DETAILS OF ACTION PLAN OF KVKs DURING 2017-18
(1st April 2017 to 31st March 2018)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Website
KrishiVigyan Kendra, Junagadh Agricultural University, TCD farm, Pipalia-360410 Ta: Dhoraji, Dist: Rajkot (Gujarat)	Office	FAX	kvkpipalia@jau.in	www.jau.in
	02824-292584	---		

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

Address	Telephone		E mail	Website
	Office	FAX		
Junagadh Agricultural University, Junagadh	0285-2672653	0285-2672653	dee@jau.in	www.jau.in

1.2.b. Status of KVK website : ….Nil……

1.2.c. No. of Visitors (Hits) to your KVK website (as on today) :….Nil……

1.2.d Status of ICT lab at your KVK : --Nil---

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. N. B. Jadav	02824-292584	9924012649	dr_nbjadav@jau.in

1.4. Year of sanction: March, 2012

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

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)	Mobile no.	Age	Email id
1	Programme Coordinator	Dr. N. B. Jadav	PC	Ext.Edn.	15600-39100	31230	18.08.06	Temp.	OBC	9924012649	41	dr_nbjadav@jau.com
2	Subject Matter Specialist	S. V.Undhad	SMS (Pl. Pro.)	Pl.Prot.	15600-39100	22250	27.03.15	Temp.	Other	9428626278	31	undhadsv@jau.in
3	Subject Matter Specialist	Dr. V. S. Prajapati	SMS(LPM)	AH	15600-39100	22250	01.04.15	Temp.	OBC	9913615651	30	drvijay87@gmail.com
4	Subject Matter Specialist	A.R Parmar	SMS (Horti.)	Horti	15600-39100	21600	17.01.17	Temp.	SC	8238034135	32	arvindparmar.ap@gmail.com
5	Subject Matter Specialist	P.S Sharma	SMS(HS)	HS	15600-39100	21600	19.01.17	Temp.	Other	9586228636	29	pinkisharma@jau.in
6	Subject Matter Specialist	Vacant	SMS (Agro.)	Agronomy	-	-	-	-	-	-	-	-
7	Subject Matter Specialist	Vacant	SMS (Ext.)	Extension	-	-	-	-	-	-	-	-
8	Programme Assistant	F. P.Kargatiya	Prog. Asstt.	M.Sc.(Agri)	9300-34800	38090 FIX	07.04.15	Temp.	OBC	8238080199	30	kargatiyaforam78@jau.in
9	Computer Programmer	R. G.Panseriya	Prog. Asstt.	Com. Operater	9300-34800	16640	31.12.13	01-01-13 Pool at IT)	Other	9426713736	36	panseriyarg@jau.in
10	Farm Manager	N. M.Pithiya	Farm Manager	B.Sc.(Agri)	9300-34800	38090 FIX	01.04.15	Temp.	OBC	7383544981	24	nimishpithiya@jau.in
11	Accountant / Superintendent	K. G.Dhaduk	Accountant / Superintendent	Accounting & Admins.	9300-34800	16640	12.06.13	Temp.	Other	9925574778	36	kgdhaduk@jau.in
12	Stenographer	K. R. Yadav	Jr. Steno.	Steno.Grade III	5200-20200	10520	06.02.14	Temp.	OBC	9879156918	33	kryadav@jau.in
13	Driver	Vacant	Driver(Jeep)	-	-	-	-	-	-	-	-	-
14	Driver	Vacant	Driver(Tractor)	-	-	-	-	-	-	-	-	-
15	Supporting staff	Vacant	Peon	-	-	-	-	-	-	-	-	-
16	Supporting staff	Vacant	Peon	-	-	-	-	-	-	-	-	-

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	-
2.	Under Demonstration Units	-
3.	Under Crops	16.00
4.	Horticulture	-
5.	Pond	-
6.	Others if any	4.00
	TOTAL	**20.00**

1.7. Infrastructural Development:
A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR-ATARI	-	-	-	-	-	-
2.	Farmers Hostel			-		-	-	-
3.	Staff Quarters (6)	-	-	-	-	-	-	-
4.	Demonstration Units (2)	-	-	-	-	-	-	-
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-
10		-	-	-	-	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Bolero)	2013	661107	40024	Working
Mahindra Tractor	2013	565000	-	Working
Mahindra Tractor mini	2016	248000	-	Working

C) Equipment's& AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Cultivator (9 tine)	2013	19000	Working
Blade Harrow	2013	11500	Working

1.8. A). Details of SAC meetings to be conducted in the year (5th SAC)

Sl.No.		Date
1.	Scientific Advisory Committee	24.10.2016

2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	Groundnut-Wheat / Coriander, Cumin, Garlic, Cotton-Summer Groundnut /Pulse crop/Sesame
2	Live stock
3	Farm waste management specially cotton stalk
4	Fruit and vegetable preservation
5	Value addition in Groundnut and wheat

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

a) Soil type

Sl. No.	Agro-climatic Zone	Characteristics
1	Zone– VI (North Saurashtra)	The influence area of North SaurashtraAgro climatic Zone is spread among five districts (35.2 Lakh Ha). Out of total area 73.40 per cent area falls under arid and semi-arid region. The soils of this zone are shallow to moderately deep. The soils of Rajkot districts medium black and low in their availability of nitrogen while medium phosphorus and high in available potash. Monsoon commences usually by the end of June and withdraws by middle of September. Average annual rainfall of districts is 1141.2 mm.
2	Zone-VII (South Saurashtra)	The influence area of South SaurashtraAgro climatic Zone is spread among four districts. (Part of Rajkot, Bhavnagar, Amreli and whole district of Junagadh). Type of soil is shallow medium black calcareous soils. Soil are medium to high in nitrogen content, phosphorus low and potash high. Average annual rainfall of the zone is 625-750 mm.

b)Topography

S. No.	Agro ecological situation	Characteristics
1	Situation No. 2	Medium Black Soil with 500-600 mm Rainfall (Gondal, Jamkandorna)
2	Situation No.4	Shallow Black Soil with 500-600 mm Rainfall (Lodhika, Kotadasangani)
3	-	Shallow medium black soil with 620-750 mm Rainfall (Jetpur, Dhoraji, Upleta,)

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Clay to clay loam	Medium black calcareous soil	
2	Sandy clay loam to clayey	Well drained soil with rapid permeability	
3	Sandy to sandy 10 cm calcareous	Well drained soils	

2.4. Area, Production and Productivity of major crops cultivated in the district (Year-15-16)

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	Groundnut	4303	137950	32.06
2	Sesamum	63	410	6.49
3	Castor	63	1680	26.61
4	Cotton	2770	150680	9.25
5	Wheat	1444	61030	42.27
6	Green gram	735	1470	2.00
7	Coriander	2112	3168	1.50
8	Cumin	56	500	8.90
9	Garlic	143	8730	61.00
10	Chickpea	574	1292	2.25

2.5. **Weather data**

Sr. No.	Meteorological week	Rainfall (mm)*	No of Rainy days *
1	25	11	1
2	26	16	2
3	27	-	
4	28	-	
5	29	37.5	3
6	30	41	2
7	31	385	4
8	32	20	2
9	33	-	-
10	34	59	1
11	35	22	1
12	36	-	-
13	37	18	1
14	38	242	4
15	39	-	-
16	40	130	3
17	41		
	Total	**987.5**	**24**

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

Category	Population ('000Nos.)	Production ('000 tone)	Productivity
Cattle			
Cows	452	3326.90	
Buffalo	362	5284.70	
Sheep	263.40	266.81(wool)	
Goats	197	231.24	
Pigs	1		
Rabbits			
Poultry		**(Production of eggs in Lakh Nos.)**	
Hens		3.92	
Desi	7.8	32.52	
Improved	13.4		
Ducks			
Turkey and others			

Category	Area	Production	Productivity
Fish	-	-	-
Marine	-	-	-
Inland	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

2.7 Details of Operational area / Villages

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Dhoraji	Dhoraji (Cluster	Nani Parabadi	Groundnut, Cotton, Sesamum, Wheat, Cumin, Chickpea, Garlic and onion. Enterprise are dairy business, vermi composting	- Heavy infestation of pink bollworm in cotton -Sucking pest in all crops - Stem rot disease in groundnut -Sesamum wilt - Less area under horticultural crops -Infertility in livestock	- IPM, IDM and INM in major crops - Motivate the farmers for horticulture crop - To create awareness for value addition - Populirization of MIS - Create awareness of artificial insemination
		Patanvav			
Jetpur	Jetpur	Amrapur			
		Mandlikpur			
Jamkadorana	Jamkadorana	Jasapar			
		Nani Dhudhivadar			
		Sanala			
Upleta	Upleta	Nagvadar			
		Talangana			
Gondal	Gondal	Daliya			
		Shemla			
		Bhojpara			

