

# ANNUAL ZONAL WORKSHOP



## ANNUAL PROGRESS REPORT

APRIL-2018 TO MARCH-2019

To be presented in  
Annual Zonal Workshop  
will be held  
on  
14<sup>th</sup> to 16<sup>th</sup> June, 2019 at  
Ela- Velha,Goa.



**Senior Scientist and Head**  
**Krishi Vigyan Kendra**  
Junagadh Agricultural University  
Gorkhijadiya-Morbi



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**ICAR-ATARI, Pune**  
**DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2018-19**  
**(1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)**

**1. GENERAL INFORMATION ABOUT THE KVK**

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
Krishi Vigyan Kendra, Junagadh Agricultural University, Morbi , Dist Morbi (Gujarat) – 363641	Office	FAX	kvkmorbi@gmail.com	www.jau.in
	02822-224853	-		

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

Address	Telephone		E mail	Website address
	Office	FAX		
Junagadh Agricultural University, Junagadh (Gujarat)	0285-2672080	0285-2672653	dee@jau.in	www.jau.in

**1.3. Name of the Senior Scientist and Head with phone & mobile no.**

Name	Telephone / Contact		
Dr . D. S. Hirpara	Mobile	Office	E mail
	9426938235	02822-224853	dshirpara@jau.in

**1.4. Year of sanction: 2017 (Grant & Staff from March-2017)**

**1.5. Faculty Information :**  
(as on March 31, 2019)

No	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate		Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Current Grade Pay		
1.	IC/ Senior Scientist and Head	Dr.D.S.Hirpara	Agronomy	37400-67000	9000	01/03/17	-
2.	Subject Matter Specialist	D.A.Saradava	Plant Protection	15600-39100	7000	01/03/17	-
3.	Subject Matter Specialist	Dr.Hemangi D. Mehta	Home Science	15600-39100	7000	01/08/17	-
4.	Subject Matter Specialist	Vacant	-	-	-	-	-
5.	Subject Matter Specialist	Vacant	-	-	-	-	-
6.	Subject Matter Specialist	Vacant	-	-	-	-	-
7.	Agriculture Officer	Gamansinh S.Zala	B.Sc. Agri.	Fix Pay	Fix Pay	03/08/18	-
8.	Programme Assistant	Vacant	-	-	-	-	-
9.	Computer Programmer	Vacant	-	-	-	-	-
10.	Farm Manager	Vinuji V. Thakor	B.Sc. Agri.	Fix Pay	Fix Pay	31/07/18	-
11.	Accountant/Superintendent	Vacant	-	-	-	-	-
12.	Stenographer	Vacant	-	-	-	-	-
13.	Driver 1	Vacant	-	-	-	-	-
14.	Driver 2	Vacant	-	-	-	-	-
15.	Supporting staff 1	Vacant	-	-	-	-	-
16.	Supporting staff 2	Vacant	-	-	-	-	-

### 1.6 Total land with KVK (in ha): 26

Sr. No.	Item	Area (ha)
1	Under Buildings	1.0 ha
2.	Under Demonstration Units	Nil
3.	Under Crops	6.0 ha
4.	Horticulture	Nil
5.	Pond	1.5 ha
6.	Others if any	17.7 ha road,bund and river valley

### 1.7 Infrastructural Development:

#### A) Buildings

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	KVK	-	-	-	1-12-2017	575.32	Construction work under process.
2.	Farmers Hostel	KVK		-		1-12-2017	443.96	Construction work under process.
3.	Staff Quarters (6)	-	-	-	-	-	-	-
4.	Demonstration Units (2)	-	-	-	-	-	-	-
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	2018-19	-	2,00,000/-	2017-18	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-
9	ICT lab	-	-	-	-	-	-	-
10	Other	-	-	-	-	-	-	-



- **Infrastructural Development of Building :-**



**B) Vehicles :- Nil**

**C) Equipments & AV aids**

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Tractor MasseyDI-241	2017	607137/-	Working
Computer System Acer 18.5	2017	34115/-	Working
Computer System Acer 18.5	2017	34115/-	Working
Printer MF 3010 canon	2017	10266/-	Working
Printer LBP 6510	2017	8761/-	Working

**1.8. Details SAC meeting conducted in the year**

Date	Name and Designation of Participants	Salient Recommendations	Action taken
19/03/2019	Dr. A.R.Pathak Hon. Vice Chancellor, JAU, Junagadh. Dr.P.V.Patel Director of Extension Education, JAU,Junagadh Dr.V.P.Chovatiya Director of Research, JAU, Junagadh Dr. D. S. Hirpara, Research A.D.R. (DFRS), JAU Targhadia & Senior Scientist & Head, KVK, JAU, Morbi Dr.H.C.chhodavadia , Asso.Ext.Edu. Dr.A.M.Polara , Asst.Extn.Edu. Dr. B.B. Kabaria Senior Scientist & Head, KVK, JAU, Targhadia Dr. N.B.Jadav, Senior scientist & Head, KVK, Pipalia	<ul style="list-style-type: none"> <li>Add one interventions in OFT (Management of White Grub in Groundnut) of Metarhizium application for white grub management.</li> <li>Training programme of Beauty Parlor &amp; Basic Computer knowledge should be organized in year 2019-20.</li> </ul> <p><b>In chairman remarks,</b> Hon'ble Vice Chancellor,            Dr. A. R. Pathak,            Junagadh Agricultural University,            Junagadh appreciated the activities carried out by the center.</p>	<ul style="list-style-type: none"> <li>Suggestion accepted and implemented.</li> <li>Training on Beauty Parlor &amp; Basic Computer knowledge included in 2019-20 action taken programme</li> </ul>

