ANNUAL PROGRESS REPORT

2013-14

Krishi Vigyan Kedra, Jorhat
Assam Agricultural University
Teok-785112

PROFORMA FOR ANNUAL REPORT OF KVKS, 2013-14

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
KVK, Jorhat	Office	FAX	**kvkjorhat@ymail.com; kvkjorhat2@gmail.com**

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

Address	Telephone		E mail
	Office	FAX	
Assam Agricultural University, Jorhat			kvkaau@gmail.com

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

Name	Telephone / Contact		
Dr. Rupam Borgohain	Residence	Mobile	Email
		9435352939	**borgohainrupam@yahoo.co.in**

1.4. Year of sanction: 2006

1.5. Staff Position **(As on 31st March, 2014)**

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/
1	Programme Coordinator	Dr. Rupam Borgohain	Prog. Coordinator	Plant Breeding and Genetics	37400 – 67000 (GP-10000)	64750	24.12.2009	Permanent	OBC
2	Subject Matter Specialist	Ms.Rumjhum Phukan	SMS	Plant Breeding and Genetics	15600 – 39000(GP-6000)	25050	10.08.2011	Permanent	Others
3	Subject Matter Specialist	Mr. Sanjib Ranjan Borah	SMS	Soil Science	15600 – 39000 (GP-7000)	33160	05.02.2014	Permanent	OBC
4	Subject Matter Specialist	Ms. Mousumi Phukon	SMS	Entomology	15600 – 39000(GP-6000)	24320	25.11.2009	Permanent	OBC
5	Subject Matter Specialist	Dr. Pankaj Deka	SMS	Animal Science	15600 – 39000(GP-6000)	22920	02.08.2011	Permanent	Others
6	Subject Matter Specialist	Ms. Ira Sarma	SMS	Horticulture	15600 – 39000(GP-6000)	22920	05.08.2011	Permanent	Others
7	Subject Matter Specialist	Ms. Binapani Deka	SMS	Home Science	15600 – 39000	21000	04.02.2014	Permanent	Others

8	Computer Programmer	Mr. Shantanu Saikia	Prog. Assistant (Computer)	Computer Science	8000 – 35000(GP-4900)	17300	08.11.08	Permanent	Others
9	Farm Manager	Mr. Manab Bikas Gogoi	Farm Manager	Biotechnology	8000 – 35000 (GP-4900)	13690	14.10.2011	Permanent	OBC
10	Superintendent/ Accountant	Mr. Dibyajyoti Bharali	Accountant cum Office Superintendent	NA	8000 - 35000(GP-4900)	13290	21.02.2012	Permanent	SC
11	Stenographer	Mr. Biman Jyoti Phukan	Stenographer cum Computer Operator	NA	8000 – 35000(GP-3300)	8760	18-2-2012	Permanent	OBC
12	Driver	Mr. Pankaj Borah	Driver	NA	5200-20200(GP-2500)	7940	21.02.2012	Permanent	OBC
13	Driver	Mr. Haren Barhoi	Driver	NA	5200-20200(GP-2500)	7940	21.02.2012	Permanent	OBC
14	Supporting staff	Mr. Putul Borah	Peon	NA	5200-20200(GP-2200)	12450	11.12.2007	Permanent	Others
15	Supporting staff	Mr. Krishna Sarma	Peon	NA	5200-20200(GP-2100)	9720	01.12.2007	Permanent	Others

1.6. a. Total land with KVK (in ha) :11.93

b. Total cultivable land with KVK (in ha) : 8.43

c. Total cultivated land (in ha) : 5.30

Sl. No.	**Item**	**Area (ha)**
1	Under Buildings	1.20
2.	Under Demonstration Units	1.00 (RKVY)
3.	Under Crops (Cereals, pulses, oilseeds etc.)	5.04
4.	Under vegetables	0.26
5.	Orchard/Agro-forestry	2.13
6.	Others (specify)	2.30

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.	Administrative Building	ICAR	30.09.2009	547 .00	42,33,000.00	-	-	-
2.	Farmers Hostel	ICAR	10-2-2012	311.50	17,12,249.00 (Total value 24 lakhs)	-	-	-
3.	Staff Quarters (6)	-	-	-	-	-	-	-
	a. PC quarter (1)	ICAR	30.09.09	108.47	8,24,177	-	-	-
	b. SMS quarters (2)	ICAR	06.03.09	76.65 x 2	11,83,565	-	-	-
	c. Farm manager & Pas quarter (2)	ICAR	30.09.09	96.90	7,73,824	-	-	-
	d. Supporting Staff quarters (1)	ICAR	06.05.09	37.80	3,14,300	-	-	-

4.	Demonstration Units (2)							
	1. Cattle shed	RKVY	2010	36.45	2,33,972.00	-	-	-
	2. Vermicompost unit	RKVY	2010	46.80	1,41,774.00	-	-	-
	3. Mushroom Unit	RKVY	2010	27.00	1,99,515.00	-	-	-
	4. Poultry Shed	RKVY	2011	44.40	3,41,368.00	-	-	-
	5. Goattery unit	RKVY	2011	34.20	2,49,305.00	-	-	-
	6. Implement shed	RKVY	2010	170.00	9,40,866.00	-	-	-
	7. Piggery unit	RKVY	2010	41.04	2,80,000.00	-	-	-
	8. Demonstration unit (Display unit)	RKVY	2011	93.50	7,74,700.00	-	-	-
	9. Fertilizer godown	RKVY	2011	22.79	1,63,000.00	-	-	-
	10. Rice- Fish-Vegetable Unit	RKVY	2011	5332 (4 bighas)	2,00,000.00	-	-	-
	11. Fish pond	RKVY	2010	50m x 20m	68,533.00	-	-	-
	12. Deep tube well with distribution line	RKVY	2011	287.60 running m.	4,10,509.00	-	-	-
	13. Green House	ICAR	2011	10m x 8m	5,00,000.00	-	-	-

	14. Automatic Weather Station	RKVY	2011	3m X 3m	45,000.00	-	-	-
	15. Azolla production unit	RKVY	2012	9.9m X 5.5m	2,72,000.00	-	-	-
	16. Compost production Unit	RKVY	2012	9.6m X 5m	2,20,000.00	-	-	-
5	Fencing	ICAR	2012	800RM	15,00,000	-	-	-
		RKVY	2012	980RM	9,00,562.00	-	-	-

B) Vehicles

Type of vehicle	**Year of purchase**	**Cost (Rs.)**	**Total kms. Run**	**Present status**
Jeep	2008(ICAR)	5,00,000.00	90380	Running condition
Tractor	2010(RKVY)	4,59,301.00		Running condition
Power tiller (2nos)	2008(RKVY)	1,36,511.00		Running condition
Rice transplanter	2010(RKVY)	1,88,198.00		Running condition

C) Equipments & AV aids

Sl. No.	Name of the equipment	Source of Fund	Year of purchase	Cost (Rs.)	Present status
1	Desktop Computer	ICAR	2007	32,000.00	Working
2	UPS	ICAR	2007	6,930.00	Working
3	Ledger Printer	ICAR	2007	7,571.00	Working
4	Xerox (1)	ICAR	2010	1,01,920.00	Working
5	LCD Projector (1)	ICAR	2010	98,000.00	Working
6	Digital Camera (1)	ICAR	2010	19,000.00	Working
7	Computer (2)	ICAR	2010	55,094.00	Working
8	Laser printer (1)	ICAR	2010	5,475.00	Working
9	UPS (2)	ICAR	2010	16,474.00	Working
10	Scanner (1)	ICAR	2010	2,724.00	Working
11	Fax (1)	ICAR	2010	15,190.00	Working
12	Trailer capacity 1.5 tone	RKVY	2008	-	Working
13	Dugged Wheel for 13 HP	RKVY	2008	-	Working
14	Hitch braket with pine set for 13 HP VST Tiller	RKVY	2008	-	Working
15	Five Tyne cultivator for 13 HP VST Sakti power Tiller	RKVY	2008	-	Working

16	Tail wheel float for 13 HP VST power tiller	RKVY	2008	-	Working
17	Wheel Changer for BHP VST Power tiller	RKVY	2008	-	Working
18	Two share MB plough to be fitted with 13 HP VST Sakti power tiller	RKVY	2008	-	Working
19	Handle weight Assembly for 13 HP power tiller	RKVY	2008	-	Working
20	Short rotary for power tiller	RKVY	2008	-	Working
21	Extension lagged wheel for power tiller	RKVY	2008	-	Working
22	Straight blade 18 Nos	RKVY	2008	-	Working
23	Water pump with accessory-suction pipe & head	RKVY	2008	-	Working
24	Legged wheel carrier for power tiller	RKVY	2008	-	Working
25	Motorized knapsack sprayer with 1.2 HP petrol/kerosine engine	RKVY	2008	-	Working
26	Mechanized brush cutter	RKVY	2008	-	Working
27	Model –sparta-37 petrol	RKVY	2008	-	Working
28	driven 2 stroke engine	RKVY	2008	-	Working
29	Multi purpose power	RKVY	2008	-	Working
30	weeder, Model –APW-43	RKVY	2008	-	Working
31	2-stroke engine	RKVY	2008		Working

32	Sealing machine(8”) (1.5 x 3) mm sealing width option.	RKVY	2012	-	Working
33	Earth augar, Model –MTL-51	RKVY	2008	45,967.00	Working
34	Post hole Digger accessories.				
	i. Auger for digger(6”)	RKVY	2011	3,308.00	Working
	ii. Auger for digger(12”)	RKVY	2011	5,513.00	Working
	iii. Auger for digger(18”)	RKVY	2011	9,371.00	Working
	iv. Auger for digger(24”)	RKVY	2011	13,892.00	Working
35	Eight Row self propel rice transplanter	RKVY	2008	-	Working
36	Drag Net (Double knotted 100% nylon machine made)	RKVY	2008	-	Working
37	Fingering catching net(Knotless 100% nylone	RKVY	2008	-	Working
38	Ti -9 tine spring loaded Tiller	RKVY	2008	-	Working
39	Greaves pump set GSP-80B,Engine No- TKG 6748998 pump no-1798	RKVY	2008	-	Working
40	Chaff Cutter (J) No. Blade – 2	RKVY	2008	-	Working
41	T I plogh -2 disc (J)	RKVY	2008	-	Working
42	T I Disc Harrow (12 disc) (J)	RKVY	2008	-	Working
43	Lagged wheel	RKVY	2008	-	Working

44	Tail wheel Float	RKVY	2008	-	Working
45	Wheel changer	RKVY	2008	-	Working
46	Hitch bracket	RKVY	2008		Working
47	Rotavator, 25-35 and 35-50 HP tractor drawn	RKVY	2008	-	Working
48	Puddler	RKVY	2008	-	Working
49	Power paddy weeder	RKVY	2008	-	Working
50	Seed cleaner Model PC-2	RKVY	2008	-	Working
51	Power sprayer	RKVY	2008	-	Working
52	Knapsack mist blower cum duster	RKVY	2008	-	Working
53	Autoclave: Table top	RKVY	2011	8,810.00	Working
54	Autoclave vertical, media make, Model-7440RAD, Size-40x60 cm	RKVY	2011	93,638.00	Working
55	Horizontal Laminar air flow, Make-Rescolar, Model-RH58-7, Size-120 x 60 x 60 cm	RKVY	2011	57,930.00	Working
56	Hot air Oven (600x600x600) mm	RKVY	2011	36,888.00	Working
57	Portable Ph meter with 4 digit LCD display	RKVY	2011	2,270.00	Working
58	B.O.D Incubator(Low temp.) capacity -171 lt.	RKVY	2011	1,22,131.00	Working
59	Spirit lamp(Brass)	RKVY	2011	280.00	Working
60	Wheel burrow (wheels made of cast iron with solid rubber ring)	RKVY	2011	5,175.00	Working

1.8. A). Details SAC meeting* conducted in the year 2013-14

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1.	01.03.14	1. Dr Ajay Kumar Gogoi, Zonal Project Director, Zone- III, ICAR Research Complex for N E Region, Umiam, Barapani, Meghalaya 2. Dr. K. Giridhar, Director, Central Eri-Muga Research and Training Institute, Lahdoigarh, Jorhat 3. Dr. R. K. Saud, ADEE (P & I), DoEE, AAU, Jorhat 4. DR. P.K. Pathak, ADR (Agri), AAU,	The SAC meeting of Krishi Vigyan Kendra, Jorhat for the year 2013-14 was held at Honourable Vice-Chancellor's Conference Hall on 1st March, 2014. The salient recommendation of Scientific Advisory Committee meeting, 2013-14 of KVK Jorhat is as follows: 1. As suggested by Mr. B. Baruah, Principal, ETC, SIRD, Jorhat one member from Panchayat is to be included in the SAC 2. A project on Peri-urban agriculture to be started for vegetables, piggery and poultry at Allengmora area of Jorhat. 3. As per the suggestion of the Hon'ble Vice Chancellor, AAU good quality piglets of Hampshire	As per the recommendation of the proceedings of Scientific Advisory Committee meeting of KVK Jorhat, held on 22-03-2013 in the conference hall of the Office of the Vice Chancellor, the following actions were undertaken: 1. As per the suggestion of the Hon'ble Vice Chancellor, AAU to initiate action to increase production and productivity of cereals in the district, KVK, Jorhat undertook several OFTs and FLDs in cereal crops particularly in paddy to assess and demonstrate through testing and demonstration of varieties for flood prone situations, introduction of new high yielding varieties, nutrient management, disease and pest management. Moreover, KVK, Jorhat is continuing its flagship 'Technology Showcasing Programme' for last four years and the objective of the programme is to increase the production and productivity of cereal and oilseed crops as well as to produce quality seed in participatory mode. During last year KVK, Jorhat demonstrated improved cultivation practices in paddy(Var Ranjit) in 170ha of farmers' field in the district covering 234 farmers and

		Jorhat 5. Mr. Kalpa Ranjan Gogoi, DAO and i/c Joint Director, Jorhat 6. Mr. Pradip Dutta, Divisional Officer, Soil conservation Div., Jorhat 7. Dr. Rajendra Prasad Shyam, Joint Director cum District Veterinary Officer, Jorhat 8. Mr. Bijoy Kr. Baruah, Principal, ETC, SIRD, Jorhat 9. Dr. Phool Chand Jat, Sr. Scientist (Agro), ZPD, Zone-III, Umiam, Barapani 10. Mr. Mayur Bora, AGM, NABARD, Jorhat 11. Mr. Suryya Kamal	and T &D breed are to be made available from the pig village of Allengmora area under TSP Project for pig rearing farmers of Allengmora and Majuli area of Jorhat District. 4. Project on goat to be started in Kaliapani area of Jorhat 5. Success stories of the farmers of Allengmora area to be published. 6. Training on weaving to be arranged for SHG of Hansara through College of Home Science, AAU, Jorhat 7. Internet connectivity to Rural Knowledge Centre, KVK, Jorhat to be made available. 8. As per suggestion of the Vice-Chancellor, AAU, Jorhat, eggs of Vanaraja from the TSP villages to be collected and hatched at AAU. 9. To file application for patenting of the low cost incubator that has been developed at KVK, Jorhat. 10. Construction of building for	produced 850 MT foundation seed of which 112 MT was brought back from the farmers. This year (2013), under the same programme, the KVK in participatory mood has demonstrated 2. Technology showcasing and FLD programme to increase the production and productivity of cereals in the district. Under Technology Showcasing programme, KVK, Jorhat sold 40 MT certified seed of Ranjit variety in the last year. This year, under the seed production programme, KVK, Jorhat has produced about 850 MT foundation seed of Ranjit variety covering an area of 170 ha. Further, realizing the importance of quality Toria seed and its requirement in Majuli, KVK, Jorhat had implemented technology showcasing programme for the production of Toria seed of variety TS-36,TS-38 and TS-46 continuously for last 3 years. Besides, Toria KVK, Jorhat has also under taken the technology showcasing programme on Pea and Garlic during Rabi 2012-13. 3. As per the of Hon'ble Vice Chancellor's suggestion on popularization of technologies for dry land agriculture in the dry areas, particularly during *rabi* season, KVK, Jorhat has initiatiated programmes like water management in rabi crops, conservation tillage, demonstrations on drip irrigation, use of triddle pump, introduction of less water requiring crops like *lathyrus* etc. KVK, Jorhat has also constructed several water harvesting tanks using 250µ LDPE plastic pond lining at Mariani. Under the a demonstration programme on "Multiple use of water", bunds were constructed to harvest the run of water from

		Bora, Assistant Project Officer, DRDA, Jorhat 12. Dr.(Mrs) Utpalla Goswami, Sr. Extension Specialist, DoEE, AAU, Jorhat 13. Dr. Mohan K. Sharma, Sr. Extension Specialist, DoEE, AAU, Jorhat 14. Dr. Jogesh Goswami, Sr. Extension Specialist, DoEE, AAU, Jorhat 15. Mr. Rajen Chandra Hazarika, Assistant Manager, DICC, Jorhat 16. Ms. Purabi Handique, Sericulture Inspector, O/o Asstt. Director of	poultry brooding unit at KVK, Jorhat 11. To arrange a mega programme for creating awareness on PVP & FR during May,2014 12. The Hon'ble Vice-Chancellor, AAU, Jorhat will take up the matter on controlling pest & disease problem of Bhut Jolokia with Deptt. of Bio- Technology, AAU, Jorhat. 13. Introduction of new crop strawberry at KVK farm, Kaliapani 14. To arrange awareness programme on use of fertilizer and plant protection chemical.	hilly streams and a model of Integrated Farming System comprising crop-fish-duck component was developed successfully. 4. Hon'ble Vice Chancellor, AAU, Jorhat also advised the State Department of Veterinary to develop a beetle farm for kid production. In this regard, KVK, Jorhat has introduced beetle buck and doe from GRS, Burnihut, for production of improved kids in KVK demonstration unit. Presently, farmers of adjacent villages of KVK, Jorhat have been benefited by crossing local goats with beetle buck under the breed upgradation programme. Recently, KVK, Jorhat also adopted the newly developed AI technology for goat. KVK in collaboration of the Veterinary Department has set up 3 AI centers in the district and providing AI service with Beetle buck semen. More than 200 AI has already been completed and the success rate is around 56%. 5. As per the Vice Chancellor's suggestion to popularize Pheromone Trap particularly against brinjal fruit and shoot borer steps has been initiated in farmers' fields of the district. Few FLDs has been conducted to popularize the pheromone trap technology among the farmers. The technology is also demonstrated in paddy field against rice stem borer. 6. As per the advice of Hon'ble Vice Chancellor, the riverine fisheries management can't be done through limited fund provision of KVK. However, several attempts has been made in homestead pond management so as to increase fish production.

