category	Area (Ha)	Productivity (Kg/ha)	Production (Ton)
River Fisheries	4289.70		75.22
<b>Beel Fisheries</b>			
Registered Beel	1499.00	1500	508.93
Unregistered Beel	567.50	300	
Forest fisheries	35	300	234.80
Community pond and tank	105		-
Ponds and tanks	1700.64	2500	528.44
Swamp and waste land (Low lying area)	371.00	300	108.62
Reservoir Fisheries	-	190	53.92
Paddy field /cannel	-	238	249.36

**Source:** Joint Director cum CHD, Fisheries Department, BTC, Kokrajhar, BTC (2015-16)

## 2.6 Details of Operational area / Villages (2018-19)

Sl. No.	Taluk/ Eleka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	Gossaigaon	Gossaigaon	Matiajuri, Rangapara, Padmabil, Joyma, Kusumbil, Bhumka, Chakma, Bashbari, Babubil, Thuribari, Bhawraguri, Natunpara, Guwabari, Sagunhara, Choto Binnyakhata, Gambaribil, Kamalsing Dhauliguri Singimari Kandanpara Mallikpur	Boro Rice and early Ahu, Lentil, Pea, Linseed, Rapeseed, Vegetables, Potato, Flowers	i. Low productivity of Oilseeds and Pulses due to non-adoption of recommended varieties ii. Production problem in Potato	i. Popularisation of HYV of Summer and Boro rice ii. Introduction of high yielding Pulse and Oilseed varieties iii. Commercial potato and fruit production

		Hatidhura	Jacobpur, Fwilaguri, Majadabri, Kamandanga , Haripur, Tamahat, Simaltapu, Grahampur, Srirampur, Palashkandi	Rice, Maize, Rapeseed, Niger, Wheat, Vegetables, Goatery	i. Poor yield in Oilseeds and Pulses ii. Pest and Disease problem iii. Low productivity due to rearing of local breed of goat iv. Sandy and light textured soil	i. Popularisation of improved varieties of Oilseed and Pulse ii. Integrated Pest and Disease management iii. Improvement of productivity of Goatery iv. Soil health and fertility management
		Kachugaon	Ballamguri, Malaguri, Bhadiaguri, Ballimari, Jaymaguri, Dawaguri, Goladangi, Bajugaon, Jaraguri, Maktaigaon, Bhomrabil, Saraibil, Mothambil, Nasrabil, Borobadha, Burichattam, Haoriapet, Hashraobari, Hatigarh, Garufella, Sapkata, Gakulkata, Polashguri, Kachugaon Batabari Chengmari Jambuguri Jiaguri Samdasguri Katribari Khagrabari Gaon chulka Raimona Raikhanbari Modati	Rice, Maize, Vegetables, Rapeseed, Lentil, Pea, Buckwheat, Niger Beekeeping	i. Pre and Post Production problem in Vegetables ii. Poor fertility status of soil iii. Lack of scientific knowledge and skills about rearing of honey bee	i. Low volume – high value Vegetables ii. Soil health and fertility management iii. Commercial fruit production and processing iv. Popularisation of Beekeeping

2	Kokrajhar	Titaguri	Debargaon, Narabari, Gendrabil, Kunthaibari, Titaguri, Kumguri, Sukanjhara, Chandrapara, Simborgaon, Uttar Patgaon, Amlaguri, Jharbari, Ghoramari, Bhumki, Dakhin Karigaon, Dawkibari, Kakrighola, Nayekgaon, Bandarmari, Harighola, Harigaon, Bamungaon, Diplaibil, Salakati, Bandarchara, Chautaki, Bangaldoba, Diajhajuri, Kalugaon, Janagaon Maoriagaon Bhaoraguja	Piggery, Poultry, Aqua-farming, Sericulture, Agro- forestry, Winter vegetables,	i. Low production of meat and egg ii. Fish seed formulation, feeding technology and pond management iii. Poor quality and low yield of worm due to traditional rearing method iv. Dearth of scientific knowledge regarding agro- forestry plantation	i. Rearing of Pig and Poultry ii. Integrated Fish farming iii. Rearing of Eri, Muga and Silk worm iv. Agro- forestry plantation technology v. Spice production and value addition
		Dotma	Angthihara, Simlaguri, Batabari, Dotma, Barshijhora, Umanagar, Baldiapathan, Fakiragram, Saktiashram, Chithilaghob, Athiabari, Ghoshkata, Sikargaon, Laudanga, Dangarkuti, Bhalukmari, Puthimari, Lakhnabari, Ramfalbil, Serfanguri, Medhipara, Pratapkahata	Dairy, Piggery, Mushroom, Fruit preservation, Tailor ing and Stitching	i. Low productivity and management problem in Dairy and Piggery ii. Lack of scientific knowledge about mushroom production iii. Storage problem of fruit iv. Lack of technical knowledge and skills regarding tailoring, stitching and knitting	i. Improvement of productivity of Dairy ii. Rearing of Pig iii. Production techniques of Mushroom iv. Processing of fruit v. Tailoring, Knitting and Embroidery techniques for women

3	Parbatjhora	Rupsi	Kajigaon, Manglajhora, Tipkai, Molandubi, Kurshakati Belbari Ambari Hatibandha Bamunipara	Ahu, Boro rice, Rapeseed, Potato, Summer vegetables	i. Low yield of Rice due to growing of local varieties ii. Production and management problem of vegetables and spices iii. Pest and Disease problem	i. Popularisation of HYV of Summer, Sali and Boro rice ii. Low volume – high value Vegetables iii. Spice production and value addition iv. Integrated Pest and Disease management
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### 3. TECHNICAL ACHIEVEMENTS

#### 3. A. Details of target and achievements of mandatory activities by KVK during 2018-19

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	
	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy	2	1	6	3	4	5	31	21
Horticulture	3	3	15	13	3	2	22	10
Soil Science	2	3	6	9	3	2	24	12
Plant protection	3	3	10	10	3	2	25	20
Animal Science	-	2	-	6	-	2	-	15
Community Science	3	2	15	7	3	2	22	19
<b>Total</b>	<b>13</b>	<b>14</b>	<b>52</b>	<b>48</b>	<b>16</b>	<b>15</b>	<b>124</b>	<b>97</b>

Note: Target set during last Annual Zonal Workshop

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	60	61	1500	1705	1780	1564	8285	6037
Rural youth	24	19	530	453				
Extn. Functionaries	7	7	175	181				
<b>Total</b>	<b>91</b>	<b>87</b>	<b>2205</b>	<b>2339</b>				
Seed Production (ton.)					Planting material (Nos. in lakh)			
5					6			
Target		Achievement			Target		Achievement	
1211.5 q		673.325 q			23030 no's		14513 no's	

## 3. B. Abstract of interventions undertaken during 2018-19

SI · 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	Crop management	Linseed and Chickpea	Lack of knowledge of Intercropping of oilseed and pulses	Intercropping of Linseed and Chickpea	-	-	-	Monitoring, Field visit	Linseed (Var. Shekhar)= 10 kg Chickpea (Var. JG-14)= 15 kg Urea=53 kg SSP= 75 kg MOP=11 kg Plant protection chemicals (Malathion 50 EC/ Rogor)= 1 lt ( Total 3 no.s of trail)
2	Varietal performance	Rice	Crop failure of Sali rice due to prolonged submergence of water during <i>kharif</i> season	-	Performance of submergence tolerance Rice variety Ranjit Sub-1	-	-	Monitoring, Field visit, Field day	Seed
3		Toria	Low productivity of Toria due to use of local variety	-	FLD on Toria (Var.: TS-67)	Improved production technology for rabi oilseed crops (Toria, Niger, Linseed etc)	-	Monitoring, Field visit, Field day	Seed
4		Maize	Low yield of Toria due to use of traditional variety of maize	-	FLD on Hybrid Maize	Improved production technology of Maize	-	Monitoring, Field visit, Field day	Seed