Dr. G. R. Sharma, Principal, Polytechnic in Agri. Engg., Targhadia		
Shri S.A. Sinojia , Deputy Dir. of Agri. Morbi.		
Shri. R.H.Ladani , Deputy Dir. of Horti. Morbi.		
V.K.Dholaria , Akashvani - Rajkot		
Vashantbhai Joshi , Akashvani - Rajkot		
M.F.Bhoraniya , SMS-KVK Nanakandhasar		
Dr. D.A. Saradava SMS-KVK Morbi		
Dr.H.D.Mehta SMS-KVK Morbi		
Dr. J.R. Choudhary SMS- KVK Targhadia		
Shri D.P. Sanepara SMS- KVK Targhadia		
Smt. H.A. Manvar SMS- KVK, Targhadia		
Ms. Pinky S. Sharma SMS- (Home Science), KVK, JAU, Pipalia		
Shri A.R.Parmar SMS- (Horticulture), KVK, JAU, Pipalia		
Dr. V. S. Prajapati SMS (Animal Husbandry), KVK, JAU, Pipalia		
S.V.Undhad SMS (Pl. Prot.)		
K.D.Chaudhari A.O.- KVK ,Piplia		
Kiran kumar Patel Reliance Foundation Jasdan		
Kanara Dinesh		



	Reliance Foundation Jasdan		
	Hitesh Vajubhai Mathukia		
	Progressive Farmer		
	Navnit jayntibhai chotliya		
	Progressive Farmer		
	Ajitbhai bachhubhai –jashapar		
	Progressive Farmer		
	Jayntibhai popatbhai babriya – jashapar		
	Progressive Farmer		
	Vallabhbhai Ravjibhai		
	Progressive Farmer		
	Arvindbhai Bhimjibhai pariya		
	Progressive Farmer		
	Chetanbhai Anubhai japda		
	Progressive Farmer		

## **2. DETAILS OF MORBI DISTRICT**

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

S. No	Farming system/enterprise
1	Cotton-Wheat/Cotton-Cumin/Groundnut-Wheat/Groundnut-Cumin/Cotton-Summer Sesame
2	Animal husbandry – crop based enterprise /Dairy product
3	Farm Waste Management/ Crop residue management
4	Value addition in Groundnut/ Sesame

### **2.2 Description of Agro-climatic Zone & major agro ecological situations**

#### **A. Soil type**

No.	Agro-climatic Zone	Characteristics
1	North Saurashtra Agro Climatic Zone Morbi, Wankaner and Tankara (Agro – eco-situation –No.7)	Semi arid- region with annual rainfall 550-600 mm, 29 rainy days. Maximum temp – 44°C, Minimum range – 5 to 12°C & high evaporation
2	North west agro climatic Zone- 5 Maliya (mi) and Halvad block	Arid to semi arid region with annual rain fall – 500 to 550 mm maximum temp - 45°C, Minimum range – 3 to 12°C & high evaporation

## B. Topography

No.	Agro ecological situation	Characteristics
1	Situation No. 7	Plain & hilly areas in wankaner tehsil.
2	Situation No. 5	Plain costal region (saline) affected with desertification

## 2.3 Soil Types

No.	Soil type	Characteristics	Area in ha
1	Medium black clayey	Low in organic carbon, heavy cracking and clod formtion	202.4
2	Alluvial Soil (sand-loam lomy)	Low fertility status, high infiltration rate	91.8
3	Hilly Soil (light)	Undulating topography, low fertile eroded soil	13.6
4	Silty Soil (loomy)	Low infiltration rate, water logging, difficult to cultivate	5.5

## 2.4. Area, Production and Productivity of major crops cultivated in the district (2018-19)

S. No	Crop	Area (ha)	Production (M. T.)	Productivity (q/ha)
1	Groundnut	34945	40196	1150
2	Cotton (Bt)	157132	92464	588
3	Pearl millet	2362	1191	504
4	Sesame	7698	2069	269
5	Castor	14984	14665	979
6	Green gram	1283	761	593
7	Black gram	368	235	639
8	Vegetable	4026	94849	23559
9	Fodder	33959	719620	21191
10	Wheat	-	-	-
11	Gram	-	-	-
12	Cumin	-	-	-

## 2.5. Weather data (2018-19)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
June	22				
July	110				
August	85.4				
September	4.8				
October	Nil				
<b>Total</b>	<b>222.2</b>				

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	161857		12 lit/Day
<i>Indigenous</i>			
<b>Buffalo</b>	194019		17 lit/Day
<b>Sheep</b>	87357		
<b>Goats</b>	144309		
<b>Pigs</b>			
<i>Crossbred</i>			
<i>Indigenous</i>			
<b>Rabbits</b>			
<b>Poultry</b>			
Hens	1000000		3 kg/Bird
<i>Desi</i>			
<b>Category</b>		Production (Q.)	Productivity
Fish (Reservoir)			