		Sericulture, Jorhat 17. Mr. Dhanjit Das, Fishery Extension Officer, Deptt. Of Fishery, Jorhat 18. Mr. Biswajit Das, Programme Executive, AIR, Jorhat 19. Mr. Ranjan Kr. Bhattacharyya, Functional Manager, Representative of GM, DICC, Jorhat 20. Mr. Jayram Baruah, ACF, DFO office, Jorhat 21. Dr. R. Borgohain, Programme Coordinator, KVK, AAU, Jorhat 22. Mr. Atul Missong, Progressive Farmer, Allengmora 23. Mr. Rajib Morang, Progressive Farmer,		7. Hon'ble Vice Chancellor, AAU, Jorhat and then DEE, Dr. B.C. Bhowmick urged for spread of improved backyard poultry in Jorhat district. In this context, Krishi Vigyan Kendra, Jorhat has planned to introduce a new improved variety suitable for backyard poultry to replace existing low productive indigenous bird in the Kaliapani development block**.** KVK, Jorhat has selected Vanaraja, a dual purpose improved variety, developed by PDP, Hyderabad as a need based intervention for tackling the problem with indigenous bird and planned to conduct On Farm Trial and Front Line Demonstration in a village where backyard poultry rearing is a common practice**.** Further, KV**K,** Jorhat introduced the technology for mother unit development to supply one month old Vanaraja bird continuously in the area. Due to better result and return from Vanaraja poultry farming, beneficiaries are showing interest on self propagation of Vanaraja chicks through hatching traditionally with their own local hen and it is helping in horizontal transmission to other villages. Again, under TSP programme on promotion of agriculture centric sustainable livelihood security for tribal farmers of Assam, a total of 2160 numbers of 1 month old Vanaraja birds will be supplied to a cluster of 10 tribal villages of the district to develop backyard poultry farming with improved variety. 8. Hon'ble Vice Chancellor, AAU, Jorhat also stressed on the concept of "Pig Village" and distribution of quality male pigs in community basis. After discussion with the

		Dangdhora 24. Mrs. Anita Gogoi, Progressive Farm Women, Bamunpukhuri 25. Mrs. Nirala Kalita Hazarika, Progressive Farm Women, Kaliapani		Principal Scientist, Mega Seed Project on Pigs, AAU, Khanapara, KVK, Jorhat, have taken OFT on productive and reproductive performance of T&D pigs in Jorhat district. Initially, four first line beneficiaries from four different SHG of different villages of the district were selected and supplied both male and female piglets of T&D breeds for the purpose. It is insisted that the beneficiaries rearing the piglets are exclusively for breeding purpose. They are also advised to upgrade the local pigs of their own village by crossing with T&D boar. A memorandum of understanding was also made for introduction of Pass on Gift Scheme of the programme benefits from first line beneficiaries to another. Further, under TSP programme on promotion of agriculture centric sustainable livelihood security for tribal farmers of Assam, 10 breeding unit in 10 different villages of tribal community will be developed to produce quality piglet for the development of pig farming in the district. Also, 90 pig fattening unit will be developed in the same tribal villages to meet the demand of pork and empower tribal farming community in the district. In this programme, KVK, Jorhat will again introduce the concept of ceremonial handling of project benefits from first line beneficiaries to other down line beneficiaries. Besides, need based training, breed and feed improvement, KVK, Jorhat have initiated the concept of disease management through community- based veterinary first aid services. To design this approach, help of the line deptt. will be taken. 9. As per the advice of then DEE, KVK, Jorhat has been

				actively communicating with line departments in the mandatory activities of KVK, Jorhat.

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

2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1.	Agri – Horti – Animal husbandry – Fishery
2.	Agri – Horti – Animal husbandry
3.	Agri – Horti – Fishery
4.	Agri – Horti

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

S. No	Agro-climatic Zone	Characteristics
1.	Upper Brahmaputra Valley Zone	The Upper Brahmaputra Valley Agro-climatic Zone is characterized by the existence of hills, high land, plain land and char areas. Soils of this zone consist of mostly recent immature alluvium in char areas to mature ultisol in the piedmont, high land and hilly areas in the southern part. These soils fall under Entisol order. Annual rainfall varies from 1,200 mm to 2,400 mm. The temperature of the zone varies from a maximum of 37°C to a minimum of 7°C on an average. The zone, however, shows considerable variation in physiography, climate, soil, flood proneness, socioeconomic condition and cropping patters. Based on these parameters, the zone is further classified into eight Agro-Ecological Situations. Out of them six exist in the district and out of them two are related with forest and tea growing areas.

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Sandy	Contains sand separates 70% or more of the material by weight	15169
2.	Sandy loam	Exhibits property in between sandy and loam and contains more sand separates than loam	89070
3.	Loam	Contains a mixture of sand, silt and clay particles which exhibit light and heavy properties in about equal proportion	12491
4.	Silty clay loam	Contains more silt and clay than loam	23545
5.	Clay	Contains atleast 35% of clay separates and in most cases not less than 40%	12626

Source: Department of Agriculture, Jorhat

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

S. No.	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Autumn paddy	6450.00	161300.00	25.00
2.	Winter paddy	83100.00	2492900.00	30.00
3.	Summer paddy	2710.00	56600.00	20.94
4.	Wheat	520.00	600.00	12.00
5.	Black gram	2980.00	17900.00	6.00
6.	Green gram	2070.00	12400.00	6.00
7.	Pea	1050.00	6200.00	5.94
8.	Lentil	520.00	2700.00	5.20

9.	Mustard	9390.00	80000.00	8.50
10.	Sesamum	220.00	1100.00	5.20
11.	Potato	3110.00	298000.00	96.00
12.	Sugarcane	500.00	16700.00	33.75
13.	Ridge gourd	270.00	5000.00	18.20
14.	Pumpkin	610.00	30200.00	50.00
15.	Kharif vegetables	3600.00	310300.00	86.20
16.	Rabi vegetables	6500.00	429900.00	66.16
17.	Garlic	890.00	53400.00	60.00
18.	Ginger	150.00	7800.00	52.00
19.	Arecanut	3090.00	593200.00	192.00
20.	Banana	3400.00	519400.00	153.00
21.	Assam Lemon	920.00	106200.00	115.40

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April'12	381.8	27.3	19.1	83
May'12	137.2	32.4	22.1	78
June'12	215.9	30.0	25.4	84
July'12	401.3	31.4	25.6	83
August'12	307.8	32.6	25.7	83
September'12	234.8	30.5	24.4	88

October'12	80.6	29.7	20.9	90
November'12	0.0	27.7	15.0	77
December'12	6.8	23.0	11.1	79
January'13	0.5	23.3	8.3	72
February'13	9.3	27.7	12.1	70
March'13	64.8	29.2	16.8	68

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

Category	Population	Production	Productivity
Cattle			
Crossbred	13126	57.70 million lit (Milk)	236 lit/ animal/lactation (Average)
Indigenous	474886		
Buffalo	29845	0.80 Million lit (Milk)	180 lt/lactation/period of average 120 days
Sheep			
Crossbred	-	-	-
Indigenous	330	-	-
Goats	170793	0.425 million kg (Meat)	8 kg/goat

Pigs			
Crossbred	85625	0.25 million kg (Pork)	55 kg./pig (Average)
Indigenous	202797		
Rabbits	-	-	-
Poultry			
Hens			
Desi	444062	51.0 million nos	45 nos/ bird/yr (average)
Improved	12275		150 nos/ bird/ yr (average)
Ducks	190000		45 nos/ bird/yr (average)
Turkey and others			

Source: C-DAP Report 2009-10

Category	**Area**	**Production**	**Productivity**
Fish			
Marine			
Inland	43553.49 ha	10468.68 t	0.24 t/ha
Prawn			
Scampi			
Shrimp			

2.6 Details of Operational area / Villages (2013-14)

Sl. No.	**Taluk**	**Name of the block**	**Name of the village**	**Major crops & enterprises**	**Major problem identified**	**Identified thrust area**
1	Teok	Kaliapani	Boloma Moran Gaon	Vegetables	1. Unawareness about scientific crop production 2. Nematode infestation in cucurbitaceous vegetables 3. Low participation of women in agriculture	1. ICM 2. Processing and value addition 3. Entrepreneurship development 4. Women empowerment 5. IPM
2	Kakojan	Sipahikhola	Fesual - II	Vegetable, Dairy, rice, fishery, duckery	1. Lack of scientific knowledge in crop production especially for vegetables 2. Lack of organized milk market 3. Lack of knowledge about management of group 4. Lack of knowledge and skill on scientific fish rearing	1. ICM and IPM on vegetables 2. Group marketing 3. Integrated livestock production and management 4. Group mobilization 5. Composite fish farming

3	Garmur	Kamalabari, Majuli	Mahkinagaon, Borbari gaon, Bhakat Chapori	Toria, vegetables, sugarcane, rice	1. Lack of HYV of rapeseed 2. Lack of awareness about water management 3. Unorganized market 4. Infestation of white grub in vegetable crops 5. Lack of knowledge about scientific cultivation of kharif pulse and oilseed	1. Introduction of newly released variety 2. Integrated crop management 3. IPM for vegetables 3. Marketing
4	Lahing	Selenghat	Siram Missing gaon	Rice, piggery, poultry	1. Low yield of local rice variety 2. Lack of knowledge about cultivation practices of HYV Sali rice. 3. Problem of water stagnation during planting period 3. Poor growth of pig 4 Incidence of diseases of poultry and pig 5. Lack of knowledge of farm women about livestock management	1. Introduction of HYV of sali rice 2. ICM and IPM 3 Integrated livestock management 4. Integrated poultry management 5. Women empowerment
5	Teok	Sipahikhola	Bailunggaon	Vegetables, rice, tea, poultry, fruits	1. Lack of knowledge on management practices of vegetables 2. Low production of fruits, especially banana 3. Low performance of desi poultry birds	1. ICM and IPM of fruits and vegetables 2. Integrated poultry farming 3. Mobilization of CIG

6	Lahing	Selenghat	Changmaigaon, Adarshagaon	Tea, goatery and poultry	1. Non availability of scented Sali HYV 2. Low production of local scented varieties	1. Introduction of scented HYV of Sali rice
7	Lahing	Selenghat	Haloapathar	Rice, rabi Vegetables, potato	1. Lack of knowledge about scientific cultivation of high value vegetables 2. Non availability of quality seeds and planting material	1. ICM and IPM for high value vegetables 2. Group mobilization 3. Entrepreneurship development
8	Simalugur i	Kaliapani	Dhemajigaon	Rice, Banana, poultry	1. Lack of commercial attitude towards banana cultivation 2. Non availability of quality planting material 3. Low yield of fruit crops 4. High mortality of poultry	1. ICM of fruit crops 2. Production of quality planting material of banana 3. Group mobilization 4. Integrated disease management of poultry
9	Teok	Kaliapani	Kaowimari	Rice, fishery, vegetable, livestock	1. Monocropping 2. Low yield of available rice varieties 3. Lack of scientific knowledge about natural fish farming	1. Group mobilization 2. Wasteland utilization through boro rice cultivation and community fish farming
10	Lahing	Selenghat	Majkuri	Sali rice, vegetable, livestock	1. High incidence of pests and diseases of vegetables 2. Lack of knowledge on judicious application of pesticides 3. Lack of knowledge on scientific cultivation of high value vegetables	1. ICM and IPM of vegetables 2. Production of quality paddy seeds 3. Popularization of high value vegetables

11	Teok	Kaliapani	Narrang pachanigaon	Banana	1. Low productivity, Water scarcity during winter	1. Introduction of integrated crop management
12	Simalugur i	Kaliapani	Kaliapani gohaingaon	Banana	1. Low productivity, Water scarcity during winter	1. Introduction of integrated crop management
13	Simalugur i	Kaliapani	Amtol	Black pepper	1. Lack of quality planting material 2. Low yield	1. Production of quality planting material
14	Bebejia	Titabar	Bor era gaon, Mejenga Grant 1 & 2, Dakhin pat gaon, Silikha Sanatan gaon, Madhapur, Tipumia, Rajabari	Rice	1. Occurrence of severe draught	1. Water management of rice 2. Rain water harvesting
15	Garumara	Dhekergar ah	Ganakbari	Vegetable s, rice	1. Lack of knowledge on water management practices	1. Water management
16	Meleng	Sipahikho la	Sudamoa gaon	Rice, vegetables	1. Low yield of rice 2. Under-utilization of existing fallow lands	1. Crop intensification 2. ICM and IPM of rice 3. Group mobilization

17	Mariani		Kheremiagaon, Danigaon, Bongaon, Bahonigaon, Newsonowal missingaon	Winter and kharif vegegtable, Potato, rapeseed, black peper, banana, goatery, duckery, pine apple	1. Low productivity of traditionl vaiety. 2. Unawareness of scientific production technology 3. Unscientific horticultural pocket. 4. Under utilization of natural resources.	1. Organic vegetable and fruit production. 2. Entrepreneurship development for rural youths and farm women. 3. Integrated Nutrient Management. 4. Increasing crop productivity through scientific management 5. Introduction of improved bred of pig and poultry suitable for backyard rearing. 6. Integrated Pest and Disease management in crop and vegetables.
18	Kamalabari	Majuli Development Block	Mahkinagaon**,** Bhakat chapari, Danigaon, Borbarigaon, Gormur, Kamalabari, Gormur, Aauniati	Sali rice, rapeseed & mustard, rabi vegetables, potato, garlic, apiary piggery, fish production	1. Low crop productivity 2. Unawareness of scientific production technology 3. Pest and disease incidence especially in vegetables 4. Injudicious use of pesticides 5. Traditional low productive pig, duck poultry production. 6. Lack of management of natural depression for fish production	1. Integrated farming systems 2. Entrepreneurship development for rural youths and farm women. 3. Integrated Nutrient Management. 4. Increasing crop productivity through scientific management 5. Integrated livestock production and management 6. Introduction improved bred of pig, duck and poultry suitable for backyard rearing. 7. Integrated Pest and Disease management in crop and vegetables.