5	Introduction of Hybrids	Rice	Yield stagnation of HYVs	-	Popularization of Hybrid Rice in Assam (Var. Arize 6444 Gold)	-	-	Monitoring, Field visit, Field day	Seed, Fertilizer
6	Microbial management	Mesta	Low quality of fibre due to faulty retting process	-	Enhancement of retting process & fibre quality of mesta through Application of microbial consortia	Improved production technology of fibre crop	-	Monitoring, Field visit, Field day	Seed, Fertilizer
7	Varietal evaluation	Broccoli Variety Sakura	Low yield of existing varieties	Varietal Performance of Broccoli variety Sakura	-	-	-	Field visit, monitoring	Planting materials, fertilizers, Plant protection chemicals
8	Varietal evaluation	Strawberry variety Sweet Charlie, Winter Dawn Camarosa and Pijaro	Low yield of runner propagated plants susceptible to botrytis and anthracnose fruit rot	Varietal performance of Tissue culture strawberry variety Sweet Charlie, Winter Dawn Camarosa and Pijaro	-	Skill enhancement training on scientific cultivation of strawberry	-	Field visit, monitoring	Planting materials, Plant protection chemicals, Plastic mulch
9	Varietal evaluation	Chilli var. Arka Meghana	Low yield of local chilli varieties	Varietal performance of dual purpose hybrid Chilli var. Arka Meghana	-	-	-	Field visit, monitoring	Seed, fertilizers, Plant protection chemicals
10	Tissue culture	Banana	Susceptibility of existing variety to Panama Wilt	-	Popularization of Tissue culture Banana (Grand Naine)	-	-	Field visit, monitoring	Suckers, plant protection chemicals, fertilizers

11	Intercrop ping	Arecanut + Chilli+ Brinjal	Non- adoption of intercrops in arecanut based cropping systems	-	Intercrop ping of vegetabl es in arecanut based cropping systems	Intercrop ping of vegetabl e, ginger, turmeric, pineappl e, banana, Assam lemon in arecanut and coconut based homeste ad bari	-	Field visit, monitor ing	Seedlings, fertilizer, Plant protection chemicals
12	Integrate d Pest Manage ment.	Tomato	Large scale use of wide ranges of insecticides has totally damaged the ecology and increased the total crop economics.	Organic manageme nt of insect pests of tomato.	-	1. IPM & IDM of major kharif crops & vegetabl es 2. Importan ce of use of organics in health life 3. Pesticide s – uses & misuses	-	Field visit, monitor ing	1. Tomato Seed (350 g seeds to raise seedlings for 1 ha) 2. Spinosad 45 SC (250 ml) 3. Sex pheromon e traps (12 pieces) 4. Petroleum based spray (1 litres)
13	Integrate d Disease Manage ment.	Banana	Susceptibili ty of existing remunerati ve varieties to Panama Wilt	Manageme nt of panama disease in banana.	-	Manage ment of Panama disease in banana	Recent advance s in plant protectio n	Field visit, monitor ing	1. Malbhog banana sucker (60 pieces) 2. Carbendaz im (3 kilograms) 3. Neem Cake (15 kilograms)
14	Integrate d Pest Manage ment.	Papaya	Heavy damage to all crops particularly papaya at all stages.	Manageme nt of papaya mealy bug (Paracoccu s marginatus )..	Rice swarming caterpillar - its managem ent strategies	1.Manag ement of mealy bugs in vegetabl e crops 2. Root knot nematod e manage ment in horticultu ral crops	-	Field visit, monitor ing	Papaya seed (100 gm) Chlorpyriphos 1.5% dust (3 kg) Neem oil (1.5 litres) Thiomethoxam 25 WG (2 litres) Chlorpyriphos 20 EC (1.5 litres)

15	Storage techniques	Pulse & cereals	Damaged due to storage insect pests	-	Safe storage of grains using hermetic storage bags	1. Basic pest management tools & their use in Kokrajhar district 2. Management of stored grain insect pests	-	Field visit, monitoring	Hermetic bags
16	Product Diversification	Handwoven fabric	1. Multi-coloured and raised Bodo design in Dokhona is limited to tribal Bodo Community only	Product diversification of handwoven dokhona to single bed spread.	Application of Natural Dye on Cotton yarn	1. Value addition of Fabric through tie and dye. 2. Product diversification of household materials	-	-	1. Cotton Yarn – 2.5 kg each weaver (Total 4 Trail)
17	Storage Technique	Tomato	1. Poor storage technique leads to spoilage. 2. Cold temperature leads to loss of taste and juiciness of fruit.	Storage of tomato through air hanging stalks.	-	Preservation of fruits and vegetable through pickling	-	-	1. Thick cotton cloth – 4m 2. Rope. (Total 3 trial)
18	Breed Introduction	Kadaknath Chicken	Low productivity of indigenous chicken	Introduction of Kadaknath chicken under backyard system of management condition		Common diseases of poultry, its management and control measures		Training, Field visit, Method demonstration	Kadaknath Chicken (15 days old): 60 Nos Poultry Feed (Starter): 50gm/bird for 45 days Vaccine (RD F1 & R2B) Albomar oral suspension: 6ml/20 birds. Tetracycline HCL powder: 1g/liter water Brotone Vet: 5ml/ liter water

19	Breed improvement	Newzeal and white/ Soviet Chincilla	Low productivity and smaller size of indigenous rabbit	Productive performance of broiler rabbit under backyard system of management		-	-	Field visit	Newzealand white/Soviet Chincilla: 12 numbers
20	Breed improvement	Poultry (Kamrupa)	Low productivity of indigenous poultry in backyard system	-	Assessment of egg laying performance 'Kamrupa' under backyard system of rearing in Kokrajhar district.	Common diseases of poultry, its management and control measures	-	Field visit, Training, Vaccination	Kamrupa birds- 100 no's, Feed, Medicine & vaccine
21	Health care	Dairy	Low productivity & reproductive performance due to mineral deficiency	-	Supplementation of area specific mineral mixture AAUVET MIN in feed of dairy crossbred cow for increasing milk production & improving reproductive health	Nutritional management of dairy cattle	-	Field visit, training, deworming	AAUVETMIN, Medicine

22	Soil management	Paddy	Widespread deficiency of P especially in acidic soil. In N.E. India production of rice is mainly constrained by Al and Fe induced P deficiencies. More than 81 % soils of North East India suffer from this cause	Root – dipping in SSP-MC slurry method of P management	Combined application of Zinc and Boron in rice (Var: TTB 404)	-	-	Field visit, Monitoring	Fertilizers ( Urea, SSP, MOP, Microbial consortia)
23	Nutrient management	Rapeseed	Imbalanced fertilization	Combined effect of sulphur and boron on toria					Seed, Urea, SSP, MOP, DAP, Borax, chemicals
24		Pea	Widespread deficiency of P and Zn in acidic soil	Seed priming for improving crop productivity and nutrient efficiency in acid soils					Seed, Fertilizers (ZnSO <sub>4</sub> .7H <sub>2</sub> O and KH <sub>2</sub> PO <sub>4</sub> ), chemicals
25	Soil Health	Blackgram	-	-	Performance of bio-fertilizer in kharif blackgram (Var: PU-31)	-	-	Method demonstration, Field day, Field visit	Seed, Bio fertilizer, fertilizer, chemicals



A.3. Abstract of the number of technologies **assessed** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitery	Fisheries	TOTAL
Breed Introduction	-	1	-	-	-	-	-	1
Breed improvement	-	-	-	-	-	1	-	1
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	1	-	-	-	1	-	2

A.4. Abstract on the number of technologies **refined** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitery	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	-	-	-

**A.5. Results of On Farm Testing**

<b>Sl. No</b>	<b>Title of OFT</b>	<b>Problem Diagnosed</b>	<b>Name of Technology Assessed</b>	<b>Crop/Crop ping system/ Enterprise</b>	<b>No. of Trials</b>	<b>Results of Assessment/ Refined (Data on the parameter should be provided)</b>	<b>Feedback from the farmer</b>	<b>Feedback to the Researcher</b>	<b>B.C . Ratio (if applicable)</b>
<b>1</b>	Intercropping of Linseed and Chickpea	Lack of knowledge of Intercropping of oilseed and pulses	Intercropping of Linseed with (4:2) Chickpea ( Linseed variety- Shekhar and Chickpea variety-JG 14)	Linseed and chickpea	3	Plant height(Avg): Technology: Linseed: 89.5 cm Chickpea:48 cm Farmers practice: Linseed: 75 cm Av. No. of branch/plant Technology: Linseed: 5 (primary), 18 (Secondary) Chickpea: 4 (primary) 3(Secondary) Farmers practice: Linseed: 3 (primary) 12 (Secondary) Av. No. capsules or Pod /plant Technology: Linseed: 67 Chickpea:37 Farmers practice: Linseed: 55 Av no of seeds/pod Technology: Linseed: 7 Chickpea:2	-	-	2.88

