For office use only

ANNUAL PROGRESS REPORT

(April-2016 to March-2017)

&

ACTION PLAN

(April-2017 to March-2018)

TO BE PRESENTED AT
ANNUAL ZONAL WORKSHOP FOR KVK OF ZONE-VI
(Rajasthan & Gujarat)

ORGANIZED BY
DIRECTOR, ATARI ZONE-VI, ICAR, JODHPUR

HELD AT
JUNAGADH AGRICULTURAL UNIVERSITY,
JUNAGADH -362 001 (GUJARAT)
During June 10 - 12, 2017

PREPARED/COMPILED By
Dr. K. P. Baraiya, Senior Scientist & Head
Smt. A. K. Baraiya, Scientist
Shri S. H. Lakhani, Scientist
Dr. J. N. Thaker, Scientist

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY
JAMNAGAR - 361 006
GUJARAT

CONTENT

ANNUAL PROGRESS REPORT-2016-17

(1st APRIL - 2016 TO 31stMARCH-2017)

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	53	1511	354	1865
Rural youths	7	232	72	304
Extension functionaries	10	828	0	828
Sponsored Training	26	1832	275	2107
Vocational Training	4	0	124	124
Total	**100**	**4403**	**825**	**5228**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	220	88	
Pulses	125	50	
Cereals	20	8	
Vegetables	10	4	
Other crops	50	20	
Hybrid crops			
Total	**425**	**170**	
Livestock & Fisheries			
Other enterprises (kitchen gardening)	100	4	
Total	**100**	**4**	
Grand Total	**525**	**174**	

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops			
Livestock	2	6	6
Various enterprises			
Total	**2**	**6**	**6**
Technology Refined			
Crops	6	18	18
Livestock			
Various enterprises	2	18	18
Total	**8**	**36**	**36**
Grand Total	**10**	**42**	**42**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	550	48101
Other extension activities	156	23781
Total	**706**	**71882**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Lives tock	Weath er	Marke-ting	Aware-ness	Other enterprise	Total
Jamnagar	Text only	2				1	1	4
	Voice only							
	Voice & Text both							
	Total Messages	**2**				**1**	**1**	**4**
	Total farmers Benefitted	**54639**				**1974**	**1707**	**58320**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	200.93	763750
Planting material (No.)	591	1295
Bio-Products (kg)	14150	196685
Livestock Production (No.)	0	0
Fishery production (No.)	0	0

7. Soil, water & plant Analysis

Samples	No. of Sample	Value Rs.
Soil	563	13790
Water	59	2950
Plant	74	-
Total	696	16740

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	0
2	Conferences	0
3	Meetings	1
4	Trainings for KVK officials	0
5	Visits of KVK officials	8
6	Book published	0
7	Training Manual	0
8	Book chapters	0
9	Research papers	2
10	Lead papers	0
11	Seminar papers	2
12	Extension folder	11
13	Proceedings	1
14	Award & recognition	0
15	On-going research projects	0

DETAIL REPORT OF APR-2016-17

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Web address
	Office	FAX		
Krishi Vigyan Kendra Millet Research Station, JAU Airforce Road, Opp. Digjam Mill Jamnagar- 361 006	(0288) 2710165	(0288) 2710165	kvkjamnagar@jau.in kvkjamnagar@gmail.com	www.jau.in

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

Address	Telephone		E-mail	Web address
	Office	FAX		
Junagadh Agricultural University, Junagadh – 362 001 (Gujarat)	PBX 2672080-90	(0285) 2672653	dee@jau.in	www.jau.in

1.2.b. Status of KVK webside :- Yes/~~No~~ (Attached with university website)

1.2.c. No. of visitors (hits) to your KVK website (as on today) :-5401338

1.2.d. Status of ICT lab at your KVK :- ICT lab was established centrally at University Headquarter, Junagadh Agricultural University, Junagadh. As a part of ICT on KVK is also established.

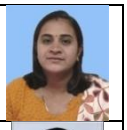
1.3. Name of the Senior Scientist & Head with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. K. P. Baraiya	Senior Scientist & Head Krishi Vigyan Kendra Junagadh Agricultural University, Airforce Road, Opp. Digjam Mill Jamnagar- 361 006	9427980032	kvkjamnagar@gmail.com kvkjamnagar@jau.in

1.4. Year of sanction:ZARS (KVK) 2001, LetterNo. F.No. 18(4)/99-NATP Dated October 31st, 2001
ICAR (KVK) 2004, LetterNo. F.No. 8(1)/2002-AE-II(Pt.) Dated February 5th, 2004

1.5. Staff Position (as on 31st March, 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Desig-nation	Discipline	Pay Scale	Grad Pay	Present basic (Rs)	Date of joining	Perm-anent /Temp-orary	Category (SC/ST/ OBC/ Others)	Mobile Number	Email ID	Recent Photographs
1	Senior Scientist & Head	Dr. K.P. Baraiya	Senior Scientist & Head	Plant Protection	37400-67000	8000	22320	17.08.2006	Temp	Other	9427980032	kpbaraiya@gmail.com	
2	Scientist	Shri S. H. Lakhani	Scientist	Crop Production	15600-39100	6000	15600	30.03.2015	Temp	Other	9537345780	sanjaylakhani1@gmail.com	
3	Scientist	Dr. V. C. Gadhiya	Scientist	Plant Protection	15600-39100	6000	15600	29.06.2015	Temp	Other	9727496745	gadhiya_vipul17@yahoo.com	
4	Scientist	Dr. J. H. Chaudhari	Scientist	Horti./ Agronomy	15600-39100	6000	15600	18.01.2017	Temp	Other	9978303111	Jivraj89@gmail.com	
5	Scientist	Shri P. S. Gorfad	Scientist	ExtensionEducation	15600-39100	6000	24400	27.6.1994	Temp.	OBC	9427452291	psgorfad@gmail.com	
6	Scientist	Dr. J. N. Thaker	Scientist	Fisheries	15600-39100	6000	23070	31.08.2006	Temp.	Other	9824224247	jnthaker@rediffmail.com	

7	Scientist	Smt. A. K. Baraiya	Scientist	Home Science	15600-39100	6000	23070	17.08.2006	Temp.	Other	9998227607	anjana1baraiya@gmail.com	
8	Farm Manager	Shri H. S. Godhani	Prog. Asstt.	Agril. Ent.	9300-34800	4400	38090	19.09.2015	FixPay	Other	8866255223	hitzgodhani@gmail.com	
9	Programme Assistant	Shri S. N. Galani	Prog. Asstt.	Pl. Breeding	9300-34800	4400	38090	14.2.2012	FixPay	Other	9033341997	shyamgalanis1@gmail.com	
10	Computer Programmer	Shri C. P. Padhiyar	Prog. Asstt.	Computer Operator	9300-34800	4400	12240	29.12.2008	Temp	OBC	9428378780	bhavyapadhiyar@gmail.com	
11	Accountant / Superintendent	Shri B. H. Joshi	O.S.	Adm.	9300-34800	4400	11750	11.6.2008	Temp.	Other	9426462462	joshibhavik1984@gmail.com	
12	Stenographer	Kum. B. N. Dave	Jr. Clerk	Adm.	5200-20200	2400	8440	11.06.2008	Temp.	Other	7567195689	joshibhargavi5286@gmail.com	
13	Driver	Vacant	Driver	Supt.	5200-20200	1900	-	-	-	-			
14	Driver	Shri. D.M. Chauhan	Driver	Supt. (Fix)	5200-20200	1900	6820	9.10.2007	Temp.	S. T.	9824173712		
15	Supporting staff	Shri B. B. Bamaniya	Peon	Supt.	4440-7440	1300	4990	01.11.2014	Temp.	S.T.	9904553794	bipin.bamaniya1986@gmail.com	
16	Supporting staff	Shri P. S. Damor	Peon	Supt.	4440-7440	1300	5380	1.09.2006	Temp.	S. T.	8141457764	psdamor007@gmail.com	

1.6. Total land with KVK (in ha):20.44 ha

Sl. No.	Item	Area in hectare(s)*
1	Under Building and Road	1.56
2	Under Demonstration units	0.70
3	Under crops	12.00
4	Orchard	3.50
5	Agro-forestry	0.24
6	Others (Farm Pond & Channels)	2.00
	Total	**20.44**

1.7. Infrastructural Development:

A) Buildings

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Comp-letion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Star-ting Date	Plinth area (Sq.m)	Status of const-ruction
1.	Administrative Building	KVK	15-8-11	550	5500000			
2.	Farmers Hostel	KVK	15-8-11	305	3000000			
3.	Staff Quarters (6)	KVK	15-8-11	400	4000000			
4.	Demonstration Units of vegetable	KVK + ATMA	31-3-07	-	-	-	-	-

5	Poly House	RKVY	31-3-09	320	281602	-	-	-
	Net House	RKVY	31-3-09	150	64498	-	-	-
	Training Hall	RKVY	20-2-10	190.99	1395800	-	-	-
	Process Plant	RKVY	20-2-10	197.31	1536400	-	-	
	Implement shed	RKVY	11-2-10	77.33	297800	-	-	-
6	Rain Water harvesting system	KVK	31-3-2007	26m×26m (2 Ponds) 60m×60m (1 Pond)	999000	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Toyota Qualish (GJ-10G 433)	2004	490200	433892	Partially Working
Hero Honda(bike)GJ-10 BB-1634	2010-11	46475	19230	Working

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Captain Mini Tractor	2001-02	166125	Working
Telephone line	2001-02	19850	Working
Multi tool carrier complete set	2001-02	6500	Working
Photocopier	2001-02	125000	Not Working
Overhead projector	2001-02	17600	Not Working
Computer	2002-03	29500	Not Working
HP Laser printer	2002-03	20390	Working
U.P.S. (3 KVA)	2002-03	38000	Not Working
Qualish (GJ-10 G-433)	2004-05	490200	Partially Working
Spectrophotometer	2005-06	89160	Working
Flame photometer	2005-06		Working
Physical balance	2005-06	10640	Working
Chemical balance	2005-06	100000	Working
Water distillation still	2005-06	96118	Not Working
Kjeldahi digestion and distillation	2005-06	49644	Working
Shaker	2005-06	80080	Working
Grinder	2005-06		Working
Refrigerator	2005-06	16772	Working
Oven	2005-06	30550	Working
Hot plate	2005-06		Working
Aspee tractor mounted sprayer	2006-07	32000	Working
Air assisted blower type sprayer	2009	98750	Working
Laptop computer (HCL)	2009	47500	Working
Digital camera (Nikon)P-90 12.1	2009	24300	Working
Cotton stalk shredder	2008-09	121000	Working
Groundnut digger-tractor operated	2009	78500	Working
Cultivator cum rotavator	2009	90000	Working
Groundnut decorticator	2009	95850	Working
Multi crop thresher	2009	114000	Working
Processing Unit	2009	1685000	Working
Plantar-tractor operator	2009	44000	Working
EPBX System	2012	44000	Working
Vertical Autoclave	2012	78190	Working
Laminar Airflow	2012	127440	Working
Electronic Balance (200 gm)	2012	12600	Working
EC/ Conductivity meter	2012	6300	Working
Portable pH Meter	2012	6300	Working
Compound microscope	2012	4410	Working
Trinocular microscope	2012	112000	Working
Digital temperature & humidity	2012	34750	Working

indicator cum controller			
Digital TDS meter	2012	3985	Working
Research centrifuge with accessories	2012	42480	Working
Stabilizer	2012	10440	Working
Hot air oven	2012	41580	Working
BOD incubator	2012	46305	Working
Digital camera SLR (Canon)	2012	44750	Working
AC 1.5 tonn	2012	45990	Working
Photo copier	2016-17	144900	Working
AC 2. Ton	2016-17	80000	Working
Computer (No.2)	2016-17	77677	Working
Laptop & Printer	2016-17	74800	Working

1.8. A). Details SAC meeting conducted in the year

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken
1.	01-10-2005	21	-	-
2.	07-10-2006	30	-	-
3.	02-11-2007	31	-	-
4.	17-10-2008	30	-	-
5.	14-09-2009	33	-	-
6.	29-4-2010	35	-	-
7.	07.04.2011	37	-	-
8.	10.04.2012	32	-	-
9.	02.04.2013	37	-	-
10.	27.12.2013	26	-	-
11.	21.02.2015	25	-	-
12.	29.01.2016	22	-	-
13.	25.10.2016	27	As below	As below

The 13th Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Jamnagar was held at Training Hall, Krishi Vigyan Kendra, JAU, Jamnagar on 25th October, 2016.

Committee made the following recommendation after active interaction.

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1	25.10.2016	Dr. A. R. Pathak, Hon'ble Vice Chancellor, JAU, Junagadh	➢ Arrange training about pink bollworm in first quarter	Suggestion accepted and incorporated, pink bollworm training arranged in first quarter
			➢ He suggested to arrange FLD on vegetable (Brinjal : GJBH-4) our university released varieties.	Suggestion accepted and incorporated in FLD on university variety in action plan
			➢ Arrange FLD on Ajwain crop, Wheat GW-463 variety, Pearl millet GHB-732	Suggestion accepted and incorporated in action plan for Ajwain crop incorporated and both variety as FLD on wheat and pearl millet,
			➢ Arrange demonstration on sea weed liquid	Suggestion accepted and incorporated for arrangement of demonstration on sea weed liquid
			➢ Arrange demonstration on Bio-fertilizer in horticultural crops	Suggestion accepted and incorporated for arrangement of demonstration on Bio-fertilizer in horticultural crops

			➢ Establish Azola demonstration unit and create awareness among farmers	Suggestion accepted and incorporated for arrangement of demonstration unit under integrated farming system at KVK
			➢ Arrange training on use low cost feeding technology in fisheries	Suggestion accepted and incorporated for arrangement of training on use of low cost feeding technologoy in fishereis
			➢ Arrange training on pearl oyster production in collaboration with Fisheries Research Station, JAU, Sikka (Jamnagar)	Suggestion accepted and incorporated for arrangement of training on pearl oyster production in collaboration with Fisheries Research Station, JAU, Sikka (Jamnagar)
			➢ He suggested to arrange on campus training with line department on fisheries subject	Suggestion accepted and incorporated for arrangement of on campus training with fisheries department of Jamnagar
			➢ Arrange training on cage culture	Suggestion accepted and incorporated for arrangement of training cage culture
			➢ Arrange OFT on animal husbandry	Suggestion accepted and incorporated for arrangement of OFT on animal husbandry
			➢ Recast title of training on clean milk production	Suggestion accepted and incorporated for the title and re-casted as “Higher Milk Production by Improving breed, Nutrition & Feed Management”
			➢ Arrange OFT/FLT to women fish farmers for raft preparation of *Kappaphycus* spp.	Suggestion accepted and incorporated for arrangement of women fish farmers for raft preparation of *Kappapphycus* spp.
		Dr. V. P. Chovatiya, Director of Research, JAU, Junagadh	➢ Arrange training on Ajwain, Chikori and other spice crop.	Suggestion accepted and incorporated for arrangement of training on specific crop of district ajwain, chikori and other spices crops.
			➢ Arrange off campus training on production of Medicinal and aromatic plants	Suggestion accepted and incorporated for arrangement of training on production of Medicinal and aromatic plants
			➢ Arrange training on reduction of storage losses in farm produce.	Suggestion accepted and incorporated for arrangement of training on reduction of storage losses in farm produce.
		Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh	➢ Arrange training on use of bio-fertilizers and recycling of farm waste through composting.	Suggestion accepted and incorporated for arrangement of training on use of Bio-fertilizers and recycling of farm waste through composting.
			➢ Modify objective of OFT on IMC spawn (Fisheries). Recast the OFT after discussion with KVK, Kodinar and experts	Suggestion accepted and incorporated. Modified objective of OFT on IMC spawn. The OFT also recast as per discussing with suggested institutes.

			from Fisheries College.	
			➢ Study the impact analysis of KVK activity in old operational villages	Suggestion accepted and incorporated started study the impact analysis of KVK activity in old operational villages
			➢ Carried out PRA survey of new operational villages	Suggestion accepted and incorporated for arrangement of PRA survey in operational villages
			➢ Kept flex banner throughout season on FLD field	Suggestion accepted and incorporated for arrangement of flex banner at FLD field
		Dr. V. N. Patel, Associate Director of Research (North Saurashtra Agro-climatic Zone) and Research Scientist (DF), Dry Farming Research Station, JAU, Targhadia	➢ Divert farmers towards organic farming.	Suggestion accepted and implemented for maximize the organic farming promotion. We also make availability of all bio-products for organic farming.
		Shri J. B. Mathasoliya, District Agricultural Officer, District Panchayat, Jamnagar	➢ Arrange training on production of bio-products by farmers (Jivamrut)	Suggestion accepted and implemented for arrangement of vocational training on production of bio-products at farmers level
			➢ Arrange training on organic farming	Suggestion accepted and implemented for arrangement of training on organic farming
		Shri Kishorbhai, progressive farmer At:-Sumri, Ta.&Dist.:Jamnagar	➢ Suggested to arrange more training on organic farming with use of "Gaumutra".	Suggestion accepted and implemented for arrangement of training on organic farming with use of "Gaumutra" as inputs.
		Shri Maheshbhai Ghetiya, a progressive farmer At:- Kharva Ta.-Dhrol Dist.- Jamnagar	➢ Suggested to arrange more training on organic farming with use of 30 days old buttermilk.	Suggestion accepted and implemented for arrangement of training on organic farming with use of all inputs produced at farmers level

❖ 13th SAC proceeding along with list of participants in Annexure -1.

2. DETAILS OF DISTRICT (2016-17)

The district of Jamnagar is lies in North Saurashtra Agro Climatic Zone (VI) with an area of 35.02 lakh hectare land. The total geographical area of entire district (21.8 – 22 ON, 69.0 – 70.7 E) occupies 14125 km^2 i.e. 14.125 lakh ha area in the west of Gujarat state. The climate is arid (80%) and semi-arid (20%) with a mean moisture index of 67.5. About 95 to 98% of annual rainfall comes during the monsoon month of June to October, July and August being the rainiest months. The co-efficient of variation ranges between 50 and 82%. The annual potential evapo-transpiration ranges between 1500 and 1650mm, three times the precipitation, resulting in no flow in the ephemeral channels for the most of the year. The district is a water scarcity area droughts are common in this region draughts of moderate to severe intensity occur once in 2 to 3 years. Although the integrated drainage system from the story/rocky/gravelly surfaces and torrential nature of precipitation generate 40 to 60% of rainfall as runoff, steeper slopes and absence of checks allow the water to quickly flow to the sea. Being is hard rock terrain, the groundwater potential is very low, is already over exploited and mined, resulting in either the saline water ingress in the costal aquifers, or drying up of the ground water up to a depth of 100m. Consequently a need for holistic approach to water resource development in the district. Wind velocity prevailing in the district is higher order (14.1 km) ha on an annual average basis due to sea coast area.

According to physio graphically, major portion of the area in the district have an altitude ranging between 25 to 150 meters, which consists ten taluka having gentle slope to moderate slope. The district is marked by radical drainage pattern. Deccan trap basalt occupies a major part of the district. The Quaternary formations include milliolite, limestone, alluvium and Geolian sediments. The dominant and forms are colluvial plains and rocky uplands. Low hills occur in the southern part of district and are dissected by numerous large and small seasonal streams, most of which drain towards north and form potential drainage basins. The district is characterized by shallow, black soil and coastal alluvial soils with large variations in depth, texture, structure salinity, and water erosion. Nearly two third area of the district is under cultivation. The major factors of land degradation are accelerated water erosion and Salinization.

Basic information of operational district, Jamnagar:

Sr. No.	Details	JAMNAGAR		DEVBHUMI DWARKA	
1	Total geographical area	6.075 lakh ha.		4.07509 lakh ha.	
2	Total cultivable area	4.32 lakh ha.		2.52 lakh ha.	
3	Net cultivated area	3.53 lakh ha.		2.38 lakh ha	
4	Total area under forest	0.43 lakh ha.		0.1736 lakh ha	
5	Total irrigated area	0.939 lakh ha.		0.23092 lakh ha.	
6	Number of holdings	1.44 lakh		1.17 lakh	
7	Average annual rainfall	550 mm.		550 mm.	
8	Soil type	Medium black		Medium black	
9	Total number of villages	419 (8 city)		280 (8 city)	
10	Total population	13.89 lakh (2011)		7.48 lakh (2011)	
	(a) Male	7.18lakh .		3.84lakh .	
	(b) Female	6.71 lakh		3.64lakh .	
11	Literacy percentage	Rural	Urban	Rural	Urban
	a. Male	86.95	79.55	76.14	80.74
	b. Female	76.22	62.18	55.41	61.36
12	Number of Talukas	6 (Six),		4 (Four)	
		Jamnagar		Jamkhambhalia	
		Dhrol		Jamkalyanpur	
		Jodiya		Okha Mandal (Dwarka)	
		Kalavad		Bhanvad	
		Lalpur			
		Jamjodhpur			

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

Sr.No.	Farming systems / enterprise			
1.	Crops	Cereals	:	Pearl millet, sorghum, wheat, maize
		Pulses	:	Greengram, blackgram, chickpea, pigeonpea
		Oilseeds	:	Groundnut, sesamum, castor, mustard
		Cash crops		Cotton
		Spices and condiments	:	Cumin, fennel, coriander, ajwan, ishabagul
		Vegetables	:	Onion, garlic, potato, chilli, brinjal, tomato, caulioflower, cowpea, cabbage, okra, peach, cucurbits
		Horticulture	:	Sapota, pomegranate, lemon (citrus) , jamun, aonla, guava,custard apple, papaya, coconut, ber, almond, banana
		Floriculture	:	Rose, merigold, vevanti
		Other crops	:	Chikori, fenugreek
2.	Live stock	Bullocks and cows	:	
		Buffaloes	:	209616
		Sheep	:	232530
		Goats	:	173022
		Horse and camel	:	410/2260
		Poultry	:	38041
		Other animals	:	-
3.	Fishery	340 km coastal belt	:	4832 tonnes fish production

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

S. No	Agro-climatic Zone	Characteristics
Zone–VI	North Saurashtra	The influence area of North Saurashtra Agro Climatic Zone is spread among five districts *viz*., Amreli (7 taluukas out of 10), Bhavnagar (7 talukas out of 14), Jamnagar (all the 10 talukas), Rajkot (9 talukas of 13) and Surendranagar (6 talukas out of 9) covering 39 talukas in all. The influence area of the zone lies between 21°-02' to 23°-16' North Latitude and 68°-56' to 72°-12' East Longitude. It is founded in the north by the Gulf of Kutch and parts of Rajkot as well as Surendranagar districts, in the East by the Ahmedabad district and coastal part of Bhavnagar district, on the South by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arebian sea. The North Saurashtra region which comprises the peninsular part of Gujarat has low to medium rainfall and shallow to medium black soils and also coastal saline alluvial soils. In this Agro-climatic zone, cotton (Bt), groundnut, pearlmillet, wheat are the major crops which contribute considerably to the economy of the state. In Saurashtra, among this zone taking in to consideration the rainfall pattern, the topography, soil characteristics, the climate and the cropping pattern have been identified in Gujarat. The North Saurashtra zone have five main / substation cum testing Centre of University like Dry Farming Research Station with KVK, Targhadia (Rajkot District), Main Millet Research Station with KVK, Jamnagar, Oilseeds Research Station (Sesamum, Mustard, Sunflower) with KVK, Amreli, Dry Farming Research Station, Nanakandhasar, (Surendranagar District) and Dry Farming Research Station, Jamkhambhalia (Jamnagar District).

Agro – Ecological situation in the District

The advent of southwest monsoon greatly influences seasonal patterns of rainfall distribution in the district. Thus, mean annual rainfall provides useful comparison of agricultural potential of a given situation in the district. The mean rainfall in the district 539.17mm

The physiography of entire region of district is more or less flat. However, the region is undulating with slopes having little hilly areas from 25 to150 meters Physical features of the area vary from flat land to 150 meters above mean sea level. Most of the area falls in the range of 25m to 150m above mean sea level.

Based on the soil survey information of the zone, the soils of the district hence been broadly classified in to fine categories Available information about the properties of these soils and their textures has been considered. The types of soils categories are as under: -

Shallow black soils
Medium black soils
Saline alkali soils
Costal alluvial soils
Hilly soils

While delineating the zone into district agro ecological situations, there major factors including various soil types, altitude and the rainfall patterns have primarily been considered. The district can be delineated into five agro ecological situations.

Although, each of the situations has rainfed and irrigated condition, but irrigation has not been considered in identification of the agro ecological situations. While deciding the major crops, cropping patterns and constraints in production, mention has been made of both these conditions one or the other agro ecological situation occurs in the influence area of the district. The fact that this does not preclude the existence of more than one agro ecological situations within the same area.

Sl. No.	Agro Ecological Situation	Soil texture	Altitude	Principal crops	Special features	Approximate area (000ha)	Taluka included	Characteristics
AES-1	Shallow Black soils with 500-600 mm Rainfall	Sandy clay loam to clayey	75 – 150	Groundnut, wheat, sorghum, pearlmillet	Well drained soils with rapid permeability	124	Kalawad, Jamjodhpur, Bhanvad, Okha	Moisture stress, temperature stress

AES-2	Shallow Black soils with 600-700 mm Rainfall	Clayey	75 – 150	Groundnut, wheat, sorghum, pearlmillet	Slightly well drained soils with rapid permeability	180	Part of Kalyanpur, Jamnagar, Jamkhambhalia, Lalpur, Dhrol, Jodia	Moisturestress, temperatures tress
AES-3	Coastal Alluvial soils with 300-400 mm Rainfall	Clayey loam to clayey	50	Groundnut, pearlmillet, sorghum, chickpea	Low nitrogen and phosphorus	181	Jodia, part of Okha, Jamkhambhalia, Kalyanpur &Jamnagar	Salt affected salinity
AES-4	Coastal Alluvial soils with 500-700 mm Rainfall	Silt clay	25-50	Groundnut, pearlmillet, sorghum, chickpea	Low nitrogen and phosphorus	299	Kalyanpur, Jodia & Jamnagar, Khambhadia, Lalpur, Dwarka	Salt affected salinity
AES-5	Coastal Alluvialshallow black soils with 300-400 mm Rainfall	Sandy loam toclay loam	0-25	Sorghum, Pearlmillet, Groundnut, Sesamum	Arid climate	31	Okha	Known salinityforgenus ephedra seacoast very rich in Alghl flor and fanner of economic importance.

2.3 Soil type

As the geographical formation of Saurashtra is to volcanic origin, the soils are generally desired from basaltic rock known as Daccan trap. This is the commonest rock in India and due to its extensive occurrence in south is called “Daccan Traps”. In many parts, they6 have flat top features and hence, are also known as plateau basalt. The trap rocks, which occupy a large part of western cost of India, is also covering North Saurashtra zone. The most common colour of the trap rock in the region is dark grey. On weathering, trap rock form a ferruginous gravelly material known as murrum, which under lie-soil formed in situ. Soils, thus derived are either brown red in colour or regular, the black soil. In district black or brown colour is predominant. The soils are shallow to moderately deep. The detailed soil survey information for the soils of Jamnagar district are as under.