19	Fesual	Central Devevelopment Block, Chipahikhola	Fesual No-II goan, Fesual No-I gaon, Holongpara Gohaingaon, Karigaon, Jotokia, Hingipulia	Potato, kharif and rabi vegetables, ginger, banana, Assam lemon, fishery, Goatery, dairy Mushroom	1. Mono cropping 2. Unorganised marketing of Milk, Kharif and Winte vegetable 3. Water scarcity during winter season 4. Lack of awareness about child care and nutrition 5. Pest and disease incidence 6. Injudicious use of chemical pesticides	1. Rain water harvesting 2. Increasing crop productivity through scientific management 3. Orgnanised marketing under group approach. 4. Integrated pest and disease management 5. Entrepreneurship development for rural youths 6. Integrated farming systems 7. Women empowerment
20	Ellengmora	Dhekorgora Development Block	Namdeori, Upardeori, Bahfola, Koriamari,Neolgaon,Loliti, Kolia, Dhudang, Malowkhat	Kharif & Rabi Vegetables, Piggery, Poultry	1. Low yielding variety 2. Unawareness of scientific production technology 3. Pest and disease incidence especially in vegetables 4. Injudicious use of pesticides 5. Traditional low productive pig, duck poultry production. 6. Lack of management of natural depression for fish production	1. Integrated pest and disease management on vegetables 2. Group marketing 3. Integrated livestock production and management 4. Integrated farming systems 5. Introduction improved bred of pig, duck and poultry suitable for backyard rearing. 6. Integrated Nutrient Management 7. Production of quality piglets.

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2013-14

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
Plant Breeding	4	4	12	12	2	2	2	2
Horticulture	2	2	6	6	4	12	8	8
Soil Science	2	2	6	6	1	1	2	2
Plant Protection	4	4	12	12	2	2	6	6
Fishery	2	2	6	6	3	3	9	9
Animal Science	5	5	81	81	1	1	5	5
Home Science	1	1	30	30	3	3	34	34
Total	**20**	**20**	**153**	**153**	**16**	**24**	**66**	**66**

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	47	47	1605	1733	10	7	400	401
Rural youth	13	13	325	300	-	-	-	-
Extn. Functionaries	2	2	50	50	-	-	-	-
Total	**62**	**62**	**1980**	**2083**	**10**	**7**	**400**	**401**

Seed Production (ton.)		Planting material (Nos. in lakh)	
5		6	
Target	**Achievement**	**Target**	**Achievement**
2.5 t	2.412 t	10000 nos	7000 nos

3. B. Abstract of interventions undertaken during 2013-14

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 performance**	Sali paddy Variety *Podumoni*	Absence of long grained aromatic rice variety	Assessment of long grain paddy variety *Podumoni*	-		-	Field visit	Seeds, fertilizers
2		Sali paddy Var. *Swarna Sub-1*	Recurrent flash floods	Assessment of paddy variety *Swarna Sub-1*	-	-	-	Field visit	Seeds, fertilizers

3		Sali paddy *Var.Mula Gabharu*	Low yield of existing medium duration Sali varieties for double cropped areas	Assessment of paddy variety *Mula Gabharu* for double cropped areas	-	-	-	Field visit	Seeds, fertilizers
4		Indian Mustard var. PM-26	Non adoption of high yielding Indian Mustard variety in Jorhat district	Varietal evaluation of Indian Mustard var. PM-26	-	-	-	Field visit	Seeds, fertilizers, Pestcides
5		Toria variety TS-67/ JT-90-1	Absence of high yielding toria variety under Sali rice-toria sequence (late sown condition)	-	Performance of Late sown toria variety TS-67/ JT-90-1 under late sown condition	-	-	Field visit	Seeds, fertilizers, Pestcides
6	Integrated crop management	**Yellow Sarson** Var. Binoy	Non capitalization of higher yield of Yellow Sarson in Jorhat district	-	Large scale production performance and water management in Yellow Sarson	-	-	Field visit,Field day	Seeds, fertilizers, Pesticides

7		Banana	Low yield and disease problem in local jahaji	-	Tissue culture banana var. Grand Naine	-	-	Field visit	Sucker, Fertilizer, Pesticides
8		Cabbage Var. Golden Acre	Indiscriminate use of chemical fertilizers & pesticides	Organic cultivation of cabbage	-	-	-	Field visit,	Seeds, biofertilizers, rock phosphate, pestoneem
9	Intercropping	Tomato(Main) Knolkhol, Radish, Spinach(Intercrops)	Low economic return from sole crops per unit time and per unit area	Intercropping in tomato during normal season	-	-	-	Field visit	Seeds, fertilizers, pesticides
10	Commercial floriculture	*Gerbera* and Marigold	Lack of commercial floriculture venture	-	Commercial *Gerbera* and Marigold production with market link-up	Commercial cultivation of Marigold and *Gerbera*	-	Field visit, training	Seeds, suckers, fertilizers, pesticides
11		*Gladiolus*	Lack of commercial floriculture venture	-	Commercial *Gladiolus* production with market link-up				

12	Orchard Rejuvenation	Mandarin Khasi Mandarin	Low production from ill managed orchard	-	Rejuvenation of Khasi Mandarin orchard	-	-	Field visit, Popular article	Fertilizers, pesticides, lime
13	Soil management	Chilli	Deterioration of soil health due to injudicious application of chemical fertilizers	Integrated Nutrient Management in Chilli	-	-	-	Field visit	Seeds, biofertilizers,enriched compost
14		Toria-Ahu rice cropping sequence	Higher application of chemical fertilizers instead of INM practices	Biofertilizer seed treatment in Toria – Ahu rice Cropping sequence	-	-	-	Field visit	Seeds, biofertilizers,
15	Soil amendment	Toria Var. TS-38	Lack of knowledge About the usefulness of lime application based on soil test report	-	Soil amendment with lime application in Toria	Problem soil of Assam and their reclamation with special reference to lime application	-	Field visit, training	Seeds, lime

16	Integrated pest management	Brinjal	Heavy incidence of brinjal fruit and shoot borer, beetle and plant hopper	Integrated Pest Management in Brinjal	-	-	-	Field visit, article, radio talk	Seeds, Pheromone trap,lure
17		Tomato	Heavy incidence of fruit borer in tomato	Integrated Pest Management of Tomato fruit borer	-	-	-	Field visit,	Seed, fertilizer, pesticides
18		Bhoot Jalakia	Heavy incidence of leaf curl disease	Organic management of Leaf curl disease in Bhut jolokia	-	-	-	Field visit	Seeds, Plastic mulch
19	Stored grain pest	Black gram	High bruchid infestation in blackgram/ Greengram under storage	Management of stored grain pest in Blackgram/green gram	-	-	-	Field visit, popular article, radio talk	Black pepper, polythene bags, Gunny bags

20	Beneficial organisms	Mushroom Var,Oyster	Lack of skill in Mushroom cultivation	-	Cultivation of Oyster Mushroom	Mushroom cultivation for self employmen t	-	Field daisity, field v	Spwan, Polypropyl ene bag, Plastic thread, Straw
21	Beneficial insect	Indian bee in Toria Cultivation	Lack of awareness of Scientific rearing of bee	-	Bee rearing in Toria cultivation for self Employment	-	-	Field visit,Meth od demonstra tion	Bee colonies with hive and stand
22	Pond management	Fishery	Low survival, low yield of fingerlings in farmers nursery ponds	Carp seed rearing for production of quality fish seed	-	-	-	Field visit,	Fish seed, Feed, Fertilizer
23		Fishery	Use of pond benthic ecosystem	Poly culture of Prawn (M. rosenbergii) with IMC	-	-	-	Radio talk	Fish seed, Prawn,Ma nure, feed
24	IFS Module	Rice/Fish	Non adoption of the existing rice ecosystem for fish culture	-	Integrated Rice- Fish Farming	Integrated rice-fish farming	-	Field visit, training	Fish seed, rice seed, Feed Fertilizer

25		Duck/Fish	Low adoption of existing integrated fish duck farming	-	Integrated Duck- Fish Farming	-	-	Field visit, training	Ducklings, Fingerlings
26	Feeding management	Fishery	Low yield due to poor quality feed	-	Sushma supplementary feed in composite fish farming	-	-	Field day	Fish seed, , Feed Fertilizer
27	Breed introduction	Poultry	Poor production potential of indegeneous birds	Introduction of egg type Kalinga Brown for backyard poultry farming in rural areas of Jorhat district	-	-	-	Popular article	DoFeed for one month , vaccine, medicine
28		Pigs	Poor production potential of local pigs	Reproductive & productive performance of T&D pigs in Jorhat district	-	-	-	Popular article, diagnostic visits	Piglets, Vaccine/ Medicine

29		Poultry	Poor production potential of indigenous non descript bird	Productive performance of 2 way (L X PB) and 3 way (L X PB X DR) developed by AAU under backyard system	-	-	-	Popular article, radio talk	Poultry
30	Breed Improvement	Goat	Problem of poor body weight gain of nondescript local goat	Up gradation of local goat through AI with Beetal buck semen	-	-	-	Popular article	AI facilities, Natural services facilities with Beetal Buck of KVK, Jorhat
31	Feeding management	Pig	Poor body weight gain of pre-weaned piglets	-	Creep feed consumption on performance of group housed weaning piglets	-	-	Popular article, diagnostic visits	Creep ration

32	Housing management	Poultry	Low production in scavenging system	Demonstration on effect of rearing system on productive performance of fast & slow growing poultry	-	-	-	M popular articleethod demonstration,	Day old chicks, feed, vaccine,medicine
33	Energy saving tools	Drudgery reducing tools	Inappropriate farming tools for farm women	Introduction & uses of Women friendly circular blade weeder , handfork & improved garden rake in farmers community	-	-	-	Method demonstration	Circular blade weeder , hand fork & improved garden rake
34	Nutritional Gardening	Vegetables	Improper structure of Kitchen garden	-	Nutritional Gardening for Micro Nutrient Supplementation	-	-	-	Labour cost, vegetable seeds, fertilizer

35	Value addition	Local Ginger	Inadequate storage facility for longer duration	-	Production of Instant Ginger Candy	Preparation of instant ginger candy	-	Training	Ginger, Sugar, Preservatives
36	Natural dyes	Marigold, Phutuki, Henna, Turmeric, Teak leaf, Annato	Harmful effect of synthetic dye and lack of awareness on utilization of valuable resources of natural dyes	-	Dyeing of cotton cloth with natural dyes extracted from locally available plant species	Dyeing of cotton fabric with Annato extracts	-	Training	Cotton, silk, wool, Fibre and fabric, mordant

3.1 Achievements on technologies assessed and refined during 2013-14

A.1 Abstract of the number of technologies **assessed*** in respect of crops/enterprises

Thematic areas	**Cereals**	**Oilseeds**	**Pulses**	**Commercial Crops**	**Vegetables**	**Fruits**	**Flower**	**Plantation crops**	**Tuber Crops**	**TOTAL**
Varietal Evaluation	3	1	-	-	-	-	-	-	-	**4**
Seed / Plant production	-	-	-	-	-	-	-	-	-	-

Weed Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	2	-	-	-	-	**2**
Integrated Nutrient Management	-	1	-	-	1	-	-	-	-	**2**
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction					1					**1**
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management			1		2					**3**
Integrated Disease Management	-	-	-	-	1	-	-	-	-	**1**
Resource	-	-	-	-	-	-	-	-	-	-

conservation technology										
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
TOTAL	**3**	**2**	**1**	**-**	**7**	**-**	**-**	**-**	**-**	**13**

* *Any new technology, which may offer solution to a location specific problem but not tested earlier in a given micro situation.*

A.2. Abstract of the number of technologies **refined*** in respect of crops/enterprises : NIL

Thematic areas	**Cereals**	**Oilseeds**	**Pulses**	**Commercial Crops**	**Vegetables**	**Fruits**	**Flower**	**Plantation crops**	**Tuber Crops**	**TOTAL**
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient										

Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Post Harvest Technology										
Integrated Pest Management										
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										

TOTAL										

***** *Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.*

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

Thematic areas	**Cattle**	**Poultry**	**Sheep**	**Goat**	**Piggery**	**Rabbitary**	**Fisheries**	**TOTAL**
Breed introduction	-	2	-	-	1	-	-	**3**
Breed improvement	-	-	-	1	-	-	-	**1**
Housing management	-	1	-	-	-	-	-	**1**
Nutrition Management	-	-	-	-	-	-	-	**-**
Disease of Management	-	-	-	-	-	-	-	**-**
Value Addition	-	-	-	-	-	-	-	**-**
Production and Management	-	-	-	-	-	-	2	**2**
Feed and Fodder	-	-	-	-	-	-	-	**-**
Small Scale income generating enterprises	-	-	-	-	-	-	-	**-**
TOTAL	**-**	**3**	**-**	**1**	**1**	**-**	**2**	**7**

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

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

11). Results of On Farm Testing

<table>
<tr><th>Title of OFT</th><th>Problem Diagnosed</th><th>Technology Assessed</th><th>No. of Trials</th><th>Results of Assessment/ Refined (Data on the parameter should be provided)</th><th>Feedback from the farmer</th><th>Feedback to the Researcher</th><th>B.C . Ratio
(if applicable)</th></tr>
<tr><td>Assessment of long grain paddy variety Podumoni</td><td>Absence of long grained aromatic rice variety</td><td>Long grain paddy variety Podumoni</td><td>2</td><td colspan="4">
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Location-I (Mudoijan)</th><th>Location-II (Bamunpukhuri)</th></tr>
<tr><td>1</td><td>Date of sow/ transplanting</td><td>01.04.2013 (Direct sowing in line)</td><td>05.07.2013 (Transplanted)</td></tr>
<tr><td>2</td><td>Land situation</td><td>Low land, flood prone</td><td>Low land, flood free</td></tr>
<tr><td>3</td><td>Flood stress</td><td>Recurring flood from late June to early September</td><td>Nil</td></tr>
<tr><td>4</td><td>Plant height</td><td>123 cm</td><td>107 cm</td></tr>
<tr><td>5</td><td>Effective tiller no.</td><td>10.5</td><td>12</td></tr>
<tr><td>6</td><td>Days to maturity</td><td>210 days</td><td>150 days</td></tr>
<tr><td>7</td><td>Yield
Check yield (Kola Joha)</td><td>3.27 t/ha
Damaged due to flood</td><td>3.56 t/ha
2.12 t/ha</td></tr>
<tr><td>8.
9.</td><td>Net return(Rs)
B.C Ratio</td><td>37320.00
2.4</td><td>41960.00
2.7</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Assessment of paddy variety Swarna Sub-1</td><td>Recurrent flash floods</td><td>Sali paddy

Var. Swarna Sub-1</td><td>3</td><td>
<table>
<tr><td>Sl. No.</td><td>Parameters</td><td>Mudoijan</td><td>Kaliapani</td><td>Dangdhara</td></tr>
<tr><td>1</td><td>Date of transplanting</td><td>05.08.2013</td><td>20.06.2013</td><td>20.07.1013</td></tr>
<tr><td>2</td><td>Area</td><td>2 bigha</td><td>6 bigha</td><td>3 bigha</td></tr>
<tr><td>3</td><td>Land situation</td><td>Low land</td><td>Medium land</td><td>Medium land</td></tr>
<tr><td>4</td><td>Flood stress</td><td>Recurring flood (4 nos)</td><td>Flash flood (2 no)</td><td>Flash flood (nil)</td></tr>
<tr><td>5</td><td>Plant height</td><td>87.5 cm</td><td>95.25 cm</td><td>97.26 cm</td></tr>
<tr><td>6</td><td>Effective tiller no.</td><td>12</td><td>10</td><td>14</td></tr>
<tr><td>7</td><td>Days to maturity</td><td>140 days</td><td>141 days</td><td>145 days</td></tr>
<tr><td>8</td><td>Yield</td><td>2.7 t/ha</td><td>3.15 t/ha</td><td>3.52 t/ ha</td></tr>
<tr><td>9</td><td>Net return(Rs)</td><td>12000.00</td><td>16500.00</td><td>20200.00</td></tr>
<tr><td>10</td><td>B.C Ratio</td><td>0.8</td><td>1.1</td><td>1.3</td></tr>
<tr><td>11</td><td>Pest & disease</td><td colspan="3">Heavy Hispa population build up at later state (Maturity stage)</td></tr>
</table>
</td></tr>
</table>

<table>
<tr>
<td>Assessment of paddy variety Mula Gabharu for double cropped areas</td>
<td>Low yield of existing medium duration Sali varieties for double cropped areas</td>
<td>Sali paddy