						Farmers practice: Linseed: 6 Yield Technology: Linseed: 9q/ha Chickpea: 12 q/ha Farmers practice: Linseed: 7 q/ha Net return: Technology: Rs.29400/ha Farmers practice: Rs. 19400/ha			
2	Varietal Performance of Broccoli variety Sakura	Low yield of existing varieties	Broccoli Variety Sakura	Broccoli	6	Technology: Plant Ht: 50.8 cm No. of leaves; 34-36 nos. Leaf size: 35.0 cm X 14.6 cm Avg. head wt. 700 gm Yield: 180q/ha Farmers practice Plant Ht: 45.0 cm No. of leaves; 26-28 nos. Leaf size: 30.0 cm X 12 cm Avg. head wt. 650 gm Yield: 120q/ha	Farmer's accepted the variety, yield performance is good	-	Tech: 5.07:1 FP: 3.67:1
3	Varietal performance of Tissue culture strawberry variety Sweet Charlie, Winter Dawn	Low yield of runner propagated plants susceptible to botrytis and anthracnose fruit rot	Strawberry variety Sweet Charlie, Winter Dawn Caramosa and Pijaro	Strawberry	3	Sweet Charlie: Nos. of fruit /pl: 26 ns. Avg. Fruit size (cm): 5.5x3.2 Avg. Fruit wt: 15.38 g Days to 1st flowering: 65 Yield/ plant: 400g Winter Dawn: Nos. of	-	-	Sweet Charlie: 2.76:1 Winter Dawn: 4.27:1 Camarosa: 2.29:1 Pijaro:

	Caramosa and Pijaro					fruit /pl: 32 nos. Avg. Fruit size (cm): 5x3.8 Avg. Fruit wt: 17.50 g Days to 1st flowering:60 Yield/ plant: 560g Camarosa : Nos. of fruit /pl: 23 nos. Avg. Fruit size (cm): 4.2x2.4 Avg. Fruit wt: 15.21 g Days to 1st flowering:65 Yield/ plant: 350g Pijaro : Nos. of fruit /pl: 23 nos. Avg. Fruit size (cm): 3.2x2.4 Avg. Fruit wt: 5.67 g Days to 1st flowering:62 Yield/ plant: 130.41g			0.23:1
4	Varietal performance of dual purpose hybrid chilli var. Arka Meghana	Low yield of local chilli varieties	Chilli var. Arka Meghana	Chilli	5	Ongoing	-	-	-
5	Organic management of insect pests of tomato.	Large scale use of wide ranges of insecticides has totally damaged the ecology and increased the total crop economics.	T1 • M arigold transplanting, • R egular monitoring and collection /Destruction of fruit	Tomato	4	Parameters to be assessed- T1 • Insect count: 1. White Fly=4 2. Fruit and shoot borer =3 3. Helicoverpa= 3 • Damaged fruit count= 5	Satisfactory	Sticky trap may be included in the package	4.2

			<ul style="list-style-type: none"> <li>• borer, S</li> <li>• pinosad 45 SC @ 0.3 ml/l</li> <li>• In stallation of sex pheromon e traps,</li> <li>• U se of petroleum oil based spray @ 10 ml/l</li> </ul> <p>T2 Chemical treatment</p>			<ul style="list-style-type: none"> <li>• Yield=142 q/ha</li> <li>• Net return: Rs. 102000 /ha</li> </ul> <p>T2</p> <ul style="list-style-type: none"> <li>• Insect count:             <ol style="list-style-type: none"> <li>1. White Fly=14</li> <li>2. Fruit and shoot borer =7</li> <li>3. Helicoverpa= 17</li> </ol> </li> <li>• Yield=110 q/ha</li> <li>• Net return= Rs. 79000/ha</li> </ul>			
6	Management of panama disease in banana.	High damage to banana plantation at all stages.	<p>T1-</p> <ol style="list-style-type: none"> <li>I. Diseases free suckers from disease free field,</li> <li>II. Dipping of suckers in carbendazim (0.2%) for 30 minutes,</li> <li>III. Application of neem cake @ 250 grams/plant,</li> <li>IV. Carbendazim drenching with 0.2% solution (2nd , 4th and 6th months after planting)</li> <li>V. Carbendazim</li> </ol>	Banana	3	<p>Parameters to be assessed</p> <p>T1-</p> <ul style="list-style-type: none"> <li>• Yellowing of leaves=1</li> <li>• Wilting=Nil</li> <li>• Appearance of yellowish to reddish streaks in pseudostem=Nil</li> <li>• Yield= Vegetative stage</li> </ul> <p>T2</p> <ul style="list-style-type: none"> <li>• Yellowing of leaves=2</li> <li>• Wilting= 2 (Bunchy top)</li> <li>• Appearance of yellowish to reddish streaks in pseudostem=1</li> </ul>	In progress	In progress	Will be calculated

			m injection @ 3ml of 0.2% solution (3rd, 5th, 7th months after planting) T2-Without treatment			<ul style="list-style-type: none"> <li>Yield= Yet to be harvested</li> </ul>			
7	Management of papaya mealy bug ( <i>Paracoccus marginatus</i> ).	Heavy damage to all crops particularly papaya at all stages.	T1 <ul style="list-style-type: none"> <li>Dusting of Chlorpyrifos 1.5% dust,</li> <li>Spot spraying of Neem oil (1-2%) NSKE (5%) Thiomethoxam 25 WG (0.6/l),</li> <li>Destruction of ant colonies with drenching of Chlorpyrifos 20 EC @ 2 ml/l.</li> </ul> T2 Farmers practice	Papaya	4	Parameters to be assessed T1 <ul style="list-style-type: none"> <li>Mealy bug adult female count = 1</li> <li>Flowering/fruitlet count= vegetative stage</li> <li>Yield= vegetative stage</li> </ul> T2 <ul style="list-style-type: none"> <li>Mealy bug adult female count = 7</li> <li>Flowering/fruitlet count= vegetative stage</li> <li>Yield= vegetative stage</li> </ul>	In progress	In progress	Will be calculated
8	Product diversification of hand-woven dokhona to	1. Multi-coloured and raised Bodo design in Dokhona	Multi-coloured Bodo design in Single bed Spread.	Hand-woven fabrics	4	Parameters assessed-( 9 point hedonic scale- Mean)  1.Colour	Weavers are satisfied with their own weaved bed spread with	Final product look good. Suggestion was given for inclusion of	T- 2.3:1 FP- 1.8:1

	single bed spread.	is limited to tribal Bodo Community only				T- 7.8 FP- 5.7  2.Acceptance of final product T- 7.4 FP- 6.8	inclusion of principle and element of designed.	hand-woven pillow cover along with the bed spread for cater for market .	
9	Storage of tomato through air hanging stalks.	1.Poor storage technique leads to spoilage. 2.Cold temperature leads to loss of taste and juiciness of fruit.	Hanging of tomatoes tied at stalk Measurement: <ul style="list-style-type: none"> <li>Thick cloth is placed at 1.5 - 2 feet below roof/ ceiling and 6 feet height from ground level.</li> <li>Rope of 1-2 mm diameter is tied in bamboo pole where tomato with stalk were tied and hang.</li> </ul>	Tomato	3	Parameters- shelf life of tomato.  1.Shelf life of tomato- T- 6.76 FP- 3.1  2.Taste and texture of the fruit. T- 6.6 FP- 3.3	Tomato can be stored for atleast 70 days in air hanging stalks.  Disease free and good quality tomatoes will have better shelf life.	Shelf life of tomato will be increased if thatched roof and bamboo wall will be used instead of tin and brick wall.  Protection from direct sunlight is also essential to check early fruit drop and wrinkle	T- 5:1 FP- 1:1
10	Introduction of Kadaknath chicken under	Low productivity of indigenous chicken	T1: Kadaknath chicks as quality inputs. T2: Indigenous	Kadaknath	3	Avg. Wt. gain by birds in every 20 days Technology: 1-20 215	Farmers are satisfied with the weight gain rate of Kadaknath	-	-