2.8 Priority thrust areas

Sl. No	Crop/ Enterprise	Thrustarea
1.	Groundnut	Increase productivity of crops by adopting recommended practices and integrated pest management & IDM (Management of white grub and stem rot)
2.	Cotton	-Integrated pest management (management of pink bollworm in Bt. cotton) INM in cotton -Recycling of cotton stalk (Popularizing of cotton shredder)
3.	Cumin	Integrated disease management
4.	Coriander, sesamum etc	Increasing the productivity of major crops by adopting recommended technologies, newly release variety and to create awareness of value addition
5.	Farm waste	Recycling of farm waste through composting, vermin compost, green manuring, etc.
6.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
7.	Farm Women	Farm women empowerment by training in value addition, handi crafts, and small scale enterprises

3. TECHNICAL PROGRAMME

3. A. Details of targeted mandatory activities by KVK

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
6	12 Farmers & 24 Animals	58.10	270

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
41	1135	984	12806

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (Nos)	Soil Samples
(5)	(6)	(7)	(8)
260	10000	-	-

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	Integrated Pest Management	Groundnut	White grub infestation	Management of white grub in groundnut	--	Integrated pest management in groundnut	--	Training, Literature distribution,	Chlorpyriphos and carbaryl
2	Integrated nutrient management	Wheat	Lack of knowledge about INM and Bio fertilizer in wheat	Assessment of Effect of bio fertilizer on wheat	--	Integrated nutrient management in wheat	--	Demonstration	Biofertilizers- azotobacter & PSB
3	NRM	cumin	Wilt incidence in cumin	--	FLD on cumin var. GC-4	Integrated disease management in cumin	--	Field day, literature distribution	Seed of cumin Variety GC-4
4	NRM	wheat	Low yield of wheat	--	FLD on wheat var. GW-496	Integrated nutrient management in wheat	--	Field day, literature distribution	Seed of Wheat Variety GW-366
5	NRM	Chick pea	Low yield of chick pea / wilt in chick pea	--	FLD on Chick pea var GG-5/3	Integrated pest & Disease management in Chick Pea	--	Field day, literature distribution	Seed of Chick Pea Variety GG-5/3
6	IPM	Cotton	Pink Bollworm Infestation	--	Magt. Of pink boll worm infestation	Integrated management of pinkboll worm in cotton	--	Field day, literature distribution	Supply of pheromone trap, Beuvaria
7	INM	Cotton	Low yield of cotton and Redding	-	Nutrient mangt. In cotton	INM in cotton	-	Field day, literature distribution	Supply of Azotobacter, PSB, Mix micro nutrient
8	NRM	Groundnut	Low yield of groundnut	-	FLD on Groundnut var-GG-22	Package of practices of Var-GG-22	-	Field day, literature distribution, exposure visit	Seed of Groudnut Variety GG-22
9	IDM	Groundnut	Stem rot incidence in Groundnut	-	FLD on mangt. Of stem rot in groundnut	Integrated disease management of groundnut	-	Field day, literature distribution	Supply of Trichoderma
10	IPM	Groundnut	White grub infestation in groundnut	-	FLD on mangt. Of white grub infestation	IPM in groundnut	-	Field day, literature distribution	Supply of Chlorpyriphos for seed treatment
11	NRM	Sesamum	Low yield in sesamum in summer	-	FLD on sesamum var. Guj.Til-3/4	Package of practices of sesamum var. GT-3/4	-	Field day, literature distribution	Supply of sesamum seed var. GT-3/4
12	Nutrition management in cattle	Buffalo	Lack of knowledge about nutrition management	Effect of supplementation of concentrate and mineral mixture on milk production of local buffalo breed	--	Importance of concentrate and mineral mixture in milk production	--	Demonstration	Concentrate mixture and mineral mixture
13	Nutrition Management in cattle	Cattle	Lack of knowledge about nutrition management in cattle	Low milk production due to parasitic infestation & mineral imbalance in Cattle	--	Importance of Deworming and mineral mixture in milk production	--	Demonstration	Mineral mixture and fenbendazole bolus

14	Nutrition Management in cattle	Cattle	Lack of knowledge about nutrition management in cattle	--	FLD on calcium supplement	Importance of Calcium feeding in milk production	--	Demonstration	Calcium liquid and fenbendazole bolus
15	Varietal Evaluation	Brinjal	Low and poor yield		FLD on Brinjal	Package of practes of Brinjal var. GJHB-4		Field day, literature distribution	Supply of Brinjal Var. GJHB-4
16	Varietal Evaluation	Brinjal	Low and poor yield		FLD on Brinjal	Package of practes of Brinjal var. GJLB-4		Field day, literature distribution	Supply of Brinjal Var. GJLB-4
17	Varietal Evaluation	Okra	Low and poor yield		FLD on Okra	Package of practes of Okra var. GJOH-4		Field day, literature distribution	Supply of Okra var. GJOH-4
18	Varietal Evaluation	Onion	Low and poor yield		FLD on Onion	Package of practes of Onion Var. GJRO-11		Field day, literature distribution	Supply of Onion Var. GJRO-11
19	Inhibit growth of pathogen	Chilli	Fungal Diseases	Assessment of effect of the fungicides on disease of chilli	-	Integrated disease management in chilli crop	-	Field day, literature distribution	Supply of C.O.C. and Trichoderma
20	Nutritional Security	Vegetable crops	Nutritional insecurity		-	Household food security by kitchen gardening and nutrition gardening	-	Literature distribution, Training, Field day	Vegetable seeds
21	Nutritional Security	Food items	Less concept of utility of solar cooker	Comparison of solar Cooker with traditional cooking system	-	-	-	Training, Demonstrations,	Solar cooker

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

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	Wormi culture	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	2	-	-	-	-	-	-	2
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
TOTAL	2	-	-	-	-	-	-	2

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	-	--	-	-	-	-	-	-

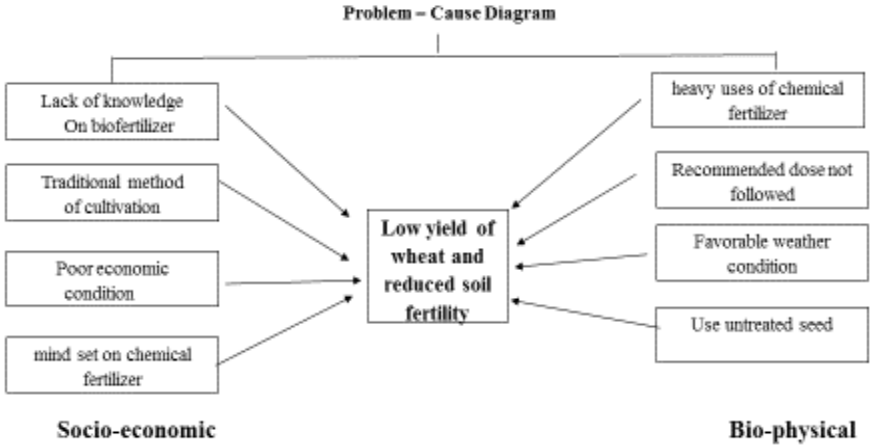
B. Details of On Farm Trial

OFT 1. : Assessment of response of Bio fertilizers to wheat yield

1. **Title of OFT:** - Assessment of Response of Bio fertilizers to wheat yield
2. **Introduction: -**

   In Rabi season the area of wheat cultivation in Rajkot district is higher after coriander crops as compare to other crops. due to cannel facilities in this area the production and productivity is higher.