Var.Mula Gabharu</td>
<td>3</td>
<td colspan="4">
<table>
<tr><th>Sl.No</th><th>Parameters</th><th>Mulagabharu</th><th>Bihari (Local Check)</th></tr>
<tr><td>1</td><td>Date of transplanting</td><td>2nd July’2013</td><td>5th July 2013</td></tr>
<tr><td>2</td><td>Land situation</td><td>Medium land</td><td>-do-</td></tr>
<tr><td>4</td><td>Plant height</td><td>103.5 cm</td><td>120cm</td></tr>
<tr><td>5</td><td>Effective tiller no.</td><td>8.3</td><td>6.5</td></tr>
<tr><td>6</td><td>Days to flowering</td><td>100- 105 days</td><td>110days</td></tr>
<tr><td>6</td><td>Days to maturity</td><td>135 days</td><td>136 days</td></tr>
<tr><td>7</td><td>Yield</td><td>3.7 t/ha</td><td>2.65t/ha</td></tr>
<tr><td>8.</td><td>Net return</td><td>22000.00</td><td>11500.00</td></tr>
<tr><td>9</td><td>B.C Ratio</td><td>1.4</td><td>0.76</td></tr>
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Varietal evaluation of Indian Mustard var. PM-26	Non adoption of high yielding Indian Mustard variety in Jorhat district	Indian Mustard var. PM-26	3	

Sl. No.	Parameters	Borkhelia, Sipahikhola				Kakorikata, Majuli				**Remarks**
		PM-25	PM-28	TM-106	TS-36	PM-25	PM-28	TM-106	TS-36	
1	Date of sowing	20.11.13				15.11.13				There was no rain during entire grain stage
2	Plant height (cm)	136	132	142	50	142	141	152	61.00	
3	Days to maturity	110	112	117	101	114	110	121	107	
4	Yield q/ha	6.87	7.50	7.12	6.2	7.20	7.85	7.0	6.5	
5	Net return(Rs	13610	15500	14360	11600	-	16550	-	-	
6	B.C Ratio	1.94	2.22	2.05	1.65	-	2.36	-	-	

<table>
<tr>
<td>Organic cultivation of cabbage Var. Golden Acre</td>
<td>Indiscriminate use of chemical fertilizers & pesticides</td>
<td>Azotobacter 7.5g + PSB 7.5g for treatment of 100g seeds, FYM 10t/ha, Rock phosphate 375kg/ha and mustard as trap crop</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Organic cultivation</th><th>Farmers practice</th></tr>
<tr><td>1</td><td>Number of Wrapper leaves</td><td>35.50</td><td>28.50</td></tr>
<tr><td>2</td><td>Head compactness
($Z=c/w^3 \times 100$)
Z= compactness index
C=Net weight of head
W= Average of polar and lateral diameter</td><td>29.20(%)</td><td>22.00(%)</td></tr>
<tr><td>3</td><td>Yield (t/ha)</td><td>23.50 (t)</td><td>14.00 (t)</td></tr>
<tr><td>4</td><td>Net return</td><td>Rs. 1,48000.00</td><td>Rs. 43000.00</td></tr>
<tr><td>5</td><td>B:C</td><td>3.54:1</td><td>1.56:1</td></tr>
</table>
</td>
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</table>

<table>
<tr>
<td>Intercropping in tomato during normal season</td>
<td>Low economic return from sole crops per unit time and per unit area</td>
<td>Tomato(Main crop) Knolkhol, Radish, Spinach(Intercrops)</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No</th><td>Crop</td><td>Parameters</td><td>Result</td><td></td></tr>
<tr><td></td><td></td><td></td><td>Technology</td><td>Farmers</td></tr>
<tr><td rowspan="3">1</td><td rowspan="3">Tomato</td><td>Wt of fruit/plant</td><td>1.2 kg</td><td>1.3 kg</td></tr>
<tr><td>Plant height (cm)</td><td>1.4 cm</td><td>1.4 cm</td></tr>
<tr><td>Yield t/ha</td><td>35 t/ha</td><td>36t/ha</td></tr>
<tr><td rowspan="3">2</td><td rowspan="3">Radish</td><td>Length of root (cm)</td><td>27.5 cm</td><td>-</td></tr>
<tr><td>Wt of root/plant</td><td>300 gm</td><td>-</td></tr>
<tr><td>Yield t/ha</td><td>19.8 t/ha</td><td>-</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Knolkhol</td><td>Wt of knob/plant</td><td>200 gm</td><td>-</td></tr>
<tr><td>Yield t/ha</td><td>13.2 t/ha</td><td>-</td></tr>
<tr><td>4</td><td>Spinach beet</td><td>Wt of leaves (t/ha)</td><td>22 t/ha</td><td>-</td></tr>
<tr><td>5</td><td></td><td>Net return</td><td>Rs. 660000.00</td><td>Rs. 292000.00</td></tr>
<tr><td>6</td><td></td><td>B:C</td><td>5.6</td><td>4.2</td></tr>
</table>
</td>
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</table>

<table>
<tr>
<td>Integrated Nutrient Management in Chilli</td>
<td>Deterioration of soil health due to injudicious application of chemical fertilizers</td>
<td>T1: Bio-fertilizer incubated (15 days) Azospirillum, Azotobacter & PSB @ 1 % on dry wt. basis + Vermicompost 1 t/ha is to be mixed with 50 % RD of fertilizer & to be applied in two equal split at planting and 30 DAP.
T2: Application of bio-fertilizer incubated vermicompost + 50% RD of fertilizer</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Technology</th><th>Farmers practice</th></tr>
<tr><td>1</td><td>Fruit length and girth</td><td rowspan="5">Crop is in flowering stage</td><td rowspan="5">Crop is in flowering stage</td></tr>
<tr><td>2</td><td>Days to 50% flowering</td></tr>
<tr><td>3</td><td>Insect pest & disease infestation</td></tr>
<tr><td>4</td><td>Gren chilli production/ unit area</td></tr>
<tr><td>5</td><td>B:C Ratio</td></tr>
</table>
</td>
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</table>

<table>
<tr>
<td>Biofertilizer seed treatment in Toria – Ahu rice Cropping sequence</td>
<td>Higher application of chemical fertilizers instead of INM practices</td>
<td>Treatment of Toria Seed with bio-fertilizer Azotobacter & PSB @40g/kg seed before sowing + Application of FYM/compost @ 2-3 t/ha + full dose of RD of fertilizer. After harvest of Toria , Ahu rice will be cultivated in the same plot with RD of fertilizer but without bio-fertilizer</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Technology</th><th>Farmers practice</th></tr>
<tr><td>1</td><td>Soil properties before incorporation of fertilizer & bio-fertilizer</td><td>(pH-4.96, Av. N-367 kg/ha, Av.P_2O_5-17.6 kg/ha, Av. K_2O-99.32</td><td>do
59
98
6
6.9 q/ha
-</td></tr>
<tr><td>2</td><td>Days to 50 % flowering</td><td>56</td></tr>
<tr><td>3</td><td>Average plant height</td><td>112</td></tr>
<tr><td>4</td><td>Primary Branches/plant</td><td>9</td></tr>
<tr><td>5</td><td>Yield of Toria/ha</td><td>8.8q/ha</td></tr>
</table>
</td>
</tr>
</table>

				6	Soil properties after harvest of crop	To be analysed	
				7	Next in the sequence Ahu rice	Tillering stage	-

<table>
<tr>
<td>Integrated Pest Management in Brinjal</td>
<td>Heavy incidence of brinjal fruit and shoot borer, beetle and plant hopper</td>
<td>IPM (5 pheromon traps/ha+ Application of Neem based pesticide at 7 days interval after 30 days of planting) + Application of Trichogramma chilonis @ 1,50000/ ha</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Technology</th><th>Farmers practice</th></tr>
<tr><td>1</td><td>No of trapped insects/day</td><td>6.6</td><td>Nil</td></tr>
<tr><td>2</td><td>Percent infestation of shoot/5 m^2</td><td>20 %</td><td>95 %</td></tr>
<tr><td>3</td><td>Percent infestation of fruit/5 m^2 area</td><td>1%</td><td>53%</td></tr>
<tr><td>4</td><td>Yield</td><td>20 t/ha</td><td>12 t/ha</td></tr>
<tr><td>5</td><td>Net Return</td><td>Rs.160000.00</td><td>Rs. 80000.00</td></tr>
<tr><td>6</td><td>Farmers reaction</td><td>Very much satisfied</td><td>-</td></tr>
<tr><td>7</td><td>B:C</td><td>4</td><td>2.5</td></tr>
</table>
</td>
</tr>
<tr>
<td>Integrated Pest Management of Tomato fruit borer</td>
<td>Heavy incidence of fruit borer in tomato</td>
<td>IPM :
1. Planting of African marigold as trap crop
2. Seed treatment with Imidacloprid @ 3 gm/ kg of seed
3. Release of</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Technology</th><th>Farmers practice</th></tr>
<tr><td>1</td><td>Date of planting</td><td>02.01.2014</td><td>02.01.2014</td></tr>
<tr><td>2</td><td>Percent incidence of insects/5 m^2 area
At 15 days interval</td><td>Upto 3rd month : Nil</td><td>Upto 3rd month : Nil</td></tr>
<tr><td>3</td><td>Percent infestation of fruit/5 m^2 area at 15 days interval</td><td>12 %</td><td>44%</td></tr>
</table>
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<table>
<tr>
<td></td>
<td></td>
<td>Trichogramma chilonis @ 50000 eggs/ ha at 7 days interval
4. Spraying of neem based pesticides at 7 days interval from 30 days after planting</td>
<td></td>
<td>
<table>
<tr><td>4</td><td>Percent incidence of any other insects and diseases</td><td>Nil, Coccenelids observed</td><td>Leaf eating caterpillar : 0.5%
Leaf miner :1%</td></tr>
<tr><td>5</td><td>Yield</td><td>21t/ha</td><td>15t/ha</td></tr>
<tr><td>6</td><td>Net Return</td><td>Rs.260000.00</td><td>Rs. 160000.00</td></tr>
<tr><td>7</td><td>Farmers reaction</td><td>-</td><td>-</td></tr>
</table>
</td>
</tr>
<tr>
<td>Organic management of Leaf curl disease in Bhut joloki a</td>
<td>Heavy incidence of leaf curl disease</td>
<td>1.Application of Trichoderma in soil thrice,
-At the time of land preparation
-At Two days before planting
-At 30 days after planting
2.Application of Neem</td>
<td>3</td>
<td>
<table>
<tr><td>Sl. No.</td><td>Parameters</td><td>Technology</td><td>Farmers practice</td></tr>
<tr><td>1</td><td>1. No. of curled</td><td>0.8</td><td>13.8</td></tr>
<tr><td>2</td><td>2. Percent incidence of</td><td>1.2%</td><td>9 %</td></tr>
<tr><td>3</td><td>3. Percent incidence of any</td><td>Aphid incidence : 5 %, , Coccenelids observed</td><td>Aphid incidence : 43%
No predator</td></tr>
<tr><td>4</td><td>4. No. of trapped insect per card</td><td>0.4</td><td>-</td></tr>
<tr><td>5</td><td>4. Yield</td><td>4 t/ha</td><td>4.5 t/ha</td></tr>
</table>
</td>
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</table>

		based pesticides at 7 days interval at 30 days after planting 3.Use of yellow sticky card/trap @ 5 nos/bigha 30 days after planting		6	Net return	Rs.7,30,000.00) Mulch reduced labour cost and prie of organic jolokia @Rs200/kg	Rs.4,90,000.00) Price of inorganic jolokia @Rs 120/kg
				7	B : C	10.42	9.8
				8	Farmers reaction	Satisfied	-

<table>
<tr>
<td>Management of stored grain pest in Black gram/ greengram</td>
<td>High bruchid infestation in blackgram/ Greengram

under storage</td>
<td>Application of Black pepper powder @3gm/kg of seed followed by bagging in poly bag covered with gunny bags</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Technology</th><th>Farmers practice</th></tr>
<tr><td>1</td><td>Percent infestation at monthly interval during</td><td>Nil</td><td>5%</td></tr>
<tr><td>2</td><td>2nd month</td><td>Nil</td><td>20%</td></tr>
<tr><td>3</td><td>3rd month</td><td>Nil</td><td>32%</td></tr>
<tr><td>4</td><td>4th month</td><td>Nil</td><td>48%</td></tr>
<tr><td>5</td><td>5th month</td><td>Nil</td><td>57%</td></tr>
<tr><td>6</td><td>6th month</td><td>Nil (No secondary infestation</td><td>85% (Secondary infestation observed)</td></tr>
<tr><td>7</td><td>Germination %</td><td>80-85%</td><td>2%</td></tr>
</table>
</td>
</tr>
<tr>
<td>Carp seed rearing for production of quality fish seed</td>
<td>Low survival, low yield of fingerlings in farmers nursery ponds</td>
<td>1.Quality fish seed (Carry-over seed
2.Spawn no-1lakh/katha</td>
<td>3</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Result</th></tr>
<tr><td>1</td><td>Avg. Survival</td><td>35%</td></tr>
<tr><td>2</td><td>Length= 10.15</td><td>10.15 cm(Avg)</td></tr>
<tr><td>3</td><td>Weight</td><td>25gm(avg)</td></tr>
<tr><td>4</td><td>Net return /bigha</td><td>Rs 1,25,000</td></tr>
<tr><td>5</td><td>B:C</td><td>2.5</td></tr>
</table>
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<table>
<tr><td></td><td></td><td></td><td></td><td>
<table>
<tr><td>6</td><td>Farmers reaction</td><td>Satisfied</td></tr>
</table>
</td></tr>
<tr><td>Poly culture of Prawn (M. rosenbergii) with IMC</td><td>Use of pond benthic ecosystem</td><td>1.Freshwater prawn (M. rosenbergii)

2.Spawn size PL-20, 3.Spawn no-1lakh/katha</td><td>3</td><td>
<table>
<tr><td>Sl. No.</td><td>Parameters</td><td>Result</td></tr>
<tr><td>1</td><td>Avg Survival</td><td>50%</td></tr>
<tr><td>2</td><td>Length</td><td>10.15cm (avg)</td></tr>
<tr><td>3</td><td>Weight</td><td>30 gm(avg)</td></tr>
<tr><td>4</td><td>Net return</td><td>To be calculated</td></tr>
</table>
</td></tr>
</table>

<table>
<tr>
<td>Introduction of egg type Kalinga Brown for backyard poultry farming in rural areas of Jorhat district</td>
<td>Poor production potential of indegeneous birds</td>
<td>Kalinga Brown</td>
<td>1 (Replication= 5)</td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th colspan="3">Result</th></tr>
<tr><td>1</td><td>Body weight</td><td>Age (Month)

2 month

5 month</td><td>Intensive

1.09 (M)
1.10 (F)

2.125 (M)
1.43 (F)</td><td>Backyard

0.90 (M)
0.65 (F)

1.55(M)
1. 05 (F)</td></tr>
<tr><td>2</td><td>Age at first egg</td><td colspan="3">149 days (Intensive)
167 days (Backyard)</td></tr>
<tr><td>3</td><td>Egg weight</td><td colspan="3">33 g (First Egg
47 g (3rd month of lay)</td></tr>
<tr><td>4</td><td>Egg production</td><td colspan="3">Contd.</td></tr>
</table>
</td>
</tr>
<tr>
<td>Reproductive & productive performance</td>
<td>Poor production potential of local pigs</td>
<td>T&D pigs</td>
<td>1 (Replication= 4)</td>
<td></td>
</tr>
</table>