S. No	Soil type	Characteristics	Area in ha
1	Shallow black soils	These soils have developed from basaltic trap especially from granite and gneiss parent materials. They light grey in colour. Taxonomically, they are classified as *Ustorthents* and *Ustochrepts*. Soils depth varies for cm to 45 cm. They are gravelly but mainly they are sandy clay loam to clayey in texture. The clay on tent in surface soil varies from 20% to 77.49% and calcium carbonate content varies from 3.76 to 26.71 per cent. The soil structure is weak, mainly sub angular blocky and occasionally crumb. Since these soils lack district profile layering and are shallow, capacity to retain moisture is not sufficient. The soils are neutral to alkaline in reaction p^H ranges from 7.3 – 8.4) and from fertility point of view, these are medium in available nitrogen, low to medium in available phosphorus and adequate in availability of potash.	124000 ha (Kalawad, Jamjodhpur, Bhanvad, Okha)
2.	Medium black soils	The major portion of Jamnagar (Some part of Kalyanpur, KHambhaliya & Jamnagar, major part of Lalpur, Dhrol, Jodia taluka is covered under medium black soils. These residual soils have basaltic trap parent materials. These soils vary in depth from 30 to 60 cm or more at few places. They are calcareous in nature. A layer of murrum (Unconsolidated material of	180000 ha (Part of Kalyanpur, Jamnagar, Jamkham-bhalia, Lalpur, Dhrol,

		decomposed trap and limestone) is generally found in sub soil layer. The drainage does not pose any problem, because of porous sub soil layer. Morphologically, the profile of these soils has A-C horizon characteristics, having moderate sub angular blocky structure. They are plastic and sticky and hard in consistency on drying. The colour of these soils varies from very dark brown to light grey. Taxonomically, these soils are classified as *Ustochrepts* in *Inceptisol* order. The soils are dominated by smectite group of clay minerals which give to mild cracking in dry season, due to which these are further classified as *Vertic – Ustochrepts* at sub group level. The soils are clay loam to clayey in texture. The souls are highly retentive of moisture because higher percentage of clay content. The percentage of clay content in the surface varies from 31.79 to 73.27 per cent, while no definite trend of clay content in different horizon of the profile is observed. The chemical composition of these soils is neutral to alkaline reaction (p^H7.4 to 8.9). Calcium is the dominant exchangeable action followed by magnesium. The soils are generally low to medium in available nitrogen, phosphorus and adequately supplied with potassium. The calcium carbonate contents various from 5.26 to 20.36 per cent in these soils.	Jodia)
3.	Saline alkali soils	Saline alkali souls are extensively distributed on the coastal are3a as well as inlands. These soils are located in the districts of Jamnagar (Jodia, part of Okha mandal, Kalyanpur, Jamkhambhaliya and Jamnagar talukas). These soils are originated as a result of higher water table, low rainfall and high evaporation losses during summer months resulting into upward movement of salts, poor drainage, use of saline ground water and ingress of sea water (in coastal areas). The souls are classified as *Fluvaquents, Halaquents,* and *Haplaquents* (Entisol): *Haplaquents* and *Haptaquepts* in order – *Inceptisol.* Texturally these soils vary from sandy loam to clay. The degree of salinity and alkalinity is also highly variable. In Jamnagar district, the saline and alkaly soils are widely distributed mainly termed as coastal soil. The soils are sandy loam to clay loam in texture. The EC varies from 1.54 to 38.6 m.mhos/cm and ESP ranges from 9.2 to 74.64% in surface soil. The p^H varies from 7.6 to 9.00 in surface soils and normally calcareous in nature. Most of these soils are low to medium in available nitrogen and phosphorus and high in available potash.	181000 ha (Jodia, part of Okha, Jamkhambhalia, Kalyanpur & Jamnagar)
4.	Costal alluvial soils	these soils are located in the district of Jamnagar consisting Kalyanpur, Jodia and Jamnagar, Jamkhambhadia, Lalpur, Dwarka (Okha Mandal) and Dhrol, talukas. These soils are sandy clay loam to clay in texture. These soils are also affected with salts and are saline sodic in nature. The surface soil varies from 1.54 to 38.6 m.mhos/cm in Electrical conductivity, and from 9.2 to 74.64 in Exchangeable sodium percentage. The soil reaction varies with situation ranging from moderately alkaline ot highly alkaline (p^H 7.6 to 9.0). The souls are normally medium in fertility. Taxonomically, these souls are classified as *Halaquents* and *Haplaquents* – Entisol and *Helaquepts* and *Hapdaquents* in Inceptisol order.	299000 ha (Kalyanpur, Jodia &Jamnagar, Khambhadia, Lalpur, Dwarka)
5.	Hilly soils	These soils occur in some parts Bhanvad and Jamjodhpur talukas of Jamnagar district. Because of the steep slope and erosion, the profile is not developed. These soils are developed because of weathering of parent materials existing basaltic trap limestone and sand stone. These soils are shallow to moderately deep and are coarse to find in their texture. The texture varies from loamy sand to clay loam to clay. They have under composed rock fragments and are low in fertility status. These soils are placed in to *Ustorthents* and those near foothills and valley are comparatively deeper can be placed under *Ustochrepts* and can be classified under estisol and *Inceptisol* orders respectively.	31000 ha (Some part of Bhanvad and Jamjodhpur)

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

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
	Oilseeds			
1	Groundnut	378335	5675025	15
2	Sesame	6280	22608	3.6
3	Castor	7375	192487.5	26.1
4	Soybean	8	140	17.5
	Total Oilseeds	**391998**		
	Cash Crops			
5	Cotton	180440	4150120	23
6	sugarcane	150	7500	50
	Total Cash Crops	**180590**		
	Food Grain			
7	Wheat	58600	1881060	32.1
8	Pearlmillet	3520	46112	13.1
9	Sorghum	8100	85050	10.5
10	Maize	2850	20520	7.2
	Total Food Grains	**73070**		
	Pulse Crops			
11	Greengram	4185	23436	5.6
12	Blackgram	2910	17867.4	6.14
13	Cowpea	285	1071.6	3.76
14	Pigeon pea	175	1925	11
15	Moothbean	360	1512	4.2
16	Chickpea	31300	350560	11.2
17	Cluster bean	75	1406.25	18.75
18	Other pulses	15	0	
	Total Pulses	**39305**		
	SPICES AND CONDIMENTS			
19	Cumin	4300	36550	8.5
20	Fenugreek	90	1410	15.7
21	Coriander	2300	33350	14.5
22	Ajwan	5015	42630	8.5
24	Chilli	1550	29450	11.9
25	Garlic	600	47700	79.5
	Total spices	**13855**	**191090**	
	VEGETABLE		0	
27	Onion	200	40800	204.0
28	Potato	100	14650	146.5
29	Brinjal	1755	324680	185.0
30	Tomato	2355	701790	298.0
31	Cauliflower	97	14250	146.9
32	Cowpea	788	58940	74.8
33	Cabbage	811	136570	168.4
34	Okra	2790	200880	72.0
37	Cucurbits	1445	236110	163.4
38	Cluster bean	4524	436570	96.5
39	Other vegetable	160	17680	110.5
	Total Vegetable	**15025**	2182920	
	FRUIT CROPS		0	
40	Chiku	249	28810	115.7
41	Pomegranate	565	50290	89.0
42	Citrus	257	19040	74.1
44	Aonla	35	2100	60.0
45	Guava	12	520	43.3

46	Custard apple	65	4910	75.5
47	Papaya	483	301880	62.5
48	Coconut	505	42470	84.1
49	Ber	351	33270	94.8
50	Kharek	91	4550	50
51	Banana	44	19360	440.0
52	Mango	470	28670	61.0
53	Cashew nut	4	40.0	10.0
54	Other fruits	177	13890	78.5
55	**Total Fruits**	**3308**	549800	
56	**FLOWERS**		0	
57	Rose	66	6150	93.2
58	Merry gold	140	11450	81.8
60	Jasmine	3	260	86.7
62	Lilly	2	170	85.0
63	Other flowers	165	14650	88.8
	Total flowers	**376**	32680	
	OTHER CORPS		0	
64	Chikori	50	4325	86.5
65	Palma Rosa	43	5375	125
	Total Other crops	**93**		
	Fodder crops			
67	Lucern	1105	132600	120
68	Sorghum	16660	2499000	150
69	Maize	2910	0	
	Total Fodder crops	**20675**		

* Source : DAO, & Dy.Dir.Hort., Jamnagar

2.5. Weather data

	Temp. °c		R.H.%		Wind Speed	Bright Sun Shine	Evaporation	Rainfall	Rainy
Week No	Max	Min	Morning	Evening	(kmph)	(hrs)	(mm)	(mm)	Days
1-J	29.7	13.9	81	33	3.7	9.0	4.9		
2	26.9	13.3	89	40	4.3	8.6	4.6		
3	25.9	11.8	75	31	4.7	9.5	4.8		
4	26.3	12.1	75	37	4.8	9.7	4.6		
5	27.9	15.0	83	39	5.4	9.2	4.6		
6-F	28.1	13.1	74	28	6.0	9.9	4.9		
7	27.3	15.6	65	37	7.8	8.7	5.2		
8	29.9	15.7	87	28	5.2	7.2	5.3		
9	34.1	17.9	71	24	5.4	9.6	5.8		
10-M	32.1	19.3	82	37	7.6	9.8	5.5		
11	31.5	20.7	85	39	9.0	10.0	5.6		
12	35.3	21.5	77	24	9.4	9.9	6.5		
13	34.1	21.3	76	29	8.8	9.9	6.5		
14-A	32.9	22.1	80	38	11.2	9.2	6.6		
15	34.5	23.6	79	42	11.2	10.2	6.6		
16	34.4	23.6	73	46	11.3	10.6	6.9		
17	36.2	24.0	73	37	11.6	10.0	7.6		
18	36.8	26.2	74	37	13.1	10.4	8.0		
19-M	36.1	26.2	81	52	12.9	10.9	7.8		
20	36.3	27.2	85	50	15.2	11.1	8.0		
21	37.2	28.6	77	52	20.2	10.4	8.4		

22	35.9	28.5	73	54	17.5	10.9	8.1		
23-J	36.0	28.5	74	55	16.9	10.9	8.3		
24	36.7	28.9	70	49	21.8	7.9	8.5		
25	34.3	28.6	76	59	14.6	5.4	7.2	4.0	1
26	34.9	27.1	82	65	7.2	6.0	5.9	28.5	3
27-J	33.7	28.1	77	61	15.8	3.2	6.4		
28	31.8	27.1	85	72	12.8	0.1	4.2	15.0	3
29	32.3	26.1	85	65	13.0	3.1	4.5	11.0	2
30	32.4	26.3	82	69	11.6	3.8	4.7	11.5	1
31	29.6	25.8	91	84	13.8	0.8	3.4	136.5	4
32-A	29.1	25.2	94	83	13.0	0.0	3.0	97.0	4
33	32.1	26.2	85	61	13.4	5.0	4.9		
34	30.8	25.4	90	77	14.0	4.6	4.4	39.5	3
35	30.3	25.7	94	77	7.6	3.4	2.8	36.5	3
36-S	31.6	24.5	88	63	9.8	8.1	4.8		
37	32.5	24.8	87	61	6.7	9.5	5.8		
38	31.2	26.0	87	69	11.2	6.0	5.2	1.5	
39	31.3	24.1	86	63	8.8	8.8	5.3		
40-O	30.5	24.8	93	76	6.9	5.0	3.7	54.0	3
41	32.2	23.4	91	61	4.9	8.5	4.0		
42	33.2	20.9	87	44	3.2	9.3	4.7		
43	30.8	19.8	86	47	3.4	9.7	4.6		
44	32.9	16.4	85	31	3.2	9.1	4.5		
45-N	32.9	16.9	91	31	2.0	8.9	4.2		
46	29.7	14.7	65	32	4.2	9.2	4.2		
47	30.1	15.4	81	38	3.3	9.2	4.2		
48	30.2	15.5	86	38	3.4	9.2	3.8		
Mean	**32.1**	**22.0**	**82**	**49**	**9.4**	**7.9**	**5.5**	**435.0**	**27**
Highest	**37.2**	**28.9**	**94**	**84**	**21.8**	**11.1**	**8.5**		
Lowest	**25.9**	**11.8**	**65**	**24**	**2.0**	**0.0**	**2.8**		

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

Category	Population	Production	Productivity
Cattle	349229	2475.2 qtl total milk	
Crossbred			8.585 lit/day
Indigenous			3.375 lit/day
Buffalo	209616		4.451 lit/ha
Sheep	232530	295.16 lakh kg wool	
Crossbred			
Indigenous			
Goats	173022		0.274 lit/ha
Pigs		290097.9 Qtl meat	
Crossbred			
Indigenous			
Poultry	38041	12.77 lakh eggs	
Hens			
Desi			
Improved			
Horse &	410		
Camels	2260		
Donkey	2577		

Total Milk			
Total egg			
Total wool			

Category	Area	Production	Productivity
Fish			
Marine			
Inland			
Prawn			
Scampi			
Shrimp			

2.7 DETAILS OF OPERATIONAL AREA/ VILLAGES (2015 -16 to 2018-19) (Approved by competent Authority in meetings/workshops)

Sl. No	Taluka	Name of the village	Major crops& enterprises	Major problems identified	Identified Thrust Areas
1	Kalavad	Mulila, Chhatar, Chelabedi Sanosara, Golaniya, Laxmipur (Dudhala)	**Cash Crop:-**Cotton, **Oilseeds :**- groundnut, mustard, sesame, castor, **Pulses:-**green gram, Chickpea, Black gram, Soyabean **Spice:**- cumin, Coriander, Ajwain **Cereal:**- wheat, **Horticultural**:-Vegetable ,flowers, **Livestock:-** Cow, buffalo, sheep, goat, etc	Heavy infestation of sucking pest in cotton, stem rot disease in Groundnut, Root rot in castor, Less area under horticulture crops, Blight in cumin, salinity, pink bollworm in cotton	➢ ICM in major crops of the district ➢ Introduction of new crop ➢ Recycling of farm waste ➢ Popularization of MIS ➢ Motivation of Fisheries cultivation ➢ Soil Reclamation ➢ Farm women empowerment ➢ Farm mechanization
2	Lalpur	Bhangor, Memana, Dharampur, Govana, Pipartoda, Babarjar			
3	Bhanvad	Morjar, Sahidevaliya Dudhala, Rojivada Vanavad, Fatepur			

2.8 PRIORITY THRUST AREAS

Sl. No	Crop/ Enterprise	Thrust area
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	➢ Integrated Crop Management in major crops ➢ IPM & IDM in major field crops ➢ White grub management in Groundnut ➢ Wireworm management in garlic & Onion ➢ Micro-nutrient management in wheat
2.	Organic farming	Enhancement of organic farming through improved technologies
3.	Farm waste/ organic matter	Recycling of farm waste through composting, vermin-compost, green manuring, etc.
4.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
5.	Soil	Reclamation of saline & alkaline soils
6.	Farm Women	Farm women empowerment by training in value addition, handy crafts, and small scale enterprises
7.	Fisheries	Seed production, seed availability, nutrition, value addition
8.	Improved Implements	Popularization of the mechanized technological know how
9.	Plant protection	Pink boll worm in cotton and white grub in groundnut,
10	Horticultural area	Enhancement of pomegranate, date palm
11.	Storage facility	Requirement of storage techniques and value addition in farm produce
12.	Water conservation & use of Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques

3. TECHNICAL ACHIEVEMENTS

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

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Total no. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
10	10	42	42	174	174	525	525

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 & Farm women	80	83	3170	4096	506	1399	56306	68751
Rural youth	7	7	145	304				
Extn. Functionaries	3	10	120	828				

Seed Production (Qtl.)				Planting material (Nos.)		
5				6		
Crop	Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
Sesame		20.25	136	500	591	10
Green gram		16.75	235			
Wheat		158.8	65			
Sun hemp		2.4	0			
Papaya seed		0.081				
Pigeon pea		2.65				
Total		**200.93**				

I.A TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Nutrient Management				
Varietal Evaluation				
Integrated Pest Management				
Integrated Crop Management				
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Post Harvest Technology / Value addition				
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)				
Total				

Summary of technologies assessed under livestock by KVKs

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management				
Production and Management	Fisheries	Pen cultures of Indian Major Carp(IMC) spawn to fry before stocking in village pond/ Reservoir	3	3
	Fisheries	Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/Reservoir	3	3
Others (Pl. specify)				
Total			**6**	**6**

Summary of technologies assessed under various enterprises by KVKs

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers

I.B. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops by KVKs

Thematic areas	Crop	Name of the technology refined	No. of trials	No. of farmers
Integrated Nutrient Management	Groundnut	Effect of Bio fertilizer in Groundnut production	3	3
	Wheat	Response of Bio fertilizer to wheat yield	3	3
	Wheat	Nutrient management in Wheat crop	3	3
Varietal Evaluation				
Integrated Pest Management	Groundnut	Management of whitegrub in groundnut	3	3
	Chilli	Management of thrips in chilli	3	3
Integrated Crop Management				
Integrated Disease Management	Garlic	Management of purple blotch of garlic	3	3
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Value addition	Mango pickle	Effect of salt and oil on spoilage of mango pickle	3	3
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)				
Total			**21**	**21**

Summary of technologies refined under various livestock by KVKs

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials	No. of farmers
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management				

Production and Management				
Others (Pl. specify)				
Total				

Summary of technologies refined under various enterprises by KVKs

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
Women & Children (Nutrition management)	Preschool Children	Low cost high calorie & protein diets made from locally available food materials.	3	15

I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

I.C.1.

NUTRIENT MANAGEMENT

Problem definition: The productivity of groundnut, in India is low due to low consumption of fertilizers. The residual toxicities of chemical fertilizers posing problem of environmental pollution, depletion of essential nutrients due to indiscriminate use of inorganic fertilizers which has threat to the sustainability of crop production. For sustained groundnut production the modern farming demand integrated use of organic and inorganic fertilizers along with bio-fertilizers. Hence, an OFT was carried out to find out the suitable low cost input bio-fertilizer to enhance the groundnut productivity.

Technology Assessed or Refined (as the case may be): Effect of Bio-fertilizers in groundnut production

KVK, JAU, Jamnagar in Gujarat conducted on-farm trial to find out appropriate nutrient management practice to enhance the groundnut productivity and reduce the cost of cultivation. The **assessed or refined (as the case may be)** The results of the study revealed that the application of 100% RDF (12.5N-25 P_2O_5-50 K_2O)(T2) was produced higher pod yield (2917 kg/ha) , haulm yield (3647 kg/ha), net return (Rs. 92405/ha) and BCR (4.11) but application of 75% RDF + seed treatment of *Rhizobium,* PSB, PMB (Potash Mobilizing Bacteria) culture each at 25-30 ml/kg seed (T3) also recorded higher BCR (4.12) and produce pod yield (2850 kg/ha), haulm yield (3530 kg/ha), net return (Rs. 90364/ha) and T3 reduced use of chemical fertilizers and increases the use of low cost input bio-fertilizer to enhance the long term groundnut productivity.

Table Effect of application of 75% RDF and seed treatment of Azotobacter, PSB, PMB (Potash Mobilizing Bacteria) culture each at 25-30 ml/kg seed

Technology Option	No.of trials	Haulm yield (kg./ha)	Pod Yield (kg./ha)	Net Returns (Rs../ha)	B:C Ratio
Injudicious use of fertilizers. (Farmers Practice)	3	3160	2500	75413	3.57
Recommended dose of fertilizer (12.5N-25 P_2O_5-50K_2O)kg/ha (Recommended Practice)		3647	2917	92405	4.11
75% RDF + seed treatment of *Azotobacter*, PSB, PMB (Potash Mobilizing Bacteria) culture each at 25-30 ml/kg seed		3530	2850	90364	4.12

I.C.2.

NUTRIENT MANAGEMENT

Problem definition: Lower productivity and profitability in Wheat cultivation due to imbalance application of nutrients

Technology Assessed or Refined (as the case may be): Nutrient management in Wheat

KVK, Jamnagar in Gujarat conducted on-farm trial to find out appropriate nutrient management practice to enhance the wheat productivity. The **refined** practice of application of recommended dose of

fertilizer + two spray of multi mix micronutrient G-4 @ 30 g/10 lit of water at 30 and 45 days after germination was found to be better with 11.13 and 7.00 percent increase in yield over farmers and recommended practices respectively.

Table Effect of two spray of multi mix micronutrient G-4in enhancing yield of wheat

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	Increase in Yield (%)	B:C Ratio
T1- Injudicious use of fertilizer(N:P:K- 200 : 90 :00) (Farmers Practice)	03	40.0	41250	--	2.10
T2 - Recommended dose of fertilizer (N:P:K- 120 : 60 :00 + ZnSO4 @ 25 kg/ha) (Recommended Practice)		41.67	43283	7.00	2.21
Recommended dose of fertilizer(T2) + two spray of multi mix micronutrient G-4 @ 30 gm/10 lit of water at 30 and 45 days after germination (Refinement)		42.50	53600	11.13	2.51

I.C.3.

NUTRIENT MANAGEMENT

Problem definition: Lower productivity and profitability in wheat cultivation due to imbalance application of nutrients. For sustained wheat production the modern farming demand integrated use of organic and inorganic fertilizers along with bio-fertilizers. Hence, an OFT was carried out to find out the suitable low cost input bio-fertilizer to enhance the wheat productivity.

Technology Assessed or Refined (as the case may be): Response of Bio fertilizers to wheat yield

KVK, JAU, Jamnagar in Gujarat conducted on-farm trial to find out appropriate nutrient management practice to enhance the wheat productivity and reduce the cost of cultivation. The **assessed or refined (as the case may be)** application of75% RDF and seed treatment of *Azotobacter*, PSB, PMB (Potash Mobilizing Bacteria) culture each at 25-30 ml/kg seed was found to be better with 8.36 % increase in yield, obtained higher net return (64054 Rs/ha) and B:C ratio (3.45) as compared to farmers practice.

Table Effect of application of 75% RDF and seed treatment of Azotobacter, PSB, PMB (Potash Mobilizing Bacteria) culture each at 25-30 ml/kg seed

Technology Option	No. of trials	Grain Yield (kg./ha)	Increase in Yield (%)	Net Returns (Rs../ha)	B:C Ratio
Application of only DAP & Urea in Different Doses(108N – 57.5 P_2O_5) (Farmers Practice)	3	4625	--	56710	3.14
Recommended dose of fertilizer (120N-60 P_2O_5-60K_2O)kg/ha (Recommended Practice)		4962	7.28	61799	3.25
75% RDF + seed treatment of *Azotobacter*, PSB, PMB (Potash Mobilizing Bacteria) culture each at 25-30 ml/kg seed		5012	8.36	64054	3.45

I.C.4.

PEST AND DISEASE MANAGEMENT

Problem definition: incidence of white grub is increase, heavy infestation of white grub was found, Improper cultivation practices, Lack of seed treatment, Irregular irrigation, Lack of knowledge about pest outbreaks and its management and Improper use of FYM (without decomposition).

Technology assessed or refined (as the case may be): Management of white grub in groundnut

Groundnut is an important crop of Saurashtra Region (Gujarat). However, there is high Infestation of white grub resulting in yield loss. Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar conducted on-farm trial to refine the control measure. The refined technology application of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 2.5 g/kg seed. Drenching of ready mix combination of

Imidacloprid 40% + Fipronil 40% @ 250 g/ha as initiation of pest incidence having minimum pest population and highest yield with farmers practices.

Results of On Farm Trials:

Technology Option	No. of trials	Plant damage (%)	Yield (kg/ha)	% Increase in yield over farmer's practice
Injudicious use of pesticides.	3	41.33	933	-
Recommended dose of Pesticide as chlorpyriphos or quinalphos @ 25 ml/kg seed. Drenching of Chlorpyriphos or quinalphos @ 4 lit/ha as initiation of pest incidence.		21.00	2200	135.79
Application of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 2.5 g/kg seed. Drenching of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 250 g/ha as initiation of pest incidence.		10.33	3300	253.69
Soil application of *Beauveria bassiana* @ 5 kg/ha		23.67	1866	100.00
Soil application of *Metarhizium anisopliae* @ 5 kg/ha		18.33	2366	153.59
Application urea followed by flood irrigation		23.33	1533	64.30

I.C.5.

PEST AND DISEASE MANAGEMENT

Problem definition: Incidence of thrips is increase, Heavy infestation of thrips was found, Lack of seed treatment and improper cultivation practices, Lack of knowledge about pest outbreaks and its management, In judicious use of chemical fertilizer, Resurgence of thrips, Mono-cropping system, In judicious use of pesticide and Irregular irrigation.

Technology assessed or refined (as the case may be): Management of Thrips in Chilli

Chilli (*Capsicum annum* L.) popularly known as 'mirch' in Hindi is an important condiment crop grown in Gujarat. It has immense commercial, dietary and therapeutic value. Chilli is used as a paste, powder or in whole form. Nearly 25 insects have been recorded attacking chilli leaves and fruits in India, of which thrips, *Scirtothrips dorsalis* Hood (Thripidae: Thysanoptera) is considered as the most serious and important pest. There is heavy attack of thrips resulting in yield loss as well as poor quality. Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar conducted on-farm trial to refine the control measure. Application of *Beauveria bassiana* @ 5 g/lit of water at 15 days interval as initiation of pest incidence having minimum pest population and highest yield with farmers practices**.** Refinement - 1 increase yield 30.25% and 5.86% with farmer practices and recommendation practices, respectively.

Results of On Farm Trials:

Technology Option	No. of trials	No. of Thrips/3 Twig	Yield (kg/ha)	% Increase in yield over farmer's practice
Injudicious use of insecticides (Spray insecticides at weekly interval)	3	42.33	68.33	-
Seed treatment with imidacloprid 70 WS (7.5 g/kg seed) and dipping of seedling before transplanting for two hours in solution of imidacloprid 17.8 SL (10 ml/10 litre water) or thiamethoxam 25 WG (10 g/10 litre water). Spraying of spinosad 45 SC (3 ml/10 litre water)		21.00	85.00	24.39
Spray of *Beauveria bassiana* @ 5 g/lit of water at 15 days interval		20.00	89.00	30.25
Spray of jeevamutra or Gomutra @ 100 ml/lit of water at 15 days interval		23.00	82.00	20.00

I.C.6.

PEST AND DISEASE MANAGEMENT

Problem definition: Improper cultivation practices, Mono-cropping system, lack of seed treatment, In judicious use of pesticide/fungicide, Irregular irrigation, Multi season cropping system, Heavy infestation of purple blotch was found, Lack of knowledge about diseases outbreaks and its management, In judicious use of chemical fertilizer and Improper use of FYM (without decomposition).

Technology assessed or refined (as the case may be): Management of purple blotch of garlic

Garlic (*Allium sativum* L.) is one of the, important bulb crops grown and used as a spice, or a condiment throughout India. It is attacked, by a number of diseases of which, purple blotch and stemphylium blight are two economically important diseases. There is heavy incidence of purple blotch resulting in yield loss as well as poor quality. Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar conducted on-farm trial torefine the control measure. Application of *Trichoderma* @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method + Foliar sprays of Hexaconazole @ 0.1% and Tebuconazole @0.1% at 40 and 60 days respectively after transplanting helps in checking disease incidence and having minimum infestation of disease and highest yield with farmers practices. Refinement - 1 increase yield 55.10% and 28.57% with farmer practices and recommendation practices, respectively.

Results of On Farm Trials:

Technology Option	No. of trials	No. of infected plant	Yield (kg/ha)	% Increase in yield over farmer's practice
Injudicious use of fungicide (Spray insecticides at weekly interval).	3	21	49	-
Foliar sprays of Mancozeb @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.1% at 30, 45 and 60 days respectively after transplanting helps in checking disease incidence.		13	62	26.53
Application of *Trichoderma* @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @ 0.1% and Tebuconazole @0.1% at 40 and 60 days respectively after transplanting helps in checking disease incidence**.**		6	76	55.10

I.C.7.

VALUE ADDITION

Problem definition:

1. To prevent soft and slippery pickle
2. To increase self life of pickle
3. Cost saving
4. Lack of knowledge about use of oil and salt quantity

Technology assessed or refined (as the case may be): Effect of salt and oil on spoilage of mango pickle

Mango is the king of fruit and it is seasonal fruit. It consume as various ways *viz*., fresh, juice, slices, dehydration, pickle, murabba etc. Among them, pickle is well famous for round the year consumption. It is a technique to prepare mango pickle and it can be store throughout the year. It can be prepare with the use of salt and oil. But oil, can be dangerous for human being. Therefore, it is to prepare low cost, high self-life with use of salt and oil. Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar conducted on-farm trial to refine the quantity of oil and salt. Ingredients use for all treatments:- Mango 1 kg, turmeric powder 5 gm, jaggari/sugar 600 gm, fenugreek 50 gm, mustard 30 gm, asafoetida (*hing*) 5 gm, coriander 30 gm, funnel 30 gm, red chili powder 30 gm. Along with the refined technology application of Salt 20% (200 gm) + Oil 200 ml + acetic acid 7 ml is proved very cost effective and low fat with good taste.

Results of On Farm Trials:

Technology Options	*No. of trials*	*Cost saving*	*Organo Laptic Test*				*Keeping quality*
			Colour	*Texture*	Test	*Overall acceptance*	
Solt 12% (120 gm) + Oil 800ml/ kg mango	3	-	3.47	2.75	3.00	0	240 days
Solt 15% (150 gm) + Oil 250ml/ kg mango+acitic acid 5ml		29.37 %	4.25	3.92	4.22	0	240 days
Solt 20% (200 gm) + Oil 200ml/ kg mango+acitic acid 7ml		31 %	4.89	5.08	5.19	√	240 days

I.C.8.

Nutrition, Health and others

Problem definition: Child suffered from mal nutrition due to poor dietary pattern

Technology Assessed or Refined : Evaluation of low cost high calorie & protein diets made from locally available food materials.

Many preschool children suffer from mal nutrition due to poor dietary pattern. To overcome this, KVK, Jamnagar conducted OFT on Evaluation of low cost high calorie & protein diets made from locally available food materials to malnourished preschool children, and with recommended dietary allowances. It was observed that body weight, height and health status were increase average 4.76 per cent in weight and 2.81 per cent in height with this dietary pattern. Child who was under poor development due to low protein in daily diet were comes in the range of medium development.

Table Evaluation of low cost high calorie & protein diets made from locally available food materials.

Technology Option	**No.of trials**	**Per cent increase in preschool children**	
		weight	**Height**
T1-Present poor dietary pattern (control)	5	4.57	3.26
T2- Food Provided by ICDS in ICDS center (Anganvadi)	5	3.84	2.50
T3- - Low cost high calorie & high protein diet prepared from locally available food materials. (roasted Bengal gram-25 g, roasted soya bean -25 g and gerggery-25 g /day /child for 6 month)	5	4.76	2.81

I.C.9.

LIVESTOCK ENTERPRISES

Title: Pen cultures of Indian Major Carp (IMC) from Fry stage to Fingerling stage before stocking in village pond/Dam.

Problem definition: As farmer's practices, the fry of IMC is directly stocked in the pond or reservoirs. In such condition the mortality rate is higher and hence, decrease and uncertain final production. Hence, an OFT was carried out to assess the mortality rate when the seeds(fry stage) were rearing up to fingerling stage in a pen system and then release in to the pond / dams etc.

Technology Assessed: Effectiveness of Pen Culture System in fish farming.

A OFT was carried out to assessed the usefulness and effectiveness of Pen Culture technology in fish farming at selected fish farm (Village Pond/check Dam) of Jamnagar district by KVK, JAU, Jamnagar . In the **assessed technology the seeds (fry stage) of *Catla catla* were reared up to fingerling stage in Pen Culture system and then release into the ponds/Dams. In such situation the mortality rate is decreased and more number of seeds can be stocked in ponds/Dams hence, increase up to 27 %** in total yield, obtained higher net return (83332 Rs/ha) and B:C ratio (1.25) as compared to farmers practice.

Table:- Result of rearing the seeds (fry stage) of *Catla catla* up to fingerling stage in Pen System before stocking in ponds.

Technology Option	No.of trials	Total Yield (Kg./Ha)	Yield increased (%)	Net Income (Rs./ha)	B:C Ratio
Direct stocking of fry into village ponds/reservoir. (Farmers Practices)	3	2938	-	62266	1.13
First rare the fish seeds of Fry stage up to fingerlings stage in a pen system (Closer and controllable water logged area adjoining to pond/dams) and then release in to the main water bodies.		3744	27	83332	1.25

I.C.10.

LIVESTOCK ENTERPRISES

Title: Stocking of fresh water prawn *Macrobrachium rosenbergii,* with IMC fingerlings (Catla catla) in village pond/Dam.

Problem definition: As farmer's practices, a single spp. of IMC, particularly *Catla catla* (due to faster growth) is stocked in the pond or reservoirs. In such condition natural resources of the ponds/dams cannot be fully utilized hence, lower the production and finally financial loss. Hence, an OFT was carried out to assess the growth rate and total production of the *Catla catla* and *M. rosenbergii* when they simultaneously grown in a single pond/dam.

Technology Assessed: Mix culture of *Catla catla* and *Macrobrachium rosenbergii*.

A OFT was carried out to assessed the effectiveness of the technique of mix culture of IMC with Scampi at selected fish farm (Village Pond/check Dam) of Jamnagar district by KVK, JAU, Jamnagar. In the assessed technology the *Catla catla* were cultured with a fresh water prawn spp. *Macrobrachium rosenbergii*in a same pond in natural condition. Due to the different feeding/living habits of both the spp. there is no competition and natural resources present in the water bodies can be fully utilize for their growth. In such condition the total yield is decreased up to -9 % due to lower growth rate of scampi, but obtained higher net return (129244 Rs/ha) due to higher market value of scampi and B:C ratio (2.66) as compared to farmers practice.

Table Result of mix culture of *Catla catla* and fresh water prawn spp. *Macrobrachium rosenbergii*.