   But the continues use of chemical fertilizer in this crops the productivity is decreasing day by day and cost of cultivation increased. High uses of chemical fertilizer in crops the soil fertility also reduced. In this situation the KVK decide to increase uses of biofertilizer to reduce cost of cultivation and increase soil fertility as well as quality and quantity of wheat yield.
3. **Problem definition** : Reduce yield and soil fertility
4. **Problem cause diagram :**



5. **Intervening point** : Response of Bio fertilizers to wheat yield
6. **Crop** : Wheat
7. **Season/Year** : Rabi 2017-18
8. **Plot size** :- 0.4 ha
9. **No. of Replication:** 3 (Farmer)
10. **Cost** : Rs. 360 /-
11. **Source of technology:** Junagadh Agricultural University, Junagadh
12. **Treatments**:
    1. **Farmer's practice :-** Application of only DAP & Urea in different doses
    2. **Recommended practice :-** 120-60-0 NPK kg/ha
    3. **Intervention:-** Application of Azatobacter & PSB culture (250g/10kg) + 75% of RDF
13. **Observations :**

Technical Indicator:

1. Yield (qtl./ha)

Economic Indicator:

1. Cost of Production (Rs/ha)
2. Gross return: (Rs/ha)
3. Net return: (Rs/ha)
4. B:C Ratio

Farmers' Perception

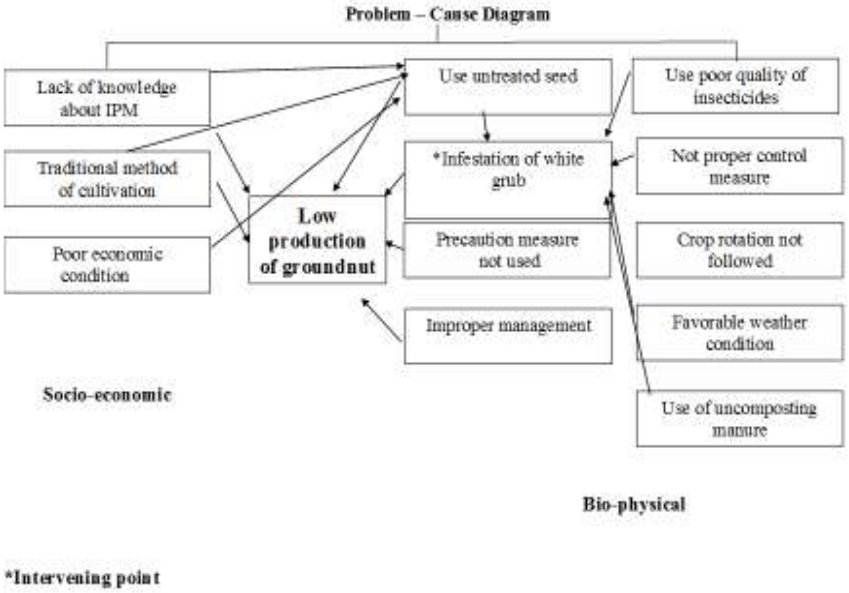
OFT 2. : Management of white grub in groundnut

1. **Title of OFT:** - Assessment of management of white grub in Groundnut
2. **Introduction: -**

The area under groundnut cultivation in Rajkot district is higher after cotton crops as compare to other crops. in this area groundnut crops are well suitable crops and gave higher production and productivity.

But last two to three years this crops suffering from heavy infestation of white grub insect. This insect cause severe damage to groundnut crops and resulting in yield loss. It is difficult to manage this pest. Farmer spent lots of money for uses of insecticides for control of this insect but not proper control. Therefore, it is very necessary to management through different possible solution of white grub in groundnut.

3. **Problem definition** : Low yield from groundnut cultivation
4. **Problem cause diagram :**



5. **Intervening point** : Management of white grub in groundnut
6. **Crop** : Groundnut
7. **Season/Year** : Kharif-17
8. **Plot size** :- 0.4 ha
9. **No. of Replication:** 3 (Farmer)
10. **Cost** : Rs. 4575 /-
11. **Source of technology:** Junagadh Agricultural University, Junagadh
12. **Treatments**:
    1. **Farmer's practice :-** Chloropyriphos @ 4 lit./ha at the time of attack + Application of UREA @ 50 kg/ha with irrigation water at time of infestation
    2. **Recommended practice :-** 1. Seed treatment with Chloropyriphos @ 25 ml/kg
       2. Application of Chloropyriphos @ 4 lit./ha at time of attack
       3.Spraying the trees on bund with carbaryl@ 40g/15 lit water

13. **Observations :**

Technical Indicator:

Yield (qtl./ha), Pest incidence (%)

Economic Indicator:

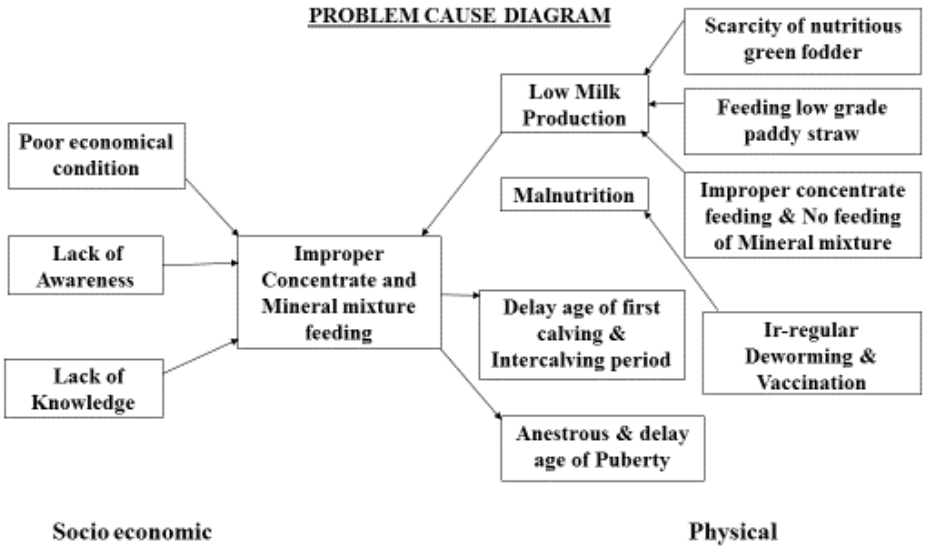
1. Cost of Production (Rs/ha)
2. Gross return: (Rs/ha)
3. Net return: (Rs/ha)
4. B:C Ratio

Farmers' Perception

OFT 3.: Assessment of effect of supplementation of concentrate and mineral mixture on milk yield

1. **Title: Assessment of effect of supplementation of concentrate and mineral mixture on milk yield of local buffalo breed.**

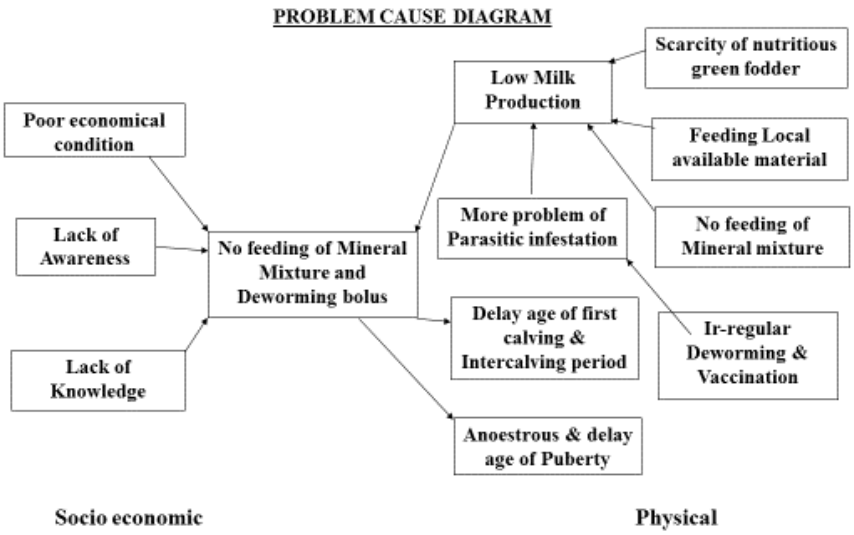
Livestock production in all its ventures is a source of income and for all livestock owners livestock feeding and nutrition is a major concern. Inadequate nutrition is a major cause of low live-weight gains, infertility and low milk yields in dairy cattle. The aim of the OFT is about the awareness of dairy farmers to know the nutritional management of milch animals to increase milk yield. Therefore, the above entitle OFT has been proposed.