<table>
<tr>
<td>of T&D pigs in Jorhat district</td>
<td></td>
<td></td>
<td></td>
<td>
<table>
<tr><td>Sl. No.</td><td>T & D Pig</td><td>Local Pig</td></tr>
<tr><td>1</td><td>Body weight (T&D):
5th month- 48 Kg
8 month – 72 Kg
12month- 118 Kg
Age at sexual maturity- 7month
Litter size- 6.8 (First lactation)
Body weight of piglet-
At birth – 1.05 Kg</td><td>Local :
25 Kg
45 Kg
74 Kg
9 month
---</td></tr>
<tr><td>2</td><td>Body weight of piglet-
At birth – 1.05 Kg
At weaning- 5.2 Kg</td><td>----</td></tr>
</table>
</td>
</tr>
<tr>
<td>Productive performance of 2 way (L X PB) and 3 way (L X PB X DR) developed by AAU under</td>
<td>Poor production potential of indigenous non descript bird</td>
<td>1.Indigenous X Punjab Broiler
2.Indigenous X PB X Dahlem Red</td>
<td>1 (Replication= 2)</td>
<td>
<table>
<tr><td>Sl. No.</td><td>Parameters</td><td colspan="3">Result</td></tr>
<tr><td>1</td><td>Body weight</td><td>Age (Month)</td><td>2 Way</td><td>3 Way</td></tr>
<tr><td></td><td></td><td>2 month</td><td>1.30 (M)
0.950 (F)</td><td>0.950 (M)
0.680 (F)</td></tr>
<tr><td></td><td></td><td>3 month</td><td>1.65 (M)
0.980 (F)</td><td>1.25 (M)
0.85 (F)</td></tr>
<tr><td>2</td><td>Age at first egg</td><td colspan="3">165 days (3 way cross)
No egg production till 180 days</td></tr>
<tr><td>3</td><td>Egg weight</td><td colspan="3">27 g (First Egg)
38 g (2nd month of lay)</td></tr>
<tr><td>4</td><td>Egg production</td><td colspan="3">Contd.</td></tr>
</table>
</td>
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</table>

<table>
<tr><td>backy ard syste m</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Up gradat ion of local goat throug h AI with Beetal buck semen</td><td>Problem of poor body weight gain of nondescript local goat</td><td>AI with Beetal buck semen</td><td>120</td><td>
<table>
<tr><td>Sl. No.</td><td>Parameters</td><td>Result</td></tr>
<tr><td>1</td><td>Conception rate</td><td>Conception rate- 58 %</td></tr>
<tr><td>2</td><td>Nos. of kid</td><td>Nos. of Kid – 1 (75%)
- 2 (25%)</td></tr>
<tr><td>3</td><td>Body weight at birth and 3 month</td><td>Body weight at birth- 1.05 -1.18 Kg</td></tr>
<tr><td>4</td><td>Farmers reaction</td><td>Satisfied</td></tr>
</table>
</td></tr>
<tr><td>Demo nstrati on on effect of rearin g syste m on produ ctive perfor mance</td><td>Low production in scavenging system</td><td>Intensive rearing system + Balanced feed ration</td><td>1 (Replic ation= 5)</td><td></td></tr>
</table>

<table>
<tr>
<td>of fast & slow growing poultry</td>
<td></td>
<td></td>
<td></td>
<td>
<table>
<tr><th>Sl. No.</th><th>Parameters</th><th>Result</th></tr>
<tr><td>1</td><td>Body weight gain

FCR</td><td>First replication:
Body weight at 42 days
<table>
<tr><th>Variety</th><th>Body Weight (Kg)</th><th>Avg. Feed intake (Kg)</th><th>FCR</th><th>Cost of production/Kg</th><th>Market rate (Rs.)</th><th>Profit per Kg live Wt</th><th>Profit per bird</th></tr>
<tr><td>Broiler</td><td>2.15</td><td>3.9</td><td>1.85</td><td>77.25</td><td>100.0</td><td>22.75</td><td>49.00</td></tr>
<tr><td>Vanaraja</td><td>1.40</td><td>3.0</td><td>2.2</td><td>97.60</td><td>150.0</td><td>52.40</td><td>73.00</td></tr>
<tr><td>Indigenous</td><td>0.65</td><td>1.6</td><td>2.53</td><td>137.5</td><td>250.0</td><td>112.5</td><td>56.00</td></tr>
</table>
</td></tr>
</table>
</td>
</tr>
<tr>
<td>Introduction & uses of Women friendl</td>
<td>Inappropriate farming tools for farm women</td>
<td>Circular blade weeder Handfork & improved garden rake</td>
<td></td>
<td>i.Circular weeder = Convenient for weeding in comparison to Khurpi

Weeding Index = 85

Heart rate = 129.6 (Avg)</td>
</tr>
</table>

y circular blade weeder , handfork & improved garden rake in farmers community				ii. Hand fork = Convenient for final bed preparation, earthling up and harvesting (tuber, roots, bulb and corm) in comparison to Khurpi & spade iii. Garden rake= Convenient to collect weeds Postural stress and severity of pain in various body parts was reduced by adopting new technology.

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

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

3.2 Achievements of Frontline Demonstrations during 2013-14

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

List of technologies demonstrated during previous year and popularized during 2013-14 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	Performance of Late sown toria variety TS-67/ JT-90-1 under late sown condition	2	2	2 ha
2	Yellow Sarson	Large scale production performance and water management in Yellow Sarson Var. Binoy	2	2	2 ha
3	Marigold ,Gerbera	Pusa Narangi and Red Gem	2	2	0.1ha
4	Gladiolus	Novalux	1	1	0.05ha
5	Mandarin	Khasi Mandarin	1	1	0.2ha
6	Tissue culture banana	Var. Grade Naine	2		
7	Toria	TS-38	2	2	1ha

7	Mushroom	Oyster	3	30	3 units of 15 nos. of Mushroo bed capacity
8	Indian bee in Toria Cultivation	Indian bee- *Apis cerena*	2	10	2 ha
9	IFS (Rice-Fish)	Rice –Ranjit Fish- Indian carp	3	3	0.39 ha
10	Fishery	Sushama feed	3	3	0.39 ha
11	IFS (Duck-Fish)	Khaki campbel, Indian carp	3	3	0.39 ha
12	Piggery	Creep feeding in Cross bred piglets	5	5	5 Unit (50 piglets)
13	Nutritional Gardening	Year round	1	1	0.06 ha
14	Value addition	Local Ginger	3	3	3 units

15	Natural dye	Natural dyes (Marigold, Phutuki, Henna, Turmeric, Teak leaf, Annato)	3	3	3 SHGs

**** 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**.)

1. Oilseeds :

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rf/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
1	Toria	Varietal performan	Late sown toria variety TS-67/ JT-	Rabi, 2013	2 ha	2 ha	1	1	2	-	Rainfed, Sandy			

		ce	90-1 under late sown condition	-14							loam			
2	Yellow Sarson	Water management	Var. Binoy	Rabi, 2013-14	2 ha	2 ha	1	1	2	-	Rainfed, Sandy loam			
3	Toria	INM	TS-38	Rabi, 2013-14	1ha	1 ha	2	-	2	-	Rainfed, Sandy loam			

Performance of FLD

Sl. No.	Crop	Demo. Yield Qtl/ha	Yield of local Check	Data on parameter in relation to technology demonstrated	Economic Impact		Technical Feedback on the Demonstrated Technology	Farmers' Reaction on specific Technologies
					Average Net Return (Profit) (Rs./ha)	B.C. Ratio		

					Qtl./ha	(Yield, Disease incidence, etc. as specified in FLD Programme)		Demo	Local Check	Demo	Local Check		
		H	L	A		Demo	Local						
1	**2**	**7**	**8**	**9**	**10**	**12**	**13**						
1	Toria JT-90-1	8.10	7.50	7.8	7.0	7.8 q/ha	7.0 q/ha	13900	12000	1.7	1.25	Accepted	Satisfied
2	Yellow sarson	9.25	8.10	8.33	6.80	8.33	6.80	14000	12000	2.4	1.15	Accepted	Satisfied
3	Var. TS-38	10.8	9.0	9.9	7.2 (M-27)	9.9	7.2	20400	13000	1.43	1.1	Accepted	Satisfied

NB: Attach few good action photographs with title at the back with pencil

2. Horticultural crops :

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rf/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
1	Marigold ,Gerbera	Commercial floriculture	Pusa Narangi and Red Gem	Winter	0.1ha	0.1ha	1	1-	2	-	Rainfed, Sandy loam			
2	Gladiolus	Commercial floriculture	Novalux	Winter	0.05ha	0.05ha	-	1	1	-	Rainfed, Sandy loam			
3	Mandarin	Orchard	Khasi	Year	0.2ha	0.2ha	1	-	1	-	Rainfed, Sandy			

		Rejuvenation	Mandarin	round							loam			

Sl.	Crop	Demo. Yield Qtl/ha	Yield	Data on	Economic Impact	Technical	Farmer

4	Banana	Tissue culture banana var. Grand Naine	var. Grand Naine	Year round	0.13 ha	0.13 ha	1	1	2	-				

No.					of local Check Qtl./ha	parameter in relation to technology demonstrated (Yield, Disease incidence, etc. as specified in FLD Programme)		Average Net Return (Profit) (Rs./ha)		B.C. Ratio		Feedback on the Demonstrated Technology	s' Reaction on specific Technologies
								Demo	Local Check	Demo	Local Check		
		H	**L**	**A**		**Demo**	**Local**						
1	**2**	**7**	**8**	**9**	**10**	**12**	**13**						
1	Marigold var,Pusa Narangi Gerbera var. Red Gem	55.6 15lakh flowers	50.5 14.995 lakh flowers	53.05 14.999 lakh flowers	45	53.05	45	121000.00 3616652.00	92000.00 -	3 .0 4.09	2.42 -	Accepted	Satisfied Satisfie
2	Gladiolus var. Novalux	63000 spikes	58000 spikes	60500 spikes	-	60500 spikes	-	1149500.00	-	3.28	-	Accepted	Satisfied

3	Mandarin Orange var. Khasi Mandarin	-	-	-	-	-	-	-	-	-	-	-	In Progress
4	Tissue culture banana var. Grand Naine	-	-	-	-	-	-	-	-	-	-	-	In Progress

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	3	13.12.2013 21.02.2014 31.03.2014	50 50 100	1.Field day on Mushroom cultivation, 2.Water management in Toria var, Binoy, 3.demonstration on effect of creep feed consumption on

					performance of piglets.
2	Farmers Training		03.09.2013 03-05 Oct,2013 06.09.2013 27.11.2013	25 25 23 25	1.Commercial cultivation of Marigold and *Gerbera* 2. Mushroom cultivation for self employment 3. Preparation of instant ginger candy 4. Dyeing of cotton fabric with Annato extracts
3	Media coverage	3	-	-	-
4	Training for extension functionaries	-	10.01.2014 21.03.2014	25 25	1.Scientific cultivation and post harvest management of ginger 2.Management in farm animals (Poultry Disease Mgt)

c. Details of FLD on Enterprises

(i) Farm Implements : NIL

Name of the implement	crop	No. of farmers	Area (ha)	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		

**** Field efficiency, labour saving etc.***

(ii) Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Piggery	Creep feeding in Cross bred piglets	5	50 piglets	Birth weight Feed intake Body weight at weaning (at 42 days) Mortality	980 g 2.4 Kg 8.2 Kg Not recorded	980 g - 4.5 Kg 10%	54.87	-

Integrated Rice-Fish Farming	Rice –Ranjit Fish- Indian carp	3	-	Yield	29 q/ha (Rice) 8.6 q/ha (Fish)	23 q/ha (Rice) 5.0q/ha (Fish)	26 % 72%	Average net return/ha = Rs. 93300.00 B:C = 2.6
Sushma supplementary feed in composite fish farming	Sushma feed	3	-	Yield	30.5 q/ha	18.0 q/ha	69%	Average net return = Rs. 310000.00 B:C = 2.8
Integrated Duck-Fish Farming	Khaki campbel, Indian carp	3		Yield	28.5 q/ha	18 q/ha	58%	Average net return = Rs. 212000.00 B:C = 1.6

**** Milk production, meat production, egg production, reduction in disease incidence etc.***

(iii) Other Enterprises

Enterprise	Variety/ breed/Species/others	No. of farmers	No. of Units	Performance parameters / indicators	Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		

Mushroom	Oyster (*Sajorcaju* & *Ostrietus*)	30	3	1.Avg. Yield per Mushroom bed (kg) 2. No. of picking/ bed 3. Net return 4. B:C ratio 5.Farmers Reaction	*Sajorcaju* - 2.3 kg *Ostrietus*- 2.8 kg 4 times Rs. 180.00 (*Sajorcaju*) Rs. 230.00 (*Ostrietus*) 4.6 (*Ostrietus*) 3.6 (*Sajorcaju*) Income generating enterprise with low cost and labour	-	-

Apiary	Indian bee- *Apis cerena*	10	10 colonies in 2 ha	1..Yield of toria (Qt/Ha)- 2. Days to 1st extraction of Honey- 3. Average yield per colony (kg) in 1st extraction- 4. Average yield per colony (kg) in 2nd extraction	8 q/ha 45 days after placing colonies 1.2 (Total yield/ha = 1.2 x 5 = 6 kg) 0.75 kg 10 days after 1st extraction (Total yield/ha 0.75 x 5= 3.75kg) Total honey prodn./ Ha = 9.75 kg	6.5 q/ha	23.07 %	Average net return from Toria/ha = Rs. 22000.00 Average net return from Honey/ha = Rs. 1825.00 Cumulative Net return/ha = Rs. 23825.0 B:C = 2.1 (Rs 1100/ box (consdering 5 years life span of a bee box @100x5 = Rs 500/ ha and colony @Rs. 600/ha in a single year) 600/ha **in a single year**

Sericulture								
Vermi compost								

FLDs on Home Science

Enterprise	No. of farmers	No. of Units	Performance parameters / indicators	Data on parameter in relation to technology demonstrated	Remarks

<table>
<tr>
<td>Nutritional Garden</td>
<td>1</td>
<td>1</td>
<td>1.Awareness
2. Consumption
3.Farmers reaction</td>
<td>Members of 3 SHGs became aware about the
Consuming seasonal and green leafy vegetables continuously from 6 months
Farmers accepted the technology</td>
<td>Vegetable production & utilization from nutritional garden (6 months with 3 members)
<table>
<tr><th>Particulars</th><th>Production (kg)</th><th>Purchase (kg)</th><th>Distribution (kg)</th><th>Consumption</th></tr>
<tr><td>Before intervention</td><td>125</td><td>75</td><td>5</td><td>195</td></tr>
<tr><td>After intervention</td><td>400</td><td>0</td><td>15
10 (sale</td><td>375</td></tr>
<tr><td>Change</td><td>275</td><td>-75</td><td>20</td><td>180</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr>
<td>Production of Instant Ginger Candy</td>
<td>30</td>
<td>3</td>
<td>1.Brix

2. ph

3. Taste

4. Farmers reaction</td>
<td>40°-75° brix

- 4

Characteristic taste of commercial candy ginger

Farmers accepted the technology . There is a possibility of good marketable product.</td>
<td>Effect of storage on the quality of Ginger Candy

<table>
<tr><th>Storage period (day)</th><th>Colour</th><th>Flavour</th><th>Fungal growth</th><th>Remarks</th></tr>
<tr><td>0</td><td>Good</td><td>Pleasant</td><td rowspan="5">Not Visible</td><td rowspan="5">Sticky,

Acceptable</td></tr>
<tr><td>30</td><td>Good</td><td>Pleasant</td></tr>
<tr><td>60</td><td>Good</td><td>Pleasant</td></tr>
<tr><td>180</td><td>Good</td><td>Pleasant</td></tr>
</table>
</td>
</tr>
</table>

Natural dyes Merigold, Phutuki, Henna, Turmeric, Teak leaf, jasmine	30	3	Color intensity	Samples showed good intensity with mordant (Alum (Potassium Aluminium Sulfate), Copper Sulfate,Vinegar, Ammonia) than plain dye
			Color fastness	The treated samples showed excellent colour fastness properties. After preserving upto 10 months, the samples did not showed any colour fading maintaining the original texture (after 2 washes).
			Resistance to moth	The samples were found to be resistant to common moths and microorganisms.
			Farmer's reaction	Farmers well accepted the technology Farmers are interested for commercial production of dye powder from natural sources

3.4. Achievements on Training both On and Off Campus (Including the sponsored, vocational, FLD and trainings under Rainwater Harvesting Unit):

Thematic area	No. of courses			Participants																			
				Others						SC/ST						Total						Grand Total
	On	Off	Total	Male		Female		Total		Male		Female		Total		Male		Female		Total		
				On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	
(A) FARMERS & FARM WOMEN																							
I. Crop Production																							
Weed Management																							
Resource Conservation Technologies	1	-	1	90	-	-	-	90		-	-	10	-	10		90	-	10	-	100	-	100	
Cropping Systems																							
Crop	1	-	1	51	-	19	-	70	-	29	-	-	-	29	-	80	-	19	-	99	-	99	