## 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
Morbi	Morbi	Gorkhijadia Jepur, Bharatnagar, Laxminagar,	Groundnut, Cotton, Sesame, Wheat, Cumin, Gram, Chickpea, Onion. Enterprises are dairy business Vermi composting preparation of roasted groundnut and chikki from groundnut seed	Pink ball worm in Cotton, Heavy infestation of sucking pest in cotton <i>phytophthora</i> disease in sesame and white grub infestation in groundnut.	IPM and INM in major crops of this area Increase drainage of soil Motivate the farmers for arid Horticultural crops. Efficient use of irrigation water
Tankara	Tankara	Sajjanpar Hadmatiya Nasitpar Harbattiyali Nasitpar	Groundnut, Cotton, Sesame, Wheat, Cumin, Gram, Chickpea, Garlic, Onion. Vermi composting preparation of roasted groundnut and chikki from groundnut seed	<i>phytophthora</i> disease in sesame and white grub infestation in groundnut. Pink ball worm in Cotton, Heavy infestation of sucking pest in cotton ,Nutritional deficiency in animal feed and fodder Less area under Horticultural crops	IPM and INM in major crops of this area Increase drainage of soil Efficient use of irrigation water
Wankaner	Wankaner	Devipur Devalia,	*Groundnut, Cotton, Sesame, Wheat, Cumin, Gram. Enterprises are dairy business, Vermi composting, preparation of roasted groundnut and chikki from groundnut seed	Pink ball worm in Cotton Heavy infestation of sucking pest in cotton <i>phytophthora</i> disease in sesame and white grub infestation in groundnut Long inter-calving period in Buffalo Nutritional deficiency in animal feed and fodder Less area under Horticultural crops	IPM and INM in major crops of this area Reducing the inter-calving period in Buffalo Motivate the farmers for arid Horticultural crops Efficient use of irrigation water

## 2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Groundnut, Sesame etc	Increasing the productivity of the major crops by adopting the recommendation of dry farming technologies and to create awareness for value addition.
Water conservation	<i>In situ</i> soil moisture conservation and rainwater harvesting. Use of cotton stalk for organic manure.
Cotton	Motivating cotton growers to adopt IPM and INM practices for reducing the cost of production.
women empowerment	Providing self employment through skill oriented income generating activities
Agriculture	Developing interest among youth for agriculture as a profession.
Horticulture	Value addition in agriculture produces through proper grading, processing, marketing and information technology.
Income generating activities	Self employment among rural youth and skill oriented income generating activities.
Nutrition management	Care and importance of nutrition in children & pregnant women.



### 3. TECHNICAL ACHIEVEMENTS

#### 3.1. A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
3	3	28	28	50	50	50	50

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
31	33	775	1216	-	237	-	23906

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	<b>23.5</b> Groundnut – 7.5 Sesame – 4.0 Cummin – 8.0 Chickpea – 4.0	-	-

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	-	Trichoderma (Savaj) – 2400Kg
-	-	-	Beauveria (Savaj) – 6897 Kg
-	-	-	Azatobactor – 50 Lit.
-	-	-	PSB – 50 Lit.

### 3.1. B. Operational areas details during 2018-19

No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
1	Bt. cotton	Sucking Pest, Para Wilt, Pink Ball Worm	1,12,000 ha	Halvad, Tankara, Wakaner, Morbi block	FLD on pinkball worm management.
					Training on pink ball worm management
2	Groundnut	White Grub Stem Root	42,000 ha	Tankara , Halvad block	OFT on White grub management in groundnut. Training on test and Disease management in groundnut.
3	Cumin	Wilt and Blight	3900 ha	Morbi, Halvad, Maliya	FLD and OFT on Wilt management and also training for IDM in Cumin.

\* Support with problem-cause and interventions diagram

### 3.2. Technology Assessment and Refinement

#### A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Pest Management	-	1	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	1	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>

#### A2. Abstract on the number of technologies refined in respect of crops

--- NIL ---

#### A3. Abstract on the number of technologies assessed in respect of livestock enterprises

--- NIL ---

#### A4. Abstract on the number of technologies refined in respect of livestock enterprises

--- NIL ---

### B. Achievements on technologies Assessed and Refined

#### B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Pest Management	-	White grub management in groundnut	10	10	0.4
	-	-	-	-	-
Integrated Disease Management	-	Wilt management in cumin through bio agent	10	10	0.4
	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>20</b>	<b>0.8</b>

**B.2. Technologies Refined under various Crops** --- NIL ---

**B.3. Technologies assessed under Livestock and other enterprises** --- NIL ---

**B.4. Technologies Refined under Livestock and other enterprises** --- NIL ---

## **C1.Results of Technologies Assessed**

### **Results of On Farm Trial**

<b>Crop/ enterprise</b>	<b>Farming situation</b>	<b>Problem definition</b>	<b>Title of OFT</b>	<b>No. of trials</b>	<b>Technology Assessed</b>	<b>Parameters of assessment</b>	<b>Data on the parameter</b>	<b>Results of assessment</b>	<b>Feedback from the farmer</b>	<b>Any refinement needed</b>	<b>Justification for refinement</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
Ground nut	Nourth Saurashtra Agro- climatic Zone	Heavy infestation of white grub in ground nut	management of white grub in ground nut crop	10	management of white grub in Groundnut	(1) yield (2) percentage of infected plant	T1 T2 percentage of infected plant 6.1% 1.14%  yield 1495 kg/ ha 1644 kg/ ha	9.9 percentage higher yield received over farmer practice where as 6.1 percentage damage plant in farmer practice in compare to only 1.14% in seed treatment	seed treatment with chlorpyriphos is very effective to reduce the damage of white grub infestation	Nil	Nil

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Sowing of groundnut without Seed treatment. (Farmers practice)	-	1495	kg/ ha	Rs. 33260/ ha	1.59
Seed treatment with chlorpyrifos 25 E.C.@ 25 ml/kg seed.(GAU Reco.)	Gujarat Agriculture University	1644	kg/ ha	Rs. 102940/ ha	1.74
Technology option 3	-	-	-	-	-