	backyard system of management condition		poultry			gm 21-40 245 gm 41-60 311 gm 61-80 365 gm 81-100 445 gm 101-120 625 gm 121-140 810 gm 141-160 1465 gm 161-180 1624 gm  Farmers Practice: 1-20 151 gm 21-40 175 gm 41-60 230 gm 61-80 295 gm 81-100 320 gm 101-120 480 gm 121-140 630 gm 141-160 1134 gm 161-180 1460 gm  Age at 1st lay- Technology: 177	Chicken ad accepted the breed		
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						days FP- Not layed till date			
11	Productive performance of broiler rRabbit under backyard system of management	Smaller size and lower productivity of indigenous Rabbit	T1: Newzealand White/Soviet Chinchilla as quality broiler Rabbit T2: Indigenous Rabbit	Newzealand White/Soviet Chinchilla	3	Avg. Wt. gain by the bunnies in every 20 days Technology: 90-120 : 1.14 kg 21-140: 1.381 kg 141-160: 1.657 kg 161-180: 1.901 kg Farmers practice: 90-120: 0.805 kg 121-140: 0.995 kg 141-160: 1.185 kg 161-180: 1.314 kg Age at 1 <sup>st</sup> Kindling: 171 days (Technology) Avg litter size: 5 no's (Technology) No occurrence of diseases	Satisfied with good weight gain	-	-
12	Root – dipping in SSP-MC slurry method of P management	Widespread deficiency of P especially in acidic soil. In N.E. India production of rice is mainly constrained by Al and Fe induced P deficiencies. More than 81 % soils of North East India suffer from this cause	T1: A mud slurry with 7 kg SSP+ 4kg MC  biofertilizer +5kg Compost+ 50% RD of urea & MOP T2: Recommended dosage of NPK+ Compost T3: Control	Paddy	3	Parameter to be assessed- Technology Plant height(Avg) : T1-105 cm T2-103 T3-95 Av. No. total tillers/ hill: T1-15 T2-16 T3-10 Av. No. effective tillers/ hill: T1- 12 T2-12 T3-8 Yield:	Satisfied with the technology	Good management practices for improving crop production along with soil health management	T1- 2.01 T2- 1.98 T3- 1.72

						T1-4.5 t/ha T2- 4.56 t/ha T3-3.7 t/ha			
13	Combined effect of sulphur and boron on toria	Imbalanced ferlization	T1 : State recommendati on dose based on zone wise T2 : S @ 20 kg/ha + B @ 1.5 kg/ha + RD of NPK3	Rapeseed	3	Parameter to be assessed- T1 : Plant height (Avg): T1- 76 T2-68 No of branch/plant (Avg): T1-4 T2-4 No. of siliqua/plant (avg):98 T2-85 No. of seeds/Siliqua: T1-12 T2-10 Yield: T1-8.9 q/h T2-7.3 q/ha	Satisfied	Good management practices for improving crop production	T1-1.89 T2-1.25
14	Seed priming for improving crop productivity and nutrient efficiency in acid soils	Widespread deficiency of P and Zn in acidic soil	T1 : Seeds are soaked overnight in nutrient solution (1 % ZnSO4 .7H2O, 1 % KH2PO4 )  T2 :Seeds are soaked overnight without nutrient solution	Pea		Germination T1-97% T2-85 % Plant height (cm) T1-65 T2-52 Pod length (cm) T1-11 T2-9 Seed per pod T1-9 T2-7 Yield: T1- 10 q/ha T2-6.5 q/ha	Farmers are satisfied with the technology	-	T1- 2.24 T2- 1.9

### 3.2 Achievements of Frontline Demonstrations during 2018-19

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

Sl. No	Crop/ Enterprise	Technology demonstrated	Horizontal spread of technology		
			No. of villages	No. of farmers	Area in ha

\* **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
1	Rice	Varietal performance	Submergence tolerance of Sali rice (Var: Ranjit Sub-1) with recommended package of practice	Kharif, 2018	1.0	1.0	6	-	6	-	Rainfed			
2	Rice	Varietal performance	Arize 6444 Gold	Kharif, 2018	0.13	0.1	1	-	1	-	Rainfed			
3	Toria	Varietal performance	Toria (Var.: TS-67)	Rabi, 2018	1.0	1.0	5	-	5	-	Rainfed			

4	Maize	Varietal performance	Hybrid maize (Var.: DKC 9081)	Rabi, 2018	1.0	1.0	5	-	5	-	Rainfed			
5	Mesta	Microbial management	Application of Microbial Consortia @ 2 kg /0.26 ha of Mesta	Rabi, 2018	2.0	2.0	-	5	5	-	Rainfed			
6	Banana	Variety Malbhog (Tissue Culiture)	Variety Malbhog (Tissue Culiture)	Summer, 2019	0.13	0.13	4	-	4					
7	Areca nut+ vegetables	Cropping System	Cropping System	Rabi, 2019	0.6	0.6	2	4	6					
8	Rice	IPM	Use of bamboo perches, 2. Use of kerosene oils in stagnant water, 3. Application of Malathion dust along the bunds of the field, 4. Spraying of NPV, 5. Spraying of chlorpyrifos 20 EC @ 1.25 litre/ha during evening hours	Rabi, 2018	3.0	3.0	1	9	10	-	Rainfed	H	L	M
9	Rice	Soil	1.5 kg B	Kharif,	1.5	1.5	5	0	5	-	Rainf	M	M	M

		manage ment	/ha+ 5 kg Zn/ha + RD of NPK (60:20:40)	2018							ed			
10	Blackgr am	Soil health	Seed inoculation with Rhizobium and PSB each @ 50gm/ kg of seed + N:P2O5:K2 O (15:35:15)	Kharif, 2018	2.0	2.0	7	0	7	-	Rainf ed	M	M	M

### 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.)			
				Demo.	Check		H*	L*			GC**	GR**	NR**	BCR* *	GC	GR	NR	BCR
1	Rice	Varietal performance	1.0	55.0	35.0	57.14	59	47	-	-	35000	93500	58500	2.6	35000	59500	24500	1.7
2	Rice	Varietal performance	0.13	58.0	35.0	65.71	58	58	-	-	35000	98600	63600	2.8	35000	59500	24500	1.7
3	Toria	Varietal performance	1.0	8.9	6.5	36.92	9.2	8.4	-	-	27000	44500	17500	1.6	27000	32500	5500	1.2
4	Maize	Varietal performance	1.0	50.0	15.0	233	44	54	-	-	35000	85000	50000	2.42	30000	34000	4000	1.13

5	Mesta	Microbial management	1.0	19.0	19.0	0	19	-	-	-	50000	66500	16500	1.33	50000	57000	7000	1.14
6	Banana	Variety Malbhog (Tissue Culture)	0.13	On going														
7.	Areca nut+vegetables	Cropping System	0.6	On going														
8	Rice	IPM	3.0	32	22	45.45	36	28	Low	Not very high	33000	60100	27100	1.82	29000	33200	4200	1.14
9	Rice	Soil management	1.5	53	35	51.43	54	32	-	-	30079	73000	43421	2.44	28750	50750	22000	1.7
10	Black gram	Soil Health	2.0	6.5	4.0	62.5	6.7	3.8	-	-	16000	27200	11200	1.7	11450	17175	5725	1.5

**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	6	14.03.19 27.10.18 12.01.19 31.12.18 27.11.18 04.03.19	29	63	92	
2	Farmers Training	3	06.09.18 31.10.18 12.10.18	13	68	81	
3	Media coverage	-	-	-	-	-	
4	Training for extension functionaries	-	-	-	-	-	
5	Any other (Pl. specify)	-	-	-	-	-	-
	<b>Total</b>	<b>9</b>	-	<b>42</b>	<b>131</b>	<b>173</b>	





### **(iii) Fisheries**

[illegible]

**(iv) Other enterprises**

[illegible]

			ry type			min	hand 58 min												
3	Hermetic bag	Storage Techniques	<b>T1-</b> Multilayered airtight bags. <b>T2-</b> Farmers practice <b>T3-</b> Without treatment	10	10	Ongoing	Ongoing	-	-	-	-	-	-	-	-	-	-	-	-

**(v) Farm Implements and Machinery**

Sl. No.	Name of implement	Crop	Name of Technology demonstrated	No. of farmers	Area (In ha.)	Field observation (Output/ man-hours)		% change in the parameter	Labour reduction (Man days)	Cost reduction (Rs. per ha. or Rs. per unit etc.)	Remarks
						Demo	Check				
-	-	-	-	-	-	-	-	-	-	-	-