Diversification																						
Integrated Farming	-	1	1	-	50	-	-	-	50	-	50	-	-	-	50	-	100	-	-	-	100	100
Water management																						
Seed production	-	2	2	-	5	-	-	-	5	-	45	-	-	-	45	-	50	-	-	-	50	50
Nursery management																						
Integrated Crop Management	-	2	2	-	-	-	-	-	-	-	48	-	-2	-	50	-	48	-	2	-	50	50
Fodder production																						
Production of organic inputs																						
II. Horticulture																						
a) Vegetable Crops																						
Production of low volume and high	-	3	3	-	74	-	1	-	75	-	-	-	-	-	-	-	74	-	1	-	75	75

value crops																						
Off-season vegetables																						
Nursery raising																						
Exotic vegetables like Broccoli																						
Export potential vegetables																						
Grading and standardizatio n																						
Protective cultivation (Green Houses, Shade Net etc.)																						
b) Fruits																						
Training and Pruning																						

Layout and Management of Orchards																						
Cultivation of Fruit	-	2	2	-	25	-	-	-	25	-	17	-	8	-	25	-	42	-	8	-	50	50
Management of young plants/orchards																						
Rejuvenation of old orchard																						
Export potential fruits																						
Micro irrigation systems of orchard																						
Plant propagation techniques																						
c) Ornamental Plants																						
Nursery																						

Management																						
Management of potted plants																						
Export potential of ornamental plants	1	-	1	25	-	-	-	25	-	-	-	-	-	-	-	25	-	-	-	25	-	25
Propagation techniques of Ornamental Plants																						
a) Plantation crops																						
Production and Management technology																						
Processing and value addition																						
e) Tuber crops																						

Production and Management technology																						
Processing and value addition																						
f) Spices																						
Production and Management technology	-	1	1	-	15	-	-	-	15	-	10	-	-	-	10	-	25	-	-	-	25	25
Processing and value addition																						
g) Medicinal and Aromatic Plants																						
Nursery management																						
Production and management technology																						
Post harvest technology																						

and value addition																						
III Soil Health and Fertility Management																						
Soil fertility management																						
Soil and Water Conservation																						
Integrated Nutrient Management																						
Production and use of organic inputs	-	1	1	-	22	-	4	-	26	-	2	-	2	-	4	-	-	24	-	4	28	28
Management of Problemacid soils	-	1	1	-	9	-	-	-	9	-	11	-	5	-	16	-	-	20 -	-	5	25	25
Micro nutrient deficiency in crops																						
Nutrient Use																						

Efficiency																						
Soil and Water Testing																						
IV Livestock Production and Management																						
Dairy Management	1	-	1	24	-	1	-	25	-	-	-	-	-	-	-	24	-	1	-	25	-	25
Poultry Management	1	1	2	30	25	2	1	32	26	10	10	-	- 10	10	40	35	2	1	42	36	78	78
Piggery Management	2	-	2	56	-	9	-	65	-	-	-	-	-	-	-	56	-	9	-	65	-	65
Rabbit Management																						
Disease Management	-	1	1	-	8	-	1	-	9	-	11	-	5	11	5	-	19	-	6	-	25	25
Feed management																						
Production of quality animal products																						
V Home Science/Women empowerment																						

Household food security by kitchen gardening and nutrition gardening																						
Design and development of low/minimum cost diet																						
Designing and development for high nutrient efficiency diet																						
Minimization of nutrient loss in processing	2	4	6	-	-	36	85	36	85	-	-	-	-	-	-	-	-	36	85	36	85	121
Gender mainstreaming through SHGs																						

Storage																						
Value addition	3	2	5	-	-	58	40	58	40	-	-	-	-	-	-	-	-	58	40	58	40	98
Income generation activities for empowerment of rural Women (Handloom & Fruit preservation)	1	1	2	-	-	21	-	21	-	-	-	-	54	-	54	-	-	21	54	21	54	75
Location specific drudgery reduction technologies																						
Rural Crafts																						
Women and child care																						
VI Agril. Engineering																						
Installation and maintenance																						

of micro irrigation systems																					
Use of Plastics in farming practices																					
Production of small tools and implements																					
Repair and maintenance of farm machinery and implements	1	-	1	25	-	-	-	25	-	-	-	-	-	-	-	25	-	-	-	25	-	25
Small scale processing and value addition																					
Post Harvest Technology																					
VII Plant Protection																					

Integrated Pest Management	4	-	4	100	-	6	-	106	-	-	-	-	-	-	-	100	-	6	100	-	106	106
Integrated Disease Management	3	-	3	50	-	-	-	50	-	25	-	-	-	25	-	75	-	-	-	75	-	75
Bio-control of pests and diseases	1	-	1	-	-	18	-	18	-	-	-	-	-	-	-	-	-	18	-	18	-	18
Production of bio control agents and bio pesticides																						
VIII Fisheries																						
Integrated fish farming	1	4	5	50	116	-	-	50	116	50	69	-	8	50	77	100	185	-	8	293	-	293
Carp breeding and hatchery management																						
Carp fry and fingerling rearing																						
Composite																						

fish culture																						
Hatchery management and culture of freshwater prawn																						
Breeding and culture of ornamental fishes																						
Portable plastic carp hatchery																						
Pen culture of fish and prawn																						
Shrimp farming																						
Edible oyster farming																						
Pearl culture																						
Fish processing and value																						

addition																						
IX Production of Inputs at site																						
Seed Production																						
Planting material production																						
Bio-agents production																						
Bio-pesticides production																						
Bio-fertilizer production																						
Vermi-compost production																						
Organic manures production																						
Production of fry and fingerlings																						

Production of Bee-colonies and wax sheets																						
Small tools and implements																						
Production of livestock feed and fodder																						
Production of Fish feed																						
X Capacity Building and Group Dynamics																						
Leadership development																						
Group dynamics																						
Formation and Management of SHGs																						
Mobilization of social																						

capital																						
Entrepreneurial development of farmers/youths	1	-	1	47	-	-	-	47	-	22	-	2	-	24	-	69	-	2	-	71	-	71
WTO and IPR issues																						
XI Agro-forestry																						
Production technologies																						
Nursery management																						
Integrated Farming Systems																						
TOTAL																						
(B) RURAL YOUTH																						

Mushroom Production	1	-	1	12	-	10	-	22	-	3	-	-	-	3	-	15	-	10	-	25	-	25
Bee-keeping																						
Integrated farming																						
Seed production																						
Production of organic inputs	1	-	1	25	-	-	-	25	-	-	-	-	-	-	-	25	-	-	-	25	-	25
Integrated Farming																						
Planting material production	-	1	1	-	8	-	14	-	22	-	1	-	2	-	3	-	9	-	16	-	25	25
Vermi-culture																						
Sericulture																						
Protected cultivation of vegetable crops	1	-	1	25	-	-	-	25	-	-	-	-	-	-	-	25	-	-	-	25	-	25
Commercial fruit																						

production																					
Repair and maintenance of farm machinery and implements																					
Nursery Management of Horticulture crops																					
Training and pruning of orchards																					
Value addition																					
Production of quality animal product																					
Dairying(Animal Disease Mgt)	1	-	1	60	-	6	-	66	12	-	-	-	12	-	72	-	6	-	78	-	78	78

Sheep and goat rearing																						
Quail farming																						
Piggery	-	1	1	-	25	-	-	-	25	-	-	-	-	-	-	-	25	-	-	-	25	25
Rabbit farming																						
Poultry production	1	-	1	28	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-	28	-	28
Ornamental fisheries																						
Para vets	1	-	1	-	-	-	-	-	-	25	-	-	-	25	-	25	-	-	-	25	-	25
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																						
TOTAL																						
(C) EXTENSION PERSONNEL																						
Productivity enhancement in field crops	1	-	1	25	-	-	-	25	-	-	-	-	-	-	-	25	-	-	-	25	-	25

(Production and post harvest management of Ginger)																						
Integrated Pest Management																						
Integrated Nutrient management																						
Rejuvenation of old orchards																						
Protected cultivation technology																						
Formation and Management of SHGs																						
Group Dynamics and farmers																						

organization																						
Information networking among farmers																						
Capacity building for ICT application																						
Care and maintenance of farm machinery and implements																						
WTO and IPR issues																						
Management in farm animals (Poultry Disease Mgt)	-	1	1	-	12	-	4	-	16	-	8	-	1	-	9	-	20	-	5	-	25	25
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																						
TOTAL																						

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

Date	Clientele	Title of the training programme	Discipline	Thematic area	Duration in days	Venue (Off / On Campus)	Number of other participants			Number of SC/ST			Total number of participants		
							Male	Female	Total	Male	Female	Total	Male	Female	Total
30.01.14	F & FW	Protection of Plant Varieties & FR	PBG	Resource Conservation Technologies	1	On	90	-	90	-	10	10	90	10	100
17.06.13	F & FW	Commercialization of Rice	PBG	Crop Diversification	1	On	51	19	70	29	-	29	80	19	99
3.09.13	F & FW	Commercial cultivation of Marigold and Gerbera	Horticulture	Export potential of ornamental plants	1 d	On	25	-	25	-	-	-	25	-	25
19-03-14 to 21-03-14	F & FW	Scientific Dairy Farming	Animal Science	Dairy Management	3 d	On	24	1	25	-	-	-	24	1	25
15-05-13 & 04-09-13 to 06-09-	F & FW	1.Scientific Pig Farming 2.Hands on training	Animal Science	Piggery Management	1 d & 3 d	Off & On	56	9	65	-	-	-	56	9	65

13		programme on Scientific pig farming													
24-02-14 & 11-09-14	F & FW	1.Production of Carambola squash 2.Preparation of squash & pickle from locally available fruits & vegetables	Home Science	Processing & preservation	1d X 2	On		36	36	-	-	-	-	36	36
12.06.13	F & FW	Promotion and strengthening of Agricultureal mechanization through training, Testing and Demonstration	Agril Engineering	Farm machinery & its maintenance	1 d	On	25	-	25	-	-	-	25	-	25
19.09.13 21.09.13	F & FW	1.Integrated pest Management in Sali rice 2. Integrated	Plant Protection	Integrated Pest Management	1 d X 4	On	100	6	106	-	-	-	100	6	106

01.10.13 19.03.13		pest Management in Sali rice 3. Integrated pest Management in banana 4. Storage pest management in pulse crops													
20.09.13 28.10.13 05.11.13	F & FW	1. Integrated pest and disease management in cucurbitaceous vegetables 2. Integrated pest and disease management in chilli 3. .Integrated pests and disease	Plant Protection	Integrated Disease Management	1 d X 3	On	50	-	50	25	-	25	75	-	75

		management in solanaceous vegetables													
24.10.13	F & FW	1. Organic management of Insect pests and diseases in rabi vegetables	Plant Protection	Biocontrol of pests and diseases	1 d	On	-	18	18	-	-	-	-	18	18
13.09.13	RY	Advanced production technology for off season vegetables	Horticulture	Protected cultivation of vegetable crops	1 d	On	25	-	25	-	-	-	25	-	25
07.10.13 to 09.10.13	RY	Production technology of Trichoderma based biopesticides	Plant Protection	Production of organic inputs	3 d	On	25	-	25	-	-	-	25	-	25
06.03.14 to 07.03.14	RY	Propagation techniques of Assam lemon and Guava	Horticulture	Planting material production	2 d	On	22	-	22	2	-	2	24	-	24
03.10.13 to 05.10.1	RY	Mushroom cultivation for self	Plant Protection	Mushroom Production	3 d	On	12	10	22	3	-	3	15	10	25

3		employment													
26.12.13 27-12-13, 24.02.13	RY	1.Preparation of herbal soap 2. Preparation of backery products 3. Production of Carambola squash	Home Science	Value addition	1 d X3	On	-	58	58	-	-	-	-	58	58
16-09-13	RY	Micromanagemental strategy to tap the full genetic potential of hybrid broiler	Animal Science	Poultry Production	1 d	On	28	-	28	-	-	-	28	-	28
23-09-13 to 29-09-13	F & FW	Employment Opportunities through Agriculture and Allied Sectors	PBG	Increasing production and productivity of crops	7 d	Off	47	-	47	22	2	24	69	2	71
11.09.13 to 12.09.1	F & FW	Preparation of squash and pickle from	Home Science	Processing & Value addition	2 d	On	-	-	-	-	54	54	-	54	54

3		locally available fruits and vegetables													
27-04-13	F & FW	Prevention and control of animal diseases	AnimalScience	Animal Disease Management	1d	On	60	6	66	12	-	12	72	6	78
20.07.13	F & FW	Integrated Rice-Fish Farming	Fishery Science	IFS	1 d	Off	50	-	50	50	-	50	100	-	100
28-03-14	RY	Scientific management of Pigs	Animal Science	Piggery Sector	1 d	Off	25	-	25	-	-	-	25	-	25
10.07.13 26.07.13	F & FW	Quality seed production in rice	PBG	Seed production	1 d X 2	Off	5	-	5	45	-	45	50	-	50
08.07.13 27.07.13	F & FW	1. Scientific management of paddy 2. Scientific management of sugarcane	PBG	Integrated Crop Management	1 dX 2	Off	-	-	-	48	2	50	48	2	50
25.11.1	F &	Improved production	Horticulture	Production of low	1 d	Off	25	-	25	-	-	-	25	-	25

3	FW	techniques of high value winter vegetables		volume and high value crops											
25.10.13	F & FW	Nursery raising techniques of winter vegetables	Horticulture	Nursery raising	1 d	Off	25	-	25	-	-	-	25	-	25
24.03.14	F & FW	Scientific cultivation of pumpkin and cucumber	Horticulture	Export potential vegetables	1 d	Off	24	1	25	-	-	-	24	1	25
02.09.13 07.11.13	F & FW	1.Commercial cultivation of pineapple 2.Scientific cultivation of Assam lemon	Horticulture	Cultivation of Fruits	1 d X 2	Off	25	-	25	17	8	25	42	8	50
10.01.14	EP	Commercial production and post harvest management of ginger	Horticulture	Production & management technology (Spices)	1 d	On	15	-	15	10	-	10	25	-	25
27-03-14	F & FW	Vermicompost production technology	Soil Science	Production and use of organic inputs	1 d	Off	22	4	26	2	-	2	24	4	28

29-03-14	F & FW	Problem soil of Assam and their reclamation with special reference to lime application	Soil Science	Management of Problematic soils	1 d	Off	9	-	9	11	5	16	20	5	25
22-07-13 & 26-10-13	F & FW	1.Women empowerment through backyard poultry farming 2.Hybrid layer as a means of livelihood security for unemployed rural youth	Animal Science	Poultry Management	1 d X2	Off	55	3	58	20	-	20	75	3	78
29-03-	F &	Emergency management of	Animal Science	Disease Manage	1 d	Off	8	1	9	11	5	16	19	6	25

14	FW	disaster involving livestock		ment											
06.09.13 25.10.13 07.12.13 07.02.14	F & FW	1. Preparation of instant ginger candy 2. Preparation of instant ginger candy 3. Production of ginger and garlic paste 4. Preparation of carambola squash and ber pickle	Home Science	Processing & Preservation	1 d X 4	Off	-	85	85	-	-	-	-	85	85
26.11.13 27.11.13	F & FW	1. Dying of cotton cloth using natural dye 2. Dying of cotton cloth using natural dye	Home Science	Value addition	1d X 2	Off	-	40	40	-	-	-	-	40	40

20.07.13	F & FW	Diversification of Handloom Products & Fruit Preservation	Home Science	Handloom products & Fruit preservation	1 d	Off	-	-	-	-	54	54	-	54	54
03.10.13 23.10.13 to 24.10.13 31.10.13 18.11.13	F & FW	Integrated Livestock based Fish Farming (4 Nos)	Fishery science	IFS	1 d X 4	Off	116	-	116	69	8	77	-	77	193
23-09-13 to 29-09-13	F & FW	Employment Opportunities through Agriculture and Allied Sectors	Agriculture and allied	Entrepreneurial development of farmers/youths	1 d	Off	47	-	47	22	2	24	69	2	71

25.01.14	RY	Dyeing of wool and silk fabric using different mordants	Home Science	Value addition	1 d	Off	-	15	15	-	-	-	-	15	15
26-10-13	RY	Hybrid layer farming as a means of livelihood security for unemployed rural youth	Animal science	Poultry Production	1 d	Off	24	3	27	-	-	-	24	3	27
21-02-14	EP	Emerging & reemerging diseases of poultry	Animal Science	Poultry disease Management	1 d	Off	12	4	16	8	1	9	20	5	25