2. **Experiment animal** : 18 (9 animals/treatments)
3. **Source of technology** : Veterinary college, NAU, Navsari
4. **Cost** : Rs.18600 (2067 / animal)
5. **Treatment:**
    1. **Farmers practices :** Routine feeding (Green fodder 20 kg +dry fodder 8 kg/animal/day)
    2. **Recommended :** T1 + Feeding of concentrate mixture (5 kg/animal/day)+Mineral mixture 50 gm/animal/day)
6. **Observations to be recorded :** Milk Yild (Lit/Animal/Day), B:C ratio and farmers'perception

OFT 4.: Assessment of effect of mineral mixture on milk yield of cattle

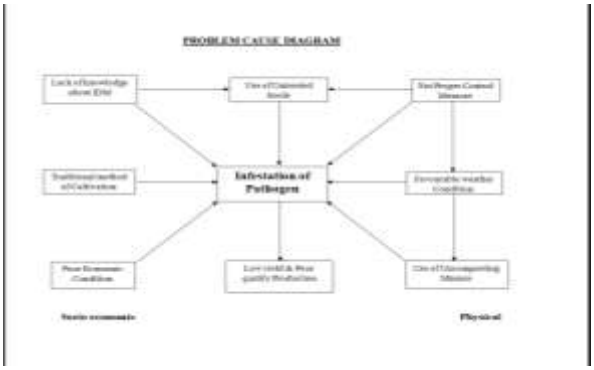
1. **Title:** Assessment of effect of mineral mixture on milk yield of cattle
2. Problem diagnose/defined:
    1. Low milk production due to parasitic infestation & mineral imbalance
    2. Lack of knowledge about feeding of mineral powder & deworming bolus



3. **Experiment animal** : 30 (15 animals/treatments)
4. **Source of technology** : Veterinary college, NAU, Navsari
5. **Cost** : Rs. 8490 (566/ animal)
6. **Treatment:**
    1. **Farmers practices :** Routine feeding (Green fodder 20 kg +dry fodder 8 kg/animal/day)
    2. **Recommended :** T1 + Fenbendazol @5-7.5 mg Kg body wight + Mineral mixture supplementation @50gm /animal/ day
7. **Observations to be recorded:** Milk Yild (Lit/Animal/Day), B:C ratio and farmers' perception

OFT No: 5 : Assessment of effect of the fungicides on disease of chilli

1. **Objective** : To inhibit the growth of pathogen.
2. **District** : Rajkot
3. **Intervention points** : IPM
4. **Problem diagnosed /definaition**:



5. **Treatment:**
   Farmer practices: Two spray of Hexaconazole @ 1ml/liter of water. at 15 days interval
   Recommended practices: Seed treatment of carbendenzim @ 3gm/kg seed + + soil application of Trichoderma @2.5 kg/ha at 15 DAS + soil drenching of C.O.C. @ 40 gm./10 ltr.of water during disease infestation
   Intervention: Two spray of Hexaconazole @ 1ml/liter of water. At 15 days interval + soil drenching of C.O.C. @ 40 gm./10 ltr.of water during disease infestation
6. Plot :0.40 ha(1 Acre)/farmer
7. No. of farmers : 3
8. Source of technology : JAU, Junagadh
9. Critical inputs to be supplied : 1 kg Trichoderma and 500 gm copper oxychloride
10. Cost : Rs. 2460
11. Observation to be recorded : Yield (qtl/ha), B:C ratio

OFT No. 6: Comparison of solar Cooker with traditional cooking system

Items:-

1. Boiled Rice
2. Boiled Sweet potato
3. Salted groundnut

Objective:-

(1) To improve quality and nutrition of Prepared items
(2) To reduce drudgery of farm women
(3) To reduce time and fuel consumption

Treatment: -

1) Preparation by traditional method
2) Preparation by roasting
3) Preparation by solar cooker

No. of Replications: - 5

No. of beneficiaries: 3 Farmwomen from three different locations

Observations: -

(1) Time consumption
(2) Fuel consumption
(3) Movement
(4) Cost saving
(5) Organo laptic test
    i. Colour
    ii. b. Texture,
    iii. c. Test
    iv. e. Overall acceptancy

3.2 Frontline Demonstrations

A. Details of FLDs to be organized -

Sl. No.	Crop	Variety	Thematic area	Technology for demonstration	Critical inputs	Season and year	Area (ha)	No. of farmers/ demon.	Parameters identified	Cost of critical input (In Rs.)
1	Groundnut	GG-22	Varietal	Improved variety	Seeds	Kharif - 2017	1.6	10	Yield (q/ha), B:C ratio	17400
2	Groundnut	GG-20	IPM	Management of white grub	Seed treatment (Chlorpyriphos)	Kharif-17	4	10	Pest infestation (%), Yield (q/ha) and B:C ratio	10600
3	Groundnut	GG-20	IDM	Management of stem rot	Trichoderma Castor cake	Kharif-17	4	10	Disease incidence (%), Yield (q/ha) and B:C ratio	12400
4	Cotton	Bt.	INM	Integrated Nutrient management	Azotobacter, PSB, Mix micro nutrient	Kharif-17	4	10	Yield (q./ha), B:C ratio	3700
5	Cotton	Bt.	IPM	Mangt of pink boll worm	Pheromen trap &lure Buvaria	Kharif-17	4	50	Pest infestation (%), Yield (q/ha) and B:C ratio	67500
6	Cumin	GC-4	Varietal	Improved variety	Seed of GC-4	Rabi-17	4	10	Yield (q./ha), B:C ratio	14400
7	Chick pea	GG-3/5	Varietal	Improved Variety	Seed of GG-3/5	Rabi-17	4	10	Yield (q./ha), B:C ratio	10500
8	Wheat	GW-366	Varietal	Improved Variety	Seeds of GW-366	Rabi-17	5	10	Yield (q./ha), B:C ratio	11300
9	Sesame	GT-3/4	Varietal	Improved variety	Seeds of GT-3/4	Summer-18	4	10	Yield (q./ha), B:C ratio	4500
10	Vegetable Crops	Household food security by kitchen gardening and nutrition gardening	Nutritional security	Kitchen Gardening	Vegetable seeds	Kharif	-	50	Yield (q./ha), B:C ratio	2500
11	Brinjal	GJHB-4	Varietal	Improved Variety	Seed GJHB-4	Kharif	1.25	5	Yield (q./ha), B:C ratio	1250/-
12	Brinjal	GJLB-4	Varietal	Improved Variety	Seed GJLB-4	Kharif	1.25	5	Yield (q./ha), B:C ratio	1250/-
13	Okra	GJOH-4	Varietal	Improved Variety	Seed GJOH-4	Kharif	1.20	3	Yield (q./ha), B:C ratio	6000 /-
14	Onion	GJRO-11	Varietal	Improved Variety	Seed GJRO-11	Rabi	2.5	10	Yield (q./ha), B:C ratio	8000/-
15	Papaya	GJP-1	Varietal	Improved variety	Plant	Kharif	1.20	3	Yield (q./ha), B:C ratio	6000 /-
					Total		**59.30**	**266**		

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
1	Field days	15	-	345
2	Farmers Training	10	-	400
3	Media coverage	5	-	-
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
-	-	-	-	-	-	-
-	-	-	-	-	-	-

(ii) Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds/ha. etc.	Critical inputs	Performance parameters / indicators
Animal Hus	Gir cow	10	10 (Calpar gold (5lit	Mineral mixture + dewormer	Milk/animal/day, B:C ratio

			bottle)	(Total cost : 7000)	
-	-	-	-	-	-
-	-	-	--	-	-

3.3 Training (Including the sponsored and FLD training programmes):

A) ON Campus

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management								
Resource Conservation Technologies								
Cropping Systems								
Crop Diversification								
Integrated Farming								
Water management								
Seed production								
Nursery management								
Integrated Crop Management								
Fodder production								
Production of organic inputs								
II Horticulture								
a) Vegetable Crops								
Production of low volume and high value crops	1	25	00	25	00	00	00	25
Off-season vegetables								
Nursery raising								
Exotic vegetables like Broccoli								
Export potential vegetables								
Grading and standardization								
Protective cultivation (Green Houses, Shade Net etc.)								
b) Fruits								
Training and Pruning								
Layout and Management of Orchards	1	25	00	25	00	00	00	25
Cultivation of Fruit								
Management of young plants/orchards								
Rejuvenation of old orchards								
Export potential fruits								
Micro irrigation systems of orchards								
Plant propagation techniques								
c) Ornamental Plants								
Nursery Management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of Ornamental Plants								
d) Plantation crops								
Production and Management technology								
Processing and value addition								
e) Tuber crops								
Production and Management technology								
Processing and value addition								
f) Spices								
Production and Management technology	1	22	02	22	03	00	03	25
Processing and value addition								
g) Medicinal and Aromatic Plants								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
III Soil Health and Fertility Management								
Soil fertility management								
Soil and Water Conservation								
Integrated Nutrient Management								
Production and use of organic inputs								
Management of Problematic soils								
Micro nutrient deficiency in crops								
Nutrient Use Efficiency								
Soil and Water Testing								