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

**3.3. Achievements on Training**

**3.3.1. Farmers and Farm Women in On Campus including Sponsored On Campus Training Programmes**  
 (\*Sp. On means On Campus training programmes sponsored by external agencies)

Thematic area	No. of Courses/ prog			Participants																		Grand Total (x + y)
	On-Campus (1)	Spon On* (2)	Total  (1+2)	General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
				On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a=4+6) (8)	Sp. On (b=5+7) (9)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c=8+10) (12)	Sp. On (d=9+11) (13)	On (4+8) (14)	Sp. On (5+9) (15)	On (6+10) (16)	Sp. On (7+11) (17)	On (x=a+c) (18)	Sp. On (y=b+d) (19)	
I. Crop Production																						
Weed Management																						
Crop Production	3	0	3	115	0	8	0	123	0	0	0	0	0	0	0	115	0	8	0	123	0	123
Resource Conservation Technologies																						
Cropping Systems																						
Crop Diversification																						
Integrated Farming																						
Water management																						
Seed production																						
Nursery management																						
Integrated Crop Management																						
Fodder production																						
Production of organic inputs																						
II. Horticulture																						
a) Vegetable Crops																						











implements																						
Repair and maintenance of farm machinery and implements																						
Small scale processing and value addition																						
Post Harvest Technology																						
<b>VII Plant Protection</b>																						
Integrated Pest Management																						
Integrated Disease Management																						
Bio-control of pests and diseases																						
Production of bio control agents and bio pesticides																						
<b>VIII Fisheries</b>																						
Integrated fish farming																						
Carp breeding and hatchery management																						
Carp fry and fingerling rearing																						
Composite fish culture	1	0	1	0	0	0	0	0	0	27	0	23	0	50	0	27	0	23	0	50	0	50





technologies																						
Nursery management																						
Integrated Farming Systems																						
<b>TOTAL</b>	<b>13</b>	<b>0</b>	<b>13</b>	<b>115</b>	<b>0</b>	<b>157</b>	<b>0</b>	<b>272</b>	<b>0</b>	<b>86</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>146</b>	<b>0</b>	<b>201</b>	<b>0</b>	<b>62</b>	<b>0</b>	<b>418</b>	<b>0</b>	<b>418</b>

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

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																						
Crop Management	9	0	9	60	0	16	0	76	0	125	0	56	0	181	0	185	0	72	0	257	0	254
Resource Conservation Technologies																						
Cropping Systems																						
Crop Diversification																						
Integrated Farming																						
Water management	1	0	1	2	0	23	0	25	0	0	0	0	0	0	0	2	0	23	25	0	25	25
Seed production	1	0	1	0	0	0	0	0	0	9	0	16	0	25	0	9	0	16	25	0	25	25

Nursery management																						
Integrated Crop Management																						
Fodder production	1	0	1	1	0	0	0	1	0	25	0	0	0	25	0	26	0	0	0	26	0	26
Production of organic inputs																						
<b>II. Horticulture</b>																						
<b>a) Vegetable Crops</b>																						
Production of low volume and high value crops																						
Off-season vegetables																						
Production and management	1	-	1	4	-	-	-	4	-	21	-	2	-	21	2	25	-	2	-	27	-	27
Nursery raising																						
Exotic vegetables like Broccoli																						
Export potential vegetables																						
Grading and standardization																						
Organic Cultivation	1	-	1	7	-	6	-	7	6	5	-	7	-	5	7	12	-	13	-	25	-	25
Protective cultivation	1	-	1	-	-	-	-	-	-	15	-	11	-	15	11	15	-	11	-	26	-	26































animals																						
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																						

### 3.3.6. Achievements on Training of Extension Personnel in Off Campus including Sponsored Off Campus Training Programmes

(\*Sp. Off means Off Campus training programmes sponsored by external agencies)

(Sp. Off means On Campus training programmes sponsored by external agencies)																						
Thematic area	No. of Courses/ prog.			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 *	Of f	Sp Off *	Of f	Sp Off *	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	
Productivity enhancement in field crops																						
Integrated Pest Management	1	0	1	0	0	0	0	0	0	20	0	6	0	26	0	20	0	6	0	26	0	26
Bio-control of pests and diseases	1	0	1	16	0	10	0	26	0	2	0	1	0	3	0	18	0	11	0	29	0	29



WTO and IPR issues																						
Management in farm animals																						
Livestock feed and fodder production																						
Household food security																						
Women and Child care	2	0	2	0	0	35	0	35	0	15	0	15	0	0	0	0	0	50	0	50	0	50
Low cost and nutrient efficient diet designing																						
Production and use of organic inputs																						
Gender mainstreaming through SHGs																						
<b>TOTAL</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>26</b>	<b>0</b>	<b>46</b>	<b>0</b>	<b>72</b>	<b>0</b>	<b>89</b>	<b>0</b>	<b>35</b>	<b>0</b>	<b>94</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>81</b>	<b>25</b>	<b>156</b>	<b>25</b>	<b>181</b>

**(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 (Please Specify with amount of fund in Rs.)
					General			SC/ST			Total							
					M	F	T	M	F	T	M	F	T	Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	
value addition	10 <sup>th</sup> july 2018-13 <sup>th</sup> July 2018	4 days	Value addition	4 days vocational training on 'value addition of fabric through embroidery'	-	10	10	-	5	5	-	15	15	Own embroidery unit	1	2	24,000 /- annually	no
Value addition and weaving	23 <sup>rd</sup> august – 25 <sup>th</sup> August 2018	3 days	Value addition and weaving	3 days skill development training on decorative door mate weaving in frame loom	0	0	0	0	15	15	0	15	15	Form SHG and sale carpet in expos and exhibition	1	6	12,000/- annually	No
Processing and value addition	03-12-18 to 08-12-18	6 days	Processing and value addition	Vocational and Skill enhancement training on processing of fruits and vegetables for	-	14	14	-	6	6	-	20	20					

				different value added products														
Vegetable Nursery raising techniques	28-01-19 to 01-02-19	5 days	Nursery raising techniques	Nursery raising techniques of transplanted vegetable crops	4	15	19	1	-	1	5	15	20					
Horticultural Nursery	6 to 9-03-19, 12-03-19	5 days	Horticultural Nursery	Planning, Care and Management of Horticultural Nursery	3	13	16	3	2	5	6	15	21					
Pulses & Oilseed	20.02.19 to 23.02.19	4 days	Seed production	Entrepreneurship development programme through seed production of pulses and oilseed	12	6	18	7	0	7	19	6	25					
Mushroom Production	9-12 October, 2018	4 days	Mushroom Production	Production technology of Oyester Mushroom	13	14	27	4	0	4	17	14	31					
Beekeeping	26-31, March, 19	6 days	Honey production	Honey production technology	16	4	20	2	0	2	18	4	22					
Organic Input	26-31, March, 2019	6 days	Organic input production	Organic input production for entrepreneurship development	0	7	7	0	8	8	0	15	15					

**3.4. Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, Kisan Mela, Exhibition, Diagnostic Visit, etc) during 2018-19**

[illegible]