**C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

- 1 Title of Technology Assessed : Management of white grub in ground nut crop.
- 2 Problem Definition : Heavy infestation of white grub in ground nut.
- 3 Details of technologies selected for assessment : Seed treatment with chlorpyrifos 20 EC.
- 4 Source of technology : Gujarat Agriculture University.
- 5 Production system and thematic area : Integrated pest management.
- 6 Performance of the Technology with performance indicators : -----
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring Techniques : Matrix scoring is 8 out of 10 done by farmer.
- 8 Final recommendation for micro level situation : Sowing of groundnut with the seed treatment of chlorpyrifos 20 E.C. 25 ml/ kg seed to minimise the damage of white Grub.
- 9 Constraints identified and feedback for research : -----
- 10 Process of farmer's participation and their reaction : Seed treatment is the best and cheapest method for management of white grub.



## C1.Results of Technologies Assessed

### Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Cumin	Cotton- cumin Ground nut- cumin	Heavy incidence of wilt disease in cumin	Use of trichodarma for wilt disease management in cumin	10	wilt management through Trichodarma treatment	(1) yield (2) percentage of wilted plant	percentage of wilted/ plant T1 – 11.2% T2 – 5.2% T3 – 3.4% yield T1 – 930 kg/ ha T2 – 1040 kg/ ha T3 – 1100 kg/ha	930 kg/ ha yield obtained in farmer practice where as 1040 and 1100 kg/ ha yield received in technology T2 and T3 respectively  11.2 percent infected plant in farmer practice is much higher than T2 & T3 5.2 ane 3.4 respectively	Trichodarma with compost two application 1 <sup>st</sup> at time of sowing and 2 <sup>nd</sup> 25 DAS sowing is very effective to control the wilt disease	Nil	Nil

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
No use of trichoderma or fungicide at the time of sowing. But they use fungicides viz., carbendazim, hexaconazole, difenconazole, tebuconazole, propiiconazole, , etc after of initiation of diseases. (Farmers practices.)	-	930	kg/ ha	Rs. 82900/ ha	3.18
Application of Trichoderma @ 5 kg /ha with organic manure @1000 kg / ha at the time of sowing.. (Recommended practices.)	Junagadh Agriculture University Junagadh	1040	kg/ ha	Rs. 95400/ ha	3.39
Application of Trichoderma @ 5 kg /ha along with organic manure @1000 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination. (Intervention).	-	1100	kg/ ha	Rs. 101200/ ha	3.42

**C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

- |    |  |   |  |
|----|--|---|--|
| 1  | Title of Technology Assessed   | : | Use of trichoderma for wilt disease management.  |
| 2  | Problem Definition   | : | Heavy incidence of wilt disease in cumin effecting yield loss up to 9 to 20 percent.                           |
| 3  | Details of technologies selected for assessment  | : | Application of trichoderma with compost  |
| 4  | Source of technology   | : | Junagadh Agriculture University, Junagadh  |
| 5  | Production system and thematic area  | : | Intigrated disease management  |
| 6  | Performance of the Technology with performance indicators  | : | -----  |
| 7. | Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring Techniques | : | 7 out of 10 scoring  |
| 8  | Final recommendation for micro level situation   | : | Application of trichoderma 5 kg/ ha with compost @ 1000 kg/ ha at time of sowing and second application is DAS |
| 9  | Constraints identified and feedback for research   | : | Nil  |
| 10 | Process of farmer's participation and their reaction   | : | Trichoderma application gave good result in supressing the wilt disease and increase yield.                    |

- **On Farm Trial (OFT) :-**



### **Management of White Grub in Groundnut**



### **Use of Trichoderma for Wilt Disease Management in Cumin**



### **A Reduce the Malnutrition Problem in Preschool Children (1 to 5 yr)**

## C1. RESULT OF TECHNOLOGY ASSESSMENT

### A reduce the malnutrition problem in preschool children (1 to 5 yr)

**Definition of Malnutrition :** The world Health Organized (WHO) Defines malnutrition as the cellular imbalance between the supply of nutrients and energy and the body's demand .

To ensure growth, maintenance and specific functions.

Title of Technology	Treatment	No. of Trial	Result	
			Percentage of weight up	Remarks
<b>MALNUTRITION IN CHILDREN</b>  <b>1)</b> To Study the effect high calorie and protein diet on the growth of preschool children  <b>2)</b> To reduce the malnutrition in children  <b>3)</b> To reduce the high malnutrition in children	<b>1.</b> Use of mixture of Dalia dal(Rosted Chana Splite) + Jaggery + Groundnut seed , Amla juice , banana ,soybean chips (per child 100 gram & juice 50 ml)	- 8 children (1.5-5 years)  - 6 months Duration  - EveryMonth BodyWeight (WHO- New Body mass index chart, male & female)	15 % up	Only special disease affected
	<b>2.</b> Use of rise , pigeon pea, green grams, chickpea, Pomegranate, banana, potato, tomato (per child 100 gram & fruit 50 gram)		45 % up	Malnutrition affected
	<b>3.</b> Use of wheat flour + Ghee + Jaggery or til, Milk, carrots, rise, pigeon pea, green grams, Potato,tomato and green vegetables or Pomegranate. (per child 100 gram & fruit 50 gram)		63 % up	High Malnutrition affected

## RESULT

- 1) Technology Option1 is not effective of malnutrition child Measurements of Weight so they only disease affected food .
- 2) Technology Option2 is effective malnutrition child but not very effective of High Malnutrition Child Measurements of Weight .
- 3) Technology Option is 3 is very effective of malnutrition & high malnutrition child growth rate .