Technology Option	No.of trials	Total Yield (Kg./Ha)	Yield increased (%)	Net Income (Rs./ha)	B:C Ratio
Stocking a single species IMC (*Catla catla*) into ponds. (Farmer's Practices)	3	2911	-	73008	1.68
Stocking of *M. rosenbergii* with IMC (*Catla catla*) fingerlings into ponds/reservoir.		2648	-9	129244	2.66

II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2015-16 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	G'nut (Beauveria)	Pest management	Beauveria	Field days, Field visit, Radio talk, On/Off Campus Training and TV Program,	36	370	1850
2	G'nut (NPV)	Pest management	NPV		18	165	990
3	G'nut (*Trichoderma*)	Disease management	*Trichoderma*		42	225	1575

4	Cotton	IPM	*Beauveria* Imidachloprid	Exhibition and demonstration	67	1045	5225
5	Brinjal	IPM	*Azardirectin*, *Beauveria* Profenophos		17	58	235
6	Chilly	IPM	*Azardirectin*, *Beauveria* Profenophos		19	72	256
7	Wheat	INM	PSB, Micro nutrients G-4, *Azotobacter*, Zinc sulphate		26	170	680
8	Cumin	Variety/Disease management	Seed-GC-4, *Trichoderma*		23	195	560
9	Chickpea	IPM	NPV, *Beauveria*		18	152	465
10	Coriander	Variety	Seed GC-2		16	143	370
11	Green Gram	Variety	Seed GM-4		13	129	278
12	Pearl Millet	Variety	Seed GHB-732		13	124	245
13	Kitchen Gardening	Healthy food	vegetable seed		14	50	-
14	Sickle	Drudgery reduction	Improved Sickle		30	78	-
15	stove	Health	Multi fuel cooking stove		5	5	-

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

b. Details of FLDs implemented during 2016-17 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Prop-osed	Actual	SC/ST	Others	Total	
		Oilseeds								
1	G'nut (WG)	Pest management	*Beauveria*	Kh-16	04	04	4	6	10	
2	G'nut (NPV)	Pest management	NPV	Kh-16	02	02	1	4	05	
3	G'nut (Trich)	Disease management	*Trichoderma*	Kh-16	02	02	3	2	05	
4	Groundnut	ICM	*Beauveria, Trichoderma*, PSB, Micro nutrient,	Kh-16	20	20	5	45	50	
5	Sesame	ICM	DDVP, Cypermethrin, *Trichoderma*, *Azotobacter*, PSB,	Kh-16	20	20	8	42	50	
6	Sesame (Summer)	ICM	Seed(GT-3), *Trichoderma*, *Azotobacter*, PSB	Sum-17	40	40	8	92	100	
		Pulses								
7	Green gram	Variety	Seed (GM-4)	Sum-16	04	04	1	9	10	
8	Pigeon pea	ICM	*Rhizobium*, PSB, Micromix, *Trichoderma*, *Beauveria*	Kh-16	20	20	5	45	50	
9	Chickpea	Variety	Seed (GJG-3, GG-5)	Rabi-16	30	30	4	71	75	
		Commercial								
10	Cotton	IPM & INM	*Azotobacter*, PSB, *Beauveria* Imidachloprid	Kh-16	8	8	6	14	20	
		Horticultural								
11	Brinjal	IPM & INM	*Beauveria*, *Azotobacter*, PSB, Profenophos	Kh-16	02	02	0	05	05	
12	Chilly	IPM & INM		Kh-16	02	02	0	05	05	

13	Cumin	Variety/Disease management	Seed (G.Cum.-4), *Trichoderma*	Rabi-16	04	04	1	9	10	
14	Coriander	Variety	Seed (GC-2)	Rabi-16	08	08	02	18	20	
		Cereals								
15	Pearl Millet (Summer)	Variety	Seed (GHB-732)	Sum-16	04	04	1	9	10	
16	Wheat	INM	PSB, Micro nutrients G-4, *Azotobacter*, Zinc sulphate	Rabi-16	04	04	1	09	10	
17	Pearl Millet	Variety	Seed (GHB-732)	Sum-17	04	04	0	10	10	
		Others								
18	Kitchen Gardening	Healthy food	vegetable seed	Kh-16	04	04	11	89	100	
19	Solar Cooker	Resource conservation	Solar Cooker	-	4	4	0	4	4	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Oilseeds											
G'nut (WG)	Kh-16	Rainfed	MB	M	M	H	cotton	15Jun-30 Jul	15 to 30 Oct	435	27
G'nut (Trich)	Kh-16	Rainfed	MB	M	M	H	G'nut	15Jun-30 Jul	15 to 30 Oct	435	27
G'nut (NPV)	Kh-16	Rainfed	MB	M	M	H	Cotton	15Jun-30 Jul	15 to 30 Oct	435	27
Groundnut	Kh-16	Rainfed	MB	M	M	H	Cotton	15Jun-30 Jul	15 to 30 Oct	435	27
Sesame	Kh-16	Rainfed	MB	M	M	H	Cotton	15Jun-30 Jul	10 to 20 Nov	435	27
Sesame	Sum-17	Rainfed	MB	M	M	H	G'nut	15Jun-30 Jul	10 to 20 Nov	435	27
Pulses											
Green gram	Sum-16	Irrigated	MB	M	M	H	Cotton	20Feb-10Mar	15-30 May	303	20
Pigeon pea	Kh-16	Irrigated	MB	M	M	H	Cotton	25 Jul-5 Aug	15 feb - 15 mar	435	27
Chickpea	Rabi-16	Irrigated	MB	M	M	H	G'nut	25 Oct-20 Nov	15 feb - 15 mar	435	27
Commercial											
Cotton	Kh-16	Irrigated	MB	M	M	H	Gram	15Jun-30Jul	10-30 Feb	435	27
Horticultural											
Brinjal	Kh-16	Irrigated	MB	M	M	H	Wheat	15July-15Aug.	1Nov-15Feb	435	27
Chilly	Kh-16	Irrigated	MB	M	M	H	Cumin	15July-15Aug.	15Oct-30Jan	435	27
Cumin	Rabi-16	Irrigated	MB	M	M	H	G'nut	20 Oct-15Nov	10-25 Feb	435	27
Coriander	Rabi-16	Irrigated	MB	M	M	H	G'nut	20 Oct-15Nov	10-25 Feb	435	27
Cereals											
Pearl Millet	Sum-16	Irrigated	MB	M	M	H	Cotton	20Feb-10Mar	15-30 May	303	20
Wheat	Rabi-16	Irrigated	MB	M	M	H	G'nut	25Oct-15Nov	15Feb-15Mar	435	27
Pearl Millet	Sum-17	Irrigated	MB	M	M	H	Cotton	20Feb-10Mar	15-30 May	435	27

Technical Feedback on the demonstrated technologies

S. No	Crop/ enterprise	Feed Back
	Kharif-16	
	Oilseeds	
1	Groundnut (*Beauveria*)	➢ Effective to Manage White grub ➢ Easy to apply ➢ Low cost and seed quality improve
2	Groundnut (*Trichoderma*)	➢ Very effective against stem rot (*Sclerotium rolfsii*) in humid and low temperature (during rainy days) ➢ It is effective as good as chemical fungicide ➢ Easy to application ➢ No hazardous ➢ Low cost
3	Groundnut (NPV)	➢ Very effective against spodoptera during low radiation ➢ It is effective as good as chemical pesticides ➢ Easy to application ➢ No hazardous ➢ Low cost
4	Groundnut (ICM)	➢ Good yield, Effective to control sucking & chewing pest as well as white grub in soil. ➢ Reduce diseases incidence ➢ Very effective against stem rot (*Sclerotium rolfsii*) ➢ Reduce cost of plant protection as well as fertilizer ➢ Less hazardous to human being and beneficial insects.
5	Sesame	➢ Good yield ➢ Effective to control sucking & chewing pest ➢ Reduce diseases incidence ➢ Very effective against *Alternaria* blight ➢ Reduce cost of plant protection as well as fertilizer ➢ Less hazardous to human being and beneficial insects
	Pulses	➢
6	Green gram	➢ Synchronize maturity ➢ High yielding & Short duration variety ➢ Good colour having high market value ➢ Good test for *dal* and *khichadi* making
7	Pigeon pea	➢ *Trichoderma* is very effective and suitable for management of soil born diseases. ➢ *Beauveria bassiana* is also helps for management of soil born pest as well as above ground pest like sucking as and chewing pests. ➢ Use of bio product reduces cost, problem of residues and eco friendly.
8	Chick pea (GJG-3 and GG-5)	➢ GJG-3 is moderately resistant to wilt and stunt virus and this variety is well suited for farmer having less irrigation facilities whereas GG-5 is best for farmers having good irrigation facilities for better production.
	Commercial	➢
9	Cotton	➢ Low cost chemical control for longer time ➢ It prove that prevention is better than cure for pest management ➢ High yielding Bt. varieties require additional feed & micronutrients than local cotton variety ➢ Bio-pesticide saves useful insects ➢ Effective against sucking and chewing pest
	Horticultural	➢
10	Brinjal	➢ Bio-pesticide is eco-friendly and do not harmful to useful insects ➢ No residual toxic effect ➢ Lower incidence of whitefly as well as fruit and shoot borer
11	Chilli	➢ Bio-pesticide is less harmful to health and do not affect to useful insect

		➢ The curling of leaf was not found in treated plot ➢ Easy to apply
12	Cumin	➢ Higher yield of grain than local varieties ➢ Tolerant to wilt ➢ Seed are bold and having good quality
13	Coriander	➢ GC-2 is a very good variety ➢ Produces high yield than local ➢ Good seed size and attractive color helps to get more price
	Cereals	
14	Pearl Millet(GHB-732)	➢ Higher yield of grain and fodder ➢ Quality of fodder is good ➢ Good against drought spell ➢ Sweet taste of rotla
15	Wheat	➢ Bio fertilizers reduces cost of cultivation ➢ Eco friendly ➢ Quality of grains improved ➢ Micro nutrients helps to harvest more production
	Others	➢
16	Kitchen Gardening	➢ Fresh vegetable available at doorstep with minimum cost ➢ Regulatory daily nutritious diet. ➢ They produce organic vegetables because farm women are not applying any pesticides or agrochemicals in their backyard. ➢ Cultivation kitchen gardening in scientific way. ➢ They are utilized maximum backyard space and waste water. ➢ Farm women are attracted towards hybrid vegetables. ➢ Income is generated by selling extra vegetables grown in kitchen garden.
17	Solar cooker	➢ Light weight &Easy to mobile ➢ Use less fuel ➢ Reduce fuel collection time ➢ Reduce cooking time ➢ Completely smoke less ➢ Conserve trees ➢ Allow more dung to be used as fertilizer instead of fuel ➢ Provide work for local chulha makers

Farmers' reactions on specific technologies

S. No	Crop/ enterprise	Feed Back
	Kharif	
	Oilseeds	
1	Groundnut (*Beauveria*)	➢ Effective to Manage White grub ➢ Easy to apply ➢ Low cost and seed quality improve ➢ Fodder quality improved
2	Groundnut (*Trichoderma*)	➢ Very effective against stem rot (*Sclerotium rolfsii*) in humid and low temperature (during rainy days) ➢ It is effective as good as chemical fungicide ➢ Easy to application ➢ No hazardous ➢ Low cost as compared to chemicals
3	Groundnut (NPV)	➢ Very effective against spodoptera during low radiation ➢ It is effective as good as chemical pesticides ➢ Easy to application ➢ No hazardous ➢ Low cost as compared to chemicals

4	Groundnut (ICM)	➢ Good yield ➢ Effective to control sucking & chewing pest as well as white grub ➢ Reduce diseases incidence ➢ Reduce cost ➢ Eco friendly
5	Sesame	➢ Produce Higher yield ➢ Effective to manage sucking & chewing pest ➢ Reduce diseases incidence ➢ Eco friendly
	Pulses	➢
6	Green Gram	➢ Synchronize maturity ➢ High yielding & Short duration variety ➢ Good colour having high market value ➢ High feed and fodder value
7	Pigeon pea	➢ Bio pesticide and bio fertilizer are very effective ➢ Easy to use ➢ Easley available and eco friendly ➢ It also reduce use of chemical pesticide/fertilizer in the era of organic farming
8	Chick pea	➢ Gram, GJG-3 high yielding variety ➢ bold seeded variety and more than one seed per pod ➢ GG-5 is resistance to virus and height of plant are more ➢ sprouting batter then local variety ➢ high yielding variety
	Commercial	
9	Cotton	➢ Low cost chemical control for longer time ➢ It prove that prevention is better than cure for pest management ➢ High yielding Bt. varieties require additional feed & micronutrients than local cotton variety ➢ Biopesticide saves useful insects ➢ Effective against sucking and chewing pest
	Horticultural	➢
10	Brinjal	➢ Biopesticide is eco friendly and do not harmful to useful insects ➢ No residual toxic effect ➢ Lower incidence of whitefly as well as fruit and shoot borer
11	Chilli	➢ Biopesticide is less harmful to health and do not affect to useful insect ➢ The curling of leaf was not found in treated plot ➢ Easy to apply ➢ Low cost as compared to chemicals
12	Cumin	➢ Higher yield of grain than local varieties ➢ Tolerant to wilt ➢ Seed are bold and having good quality
13	Coriander	➢ GC-2 is a very good variety ➢ Produces high yield than local ➢ Good seed size and attractive color helps to get more price
	Cereal	
14	Pearl Millet	➢ Higher yield of grain and fodder ➢ Quality of fodder is good ➢ Good against drought spell ➢ Sweet taste of rotla
15	Wheat	➢ Bio fertilizers reduces cost of cultivation ➢ Eco friendly ➢ Quality of grains improved ➢ Micro nutrients helps to harvest more production

	Others	
16	Kitchen Gardening	➢ Fresh vegetable available at doorstep with minimum cost ➢ Regulatory daily nutritious diet. ➢ They produce organic vegetables because farm women are not applying any pesticides or agrochemicals in their backyard. ➢ Utilized maximum backyard space and waste water. ➢ Fresh vegetable can be available at a time ➢ Income is generated by selling extra vegetables grown in kitchen garden.
17	Solar cooker	➢ Light weight & Easy to mobile ➢ Use less fuel ➢ Reduce fuel collection time ➢ Reduce cooking time ➢ Completely smoke less ➢ Conserve trees ➢ Allow more dung to be used as fertilizer instead of fuel ➢ Provide work for local chulha makers

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	15	28.9.16	16	
			28.9.16	18	
			29.09.16	16	
			4.10.16	20	
			4.10.16	20	
			28.10.16	37	
			9.12.16	18	
			2.01.17	16	
			31.01.17	25	
			31.01.17	33	
			3.02.17	23	
			3.02.17	19	
			4.02.17	16	
			10.2.17	20	
			17.2.17	18	
2	Farmers Training	13	15.6.16	17	
			17.6.16	13	
			7.07.16	57	
			8.7.16	33	
			15.7.16	43	
			21.07.16	17	
			22.7.16	30	
			25.07.16	25	
			3.08.16	46	
			9.8.16	67	
			19.10.16	15	
			15.11.16	17	
			11.12.16	21	
3	Media coverage (Mobile SMS)	16			
4	Training for extension functionaries	1	13.02.17	42	

PERFORMANCE OF FRONTLINE DEMONSTRATIONS

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut	IDM	*Trichoderma*	GG-20	05	02	28.75	15.0	22.75	20.88	8.98	50400	91000	40600	1.81	52080	83500	31420	1.60
Groundnut	IPM	NPV	GG-20	05	02	28.75	18.75	24.75	22.73	8.91	50160	99000	48840	1.97	51700	90900	39200	1.76
Groundnut	White grub control	*Beauveria*	GG-20	10	04	27.50	18.75	24.69	22.43	10.09	49600	98750	49150	1.99	51350	89700	38350	1.75
Groundnut	ICM	*Beauveria, Trichoderma,* PSB, *Rhizobium,* Micro Nutrient	GG-20,	50	20	27	18	22.5	19	18.42	45000	91520	46520	2.03	53500	76000	22500	1.42
Sesame	ICM	DDVP, Cypermethrin, *Trichoderma,* PSB, *Azotobactor*	Guj.Til. -2,3;	50	20	10	6	8	7	14.29	23500	55720	32220	2.37	26000	49000	23000	1.88

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Green gram	Variety	Variety GM-4		10	04	7.50	2.50	4.39	4.04	8.69	18510	26363	7853	1.42	19175	24255	5080	1.26
Pigeon pea	ICM	*Rhizobium*, PSB, Micromix, *Trichoderma*, *Beauveria*	Vashali, BDN-2	50	20	25	13.75	20.15	17.08	17.97	25772	101785	75986	3.85	27191	86229	59038	3.17
Chickpea	Variety	Seed	GJG-3, GG-5	75	30	25.41	13.75	20.06	16.8	19.40	26269	105326	79057	4.01	27395	88244	60848	3.22

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

** BCR= GROSS RETURN/GROSS COST

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Bajra	Variety	Variety GHB-732	10	04	43.75	9.38	21.31	19.54	9.05	-	-	10870	35698	24828	3.28	11465	32736	21271	2.86
Wheat	INM	PSB, Micronutrients G-4, *Azotobacter*, Zinc sulphate	10	04	51.25	33.75	43.25	40.13	7.79	-	-	35090	82175	47085	2.34	38200	76238	38038	2.00
Vegetables																			
Chilli	**IPM**	*Beauveria*, *Azotobacter*, PSB, Profenophos	05	**02**	156.25	128.75	143.0	128.0	11.76			70820	346775	275955	4.90	73340	291200	217860	3.97
Brinjal	**IPM**	*Beauveria*, *Azotobacter*, PSB, Profenophos	05	**02**	718.75	518.75	593.75	542.50	9.45			147403	638281	490879	4.33	164500	583188	418688	3.55
Flower crops																			
Fruit crops																			

Spices & condiments																			
Cumin	Variety	GC-4, *Trichoderma*	10	04	10.0	3.75	7.28	6.42	13.44			37560	108289	70729	2.88	39460	96281	56821	2.44
Coriander	Variety	GC-2	20	08	23.75	8.75	17.47	15.49	12.79			48435	121408	72973	2.51	51565	104541	52976	2.03
Commercial Crops																			
Sugarcane																			
Cotton	IPM+Bio fert.	*Azotobacter*, PSB, *Beauveria* Imidachloprid	20	08	27.50	15.0	21.94	19.86	10.61			44385	104203	59818	2.37	46675	91850	45175	1.97
Medicinal & aromatic plants																			
Fodder Crops																			

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

** BCR= GROSS RETURN/GROSS COST

FLD on Livestock

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

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

** BCR= GROSS RETURN/GROSS COST

FLD on Fisheries

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

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

** BCR= GROSS RETURN/GROSS COST

FLD on Other enterprises

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

Apiculture																
Maize Sheller																
Value Addition																
Vermi Compost																

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
Assessment	Solar cooker	4	Fuel consumption (per day)	Solar energy + 2.5 kg firewood	4 to 5 kg firewood
			Time saving,	60 to 70 %	0

FLD on Farm Implements and Machinery

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

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Organic Kitchen garden	Nutritive & fresh healthy vegetables	Vegetable seed	100	100	2835	2318	22.30	-	-	12500	56700	44200	4.54	16800	46360	29560	2.76

FLD on Demonstration details on crop hybrids *(Details of Hybrid FLDs implemented during 2016-17)*

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

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

III. TRAINING PROGRAMME

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management				0			0	0	0	0
Resource Conservation Technologies				0			0	0	0	0
Cropping Systems				0			0	0	0	0

Crop Diversification				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Micro Irrigation/irrigation	1	39	3	42			0	39	3	42
Seed production				0			0	0	0	0
Nursery managemeint				0			0	0	0	0
Integrated Crop Management	2	32	2	34	20		20	52	2	54
Soil & water conservation				0			0	0	0	0
Integrated nutrient management	1	27	0	27			0	27	0	27
Production of organic inputs				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**4**	**98**	**5**	**103**	**20**	**0**	**20**	**118**	**5**	**123**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	1	28	0	28	12	0	12	40	0	40
Off-season vegetables				0			0	0	0	0
Nursery raising				0			0	0	0	0
Exotic vegetables				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization				0			0	0	0	0
Protective cultivation	1	4	45	49			0	4	45	49
Others (pl specify)				0			0	0	0	0
Total (a)	**2**	**32**	**45**	**77**	**12**	**0**	**12**	**44**	**45**	**89**
b) Fruits										
Training and Pruning				0			0	0	0	0
Layout and Management of Orchards				0			0	0	0	0
Cultivation of Fruit				0			0	0	0	0
Management of young plants/orchards				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Export potential fruits				0			0	0	0	0
Micro irrigation systems of orchards	1	0	31	31	0	0	0	0	31	31
Plant propagation techniques				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (b)	**1**	**0**	**31**	**31**	**0**	**0**	**0**	**0**	**31**	**31**
c) Ornamental Plants										
Nursery Management				0			0	0	0	0
Management of potted plants				0			0	0	0	0
Export potential of ornamental plants				0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology	1	14	0	14	3		3	17	0	17
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (f)	**1**	**14**	**0**	**14**	**3**	**0**	**3**	**17**	**0**	**17**
g) Medicinal and Aromatic Plants										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**4**	**46**	**76**	**122**	**15**	**0**	**15**	**61**	**76**	**137**
III Soil Health and Fertility Management										
Soil fertility management				0			0	0	0	0
Integrated water management				0			0	0	0	0
Integrated Nutrient Management				0			0	0	0	0

Production and use of organic inputs	1	30	0	30			0	30	0	30
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops				0			0	0	0	0
Nutrient Use Efficiency				0			0	0	0	0
Balance use of fertilizers				0			0	0	0	0
Soil and Water Testing	1	31	0	31	0	0	0	31	0	31
Others (pl specify)				0			0	0	0	0
Total	**2**	**61**	**0**	**61**	**0**	**0**	**0**	**61**	**0**	**61**
IV Livestock Production and Management										
Dairy Management	1	0	30	30			0	0	30	30
Poultry Management				0			0	0	0	0
Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Animal Nutrition Management				0			0	0	0	0
Disease Management				0			0	0	0	0
Feed & fodder technology				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**1**	**0**	**30**	**30**	**0**	**0**	**0**	**0**	**30**	**30**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening				0			0	0	0	0
Design and development of low/minimum cost diet				0			0	0	0	0
Designing and development for high nutrient efficiency diet				0			0	0	0	0
Minimization of nutrient loss in processing	1	0	12	12	0	28	28	0	40	40
Processing and cooking				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Storage loss minimization techniques				0			0	0	0	0
Value addition	2	0	64	64	0	6	6	0	70	70
Women empowerment	1	0	30	30	0	5	5	0	35	35
Location specific drudgery reduction technologies	1	0	8	8	0	44	44	0	52	52
Rural Crafts				0			0	0	0	0
Women and child care				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**5**	**0**	**114**	**114**	**0**	**83**	**83**	**0**	**197**	**197**
VI Agril. Engineering										
Farm Machinary and its maintenance				0			0	0	0	0
Installation and maintenance of micro irrigation systems	1	0	39	39			0	0	39	39
Use of Plastics in farming practices				0			0	0	0	0
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Small scale processing and value addition	1	30	0	30	0	0	0	30	0	30
Post Harvest Technology				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**2**	**30**	**39**	**69**	**0**	**0**	**0**	**30**	**39**	**69**
VII Plant Protection										
Integrated Pest Management	4	196	1	197	26	0	26	222	1	223
Integrated Disease Management	2	144	0	144	26	0	26	170	0	170
Bio-control of pests and diseases	1	28	0	28	0	0	0	28	0	28
Production of bio control agents and bio pesticides				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**7**	**368**	**1**	**369**	**52**	**0**	**52**	**420**	**1**	**421**
VIII Fisheries										
Integrated fish farming	1	7	9	16			0	7	9	16
Carp breeding and hatchery management				0			0	0	0	0
Carp fry and fingerling rearing				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0

Pen culture of fish and prawn				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition	1	27	0	27			0	27	0	27
Others (pl specify)				0			0	0	0	0
Total	**2**	**34**	**9**	**43**	**0**	**0**	**0**	**34**	**9**	**43**
IX Production of Inputs at site										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0
Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production	1	5	0	5	15	0	15	20	0	20
Vermi-compost production				0			0	0	0	0
Organic manures production	1	0	0	0	31	0	31	31	0	31
Production of fry and fingerlings				0			0	0	0	0
Production of Bee-colonies and wax sheets				0			0	0	0	0
Small tools and implements				0			0	0	0	0
Production of livestock feed and fodder				0			0	0	0	0
Production of Fish feed				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Apiculture				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**2**	**5**	**0**	**5**	**46**	**0**	**46**	**51**	**0**	**51**
X Capacity Building and Group Dynamics										
Leadership development				0			0	0	0	0
Group dynamics				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Mobilization of social capital	1	25		25	5		5	30	0	30
Entrepreneurial development of farmers/youths	2	0	31	31	0	35	35	0	66	66
WTO and IPR issues				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**3**	**25**	**31**	**56**	**5**	**35**	**40**	**30**	**66**	**96**
XI Agro-forestry										
Production technologies				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Farming Systems				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**32**	**667**	**305**	**972**	**138**	**118**	**256**	**805**	**423**	**1228**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	30	0	30	0	0	0	30	0	30
Resource Conservation Technologies	1	30	0	30	0	0	0	30	0	30
Cropping Systems				0			0	0	0	0
Crop Diversification				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Micro Irrigation/irrigation				0			0	0	0	0
Seed production				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Crop Management	1	30	0	30	0	0	0	30	0	30
Soil & water conservatioin				0			0	0	0	0
Integrated nutrient management	1	25	0	25	0	0	0	25	0	25
Production of organic inputs				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**4**	**115**	**0**	**115**	**0**	**0**	**0**	**115**	**0**	**115**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	48	0	48	15	0	15	63	0	63
Off-season vegetables				0			0	0	0	0
Nursery raising				0			0	0	0	0

Exotic vegetables				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization				0			0	0	0	0
Protective cultivation	2	468	51	519	36	0	36	504	51	555
Others (pl specify)				0			0	0	0	0
Total (a)	**3**	**516**	**51**	**567**	**51**	**0**	**51**	**567**	**51**	**618**
b) Fruits										
Training and Pruning	1	36	0	36	11	0	11	47	0	47
Layout and Management of Orchards				0			0	0	0	0
Cultivation of Fruit				0			0	0	0	0
Management of young plants/orchards				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Export potential fruits				0			0	0	0	0
Micro irrigation systems of orchards	1	65	0	65	7	0	7	72	0	72
Plant propagation techniques				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (b)	**2**	**101**	**0**	**101**	**18**	**0**	**18**	**119**	**0**	**119**
c) Ornamental Plants										
Nursery Management				0			0	0	0	0
Management of potted plants				0			0	0	0	0
Export potential of ornamental plants				0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**5**	**617**	**51**	**668**	**69**	**0**	**69**	**686**	**51**	**737**
III Soil Health and Fertility Management										
Soil fertility management	1	36	0	36	4	0	4	40	0	40
Integrated water management				0			0	0	0	0
Integrated Nutrient Management				0			0	0	0	0
Production and use of organic inputs	1	45	0	45	30	0	30	75	0	75
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops	1	66	0	66	8	0	8	74	0	74
Nutrient Use Efficiency				0			0	0	0	0
Balance use of fertilizers				0			0	0	0	0
Soil and Water Testing	2	165	0	165	0	0	0	165	0	165
Others (pl specify)				0			0	0	0	0
Total	**5**	**312**	**0**	**312**	**42**	**0**	**42**	**354**	**0**	**354**
IV Livestock Production and Management										
Dairy Management	1	30	0	30	0	0	0	30	0	30
Poultry Management				0			0	0	0	0
Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Animal Nutrition Management	1	80	0	80	25	0	25	105	0	105
Disease Management	1	25	0	25	0	0	0	25	0	25
Feed & fodder technology				0			0	0	0	0

Production of quality animal products	1	0	53	53	0	8	8	0	61	61
Others (pl specify)				0			0	0	0	0
Total	**4**	**135**	**53**	**188**	**25**	**8**	**33**	**160**	**61**	**221**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	24	24	0	2	2	0	26	26
Design and development of low/minimum cost diet				0			0	0	0	0
Designing and development for high nutrient efficiency diet				0			0	0	0	0
Minimization of nutrient loss in processing	1	0	26	26	0	3	3	0	29	29
Processing and cooking				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Storage loss minimization techniques				0			0	0	0	0
Value addition	3	0	74	74	0	5	5	0	79	79
Women empowerment				0			0	0	0	0
Location specific drudgery reduction technologies	1	0	24	24	0	0	0	0	24	24
Rural Crafts				0			0	0	0	0
Women and child care	1	0	19	19	0	0	0	0	19	19
Others (pl specify)				0			0	0	0	0
Total	**7**	**0**	**167**	**167**	**0**	**10**	**10**	**0**	**177**	**177**
VI Agril. Engineering										
Farm Machinary and its maintenance				0			0	0	0	0
Installation and maintenance of micro irrigation systems	1	41	0	41	5	0	5	46	0	46
Use of Plastics in farming practices	1	73	0	73	0	0	0	73	0	73
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements	1	18	0	18	0	0	0	18	0	18
Small scale processing and value addition				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**3**	**132**	**0**	**132**	**5**	**0**	**5**	**137**	**0**	**137**
VII Plant Protection										
Integrated Pest Management	5	326	0	326	38	0	38	364	0	364
Integrated Disease Management	4	145	0	145	8		8	153	0	153
Bio-control of pests and diseases	1	30	0	30	0	0	0	30	0	30
Production of bio control agents and bio pesticides				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**10**	**501**	**0**	**501**	**46**	**0**	**46**	**547**	**0**	**547**
VIII Fisheries										
Integrated fish farming	1	16	0	16	0	0	0	16	0	16
Carp breeding and hatchery management				0			0	0	0	0
Carp fry and fingerling rearing	1	23	0	23	0	0	0	23	0	23
Composite fish culture	1	23	0	23	0	0	0	23	0	23
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0
Pen culture of fish and prawn	1	24	0	24	3	0	3	27	0	27
Shrimp farming	1	25	0	25	0	0	0	25	0	25
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition				0			0	0	0	0
Others (pl specify)	1	27	8	35	0	0	0	27	8	35
Total	**6**	**138**	**8**	**146**	**3**	**0**	**3**	**141**	**8**	**149**
IX Production of Inputs at site										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0
Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production				0			0	0	0	0
Vermi-compost production				0			0	0	0	0
Organic manures production	2	64	0	64	3	0	3	67	0	67
Production of fry and fingerlings				0			0	0	0	0

Production of Bee-colonies and wax sheets				0			0	0	0	0
Small tools and implements				0			0	0	0	0
Production of livestock feed and fodder	1	85	0	85	88	0	88	173	0	173
Production of Fish feed				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Apiculture				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**3**	**149**	**0**	**149**	**91**	**0**	**91**	**240**	**0**	**240**
X Capacity Building and Group Dynamics										
Leadership development				0			0	0	0	0
Group dynamics				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Mobilization of social capital	2	26	33	59	7	0	7	33	33	66
Entrepreneurial development of farmers/youths	2	105	0	105	20	0	20	125	0	125
WTO and IPR issues				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**4**	**131**	**33**	**164**	**27**	**0**	**27**	**158**	**33**	**191**
XI Agro-forestry										
Production technologies				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Farming Systems				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**51**	**2230**	**312**	**2542**	**308**	**18**	**326**	**2538**	**330**	**2868**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	30	0	30	0	0	0	30	0	30
Resource Conservation Technologies	1	30	0	30	0	0	0	30	0	30
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Micro Irrigation/irrigation	1	39	3	42	0	0	0	39	3	42
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	3	62	2	64	20	0	20	82	2	84
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	2	52	0	52	0	0	0	52	0	52
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**8**	**213**	**5**	**218**	**20**	**0**	**20**	**233**	**5**	**238**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	2	76	0	76	27	0	27	103	0	103
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	3	472	96	568	36	0	36	508	96	604
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (a)	**5**	**548**	**96**	**644**	**63**	**0**	**63**	**611**	**96**	**707**
b) Fruits										
Training and Pruning	1	36	0	36	11	0	11	47	0	47
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	2	65	31	96	7	0	7	72	31	103
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0