IV Livestock Production and Management								
Dairy Management	1	15	10	25	00	00	00	25
Poultry Management								
Piggery Management								
Rabbit Management/goat								
Disease Management	1	25	00	25	00	00	00	25
Feed management	2	25	22	47	00	03	03	50
Production of quality animal products								
V Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening								
Design and development of low/minimum cost diet	1	00	23	23	00	02	02	25
Designing and development for high nutrient efficiency diet	1	00	25	25	00	00	00	25
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques								
Value addition	1	00	20	20	00	05	05	25
Income generation activities for empowerment of rural Women	1	00	20	20	00	05	05	25
Location specific drudgery reduction technologies								
Rural Crafts								
Women and child care								
VI Agril. Engineering								
Installation and maintenance of micro irrigation systems								
Use of Plastics in farming practices								
Production of small tools and implements								
Repair and maintenance of farm machinery and implements								
Small scale processing and value addition								
Post Harvest Technology								
VII Plant Protection								
Integrated Pest Management	2	22	23	45	03	02	05	50
Integrated Disease Management	2	46	00	46	04	00	04	50
Bio-control of pests and diseases	1	25	00	25	00	00	00	25
Production of bio control agents and bio pesticides								
VIII Fisheries								
Integrated fish farming								
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture								
Hatchery management and culture of freshwater prawn								
Breeding and culture of ornamental fishes								
Portable plastic carp hatchery								
Pen culture of fish and prawn								
Shrimp farming								
Edible oyster farming								
Pearl culture								
Fish processing and value addition								
IX Production of Inputs at site								
Seed Production								
Planting material production								
Bio-agents production								
Bio-pesticides production								
Bio-fertilizer production								
Vermi-compost production								
Organic manures production								
Production of fry and fingerlings								
Production of Bee-colonies and wax sheets								
Small tools and implements								
Production of livestock feed and fodder								
Production of Fish feed								
X Capacity Building and Group Dynamics								
Leadership development								
Group dynamics								
Formation and Management of SHGs	1	10	05	15	03	07	10	25
Mobilization of social capital								
Entrepreneurial development of farmers/youths								
WTO and IPR issues								
XI Agro-forestry								
Production technologies								
Nursery management								
Integrated Farming Systems								

XII Others (Pl. Specify)								
TOTAL								
(B) RURAL YOUTH								
Mushroom Production								
Bee-keeping								
Integrated farming								
Seed production								
Production of organic inputs								
Integrated Farming (Medicinal)								
Planting material production								
Vermi-culture								
Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production								
Repair and maintenance of farm machinery and implements								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Value addition								
Production of quality animal products								
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Small scale processing								
Post Harvest Technology								
Tailoring and Stitching								
Rural Crafts								
Total	**17**	**240**	**150**	**388**	**13**	**24**	**37**	**425**
(C) Extension Personnel								
Productivity enhancement in field crops								
Integrated Pest Management	1	24	00	24	01	00	01	25
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Formation and Management of SHGs								
Group Dynamics and farmers organization								
Information networking among farmers								
Capacity building for ICT application								
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production	1	21	00	21	04	00	04	25
Household food security								
Women and Child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs								
Gender mainstreaming through SHGs								
Any other (Pl. Specify)								
TOTAL	**02**	**45**	**0**	**45**	**5**	**0**	**5**	**50**
G. Total	**19**	**285**	**150**	**433**	**18**	**24**	**42**	**475**

B) OFF Campus

Thematic Area	**No. of Courses**	**No. of Participants**						
		Others			**SC/ST**			**Grand Total**
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								

Weed Management								
Resource Conservation Technologies								
Cropping Systems								
Crop Diversification								
Integrated Farming								
Water management								
Seed production								
Nursery management								
Integrated Crop Management								
Fodder production								
Production of organic inputs								
II Horticulture								
a) Vegetable Crops								
Production of low volume and high value crops								
Off-season vegetables								
Nursery raising								
Exotic vegetables like Broccoli								
Export potential vegetables								
Grading and standardization								
Protective cultivation (Green Houses, Shade Net etc.)	1	28	00	28	02	00	02	30
b) Fruits								
Training and Pruning	1	26	00	26	04	00	04	30
Layout and Management of Orchards								
Cultivation of Fruit								
Management of young plants/orchards								
Rejuvenation of old orchards								
Export potential fruits								
Micro irrigation systems of orchards	1	27	00	27	03	00	03	30
Plant propagation techniques								
c) Ornamental Plants								
Nursery Management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of Ornamental Plants								
d) Plantation crops								
Production and Management technology								
Processing and value addition								
e) Tuber crops								
Production and Management technology	1	30	00	30	00	00	00	30
Processing and value addition								
f) Spices								
Production and Management technology								
Processing and value addition								
g) Medicinal and Aromatic Plants								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
III Soil Health and Fertility Management								
Soil fertility management								
Soil and Water Conservation								
Integrated Nutrient Management								
Production and use of organic inputs								
Management of Problematic soils								
Micro nutrient deficiency in crops								
Nutrient Use Efficiency								
Soil and Water Testing								
IV Livestock Production and Management								
Dairy Management	2	23	24	47	07	06	13	60
Poultry Management								
Piggery Management								
Rabbit Management /goat								
Disease Management	1	25	0	25	05	5	5	30
Feed management	3	50	20	70	10	10	20	90
Production of quality animal products								
V Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening	1	00	28	28	00	02	02	30
Design and development of low/minimum cost diet								

Designing and development for high nutrient efficiency diet	1	00	28	28	00	02	02	30
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques								
Value addition	1	00	26	26	00	04	04	30
Income generation activities for empowerment of rural Women	1	00	15	15	00	15	15	30
Location specific drudgery reduction technologies	1	00	28	28	00	02	02	30
Rural Crafts								
Women and child care								
VI Agril. Engineering								
Installation and maintenance of micro irrigation systems								
Use of Plastics in farming practices								
Production of small tools and implements								
Repair and maintenance of farm machinery and implements								
Small scale processing and value addition								
Post-Harvest Technology								
VII Plant Protection								
Integrated Pest Management	2	30	20	50	08	02	10	60
Integrated Disease Management	2	55	00	55	05	00	05	60
Bio-control of pests and diseases	1	28	00	28	02	00	02	30
Production of bio control agents and bio pesticides								
VIII Fisheries								
Integrated fish farming								
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture								
Hatchery management and culture of freshwater prawn								
Breeding and culture of ornamental fishes								
Portable plastic carp hatchery								
Pen culture of fish and prawn								
Shrimp farming								
Edible oyster farming								
Pearl culture								
Fish processing and value addition								
IX Production of Inputs at site								
Seed Production								
Planting material production (Horti.)								
Bio-agents production								
Bio-pesticides production								
Bio-fertilizer production								
Vermi-compost production (Horti.)								
Organic manures production (A.S.)								
Production of fry and fingerlings								
Production of Bee-colonies and wax sheets								
Small tools and implements								
Production of livestock feed and fodder								
Production of Fish feed								
X Capacity Building and Group Dynamics								
Leadership development								
Group dynamics								
Formation and Management of SHGs(HS)	1	15	10	25	05	00	05	30
Mobilization of social capital								
Entrepreneurial development of farmers/youths (Agro.)	1	30	00	30	00	00	00	30
WTO and IPR issues								
XI Agro-forestry								
Production technologies								
Nursery management								
Integrated Farming Systems (Agro)								
XII Others (Pl. Specify)								
TOTAL	**22**	**367**	**199**	**566**	**51**	**48**	**94**	**660**

C) Consolidated table (ON and OFF Campus)