30.	Mahila Mandal Convener meet															
31.	Farmers visit to KVK		April- March	1115	287	162	449	466	200	666	0	0	0	753	362	1115
32.	Any other - — Celebration of foundation day of KVK, Kokrajhar		May	1	11	10	21	28	12	40	3	0	3	42	22	64
33.	Celebration of World Environment Day		June	1	7	0	7	95	0	95	10	5	15	112	5	117
34.	Webcasting of video conferencing of Hon'ble PM with farmers		June	1	89	5	94	78		78	4	1	5	171	6	177
35.	Celebration of 4th International Day of Yoga		June	1	47	11	58	56	12	68	0	0	0	103	23	126
36.	Animal vaccination camp		February	2	2	0	2	25	16	41	2	0	2	29	16	45
37.	Celebration of National Fish Farmers Day		July	1	1	15	16	18	6	24	0	0	0	19	21	40
38.	Livetelecast of video conferencing of Hon'ble PM with SHGs		July	1	0	29	29	0	36	36	0	0	0	0	65	65
39.	Awareness camp on Post flood agriculture		August	3	57	34	91	3	4	7	1	0	1	61	38	99
40.	Agricultural Work shop on petroleum conservation		October	1	20	1	21	14		14	0	0	0	34	1	35
41.	Organize cleaning streets, drains and back alleys through awareness drives		October	1	11	1	12	2	1	3	0	0	0	13	2	15
42.	Celebration of world food day		October	1	14	5	19	11	11	22	4	1	5	29	17	46
43.	Celebration of vigilance awareness week		October	1	9	4	13	6	5	11	5	1	6	20	10	30
44.	Celebration of Kisan diwas		October	1	0	51	51	0	0	0	0	0	0	0	51	51
45.	Swachhta Pakhwada		November	1	88	60	148	42	25	67	0	0	0	130	85	215
46.	World soil day		December	1	24	7	31	21	10	31	3	1	4	48	18	66
47.	Organisation of District Kisan Mela and Live telecast of PM Kisan Samman Nidhi		February	1	154	33	187	311	149	460	8	1	9	473	183	656
<b>Grand Total</b>				<b>1564</b>	<b>1642</b>	<b>830</b>	<b>2472</b>	<b>2322</b>	<b>1167</b>	<b>3489</b>	<b>64</b>	<b>12</b>	<b>76</b>	<b>4028</b>	<b>2009</b>	<b>6037</b>

### 3.5 Production and supply of Technological products during 2018-19

#### A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
CEREALS	Sali Paddy	Ranjit Sub 1	27.0	-	-	-	-
	Sali Paddy	Bahadur Sub 1	7.5	-	-	-	-
	Sali Paddy	TTB 404	0.6	-	-	-	-
OILSEEDS	Sesamum	Koliabor til	0.45	-	-	-	-
	Niger	NG1	0.123	-	-	-	-
	Toria	TS-67	0.052	-	-	-	-
	Sesamum (CFLD)	Koliabor til	61.0	-	-	-	-
	Rapeseed (CFLD)	TS-67, TS-36, TS-46	270.0	-	-	-	-
	Linseed (CFLD)	Sekhar	70.0	-	-	-	-
PULSES	Blackgram (CFLD)	PU-31	126.0	-	-	-	-
	Lentil (CFLD)	HUL-57	110.0	-	-	-	-
VEGETABLES	-	-	-	-	-	-	-
FLOWER CROPS	-	-	-	-	-	-	-
OTHERS (Fiber crop)	Mesta	HC-583	0.6	-	-	-	-

#### A1. SUMMARY of Production and supply of Seed Materials during 2018-19

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Number of recipient/ beneficiaries		
				General	SC/ST	Total
1	CEREALS	3.51	-	-	-	-
2	OILSEEDS	40.1625	-	-	-	-
3	PULSES	23.6	-	-	-	-
4	VEGETABLES	-	-	-	-	-
5	FLOWER CROPS	-	-	-	-	-
6	OTHERS	0.06	-	-	-	-
<b>TOTAL</b>		<b>67.3325</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</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	Lemon cuttings	Assam lemon	0.00133	-	-	-	-
	Pineapple Sucker	Kew	0.0028	-	-	-	-
Spices	-	-	-	-	-	-	-
Ornamental Plants	-	-	-	-	-	-	-
VEGETABLES	Cabbage	-	0.006	-	-	-	-
	Cauliflower	-	0.005	-	-	-	-
	Chilli	-	0.06	-	-	-	-
	Brinjal	-	0.01	-	-	-	-
	Broccoli	-	0.06	-	-	-	-

Forest Spp.	-	-	-	-	-	-	-
Plantation crops	-	-	-	-	-	-	-
Medicinal plants	-	-	-	-	-	-	-
OTHERS (Pl. Specify)	-	-	-	-	-	-	-

**B1. SUMMARY of Production and supply of Planting Materials (In Lakh) during 2018-19**

Sl. No.	Major group/class	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
				General	SC/ST	Total
1	Fruits	0.00413	-	-	-	-
2	Spices	-	-	-	-	-
3	Ornamental Plants	-	-	-	-	-
4	VEGETABLES	0.141				
5	Forest Spp.	-	-	-	-	-
6	Medicinal plants	-	-	-	-	-
7	Plantation crops	-	-	-	-	-
8	OTHERS (Specify)	-	-	-	-	-
<b>TOTAL</b>		<b>0.14513</b>	-	-	-	-

**C. Production of Bio-Products during 2018-19**

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
BIOAGENTS	-	-	-	-	-	-	-	-
BIOFERTILIZERS	Vermicompost	-	-	1.6	1980.00	3	1	4
BIO PESTICIDES	-	-	-	-	-	-	-	-

**C1. SUMMARY of production of bio-products during 2018-19**

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	-	-	160	1980.00	3	1	4
3	BIO PESTICIDE	-	-	-	-	-	-	-
<b>TOTAL</b>		-	-	160	1980	3	1	4

**D. Production of livestock during 2018-19**

Sl. No.	Type of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		
			(Nos)	Kgs		General	SC/ST	Total
	Cattle/ Dairy	-	-	-	-	-	-	-
	Goat	Sirohi	2 no's	-	9500.00	-	1	1
	Piggery	-	-	-	-	-	-	-

	<b>Poultry</b>	<b>Kamrupa</b>	<b>261 no's egg</b>	<b>22.32 kg meat</b>	<b>9210.00</b>	-	-	-
	<b>Fisheries</b>	-	-	-	-	-	-	-
	<b>Others (Specify)</b>	-	-	-	-	-	-	-

#### D1. SUMMARY of production of livestock during 2018-19

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	<b>Sirohi</b>	<b>2 no's</b>	-	<b>9500.00</b>	-	<b>1</b>	<b>1</b>
3	POULTRY	<b>Kamrupa</b>	<b>261</b>	<b>22.32</b>	<b>9210.00</b>	-	-	-
4.	PIGGERY	-	-	-	-	-	-	-
5	FISHERIES	-	-	-	-	-	-	-
6	OTHERS (Pl. specify)	-	-	-	-	-	-	-
	<b>TOTAL</b>	-	<b>263</b>	<b>22.32</b>	<b>18710.00</b>	-	<b>1</b>	-

#### 3.6. Literature Developed/Published (with full title, author & reference) during 2018-19

(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	-	-	-
Technical Report	-	-	-
1.			
2.			
3.			
Book/ Book Chapter	-	-	-
Popular articles	-	-	-
Technical bulletins	-	-	-
Extension bulletins	-	-	-
Newsletter	-	-	-
Conference/ workshop proceedings	-	-	-
Leaflets/folders	-	-	-
e-publications	-	-	-
Any other (Pl. specify)	-	-	-
<b>TOTAL</b>	-	-	-

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

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number produced
1	-	-	-

**3.7. Success stories on horizontal spread of the technologies/Case studies, if****Success stories on horizontal spread of the technologies/Case studies,**

Model farmer – Shri. Bipul Brahma

Shri. Bipul Brahma, 41 Years of age, S/o LT. U.N.BRAHMA, of village BAGANSALI WARD NO 7 under Kokrajhar Dev. Block in Kokrajhar district is a entrepreneur who not only does farming but also encourage the nearby farmers to adopt organic farming. He belonged to a farming community. From his childhood he was interested in innovative farming activities with locally available materials both as fertilizer and pesticide. Slowly and slowly he learned all the agricultural practices and purchased his own cultivated land nearby National Highway 31 at New Balajan. From villagers and other governmental officials he heard about the activities of Krishi Vigyan Kendra, Kokrajhar and came in contact with KVK in the year 2015. He attended many training programmes organized by Krishi Vigyan Kendra, Kokrajhar and other line departments for the improved practices of agriculture and allied areas. Some of his Innovative model are as under :

Control of Leaf curl in Chilli: Allowing neem leaf powder and fish excreta along with combination of 5 (five) indigenous herbs to decompose and thereafter spraying the extract at certain dose satisfactorily control white fly and aphid in chilli and beans.

Mulching with *Khasi* weed: Farmer used the locally available weed as mulch in pointed gourd due to its property of slow decomposing and preventing runners from erupting roots and thus directing the every to the growing fruits.

Taking the horrible incidence of burning inspiration to the farmer while spraying an insecticide at own tea garden he explored the traditional and indigenous crop protection methods and prepared the solution which is being used in his vegetable crop field and field crop.

Using *Hasif bipang* (the local broom shrubs) as supporting agent in tomato crop has been found very effective and cost efficient.