Total (b)	**3**	**101**	**31**	**132**	**18**	**0**	**18**	**119**	**31**	**150**
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology	1	14	0	14	3	0	3	17	0	17
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	**1**	**14**	**0**	**14**	**3**	**0**	**3**	**17**	**0**	**17**
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**9**	**663**	**127**	**790**	**84**	**0**	**84**	**747**	**127**	**874**
III Soil Health and Fertility Management										
Soil fertility management	1	36	0	36	4	0	4	40	0	40
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	2	75	0	75	30	0	30	105	0	105
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	1	66	0	66	8	0	8	74	0	74
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	3	196	0	196	0	0	0	196	0	196
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**7**	**373**	**0**	**373**	**42**	**0**	**42**	**415**	**0**	**415**
IV Livestock Production and Management										
Dairy Management	2	30	30	60	0	0	0	30	30	60
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	1	80	0	80	25	0	25	105	0	105
Disease Management	1	25	0	25	0	0	0	25	0	25
Feed & fodder technology	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	1	0	53	53	0	8	8	0	61	61
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**5**	**135**	**83**	**218**	**25**	**8**	**33**	**160**	**91**	**251**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	24	24	0	2	2	0	26	26
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	2	0	38	38	0	31	31	0	69	69
Processing and cooking	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	5	0	138	138	0	11	11	0	149	149
Women empowerment	1	0	30	30	0	5	5	0	35	35

Location specific drudgery reduction technologies	2	0	32	32	0	44	44	0	76	76
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	1	0	19	19	0	0	0	0	19	19
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**12**	**0**	**281**	**281**	**0**	**93**	**93**	**0**	**374**	**374**
VI Agril. Engineering										
Farm Machinary and its maintenance	0	0	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	2	41	39	80	5	0	5	46	39	85
Use of Plastics in farming practices	1	73	0	73	0	0	0	73	0	73
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	1	18	0	18	0	0	0	18	0	18
Small scale processing and value addition	1	30	0	30	0	0	0	30	0	30
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**5**	**162**	**39**	**201**	**5**	**0**	**5**	**167**	**39**	**206**
VII Plant Protection										
Integrated Pest Management	9	522	1	523	64	0	64	586	1	587
Integrated Disease Management	6	289	0	289	34	0	34	323	0	323
Bio-control of pests and diseases	2	58	0	58	0	0	0	58	0	58
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**17**	**869**	**1**	**870**	**98**	**0**	**98**	**967**	**1**	**968**
VIII Fisheries										
Integrated fish farming	2	23	9	32	0	0	0	23	9	32
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	1	23	0	23	0	0	0	23	0	23
Composite fish culture	1	23	0	23	0	0	0	23	0	23
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	1	24	0	24	3	0	3	27	0	27
Shrimp farming	1	25	0	25	0	0	0	25	0	25
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	1	27	0	27	0	0	0	27	0	27
Others (pl specify)	1	27	8	35	0	0	0	27	8	35
Total	**8**	**172**	**17**	**189**	**3**	**0**	**3**	**175**	**17**	**192**
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	1	5	0	5	15	0	15	20	0	20
Vermi-compost production	0	0	0	0	0	0	0	0	0	0
Organic manures production	3	64	0	64	34	0	34	98	0	98
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	1	85	0	85	88	0	88	173	0	173
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Apiculture	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**5**	**154**	**0**	**154**	**137**	**0**	**137**	**291**	**0**	**291**
X Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	3	51	33	84	12	0	12	63	33	96
Entrepreneurial development of farmers/youths	4	105	31	136	20	35	55	125	66	191

WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**7**	**156**	**64**	**220**	**32**	**35**	**67**	**188**	**99**	**287**
XI Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**83**	**2897**	**617**	**3514**	**446**	**136**	**582**	**3343**	**753**	**4096**

Training for Rural Youths including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops				0			0	0	0	0
Training and pruning of orchards				0			0	0	0	0
Protected cultivation of vegetable crops				0			0	0	0	0
Commercial fruit production				0			0	0	0	0
Integrated farming				0			0	0	0	0
Seed production				0			0	0	0	0
Production of organic inputs	1	25	0	25	11	0	11	36	0	36
Planting material production				0			0	0	0	0
Vermi-culture	1	83	0	83	9	0	9	92	0	92
Mushroom Production				0			0	0	0	0
Bee-keeping				0			0	0	0	0
Sericulture				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Value addition				0			0	0	0	0
Small scale processing	1	17	0	17	4		4	21	0	21
Post Harvest Technology	1	28	21	49	7	14	21	35	35	70
Tailoring and Stitching				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Dairying				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Quail farming				0			0	0	0	0
Piggery				0			0	0	0	0
Rabbit farming				0			0	0	0	0
Poultry production				0			0	0	0	0
Ornamental fisheries				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Freshwater prawn culture				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Cold water fisheries				0			0	0	0	0
Fish harvest and processing technology				0			0	0	0	0
Fry and fingerling rearing				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
TOTAL	**4**	**153**	**21**	**174**	**31**	**14**	**45**	**184**	**35**	**219**

Training for Rural Youths including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops				0			0	0	0	0
Training and pruning of orchards				0			0	0	0	0
Protected cultivation of vegetable crops				0			0	0	0	0
Commercial fruit production				0			0	0	0	0
Integrated farming				0			0	0	0	0
Seed production				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Planting material production				0			0	0	0	0
Vermi-culture				0			0	0	0	0
Mushroom Production				0			0	0	0	0

Bee-keeping				0			0	0	0	0
Sericulture				0			0	0	0	0
Repair and maintenance of farm machinery and implements	1	16	0	16	0	0	0	16	0	16
Value addition	1	0	27	27	0	2	2	0	29	29
Small scale processing				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Tailoring and Stitching				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Dairying				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Quail farming				0			0	0	0	0
Piggery				0			0	0	0	0
Rabbit farming				0			0	0	0	0
Poultry production				0			0	0	0	0
Ornamental fisheries				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Freshwater prawn culture				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Cold water fisheries				0			0	0	0	0
Fish harvest and processing technology	1	32	8	40	0	0	0	32	8	40
Fry and fingerling rearing				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
TOTAL	**3**	**48**	**35**	**83**	**0**	**2**	**2**	**48**	**37**	**85**

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	25	0	25	11	0	11	36	0	36
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	1	83	0	83	9	0	9	92	0	92
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	1	16	0	16	0	0	0	16	0	16
Value addition	1	0	27	27	0	2	2	0	29	29
Small scale processing	1	17	0	17	4	0	4	21	0	21
Post Harvest Technology	1	28	21	49	7	14	21	35	35	70
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	1	32	8	40	0	0	0	32	8	40
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**7**	**201**	**56**	**257**	**31**	**16**	**47**	**232**	**72**	**304**

Training programmes for Extension Personnel including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops				0			0	0	0	0
Integrated Pest Management	1	74	0	74	16	0	16	90	0	90
Integrated Nutrient management	1	37	0	37	5	0	5	42	0	42
Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology				0			0	0	0	0
Production and use of organic inputs	1	61	0	61	22	0	22	83	0	83
Care and maintenance of farm machinery and implements				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
TOTAL	**3**	**172**	**0**	**172**	**43**	**0**	**43**	**215**	**0**	**215**

Training programmes for Extension Personnel including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops				0			0	0	0	0
Integrated Pest Management	7	611	0	611	2	0	2	613	0	613
Integrated Nutrient management				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
TOTAL	**7**	**611**	**0**	**611**	**2**	**0**	**2**	**613**	**0**	**613**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	8	685	0	685	18	0	18	703	0	703
Integrated Nutrient management	1	37	0	37	5	0	5	42	0	42
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	1	61	0	61	22	0	22	83	0	83
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0

Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**10**	**783**	**0**	**783**	**45**	**0**	**45**	**828**	**0**	**828**

Table. Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Increasing production and productivity of crops	10	657	39	696	97	0	97	754	39	793
Commercial production of vegetables				0			0	0	0	0
Production and value addition										
Fruit Plants				0			0	0	0	0
Ornamental plants				0			0	0	0	0
Spices crops				0			0	0	0	0
Soil health and fertility management	4	212	0	212	43	0	43	255	0	255
Production of Inputs at site	4	154	0	154	106	0	106	260	0	260
Methods of protective cultivation	1	397	51	448	31	0	31	428	51	479
Others (pl. specify)				0			0	0	0	0
Total	19	1420	90	1510	277	0	277	1697	90	1787
Post-harvest technology and value addition										
Processing and value addition	1	0	30	30	0	0	0	0	30	30
Others (pl. specify)				0			0	0	0	0
Total	1	0	30	30	0	0	0	0	30	30
Farm machinery										
Farm machinery, tools and implements				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Livestock and fisheries										
Livestock production and management	1	30	0	30	0	0	0	30	0	30
Animal Nutrition Management	1	80	0	80	25	0	25	105	0	105
Animal Disease Management				0			0	0	0	0
Fisheries Nutrition				0			0	0	0	0
Fisheries Management				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	2	110	0	110	25	0	25	135	0	135
Home Science										
Household nutritional security				0			0	0	0	0
Economic empowerment of women	1	0	30	30	0	5	5	0	35	35
Drudgery reduction of women	1	0	8	8	0	44	44	0	52	52
Others (pl. specify)				0			0	0	0	0
Total	2	0	38	38	0	49	49	0	87	87
Agricultural Extension										
Capacity Building and Group Dynamics	1	0	0	0	0	35	35	0	35	35
Others (pl. specify)	1	0	33	33	0	0	0	0	33	33
Total	2	0	33	33	0	35	35	0	68	68
GRAND TOTAL	**26**	**1530**	**191**	**1721**	**302**	**84**	**386**	**1832**	**275**	**2107**

Name of sponsoring agencies involved: ATMA, DAO, FTC, Spices board of India, Agakhan trust, NGO, GGRC, ICDS, TCSRD

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Commercial floriculture				**0**			**0**	**0**	**0**	**0**
Commercial fruit production				**0**			**0**	**0**	**0**	**0**
Commercial vegetable production				**0**			**0**	**0**	**0**	**0**
Integrated crop management				**0**			**0**	**0**	**0**	**0**

Organic farming	1	0	30	30	0	0	0	0	30	30
Others (pl. specify)				0			0	0	0	0
Total	1	0	30	30	0	0	0	0	30	30
Post harvest technology and value addition										
Value addition	2	0	57	57	0	7	7	0	64	64
Others (pl. specify)				0			0	0	0	0
Total	2	0	57	57	0	7	7	0	64	64
Livestock and fisheries										
Dairy farming	1	0	22	22	0	8	8	0	30	30
Composite fish culture				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Piggery				0			0	0	0	0
Poultry farming				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	1	0	22	22	0	8	8	0	30	30
Income generation activities										
Vermicomposting				0			0	0	0	0
Production of bio-agents, bio-pesticides,				0			0	0	0	0
bio-fertilizers etc.				0			0	0	0	0
Repair and maintenance of farm machinery				0			0	0	0	0
and implements				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Seed production				0			0	0	0	0
Sericulture				0			0	0	0	0
Mushroom cultivation				0			0	0	0	0
Nursery, grafting etc.				0			0	0	0	0
Tailoring, stitching, embroidery, dying etc.				0			0	0	0	0
Agril. para-workers, para-vet training				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Agricultural Extension										
Capacity building and group dynamics				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	4	0	109	109	0	15	15	0	124	124

IV. EXTENSION PROGRAMMES

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	552	2562	36	2598
Diagnostic visits	65	169	4	173
Field Day	26	470	12	482
Group discussions	34	660	17	677
Kisan Ghosthi	17	843	19	862
Film Show	157	7717	547	8264
Self -help groups	6	233	3	236
Kisan Mela	5	9566	413	9979
Exhibition	7	22913	517	23430
Scientists' visit to farmers field	178	851	41	892
Plant/animal health camps	1	47	4	51
Farm Science Club	2	28	0	28
Ex-trainees Sammelan	2	242	0	242
Farmers' seminar/workshop	1	173	0	173
Method Demonstrations	37	1269	84	1353
Celebration of important days	5	468	57	525
Special day celebration	3	596	41	637
Exposure visits	4	97	0	97
Lecture Deliver	233	13701	693	14394
Implement/Crop Demonstration	50	2700	250	2950
Night Meeting	4	301	23	324
Collaborative training	10	323	61	384
Others (pl. specify)				
Total	**1399**	**65929**	**2822**	**68751**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature distributed	23629
News paper coverage	18
Popular articles	7
Radio Talks	0
TV Talks	5
Animal health amps (Number of animals treated)	122
Advisory through Mobile	13341
Others (pl. specify)	
Total	**37122**

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Jamnagar	Text only	2				1	1	4
	Voice only							
	Voice & Text both							
	Total Messages	**2**				**1**	**1**	**4**
	Total farmers Benefitted	**54639**				**1974**	**1707**	**58320**

V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Technology week was celebrated at Krishi Vigyan Kendra, JAU, Jamnagar during October 17 to 21, 2016. The inaugural function was on October 18, 2016. The programme was chaired by Dr. M. D. Khanpara, Research Scientist (Pearl Millet), Pearl Millet Research Station, Junagadh Agricultural University, Jamnagar, inaugurated function by lighting the lamp. In his presidential speech he appreciates the role of farm KVK for upliftment of agriculture. This is the era of knowledge and Krishi Vigyan Kendra is work as an agricultural information hub for the district. He told that, it is the matter of pleasure that farmers are keen interest in to know about modern technology of agriculture. It is good sign for agriculture development that farmers/farm women actively participate in such programme.

Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar advice to farmers for more and more participate in the different training programmes for gain in knowledge. He also emphasis on use new technology for farming and diversification of the enterprise for entrepreneurship. He has advice to farmers for minimize the inputs and optimize the yield of crops. He welcome to farmers for continuous visit of KVK for proper development of their agriculture.

Dr. H. R. Jadav, Project Director (ATMA), Dy. Dir.Agri (Ext.), Dy.Dir.Agri (Training), remain present and other line department officers were also remained present and delivered introductory address with the details of schemes of their departments.

After inaugural function, different scientists of KVK have given talk on different subjects and information from the Krishi Vigyan Kendra. The day-to-day activities are as under. In which 575 Farmers/farm women from different blocks were participated.

Number of Technology weeks celebrated	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
1	Gosthies	6	575	• 1st day: Concept of Organic Farming. • 2nd day: IPM for *kharif* crop with special emphasis on pink bollworm and mealy bug. • 3rdday:Importance of Micro irrigation system in agri. • 4th day: Integrated nutrient management. • 5th day : Ideal animal husbandry • 6thday : IPM for *kharif* crop with special emphasis on white grub.
	Lectures organized	36	575	1. IPM & IDM in Groundnut 2. ICT importance in Agriculture 3. More milk produce in scientific way 4. Value addition in farm products

				5. IPM in Cotton 6. Importance of Organic farming 7. Reduce rate of crop cultivation in through Integrated Pest and disease control. 8. Importance of micro irrigation system 9. Diesis management in Animal 10. Importance of Kitchen gardening 11. Pink bollworm management in Cotton 12. Importance of micronutrients in agriculture 13. Integrated Pest and disease of major crops 14. Emphasizes on adverse effect of climate change in agriculture 15. Importance of soil and water analysis 16. Mechanization in modern Agriculture 17. Irrigation management in agricultural crop
	Exhibition	1	575	Farm implements were put for exhibition cum demonstration purpose
	Film show	16	575	Film Show of different technologies were presented
	Fair	1	575	1. NADAP Composting unit 2. Net House/Poly house 3. Solar submersible pump (Renewable energy) 4. Vermi compost unit 5. Fisheries unit 6. Agro forestry unit 7. Orchard of chiku, custard apple, guava, pomegranate and aonla 8. Drip and sprinkler system in farm 9. Crop cafeteria of major crop of the district 10. Seed production unit 11. Nursery Unit 12. Improved Implements viz. Laser land leveler, Tractor operated sprayer, tractor operated spray gun, rotavator, groundnut digger, tractor operated reaper for sorghum, groundnut exposure, minitractor, Mould plough, automatic seed cum fertilizer drill, etc.
	Farm Visit	5	575	During farm visit farmers were demonstrate reaper demonstration for sorghum cutting. and also other different implements were demonstrated
	Diagnostic Practicals	17	30	
	Distribution of Literature (No.)	13	2200	Different subject literature distributed
	Total number of farmers visited the technology week		575	

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

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed(q)	Value (Rs)	Number of farmers
Cereals	Wheat	GW-496		155	310000	65
	Wheat	GW-463		3.8		
Oilseeds	Sesame	GT-3		7.2	90000	65
	Sesame	GT-2		13.05	163125	71

Pulses	Green gram	GM-4		16.75	167500	235
	Pigeon pea	Vaishali		2.65	33125	60
Commercial crops						
Vegetables	Papaya	Madhubindu		0.081		
Flower crops						
Spices						
Fodder crop						
Fiber crops						
Forest Species						
Others	Sun hemp			2.4	-	-
Total				**200.93**	**763750.00**	**496**

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings	Brinjal	GJB-3		100	45	1
	Brinjal	GJB-4		100	45	1
	Tomato	JT-3		300	135	2
Fruits						
Ornamental plants	Date palm			30	450	2
	Fam palm			1	20	1
	Acelifa			50	500	1
	Jasud			10	100	2
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
Total				**591**	**1295**	**10**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity		Value (Rs.)	No. of Farmers
		No.	kg		
Bio Fertilizers	*Azotobactor*	375		3750	62
	Rhizobium	432		4320	87
	PSB	591		5910	135
Bio-pesticide	*Beauveria Bassiana*		9639	144585	367
	Trichoderma		3812	38120	312
Bio-fungicide					
Bio Agents					
Others	Pheromone trap	2879			56
	Lure	3434			69
Total		**7711**	**13451**	**196685**	**1088**

N.B. *Product was produced by JAU University and selling by KVK the amount is only given for revenue generation

Table: Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				

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

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	563	488	301	13790
Water	59	47	22	2950
Plant	74	58	23	0
Manure				
Others (pl. specify)				
Total	**696**	**593**	**346**	**16740**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
JAMNAGAR	1

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
KVK New Letter	E –News Letter

X. PUBLICATIONS

Category	Number
Research Paper	2
Technical bulletins	
Technical reports	7
Others (pl. specify)	
Popular article	8
Extension literature	10
News letter	1
Abstract	2
Leaflet/folder	3
Press release	18

XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM

Activities conducted				
No. of Training programmes	**No. of Demonstration s**	**No. of plant materials produced**	**Visit by farmers (No.)**	**Visit by officials (No.)**

XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/ HAILSTORM/ COLD WAVES ETC

Introduction of alternate crops/varieties

Crops/cultivars	Area (ha)	Extent of damage	Recovery of damage through KVK initiatives if any
Total			

Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No.of participants
Total		

Animal health camps organized

Number of camps	No.of animals	No.of farmers
Total		

Seed distribution in drought hit states

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

Large scale adoption of resource conservation technologies

Crops/cultivars and list of resource conservation technologies introduced	Area (ha)	Number of farmers
Solar pump		
Drip Irrigation		
Bio-fertilizers		
Bio-pesticides		
Organic farming		
Total		

Awareness campaign

	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
Total												

XIII. DETAILS ON HRD ACTIVITIES

A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension

Name of the SAU	Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Total				

B. HRD activities organized in identified areas for KVK staff by ATARI

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Total			

TRAINING CUM WORKSHOP ATTENDED BY KVK STAFF

Sr. No.	Period	Name of Officer	Title	Venue or Place	Sponsoring Agency	Duration (days)
1	02.05.16 to 04.05.16	Dr. K. P. Baraiya	To attend "Zonal Workshop on KVKs of Rajasthan & Gujarat"	AAU, Anand	ICAR	3
2	11.06.2016	Dr. K. P. Baraiya	State level Seminar on "Plant Protection in Organic farming"	NAU, Navsari	PPAG, State horticulture Mission, GAAS, NAU	1
3	11/06/16	Dr. V. C. Gadhiya	State level Seminar on "Plant Protection in Organic farming"	NAU, Navsari	PPAG, State horticulture Mossion, GAAS, NAU	1
4	07.09.16 to 09.09.16	Mr. S. H. Lakhani	Training programme on use of drip irrigation and its maintenance	Department of Soil & Water Engineering, COAET, JAU, Junagadh	Netafil Irrigation	3
5	19.09.16 to 20.09.16	Dr. K. P. Baraiya	Training programme on scientific farming of rapeseed & mustard under NMOOP	Directorate of Rapeseed-Mustard Research Sewar, Bharatpur (Rajasthan)	ICAR, New Delhi	2
6	24-25/10/16	Dr. V. C. Gadhiya	Zonal Workshop on "Pulse production Technology"	CAZRI, Jodhpur	ICAR	2
7	22/11/16 to 25/11/16	Dr. V. C. Gadhiya	National level training programme on "Community Radio for Agricultural Development"	JAU, Junagadh	MANAGE	4
8	01/12/16 to 21/12/16	Dr. P. S. Gorfad	Winter school on "Innovation in Education Technology"	MPUAT, Udaipur, Rajasthan	ICAR	21
9	02/12/2016 to 22/12/16	Smt. A. K. Baraiya	Winter School on "Gender Empowerment through Entrepreneurship Development"	DBSKKV, Dapoli, Dist.-Ratnagiri, Maharashtra	ICAR	21
10	30.12.16 to 31.12.16	Dr. K. P. Baraiya	Workshop on Action Plan & Progress report of KVKs, of Gujarat	SDAU, Sardar Krishi Nagar	ICAR	2
11	17.02.17 to	Dr. K. P.	Participation in National	IGKVV, Raipur,	ICAR, New Delhi	2

	18.02.17	Baraiya	Review Workshop on Cluster Front Line Demonstration on Oilseeds	Chhatisgarh		
12	20/02/17 to 22/02/17	Smt. A. K. Baraiya	Training programme on "Advances in Horticulture, Animal health and Value addition"	DEE, JAU, Junagadh	ICAR	3
13	20/02/17 to 22/02/17	Dr. V. C. Gadhiya	Training programme on "Advances in Horticulture, Animal health and Value addition"	DEE, JAU, Junagadh	ICAR	3
14	20/02/17 to 22/02/17	Dr. J. H. Chaudhary	Training programme on "Advances in Horticulture, Animal health and Value addition"	DEE, JAU, Junagadh	ICAR	3
15	20/02/17 to 22/02/17	Mr. S. H. Lakhani	Training programme on "Advances in Horticulture, Animal health and Value addition"	DEE, JAU, Junagadh	ICAR	3
16	20/02/17 to 22/02/17	Dr. K. P. Baraiya	Training programme on "Advances in Horticulture, Animal health and Value addition"	DEE, JAU, Junagadh	ICAR	3
17	21.02.17 to 23.02.17	Mr. H. S. Godhani	Training programme on use of drip irrigation and its maintenance	Department of Soil & Water Engineering, COAET, JAU, Junagadh	Netafil Irrigation	3
18	27/02/17 to 26/3/17	Dr. J. N. Thakar	Orientation Programme for all disciplines	UGC, HRDC, Saurashtra University, Rajkot	UGC	28
19	27-28/02/17	Mr. S. H. Lakhani	Review cum training programme on "Oilseed production Technology under NMOOP Scheme	ATARI, Jodhpur	ICAR	2
20	09.03.17	Dr. J. H. Chaudhary	Sensitization Workshop on "Protection of Plant Varieties and Farmer's Right's	ATARI, Jodhpur	ICAR	1

XIV. CASE STUDIES(CASE STUDIES MAY BE GIVEN IN DETAIL AS PER THE FOLLOWING FORMAT)

1. Case Study/Success Story

PROFILE OF FARM INNOVATORS
Thematic Area: Horticultural Production

"ORGANIC PRODUCTION OF BEET ROOT IN GUJARAT"

Dr. V. C. Gadhiya, Dr. K. P. Baraiya

Personal Profile		Organic beet root with drip irrigation system	
Name of farmer	:	Tada Amrutbhai Parsotambhai	Shri Amrutbhai Parsotanbhai Tada is very enthusiastic, hard worker, 10 pass and animal owner of Mandasan village of Jam jodhpur taluka in Jamnagar district. Mandasan village located very interior village having undulating land. It is also very less rainfall area having hardly 350 to 400 mm rainfalls. Ground water is also scar in this area. The possibility of horticultural crops in negligible in this area. There is also major problem
Contact No.	:	9974484539	
Address	:	At.- Mandasan Ta.- Jam jodhpur Dist.- Jamnagar	
Age	:	57 Years	
Education (highest level and	:	10 pass	

<table>
<tr><td>subject)</td><td></td><td></td><td>of wild animal's viz., blue bull, deer and pig. Amrutbhai have protected the field with wire-net fencing.
Amrutbhai having completely dependent on farming. He has no any side income from any business, but he took farming as a business and started cultivation of beet root and other horticultural crops since last 6 years.</td></tr>
<tr><td>Land holding</td><td>:</td><td>3 ha</td><td rowspan="5">Practical Utility of the Innovation/ Mode etc.
Shri Amrutbhai Parsotanbhai Tada is innovative and enthusiastic farmer. He started Farming since last 30 years with common farming practices viz., groundnut, cotton, maize, brinjal, lucerne and other fodders; and after some experience, he started brinjal and garlic growing in his farm. During krushi mahotshav and farmer training programme he comes in contact with KVK scientist. Scientist advice him for cultivation of vegetable crops then he decide cultivation of beet root and he faced many problem for cultivation but continuous contact with krishi vigyan kendra, JAU, Jamnagar he resolved the problem. He is promoted for organic farming. All guideline were provided for cultivation and marketing.
He observes clear difference between organic and inorganic beet root. Uniform vegetative growth is observed in organic crop whereas in case of inorganic crop uneven growth is observed and tuber formation is also different. In case of organic beet root tuber size is bigger than in organic beet root and test of organic beet root is sweet as compared to inorganic beet root.
He cultivated sponge gourd as a main crop with telephone system and take beet root as inter crop with sponge gourd. He also used drip irrigation system and he did not use any type of chemical fertilizer or chemical pesticide. He used bio fertilizer, liquid fertilizer, FYM, vermi compost, jeeva amrut, gauv mutra and bio pesticide. He also utilizes newer technologies for cultivation.
He earned Rs. 135000/- per hectare from sponge gourd. However, Rs. 145000/-earned from beet root as inter crop of same field. Thus total income from 1 hectare was Rs. 280000/-. He spent Rs. 27000/- for production of sponge gourd and beet root. Thus, net return of Rs. 253000/- per hectare.
During the era of organic farming, he has appreciated for the cultivation of organic beet root cultivation and started one steps in an innovative work within 7.5 acre of land since last six years. He has marketing himself in farmers market of Jamnagar district and in APMC of Jam jodhpur.</td></tr>
<tr><td>Crops grown</td><td>:</td><td>Beet root</td></tr>
<tr><td>Livestock</td><td>:</td><td>1 - Cow,
2 - Buffalo</td></tr>
<tr><td>Business</td><td>:</td><td>Farming</td></tr>
<tr><td>Special recognition</td><td>:</td><td>Innovative and Progressive farmer</td></tr>
</table>

	
Farmer with Beet root plant	**Crop grown in field with drip irrigation system**
	
Farmers – Scientist interaction at Field	**Beet root grown as inter crop with sponge gourd**

2. Case study/ Success story

PROFILE OF FARM INNOVATORS
Thematic Area: Medicinal Plant cultivation

INTRODUCING A NEW CROP CULTIVATION IN JAMNAGAR DISTRICT : SPIRITUAL CULTIVATION OF CHICORY

Dr. V. C. Gadhiya, Dr. K. P. Baraiya

Personal Profile		**Spiritual Cultivation of Chicory**	
Name of farmer	:	Pravinbhai Savjibhai Parmar	Shri Pravinbhai Savjibhai Parmar is young and enthusiastic, hard worker, 7 pass and animal owner of Jivapar village in Jamnagar district. Jivapar village in interior village having undulating land. It is also very less rainfall area having hardly 300 to 350 mm rainfalls but he has facilities to canal irrigation from dam in absence of canal ground water is also scar in this area. The possibility of horticultural crops in negligible in this area. There is also major problem of wild animal's *viz*., blue bull, deer and pig. Pravinbhai have protected the field with wire-net fencing.
Contact No.	:	9723129214	
Address	:	At.- Jivapar Ta.- Jamnagar Dist.- Jamnagar	
Age	:	46 Years	
Education (highest level and subject)	:	07 pass	Pravinbhai having completely dependent on farming. He has no any side income from any business, but he took farming as a business and started cultivation of chicory and other horticultural crops since last 10 years.
Land holding	:	10 acre 3 guntha	**Practical Utility of the Innovation/ Mode etc.**
Crops grown	:	Chicory	Shri Pravinbhai Savjibhai Parmar is innovative

Livestock	:	2 - Buffalo 2- Bullock	farmer. He started farming since last 35 years with common farming practices *viz.,* groundnut, cotton, sesame, maize, chilli, garlic, onion and other fodders; and after some experience, he started onion and garlic growing in his farm. During krushi mahotshav and farmer training programme he heard about the cultivation of medicinal and aromatic crops as well as horticultural crops and he decide cultivation of chicory but initially he started and face many problem. After that he comes in contact with scientist from krishi vigyan kendra, JAU, Jamnagar and he knows about the cultivation of chicory. Then he decided to some innovation and he started spiritual cultivation of chicory in his farm. He cultivated chicory with spirituality. He did not use any type of chemical pesticide. He used bio fertilizer, liquid fertilizer, FYM and jeeva amrut. He harvesting 15 tonne/ha chicory and earned Rs. 375000/- per hectare and also harvest near about 2.5 tonne Leaf/ha. It is used as a good fodder for animal. He spent Rs. 32000/- for production of chicory. Thus, net return of Rs. 343000/- per hectare. During the era of zero budget farming/spiritual or organic farming, he has appreciated for the cultivation of spiritual chicory cultivation as well as introducing new cultivation of medicinal crop in the Jamnagar district and started one steps in an innovative work within 4 ha of land since last ten years. He has also marketing himself from his farm as retail counter or direct to the company engaged with coffee production.
Business	:	Farming	
Special recognition	:	Innovative and Progressive farmer	

Farmer with chicory crop

Crop grown in field

Scientist of KVK, JAU, Jamnagar visit to Field

Chicory

3. Case study/ Success story

PROFILE OF FARM INNOVATORS
Thematic Area: Horticultural Production
"Organic Tomato Cultivation"

Smt A. K. Baraiya Dr. K. P. Baraiya

Personal Profile		**Organic Tomato Cultivation with drip irrigation system**	
Name of farmer	:	Vachhani Savitriben Mahendrabhai	**Smt. Savitriben Mahendrabhai Vachhani** is very enthusiastic, hard worker, 12th pass and animal owner of Lalpur village of Jamnagar District. Lalpur is taluka level city and 40 km away from Jamnagar. She has 2.99 ha land with less irrigation facilities according to rainfall. It is also very less rainfall area having hardly 300 to 350 mm rainfalls. Groundwater is also scar in this area. The possibility of horticultural crops in negligible in this area. There is also major problem of wild animal's viz., blue bull, deer and pig. Her family is completely dependent on farming; her spouse is also working together, having no any side income. She started farming since last 16 years.
Contact No.	:	9825562652	
Address	:	At.-Bhagat plot, main road, Lalpur, Ta.- Lalpur, Dist.- Jamnagar	
Age	:	50 Years	
Education (highest level and subject)	:	12 pass	
Land holding	:	2.99 ha	**Practical Utility of the Innovation/ Mode etc.**
Crops grown	:	Tomato, okra, cucumber, ridge gourd, etc.	**Smt. Savitriben Mahendrabhai Vachhani** is innovative farmwomen. She started farming since last 16 years with common farming practices *viz*., Groundnut, cotton, cumin, wheat, chickpea, maize, sorghum, Lucerne and other fodders; and after some experience, he started vegetable growing in her farm. Availability of water is very scanty and it is also depend on rainfall pattern. They have dig one well and one tube well as a source of water. The water from this source is also insufficient for whole season crop cultivation. She comes in contact with scientist of Krishi Vigyan Kendra, JAU, Jamnagar during krushi mahotshav at Lalpur. After words she also attend the training conducted by Krishi Vigyan Kendra, JAU, Jamnagar and advised for how maximize the water use efficiency. She show and learn by learning by doing about usefulness of micro irrigation system at KVK. She also advised for MIS installation for field and vegetable cultivation. Then, she installed MIS system during 2013-14 on her own farm and started farming with MIS of field crops. Continuous contact with KVK and also visit exposure training at JAU, Junagadh she motivate for vegetable cultivation. Then, she started vegetable cultivation *viz.,* okra, cucumber, tomato, ridge gourd, etc. She also kept animals like cow and buffalo as mix or integrated farming. The product of this animals dung, urine and FYM collected and use in farming. Afterwards she leant about organic farming and production of organic inputs at household preparation. She prepares *panchgavya*, *jivamrut*, *gaumutra*, etc produce and use as fertilizer and pesticide along with drip irrigation system. She shows it is very useful and cost effective for production of vegetable and all other crops. Since last four years, she started tomato cultivation with scientific approaches. She cultivated Victory (Rashi Seeds) variety
Livestock	:	2 - buffalo, Cow-1	
Business	:	Farming	
Special recognition	:	Innovative and Progressive farmer	

		of tomato having 625 quintal per hectare produce within seven months season. She grading the tomato and super quality supply directly to mega mall; however, remaining sold in local market as well as retail marketing. The price of tomato earned Rs. 7 to 10 per kg (average Rs. 8/kg). gross earning is Rs. 5 lakhs per hectare and the cost of production of tomato was 1.25 lakhs per hectare. Thus, net benefit Rs. 3.75 lakhs per hectare.