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management								
Resource Conservation Technologies								
Cropping Systems								
Crop Diversification								
Integrated Farming								
Water management								
Seed production								
Nursery management								
Integrated Crop Management								
Fodder production								
Production of organic inputs								
II Horticulture								
a) Vegetable Crops								
Production of low volume and high value crops	1	25	00	25	00	00	00	25
Off-season vegetables								
Nursery raising								
Exotic vegetables like Broccoli								
Export potential vegetables								
Grading and standardization								
Protective cultivation (Green Houses, Shade Net etc.)	1	28	00	28	02	00	02	30
b) Fruits								
Training and Pruning	1	26	00	26	04	00	04	30
Layout and Management of Orchards	1	25	00	25	00	00	00	25
Cultivation of Fruit								
Management of young plants/orchards								
Rejuvenation of old orchards								
Export potential fruits								
Micro irrigation systems of orchards	1	27	00	27	03	00	03	30
Plant propagation techniques								
c) Ornamental Plants								
Nursery Management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of Ornamental Plants								
d) Plantation crops								
Production and Management technology								
Processing and value addition								
e) Tuber crops								
Production and Management technology	1	30	00	30	00	00	00	30
Processing and value addition								
f) Spices								
Production and Management technology	1	22	02	22	03	00	03	25
Processing and value addition								
g) Medicinal and Aromatic Plants								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
(B) RURAL YOUTH								
Mushroom Production								
Bee-keeping								
Integrated farming								
Seed production								
Production of organic inputs								
Planting material production								
Vermi-culture								
Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production								
Repair and maintenance of farm machinery and implements								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Value addition								

Production of quality animal products								
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Small scale processing								
Post Harvest Technology								
Tailoring and Stitching								
Rural Crafts								
TOTAL								
(C) Extension Personnel								
Productivity enhancement in field crops								
Integrated Pest Management								
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Formation and Management of SHGs								
Group Dynamics and farmers organization								
Information networking among farmers								
Capacity building for ICT application								
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production								
Household food security								
Women and Child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs								
Gender mainstreaming through SHGs								
Any other (Pl. Specify)								
TOTAL								
G. Total								
III Soil Health and Fertility Management								
Soil fertility management								
Soil and Water Conservation								
Integrated Nutrient Management								
Production and use of organic inputs								
Management of Problematic soils								
Micro nutrient deficiency in crops								
Nutrient Use Efficiency								
Soil and Water Testing								
IV Livestock Production and Management								
Dairy Management	3	38	34	72	07	06	13	85
Poultry Management								
Piggery Management								
Rabbit Management/goat								
Disease Management	2	50	0	50	05	5	5	55
Feed management	5	75	44	117	10	13	23	140
Production of quality animal products								
V Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening	1	00	28	28	00	02	02	30
Design and development of low/minimum cost diet	1	00	23	23	00	02	02	25
Designing and development for high nutrient efficiency diet	2	00	53	53	00	02	02	55
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques								
Value addition	2	00	46	46	00	09	09	55

Income generation activities for empowerment of rural Women	2	00	35	35	00	20	20	55
Location specific drudgery reduction technologies	1	00	28	28	00	02	02	30
Rural Crafts								
Women and child care								
VI Agril. Engineering								
Installation and maintenance of micro irrigation systems								
Use of Plastics in farming practices								
Production of small tools and implements								
Repair and maintenance of farm machinery and implements								
Small scale processing and value addition								
Post Harvest Technology								
VII Plant Protection								
Integrated Pest Management	4	52	43	95	11	04	15	110
Integrated Disease Management	4	101	00	101	09	00	09	110
Bio-control of pests and diseases	2	53	00	53	02	00	02	55
Production of bio control agents and bio pesticides								
VIII Fisheries								
Integrated fish farming								
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture								
Hatchery management and culture of freshwater prawn								
Breeding and culture of ornamental fishes								
Portable plastic carp hatchery								
Pen culture of fish and prawn								
Shrimp farming								
Edible oyster farming								
Pearl culture								
Fish processing and value addition								
IX Production of Inputs at site								
Seed Production								
Planting material production								
Bio-agents production								
Bio-pesticides production								
Bio-fertilizer production								
Vermi-compost production								
Organic manures production								
Production of fry and fingerlings								
Production of Bee-colonies and wax sheets								
Small tools and implements								
Production of livestock feed and fodder								
Production of Fish feed								
X Capacity Building and Group Dynamics								
Leadership development								
Group dynamics								
Formation and Management of SHGs	2	25	15	40	08	07	15	55
Mobilization of social capital								
Entrepreneurial development of farmers/youths	1	30	00	30	00	00	00	30
WTO and IPR issues								
XI Agro-forestry								
Production technologies								
Nursery management								
Integrated Farming Systems								
Sponsored training								
TOTAL	**39**	**607**	**351**	**954**	**64**	**72**	**131**	**1085**
(B) RURAL YOUTH								
Mushroom Production								
Bee-keeping								
Integrated farming								
Seed production								
Production of organic inputs								
Integrated Farming								
Planting material production								
Vermi-culture								
Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production								

Repair and maintenance of farm machinery and implements								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Value addition								
Production of quality animal products								
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Small scale processing								
Post Harvest Technology								
Tailoring and Stitching								
Rural Crafts								
TOTAL								
(C) Extension Personnel								
Productivity enhancement in field crops								
Integrated Pest Management	1	24	00	24	01	00	01	25
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Formation and Management of SHGs								
Group Dynamics and farmers organization								
Information networking among farmers								
Capacity building for ICT application								
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production	1	21	00	21	04	00	04	25
Household food security								
Women and Child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs								
Gender mainstreaming through SHGs								
Any other (Pl. Specify)								
Total	**2**	**45**	**0**	**45**	**5**	**0**	**5**	**50**
G. TOTAL	**41**	**652**	**351**	**999**	**69**	**72**	**136**	**1135**

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	300	50	350	2	0	2	302	50	352
KisanMela	1	450	150	600	2	0	2	452	150	602
KisanGhosthi	75	400	100	500	5	0	5	405	100	505
Exhibition	2	0	0	0	0	0	0	0	0	0
Film Show	20	350	150	500	0	0	0	350	150	500
Farmers Seminar	0	0	0	0	0	0	0	0	0	0
Workshop	0	0	0	0	0	0	0	0	0	0
Group meetings	25	500	100	600	5	0	5	505	100	605
Lectures delivered as resource persons	60	3000	1500	4500	30	00	30	3030	1500	4530
Newspaper coverage	5	0	0	0	0	0	0	0	0	0
Radio talks	2	0	0	0	0	0	0	0	0	0
TV talks	0	0	0	0	0	0	0	0	0	0
Popular articles	4	0	0	0	0	0	0	0	0	0
Extension Literature	10	0	0	0	0	0	0	0	0	0

Advisory Services										
Scientific visit to farmers field	250	400	50	450	0	0	0	400	50	450
Farmers visit to KVK	475	800	25	825	0	0	0	800	25	825
Diagnostic visits	25	65	0	65	5	0	5	70	0	70
Exposure visits	3	60	30	90	4	1	5	64	31	95
Ex-trainees Sammelan	0	0	0	0	0	0	0	0	0	0
Soil health Camp	0	0	0	0	0	0	0	0	0	0
Animal Health Camp	5	125	0	125	0	0	0	125	0	125
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Soil test campaigns	0	0	0	0	0	0	0	0	0	0
Farm Science Club Conveners meet	0	0	0	0	0	0	0	0	0	0
Self Help Group Conveners meetings	5	00	60	60	0	0	0	0	60	60
MahilaMandals Conveners meetings	0	0	0	0	0	0	0	0	0	0
Celebration of important day (Women day)	1	00	75	75	0	0	0	0	75	75
KrishiMohostva	2	2000	1000	3000	0	0	0	2000	1000	3000
KrishiRath	0	0	0	0	0	0	0	0	0	0
Pre Kharif workshop	1	200	50	250	3	0	3	203	50	253
Pre Rabi workshop	1	200	50	250	3	0	3	203	50	253
PPVFRA workshop	1	150	50	200	3	0	3	153	50	203
(Technology Week celebration)	1	200	100	300	3	0	3	203	100	303
Total	**984**	**9200**	**3490**	**12740**	**65**	**1**	**66**	**9265**	**3541**	**12806**

3.5 Target for Production and supply of Technological products

SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)
CEREALS	Wheat	GW-496	110
OILSEEDS	Groundnut	GAUG-10	25
		GAUJ-17	25
		GG-22	10
PULSES	Black gram	Guj. Black gram-1	8
VEGETABLES	University produce vegetable seed		500 packet/10 gm
OTHERS (Specify)			
Biopesticides (Uni producti)			

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	SavajTrichoderma	*Trichodermaharzianum*	-	3000 kg
2	SavajBeauveria	*Beauveriabassiana*	-	6000 kg