## D1. Results of Technologies Refined

### Results of On Farm Trial

--- NIL ---

## 3.3. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2018-19 and recommended for large scale adoption in the district

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	Groundnut	Crop Impr.	New Variety	GJG -22 is high yielding variety.	25	780	1100
2	Cotton	Pink ball worm management in cotton	IPM	To minimize the pink ball worm damage use of MDP technology.	03	30	75
3	Cotton	Nutrient management in cotton	INM		45	1200	1600
4	Gram	New variety of gram GG-5	Crop Impr.	Chickpea GG - 5 is high yielding variety and also resistant too	05	10	20
5	Cumin	Wilt management	IPM	Application of Trichoderma reduce the incidence of disease wilt disease in cumin.	30	15	550

B. Details of FLDs implemented during 2018-19 (Information is to be furnished in the following **three tables** for each category i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**)

No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstrations			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Groundnut	Crop Improvement	New Variety	<i>Kharif</i> - 2018	4.0	4.0	-	10	10	-
2	Cotton	Pink ball worm management in cotton	IPM	<i>Kharif</i> - 2018	4.0	4.0	1	9	10	-
3	Cotton	Nutrient management in cotton	INM	<i>Kharif</i> - 2018	4.0	4.0	-	10	10	-
4	Gram	New variety of gram GG-5	Crop Impr.	<i>Kharif</i> - 2018	4.0	4.0	1	9	10	-
5	Cumin	Wilt management	IPM	Rabi - 2018	4.0	4.0	-	10	10	-

#### 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					
Groundnut	<i>Kharif</i>	RF	Medium Black	Low	Low	High	Cotton	25 <sup>th</sup> June	12 <sup>th</sup> Oct.	222 mm	6
Cotton	<i>Kharif</i>	RF	Medium Black	Low	Low	High	Cotton	27 <sup>th</sup> June	15 <sup>th</sup> Dec.	222 mm	6
Chickpea	Rabi	Irrigated	Medium Black	Low	Low	High	Groundnut	5 <sup>th</sup> Nov.	5 <sup>th</sup> March	-	-
Cumin	Rabi	Irrigated	Medium Black	Low	Low	High	Groundnut / Sesame early cotton	20 <sup>th</sup> Nov.	10 <sup>th</sup> March	-	-

\*L – low M – Medium H – High

### Technical Feedback on the demonstrated technologies

No.	Feed Back
1	To enhance the farmers to use recently developed certified varieties of different crops.
2	Proper use of fertilizers, Irrigation, insecticides and fungicide as per recommendation to reduce the production cost.

### Farmers' reactions on specific technologies

No.	Feed Back
1.	White grub problem in groundnut
2.	Pink boll worm in cotton
3.	Research needed for control of insect-pests and diseases in organic farming
4.	Wilt disease in cumin.
5.	Cracking of pomegranate fruit.

## • Frontline Demonstration :-



**Crop Improvement in Groundnut**



**Pink Ball Worm Management in Cotton**



**Nutrient Management in Cotton**



**Wilt Management in Cumin**



**Chickpea variety GG-5**



**FLD on Plastic Mulch Collaboration with RE , Ag. Eng. JND**

**C. Performance of Frontline demonstrations**  
**FLD on oilseed crops**

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmer	Area (ha)	Yield (q/ha)				%	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	CI	New variety	GJG-22	10	4.0	19.40	5.25	16.14	15.00	7.3%	46300	79560	33260	1.72	46300	74640	28340	1.6

**FLD on Other crops**

Category & Crop	Thematic Area	Name of the techno -logy	No. of Farmer	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	Gross Cost	Gross Return	Net Return	BCR
					High	Low	Aver age										
Cotton	Nutrient management	INM	10	4.0	25.2	2.3	11.5	10.4	10.2	48120	58446	10326	1.21	46900	52989	6089	1.12
Cotton	Plant protection	IPM	10	4.0	21.0	10.5	15.1	14.4	4.5	45400	75400	30000	1.66	44400	72150	27750	1.6
Cumin	Pest Management	GC-4	10	4.0	12.4	6.2	11.1	10.0	11.3	41750	144690	102940	3.47	39400	130000	90600	3.3

**Note :** \* (1) No of ball/plant  
\* (2) No of damage ball/plant  
\* (3) Percentage of infested plant



<b>FLD on Livestock</b>	<b>NIL</b>
<b>FLD on Fisheries</b>	<b>NIL</b>
<b>FLD on Other enterprises</b>	<b>NIL</b>
<b>FLD on Women Empowerment</b>	<b>NIL</b>
<b>FLD on Farm Implements and Machinery</b>	<b>NIL</b>
<b>FLD on Other Enterprise: Kitchen Gardening</b>	<b>NIL</b>
<b>FLD on Demonstration details on crop hybrids</b>	<b>NIL</b>