Using waste concrete in agriculture: The farmer used the thrown away concrete besides the highway in his crop field in shielding the raised bed and thus conserving the moisture and retaining the bed.

The farmer adopted the natural mulching with paddy straw. Thereafter he added dried and decomposed easily available water hyacinth during winter and added to potato crop. He observed higher yield, better water conservation, control of different diseases to a large extent and most importantly there is no need of earthing up. The farmer is of the opinion that one tonne lorry of dried water hyacinth can cover two bighas (0.27 ha) of potato crop. He also observed that soil become very conducive for next crop. Preservation of indigenous rice seeds which are fast depleting among the farming community. To this end the farmer started growing the low yielding high market value crop in his ancestral land in the first phase and then motivated the farming community in the remote villages of Lankhapara, Sonapara, No 2 Lankhapara, Maldangpara, Bhuraguri etc under Audhang area under NABARD project (Sanction no – NB(Assam)/2231/Orai Swmkhwr/FSPF/2016-17 dated 22nd June, 2016 for “Project on Market led

traditional Scented varieties of rice"). The rare scented rice varieties Damua, Gadra, Pulpakhri, Nagri, Malsira, Jusa Gwsawm, Jusa Daotu, Sando Jwsa were grown under recent scientific techniques on a community level under supervision of KVK Kokrajhar. Such is the success of the project that now large scale cultivation of these rare paddy varieties is grown by the farmers with huge market demand.

To conserve the traditional and indigenous pulse crop a project was proposed and sanctioned by NABARD (Sanction no - NB(Assam)/6478/Orai Swmkhwr/FSPF/2016-17 dated 12th January, 2017 for "Project on Promotion of organic and scientific cultivation of local pulses" where in the farmer was the leader in mobilizing the farming community in taking up the incentive in growing the local varieties for better crop production and conservation of the varieties. In potato crop adding neem leaves powder, decayed water hyacinth, ash and two indigenous herbs to vermicompost gave excellent results both in terms of fertigation and pest management. Adding Gou mutra to vermicompost where nitrogen requirement is high beneficial in vegetable crops.

He frequently visited KVK, Kokrajhar as KVK office as and whenever possible. Subsequently from 2016 till date, many OFTs and FLDs in various discipline including CFLDs were taken up in his farm by KVK, Kokrajhar. Getting himself well trained, he started integrated farming in his land and shifted completely to scientific organic farming while supporting local varieties and processes.

Particulars	Area (Bigha)	Total Cost (Rs.)	Production (Qt)	Income (Rs.)	Profit (Rs.)
<b>1. Field Crop</b>					
a) Rice (Local scented varieties)	25 (In collaboration with other farmers in their lands)	45000/-	65	250000.00 (Market price of scented rice is Rs.50/kg atleast)	200000.00
b) Blackgram (Local)	6	16000/-	10	64,000.00	58,000.00
<b>2. Vegetables (All local varieties)</b>					
a) Brinjal	0.5	3,000/-	9	40,000.00	36,000.00
b) Chilli	0.25	6,000/-	5	42,000.00	36,000.00
c) Tomato	0.5	12,000/-	40	80,000.00	68,000.00
d) Okra	0.25	3000/-	2	15,000.00	12,000.00
e) Bittergourd	0.5	5000/-	5	30,000.00	25,000.00
f) Potato	2.0	8000/-	16	32000.00	24,000.00
g) Colocasia	0.5	5000/-	10	40,000.00	35,000.00
h) Melon	0.5	5000/-	10	40,000.00	35,000.00
<b>3. Fruit Crop</b>					
a) Banana	0.1	6,000/-	40	40,000.00	34,000.00
b) Papaya	0.2	10,000/-	10	40,000.00	30,000.00
c) Litchi, Guava, etc	1	2000-3000	-	20,000.00	15,000.00
<b>4. Live stock</b>					
a) Poultry birds (Local)	200 birds	6000/-	-	55,000.00	50,000.00
b) Ducks	100 birds	2000/-	-	50,000.00	48,000.00
<b>Total</b>					<b>7,06,000.00</b>

Shri. Bipul Brahma is now a very popular progressive farmer and an entrepreneur in Karigaon area of Kokrajhar District. He has received many helps from the Dept. of Agriculture, Kokrajhar in the form of inputs for increasing his agricultural production.

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

- i) Hanging of matured tomato with stalk for increasing shelf life
- ii) Developed a low cost farmer friendly precise light trap that do not require wires
- iii) Introduced Kadaknath chicken breed in backyard rearing which has satisfactory growth with quality meat

### 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
1	Paddy/ Maize	GANGSW DABALA- A locally available grass Insect controlled: - Cricket damaging different crop. Method of Application: - Mature/young leaves are grinded/mixed in jaggary (Gur) and placed as trap	Field Cricket
2	Paddy/Maize/ Potato etc	Ooaa Kol (Bamboo trap) It is an indigenous trap used against rodents in Kokrajhar district. The trap is placed in front of rodent hole or ways frequented by rodent. Advantages of the device - Eco friendly rodent control device, Economical and helps reduction of chemicals, Made to locally available bamboo,	Rodent management

### 3.10 Indicate the specific training need analysis tools/methodology followed

- i. PRA techniques,
- ii. SAC meeting,
- iii. ZREAC meeting,
- iv. Interaction with extension functionaries, Farmers organization, NGOs, SHGs etc
- v. Pre & post training evaluation through questionnaires, schedule etc.

### 3.11 Field activities

- i. Number of villages adopted: 7
- ii. No. of farm families selected: 350
- iii. No. of survey/PRA conducted: 1

### 3.12. Activities of Soil and Water Testing

- Status of establishment of Lab : Working
1. Year of establishment : 2009
  2. List of equipments purchased with amount :

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1	-	2 nos	Nagarjuna Agro Chemical Pvt. Ltd, Hyderabad	2 nos	180,600.00
Total			2 nos	180,600.00	

### 3. Details of samples analyzed (2018-19):

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount ( In Rupees) realized
Soil Samples	-	-	-	-
Water Samples	-	-	-	-
Plant Samples	-	-	-	-
Petiole Samples	-	-	-	-
Total	-	-	-	-

#### 4. Details of Soil Health Cards (SHCs) (2018-19)

- No. of SHCs prepared: Nil
- No. of farmers to whom SHCs were distributed: Nil
- Name of the Major and Minor nutrients analysed: Nil
- No. of villages covered: Nil
- 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	49	59143	14	16898	20	24140	-	-	-	-	2	2414	85	102595
Voice only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Voice and Text both	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	49	59143	14	16898	20	24140	-	-	-	-	2	2414	85	102595

### 3.14 Contingency planning for 2018-19

#### 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
Flood	Introduction of new short duration and flood tolerant variety or crop	1	-	5	5
	Awareness programme on contingency measures in flood & draught affected area	4 no's	97	70	167
Epidemic disease appearance	Awareness programme on management of Ganoderma & Phythophthora disease in Arecanut Orchard	2. no's	22	78	100

**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
Disease Outbreak (Livestock)	200 chicks	4	Health camp :2 Awareness camp:2	Animal: 500 Bird: 500	70	130	200

**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)
Oyster mushroom production technology – scientific chemical less production process.	120 (During different times of the year)	60	Rs.500.00	Rs. 2000.00
Introduction of submergence tolerance rice variety (Ranjit Sub-1)	150	80	Rs.24500.00/ha	Rs. 58500.00/ ha
Introduction of Thailand / apple ber	80	50	Rs. 50000.00/ha	Rs. 300000.00/ha
Introduction of Strawberry	50	60	Rs.40000.00/ ha	Rs. 100000.00/ ha
Keseru plantation as food for eri worm	100	40	Rs. 40000.00/ unit	Rs. 56000.00/ unit
Kamrupa birds	200	40	60 egg/ bird	160 egg/ bird
Rearing of Pig	300	70	8000/pig	12000/pig
Rearing of Duck	80	20	110 egg/duck	180 egg/duck

**4.2. Cases of large scale adoption**

Ranjit sub-1, a submergence tolerance variety of paddy was adopted by farmers of the area based on the performance in experimental field and in farmers' field. The quality of rice is almost similar with Ranjit. The variety can tolerate submergence condition for 10-12 days.