LIVESTOCK

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

3.6. Literature to be Developed/Published

10 folders related to different subjects

(A) KVK News Letter

Date of start : Jan-March 2016

Number of copies to be published :*e-news letter*

(B) Literature developed/published

S.No.	Topic	Number
1	Research paper each scientist	1
2	Technical reports	2
3	News letters	1
4	Training manual all discipline	4
5	Popular article	4
6	Extension literature	10
	Total	**22**

(C) Details of Electronic Media to be Produced

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

3.7. Success stories/Case studies identified for development as a case. -

a. Brief introduction
b. Interventions
c. Output
d. Outcomes
e. Impact
   i) Social economic
   ii) Bio-Physical
f. Good Action Photographs

3.8 Indicate the specific training need analysis tools/methodology followed for Practicing Farmers

a) Management of pink bollworm in cotton
b) Management of white grub in Groundnut
c) Management of wilt in chickpea
d) Recycling of farm waste

Rural Youth

a) Seed production
b) Value addition
c) Production of organic inputs

In-service personnel

a) Management of pink bollworm in cotton
b) Integrated pest management in Kharif crops
c) Integrated pest management in rabi crops

3.9 Indicate the methodology for identifying OFTs/FLDs

For OFT :

i) PRA
ii) Field level observations
iii) Farmer group discussions

For FLD :

i) New variety/technology
ii) Poor yield at farmers level
iii) Field level observations

3.10 Field activities

i. Name of villages identified/adopted with block name (from which year)– 2016-17

Sl. No	Taluka	Name of the village
1	Dhoraji	Patanvav, Nani Parabdi
2	Jetpur	Amrapur, Mandlikpur
3	Jamkadorna	Jashapar, NaniDudhivadar,Sanala
4	Upleta	Nagvadar, Talangna
5	Gondal	Daliya, Shemla, Bhojpara

ii. No. of farm families selected per village : 350
iii. No. of survey/PRA conducted :1 (12 Village)
iv. No. of technologies taken to the adopted villages: 12
v. Name of the technologies found suitable by the farmers of the adopted villages:
vi. Impact (production, income, employment, area/technological– horizontal/vertical)
vii. Constraints if any in the continued application of these improved technologies

3.11. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab: Nil

1. Year of establishment :

2. List of equipments purchase with amount

Sl. No.	Name of the equipment	Quantity	Cost (Rs)
1	-	-	-

3. Targets of samples for analysis:

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

4.0 LINKAGES

4.1 Functional linkage with different organizations

Sl.No.	Name of organization	Nature of Linkage
1.	ATMA	Training
2.	GSFC	Training
3.	GNFC	Training
4.	GGRC	Training
5.	FTC	Training
6.	DWDU	Training
7.	Horticulture Department at district level	Training

4.2 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

S. No.	Programme	Nature of linkage	
1	1	District Level Training	Impart Training on Agricultural Aspects
2	2	Block level training	Impart Training on Agricultural Aspects

4.3 Give details of programmes under National Horticultural Mission

S. No.	Programme	Nature of linkage
1		NIL

4.4 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage
1		NIL

5.0 Utilization of hostel facilities

S. No.	Programme	No. of days
1		NIL
2		NIL
	Total	

6.0 Convergence with departments:

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

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

Annexure - I

Training Programme

i) Farmers & Farm women (On Campus)

Date	Clientele	Title of the training programme	Duration in days	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
Horticulture										
	PF	Production technology of vegetable crops	1	25	00	25	00	00	00	25
	PF	Production technology of spices crops	1	22	02	22	03	00	03	25
	PF	Irrigation and nutrient management in fruit crops	1							
Livestock prod.										
	PF	Infertility of cow and Buffalo by diseases &its prevention	1	15	10	25	00	00	00	25
	PF/FW	Importance of colostrums feeding in new born calves	1	25	00	25	00	00	00	25
	PF/FW	Fodder crop production technology	1	25	00	25	00	00	00	25
	PF	Importance of artificial insemination in cow and buffalo	1	00	22	22	00	03	03	25
Home Sc.										
	FW	Preparation of different types of bakery products like Pizza base, Nankhatai, different types of biscuits, Cake, etc	1	00	23	23	00	02	02	25
	FW	Preparation of Protein and Energy rich diet	1	00	25	25	00	00	00	25
	FW	Preparation of different products from Aonla	1	00	20	20	00	05	05	25
	FW	Preparation of Jam, Squash, catchup from fruits	1	00	22	22	00	03	03	25
Plan prot.										
	PF	Integrated Pest management in cotton & groundnut	1	22	00	22	03	00	03	25
	PF	Integrated pest and diseases management in coriander	1	23	00	23	02	00	02	25
	PF	Diseases management in spices	1	23	00	23	02	00	02	25
	PF/FW	Storage pest management	1							
	PF	Integrated Pest management in summer groundnut	1	25	00	25	00	00	00	25
Capacity Building and Group Dynamics										
	PF	Formation of new SHGs, CIGs	1	25	00	25	00	00	00	25

i) Farmers & Farm women (Off Campus)

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	
Horticulture										
	PF	Production technology in protected cultivation	1	26	00	26	04	00	04	30
	PF	Pruning and training in fruit crops	1	28	00	28	02	00	02	30
	PF	Cultivation practices of onion and garlic								
	PF	Importance of drip irrigation in horticultural crops	1	27	00	27	03	00	03	30
Live Stock Production.										
	PF	Infertility of cow and Buffalo by diseases &its prevention	1	25	00	25	05	00	05	30
	PF	Importance of colostrum feeding in new born calves	1	00	25	25	00	05	05	30
	PF	Creating awareness about balance nutrition management	1	03	20	23	02	05	07	30
	PF	Fodder crop production technology	1	23	00	23	07	00	07	30
	PF	Increase nutritive value of low quality roughages for milking animals	1	00	25	25	00	05	05	30
	PF/FW	Clean milk production by proper milking watering and animal washing	1	00	25	25	00	05	05	30
Home Sc.										
	FW	Preparation of different types of masala	1	00	27	27	00	03	03	30
	FW	Work simplification in household activities and Drudgery reduction technologies in agriculture	1	00	28	28	00	02	02	30

	FW	Organic Kitchen gardening & its importance on health	1	00	28	28	00	02	02	30
	FW	Value addition in milk	1	00	00	00	00	30	30	30
	FW	Importance of green leafy vegetables in diet	1	00	28	28	00	02	02	30
Plant Protection										
	PF	Integrated Pest management in cotton & groundnut	1	30	00	30	00	00	00	30
	PF	Integrated pest and diseases management in cumin & coriander	1	06	20	26	02	02	04	30
	PF	Diseases management in cumin & coriander	1	27	00	27	03	00	03	30
	PF	Storage pest management	1	28	00	28	02	00	02	30
	PF	Integrated Pest management in summer crops	1	28	00	28	02	00	02	30
Capacity Building and Group Dynamics										
		Procedure for Formation of new SHGs, CIGs	1	30	00	30	00	00	00	30
		Development of entrepreneurship among rural youth	1	30	00	30	00	00	00	30

ii) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Home Science	Women empowerment	Preparation of different bakery products	May-June	8	00	25	25	00	05	05	30

iii) 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										
1	Agro dealer	Management of pink bollworm in cotton and white grub in groundnut	1	21	00	21	04	00	04	25
2	VOs	Cattle health management through vaccination and feed management	1	24	00	24	01	00	01	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											
Plant protection	ATMA	PF	Storage pest management	2	55	00	55	05	00	05	60
Crop production	ATMA	PF	Integrated nutrient management	2	57	00	57	03	00	03	60
Ext Edu.	ATMA	PF	Development of entrepreneurship among rural youth	2	55	00	55	05	00	05	60
Crop production	GSFC	PF	Soil fertility management	2	30	20	50	05	05	10	60
Home Science	FTC, Rajkot	FW	Value addition in fruits & vegetables	2	00	55	55	00	05	05	60
Plant protection	GNFC	PF	IPM and IDM in major Kharif crops	2	55	00	55	05	00	05	60
Horticulture	FTC, Rajkot	PF/FW	Importance of drip irrigation in horticultural crops	2	30	30	60	00	00	00	60
Animal Husbandry	ATMA	PF	Infertility of cow and buffalo by diseases & its prevention	2	56	00	56	04	00	04	60
			Total	**16**	**338**	**105**	**443**	**27**	**10**	**37**	**480**
b) Sponsored research programme											
-	-	-	-	-	-	-	-	-	-	-	-
c) Any special programmes											
Technology week celebration		PF/FW/ RY	Different scientific technologies related to different discipline	6 days	175	75	250	25	25	50	**300**
			Total		175	75	250	25	25	50	**300**