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

### 3.4 Farmers' Training including sponsored training programmes (On campus)

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		M	F	T	M	F	T	
(A) Farmers & Farm Women								
I Crop Production								
Integrated Crop Management	1	28	0	28	02	0	02	30
II Horticulture								
a) Vegetable Crops								
Kitchen Gardening	1	0	23	23	0	04	04	27
III Soil Health and Fertility Management	-	-	-	-	-	-	-	-
IV Livestock Production and Management	-	-	-	-	-	-	-	-
V Home Science/Women empowerment								
Value addition	1	00	24	24	00	02	02	26
Income generation activities for empowerment of rural Women	2	00	50	50	00	06	06	56
Women and child care	2	00	77	77	00	08	08	85
VI Agril. Engineering								
Secondary Agriculture	1	23	00	23	03	00	03	26
VII Plant Protection								
Integrated Pest Management	1	30	00	30	03	00	03	33
Integrated Disease Management	1	23	00	23	02	00	02	25
Bio-control of pests and diseases	1	22	00	22	04	00	04	26
Production of bio-control agent & bio pesticides	1	27	00	27	02	00	02	29
VIII Fisheries	-	-	-	-	-	-	-	-
IX Production of Inputs at site	-	-	-	-	-	-	-	-
X Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-
XI Agro-forestry	-	-	-	-	-	-	-	-
TOTAL	12	153	174	327	16	20	36	363

- **On Campus Training :-**



**Income generating Activity  
Tankara Date 05/07/2018**



**Training on IPM in Cotton –  
Sajanpar Date :- 10/08/2018**



**Malnutrition Problems & Solution - Sajanpar  
Date :- 07/06/2018**



**Important and Use of Bio-fertilizer  
Jetpar Date :- 02/10/2017**



**Iron Deficiency and Solution  
Date :-30/01/2019**



**Integrated Insect Pest & Disease  
Management in Rabi Crop  
Amreli Date :- 23/11/2018**

## Farmers' Training including sponsored training programmes (Off campus)

Thematic Area	No. of Courses	No. of Participants						Grand Total
		Others			SC/ST			
		M	F	T	M	F	T	
(A) Farmers & Farm Women								
I Crop Production								
Integrated Nutrition management	1	75	0	75	20	0	20	95
Soil Fertility management	1	22	0	22	03	0	03	25
Soil & Water testing	1	23	0	23	02	0	02	25
II Horticulture								
a) Vegetable Crops								
Cultivation of Vegetable	1	0	05	05	0	20	20	25
III Soil Health and Fertility Management	-	-	-	-	-	-	-	-
IV Livestock Production and Management	-	-	-	-	-	-	-	-
V Home Science/Women empowerment								
Design and development of low/minimum cost diet	1	0	27	27	0	04	04	31
Value addition	2	00	41	41	00	27	27	68
Income generation activities for empowerment of rural Women	5	00	101	101	00	50	50	151
Rural Crafts	1	00	32	32	00	00	00	32
VI Agril. Engineering	-	-	-	-	-	-	-	-
VII Plant Protection								
Integrated Pest Management	3	72	26	98	07	03	10	108
Safe use of Pesticide	2	47	00	47	05	00	05	52
VIII Fisheries	-	-	-	-	-	-	-	-
IX Production of Inputs at site	-	-	-	-	-	-	-	-
X Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-
XI Agro-forestry	-	-	-	-	-	-	-	-
TOTAL	18	239	232	471	37	104	141	612



- **Off Campus Training :-**



**Making a Kaju Karela Pickles  
at Bagthala , Date :- 08/07/2018**



**Management of Pink Boll Worm in Cotton  
Sajanpar Date :- 15/06/2018**



**Meal Plans for Women Performing Hard  
Physical Work, Date :12/07/2018**



**Pest & Disease management in *rabi* crops  
Date:02/10/2018**



**Income Generating Activity  
Gorkhijadia Date :- 26/10/2018**



**Integrated Pest Management at  
Gorkhijadia Date :- 18/07/2018**

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

Thematic Area	No. of Courses	No. of Participants						Grand Total
		Others			SC/ST			
		M	F	T	M	F	T	
(A) Farmers & Farm Women								
I Crop Production								
Integrated Nutrition management	1	75	00	75	20	00	20	95
Soil Fertility management	1	22	00	22	03	00	03	25
Integrated Crop Management	1	28	00	28	02	00	02	30
Soil & Water testing	1	23	00	23	02	00	02	25
II Horticulture								
a) Vegetable Crops								
Kitchen Gardening	1	00	23	23	00	04	04	27
Cultivation of Vegetable	1	00	05	05	00	20	20	25
III Soil Health and Fertility Management	-	-	-	-	-	-	-	-
IV Livestock Production and Management	-	-	-	-	-	-	-	-
V Home Science/Women empowerment								
Design and development of low/minimum cost diet	1	0	27	27	0	04	04	31
Value addition	3	00	65	65	00	29	29	94
Income generation activities for empowerment of rural Women	7	00	151	151	00	56	56	207
Rural Crafts	1	00	32	32	00	00	00	32
Women and child care	2	00	77	77	00	08	08	85
VI Agril. Engineering								
Secondary Agriculture	1	23	00	23	03	00	03	26
VII Plant Protection								
Integrated Pest Management	4	102	26	128	10	03	13	141
Safe use of Pesticide	2	47	00	47	05	00	05	52
Integrated Disease Management	1	23	00	23	02	00	02	25
Bio-control of pests and diseases	1	22	00	22	04	00	04	26
Production of bio-control agent & bio pesticides	1	27	00	27	02	00	02	29
VIII Fisheries								
IX Production of Inputs at site	-	-	-	-	-	-	-	-
X Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-
XI Agro-forestry	-	-	-	-	-	-	-	-
TOTAL	30	392	406	798	53	124	177	975