She also used drip irrigation and solar system and she did not use any type of chemical fertilizer or chemical pesticide. He used bio fertilizer, liquid fertilizer, FYM and bio pesticide.

During the era of organic farming, she has appreciated for the cultivation of organic vegetable cultivation and started one steps in an innovative work. Many farmers of the district were visited her farm. She got many award for the animal keeping and vegetable cultivation. Door Darsha has special recorded her success story and broadcast from DD Girnar Channel during Mahila Jagat Programme.

Tomato Packing for sale in mega mall

Treatment and care of tomato crop

Fertigation treatment with MIS

Grading and packing of tomato

Success story recording by DD Girnar

Animal care at home

4. Case study/ Success story

PROFILE OF FARM INNOVATORS

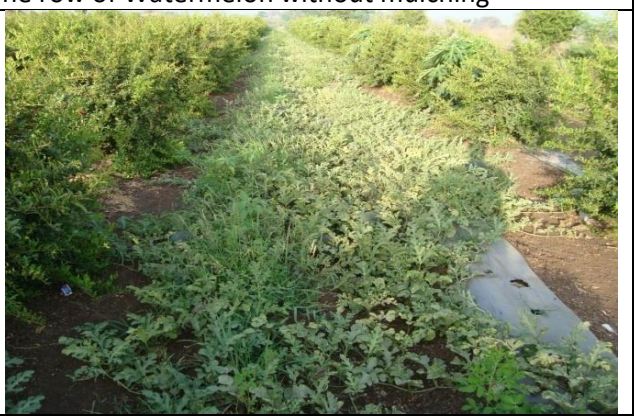
Thematic Area: Use of Mulching technology in Horticultural crop Production

"MIRACLE OF MULCHING"

Dr. P. S. Gorfad, Dr. K. P. Baraiya

Personal Profile	:	Use of Mulching in Watermelon an Inter crop with Pomegranate	Shri Punjabhai passed SSC exam in 1988 and then he left further study. He started hereditary occupation – farming. Initially he was practicing tradition farming. He joined ATMA project implemented by KVK, Jamnagar in 2007. After this, his contact with scientists of KVK and university was increased. These experts were providing latest guidance for agricultural technology. Due to this, he could able to understand about production losses. Even though, the rate of adoption was slow. In the beginning, shri Punjabhai had reduced the overdoses of fertilizers, pesticides, seeds, irrigation, inter-culturing, etc. As a result, his cost of cultivation was reduced and profit increased. During these days scientists of KVK were encouraging and inspiring to do some innovative. They motivate him to cultivate horticultural crop instead of traditional field crops. Due to this shri Punjabhai has planted a pomegranate orchard in one hectare of land. He selected the tissue culture variety – 'Bhagvo-Sinduri' of pomegranate. He was also inspired to sow inter crop for getting the maximum benefit of the same land for two to three years. So he decided to cultivate watermelon.
Name of Farmer	:	Shri Punjabhai Dhanabhai Chauhan	
Contact No.	:	8154820195	
Address	:	At: Fotdi, Block: Bhanvad, Dist: Devbhoomi Dwarka	
Age	:	45 Yrs.	
Education(Highest Level & Subject)	:	SSC	
Land Holding	:	5.5 hectare	**Practical Utility of the Innovation**
Crops grown	:	Watermelon as intercrop in pomegranate	Punjabhai decided to cultivate Taiwan variety – "Pahuja Suman-235" of watermelon as an inter crop in pomegranate orchard. Moreover, the experts of KVK explained him about the importance of mulching. Hence, he used white plastic sheet of three feet width and 20 micron density for mulching. He also kept one row of watermelon without mulching to know the effect of mulching. The irrigation was provided through drip irrigation system. As per the views of Shri Punjabhai, ***the mulching was not a merely mulching but it was a 'miracle'***. The reasons of this miracle were: 1) The germination was speedy and around cent per cent 2) The problem of weeds was minimal 3) Water holding capacity was increased 4) The problem of pest and diseases was very less 5) The size and weight of fruits was more and as a result of this more yield was gained 6) The quality of fruits was the best 7) The market price was more as compared to fruits of non-mulching plot There was absence of these all good characteristics in non-mulching plot. It was surprise that the growth of pomegranate of this plot was also superior as compared to without mulching. He received 200 quintals of watermelon production from one hectare of land. He fetched an average price of Rs. 7.0 to 8.0 per kilograms. He has earned total Rs. 1.5 lac from intercrop of watermelon crop within only 80 days. The total
Live stock	:	Cow-01 Buffalo -02 Bullock-02	
Business	:	Farming	
Special recognition	:	Innovative and progressive farmer	

			expenditure was Rs. 50000/- (1. Seeds- 13000/-, 2. Fertilizers- 20500/-. 3.- Plant protection- 5000/-, 4. Labour Charge – 4500/- and 5. Mulching cost- 14000/- received subsidy of Rs. 7000/-). Thus, just in 80 days from 1 ha of land shri Punjabhai received net return of one lac rupees from intercrop of watermelon with pomegranate.

Watermelon with mulching	One row of Watermelon without mulching
	

5. Case study/ Success story

PROFILE OF FARM INNOVATORS
Thematic Area: Organic Cultivation
"Organic Groundnut Cultivation & Value Addition"

Dr. K. P. Baraiya, Smt. A. K. Baraiya

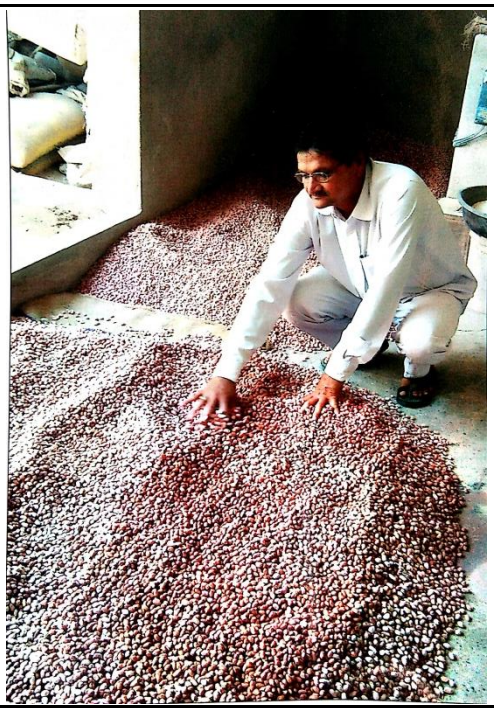
Personal Profile		**Organic Groundnut Cultivation and Value addition**	
Name of farmer	:	Kanani Gopalbhai	**Shri Gopalbhai Kanani** is very enthusiastic, hard worker, 9th Std. pass from very interior village Bhangor of Lalpur Taluka, Jamnagar District. Lalpur is taluka level city and 60 km away from Jamnagar. He has 6.24 ha land with seasonal irrigation facilities according to rainfall. It is hilly area then runoff water problem is very high. It is also very less rainfall area having hardly 300 to 350 mm rainfalls. Groundwater is also scar in this area. There is also major problem of wild animal's viz., blue bull, deer and pig. The area is also suffers from thief. He was working as merchant of provisional items in Jamnagar. After words he has to come at village and start farming later stage. Now a day his family is completely dependent on farming, having no any side income. He started farming since last 5 years.
Contact No.	:	9426046058	
Address	:	At.-Bhangor, Ta.-Lalpur, Dist.-Jamnagar	
Age	:	54 Years	
Education (highest level and subject)	:	9 Std pass	
Land holding	:	6.24 ha	**Practical Utility of the Innovation/ Mode etc.**
Crops grown	:	Groundnut, cotton, wheat, sesame, chickpea	**Shri Gopalbhai Kanani** is innovative farmer. He was working as merchant of provisional store in Jamnagar. During this period his brothers and father was looking after the farm as joint family. Since 15 years he was looking after his farm along with merchant business. He was very enthusiastic person. He visits the programmes conducted by KVK on different agricultural technology, read the magazines related to agriculture and also show television programme related to farming. He started farming since last 5 years with common farming practices *viz*., Groundnut, cotton, cumin, wheat, chickpea.
Livestock	:	2 - Bullock	
Business	:	Farming	
Special	:	Innovative and Progressive	

recognition		farmer	He comes in contact with scientist of Krishi Vigyan Kendra, JAU, Jamnagar during krushi mahotshav at Lalpur. After words she also attend the training conducted by Krishi Vigyan Kendra, JAU, Jamnagar and advised for how maximize the productivity. He show and learn by learning & doing about organic farming at KVK. Continuous contact with KVK and also visit exposure training at JAU, Junagadh she motivate for value addition in groundnut. Then, she started organic groundnut cultivation and value addition with retail marketing. Gopalbhai decided to develop the farm for well productivity and it should be chemical less produce to be sold to the farmers. First of all he started soil reclamation by addition of sediment soil at bottom of dam or reservoirs. He does not use chemical fertilizers but he use 50 tonn FYM per hectare. For the management of pest and diseases do not use pesticides or any chemicals, but he use own prepared *Panchgavya* (the contents of panchgavya is 200 kg cow dung, 10 lit. cow urine, 2 kg jaggari, 2 kg chickpea floor, 1 kg cow ghee, 20 lit. water mix in one barrel and kept it up to 17 days for fermentation by regularly steer it every day). This *panchgavya* use at 20, 40 and 80 days after sowing of groundnut @ 150 litres per hectare. This is very useful as source of nutrition and also very effective for soil borne diseases and pests. He also use mixture of cow urine, neem oil, neem leaf extract, and pearl millet floor fermented with each other and take 1 litre solution in 15 litre pump for above ground pest and diseases management. Groundnut production was taken 50, 65 and 52.5 quintals per hectare during the *kharif* 2014-15, 2015-16 and 2016-17, respectively. Before 2014 he sold groundnut directly in APMC market and get Rs. 35 to 45 per kg and earned Rs. 2 lakhs per hectare. During last three years he decided to value addition in groundnut. This technique has been accepted from KVK scientist and prepare roasted and salted groundnut kernels and packed in 250 gm, 500 gm and 1 kg bag. and he decided the Rs. 200 per kg groundnut kernels. Thus, he earned Rs. 6.5 lakhs per hectare. It is clear cut difference against directly sold and with value addition. Thus, he earned extra amount from value addition in groundnut with cost of Rs. 25 per kg. However, cost of groundnut production Rs. 70000 normal farmers but Gopalbhai spent only Rs. 40000 per hectare in organic era.

He also attends different krishi mahotshav, kishan mela for marketing of roasted and salted groundnut. He goes door to door contact for selling the value added products. Many farmers are visited and tested his produce and they are also appreciating for the preparation of the value addition.

The future plan of Gopalbhai is to be produce “organic groundnut oil” and by attractive packing selling directly to different contacted customers.

This technology is very well spread among the area of Jamnagar district. Many farmers visited his farm and started in line of organic farming and thought about value addition.



Processing of groundnut kernels

Selling of product

Processing of groundnut kernels

XV. FUND UTILIZATION

Utilization of KVK funds during the year2016-17

S.No.	Particulars	Sanctioned	Released	Expenditure
A.	**Recurring Contingencies**			
1	**Pay& Allowances**	7500000	6410000	7158971
2	**Traveling allowances**	180000	163451	147970
3	**Contingencies**	2500000	2039000	1298317
	TOTAL (A)	10180000	8612451	8605258
B.	**Non-Recurring Contingencies**	460000	378000	377377
C.	**REVOLVING FUND**	0	0	0
GRAND TOTAL (A+B+C)		**10640000**	**8990451**	**8982635**

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2014 to March 2015	3512724	679076	351515	3840285
April 2015 to March 2016	3840285	993984	410462	4423807
April 2016 to March 2017	4423807	2635135	2197362	4861580

XVI. OTHER SCHEME :

List of special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Establishment of Agricultural Technology Information Centre (ATIC)	2015-16	State Government	2700000/-
Pre *rabi* sammelan	2015-16	ICAR	80000/-
Soil Health Card	2015-16	ICAR	86000/-
Cluster Frontline demonstration of *rabi* OIlseeds under NMOOP	2015-16	ICAR	390000/-
Cluster Frontline demonstration of *rabi* pulses under NSFM	2015-16	ICAR	375000/-
PMFBY	2016-17	ICAR	185497

1. ESTABLISHMENT OF AGRICULTURAL TECHNOLOGY INFORMATION CENTRE (ATIC)

Annual Progress Report of ATIC Scheme for the year 2016-17

A. Details of ATIC

Sr. No.	Name of ATIC	Name of host institute	Name of ATIC manager	Telephone No.			E-mail address
				Office	Fax	Mobile	
1.	KVK, Jamnagar	Junagadh Agricultural University, Junagadh	Senior Scientists & Head	(0288) 2710165	(0288) 2710165	+919427980032	kvkjamnagar@jau.in

B. Details of farmers visit:

Sr. No.	Name of ATIC	Purpose of visit	No. of farmers visited
1.	KVK, Jamnagar	For Agricultural information	1886
2.	KVK, Jamnagar	Technology Products	712

C. Facilities in ATIC (Operational):

Sr. No.	Particulars	No. of ATIC
1.	Reception Counter	No
2.	Exhibition/technology measures	Yes
3.	Touch screen kiosk	Nil
4.	Cafeteria	Yes
5.	Sales Counter	Yes
6.	Farmers feed back register	Yes
7.	Others	Nil

D. Technologies Information Provided

D. 1. Details technology information, category of information:

Name of ATIC	Information Category	No. of farmers benefitted	Variety	Pest Management	Disease management	Agro tech.	SWT	PHT	AH
KVK, JAU, Jamnagar	1. Kisan call Centre/ phone calls	64040	1173	38718	21700	1214	1087	132	16
	2. Video Shows	216	Nil	216	Nil	Nil	Nil	Nil	Nil

	3. Letters Received	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	4. Letter replied	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	5. Training to famers/ technocrats/ students	487	58	226	108	6	51	22	16
	6. Others	-	-	-	-	-	-	-	-

D. 2. Publication (Print & Electronic media):

Sr. No.	Name of ATIC	Particular	No. sold/distributed	Revenue generate	No. of farmers benefitted
1.	KVK, JAU, Jamnagar	Books/Booklet	162	Nil	162
2.		Tech. bulletin	Nil	Nil	Nil
3.		Tech. inventory	Nil	Nil	Nil
4.		CDs	Nil	Nil	Nil
5.		DVDs	Nil	Nil	Nil
6.		Leaflet	960	Nil	960
7.		Folders	2850	Nil	2850
8.		Video films	Nil	Nil	Nil
9.		Audio CDs	Nil	Nil	Nil
10.		Others (Poster)	312	Nil	312

E. Technology products provided:

Sr. No.	Particular	Quantity	Unit of quantity	Value in Rs.	No. of farmers benefitted
1.	**Seeds**				
(i)	Green Gram (GM-4)	10.75	Quintal	107500	235
(ii)	Wheat (GW-496)	155.00	Quintal		
(iii)	Sesame (GT-3)	7.1	Quintal	88750	65
(iv)	Sesame (GT-2)	7.88	Quintal	98500	71
(v)	Sunhemp	2.4	Quintal		
2.	**Planting materials**	500	No.	225	2
3.	**Live stock**	-	No.	-	-
4.	**Poultry birds**	-	No.	-	-
5.	**Bio Product**	-	**Quintal**	-	-
	1. *Beauveria bassiana*	9639	96.39	1445850	367
	2. *Trichoderma*	3812	38.12	266840	312
	3. PSB	591	No.	35460	135
	4. *Rhizobium*	432	No.	25920	87
	5. *Azotobactor*	375	No.	22500	62
	6. Pheromone trap	2879	No.	57580	102
	7. Lure	3434	No.	68680	115
6.	**Others**				
	(i) Fruits				
	1. Sapota	1.84	Quintal	1840	43
	2. Guava	0.51	Quintal	765	18
	3. Custard apple	1.19	Quintal	2975	22

F. Technology services provided:

Name of ATIC	Particulars	No. of farmers benefitted
KVK, Jamnagar	Soil and Water testing	619
	Plant diagnosis	74
	Services to line department	46
	Others (Group Meeting, Field Visit, Field Day)	128

A. FLD conducted:

Sr. No.	Month	Crop/Inputs	Season	Variety	No. of Farmers/ Demonstration		
					Others	SC/ST	Total
1.	April-16 to March-17	**Groundnut :-** PSB, *Rhizobium, Beauveria, Trichoderma*	*Kharif*	-	94	6	100
2.		**Cotton :-**SNPV, *Beauveria,* Pheromone trap	*Kharif*	-	90	10	100
3.		**Brinjal :-** *Azotobactor, Beauveria,* GJBH-4 seed	*Kharif*	-	10	-	10
				Total	194	16	210

B. Short term training courses:

Sr. No.	Month	Title of the Training	No. of Beneficiaries			No. of SC/ST Beneficiaries		
			M	F	Total	M	F	Total
1.	April-16 to March-17	Management of pests & disease in kharif crops	17	-	17	2	-	2
2		Use of plastic mulch in farming practices	16	-	16	-	-	-
3		Management of store grain pest	53	-	53	4	-	4
4		Management of disease in kharif crops	37	-	37	-	-	-
5		Management of pink bollworm in cotton	21	-	21	2	-	2
6		Installation, maintenance and fertigation through MIS	41	-	41	5	-	5
7		Management of pink bollworm in cotton	18	-	18	-	-	-
8		Swachta Abhiyan-Khedut shibir	9	21	30	3	5	8
9		Use of plastic mulch in farming practices	28	21	49	7	14	21
10		Training on soil health card	31	-	31	-	-	-
11		Student training	54	38	92	22	18	40
		Total	**325**	**80**	**405**	**45**	**37**	**82**

C. Extension Activity:

Name of ATIC	Information Category	No. of farmers benefitted	Variety/ INM	IPM	IDM	Agro Tech	SWT	PHT	AH/ FISH
KVK, Jamnagar	Kisan call Centre phone	64040	1173	38718	21700	1214	1087	132	16
	Training	487	58	226	108	6	51	22	16

Sr. No.	Name of Activity	No. of Activity	No. of Participant		
			M	F	T
1	Group meeting, Kishan goshthi	7	114	-	114
2	Field visit/Field Day	32	218	-	218
3	Night meeting etc.	2	181	-	181
4	Literature	4284 no.	-	-	-
5	Plant Diagnosis services	58	74	-	74

XVII. OTHER PROGRAMMES ORGANIZED

(a). Pradhan Mantri Fasal Bima Yojna

KVK, Jamnagar Organized one day Farmers fair and Farmers Seminar on **"Pradhan Mantri Fasal Bima Yojana"** on 9th April, 2016. In this programme 480 farmers of Jamnagar District were participated. This programme was chaired by Dr. A. R. Pathak, Hon'ble Vice Chancellor, JAU, Junagadh, and the functioned was lightened by Pro. Vasuben Trivedi Hon'ble, Minister of State (Women and Child Welfare -Independent Charge), Higher and Technical Education. The farmers fair was opening with cutting of ribbin by Chief Guest, Su.Shri. Poonamben Maadam, Hon'ble Member of Parliament (Loksabha) (Jamnagar), Hon'ble

MLAs of Gujarat Shri Chimanbhai Sapariya and Shri Meghjibhai Chavada remain present in this programme. Smt. Pratibha ben Kankhara, Mayer of the Jamnagar District, Director of Extension Education, JAU, Junagadh, Res. Sci. (Pearl Millet), other line dept. officer remained present.

(b). Participation in Krushi Mahotsav Programme

Krushi Mahotsav- 2016 organized in Jamnagar & Devbhumi Dwarka District at three Places at KVK, JAU, Jamnagar (16-17 May, 2016); Dry farming Research Station, JAU, Jam Khambhaliya (23-24 May, 2016) and APMC, Jamjodhpur (30-31 May, 2016). Team of Scientist from JAU were participated and delivered technical lecture at all three places for two days in each Krushi Mahotsav -2016 in Jamnagar & Devbhumi Dwarka Districts. There were also arrange stall for Krishi Pradarshan by KVK, JAU, Jamnagar.

(c). Celebrated Pink Ball Worm Campaign

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar celebrated pink ball worm campaign during 20thJuly to 2nd August, 2016. This campaign conducted 11 training programme for farmers and 7 training programme for agro input dealers and extension functionary on management of pink bollworm in cotton, 614 farmers, 622 Agro Input Dealers and Extension Functionaries benefited and also provided literature regarding the management of pink bollworm to the each participants.

(d). Celebrated Mahila Krushi Divas

KVK, Jamnagar celebrated **"Mahila Krushi Divas"** on 6th August, 2016 at KVK, JAU, Jamnagar. In this Programme 134 farm women of Jamnagar District were participated. This programme was jointly organized by KVK, ATMA and DAO Jamnagar. This programme chaired by Smt. Pratibhaben Kanakhara, Mayer, Jamnagar Municipal Corporation. Collector of Jamnagar Shri R. J. Makadiya (IAS), District Development Officer Shri M. A. Pandya, Senior Scientist & Head of KVK Dr. K. P. Baraiya, DAO Shri J. B. Mathasoliya, Project Director(ATMA) Dr. A. R. Jadav, Dy. Director Animal Dr. Bhagirath Patel and other scientist of KVK remained present and delivered lecture. Empowerment of women by value addition in agriculture produce, Mechanized farming, High tech farming, Drudgery reduction Technology, Animal Husbandry, Varmi compost, Organic farming, Kitchen gardening etc were topic of hot discussion in this programme.

(e). Celebrated World Soil Health day and Pre rabi campaign programme

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar celebrated World Soil Health Day and pre *Rabi* campaign Programme on 5th December, 2016 at Jambuda Village of Jamnagar district and another programme were at Gokulpur Village of Devbhumi Dwarka District. In these programme 177 farmers are actively participated and also provided literature regarding the techniques of soil and water sampling to each participant. Shri M.A. Pandya, District Development Officer, Jamnagar; Shri R. R. Rawal, District Development Officer, Devbhumi Dwarka; Dr. M. D. Khanpara, Research Scientist, Pearlmillet Research Station, JAU, Jamnagar; Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar; Shri J. B. Mathasoliya, DAO, Jamnagar remain present during programme.

(f). Celebrated Swachta Pakhwada

KVK, Jamnagar celebrated **"Swachta Pakhwada"** during 16th – 31st October, 2016 at KVK, JAU, Jamnagar. In this Programme 450 male and female farmer were participated. Cleanliness of office, hostel, training hall, processing unit, store, godown, crop cafeteria, processing unit, vermin-compost unit, poly house net house, implement shed, demonstration farm as well as whole farm of KVK. All staff members of KVK were actively participated in throughout the programme.

(g). Training Programme on "Importance of Soil Health Card" under NMSA

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar Organized Two days two training Programme on "**Importance of Soil Health Card**" under NMSA held on 30-31 January, 2017 at KVK, Jamnagar and on 8-9 February, 2017 at Dry Farming Research Station, JAU, Jam Khambhaliya. In this programme

topics covered were Importance of Soil Health Card, Awareness about Soil analysis and its importance in agriculture, Use of Chemical fertilizers in integration with bio-fertilizers and crop residues, Knowledge of INM according to crop season. 71 farmers were actively participated in this programme and related literature distributed. Dr. A. M. Parikhia, Director of Extension Education, JAU, Junagadh; Dr. M. D. Khanpara, Research Scientist (Millet) and all Scientist of KVK remain present during this programme.

(h). Particapation in Krushi Mela

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar actively participated in "Khedut Samelan and Krushi Pradasan" organized by ATMA Project Jamnagar at APMC Jamjodhpur on 26/02/2017. Near about 10771 farmers of Jamnagar district were participated in this programme. Krushi Exhibition was also arranged there, for newer technology demonstration and information. Krishi Vigyan Kendra, JAU, Jamnagar also have participated in this exhibition. Shri. Parshotambhai Rupala (State Minister of Agri. & Panchayati Raj, GOI, New Delhi), Shri Chimanbhai Sapariya(Cabinate Minister of Agri. & Co-opration, Energy, GOG, Gandhinagar), Shri Vallabhbhai Vaghasiya (State Minister of Agri. & Co-opration, GOG, Gandhinagar), Dr. V. P. Chovatiya (Director of Research, JAU, Junagadh), Dr. B. M. Modi (Director, Agri., Krishi Bhavan, Gandhinagar) and all line department officers of Jamnagar District were remained present in Krishi Mela.

Scientist from KVK, Jamnagar were delivered lecture for new technology for high-tech farming and also emphasis on governments agenda on organic farming with low and minimum cost. Scientist also emphasis on reduction of cost of cultivation and increase farmers net income.

(i) SEED PRODUCTION PROGRAMME

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar conducted certified seed production programme under seed hub scheme during *kharif* 2016-17. Under this programme 10 farmers from 7 villages of Jamnagar and Devbhoomi Dwarka district are selected and produced 22680 kg certified seeds of pigeon pea (vaishali variety). The farmers selection, registration, monitoring, roughing, threshing, packing and all activity for seed production have been looked after by KVK, JAU, Jamnagar with the help of Professor & Head, Department of Seed Science and Technology, JAU, Junagadh.

(j). MERA GAUV MERA GAURAV

Progress Report of Mera Gaon Mera Gaurav- 2016-17

Sr. No.	Name of institute/university	Total No of Groups formed	No of Scientists Involved	No of villages covered	No. of field activities conducted	No. of messages/ advisory sent	Farmers benefited (No.)
1	KrishiVigyan Kendra, JAU, Jamnagar	2	6	10	26	193	6597

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar carried out following activity in the MGMG villages.

Table :1 Activities organized by Krishi Vigyan Kendra, JAU, Jamnagar under MGMG

Sr. No.	Name of activity	No. of activities conducted	No. of farmers participated & benefitted
1	Visit to village by teams	26	554
2	Interface meeting/Goshthies	25	304
3	Training organized	10	425
4	Demonstrations conducted	69	205
5	Mobile based advisories (No)	193	2355
6	Literature support provided	44	1399
7	Awareness created	30	1046
8	Input support provided (q)	15	205

Table :2 Other activities organized by Krishi Vigyan Kendra, JAU, Jamnagar

Sr. No.	Name of activity	No. /Area (ha)	No. of farmers benefitted
1	Linkages developed with other agencies (No. of agency)	3	309
2	Facilitation for new varieties, seeds, technology		
	i. New varieties (No.)	14	35
	ii. Technology(No.)	54	150
	iii. Seeds(No.)	1	20
	iv. New crops (No.)	-	-

(k). JAY KISHAN JAY VIGYAN DIVAS

Jay Kishan Jay Vigyan Divas was celebrated by KrishiVigyan Kendra, JAU, Jamnagar on 27th December, 2016.

During this day, farmers were inaugurated in the training hall and aware about the activities of KVK and different demonstration units, farm, importance of meteorological observatory in era of global warming and different recent technologies for agriculture. They visited field of KVK and also Pearl millet Research Station, Jamnagar.

Name of KVK	Date of Kisan gosthi organized	Place of activity carried out	Number of Participants
Krishi Vigyan Kendra, J.A.U. Jamnagar	27/12/2016	Krishi Vigyan Kendra, J.A.U. Jamnagar	92

(l) Student training programme

RAWE:- Student training programme under RAWE programme of College of agriculture, JAU, Junagadh Batch-1 during 25 to 31 July, 2016 (17 Student) and batch-2 during 8 to 14 August, 2016 (16 Student). During this programme students aware about practical knowledge of farm management and mandatory activity of KVK. They are also aware about research activity at this farm.

RAWE:- Student training programme under RAWE programme of N. M. College of agriculture, NAU, Navsari on 07.10.2016. During this programme, students aware about practical knowledge, 136 students participated.

BRS Students :- 3 Students from Kum. Anya Binoibhai Gardi Gram Vidyalaya Mahavidyalaya, Shardagram, BRS College, Mangarol; and 7 students from Shree Arjun BRS College, Supasi, Ta. Veraval, Dist.- Junagadh were come for internship of 15 days training programme.