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date	Training title*	Identified Thrust	Duration (days)	No. of Participants	Self employed after training	Number of persons employed else where

			Area		Male	Female	Total	Type of units	Number of units	Number of persons employed	
Piggery		Scientific management of pigs		6 days	25	-	25	-	-	-	
Handloom products		Vocational training on Production of diversified & market oriented Handloom products	Value addition	7 days		21	21	-	-	-	

*training title should specify the major technology /skill transferred

(E) Sponsored Training Programmes

Sl.	Date	Title		The	Duration	Clien	No.	No. of Participants	Sponsoring	Amount

No			Discipline	matic area	(days)	t (PF/ RY/ EF)	of courses	**Others**			**SC/ST**			**Total**			Agency	of fund received (Rs.)
								Male	Female	Total	Male	Female	Total	Male	Female	Total		
1	05-08-13	Awareness programme on Sericulture	Sericulture	Sericulture	1 day	PF	1	1	2	3	35	-	35	36	2	38	Central Muga- Eri Research and Training Institute, Lahdoigarh	

2	23-09-13 to 29-09-13	Employment Opportunities through Agriculture and Allied Sectors	Agriculture	Agriculture and allied	7 days	PF	1	47	-	47	22	2	24	69	2	71	KVK, Jorhat & DoEE, AAU, Jorhat	

3	30-01-14	Training cum awareness programme on Protection of Plant Varieties and Farmers Right Act, 2001	Crop production	Resource conservation	1 day	PF	1	83	10	93	7	-	7	90	10	100	PPVFRI, Regional Office Guwahati	
4	27-04-13	World Veterinary Day	**Animal Science**	**World Veterienary day**	**1 day**	**PF**	**1**	**76**	**-**	**76**	**-**	**-**	**-**	**76**	**-**	**76**	District Animal Husbandry & Veterinary Department, Jorhat	

5	09-05-13	District level Immunization/ Awareness Camp under "ASCAD	**Animal Science**	**Vaccination**	**1 day**	**PF**	**1**	**60**	**6**	**66**	**12**	**-**	**12**	**72**	**6**	**78**	District Animal Husbandry & Veterinary Department, Jorhat	
6	17-06-13	Awareness camp on Commercialization of Rice	**Crop Production**	**Crop diversification**	**1 day**	**PF**	**1**	**51**	**19**	**70**	**29**	**-**	**29**	**80**	**19**	**99**	SATHGURU Management Consultancy, Hyderabad	

7	20-07-13	Diversification of Handloom Products & Fruit Preservation	**Home Science**	**Handloom products**	**1 day**	**FW**	**1**	**-**	**54**	**54**	**-**	**64**	**64**	**-**	**100**	**100**	SIRD, Jorhat	
8	26-07-13	Integrated farming system	**Fishery Science**	**IFS**	**1 day**	**PF**	**1**	**50**	**-**	**50**	**50**	**-**	**50**	**100**	**-**	**100**	SIRD, Jorhat	

Total	12.06.13	Promotion and strengthening of Agricultural mechanization through training, Testing and Demonstration	Agril Engineering	Farm machinery & its maintenance	1 day	F & FW	**1**	**25**	**-**	**25**	**-**	**-**	**-**	**25**	**-**	**25**	Department of Agril. Engineering, AAU, Jorhat	

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 2013-14

Sl. No.	Extension Activity	Purpose/ topic and Date	No. of activities	Participants											
				Farmers (Others) (I)			SC/ST (Farmers) (II)			Extension Officials (III)			Grand Total (I+II+III)		
				Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1.	Field Day	Mushroom cultivation Var Oyster	1	20	18	38	-	-	-	-	-	-	20	18	38
2.	Field Day	Water management I Toria var. Binoy	1	37	4	41	-	-	-	-	-	-	37	4	41
3.	Field Day	Demonstration on creep feed consumption on performance of piglets	1	2	-	2	30	10	40	-	-	-	32	10	42
4.	Exhibition	Farmers Meet, 2013-14,	1	-	-	-	-	-	-	-	-	-	-	-	-

		Golaghat													
5.	Diagnostic visit	Animal disease monitoring and Agricultural problems	30	5	3	8	18	4	22	-	-	-	23	7	30
6	Awareness programme	Animal Health Camp	2	40	10	50	30	15	45	-	-	-	70	25	95
Grand Total			46	--	-	-	-	-	-	-	-	-	-	-	-

3.5 Production and supply of Technological products during 2013-14

a. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Provided to No. of Farmers/Other Agencies
CEREALS					
	Paddy	Ranit	11.1q	28860.00	In stock
		KDML,	6.3q	16380.00	
		Black rice,	0.97q	2522.00	
		Mashuri	3.42q	8892.00	

		TTB404	1.2q	3120.00	
		Ketekijoha	1.02	2652.00	
VEGETABLES	Brinjal	Longai	200g	500.00	Used at KVK Farm
	Tomato	Megha , Cherry tomato	300g seeds 3000 Seedlings	500.00 1800.00	
	Cabbage	Green Express	500 seedlings	300.00	
	Cauliflower	NP2801	500 seedlings	300.00	
	Knolkhol	Soilder	500 seedlings	300.00	
FLOWER CROPS	Gerbera	Red Gem	500nos	2500.00	Used at KVK Farm
	Marigold	Pusa Narangi	1000 g	3000.00	
	Gladiolus	Novalux	500nos	2500.00	
OTHERS (Specify)	Turmeric	Megha Turmeric	80kg	1600.00	Used at KVK Farm

SUMMARY

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Provided to No. of Farmers/Other Agencies
1	CEREALS (Paddy)			
	Ranit	11.1q	28860.00	In stock
	KDML,	6.3q	16380.00	
	Black rice,	0.97q	2522.00	
	Mashuri	3.42q	8892.00	
	TTB404	1.2q	3120.00	
	Ketekijoha	1.02	2652.00	
4	VEGETABLES			
	Brinjal	200g	500.00	
	Tomato	300g seeds	500.00	

		3000 Seedlings	1800.00	
	Cabbage	500 seedlings	300.00	
	Cauliflower	500 seedlings	300.00	
	Knolkhol	500 seedlings	300.00	
5	FLOWER CROPS			
	Gerbera	500nos	2500.00	
	Marigold	1000 g	3000.00	
	Gladiolus	500nos	2500.00	
6	OTHERS Megha Turmeric	80 kg	1600.00	
TOTAL			**75726.00**	

b. PLANTING MATERIALS (Nos. in lakh)

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS	Guava	L-49, Allahabad Safeda	70 kg	600.00	
	Pineapple		50kg	400.00	
SPICES	Turmeric	Megha Turmeric	80kg		50kg used at farm
VEGETABLES	Brinjal	(Longai)	30kg	250.00	
	Cabbage	Green Express	50kg	500.00	
	Cauliflower	NP2801	30kg	300.00	
	Knolkhol	Soilder	30kg	300.00	
	Tomato	Megha, Cherry	70g	400.00	
FIELD CROPS	Paddy	Ranit	11.1q	28860.00	
		KDML,	6.3q	16380.00	
		Black rice,	0.97q	2522.00	
		Mashuri	3.42q	8892.00	
		TTB404	1.2q	3120.00	
		Ketekijoha	1.02	2652.00	

Others (specify)	Green gram	Pratap	0.12q		
	Mushroom	Oyster	15kg	1200.00	
	Mushroom Spwan	Oyster	36.4kg	3640.00	
Total				**70016.00**	

SUMMARY

Sl. No.	Major group/class	Quantity (Nos. in lakh)	Value (Rs.)	Provided to No. of Farmers
1	FRUITS			
	Guava(L-49, Allahabad Safeda)	70 kg	600.00	
	Pineapple	50kg	400.00	
2	VEGETABLES			
	Brinjal	30kg	250.00	
	Cabbage	50kg	500.00	
	Cauliflower	30kg	300.00	

	Knolkhol	30kg	300.00	
	Tomato	70g	400.00	
3	SPICES Megha Turmeric	80 kg		
6	FIELD CROPS			
	Ranit	11.1 q	28860.00	
	KDML,	6.3 q	16380.00	
	Black rice,	0.97 q	2522.00	
	Mashuri	3.42 q	8892.00	
	TTB404	1.2 q	3120.00	
	Ketekijoha	1.02 q	2652.00	
7	OTHERS			
	Green gram	0.12q		
	Mushroom	15kg	1200.00	
	Spwan	36.4kg	3640.00	
	TOTAL		70016.00	

c. BIO PRODUCTS

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	**(qt)**		
BIOAGENTS						
BIOFERTILIZERS						
1. Vermicompost production	Vermicompost			1534 kg		**Used in KVK Farm**
BIO PESTICIDES						
1. Biopesticide	Trichodarma based Biopesticides			400 kg		Distribution to farmars and used in KVK farm

SUMMARY

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	(kg)		
1	BIOAGENTS					
2	BIO FERTILIZERS					
	Vermicompost production	Vermicompost		1534 kg		**Used in KVK Farm**
3	BIO PESTICIDE					
		Trichodarma based Biopesticides		400 kg		Distribution to farmars and used in KVK farm
	TOTAL			**1934 kg**		

d. LIVESTOCK

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	Kgs		
1	Cattle	HF Cross		826 lit	28745.00	
2	SHEEP AND GOAT	Local goat	4 Nos		4000.00	
3	PIG	Hampshire and T & D	3 Fatteners & 24 Piglets		54015.00	
4	POULTRY	**Quail** Japanese Quail	4151nos Egg 80 nos bird		6226.00 2400.00	
5		Vanaraja	250 bird (Grown up chicks)		18000.00	
6		Khaki Campbell & Chara Chemballi	300 Nos		1500.00	
FISHERIES						
7	Rice cum fish	Mrigal, Common carp, Golden carp		58 kg	7540.00	
8	Composte Fish	Common carp,		104.90 kg	17235.00	

	Farming	Golden Carp, Grass Carp, Rohu				

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	Kgs		
1	CATTLE	HF Cross		826 lit	28745.00	
2	SHEEP & GOAT	Local goat	4 Nos		4000.00	
2	Pig	Hampshire and T & D	3 Fatteners & 24 Piglets		54015.00	
3	POULTRY	Japanese Quail	4151nos Egg 80 nos bird		6226.00 2400.00	
		Vanaraja	250 bird (Grown		18000.00	

			up chicks)				**SUMMARY**
		Khaki Campbell & Chara Chemballi	300 Nos		1500.00		
4	FISHERIES	Rice cum fish		58 kg	7540.00		
		Composte Fish Farming		104.90 kg	17235.00		
	TOTAL				**139661.00**		

3.6. Literature Developed/Published (with full title, author & reference) during 2013-14

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

(B) Literature developed/published

Item	Title	Authors name	Number of copies
Research papers			
1.	Status and constraints of backyard poultry farming amongst tribal community in Jorhat district of Assam	Deka P, Borgohain R, Deka B	-

2.	Effect of feeding probiotic on production parameters of broiler chicken	Sapcota D, Deka P, Sarma M, Borgohain R	-
3.	Production performance of Vanaraja bird under traditional system of rearing in Assam	Deka P, Sarma M, Nath PJ, Borgohain R, Deka B, Phukan M	-
4.	Exploration of Banana Fibre as low cost eco-friendly waste management	Deka B, Deka P, Borgohain R	-
5.	Exploration of Plant derived Natural dyes in Assam	Deka B, Deka P, Borgohain R, Neog M	-
6.	Boigyanik Podhotit Gai Goru Palon (Chapter in Books)	Pankaj Deka	-
Training manuals	Unnat Prayuktire Udyan Sashar kheti	Ms. Ira Sarma, R. Borgohain	25
	Handbook for Mushroom cultivation	M.Phukon, R. Borgohain	25
Technical reports			
1.	Annual Action plan	All KVK Scientists	6
2.	Annual Report	All KVK Scientists	6
3.	Monthly Progress Report	All KVK Scientists	12
4.	Best KVK Award	All KVK Scientists	8

Book/ Book Chapter	Boigyanik Podhotit Gai Goru Palon	Pankaj Deka	-
	Samanitta padhotit dhan mach palon	Pabitra Saharia	-
Popular articles	Bhutjalakia khetit kit patangar akramon aru yaar jaibik niyantron bebostha	Phukon M.	-
	Grismokalin hak-pacholir anistokari kit-patanga aru pratikar	Phukon M.	-
	Lao jatio hachyar pradhan rug aru yaar pratikar	Phukon M	-
	Jalukor khetit hachya rakhya bebostha	Phukon M.	-
	Sukhma Bybosthapona: broiler kukura palonor sopholotar sabikathi	Deka P	-
	Boigyanik Podhotit Gai Goru Palon: Swaniyojonor Ek Madghyom	Deka P	-
	Borxunor pani hangrakhon aru bahumukhi bebohar	Deka P. Phukon M., Phukon R. Borgohain R.	-
	Somoyosit Swa-niyojonor Madhyom Hisabe Somonwito Gahori- Mash Palon	Deka P	-
	Mohila Sobolikoronor Poriprekhitot	Deka B	-
	Purani kamalabarir punar sthapan paddhati.	Sarma I.	-
	Seujgrihat agatia capsicumar kheti.	Sarma I.	-

	Matikathalar joibik krishi paddhati	Sarma I.	-
	Matormahar unnata krishi paddhati	Sarma I.	-
	Narji phular krishi koushal	Sarma I.	-
	Seujgrihat abotoria Sak pachalir kheti	Sarma I.	-
	Unnata padhatire halodhir kheti	Sarma I.	-
	Unnata padhatire Kath aloor kheti	Sarma I.	-
Technical bulletins			
Extension bulletins	Organic management of pest and diseases in Bhut Jalakia		50
	Insect pests and diseases of summer vegetables and their management		50
	Preparation of jam, squash and pickles		50
	Sources of natural dye		50
	Capsicumor unnata krishi pranali		50
	Unnata pronalire Broccolir kheti		50
	Trichoderma-Abidh jaibik bhekurnakhok		50
	Kathfula khetir hatputhi		50

Conference/ workshop proceedings	Exploration of Plant Derived Natural Dyes in Assam	Binapani Deka, Pankaj Deka, R. Borgohain	International Workshop on Natural Dyes, March'2014, Hyderabad
Leaflets/folders			
e-publications			
Any other (Pl. specify)			
TOTAL			

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 : Nil

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

3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)

Empowerment of Rural Women through backyard Poultry rearing (2013-14):

Background and Problem:

Socially we are having male dominating family system; obviously all income from agricultural produce is in hands of male farmer. It is observed that there is always shortage of money in the hands of rural farm women. There are some enterprises existing in the present situation which gives some assured income viz. Backyard poultry, small unit of goat keeping etc. in the hands of rural women. However, poor farm women have maintained indigenous low productive stock with traditional management. We are aware that the taste of indigenous poultry is better accepted, it has more demand too. But when we think about commercial point of view, problem of poor weight gain and egg production is the major problem observed by KVK.

KVKs intervention:

Krishi Vigyan Kendra, Jorhat has planned to introduce a new improved variety suitable for backyard poultry to replace existing low productive indigenous bird in the Kaliapani development block of Jorhat district. KVK, Jorhat has selected Vanaraja, a dual purpose improved variety, developed by PDP, Hyderabad as a need based intervention for tackling the problem with indigenous bird and has conducted On Farm Trial and subsequently Front Line Demonstration in few villages where backyard poultry rearing is a common practice. Further, KVK, Jorhat introduced the technology of improved feeding and brooding practices of backyard poultry to reduce early chick mortality to few women in the villages for development of mother unit of improved variety for backyard poultry. During FLD programme, KVK scientists regularly monitored the performance of the chicks supplied at the door steps besides providing health care and technical support. Vaccination against Ranikhet and Infectious bursal disease were done regularly.

Productivity:

The backyard rearing of improved Vanaraja bird brought significant increase in both live weight and egg production of birds over the indigenous birds. The first egg laying is about 15

days earlier in Vanaraja, The average eg production was a whooping 146 nos/annum as compared to only 54 in local birds. Egg weight of Vanaraja was also significantly higher (51g) as against 36g of local fowl. Body weight was 2.5 kg in 6th month as compared to only 50 grams in local birds.

Adoption by the beneficiaries:

Rather than meet production, the farmers were interested to produce chicks from eggs of Vanaraja by hatching traditionally with their own local hen. Also, two numbers of mother unit for Vanaraja bird was developed by KVK, Jorhat as regular source of the Vanaraja grower bird for the area.