**Training for Rural Youths including sponsored Training Pogrammes (On campus)**

Area of training	No. of Courses	No. of Participants						
		General			SC/ST			Grand Total
		M	F	T	M	F	T	
Any other (pl.specify)	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-

**Training for Rural Youths including sponsored Training Programmes (Off campus)**

Area of training	No. of Courses	No. of Participants						
		General			SC/ST			Grand Total
		M	F	T	M	F	T	
Any other (pl.specify)	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-

**Training for Rural Youths including sponsored Training Programmes (On + Off campus)**

Area of training	No. of Courses	No. of Participants						
		General			SC/ST			Grand Total
		M	F	T	M	F	T	
Any other (pl.specify)	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-



**Training Programmes for Extension Personnel & Input Dealer including sponsored Training (On campus)**

Area of training	No. of Courses	No. of Participants						
		General			SC/ST			Grand Total
		M	F	T	M	F	T	
Any other (pl.specify)								
Irrigation management in <i>Rabi</i> crop	1	143	00	143	22	00	22	165
TOTAL	1	143	00	143	22	00	22	165

**Training Programmes for Extension Personnel & Input Dealer including sponsored Training (Off campus)**

Area of training	No. of Courses	No. of Participants						Grand Total
		General			SC/ST			
		M	F	T	M	F	T	
Any other (pl.specify)								
Organic Farming	1	35	00	35	06	00	06	41
Input Dealer Training	1	30	00	30	05	00	05	35
Total	2	65	00	65	11	00	11	76

**Training Programmes for Extension Personnel & Input Dealer including sponsored Training – (On + Off campus)**

Area of training	No. of Courses	No. of Participants						
		General			SC/ST			Grand Total
		M	F	T	M	F	T	
Irrigation management in <i>Rabi</i> crop	1	143	00	143	22	00	22	165
Organic Farming	1	35	00	35	06	00	06	41
Input Dealer Training	1	30	00	30	05	00	05	35
<b>Total</b>	<b>3</b>	<b>208</b>	<b>00</b>	<b>208</b>	<b>33</b>	<b>00</b>	<b>33</b>	<b>241</b>

- **Extension Personnel Training :-**



**Extension Functionaries Training at  
KVK- Morbi Date :- 13/07/2018**



**Scope and Importance of Organic Farming  
at Matel Date :- 20/11/2018**

- **Collaborative Training – ATMA**



**Income Generating Activity Training at  
Harbattiyali Dt. - 18/12/2018**



**Skill Development Training at  
Tol – Tankara, Dt - 04/11/2018**

### Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	Total
Crop production and management	-	-	-	-	-	-	-	-	-	-
Production and value addition	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
Farm machinery	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	-	-	-	-	-	-	-	-	-	-
Home Science	-	-	-	-	-	-	-	-	-	-
Agricultural Extension	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL	-	-	-	-	-	-	-	-	-	-

### 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		
		M	F	T	M	F	T	M	F	Total
Crop production and management	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	-	-	-	-	-	-	-	-	-	-
Income generation activities	-	-	-	-	-	-	-	-	-	-
Agricultural Extension	-	-	-	-	-	-	-	-	-	-
Grand Total	-	-	-	-	-	-	-	-	-	-

### 3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	7	49	03	52
Diagnostic visits	0	0	0	0
Field Day	4	101	04	105
Group discussions	33	741	22	763
KisanGhoshthi	21	238	19	257
Film Show	21	879	22	901
Self -help groups	0	0	0	0
Kisan Mela	4	3082	62	3144
Exhibition	5	3257	69	3326
Scientists' visit to farmers field	1	6	0	06
Plant/animal health camps	0	0	0	0
Farm Science Club	0	0	0	0
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	0	0	0	0
Method Demonstrations	0	0	0	0
Celebration of important days	2	75	10	85
Special day celebration	3	825	14	839
Exposure visits	0	0	0	0
Others (pl.specify)	44	655	26	681
<b>Total</b>	<b>145</b>	<b>9908</b>	<b>251</b>	<b>10159</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature Publish	0
News paper coverage	9
Popular articles	1
Radio Talks	1
TV Talks	3
Animal health camps (Number of animals treated)	0
Others (pl. specify)	-
<b>Total</b>	<b>14</b>



## • EXTENSION ACTIVITIES



**Lecture Delivered- Mahila krishi diwas at Tankara**  
Date :- 06/08/2018



**Lecture Delivered- Mahila krishi diwas At Morbi** Date :- 06/08/2018



**Women Empowerment Week Célébrations At Morbi** Date :- 03/08/2018



**Lecture Delivered-Mahila Kanuni jagruti at D.J.Patel Kanya vidhyalay Morbi** Date :- 13/08/2018



**Field Day on Cotton at Jepur**  
Date :- 15/09/2018



**Participate on Krishi Mela at Wankaner**  
Date :- 23/02/2019



- **Event**



**Kissan kalyan mahotsav at APMC Morbi**  
Date :- 02/05/2018



**Cleaning Campaign – KVK Morbi**  
(Every Month)



**Krishi Technology Week Celebration**  
Date :- 24/09/2018 to 29/09/2018



**World Soil Day Celebration**  
Date :- 05/12/2018



**Kisan Day Celebration**  
Date :- 23/12/2018



**TV Programme - Hon'ble Prime Minister**  
**Interaction Programme**  
Date :- 20/06/2018 & 12/07/2018

### 3.6. 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
Oilseeds	Groundnut	GJG - 22	-	7.5	42500/-	19
	Sesame	GT – 2 (Breeder)	-	4.0	100000/-	-
Pulses	Chickpea	GG - 5 (Breeder)	-	8.0	99200/-	Pending
Spices	Cumin	GC - 4	-	4.0	80000/-	Pending
Total	-	-	-	23.5	321700/-	-