(m) Parthenium Awareness Week

KVK, Jamnagar celebrated **"Parthenium Awareness Week"** during 16 – 22 August, at KVK, JAU, Jamnagar. In this Programme 300 male and female farmer are participated on and off campus. Awareness about skin diseases, its remedy and removal of parthenium and kept crop free from weed. The suggestion for the biological control is also noted. All staff members of KVK were actively participated in throughout the programme.

(n) ONION DEMONSTRATION TRIALS

Season :*kharif*

Onion Seed varieties provide by: Director of Onion and Garlic Research (DOGR), Indian Council of Agricultural Research (ICAR), Pune (Maharashtra). The varietal trial conducted at KVK, JAU, Jamnagar under drip irrigation condition during *kharif* season.

Sr. No.	Name of Variety	Photograph of variety
1	Bhima Supar	
2	Bhima Raj	
3	Bhima Shubhra	
4	Bhima Dark Red	

(o) SHIV YOG HEALING EXPERIMENT (*Kharif*)

Report on comparative study of our recommended / scientific package of practices and Shivyog-healing process for various crop production.

Place :Krishi Vigyan Kendra, JAU, Jamnagar Crop : Green gram

Variety :GM-4 Plot No. : 2 Area : 0.2 ha

Sr. No.	Item		Our recommended / scientific package of practices	Shiv yog-healing process
1	Soil analysis	EC ds/m	0.22	0.32
		pH	8.56	8.38
		O.C. %	0.54 (Medium)	0.39 (Low)
		P_2O_5 kg/ha	52.32 (Medium)	24.11 (Low)
		K_2O kg/ha	184.0 (Medium)	153.0 (Medium)
2	Germination		Good	Good
	Vigour		Good	Good
	Growth of plant/crop		Good	25 % less
3	Record pest and diseases incidence/intensity			
	incidence of Helicoverpa		10-11 %	10-11 %
	Infestation of Powdery Mildew		20-21%	25-27 %
4	Flowering (50%)		45-47 DAS	45-47 DAS
	Maturity (DAS)		120	95
5	Quality of the product		Seeds are big in size	Seeds are smaller in size
6	Yield (Kg/ha)		469	612

Scientific cultivation	Shiv Yog Healing Cultivation
	

(p). SHIV YOG HEALING EXPERIMENT (*Rabi*)

Report on comparative study of our recommended / scientific package of practices and Shivyog-healing process for various crop productions.

Place : Krishi Vigyan Kendra, JAU, Jamnagar
Season:- Rabi Year:- 2016-17
Crop : Wheat, Variety : GW-496,
Plot No. : 4/7, Area : 0.2 ha

Sr. No.	Item	Our recommended / scientific package of practices	Shiv yog-healing process
1	Germination	Good	Good
2	Vigour	Good	Good
3	Plant height (cm) at		
	30 DAS	38.6	37.6
	60 DAS	87.8	83
	harvest	98.8	92.6
5	Growth of plant/crop	Good	6.28 % less
	Leaf Colour	Dark Green	Light Green
6	Spike initiation	56 DAS	52 DAS
7	No. of tillers /plant	4.6	4
8	Days to Maturity	104	99
9	Test Wt	44.5	44.7
10	Yield (Kg/ha)	5120	4510
	Seed Colour		

Photographs

Scientific package of practices

Scientific package of practices

Shivyog Cultivation

Shivyog Healing Wheat

Scientific package of practices Wheat

ANNEXURE –I

PROCEEDING OF THE 13th SCIENTIFIC ADVISORY COMMITTEE MEETING OF KRISHI VIGYAN KENDRA, JAU, JAMNAGAR HELD ON 25th October, 2016

The Thirteenth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Jamnagar was held at Training Hall, Krishi Vigyan Kendra, JAU, Jamnagar on 25thOctober, 2016.

The following members were remain present in the meeting.

Sr. No.	Name & Designation	Position
1	Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh	Chairman
2	Dr. A. M. Parakhia, Director of Extension Education, Junagadh Agricultural University, Junagadh -362001.	Member
3	Dr. V. P. Chovatia, Director of Research, Junagadh Agricultural University, Junagadh	Member
4	Dr. V. N. Patel, Associate Director of Research, Main Dry Farming Research Station, Junagadh Agricultural University, Targhadia (Rajkot).	Member
5	Dr. M. D. Khanpara, Research Scientist (Millet), Main Millet Research Station, Junagadh Agricultural University, Jamnagar- 361 006.	Member
6	District Agricultural Officer, District Panchayat, Jamnagar,	Member
7	Director, District Rural Development Agency, Sardar Bhavan, Rameshwarnagar, Jamnagar (NavagamGhed).	Member
8	Project Director, District Watershed Development Unit, District Rural Development Agency, Sardar Bhavan, Rameshwarnagar, Jamnagar (Navagam Ghed).	Member
9	Dy. Director of Animal Husbandry, Dept. of Veterinary & Animal Husbandry, District Panchayat, Jamnagar	Member
10	Dy. Director of Horticulture, 30, Digvijay Plot, Jodiyawala Building, Jamnagar	Member
11	Dy. Director of Agriculture (Extension), Lalbunglow, Nr. Trazery office, Jamnagar	Member
12	Dy. Director of Agriculture, Farmers Training Centre, Air Force Road, Opp. Digjam Mill, Jamnagar.	Member
13	Project Director, Agricultural Technology Management Agency (ATMA), Air Force Road, Opp. Digjam Mill, Jamnagar.	Member
14	Deputy Director, Gujarat Land Development Corporation Ltd., Near: Shubhash Market, Jamnagar.	Member
15	Asstt. Director of Fisheries, Sumer club road, Jamnagar	Member
16	Station Director, Doordarshan Kendra, Aji Dam Road, Rajkot	Member
17	Research Officer, Fisheries Research Station, Okha,	Member
18	Progressive farmer (G): Shri Kishorbhai Laljibhai Pedhadiya, At:-Sumari, Ta. & Dist.-Jamnagar., Via:- Dhutarpur	Member
19	Progressive farm women (G): Shri Hansaben Kishorbhai Pedhadiya, At:-Sumari, Ta. & Dist.- Jamnagar., Via:- Dhutarpur	Member
20	Shri Maheshbhai Ramjibhai Ghetiya, At:- Kharva, Ta:- Dhrol , Dist:- Jamnagar	Member
21	Shri Arunbhai Bijalbhai Chavada, At:- Shethvadala, Ta:- Jamjodhpur, Dist:- Jamnagar	Member
22	Shri Mukeshbhai Bijalbhai Vaghela, At:- Shethvadala, Ta:- Jamjodhpur, Dist:- Jamnagar	Member
23	Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar	Member Secretary
24	Smt. Anjanaben K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar	
25	Dr. P.S. Gorfad, Scientist (Extension Education), KVK, JAU, Jamnagar	
26	Shri S. H. Lakhani, Scientist (Crop Production), KVK, JAU, Jamnagar	
27	Dr. J. N. Thaker, Scientist (Fisheries), KVK, JAU, Jamnagar	

Dr. M. D. Khanpara, Research Scientist (Pearl Millet), Pearl Millet Research Station, JAU, Jamnagar welcomed the dignitaries and all the members of the Scientific Advisory Committee and highlighted the brief achievements of the Centre.

Dr. A. R. Pathak, Hon'ble Vice-Chancellor and Chairman of Scientific Advisory Committee chaired the meeting and grant permission for proceed the meeting.

After garlanding the guests and dignitaries on the Dias, and inaugurating the meeting by lightening a lamp. Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh gave introductory speech and his review on to Reduce cost of cultivation, use of micro irrigation system, replace the chemical fertilizer and pesticides with increased use of bio-products. He emphasized on organic farming and promotes farmers towards organic farming, guiding the farmers for registration of organic farming certificate with GOPCA.

Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, JAU, Jamnagar presented action taken report of the minutes of 12th SAC meeting, progress report (April- 2016 to September-2016) and Action Plan (April 2017 to March- 2018) in brief. On behalf of Dr. V. C. Gadhiya, Scientist (Plant Protection), KVK, JAU, Jamnagar Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, JAU, Jamnagar presented progress report (April- 2016 to September-2016) and Action Plan (April 2017 to March- 2018) for discipline of Plant Protection. Smt. A. K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar presented progress report (April- 2016 to September-2016) and Action Plan (April 2017 to March- 2018) for discipline of home science. Dr. P. S. Gorfad, Scientist (Ext. Edu.), KVK, JAU, Jamnagar presented progress report (April- 2016 to September-2016) and Action Plan (April 2017 to March- 2018) for discipline of capacity building and horticulture. Shri S. H. Lakhani, Scientist (Crop production), KVK, JAU, Jamnagar presented progress report (April- 2016 to September-2016) and Action Plan (April 2017 to March- 2018) for discipline of crop production and Soil Health Fertility Management. Dr. J. N. Thaker, Scientist (Fisheries), KVK, JAU, Jamnagar presented progress report (April- 2016 to September-2016) and Action Plan (April 2017 to March- 2018) for discipline of fisheries and animal science. He also presented ATIC Scheme Progress report.

Suggestions made by committee members during presentation:

1.	Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh& Chairman of the SAC suggested following points. ➢ Arrange training about pink bollworm in first quarter. ➢ He suggested to arrange FLD on vegetable (Brinjal : GJBH-4) our university released varieties. ➢ Arrange FLD on Ajwain crop, Wheat GW-463 variety, Pearl millet GHB-732 ➢ Arrange demonstration on sea weed liquid ➢ Arrange demonstration on Bio-fertilizer in horticultural crops ➢ Establish Azola demonstration unit and create awareness among farmers ➢ Arrange training on use low cost feeding technology in fisheries ➢ Arrange training on pearl oyster production in collaboration with Fisheries Research Station, JAU, Sikka (Jamnagar) ➢ He suggested to arrange on campus training with line department on fisheries subject ➢ Arrange training on cage culture ➢ Arrange OFT on animal husbandry ➢ Recast title of training on clean milk production ➢ Arrange OFT/FLT to women fish farmers for raft preparation of *Kappaphycus* spp.

2.	Dr. V. P. Chovatiya, Director of Research, JAU, Junagadh pointed out ➢ Arrange training on Ajwain, Chikori and other spice crop. ➢ Arrange off campus training on production of Medicinal and aromatic plants ➢ Arrange training on reduction of storage losses in farm produce.
3.	Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh advice that ➢ Arrange training on use of bio-fertilizers and recycling of farm waste through composting. ➢ Modify objective of OFT on IMC spawn (Fisheries). Recast the OFT after discussion with KVK, Kodinar and experts from Fisheries College. ➢ Study the impact analysis of KVK activity in old operational villages, ➢ Carried out PRA survey of new operational villages. ➢ Kept flex banner throughout season on FLD field.
4.	Dr. V. N. Patel, Associate Director of Research (North Saurashtra Agro-climatic Zone) and Research Scientist (DF), Dry Farming Research Station, JAU, Targhadia suggested diverting farmers towards organic farming.
	Shri J. B. Mathasoliya, District Agricultural Officer, District Panchayat, Jamnagar Recommended ➢ Arrange training on production of bio-products by farmers (Jivamrut) ➢ Arrange training on organic farming
5.	Shri Kishorbhai, a progressive farmer suggested to arrange more training on organic farming with use of “Gaumutra”.
6	Shri Maheshbhai Ghetiya, a progressive farmer suggested to arrange more training on organic farming with use of 30 days old buttermilk.

After above suggestions from the house Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh, delivered the chairmen's remarks. He emphasized on active participation of farmers and scientists in specific technology development. He directed to crop diversification according to rainfall pattern and pest-diseases attack on regular farming. He pointed out that animal husbandry is most useful for agriculture and it should be increased day by day in district. He also commented on vegetable cultivation for profitable farming. He advised to take up mass campaigning for soil health and aware farmers about soil health card and to create awareness of use of sea weed liquid. He emphasizes on use of bio-product and gobar gas slurry for protection of environment and promotes organic farming.

The meeting ended with the vote of thanks by Dr. P. S. Gorfad, Scientist (Extension Education), KVK, J.A.U., Jamnagar.

Member Secretary, SAC &
Senior Scientist & Head
Krishi Vigyan Kendra
Junagadh Agricultural University. Jamnagar

Director of Extension Education,
Junagadh Agricultural University
Junagadh

Note: Proceeding for approval please.

Chairman, SAC
KVK, JAU, Jamnagar
&
Vice Chancellor
Junagadh Agricultural University, Junagadh

ANNEXURE-II

IMPACT OF KRISHI VIGYAN KENDRA, JAU, JAMNAGAR IN OPERATIONAL VILLAGES

Krishi Vigyan Kendra has been proved to be one of the best option for improvement of knowledge, attitude and skill level in farming community of rural India through Trainings, On Farm Trials (OFT), Front Line Demonstrations(FLD) and other extension activities. Krishi Vigyan Kendra is the innovative scientific training institutes which have been established throughout the country with the mandates to impart need based and skill oriented trainings to practicing farmers, in-service field level extension workers and to those who wish to go for self-employment. The basic objective of Krishi Vigyan Kendra are focused on demonstrating the recent technology at the farmers field and imparting skill oriented vocational trainings to the farmers. The Krishi Vigyan Kendra at Jamnagar was established in 2003-04, the main aim of establishing the Krishi Vigyan Kendra was to bring about improvement in production and economy of the farmers. In order to achieve this objective, the Krishi Vigyan Kendra Jamnagar carries out a number of training programmes and various other activities on crop production and allied fields. The specific objective of the present paper was to assess the impact of KVK activities in Jamnagar districts.

METHODOLOGY

The present investigation was undertaken in operational villages of Jamnagar district of Gujarat state. The district consist of total 10 blocks, out of which Jamjodhpur, Dhrol and Jodiya were selected for different extension activities carried out by Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar. Three irrigated and three rain fed villages selected from each block. Thus, total eighteen villages were adopted as operational area of Krishi Vigyan Kendra for the period of 2011-12 to 2014-15. These eighteen villages were considered as the study sample for this investigation. For selection of respondents, 10 respondents were selected randomly from each adopted village. Thus, total number of respondents was 180. For the collection of data a simple structured schedule developed by Chandra (1991) was used with some modifications. The data collected from each respondent by personal interview method.

Table: 1. Village-wise numbers of respondents selected for the study and farming situation

Sr. No.	Village	Taluka	Farming situation	Total no. of selected farmers
1	Keshiya	Jodiya	Irrigated	10
2	Lakhtar	Jodiya	Irrigated	10
3	Anda	Jodiya	Irrigated	10
4	Limbuda	Jodiya	Rainfed	10
5	Manpar	Jodiya	Rainfed	10
6	Hirapar	Jodiya	Irrigated	10
7	Nathu Vadla	Dhrol	Irrigated	10
8	Soyal	Dhrol	Irrigated	10
9	Vankiya	Dhrol	Irrigated	10
10	Manekpar	Dhrol	Rainfed	10
11	Mavapar	Dhrol	Rainfed	10
12	Nana Garediya	Dhrol	Rainfed	10
13	Kalyanpur	Jamjodhpur	Irrigated	10
14	Udaipur	Jamjodhpur	Irrigated	10
15	Kadbal	Jamjodhpur	Irrigated	10
16	Vasantpur	Jamjodhpur	Rainfed	10
17	Ghunda	Jamjodhpur	Rainfed	10
18	Gorakhadi	Jamjodhpur	Rainfed	10
			Total	**180**

With a view to measure the overall impact of Krishi Vigyan Kendra in eighteen adopted villages, questionnaires were prepared in local language in two parts – (1) Extension intervention indicator and (2) Technological intervention indicator. Basic information of selected villages and respondents are given in Table No. 1. It was considered worthwhile to study entitled “Impact of KVK on selected villages” with following objective.

1. To study the socio-economic profile of selected respondents
2. To assess the impact of extension indicator
3. To study the technological impact of KVK activities.

Socio economic profile of the respondents

Considering the objectives of the study, socio-economic profile of the respondents viz, age, education, size of family, size of land holding, social participation, extension contact and farm mechanization index were worked out. Selected characteristics are depicted in Table no. 2.

Table: 2. Distribution of the respondents according to their characteristics

Sr No	Socio-economic characteristics	Selected respondents (n=180)	
		Frequency	Per cent
1	2	3	4
1	**Age**		
	Young age group (up to 35 year)	31	17.22
	Middle age group (36 to 50 year)	82	45.56
	Old age group (above 50 year)	67	37.22
2	**Education**		
	Illiterate	14	**7.78**
	Primary education (1 to 7 standard)	71	**39.44**
	Middle education (8 to 10 standard)	71	**39.44**
	Secondary education (11 to 12 standard)	13	**7.22**
	College and above	11	**6.11**
3	**Size of family**		
	Nuclear family (> 5 member)	105	**58.33**
	Joint family (< 5 member)	75	**41.67**
4	**Social Participation**		
	Social participation	93	**51.67**
	No Social participation	87	**48.33**
5	**Extension Contact**		
	Low extension participation (> 2.8 score)	**15**	**8.33**
	Medium extension participation (2.8 to 7.5 score)	114	**63.33**
	High extension participation (<7.5 score)	51	**28.33**
6	**Size of land holding**		
	Small holding (up to 2 ha score)	**48**	**26.67**
	Medium holding (>2 to 4 ha score)	74	**41.11**
	Large holding (above 4 ha score)	58	**32.22**
7	**Farm mechanization index**		
	Low FMI (Mean – S.D.)	**67**	**37.22**
	Medium FMI (Mean ± S.D.)	89	**49.44**
	High FMI (Mean + S.D.)	24	**13.33**

The data presented in table 2 showed that maximum numbers of the respondents (82) were of middle age group (36 to 50 years) i.e. 45.56 per cent followed by old age group 37.22 and young age group 17.22 per cent respectively. In case of education, equal number of respondents was educated up to primary and middle education (39.44 percent) followed by illiterate, secondary education and college and its above level education with 7.78, 7.22 and 6.11 percent respectively. From the table, it is also observed that majority (58.33 per cent) of the respondents were belonged to nuclear family and 41.67 percent of joint family.

The data depicted in table revealed that more than half (51.67 per cent) of the respondents had social participation while 48.33 percent had no in social participation. In case of extension participation, 63.33 per cent of the respondents had medium extension participation, whereas 28.33 per cent and 08.33 per cent of them had high and low extension participation respectively.

It is quite clear from the table that 41.11 per cent respondents were medium land holder (2 to 4 ha) while 32.22 and 26.67 percent farmers were large and small land holders having more than 4 ha and up to 2 ha of land holding respectively. In case of farm mechanization, 49.44 per cent of the farmers had medium farm mechanization index followed by 37.22 and 13.33 per cent respondents had low and high farm mechanization index.

Impact of extension indicator

In a view to ascertain impact of different extension activities in adopted villages, questionnaire was prepared to measure the different extension indicators. It was structured to know the experience of farmers before and after five years' experience. The percentage worked out and percent increase should be the growth of the farmers after the KVK activities in adopted villages. The data are presented in table:-3.

Table: 3 Distribution of the respondents according to its extension intervention (N = 180)

Sr. No.	Extension indicator	Impact of Krishi Vigyan Kendra				Difference	Rank
		Before		After			
		Frequency	Percent	Frequency	Percent		
1	Knowledge about technology and package of practices	105	58.33	155	86.11	27.78	IV
2	Extent of awareness	75	41.67	167	92.78	51.11	III
3	Change in attitude	57	31.67	154	85.56	53.89	II
4	Improvement in work performance / skill	77	42.78	113	62.78	20.00	V
5	Extent of spread of technology	62	34.44	169	93.89	59.44	I
6	Increase in SHGs / FIGs	69	38.33	100	55.53	17.22	VI
7	Formation / establishment of cooperative	68	37.78	75	41.67	3.89	VII

The perusal of data presented in table 3 revealed that more than 50.00 per cent difference was noticed in case of spread of technology (59.44 %) which was followed by change in attitude (53.89 %) and extent of awareness (51.11 %) respectively.

In case of other extension indicators, the difference observed was less than 50.00 per cent are gain in knowledge about technology and package of practices, improvement in work performance/skill and increase in SHGs /CIGs with 27.78, 20.00 and 17.22 per cent respectively. The least difference was observed in case of formation and establishment of cooperative (3.89 %).

From above discussion, it could be concluded that the spread of technology (ranked first), change in attitude (ranked second), extent of awareness (ranked third), gain in knowledge (ranked fourth) and improvement in work performance/skill (ranked fifth).

Impact of technological indicator

To find out the technological impact, the following 13 technologies were tested, amongst three i.e. introduction of new verities, increase in yield /production and increase in area were tested in four major crops of our district which is cotton, groundnut, castor and wheat.

Table: -4. Distribution of farmers according to his technological indicator

Sr. No.	Technological indicator	Impact of Krishi Vigyan Kendra				Diffe-rence	Rank
		Before		After			
		Frequency	Percent	Frequency	Percent		
1	**Introduction of new verities**	**112**	**62.22**	**155**	**86.17**	**23.95**	**II**
(1)	Cotton	133	73.89	157	87.22	13.33	
(2)	Groundnut	139	77.22	160	88.89	11.67	
(3)	Castor	123	68.33	154	85.56	17.22	
(4)	Wheat	161	89.44	174	96.67	7.22	
(5)	Cumin	125	69.44	162	90.00	20.56	
(6)	Gram	107	59.44	159	88.33	28.89	
(7)	Til	115	63.89	148	82.22	18.33	
(8)	Coriander	11	6.11	133	73.89	67.78	
(9)	Pearl Millet	94	52.22	149	82.78	30.56	
2	**Increase in yield / productivity**	**120**	**66.61**	**143**	**79.57**	**12.96**	**VI**
(1)	Cotton	164	91.11	113	62.78	-28.33	
(2)	Groundnut	139	77.22	178	98.89	21.67	
(3)	Castor	122	67.78	147	81.67	13.89	
(4)	Wheat	145	80.56	165	91.67	11.11	

(5)	Cumin	129	71.67	161	89.44	17.78	
(6)	Gram	114	63.33	149	82.78	19.44	
(7)	Til	104	57.78	130	72.22	14.44	
(8)	Coriander	47	26.11	102	56.67	30.56	
(9)	Pearl Millet	115	63.89	144	80.00	16.11	
3	**Increase in area**	**109**	**60.68**	**128**	**71.05**	**10.37**	**VII**
(1)	Cotton	167	92.78	103	57.22	-35.56	
(2)	Groundnut	102	56.67	169	93.89	37.22	
(3)	Castor	98	54.44	103	57.22	2.78	
(4)	Wheat	135	75.00	155	86.11	11.11	
(5)	Cumin	121	67.22	135	75.00	7.78	
(6)	Gram	116	64.44	128	71.11	6.67	
(7)	Til	98	54.44	111	61.67	7.22	
(8)	Coriander	31	17.22	122	67.78	50.56	
(9)	Pearl Millet	115	63.89	125	69.44	5.56	
4	**Increase in production**	**15**	**12.50**	**85**	**70.83**	**58.33**	**I**
(1)	Cotton	165	91.67	115	63.89	-27.78	
(2)	Groundnut	133	73.89	168	93.33	19.44	
(3)	Castor	117	65.00	138	76.67	11.67	
(4)	Wheat	137	76.11	165	91.67	15.56	
(5)	Cumin	123	68.33	158	87.78	19.44	
(6)	Gram	97	53.89	119	66.11	12.22	
(7)	Til	101	56.11	127	70.56	14.44	
(8)	Coriander	97	53.89	135	75.00	21.11	
(9)	Pearl Millet	112	62.22	133	73.89	11.67	
5	**Extent of adoption**	107	59.44	149	82.78	23.33	III
6	**Increase in income**	130	72.22	159	88.33	16.11	V
7	**Generation of employment**	122	67.78	139	77.22	9.44	VIII
8	**Expansion of an enterprise**	89	49.44	96	53.33	3.89	IX
9	**Introduction of new enterprise**	75	41.67	79	43.89	2.22	X
10	**Improvement in market facility of farm produce**	75	41.67	78	43.33	1.67	XI
11	**Creation of infrastructure**	103	57.22	134	74.44	17.22	IV
12	**Opening of farm school**	78	43.33	81	45.00	1.67	XI
13	**Decrease in yield gaps**	91	50.56	120	66.67	16.11	V

It is concluded from above table: 4 that the highest difference (58.33 %) was observed in increase of production followed by introduction of new varieties (23.95 %), adoption rate (23.33 %), creation of infrastructure (17.22 %), increase in income and decrease in gap (16.11 per cent), increase in yield (12.96 %) and increase in area (10.37 %) respectively.

Least difference observed in case of Improvement in market facility of farm produce and Opening of farm school (1.67 per cent of each) and Introduction of new enterprise (2.22 per cent).

From above discussion it can be concluded that increase in production (ranked first), introduction of new varieties (ranked second), adoption rate (ranked third), creation of infrastructure (ranked fourth) and increase in income and decrease in gap (ranked fifth).

The reason for increase in production and introduction of new varieties is due to constant and concrete efforts of KVK scientists to the farmers and vise versa. Farmers could solved their problems of plant protection and crop production by direct contact of the specialist of KVK either by phone or person. Introduction of new varieties ranked second position because of Front Line Demonstrations conducted by KVK at farmer's fields and trainings.

Table: 5. Impact of farm mechanization, IPM and INM (Year :-2011-12 to 2014-15)

Sr. No.	Practices	Before	After	Per cent increase
		Year 2011-12	Year 2014-15	
a)	**Farm mechanization**			
1	Tractor (No.)	33	103	212.12

2	Rotavator	03	15	400.00
3	Thresher (No.)	33	50	51.51
4	Electric Motor (No.)	150	176	17.33
5	Oil Engine (No.)	160	154	-3.75
6	Sprayer (No.)	180	205	13.89
7	Drip irrigation set	07	40	471.43
8	Sprikler irrigation set	13	45	246.15
b)	**Integrated nutrient management**			
1	Use of FYM	142	165	16.20
2	Judicious use of Urea	98	125	27.55
3	Judicious use of DAP	73	102	39.73
4	Judicious use of SSP	56	73	30.36
5	Judicious use of Potash	45	63	40.00
6	Use of Mineral mixer	23	58	152.17
8	Gypsum / Sulpher (t)	7	15	114.29
c)	**IPM**			
1	Use of Trichoderma	52	165	217.31
2	Pheromen Trap (no)	7	75	971.43
3	NPV (no)	4	35	775.00
4	Neem oil (no)	65	104	60.00
5	*Beauveria*	45	138	206.67

It can be concluded from above Table:5 that in case of farm mechanization, the highest per cent increase was in Drip irrigation set (471.43 per cent) followed by rotavator (400.00 per cent), Sprinkler irrigation system (246.15 per cent) and tractor (212.12 per cent). While least percent increase was observed in thresher, electric motor and spray pump with 51.51, 17.33 and 13.89 per cent respectively. But, this trend was reverse in case of oil engine (-3.75 per cent) which was due to replacement of oil engine with electric motor. Use of drip and sprinkler increased because of scarcity of irrigation water, proper guidance from KVK scientist, and help from GGRC and Government.

Farmers of adopted villages were aware about importance of integrated nutrient management (INM) through on and off campus trainings, FLDs, field days and mobile phones. In integrated nutrient management the highest percent rise was observed in use of Gypsum (114.29 per cent) followed by use of mineral mixer (111.75 per cent), judicious use of potash (40.00 per cent) and judicious use of DAP (39.73 per cent) respectively. While least percent increase was observed in use of FYM (16.20 per cent), use of urea (27.55 per cent) and use of SSP (30.36 per cent) respectively.

Now a day's IPM is the most important factor from production technology point of view. Due to continuous efforts of KVK scientists, regular visit of farmer's field and guidance through mobile phone, the use of bio control agents were remarkably enhanced. In adopted villages the highest percent increase was observed in use of NPV (337.50) followed by use of *Trichoderma* (217.31), *Beauveria* (206.67 per cent), pheromone trap (164.71 per cent) and neem oil (55.22 per cent).

Table: 6. Increase and decrease of productivity of major crops KVK villages in last five year (year 2011-12 to 2014-15)

Sr. No.	Crop	Productivity Difference	Rank
1	Cotton	-28.33	IX
2	Groundnut	21.67	II
3	Castor	13.89	VII
4	Wheat	11.11	VIII
5	Cumin	17.78	IV
6	Gram	19.44	III
7	Til	14.44	VI
8	Coriander	30.56	I
9	Pearl Millet	16.11	V

From above table, it is clear that highest increase was observed in production of coriander with first rank. Before adoption time the farmers were sowing local variety of coriander. After adoption of these villages by KVK, Jamnagar the FLDs of coriander variety GC-2 was conducted, during training and field days the farmers were awaked about recommended variety of coriander i.e. Gujarat Coriander – 2. Therefore the productivity of coriander was increased. This was followed by groundnut and chickpea with second and third rank respectively. It is due to adoption of recommended varieties, good crop management practices and regular guidance of KVK experts to farmers.

At the same time productivity of cotton crop was declined up to - 28.33 per cent. The reason behind this as per farmers' feedback was mono cropping system (every year sowing of cotton on same land), attack of pink bollworm and remarkable infestation of sucking pests.

From above table it is concluded that Coriander (ranked first), groundnut (ranked second), chickpea (ranked third), cumin (ranked fourth), pearl millet (ranked fifth), sesame (sixth), castor (seventh) and wheat (ranked eighth) while cotton ranked at ninth position with decrease in yield.

Conclusion:-

Krishi Vigyan Kendra has been playing pivotal role for the allover improvement of farming community. To concentrate its efforts 18 villages were adopted for different activities for the period of 2011-12 to 2014-15. Due to constant and concrete efforts of KVK scientists, like organizing On and Off campus trainings, Front Line demonstrations (FLDs), field days, sharing of technology through cell phones, distribution of literature, celebration of technology weeks, soil health day, agricultural fairs, exposure visits, etc. had provided scientific know-how to farmers which led them to adopt new technology and finally to a better life.

After completion of five years in adopted villages the major outcomes are :

The yield of coriander and groundnut was increased by 30.56 and 21.67 percent. A remarkable change was noticed in use of drip and sprinkler irrigation system. Use of overdose of DAP and urea was minimized and farmers started to use more bio agents especially *Trichoderma* and *Beauveria* to control pest and diseases which resulted in decrease of cost of cultivation with conservation of environment. The efforts of KVK scientists succeeded in arousing awareness, change in attitude, introduction of new varieties, extent of adoption which increased the crop production and finally the income of the farmer.