Adoption by non beneficiaries:

Due to good result and return from Vanaraja, the farm women supplied chicks and eggs of Vanaraja to their relatives. Some farm families purchased eggs from beneficiaries at the rate of Rs. 6/- and hatched with their own local hen.

Suitability:

Low input: In backyard, birds were let loose during the day time by the farmers and offered on an average 35 g of feed per bird in terms of crushed maize, boiled rice, broken rice and kitchen waste etc. and the rest of their re quirement was met by scavenging themselves in the form of insects, worms, seeds of grasses, tender leaves of grasses etc. The unproductive family members, old persons, children can easily manage and supervise the managerial practices of backyard poultry in a very short time.

Social impact:

With the help of Vanaraja farming returns increased in comparison to local bird rearing and the income is in the hands of farm women. So, she became a money holder member of a family and ultimately she is one of the major members of the family having the role in decision making of a family.

Marketing:

Commercial poultry are available in urban area and cost of commercial poultry produce are more in rural areas due to transportation and unavailability, while backyard poultry produce are available in village condition. Therefore, backyard poultry produce are the easily available animal protein source for rural areas. Further, the meat and eggs of Vanaraja were preferred by the local consumers and found very demandable in the market owing to its similarity of the typical appearance of the indigenous bird. There was record of selling @ Rs.5 to 6/-per egg and Rs.150/--175/- per Kg live weight of Vanaraja bird by the farmer locally with equal market demand and good realization. So, village itself and daily and weekly bazzar (Hut) in nearby area are the market for chicken and eggs of backyard poultry farming.

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

1. On demonstration, the broodiness of hybrid poultry “Vanaraja” was not observed. Further, it is not possible to incubate hatching eggs under local broody hen round the year. Therefore, to incubate eggs of hybrid poultry in rural areas, an electric cum kerosene based wooden device has been designed and developed by KVK Jorhat in collaboration with a farmer where temperature can be maintained manually. The farmers can easily build the device at home with locally available material. This device can be used in the household level to incubate non broody brids like Vanaraja. In the men time the device is gaining popularity among the farmers.

2. Non availability of quality fish seed is a major bottle neck in fish farming particularly in upper assam. Due to non availability of right seed at right time the farmer can not take the full period growth advantage of fish farming (March to October). To do so, a programme on production of carried over seed was undertaken so that farmers rear the previous years fish seed (Carried over) when temperature become congenial for fish farming. Some of the farmers can also take this method of fish seed production as a business venture in the locality.

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.	Duckery	Use of *Bhatghila* [*Oroxylum indicum* (L) Vent.] bark extract. The rural people use the bark, make paste and provided to the local ducks when observe symptom of lameness. The symptom of lameness resembles parosis condition of duck. They believe that bhatghila bark can control this problem of duck. This believe if standardized can be converted to technology for controlling duck's deficient in magnesium and iron. This is the first reporting ITK on duck by bhatghila bark.	Treatment for lameness problem (suspected parosis) in duck
2.	Rice	Leaves of 'Bihlongini' (*Polygonum hydropiper*) or 'Bihdhekia' (*Sphaerostiphnos unitus*) are incorporated into the soil of the growing crop	Management of rice stem borer
3.	Rice	'Posotia' leaves are dried, grinded and dusted in the rice field	Management of rice hispa

4.	Rice	Chopped *Kola kachu* (*Colocasia esculanta* Black) and fresh cowdung are distributed in water in the field	Management of case worm problem of rice
5.	Rice	Keeping the stubbles of *Boro* rice undisturbed avoiding ploughing and grazing by the cattle for 1 - 1½ months. The practices is usually practised in traditional varieties grown in low lying (beel) areas	This practice allows the development of ratoon of *boro* rice which provides an additional income to the farmers with zero investment
6.	Rice	Grains for seed purpose are stored in 'koloh or earthen pitcher with a lid made of earth	The stored grain pests cannot enter the structure, thereby savings the seeds. The earthen pot also saves the grains from outside moisture
7.	Banana	Spraying solution of "Samsolokha"/*germani bon* (*Chromolena odorata*) leaves along with detergent soap in banana plant	To control banana weevil
8.	Banana	The juice of *gundhowa bon*, (*Ageratum conizoides*) is sprayed on banana plant	To get rid of leaf and fruit scarring beetle of banana

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

- Identification of courses for farmers/farm women : PRA, Group discussion
- Rural Youth : Rural empowerment, PRA, group discussion
- Inservice personnel : On recommendation by DAO

3.11 Field activities

i. Number of villages adopted : 3

ii. No. of farm families selected : 500

iii. No. of survey/PRA conducted : 03

3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Lab not yet established

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

Sl. No	Name of the Equipment	Qty.	Cost
1			
2			
3			
Total			

3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples				
Water Samples				
Plant Samples				
Petiole Samples				
Total				

4.0. IMPACT

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

Sl. No.	Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
				Before (Rs./Unit)	After (Rs./Unit)
1	Sali paddy var. “Ranjit” and “Swarna Sub-1”	110	100	12750.00 (As grain)	83410.00 (As seed)
2	Toria TS- 38	75	100	20750.00	25235.00
3	Summer and rabi vegetables	100	100	80000.00	120000.00
4	Performance of Vanaraja poultry	100	100	2900.00 per unit of 10 birds	5150.00 per unit of 10 birds
5	Performance of Hampshire & T& D pig	100	100		
6	Marigold	1	100	180000.00	200000.00
7	Management of Brinjal Fruit and Shoot Borer	10	100	15 tonne (Yield)	20 tonne

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)

Activity	**Methodology used for analysis**	**Impact**
Demonstration on Sali paddy (var"Ranjit" and "Swarna Sub-1")	Observation and Group Discussion	▪ After observing the excellent performance of Sali paddy, the farmers become interested to go for large scale cultivation of that varieties in the forthcoming season ▪ Farmers accepted the technology and nearby farmers adopted
Demonstration on toria var. TS- 38	Group discussion	▪ Farmers of Majuli showed interest towards the technology after getting benefited economically through cultivation of toria ▪ Farmers exhibited keen interest towards the toria var. TS 38
OFT Dual purpose chicken Vanaraja	Observation and personal contact	▪ Concept of rearing of Dual purpose chicken Vanaraja has been adopted by many farmers ▪ One farmer Mr. Himantabiswa Gogoi, Bonai have started with 200 Vanaraja chicks. One batch of 100 chicks is in laying stage. ▪ Consumers of local market well accepted brown shelled eggs and meat of Vanaraja poultry. ▪ Vanaraja poultry farming may be the source of livelihood and food security for rural youth and farm women in Jorhat District.
Advisory services on disease management of Bhut Jalakia	Observation and personal contact	▪ Many farmers of local area were benefited from the advisory services and have adopted the recommended management practices

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

Impact analysis was not done because it has to be carried out by a 3rd party.

5.0. LINKAGES

5.1 Functional linkage with different organizations

Name of organizations	Nature of linkage
1. Department of Agriculture, Govt. of Assam	In planning and organizing training programme, demonstrations, field days, farmers-Scientist interaction, CDAP preparation, resource person in training programmes, Joint monitoring of central govt programme like BGREI. The linkage with the department of Agriculture is made effective by frequent meeting with District Agriculture Officer, Joint meeting with the Deputy Commissioner and other agencies
2. Department of Animal Husbandry and veterinary, Govt. of Assam	In planning and implementing training programme and also organizing rural camp for vaccination of farm animals.
3. District Rural Development Agency, Jorhat	Conducting collaborative training programmes and resource persons for DRDA training. Joint visits to the DRDA operated programmes
4. Dairy Development, Jorhat, Assam	In planning and organizing training programme
5. NABARD, Jorhat	Conducting exposure visit, financial assistance for creating Rural Knowledge Centre, Formation of farmers club
6. North East Affected Area Development Society (NGO)	In planning and organizing training programme
7. All India Radio, Jorhat	For coverage of rural programme and broadcasting of Radio-talk on Agriculture
8. RRTC, Umran, Meghalaya	Conducting exposure visit

9. Central Potato Research Station, Upper Shillong	Conducting exposure visit
10. ICAR Research Complex for NE Hill Region, Umiam, Barapani	Source of technology and conducting exposure visit
11. NRC on Pig, Rani, Kamrup	Source of technology
12. R & D, TATA Tea, Teok, Jorhat	Exchange of resource person, information sharing, exposure visit
13. Central Silk Board, Lahdoigarh	Knowledge sharing, source of information
14. ATMA, Jorhat	Technology backstopping, conducting demonstration, field day programmes, Joint programme evaluation.
15. Assam Seed Certification Agency	For seed certification of seed growers of the district
16. Regional Agricultural Research Station , Titabor	Source of foundation and breeder seeds for all varieties of paddy. Paddy related technology transfer and advisories, joint on farm testing of pipeline varieties
17. Goat Research Station, Bornihat	Regular consultation on goat related issues, AI of beetle goat, Joint health camp, supply of improve breed of goats to farmers

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 2013-14

Name of the scheme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
Technology Showcasing	To increase the production and productivity of cereal and oilseed crops as well as to produce quality seed in participatory mode	2010-11	RKVY	29,25,740.00
High Tech Fruit Orchard cum nursery	Planting material generation	Feb,2012	NHB	75,00,000.00
Technology Showcasing ie., three tier pig- poultry- fish under RKVY	To increase the production and productivity of pig-poultry-fish	09/08/2012	RKVY	400000.00

Agriculture centric sustainable livelihood improvement programme for the tribal farmers of Assam	1. A cluster of 10 tribal villages of the district to develop backyard poultry farming with improved variety like “Vanaraja” 2. To develop pig breeding unit in 10 different villages of tribal community to produce quality piglet for the development of pig farming in the district. Also, to develop pig fattening unit in the same tribal villages to meet the demand of pork and empower tribal farming community in the district 3. To promote cultivation of horticultural crop like vegetables, Assam lemon etc. in the tribal dominated area.	March,2013	ICAR	77,00000.00

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Sl. No.	Programme	Nature of linkage	Remarks
1	Governing Body, ATMA, Jorhat	Member	
2	Training	As Resource persons	
3	Demonstration on Toria at Majuli	Site and farmers selection	
4	Farmers – Scientists Interaction	As Resource persons	
5	Field Day	Collaborative programme	
6	Diagnostic field visit	As specialists	

5.4 Give details of programmes implemented under National Horticultural Mission: Nil

S. No.	Programme	Nature of linkage	Constraints if any

5.5 Nature of linkage with National Fisheries Development Board : Nil

S. No.	Programme	Nature of linkage	Remarks

6. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2013-14

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	Demo unit			**Spwan** Oyster		36.4kg		3640.00	
2	Guava		0.5ha	L-49, Allahabad Safeda		70 kg		600.00	
3	Pineapple		0.02ha			50kg	6000.00	400.00	

6.2 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									
	10.06.13	20.11.13	0.4ha	Ranit	Foundation seed	11.1q	13000 .00	28860.00	In stock
	20.05.13	29.11.13	0.24ha	KDML,	Foundation seed	6.3q	10000 .00	16380.00	
	14.06.13	25.11.13	0.04ha	Black rice,	Foundation seed	0.97q	1000. 00	2522.00	
	17.06.13	24.11.13	0.15ha	Mashuri	Foundation seed	3.42q		8892.00	

	11.06.13	22.11.13	0.08ha	TTB404	Foundation seed	1.2q	5000.00	3120.00	
	21.06.13	24.11.13	0.04ha	Ketekijoha	Foundation seed	1.02	1500.00	2652.00	
Pulses									
Green gram	13.09.13	28.11.13	0.13ha	var. Pratap		0.12q	500.00		
Spices & Plantation crops									
Turmeric	15.03.13	29.11.13	0.02ha	Megha Turmeric	Rhizomes	80kg			50kg used at farm
Floriculture									
Gerbera	**Sep'2012**	**Continuing**	0.03ha	Red Gem	Suckers	500nos	**2500.00**		Used at KVK Farm
Marigold	**Sep'2011**	**-**	0.01ha	Pusa Narangi	Seeds	1000 g	**5000.00**		Used at KVK Farm
Gladiolus	**Oct'2013**	**Jan'14**	0.01ha	Novalux	Corms	500nos	**2500.00**		In Stock
Fruits									
Guava			0.5ha	L-49, Allahabad Safeda		70 kg		600.00	

Pineapple			0.02ha			50kg	6000.00	400.00	
Vegetables									
Brinjal	10.10.13	Jan-March' 14	0.01ha	Longai	veget ables	30kg	500.00	250.00	5 kg for seed
					seed	200g		Supplied to the farmers	Used at KVK Farm
Cabbage	12.10.13	Jan'14	0.01ha	Green Express	veget ables	50kg	1000.00	500.00	
					seedl ings	500			Used at KVK Farm
Cauliflower	15.10.13	Jan'14	0.01ha	NP2801		30kg	500.00	300.00	
					seedl ings	500 g			Used at KVK Farm
Knolkhol	16.10.13	Jan'14	0.01ha	Soilder		30kg	500.00	300.00	
					seedl ings	500 g			Used at KVK Farm

Tomato	30.10.13	Jan-March' 14	0.02ha	Megha, Cherry	vegetables	70g	1000.00	400.00	
					seeds	300g			
					Seedlings	3000			
a. Others (specify)									
Mushroom			Demo unit	Oyster		15kg		1200.00	

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**	
1	Vermicompost production unit	1534 kg	5000.00		Used in KVK, Farm
2	Trichodarma based Biopesticides	400 kg	-		Distribution to farmars and used in KVK farm

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	
1	Rice cum fish	Mrigal, Common carp, Golden carp	Fish	58 kg	6000.00	7540.00	
2	Composte Fish Farming	Common carp, Golden Carp, Grass Carp, Rohu	Fish	104.90kg	8000.00	17235.00	
3	Quail	Japanese Quail	Egg	4151 nos Egg	2000.00	6226.00	
4	Quail	Japanese Quail	Bird	80 nos bird		2400.00	
5	Duck	Khaki Campbell & Chara Chemballi	Egg	300 Nos	Nil	1500.00	
6	Chicken egg	Vanaraja	250 bird	235 nos	10640.00	18000.00	
7	Dairy Unit	HF Cross	Milk	826 lit	6800.00	28745.00	
8	Pig	Hampshire and T & D	Fatteners & Piglets	3 Fatteners & 24 Piglets	35,450.00	54015.00	3 Fatteners & 8 Piglets

9	Goatery Unit	Local		4 Nos	Nil	4000.00	

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit : Nil

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

6.5 Utilization of hostel facilities (Month-Wise) during 2013-14 : Nil

Accommodation available (No. of beds) : 20

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)**
September	Scientific management of	6 days	20	6 days	-

	pig				
Total		6 days	20	6 days	
Grand total					

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**	**Account Number**
With Host Institute	SBI, AAU, Branch	Assam Agricultural University, Jorhat	10253825316
With KVK	SBI, Teok	Teok	30240073924

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

Item	**Released by ICAR/ZPD**		**Expenditure**		**Unspent balance as on 31st March, 2014**
	2010–11	**2011-12**	**2012-13**	**2013-14**	
Inputs					
Extension activities					

TA/DA/POL etc.					
TOTAL					

7.3 Utilization of KVK funds during the year 2013 -14

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	**Pay & Allowances**	81,61,000.00		81,34,350.00
2	**Traveling allowances**	2,00,000.00		1,51,236.00
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees			
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			
TOTAL (A)		**13,00,000.00**	**13,00,000.00**	**13,00,000.00**
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**			
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				

GRAND TOTAL (A+B+C)			

7.4 Status of revolving fund (Rs. in lakhs) for last three years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2011 to March 2012	**1,01,407.00**	**2,37,341.00**	**1,24,463.00**	**2,31,285.00**
April 2012 to March 2013	**2,31,285.00**	**1,60,499.00**	**27,653.00**	**3,64,131.00**
April 2013 to March 2014	**3,64,131.00**	**2,58,608.00**	**47,617.00**	**5,75,122.00**

Note: No KVK must leave this table blank

8.0 Please include information which has not been reflected above. : Nil

(Write in detail)

8.1 Constraints

Administrative

- Inadequate periodic HRD programmes for KVK staff

b) Technical

- Lack of diagnostic laboratory
- Poor internet connectivity
- Lack of AES wise technology

c) Financial

- Late and under allocation of funds.
- Fund allotment (Recurring contingency) among the KVKs should justifiable be based on the work load and history of fund utilization

(Signature)

Programme Coordinator