New Technical Programme

New Technical Programme : 1

1.	Title	:	**Training needs of rural women with respect to animal husbandry practices in Rajkot district of Saurashtra region**
2.	Name of the lead organization	:	KrishiVigyan Kendra, JAU, Pipalia
3.	Name of Principle investigator and Associates	:	(1) Dr.N.B.Jadav, Programme coordinator (PI) (2) Dr. V.S.Prajapati, Scientist, (LPM) (Co-PI) (3) S.V. Undhad, Scientist (Plant Protection) (Associate) (4) P.S. Sharma Scientist (Home Science) (Associate) (5) A.R. Parmar, Scientist, (Horti.) (Associate) (6) F.P. Kargatiya, AO. (Associate) (7) Dr. A.M. Parakhia, DEE, JAU, Junagadh (Associate)
4.	Problems statements (Source of problems & clear statement of problems)	:	Poor knowledge regarding profitability dairy husbandry practices in rural women
5.	Objective	:	
	1) To study the socio-economic and psychological characteristics of the rural women. 2) To study the training needs of the rural women with respect to animal husbandry practices. 3) To study the association between the socio-economic and psychological characteristics of the rural women with their training needs. 4) To study the relative suitability of venue, time, duration, interval and choice of teacher-trainer for rural women with respect to animal husbandry practices.		
6.	Methodology	:	
	The research study will be conducted in jurisdiction of KrishiVigyan Kendra, JAU, Pipalia. Two talukswill be selected randomly for conducting the present investigation. Ten villages will be further selected from two taluks where dairy husbandry practiced. From each village twelve farm women will be selected who engaged dairy farming. Accordingly, 120farm women will be selected purposively from each of the ten villages. An interview schedule will be prepared to collect the required information as per the objectives of the study. Data will be collected by personal interview method. The collected data will be quantified, categorized and tabulated. Analysis will be carried out by using frequencies, percentages and correlation.		

11. New Technical Programme : 2

1.	Title	:	**Knowledge of farmers about use of biofertilizer in Bt. Cotton**
2.	Name of the lead organization	:	KrishiVigyan Kendra, JAU, Pipalia
3.	Name of Principle investigator & Associates	:	(1) Dr.N.B.Jadav Senior Scientist & Head (PI) (2) Sh.S.V. Undhad Scientist (Plant Protection) (Co-PI) (3) P.S. Sharma Scientist (Home Science) (Associate) (4) Dr V S Prajapati Scientist (LPM) (Associate), (5) A.R. Parmar, Scientist (Horti.) (Associate) (6) F. P. Kargatiya, AO (Associate) (7) Dr. A. M. Parakhia DEE, JAU, Junagadh (Associate)
4.	Problems statements (Source of problems & clear statement of problems)	:	Injudicious use of biofertilizer in Bt. cotton
5.	Introduction	:	
	Biofertilizers are used to improve the fertility of the land by using biological wastes and biological wastes do not contain any chemicals which are harmful to the living soil. Bio-fertilizers generate plant nutrients like nitrogen and phosphorus through their activities in the soil and make available to plants in gradual manner. They are beneficial in enriching the soil with microorganisms which increases quality of nutrient in soil and also impart strength to combat with diseases (Savci, 2012). The main sources of biofertilizers are bacteria, fungi and cynobacteria. The most striking relationship that these microorganisms have with plants is symbiosis in which the partners derive benefits from each other. The most important microorganisms which have symbiotic relationship with plants are *Mycorahiza, Rhizobium* and Cyanobacteria. These delivers number of benefits including plant nutrition, disease resistance and tolerance to adverse soil and climatic conditions. In semi-arid regions of tropical and subtropical countries, the soils are nutritionally deficient and due to moisture limitation, chemical fertilizers cannot be applied in adequate quantities. Crops grown in such areas, therefore, the supply of N is largely dependent on biological nitrogen fixation. In rainfed agriculture, these inputs gain added importance in view of their low cost, as most of the farmers are small and marginal and cannot afford to buy expensive chemical fertilizers. Biofertilizers are also ideal input for reducing the cost of cultivation and for practicing organic farming. Very often microorganisms are not as efficient in natural surroundings as one would expect them to be and therefore artificially multiplied cultures of efficient selected microorganisms play a vital role in accelerating the microbial processes in soil. Poor microbial load, higher contamination and the use of improper strains resulted in mixed response of biofertilizers. Here the research institutes have a great responsibility towards ensuring the correct and the high quality product enters the market along with government and thereby ensuring that substandard product do not enter the market. New practices take time to pick up success or failure of new products entering the market will depend on the proper marketing, branding, promotional policies of government for which study needs to be conducted at every level of production, consumption and factors affecting them. Sometime, the technology is available however the farmers do not use the technology. There are certain reasons for		

	not use of the technology. This might be due to poor awareness, attitude and knowledge regarding the technology. The biofertilizer and biopesticide technology can help the farmers of arid and semi-arid areas of Rajkot district in increasing crop production especially in *kharif* season crops viz. groundnut, cotton, Pulses, til, vegetables etc.		
6.	Objective	:	
	1. To study the personal and socio-economic characteristics of the farmers in the study area. 2. To determine farmers' level of knowledge about biofertilizers uses. 3. To explore the relationship between characteristics & knowledge of cotton growers 4. To identify the constraints faced by farmers in adoption of biofertilizer 5. To seek suggestion from the farmers to overcome the constraints.		
7.	Methodology	:	
	The study will be conducted in KrishiVigyanKendras operation area of Saurashtra region. Out of 7 talukas, 2 talukas having highest cotton growing will be selected purposively. Out of 2 selected talukas, 6 villages will be selected from each taluka randomly. Thus total 12 villages will be selected and 10 cotton growers from each villages will be selected by random sampling method thus, 120 respondent will be selected for this study. To determine the knowledge, interview schedule will be developed. The respondents will be surveyed through personal interview schedule and collected data will be tabulated, analyzed and interpreted in the light of the objectives.		

New Technical Programme: 3

1.	**Title**	**:**	**IMPACT OF SELF HELP GROUPS ON EMPOWERMENT OF RURAL WOMEN: A STUDY IN RAJKOT DISTRICT**
2.	**Objective**	**:**	1. To study the socio-economic profile of SHGs sample respondents. 2. To analyse women empowerment through SHGs 3. To examine the personal and socio-economic benefits derived by the members after joining the SHGs. 4. To analyse all impediments factors faced by self-help group women in empowerment of women. 5. To seek suggestions from the SHGs member to overcome the constraints.
3.	**Year of commencement**	**:**	**2017-18**
4.	**Location and agro climatic sub region**	**:**	**Krishi Vigyan Kendra, JAU, Piplia**
5.	**Background Information**	**:**	Although the role of SHGs is highly essential and quite successful but its impact on women empowerment is also equally important. So, To analyse the operating system of SHGs this programme will successfully help us.
6.	**Principal investigators and associates**	**:**	1) Dr.N.B. Jadav Senior Scientist and Head, (PI) 2) P.S. Sharma Scientist (Home Science) (Co-PI) 3) Dr V S Prajapati Scientist (LPM) (Associate), 4) S. V. Undhad, Scientist (Plant protection) (Associate) 5) A.R. Parmar, Scientist (Horti.) (Associate) 6) F.P. Kargatiya, AO (Associate) 7) Dr. A. M. Parakhia, DEE, JAU, Junagadh, (Associate)
7.	**Experimental details**	**:**	-
8.	**Methodology :**		The research study will be conducted in jurisdiction of Krishi Vigyan Kendra, JAU, Pipalia. Ten village will be selected for the study where self-help group women are working and doing entrepreneurship development among rural women. From each selected village one SHGs group will be selected purposively and hence eight SHGs members (Total: 80) from each selected group will be randomly selected for the study. An interview schedule will be prepared to collect the required information as per the objectives of the study. Data will be collected by personal interview method. The collected data will be quantified, categorized and tabulated. Analysis will be carried out by using frequencies, percentages and correlation.
9.	**Observation recorded :**		-
10.	**Interpretation and conclusion :**		-
11.	**Recommendation for scientific community :**		-