ANNEXURE-III

Best Group awarded farmers

Sr. No	Name of Farmer	Village	Block	District	Subject
1	Jay Umiyaji Group (Rameshbhai Ambabhai Bhimani	Vankiya	Dhrol	Jamnagar	Best Organized group award of Dhrol
2	Janki Group (Sureja Shaileshbhai Mohanbhai)	Jamjodhpur	Jamjodhpur	Jamnagar	Best Organized group award of Jamjodhpur
3	Jay Kishan Group (Korat Ranchhodbhai Jethabhai	Nikava	Kalavad	Jamnagar	Best Organized group award of Kalavad
4	Dwarkesh Eleven Group (Dangar Kalpesh Khengarbhai)	Vavadi	Jodia	Jamnagar	Best Organized group award of Jodia
5	Rajashree Group (Jadeja Rajeshriba Mahendrasinh)	Kalmeghda	Kalavad	Jamnagar	Best Organized group award of Kalavad

District Level Awarded farmers

Sr. No	Name of Farmer	Village	Block	District	Mobile No.	Subject of innovation
1	Sanghani Maheshbhai Harjibhai	Bodi	Kalavad	Jamnagar	9727201880	Irrigated crops
2	Kachhadiya Virjibhai Arjanbhai	Moti Veravad	Lalpur	Jamnagar	9427380115	Groundnut, & Ajwain farming

Block level awarded farmers

Sr. No	Name of Farmer	Village	Block	District	Subject of innovation
1	Amrutiya Mansukhlal Bhagwanjibhai	Sonvadiya	Jamjodhpur	Jamnagar	Irrigated crops
2	Shingala Dhanjibhai Keshabhai	Nikava	Kalavad	Jamnagar	Irrigated crops
3	Marakana Rameshbhai Raghavbhai	Nana Vadala	Kalavad	Jamnagar	Irrigated crops
4	Faldu Pravinbhai Vallabhbhai	Navaniya Khijadiya	Kalavad	Jamnagar	Organic farming
5	Virani Bharatbhai Kanjibhai	Moti Veravad	Lalpur	Jamnagar	Inter cropping
6	Amipara Vinodbhai Goganbhai	Arikhana	Lalpur	Jamnagar	Animal keeping
7	Jadeja Devendrasinh Rajendrasinh	Bhangor	Lalpur	Jamnagar	Vegetable cultivation
8	Dalsaniya Nareshbhai Bachubhai	Soyal	Dhrol	Jamnagar	Improved implements
9	Kanani Jayantilal Rudabhai	Hadiyana	Jodia	Jamnagar	Fruit cultivation
10	Molia Divyaben Madhavjibhai	Jaga	Jamnagar	Jamnagar	Animal keeping

ANNEXURE- IV

LITERATURE DEVELOPED/PUBLISHED (with full title, author & reference)

Item	Title	Authors name	Number of copies
Research papers	Knowledge of farmers about neem coated urea (NCU). *International Journal of Agriculture Sciences.***25** (8) : 1519-1520. (ISSN 0975-3710, EISSN 0975-9107).	Baraiya K.P., Baraiya A.K., Lakhani S.H., and Gadhiya V.C.	
	Effect of non-ionizing (UV) radiation on the development of egg parasitoid *Trichogramma chilonis* Ishii (Hymenoptera: Trichogrammatidae). *Advances in Life Sciences.* 5 (22) : 10357-10361. (ISSN 2278-3849).	Shinde CU, Radadia GG, Ghetiya LV, Shah KD, **Gadhiya VC** and Patel AD	
Technical reports	Annual Progress Report	KVK, JAU, Jamnagar	
	13th AGRESCO Report	KVK, JAU, Jamnagar	
	24rd ZREAC Report	KVK, JAU, Jamnagar	
	25thZREAC Report	KVK, JAU, Jamnagar	
	13th SAC Report	KVK, JAU, Jamnagar	
	Monthly Report	KVK, JAU, Jamnagar	
	Quarterly Reports	KVK, JAU, Jamnagar	
Popular articles	Kudarat Na Vardan Saman Jaivik Khataro. Bhoomi News (Gujarati daily news paper): Date: 31.12.2016.	Lakhani SH, Gadhiya VC and Dangar RM	
	Jeeru Ma Dekhayel Molo Ane Thrips Nu Sankalit Niyantran. Bhoomi News (Gujarati daily news paper): Date: 07.12.2016.	Gadhiya VC, Baraiya K P and Lakhani SH	
	Success story – "*Chamatkar malchingno*" Krushi jivan (March-2017), vol. – 8 (581) pp-35.	Gorfad P. S., Galani S. N., Baraiya K. P. and Parakhia A. M.	
	Jaivik Khatarono Upyog, *Jal Jivan*, **2**(10): 10-12.	Lakhani SH, Gadhiya VC and Dangar RM	
	Ghauni Sendriya Kheti Paddhati (on KVK Portal)	Lakhani SH, Gadhiya VC and Baraiya KP	
	Dungalini Vaigyanik Kheti Paddhati (on KVK Portal)	Lakhani SH, Gadhiya VC and Baraiya KP	
	Chomasu Magphalini Sendriya Kheti Paddhati (on KVK Portal)	Lakhani SH, Baraiya KP and Baraiya AK	
	Kapasnu Vadhu Utpadan Melavvani Chavio (on KVK Portal)	Lakhani SH, Gadhiya VC and Baraiya KP	
Leaflets/folders	Value addition in Sesame	Smt. A. K. Baraiya, Mr. S. H. Lakhani, Dr. K P. Baraiya and Dr. V. C. Gadhiya	1000
	Scientific farming of Summer Sesame	Shri S. H. Lakhani, Dr. V. C. Gadhiya, Smt. A. K. Baraiya and Dr. K. P. Baraiya	1000
	IPM of Pigeon pea and Chickpea	Dr. V. C. Gadhiya, Dr. K. P. Baraiya, Smt. A. K. Baraiya, Shri S. H. Lakhani	1000

ANNUAL ACTION PLAN (April-2017 to March- 2018)

KRISHI VIGYAN KENDRA

JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

3. TECHNICAL PROGRAMME

3.1.A. Details of targeted mandatory activities by KVK

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
9	27	120	350

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
28	700	506	56306

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (Nos)	Soil Samples
(5)	(6)	(7)	(8)
10	100	0	500

3. B. Abstract of interventions to be undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	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	PLP	Groundnut	Heavy infestation of white grub	Management of whitegrub in groundnut					
2	PLP	Chilli	Minimize the incidence of thrips in chilli.	Management of thrips in chilli.					
3	PLP	Garlic	To Minimize the nfestation of purple bloth of garlic	Management of purple blotch of garlic					
4	CP	Groundnut	Low yield of groundnut	Effect of Biofertilizers in Groundnut production					
5	CP	Wheat	Nutrient deficiency	Response of Bio fertilizers to wheat yield					
6	WOE	Drudgery reduction	Muscular skeletal problem of workers Drudgery to rural women Injury due to thorns of brinjal/okra	Assessment of mittens for vegetable harvesting					
7	FIS	IMC	Reduce mortality rate	Assessment of Pen cultures of Indian Major Carp (IMC) spawn to fry before stocking in village Pond/Reservoir					
8	FIS	Fresh water prawn & IMC	Use of Maximum natural resources	Stocking of Freshwater prawn with IMC fingerlings in village pond/Reservoir					
9	LPM	Cow	Role of bypass fat in ration of dairy animals	Role of bypass fat in ration of dairy animals					

3.1 Technologies to be assessed and refined

A.1 Abstract on the number of technologies to be assessed in respect of **crops**

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	1	1								2
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction					1					1
Farm machineries										
Value addition										
Integrated Pest Management		1			1					2
Integrated Disease Management					1					1
Resource conservation technology										
Small Scale income generating enterprises										
TOTAL	**1**	**2**			**3**					**6**

A.2. Abstract on the number of technologies to be refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Kitchen garden	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										

A.3. Abstract on the number of technologies to be assessed in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Vermi culture	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management	1							1
Disease of Management								
Value Addition								
Production and Management							2	2
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL	**1**						**2**	**3**

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								
Value Addition								

Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL								

3.1.B. Details of On Farm Trial

OFT-1

Title: Management of white grub in groundnut

Objective: To reduce infestation of white grub.

Problem definition: incidence of white grub is increase

1. Lack of seed treatment
2. lack of pre application of pesticides

Problem diagram :-

Improper cultivation practices	**Management of white grub in groundnut**	Multi season cropping system
Mono-cropping system		Heavy infestation of white grub was found
Lack of seed treatment		Lack of knowledge about pest outbreaks and its management
In judicious use of pesticide		In judicious use of chemical fertilizer
Irregular irrigation		Improper use of FYM (without decomposition)
lack of pre application of pesticides		

Treatments:

1. **Farmer's Practices** :- Injudicious use of pesticides.[use of chlorpyriphos, quinalphos, flubendiamide, phorate, cartap hydrochloride, carbofuran, clothianidine, imidacloprid+ Fipronil, Thiamethoxam after infestation of white grub as post application.
2. **Recommendation** :- Recommended dose of Pesticide as chlorpyriphos or quinalphos @ 25 ml/kg seed. Drenching of Chlorpyriphos or quinalphos @ 4 lit/ha as initiation of pest incidence.
3. **Refinement:-** Application of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 2.5 g/kg seed. Drenching of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 250 g/ha as initiation of pest incidence.

No. of Replication: 3 (Farmers)

Source of Technology: - Junagadh Agricultural University

Thematic area: IPM

Observations:

1. Record no. of grub per 1 meter row length.
2. Yield data.
3. Cost benefit ratio

OFT-2

Title: Management of thrips in chilli.

Objective: To minimize the thrips incidence in chilli. To reduce injudicious use of chemical pesticide. To minimize residual effect of chemical

Problem definition:

1. Heavy infestation of Thrips was found
2. Lack of seed treatment and improper cultivation practices
3. Lack of knowledge about pest outbreaks and its management
4. Injudicious use of nitrogenous fertilizer

Problem diagram :-

Resurgence of thrips	**Management of thrips in chilli**	Multi season cropping system
Mono-cropping system		Lack of knowledge about pest outbreaks and its management
Lack of seed treatment		Lack of improper cultivation practices
In judicious use of pesticide		In judicious use of chemical fertilizer
Irregular irrigation		Improper use of FYM (without decomposition)

Treatments:

1. **Farmer's Practices**:-Injudicious use of insecticides. [use of chlorpyriphos, quinalphos, flubendiamide, imidacloprid, Fipronil, Thiamethoxam cypermethrin, lamdacyhalothrin after infestation of thrips at weekly interval without follow ETL]
2. **Recommendation** :-Seed treatment with imidacloprid 70 WS (7.5 g/kg seed) and dipping of seedling before transplanting for two hours in solution of imidacloprid 17.8 SL (10 ml/10 litre water) or thiamethoxam 25 WG (10 g/10 litre water). Spraying of spinosad 45 SC (3 ml/10 litre water)
3. **Refinement:-** Spray of *Bearuveria bassiana* @ 5 g/lit of water at 15 days interval

No. of Replication: 3 (Farmers)

Source of Technology: - Junagadh Agricultural University

Thematic area: IPM

Observations:

1. Record thrips population from five randomly selected plants from each plot at 7 days after spray
2. Record yield at every picking.

OFT-3 Garlic

Title: Management of purple blotch of garlic.

Objective: To minimize the infestation of purple blotch of garlic. To increase production. To reduce yield loss of garlic

Problem definition: Incidence of Thrips is increase

1. Heavy infestation of Thrips and purple blotch was found
2. Lack of seed treatment and improper cultivation practices
3. Lack of knowledge about pest, diseases outbreaks and its management
4. Injudicious use of nitrogenous fertilizer
5. Lack of fungicides use as preventive measure

Problem diagram :-

Improper cultivation practices	**Management of purple blotch of garlic**	Multi season cropping system
Mono-cropping system		Heavy infestation of purple blotch was found
Lack of seed treatment		In judicious use of chemical fertilizer
In judicious use of pesticide/fungicide		Lack of knowledge about diseases outbreaks and its management
Irregular irrigation		Improper use of FYM (without decomposition)

Treatments:

1. **Farmer's Practices** :-Injudicious use of fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases.
2. **Recommendation** :-Foliar sprays of Mancozeb @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.1% at 30, 45 and 60 days respectively after transplanting helps in checking disease incidence. **(Junagadh Agricultural University; Director of Onion & Garlic Research Station, ICAR)**
3. **Refinement:-** Application ofTrichoderma @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @ 0.1% and Tebuconazole @0.1% at 40 and 60 days respectively after transplanting helps in checking disease incidence**.**

No. of Replication: 3 (Farmers)

Source of Technology: - Junagadh Agricultural University; Director of Onion & Garlic Research Station, ICAR

Thematic area: IDM

Observations:

1. Record no. of infected plant per 1 meter row length
2. Yield data

OFT :-4

Title :Effect of Bio fertilizers in Groundnut production

Objective : To increase yield of Groundnut

Problem definition:

1. Low yield due to low consumption of fertilizers.
2. Yellowing of groundnut
3. Residual toxicities of chemical fertilizers
4. threat to the sustainability of crop production

5. High cost of chemical fertilizers
6. Lack of well distributed rainfall
7. Unavailability of fertilizer as when require

Problem diagram :-

Improper cultivation practices	**Effect of Bio fertilizers in Groundnut production**	Multi season cropping system
Yellowing of leaves		Residual toxicities of chemical fertilizers
Lack of balance use of nutritional recommendation		Lack of knowledge about pest outbreaks and its management
In judicious use of pesticide		In judicious use of chemical fertilizer
Irregular irrigation/ irregular rainfall		Improper use of FYM (without decomposition)
Unavailability of fertilizer as when require		

Treatments :

1. **Farmer's Practices** :-[fertilizer (36N -50P_2O_5-0K_2O)Kg/ha]
2. **Recommendation** :-Recommended dose of fertilizer (12.5N -25P_2O_5-50K_2O)Kg/ha.
3. **Refinement:-** 75% RDF + Seed treatment of Rhizobium, PSB and PMB culture (Potas Mobilizing Bacteria) each at 25 to 30 ml/kg seed**)**.

No. of Replication :- 3 (Farmers)
Source of Technology: - Junagadh Agricultural University
Thematic area: INM
Observations :-

1. Soil analysis at before and after
2. Pod and fodder Yield (Kg/ha)
3. Economics
4. Yellowing of groundnut

OFT:5
1. Title : Response of Bio fertilizers to wheat yield
2. Objective:: Use of bio fertilizer, to increase yield of wheat
Problem definition:

1. Low yield due to low consumption of fertilizers.
2. Residual toxicities of chemical fertilizers
3. Threat to the sustainability of crop production
4. High cost of chemical fertilizers
5. Unavailability of fertilizer as when require
6. Shortage of water

Problem diagram :-

Improper cultivation practices	**Response of Bio fertilizers to wheat yield**	Multi season cropping system
Residual toxicities of chemical fertilizers		Unavailability of fertilizer as when require
threat to the sustainability of crop production		Lack of knowledge about nutrient management
Lack of knowledge about bio fertilizer		In judicious use of chemical fertilizer
High cost of chemical fertilizers		Improper use of FYM (without decomposition)

Treatments:

1. **Farmer's practice**:- Application of only DAP & Urea in different doses, injudicious use of fertilizers
2. **Recommended practice** :- 120-60-60 NPK kg/ha
3. **Refinement:-** Application of Azatobacter, PSB & PMB culture (each at 25 to 30 ml/kg seed) + 75% of RDF

No. of Replication :- 3 (Farmers)
Source of Technology: - Junagadh Agricultural University

Thematic area: INM

Observation:

1. Soil analysis at before and after
2. No. of tillers per plant
3. Plant height(cm) at harvest time
4. Number of grain per spike
5. Yield (kg/ha)
6. Economics (B:C ratio)

OFT-6

Title : Assessment of mittens for vegetable harvesting.

Objective :

1. To reduce drudgery, injury and musculo skeletal disorders in farm women.
2. To improve the work efficiency

Problem definition:

1. Muscular skeletal problem of workers
2. Drudgery to rural women
3. Injury due to thorns of brinjal/okra

Problem diagram :-

Unavailability of skilled hand tools for harvesting of vegetable	**Assessment of mittens for vegetable harvesting**	Low area of vegetable cultivation
Drudgery to rural women		Do not calculation of work efficiency
Lack of knowledge		Poor economic condition

Treatments :

1. **Farmer's Practices** :- No use any protective wear
2. **Assessment** :- Use of mittens for Okra and Brinjal harvesting.

No. of Replication :- 3 (Farm women)

Source of Technology:- SAUs (MKV- Parbhani, Maharashtra)

Thematic area: Drudgery reduction

Observations :-

1. Effect on skin
2. Drudgery perceived
3. Efficiency of picking per hour

OFT-7 (Assessment)

Title : Assessment of Pen cultures of Indian Major Carp (IMC) spawn to fry before stocking in village Pond/Reservoir.

Objectives: 1. To reduce mortality rate during stocking
2. To increase final yield & income

Experimental Animal: IMC spawn

Problem diagram :-

Over stocking of seed	**Assessment of Pen cultures of Indian Major Carp (IMC) spawn to fry before stocking in village Pond/Reservoir**	Mortality rate is higher
Uncertainity about final production		Decrease total production
Wastage of natural resourses		Lack of knowledge about fish farming technology

Treatment: 1. **Farmer's Practices** :- Direct stocking of spawn into village ponds/reservoir.
2. **Assessment**- Rearing of IMC spawns in pen up to fry stage and then release into the village pond/reservoir.

No of Replications: 3 farmers

Source of Technology:- Centeral Inland Fishries Research Institute, Barrakpore, Calcutta.

Thematic area: Production and Management

Observations:

1. Total production (in KG.) at the time of harvesting from village pond/reservoir
2. Average body weight at the time of harvesting
3. Total net income

OFT: 8 (Assessment)

Title: Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/Reservoir

Objectives: 1. To reduce the farming cost by using use maximum natural resources (Food, water body etc.)
2. To increase total yield and Income.

Experimental Animal: IMC fingerlings (*Catlacatla*) and *M. rosenbergii*

Problem diagram :-

Over stocking of seeds	**Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/Reservoir**	Minimun usage of natural resources
Single Species stocking		Total production decrease
Lack of knowledge		Low income

Treatment: 1. **Farmer's practices**:- stocking a single species *Catlacatla* into ponds/reservoir.
2. **Assessment:-** stocking of *M. rosenbergii* with *Catlacatla* fingerlings into ponds/reservoir

No of Replications: 3 farmers

Source of Technology:- Central Inland Fisheries Research Institute, Barrakpore, Calcutta.

Thematic area: Production and management

Observations:

1. Average body weight of IMC and Prawn at the time of harvesting
2. Total production of fish and prawn (in KG.) at the time of harvesting from village pond/reservoir
3. Total Net income

OFT-9 (Assessment)

Title : Role of bypass fat in rations of dairy animals.

Objective :

1. To increase fat persantage in Milk
2. To increase total yield and income
3. Health Improvement in milking animal

Problem diagram :-

Inadequate nutrients in the daily ration	**Role of bypass fat in rations of dairy animals.**	Low fat % in milk
Decreased milk production		Financial loss
Lack of knowledge about Ntrition management		Poor health duo to improper feed

Experimental animal: Cow

Treatments :

1. **Farmer's practices:-** Normal dietary pattern *i.e.* Green fodder, Dry fodder and concentrate.
2. **Assessment:**- Add 100g bypass fat as supplement with normal rations.

No. of Replication: 3 farmers

Source of Technology:- Animal Nutrition Research station, AAU, Anand (SAUs)

Thematic area: Nutrition management

Observations :-

1. Total fat increased (Percentage)
2. Total milk productivity (liter)
3. Total income

3.2 FRONTLINE DEMONSTRATIONS

A. Details of FLDs to be organized –

Sr. No.	Name of Crop/ Enterprise	Name of Variety Enterprises	Thematic area	Technology demonstrated	Critical Inputs	Season and year	Area (ha.)	No. of farmers /Demo.	Parameters identified
1	Cotton	Bt. Cotton	IPM/INM	Insecticide, Bio pesticide	Azadirechtin, Profenophos., *Beauveria bassiana*	Kh-17	8	20	Pest population, yield
2	Chilli		IPM	Insecticide, Bio pesticide, Bio fertilizer	Azadirechtin, Profenophos, *Beauveria bassiana* Azotobacter, PSB	Kh-17	2	5	Yield, % fruit damage
3	Brinjal	GJBH-4	Varietal	Variety	seed	Kh-17	2	5	Yield, % fruit damage
4	Okra	JGOH-4	Varietal	Variety	seed	Kh-17	2	5	Yield, % fruit damage
5	Wheat	GW-463	Varietal	Variety	seed	Rabi-17	4	10	Yield
6	Cumin	GC-4	IDM	Bio fungicide	Trichoderma	Rabi-17	4	10	Yield, % Plant damage
7	Ajwain	Gujarat Ajwain-2	Varietal	Variety	seed	Rabi-17	4	10	Yield, % Plant damage
8	Coriander	GC-2	Varietal	Variety	Seed (8 kg)	Rabi-17	8	20	Yield
9	Pearl Millet	GHB-732	Varietal	Variety	Seed (GHB-732) 1.5 kg	Sum-17-18	4	10	Yield
Other Scheme									
10	**NFSM**-Chick pea	GJG-5	IPM, Varietal	Bio pesticide, Variety	NPV, *Beauveria*, Seed (GJG-5)	Rabi-17	20	50	Yield, % pod damage
11	**NFSM**-Pigeon pea	Vaishali (BSMR 853)	IPM/ IDM/ INM	Bio pesticide, Bio fertilize, Bio fungicide Micro nutrient	*beauveria bassiana*, *Trichoderma,* PSB, Rhizobium, Micro mix	Kh-17	20	50	Yield, % pod damage
12	**NMOOP**-Groundnut	GG-20	IPM, IDM, INM	Bio pesticide, Bio fertilize, Bio fungicide Micro nutrient	Beauveria bassiana, Trichoderma, PSB, Rhizobium and Micro nutrient	KH-17	20	50	Yield, % pod damage
13	**NMOOP**-Sesamum		IPM, IDM, INM	Insecticide, Bio fungicide, Bio fertilizer,	DDVP, Cypermethrin, Trichoderma, PSB and Azotobacter	Sum-17	20	50	Yield, % pod damage
14	**ATIC**-Kitchen gardening	Vegetable seeds	Nutritional management	Seeds of vegetable for kitchen gardening	Seeds of vegetable for kitchen gardening	2017-18	2	50	Cost saving
15	**ATIC**-Seaweed	Kappaphycus	Income generation	Raft Cultural	Raft, Seaweed	Rabi-17	-	5	Production

Sponsored Demonstration

Crop	Area (ha)	No. of farmers
-	-	-

B. Extension and Training activities under FLDs

S. No.	Activity	No. of activities	Month	Number of participants
	Cotton			
1	Field days	1	August	20
2	Farmers Training	1	June	30
3	Media coverage	1	April	
4	Training for extension functionaries	1		
	Chilli			
1	Field days	1	July	20
2	Farmers Training	1	May	30
3	Media coverage	1	May	
4	Training for extension functionaries	1		
	Brinjal/Okra			
1	Field days	1	July	20
2	Farmers Training	1	May	30
3	Media coverage	1	May	
4	Training for extension functionaries	1		
	Wheat			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Cumin/Ajwain			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Coriander			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Pearl Millet			
1	Field days	1	March	20
2	Farmers Training	1	February	30
3	Media coverage	1	February	
4	Training for extension functionaries	1		
	Chickpea			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Pigeon pea			
1	Field days	1	November	20
2	Farmers Training	1	August	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Groundnut			
1	Field days	1	July	20
2	Farmers Training	1	May	30
3	Media coverage	1	May	

4	Training for extension functionaries	1		
	Sesamum			
1	Field days	1	March	20
2	Farmers Training	1	February	30
3	Media coverage	1	February	
4	Training for extension functionaries	1		
	Kitchen gardening			
1	Field days	1	July	20
2	Farmers Training	1	June	30
3	Media coverage	1	May	
4	Training for extension functionaries	1		
	Seaweed			
1	Field days	2	Dec, Jan	20
2	Farmers Training	1	Nov	30
3	Media coverage	1	Nov	
4	Training for extension functionaries			

C. Details of FLD on Enterprises

(i) Farm Implements

Name of the implement	Crop	Season and year	No. of farmers	Area (ha)	Critical inputs	Performance parameters / indicators
Solar Cooker		2017-18	5	5	Solar cooker	Time & fuel

(ii) Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds/ha. etc.	Critical inputs	Performance parameters / indicators
Fish	IMC	5	5	Rice bran, GOC	Production
Fish	IMC	5	5	Urea, SSP, Cow dung	Production

3.3.1.1 TRAINING (INCLUDING THE SPONSORED AND FLD TRAINING PROGRAMMES):

A. ON CAMPUS

Thematic Area	No. of Courses	No. of participant						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management				0			0	0
Resource Conservation Technologies				0			0	0
Cropping Systems	1	17	3	20	3	2	5	25
Crop Diversification				0			0	0
Integrated Farming				0			0	0
Water management				0			0	0
Seed production				0			0	0
Nursery management				0			0	0
Integrated Crop Management				0			0	0
Fodder production				0			0	0
Production of organic inputs				0			0	0
Total	**1**	**17**	**3**	**20**	**3**	**2**	**5**	**25**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	1	19		19	6		6	25

Off-season vegetables				0			0	0
Nursery raising				0			0	0
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0
Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0
b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit				0			0	0
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management				0			0	0
Management of potted plants				0			0	0
Export potential of ornamental plants				0			0	0
Propagation techniques of Ornamental Plants				0			0	0
d) Plantation crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
e) Tuber crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
f) Spices				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
g) Medicinal and Aromatic Plants				0			0	0
Nursery management				0			0	0
Production and management technology				0			0	0
Post harvest technology and value addition				0			0	0
Total	**1**	**19**	**0**	**19**	**6**	**0**	**6**	**25**
III Soil Health and Fertility Management				0			0	0
Soil fertility management	1	21		21	4		4	25
Soil and Water Conservation				0			0	0
Integrated Nutrient Management				0			0	0
Production and use of organic inputs				0			0	0
Management of Problematic				0			0	0

soils								
Micro nutrient deficiency in crops				0			0	0
Nutrient Use Efficiency				0			0	0
Soil and Water Testing				0			0	0
Total	**1**	**21**	**0**	**21**	**4**	**0**	**4**	**25**
IV Livestock Production and Management				0			0	0
Dairy Management	1	3	12	15	2	8	10	25
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management/goat				0			0	0
Disease Management				0			0	0
Feed management				0			0	0
Production of quality animal products				0			0	0
Total	**1**	**3**	**12**	**15**	**2**	**8**	**10**	**25**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening				0			0	0
Design and development of low/minimum cost diet				0			0	0
Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing				0			0	0
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques				0			0	0
Value addition	1		19	19		6	6	25
Income generation activities for empowerment of rural Women				0			0	0
Location specific drudgery reduction technologies				0			0	0
Rural Crafts				0			0	0
Women and child care				0			0	0
Total	**1**	**0**	**19**	**19**	**0**	**6**	**6**	**25**
VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems				0			0	0
Use of Plastics in farming practices				0			0	0
Production of small tools and implements				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Small scale processing and value addition				0			0	0
Post Harvest Technology				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection				0			0	0
Integrated Pest Management				0			0	0

Integrated Disease Management				0			0	0
Bio-control of pests and diseases	1	16	2	18	4	3	7	25
Production of bio control agents and bio pesticides				0			0	0
Total	**1**	**16**	**2**	**18**	**4**	**3**	**7**	**25**
VIII Fisheries				0			0	0
Integrated fish farming				0			0	0
Carp breeding and hatchery management				0			0	0
Carp fry and fingerling rearing				0			0	0
Composite fish culture	1	11		11	14		14	25
Hatchery management and culture of freshwater prawn				0			0	0
Breeding and culture of ornamental fishes				0			0	0
Portable plastic carp hatchery				0			0	0
Pen culture of fish and prawn				0			0	0
Shrimp farming	1	18		18	7		7	25
Edible oyster farming				0			0	0
Pearl culture				0			0	0
Fish processing and value addition				0			0	0
Total	**2**	**29**	**0**	**29**	**21**	**0**	**21**	**50**
IX Production of Inputs at site				0			0	0
Seed Production				0			0	0
Planting material production				0			0	0
Bio-agents production	1	21		21	4		4	25
Bio-pesticides production				0			0	0
Bio-fertilizer production				0			0	0
Vermi-compost production				0			0	0
Organic manures production	1	16		16	9		9	25
Production of fry and fingerlings				0			0	0
Production of Bee-colonies and wax sheets				0			0	0
Small tools and implements				0			0	0
Production of livestock feed and fodder				0			0	0
Production of Fish feed				0			0	0
Total	**2**	**37**	**0**	**37**	**13**	**0**	**13**	**50**
X Capacity Building and Group Dynamics				0			0	0
Leadership development				0			0	0
Group dynamics				0			0	0
Formation and Management of SHGs				0			0	0
Mobilization of social capital				0			0	0
Entrepreneurial development of farmers/youths				0			0	0
WTO and IPR issues				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry				0			0	0
Production technologies				0			0	0
Nursery management				0			0	0
Integrated Farming Systems				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

XII Others (Pl. Specify)				0			0	0
TOTAL	**10**	**142**	**36**	**178**	**53**	**19**	**72**	**250**
(B) RURAL YOUTH				0			0	0
Mushroom Production				0			0	0
Bee-keeping				0			0	0
Integrated farming				0			0	0
Seed production				0			0	0
Production of organic inputs	1	18		18	7		7	25
Integrated Farming (Medicinal)				0			0	0
Planting material production				0			0	0
Vermi-culture				0			0	0
Sericulture				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Value addition				0			0	0
Production of quality animal products				0			0	0
Dairying				0			0	0
Sheep and goat rearing				0			0	0
Quail farming				0			0	0
Piggery				0			0	0
Rabbit farming				0			0	0
Poultry production				0			0	0
Ornamental fisheries				0			0	0
Para vets				0			0	0
Para extension workers				0			0	0
Composite fish culture				0			0	0
Freshwater prawn culture				0			0	0
Shrimp farming				0			0	0
Pearl culture				0			0	0
Cold water fisheries				0			0	0
Fish harvest and processing technology				0			0	0
Fry and fingerling rearing				0			0	0
Small scale processing				0			0	0
Post Harvest Technology				0			0	0
Tailoring and Stitching				0			0	0
Rural Crafts				0			0	0
TOTAL	**1**	**18**	**0**	**18**	**7**	**0**	**7**	**25**
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops	**1**	20		20	5		5	25
Integrated Pest Management	1	20		20	5		5	25
Integrated Nutrient management				0			0	0
Rejuvenation of old orchards				0			0	0
Protected cultivation technology				0			0	0
Formation and Management of SHGs				0			0	0

Group Dynamics and farmers organization				0			0	0
Information networking among farmers				0			0	0
Capacity building for ICT application				0			0	0
Care and maintenance of farm machinery and implements				0			0	0
WTO and IPR issues				0			0	0
Management in farm animals				0			0	0
Livestock feed and fodder production				0			0	0
Household food security				0			0	0
Women and Child care				0			0	0
Low cost and nutrient efficient diet designing				0			0	0
Production and use of organic inputs				0			0	0
Gender mainstreaming through SHGs				0			0	0
Any other (Pl. Specify)				0			0	0
TOTAL	**2**	**40**	**0**	**40**	**10**	**0**	**10**	**50**
G. Total	**13**	**200**	**36**	**236**	**70**	**19**	**89**	**325**