Under animal science Kamrupa birds was adopted by the farmers, popularized in FLD programmes. The eggs are used by the nearby farmers for hatching purpose.

Cross bred ghungroo pig popularized under the programme TSP with establishing demonstration unit on breeding & fattening unit.

Eri culture has been adopted by the farmers for raising farm income through improved eri culture which has been popularized through training, demonstration and improved eri food plant cultivation.

**4.3 Details of impact analysis of KVK activities carried out during the reporting period****Technological benefits:**

i) Crop Area: Due to late harvest of sali paddy farmers generally avoid growing toria. TS-67 cultivar of toria is boon to those farmers. The crop yield is at par with other early sown varieties. This helps in increasing area under double cropping. It was mainly due to the training programme, FLD programme undertaken in the farmers field by KVK Kokrajhar.

ii) Livestock : The number of improved breed of livestock mainly poultry, piggery increased over the time.

Sl. No.	Items	Breeds introduced	No. of farmer benefitted
1.	Poultry	Kamrupa, Kadaknath	30
2.	Pig	Hampshire & Ghungroo	70

- iii) Use of farm machinery & tool: Use of farm machinery and tool were markedly influenced by the various interventions taken up by KVK, Kokrajhar
- iv) Changes in Production and productivity: Both production and productivity markedly influenced by the introduction of various HYV of paddy, oilseeds, pulses & vegetables. The productivity of rice was increased by 35 percent which was realized after the large block demonstration in rice.
- v) Organic cultivation: Area under organic production of fruits, vegetables, spices etc. have remarkably increased during the period due to increase in awareness of the farmers through various KVK activities like training, demonstration, group discussion etc..Organic demonstration plot is demarcated at KVK farm and production technology of tomato was demonstrated.

## 5.0. LINKAGES ESTABLISHED

### 5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
1. Department of Agriculture, Kokrajhar	Training, Diagnostics visit, Reviewing departmental projects, Beneficiary selection
2. Department of AH & Vety., Kokrajhar	Training organization, selection of cluster of farmers
3. Dept. of Fishery, Kokrajhar	Training, Diagnostics visit, Reviewing departmental projects, Beneficiary selection
4. Department of Soil Conservation, Kokrajhar	Integrated Water shed management Project, Training
5. NABARD, Kokrajhar	Training, Farmers group formation
6. SIRD, Assam	Backyard rearing of Chara Chembelli ducks for women empowerment, Exposure visit
7. UCO Bank, Kokrajhar	Lead bank activities related to farmers.
8. Green leaf NGO	Livelihood promotion through turmeric cultivation
9. LWS, Gossaigaon	Resource person
10. NERSWN, Kokrajhar	Guidance, resource person, preparation of work plan
11. Socio Economic Development, Haraputa	Guidance, resource person, preparation of work plan
12. UCORSETTI, Kokrajhar	Action plan formulation resource person
13. ATMA, Kokrajhar	Action plan formulation resource person
14. Department of Sericulture, Kokrajhar	Training organization, selection of cluster of farmers
15. Department of Agricultural Engineering, Kokrajhar	Reviewing departmental projects, Beneficiary selection
16. District Rural Development Agency (DRDA), Kokrajhar	Reviewing departmental projects, Beneficiary selection
17. Assam State Rural Livelihood Mission, Kokrajhar	Training to their beneficiary
18. District Industries of Commerce Centre (DICC), Kokrajhar	Reviewing departmental projects, Beneficiary selection
19. Bodoland University, Kokrajhar	Mushroom seed

### 5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2018-19

Name of the scheme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
Assam Agribusiness & Rural Transformation Project	Demonstration	2018	DR (Agri) & Head, OPIU, APART	1132987.00
Demonstration & Growth performance of Improved Fish Varieties sponsored by NFDB Hyderabad	Demonstration	2017	NFDB	130800.00
Agricultural Workshop on Conservation on Petroleum Products	Workshop	2018	PCRA	7400.00

Livelihood Security of Tribal Farmer of Kokrajhar district	Demonstration	2017	DR, Agri, AAU	3118848.00
Cluster Front Line Demonstration on Oilseeds & Pulses	Demonstration	2018	ICAR	539509.00
District Kisan Mela	Kisan mela	2019	ICAR	400000.00
World Sparrow Day	Awareness camp	2019	RARS, Lakhimpur	10000.00
FLD on Hybrid Rice	Demonstration	2018	Bayers Bioscin	15260.00
TSP, Veterinary	Demonstration	2018	DR, Vety, AAU	2500000.00

### 5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No

Sl. No.	Programme	Nature of linkage	Remarks
1	Joint field visit – paddy, rapeseed, pulse (Lentil)	Collaborative training programme on scientific production technology, Expert service	Successfully conducted.

### 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 2018-19

### 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	2010	145 sq m	Hampshire & T & D	Pig	-		-	
2.	Poultry	2010	45 sq m	Kamrupa					
3.	Goat	2010	-	Bettle cross	Goat	2		9500.00	
4.	Vermicomposting	2010	50 sq m		Vermicompost	160 kg		1980.00	
5.	Rice fish vegetable	2010	224 r m						

## 6.2 Performance of instructional farm (Crops) including seed production

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									
Rice	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-	-
Any other	-	-	-	-	-	-	-	-	-
Pulses									
Green gram	-	-	-	-	-	-	-	-	-
Black gram	-	-	-	-	-	-	-	-	-
Arhar	-	-	-	-	-	-	-	-	-
Lentil	-	-	-	-	-	-	-	-	-
Ay other	-	-	-	-	-	-	-	-	-
Oilseeds									
Mustard	-	-	-	-	-	-	-	-	-
Soy bean	-	-	-	-	-	-	-	-	-
Groundnut	-	-	-	-	-	-	-	-	-
Any other	-	-	-	-	-	-	-	-	-
Fibers									
i.	-	-	-	-	-	-	-	-	-
ii.	-	-	-	-	-	-	-	-	-
Spices & Plantation crops									
i.	-	-	-	-	-	-	-	-	-
ii.	-	-	-	-	-	-	-	-	-
Floriculture									
i.	-	-	-	-	-	-	-	-	-
ii.	-	-	-	-	-	-	-	-	-
Fruits									
i.	-	-	-	-	-	-	-	-	-
ii.	-	-	-	-	-	-	-	-	-
Vegetables									
i.	-	-	-	-	-	-	-	-	-
ii.	-	-	-	-	-	-	-	-	-
a. Others (specify)									
i.	-	-	-	-	-	-	-	-	-
ii.	-	-	-	-	-	-	-	-	-

## 6.3 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	
-	-	-	-	-	-
-	-	-	-	-	-

#### 6.4 Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed/ species	Type of Produce	Qty.	Cost of inputs	Gross income	
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

#### 6.5 Rainwater Harvesting

##### Training programmes conducted by using Rainwater Harvesting Demonstration Unit

Date	Title of the training course	Client (PF/RV/EF)	No. of Courses	No. of Participants including SC/ST			No. of SC/ST Participants		
				Male	Female	Total	Male	Female	Total
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

#### 6.6. Utilization of hostel facilities (Month-Wise) during 2018-19

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>	-	-	-	-	-

### 7. FINANCIAL PERFORMANCE

#### 7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch	Account Number
With Host Institute			
With KVK	SBI	Gossaigaon	11378641024
Revolving Fund	SBI	Gossaigaon	11378660228

#### 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 2018 -19**

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	11000000	8677964.00	8677964.00
2	<b>Traveling allowances</b>	200000.00	105825.00	105825.00
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)	1650000.00	1610840.00	1610840.00
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>1650000.00</b>	<b>1610840.00</b>	<b>1610840.00</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>			<b>10394629.00</b>	<b>10394629.00</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 2015 to March 2016	124128	283436	172741	234823
April 2016 to March 2017	234823	255375	190342	299856
April 2017 to March 2018	299856	411921.44	258313.65	453463.79

**8.0 Please include information which has not been reflected above.****8.1 Constraints**

<b>(a) Administrative</b>
1. Manpower Shortage –The post of Programme Assistant, Grade IV is vacant
2. Farmers hostel, staff quarter are required
<b>(b) Financial</b>
1. Timely release of fund for smooth functioning of KVK,. CFLD fund may be released well advance
<b>(c) Technical</b>
1. Library facility in KVK of far-flung areas from may be upgraded to state of art standard.
2. Supporting technical staff is deeply felt

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