B. OFF CAMPUS

Thematic Area	No. of Courses	No. of participant						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management				0			0	0
Resource Conservation Technologies				0			0	0
Cropping Systems	1	22		22	3		3	25
Crop Diversification				0			0	0
Integrated Farming				0			0	0
Water management				0			0	0
Seed production				0			0	0
Nursery management				0			0	0
Integrated Crop Management				0			0	0
Fodder production				0			0	0
Production of organic inputs	1	17	0	17	8		8	25
Total	**2**	**39**	**0**	**39**	**11**	**0**	**11**	**50**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	1	19		19	6		6	25
Off-season vegetables				0			0	0
Nursery raising				0			0	0
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0

Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0
b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit	1	22		22	3		3	25
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management				0			0	0
Management of potted plants				0			0	0
Export potential of ornamental plants				0			0	0
Propagation techniques of Ornamental Plants				0			0	0
d) Plantation crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
e) Tuber crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
f) Spices				0			0	0
Production and Management technology	1	17		17	8		8	25
Processing and value addition				0			0	0
g) Medicinal and Aromatic Plants				0			0	0
Nursery management				0			0	0
Production and management technology				0			0	0
Post harvest technology and value addition				0			0	0
Total	**3**	**58**	**0**	**58**	**17**	**0**	**17**	**75**
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Soil and Water Conservation				0			0	0
Integrated Nutrient Management	1	13	6	19	4	2	6	25
Production and use of organic inputs				0			0	0

Management of Problematic soils				0			0	0
Micro nutrient deficiency in crops				0			0	0
Nutrient Use Efficiency				0			0	0
Soil and Water Testing				0			0	0
Total	**1**	**13**	**6**	**19**	**4**	**2**	**6**	**25**
IV Livestock Production and Management				0			0	0
Dairy Management	1	5	12	17	2	6	8	25
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management/goat				0			0	0
Disease Management				0			0	0
Feed management				0			0	0
Production of quality animal products				0			0	0
Total	**1**	**5**	**12**	**17**	**2**	**6**	**8**	**25**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	1		19	19		6	6	25
Design and development of low/minimum cost diet				0			0	0
Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing				0			0	0
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques	1		19	19		6	6	25
Value addition				0			0	0
Income generation activities for empowerment of rural Women				0			0	0
Location specific drudgery reduction technologies	1		19	19		6	6	25
Rural Crafts				0			0	0
Women and child care				0			0	0
Total	**3**	**0**	**57**	**57**	**0**	**18**	**18**	**75**
VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems				0			0	0
Use of Plastics in farming practices				0			0	0
Production of small tools and implements				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Small scale processing and				0			0	0

value addition								
Post Harvest Technology				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection				0			0	0
Integrated Pest Management	2	30	10	40	7	3	10	50
Integrated Disease Management	2	26	8	34	12	4	16	50
Bio-control of pests and diseases				0			0	0
Production of bio control agents and bio pesticides				0			0	0
Total	**4**	**56**	**18**	**74**	**19**	**7**	**26**	**100**
VIII Fisheries				0			0	0
Integrated fish farming	1	13		13	12		12	25
Carp breeding and hatchery management				0			0	0
Carp fry and fingerling rearing				0			0	0
Composite fish culture				0			0	0
Hatchery management and culture of freshwater prawn				0			0	0
Breeding and culture of ornamental fishes				0			0	0
Portable plastic carp hatchery				0			0	0
Pen culture of fish and prawn				0			0	0
Shrimp farming				0			0	0
Edible oyster farming				0			0	0
Pearl culture				0			0	0
Fish processing and value addition				0			0	0
Total	**1**	**13**	**0**	**13**	**12**	**0**	**12**	**25**
IX Production of Inputs at site				0			0	0
Seed Production				0			0	0
Planting material production				0			0	0
Bio-agents production				0			0	0
Bio-pesticides production				0			0	0
Bio-fertilizer production				0			0	0
Vermi-compost production				0			0	0
Organic manures production				0			0	0
Production of fry and fingerlings				0			0	0
Production of Bee-colonies and wax sheets				0			0	0
Small tools and implements				0			0	0
Production of livestock feed and fodder				0			0	0
Production of Fish feed				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics				0			0	0
Leadership development				0			0	0

Group dynamics				0			0	0
Formation and Management of SHGs				0			0	0
Mobilization of social capital				0			0	0
Entrepreneurial development of farmers/youths				0			0	0
WTO and IPR issues				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry				0			0	0
Production technologies				0			0	0
Nursery management				0			0	0
Integrated Farming Systems				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XII Others (Pl. Specify)				0			0	0
TOTAL	**15**	**184**	**93**	**277**	**65**	**33**	**98**	**375**
(B) RURAL YOUTH				0			0	0
Mushroom Production				0			0	0
Bee-keeping				0			0	0
Integrated farming				0			0	0
Seed production				0			0	0
Production of organic inputs				0			0	0
Integrated Farming (Medicinal)				0			0	0
Planting material production				0			0	0
Vermi-culture				0			0	0
Sericulture				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Value addition				0			0	0
Production of quality animal products				0			0	0
Dairying				0			0	0
Sheep and goat rearing				0			0	0
Quail farming				0			0	0
Piggery				0			0	0
Rabbit farming				0			0	0
Poultry production				0			0	0
Ornamental fisheries				0			0	0
Para vets				0			0	0
Para extension workers				0			0	0
Composite fish culture				0			0	0
Freshwater prawn culture				0			0	0
Shrimp farming				0			0	0
Pearl culture				0			0	0
Cold water fisheries				0			0	0
Fish harvest and processing				0			0	0

technology								
Fry and fingerling rearing				0			0	0
Small scale processing				0			0	0
Post Harvest Technology				0			0	0
Tailoring and Stitching				0			0	0
Rural Crafts				0			0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops				0			0	0
Integrated Pest Management				0			0	0
Integrated Nutrient management				0			0	0
Rejuvenation of old orchards				0			0	0
Protected cultivation technology				0			0	0
Formation and Management of SHGs				0			0	0
Group Dynamics and farmers organization				0			0	0
Information networking among farmers				0			0	0
Capacity building for ICT application				0			0	0
Care and maintenance of farm machinery and implements				0			0	0
WTO and IPR issues				0			0	0
Management in farm animals				0			0	0
Livestock feed and fodder production				0			0	0
Household food security				0			0	0
Women and Child care				0			0	0
Low cost and nutrient efficient diet designing				0			0	0
Production and use of organic inputs				0			0	0
Gender mainstreaming through SHGs				0			0	0
Any other (Pl. Specify)				0			0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
G. Total	**15**	**184**	**93**	**277**	**65**	**33**	**98**	**375**

C) Consolidated table (ON and OFF Campus)

Thematic Area	No. of Courses	No. of participant						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management	0	0	0	0	0	0	0	0
Resource Conservation Technologies	0	0	0	0	0	0	0	0

Cropping Systems	2	39	3	42	6	2	8	50
Crop Diversification	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0
Water management	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Crop Management	0	0	0	0	0	0	0	0
Fodder production	0	0	0	0	0	0	0	0
Production of organic inputs	1	17	0	17	8	0	8	25
Total	**3**	**56**	**3**	**59**	**14**	**2**	**16**	**75**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	2	38	0	38	12	0	12	50
Off-season vegetables	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)	0	0	0	0	0	0	0	0
b) Fruits	0	0	0	0	0	0	0	0
Training and Pruning	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0
Cultivation of Fruit	1	22	0	22	3	0	3	25
Management of young plants/orchards	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0
c) Ornamental Plants	0	0	0	0	0	0	0	0
Nursery Management	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0
d) Plantation crops	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
e) Tuber crops	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
f) Spices	0	0	0	0	0	0	0	0
Production and Management technology	1	17	0	17	8	0	8	25
Processing and value addition	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Production and management	0	0	0	0	0	0	0	0

technology								
Post harvest technology and value addition	0	0	0	0	0	0	0	0
Total	**4**	**77**	**0**	**77**	**23**	**0**	**23**	**100**
III Soil Health and Fertility Management				0			0	0
Soil fertility management	1	21	0	21	4	0	4	25
Soil and Water Conservation	0	0	0	0	0	0	0	0
Integrated Nutrient Management	1	13	6	19	4	2	6	25
Production and use of organic inputs	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0
Total	**2**	**34**	**6**	**40**	**8**	**2**	**10**	**50**
IV Livestock Production and Management				0			0	0
Dairy Management	2	8	24	32	4	14	18	50
Poultry Management	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0
Rabbit Management/goat	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0
Feed management	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0
Total	**2**	**8**	**24**	**32**	**4**	**14**	**18**	**50**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	1	0	19	19	0	6	6	25
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Storage loss minimization techniques	1	0	19	19	0	6	6	25
Value addition	1	0	19	19	0	6	6	25
Income generation activities for empowerment of rural Women	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	1	0	19	19	0	6	6	25
Rural Crafts	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0
Total	**4**	**0**	**76**	**76**	**0**	**24**	**24**	**100**
VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0

Production of small tools and implements	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection				0			0	0
Integrated Pest Management	2	30	10	40	7	3	10	50
Integrated Disease Management	2	26	8	34	12	4	16	50
Bio-control of pests and diseases	1	16	2	18	4	3	7	25
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0
Total	**5**	**72**	**20**	**92**	**23**	**10**	**33**	**125**
VIII Fisheries				0			0	0
Integrated fish farming	1	13	0	13	12	0	12	25
Carp breeding and hatchery management	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0
Composite fish culture	1	11	0	11	14	0	14	25
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0
Shrimp farming	1	18	0	18	7	0	7	25
Edible oyster farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0
Total	**3**	**42**	**0**	**42**	**33**	**0**	**33**	**75**
IX Production of Inputs at site				0			0	0
Seed Production	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Bio-agents production	1	21	0	21	4	0	4	25
Bio-pesticides production	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0
Organic manures production	1	16	0	16	9	0	9	25
Production of fry and fingerlings	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0
Total	**2**	**37**	**0**	**37**	**13**	**0**	**13**	**50**
X Capacity Building and Group Dynamics				0			0	0
Leadership development	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0

Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry				0			0	0
Production technologies	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XII Others (Pl. Specify)				0			0	0
TOTAL	**25**	**326**	**129**	**455**	**118**	**52**	**170**	**625**
(B) RURAL YOUTH				0			0	0
Mushroom Production	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0
Production of organic inputs	1	18	0	18	7	0	7	25
Integrated Farming (Medicinal)	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
Tailoring and Stitching	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0
TOTAL	**1**	**18**	**0**	**18**	**7**	**0**	**7**	**25**
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops	1	20	0	20	5	0	5	25

Integrated Pest Management	1	20	0	20	5	0	5	25
Integrated Nutrient management	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Any other (Pl. Specify)	0	0	0	0	0	0	0	0
TOTAL	**2**	**40**	**0**	**40**	**10**	**0**	**10**	**50**
G. Total	**28**	**384**	**129**	**513**	**135**	**52**	**187**	**700**

Summary of Training Programme

ON Campus

(A) Farmers & Farm Women	**No. of couses**	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	1	17	3	20	3	2	5	25
II Horticulture	1	19	0	19	6	0	6	25
III Soil Health and Fertility Management	1	21	0	21	4	0	4	25
IV Livestock Production and Management	1	3	12	15	2	8	10	25
V Home Science/Women empowerment	1	0	19	19	0	6	6	25
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	1	16	2	18	4	3	7	25
VIII Fisheries	2	29	0	29	21	0	21	50
IX Production of Inputs at site	2	37	0	37	13	0	13	50
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**10**	**142**	**36**	**178**	**53**	**19**	**72**	**250**
(B) RURAL YOUTH	1	18	0	18	7	0	7	25
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	**13**	**200**	**36**	**236**	**70**	**19**	**89**	**325**

Off Campus

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	2	39	0	39	11	0	11	50
II Horticulture	3	58	0	58	17	0	17	75
III Soil Health and Fertility Management	1	13	6	19	4	2	6	25
IV Livestock Production and Management	1	5	12	17	2	6	8	25
V Home Science/Women empowerment	3	0	57	57	0	18	18	75
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	4	56	18	74	19	7	26	100
VIII Fisheries	1	13	0	13	12	0	12	25
IX Production of Inputs at site	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**15**	**184**	**93**	**277**	**65**	**33**	**98**	**375**
(B) RURAL YOUTH	0	0	0	0	0	0	0	0
(C) Extension Personnel	0	0	0	0	0	0	0	0
Grand Total (A+B+C)	**15**	**184**	**93**	**277**	**65**	**33**	**98**	**375**

Consolidated (On + Off Campus)

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	3	56	3	59	14	2	16	75
II Horticulture	4	77	0	77	23	0	23	100
III Soil Health and Fertility Management	2	34	6	40	8	2	10	50
IV Livestock Production and Management	2	8	24	32	4	14	18	50
V Home Science/Women empowerment	4	0	76	76	0	24	24	100
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	5	72	20	92	23	10	33	125
VIII Fisheries	3	42	0	42	33	0	33	75
IX Production of Inputs at site	2	37	0	37	13	0	13	50
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**25**	**326**	**129**	**455**	**118**	**52**	**170**	**625**
(B) RURAL YOUTH	1	18	0	18	7	0	7	25
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	**28**	**384**	**129**	**513**	**135**	**52**	**187**	**700**

Details of training programmes attached in **Annexure -I**

3.4. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	10	188	32	220	60	43	103	248	75	323
KisanMela	1	1000	250	1250	200	50	250	1200	300	1500
KisanGhosthi	12	350	150	500	210	110	320	560	260	820
Exhibition	20	5690	1060	6750	2150	920	3070	7840	1980	9820
Film Show	104	2230	330	2560	840	290	1130	3070	620	3690

Method demonstration	5	30	10	40	20	10	30	50	20	70
Farmers Seminar	3	140	0	140	50	0	50	190	0	190
Workshop	1	200	100	300	100	80	180	300	180	480
Group meetings	10	100	30	130	40	30	70	140	60	200
Lectures delivered as resource persons	50	9660	1620	11280	3650	1400	5050	13310	3020	16330
Newspaper coverage	5	0	0	0	0	0	0	0	0	0
Radio talks	0	0	0	0	0	0	0	0	0	0
TV talks	0	0	0	0	0	0	0	0	0	0
Popular articles	3	0	20	20	0	20	20	0	40	40
Extension Literature	10	3560	150	3710	1350	130	1480	4910	280	5190
Advisory Services	15	120	10	130	50	10	60	170	20	190
Scientific visit to farmers field	100	370	20	390	140	10	150	510	30	540
Farmers visit to KVK	100	390	60	450	150	50	200	540	110	650
Diagnostic visits	10	50	10	60	20	10	30	70	20	90
Exposure visits	2	60	0	60	30	0	30	90	0	90
Ex-trainees Sammelan	1	25	6	31	8	4	12	33	10	43
Soil health Camp	1	130	10	140	50	10	60	180	20	200
Animal Health Camp	0	0	0	0	0	0	0	0	0	0
Agri mobile clinic	1	2700	10010	12710	1020	40	1060	3720	10050	13770
Soil test campaigns	1	110	10	120	40	10	50	150	20	170
Farm Science Club Conveners meet	2	100	10	110	40	10	50	140	20	160
Self Help Group Conveners meetings	3	40	20	60	20	20	40	60	40	100
MahilaMandals Conveners meetings	6	10	50	60	10	40	50	20	90	110
Celebration of important days (specify)	3	150	40	190	60	30	90	210	70	280
KrishiMohostva	5	0	20	20	0	20	20	0	40	40
KrishiRath	3	40	0	40	20	0	20	60	0	60
Pre Kharif workshop	3	80	0	80	30	0	30	110	0	110
Pre Rabi workshop	7	250	40	290	100	30	130	350	70	420
PPVFRA workshop	4	190	10	200	80	10	90	270	20	290
Any Other (Specify)	5	220	20	240	90	10	100	310	30	340
Total	**506**	**28183**	**14098**	**42281**	**10628**	**3397**	**14025**	**38811**	**17495**	**56306**

3.5 Target for Production and supply of Technological products

SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)
CEREALS	Wheat	GW-496	3
OILSEEDS	Groundnut	GG-20	3
PULSES	Green gram	GM-4	4
VEGETABLES			
OTHERS (Specify)			

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)
FRUITS			
SPICES			

VEGETABLES			
FOREST SPECIES			
ORNAMENTAL CROPS			
		Total	

Bio-products

Sl. No.	Product Name	Species	Quantity	
			No	(kg)
BIO PESTICIDES				
1	Beauveria			8988
2	Trichoderma			3773
	PSB		711	
	Azaobactor		495	
	Rhizobium		492	
	Pheromone trap		3095	
	NPV		100	

LIVESTOCK

Sl. No.	Type	Breed	Quantity	
			(Nos)	Unit
Cattle				
GOAT				
SHEEP				
POULTRY				
Pig farming				
FISHERIES				

3.6 Literature to be Developed/Published

(A) KVK News Letter

Date of start :

Number of copies to be published :

(B) Literature developed/published

S.No.	Topic	Number
1	Research paper each scientist	2
2	Technical reports	3
3	News letters	1
4	Training manual all discipline	14
5	Popular article	6
6	Extension literature	3
	Total	

(C) Details of Electronic Media to be Produced

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

4. LINKAGE

4.1 Functional linkage with different organizations

Sr.	Name of organization	Nature of linkage
A	**State corporation and state deptt.**	
1	District Agricultural Officer, Deptt. of Agriculture, District Panchayat, Jamnagar	➢ Joint diagnostic teamvisit at farmers field
2	District Rural Development Agency, Jamnagar	➢ Organizing collaborative

3	Deputy Director of Veterinary, Department of veterinary & Animal Husbandry, Jamnagar	training to farmers ➢ For collaborative off campus training ➢ For collaborative training and demonstration Programme ➢ Collaborative on campus training programme ➢ For providing hostel facilities to participants and organizing collaborative Mahila Krishi Mela
4	Deputy Director of Horticulture, Jamnagar	
5	DeputyDirector of Agriculture (Training), Farmer Training Centre, Jamnagar	
6	Deputy Director of Agriculture (Extension), Jamnagar	
7	Asstt. Director of Fisheries, Jamnagar	
8	RangeForest Officer, Jamnagar	
9	Asstt. Director of GLDC, Jamnagar	
10	Estate Engineer, Department of Irrigation, Jamnagar	
11	All Taluka Development Officers, and their team at Talukalevel	
12	Rajkot-Jamnagar Gramin Bank, Jamnagar	
13	Project Director, ATMA, Jamnagar	
14	Project Director, DWDU, Jamnagar	
B	**Private Corporation**	
1	Territory Manager, GSFC, Jamnagar	➢ Imparttraining on Agril. aspects ➢ Collaborative on/off campustraining programme ➢ Sponsor training programme
2	Territory Manager, GNFC, Jamnagar	
3	Territory Manager, IFFCO, Jamnagar	
4	Reliance Industries, Dept. of Green Belt, Jamnagar	
C	**NGOs**	
1	Murlidhar Trust, Opp. Trajitpara Branch School, Bhanvad	➢ Imparttraining on Agril. aspects ➢ Collaborative on/off campustraining programme
2	V.D.R.F. Trust, Momai Xerox, B.P. Road, Bhanvad	
3	Late J.V. Nariya Educational and Charitable Trust, 49, Modern Market, First Floor, Nr. Amber Cinema	
4	Jay Ashapura Charitable Society, Madhav Nivas, Karmachari Society, Trikonban, Dhrol (Dist.-Jamnagar)	
5	Shekhpat Jalstrav Vikas Mandal, At.-Shekhpat, Post-Aliyabada, Ta.&Dist.- Jamnagar	
6	Lakhtar Jalstrav Gram Vikas Trust, 55, Shiv Complex, At.- Bhadra (Patiya), Ta.-Jodia, Dist.- Jamnagar	
7	Umiya Mataji Mandir Trust, At.- Sidsar, Ta.-Jamjodhpur, Dist.- Jamnagar	
8	Shardapith Education Trust, 104-Shrusti complex, Nr. Gurudwara, Jamnagar	
9	Chachara Education & Charitable Trust, 104- Shrusti complex, Nr. Gurudwara, Jamnagar	
10	Tata Chemical Society for Rural Development Foundation, At. Mithapur, Ta.-Dwarka, Dist.-Jamnagar	
11	Agakhan Rural Development Trust	

4.2 Details of linkage with ATMA

a) Is ATMA implemented in your district (Yes/No) :- Yes

S. No.	Programme	Nature of linkage	Remarks
1	District Level Training	Impart Training on Agricultural Aspects	Celeberate Technology week Arrangement of Krishi Mela
2.	Block level training	Lecture delivered	
3.	Village level training		

4.3 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any
1	-	-	District is not inovolve in NHM

4.4 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks
1.	-	-	-

5.0 Utilization of hostel facilities

S. No.	Programme	No. of days
1	**As per requirement**	
2		
	Total	

6.0 Convergence with departments :

Sr.	Name of organization	Nature of linkage
	1. ATMA 2. DWDU 3. DAO 4. DRDA 5. GGRC 6. NABARD 7. SPICE BOARD 8. STATE HORTICULTURE 9. CENTRAL WEREHOUSE 10. TATA CHEMICAL	➢ Organizing collaborative training to farmers ➢ For collaborative off campus training ➢ For collaborative training and demonstration Programme ➢ Collaborative on campus training programme ➢ For providing hostel facilities to participants and organizing collaborative Mahila Krishi Mela ➢ Celebrating important days and programmes by central government as well as state government ➢ Field visit to gather ➢ Diagnostic visit on farmers field with line department

7.0 Feedback of the farmers about the technologies demonstrated and assessed :

- Demonstrated new variety
- Introduction of newer crop by KVK through different FLD as well as OFT
- Information of any crop diversification get from KVK
- Frequently visit to farmers
- Telephonic information is available 24 hours through scientist mobile

8.0 Feedback from the KVK Scientists (Subject wise) to the research institutions/universities :

- Grant for the contingency for handling different programmes is in sufficient
- Limit of food provision during training and other cost should be increase along with stipend and transportation facility (Approximately Rs. 500 to 1000 per head per training required)
- Timely release of grant for successful and perfect conducting of FLD and OFT
- Required new vehicle for field visit and other extension programme. It is also required minimum two vehicle in KVK due to work load and it is among farmers field
- Contingency grant is in sufficient (It should be minimum 30 lakhs per KVK)
- Provide grant for farm protection wall and other infrastructure facilities

BUDGET ESTIMATION-2017-18

S. No.	Particulars	Budget Estimation 2017-18
A.	Recurring Contingencies	
1	Pay & Allowances	105.00
2	Traveling allowances	3.00
3	Contingencies	42.00
	TOTAL (A)	150.00
B.	Non-Recurring Contingencies	
	Vehicle	16.00
	K-yan (Projector with computer with accesary)	2.0
	TOTAL (B)	18.00
C.	Works	
	Threshing and Drying yard	25.00
	Fencing Cum Boundary wall	150.00
	Over Head Water tank with all facilities (for laboratory)	50.00
	Rat proof godown for MES system	37
	TOTAL (C)	262.00
GRAND TOTAL (A+B+C)		**430.00**

Annexure - I

TRAINING PROGRAMMES

Details of Training programmes

Category	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants				
						General		SC/ST		G. Total
						M	F	M	F	
Quarter- 1st (1st April to 30th June, 2017)										
PF	ONC	CP	Scientific production technology of major *kharif* crops (Pigeon pea, Cotton, Groundnut)	1	4	17	3	3	2	25
PF	OFC	HO	Production Technology of Vegetable crops	1	4	19		6		25
PF	OFC	WOE	House hold food security by kitchen gardening and nutrition gardening	1	4	0	19	0	6	25
PF	OFC	PLP	IPM & IDM in protected cultivation	1	4	15	5	3	2	25
PF	OFC	PLP	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	1	4	13	4	6	2	25
RY	ONC	FIS	Importance & techniuqes of cage culture and pen culture	1	4	18	0	7	0	25
EF	ONC		Pre-seasonal training on *kharif* crops (Pigeon pea, Green gram, Groundnut, Cotton)	1	4	20	0	5	0	25
Quarter- 2nd (1st July to 30th September, 2017)										
PF	OFC	CP	Organic farming : Todays need for integrated crop management	1	4	22	0	3	0	25
PF	OFC	HO	Production Technology of spices and condiments (Coriander, cumin, ajwain)	1	4	19	0	6	0	25
PF	ONC	SFM	Use of bio-fertilizers and recycling of farm waste through composting	1	4	21	0	4	0	25
RY	ONC	LPM	Higher Milk Production by Improving breed, Nutrition & Feed Management.	1	4	3	12	2	8	25
PF	OFC	WOE	Location specific drudgery reduction technology	1	4	0	19	0	6	25
PF	ONC	PLP	IPM and IDM in vegetable, groundnut & cotton crops	1	4	16	2	4	3	25
PF	OFC	PLP	IPM & IDM in fruit, vegetable and rabi field crops	1	4	15	5	4	1	25
PF	ONC	FIS	Shrimp farming : culture, feed management, diseases and its prevention	1	4	11	0	14	0	25
RY	ONC	Voc.	Production of Bio-agents and it use in agriculture	1	4	18	0	7	0	25
Quarter-3rd (1st Oct to 31st Dec, 2017)										
PF	OFC	HO	Scientific production of fruit crops (Pomegranate, papaya, ber, date palm)	1	4	22	0	3	0	25
PF	OFC	SFM	Integrated Nutrient Management in Coriander, gram and cumin	1	4	13	6	4	2	25
PF	ONC	WOE	Value addition in fruits, vegetables and agriculture produce	1	4	0	19	0	6	25
PF	OFC	FIS	Sea weeds : types, importance, culture technique and various use	1	4	13	0	12	0	25
RY	ONC	PI	Production technology of different bio-agents	1	4	21	0	4	0	25
EF	ONC		Crop production technology in Cumin,	1	4	20	0	5	0	25

Category	Training Type	Thematic area	Training Title	No. of Courses	Duration (Days)	Participants				
						General		SC/ST		G. Total
						M	F	M	F	
			Gram, Wheat, Onion, Garlic							
Quarter- 4th (1st Jan to 31st March, 2018)										
PF	OFC	CP	Crop production technology of summer green gram, sesame and groundnut	1	4	17	0	8	0	25
PF	ONC	HO	Production Technology of major horticultural crops of the district (Pomegranate, papaya, spices and condiments)	1	4	17	0	8	0	25
PF	OFC	LPM	Dairy management : selection, housing, feed breeding and health	1	4	5	12	2	6	25
PF	OFC	WOE	storage loss minimization techniques and food processing and value addition in fruit, vegetable, spices and other agricultural produce	1	4	0	19	0	6	25
PF	OFC	PLP	Store grain pests and its management	1	4	13	4	6	2	25
RY	ONC	PI	Production of organic input at a site	1	4	16	0	9	0	25
			TOTAL	**28**	**112**	**384**	**129**	**135**	**51**	**700**

Quarter and discipline wise summary of training programme :

Discipline	Subject Code	On-Campus					Off-Campus					GT
		Quarter					Quarter					
		I	II	III	IV	Total	I	II	III	IV	Total	
(A) Farmers & Farm Women, Rural Youth												
I Crop Production	CP	1	0	0	0	**1**	0	1	0	1	**2**	**3**
II Horticulture	HO	0	0	0	1	**1**	1	1	1	0	**3**	**4**
III Soil Health and Fertility Management	SFM	0	1	0	0	**1**	0	0	1	0	**1**	**2**
IV Livestock Production and Management	LPM	0	1	0	0	**1**	0	0	0	1	**1**	**2**
V Home Science/Women empowerment	WOE	0	0	1	0	**1**	1	1	0	1	**3**	**4**
VI Agril. Engineering	AEG	0	0	0	0	**0**	0	0	0	0	**0**	**0**
VII Plant Protection	PLP	0	1	0	0	**1**	2	1	0	1	**4**	**5**
VIII Fisheries	FIS	1	1	0	0	**2**	0	0	1	0	**1**	**3**
IX Production of Inputs at site	PI	0	0	1	1	**2**	0	0	0	0	**0**	**2**
X Capacity Building and Group Dynamics	CBD	0	0	0	0	**0**	0	0	0	0	**0**	**0**
(B) Extension Functionaries	EF	1	0	1	0	**2**	0	0	0	0	**0**	**2**
(C) Rural youth		0	0	1	0	**1**	0	0	0	0	**0**	**1**
Total		**3**	**4**	**4**	**2**	**13**	**4**	**4**	**3**	**4**	**15**	**28**

Table 3.2 Details of Vocational training programmes

Sr. No.	Training title	Crop / Enterprise	Identified Thrust Area	Duration of training (days)	No. of Beneficiaries					
					SC		ST		Others	
					M	F	M	F	M	F
1	Production of Bio-agents and it use in agriculture	Bio-agent	Production of input	21	5	3			17	

Table 3.3 Training programme for extension functionaries

Date	Clientele	Title of the training programme	Duration in days	No. of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
On Campus										
Quarter- 1	Extension functionaries	Pre-seasonal training on *kharif* crops (Pigeon pea, Green gram, Groundnut, Cotton)	1	20	0	20	5	0	5	25
Quarter-3	Extension functionaries	Crop production technology in Cumin, Gram, Wheat, Onion, Garlic	1	20	0	20	5	0	5	25

iv) Sponsored programme

Discipline	Sponsoring agency	Clientele	Title of the training programme	No. of course	No. of participants			Number of SC/ST			G. Total
					M	F	T	M	F	T	
a) Sponsored training progdramme											
AEG	ATMA	PF	Importance of MIS	2	80	0	80	20	0	20	100
PLP	ATMA	PF	Kharif crop protection and production technology	3	100	40	140	10	10	20	160
SFM, AEG	AGAKHAN	PF	INM and MIS in rabi crops	2	50	50	100	5	5	10	110
PLP	DAO	PF	Integrated pest and diseases management in cumin	1	60	0	60	0	0	0	60
PLP	ATMA	PF	IPM & IDM in groundnut, cotton crops	1	55	0	55	5	0	5	60
PLP	DAO	PF	IPM, IDM, INM in groudnnut and cotton	1	55	0	55	5	0	5	60
PLP	ATMA	PF	IPM & IDM in kharif crop	1	55	0	55	5	0	5	60
PLP	Dy.D.Hort.	PF	IPM, IDM, INM in Horticultural Crops	1	55	0	55	5	0	5	60
PLP	ATMA	PF	IPM, IDM, INM in Horticultural Crops	1	55	0	55	5	0	5	60
PLP	DWDU	PF	IPM & IDM in kharif crop	1	55	0	55	5	0	5	60
PLP, CP	ATMA	PF	Seed Production technology and IPM in these crops	1	55	0	55	5	0	5	60
PLP	ATMA	PF	Storage Techniques and IPM in summer crops	1	0	55	55	0	5	5	60
			Total	16	675	145	820	70	20	90	910
b) Sponsored research programme											
			Total								
c) Any special programmes											
			Total								