**Production of Planting Materials by the KVK :- Nil**

**Production of Bio-Products :- Nil**

**Production of livestock materials :- Nil**

### 4. Literature Developed/Published (with full title, author & reference)

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

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	-	-	-
Technical reports	-	-	-
News letters	Kishan Kalyan Mahotsav <b>Sanj Samachar</b> Dt.05/05/2018	Dr. D. S. Hirpara & Dr. Hemangi D. Mehta	50000 + Online
	World Soil Day Akila NewsPepar & <b>Sanj Samachar</b> Dt.06/12/2018	Dr. D. S. Hirpara, D. A. Saradava & Dr. Hemangi D. Mehta	40000 + Online
	Kishan Divas <b>Sanj Samachar</b>	D.A.Saradava & Dr. Hemangi D. Mehta	50000 + Online
	Kishan Samman Nidhi Yojna <b>Divya Bhaskar</b> Dt.25/02/2019	D.A.Saradava & Dr. Hemangi D. Mehta	60000 + Online



	International Women Empowerment Day <b>Sanj Samachar , Sandesh &amp; Morbi Updates Dt.10/03/2019</b>	Dr. Hemangi D. Mehta	50000 + Online
			10000 + Online
			Online
Technical bulletins	-	-	-
Popular articles	Pregnant women needs Nutritional food. <b>Krishi Jivan April - 2018</b>	Dr. Hemangi D. Mehta	55084
Extension literature	-	-	-
Others (Pl. specify)	-	-	-
<b>TOTAL</b>	<b>06</b>	<b>03</b>	<b>310000 + Online</b>

### C. Details of Electronic Media Produced

No.	Type of media (CD / VCD / DVD/ Audio-Cassette) and Video Clippings developed	Title of the programme	Number
1	-	-	-

## D. Success Story

### Farmers doubling income through crop diversification – through Palma Rosa Grass

1. **Name** :- Prabhubhai Ghodasara
2. **Address** :- Sajanpar , Ta. :- Tankara ,  
Dist. :- Morbi
3. **Date of Birth** :- 27-10- 1955
4. **Education** :- 5<sup>th</sup> Standard Pass
5. **Source of Income** :- Farming Palma Rosa



#### Brief information about an individual

Prabhubhai Ghodasara is a innovative farmer who belongs to Sajanpar village of Morbi district (Gujarat). Groundnut and Cotton are main crops in kharif while Wheat is a main crop in rabi under irrigation conditions, on the advise of agricultural scientists(KVK Morbi-Rajkot-1) Prabhubhai started Palma rosa grass cultivation with drip irrigation in 10 Ha area. to overcome the market availability for sale and transportation of grasses ,he also installed an extraction plant on his farm for extraction of oil from Palma rosa grass.

#### Economics of Palma Rosa Cultivation

Cultivation Cost ( Inputs , Labour , seed , extraction & other expenses )	:	Rs. 1,80,875/- Per ha.
Income of first year 120 litres oil/Ha (3 cuttings ) price Rs. 2700/litre	:	Rs. 3,24,000/- Per ha.
Income of second year 135 litres oil/Ha (3 cuttings) price Rs. 2650/litre	:	Rs. 3,57,750/- Per ha.
Average annual income	:	Rs. 3,40,875/- Per ha.
Net income per year/Ha	:	Rs. 1,60,000/- Per ha.

Low cost of cultivation and high revenue as compared to other crops. hence this will be helpful to farmers to double their income.

#### Spread of innovation

By seeing Palma rosa farming more than 30 ha new cultivation nearby the village by 4 farmers.

#### Recognition

Prabhubhai is known as innovative farmer in this area.



**E. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year ---- Nil ----**

**F. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)**

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
-	-	-	-

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

**A. Practicing Farmers**

**B. Rural Youth**

**C. In-service personnel**

## 5.2. Indicate the methodology for identifying OFTs/FLDs

- For OFT:**
- i) Field level observations
  - ii) Farmer group discussions
- For FLD:**
- i) New variety/technology
  - i) Existing cropping system
  - ii) Problem at field level

## 5.3. Field activities

- i. Name of villages identified/adopted with block name (from which year) – 2017

Block	Villages
<b>Morbi</b>	Gorkhijadia
	Jepur,
	Bharatnagar,
	Laxminagar,
<b>Tankara</b>	Sajjanpar
	Hadmatiya
	Nasitpar
	Harbattiyali
	Nasitpar
<b>Halwad</b>	Devipur
	Devalia,

- ii. No. of farm families selected per village :
- iii. No. of survey/PRA conducted :
- iv. No. of technologies taken to the adopted villages
- 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

## 5.4 . No. and Name of villages adopted for Doubling Farmers Income. Indicate whether benchmark survey of the villages are done or not.

## 6. LINKAGES

### A. Functional linkage with different organizations

Name of organization	Nature of linkage
Anandi sanstha	Training on organic farming and certification

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

### B. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
-	-	-	-

### C. Details of linkage with ATMA

a) Is ATMA implemented in your district **Yes**

If yes, role of KVK in preparation of SREP of the district?

Yes, we have prepared the SREP of Morbi district.

### Coordination activities between KVK and ATMA

No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
1	Meetings	2	2	-	-
2	Research projects	-	-	-	-
3	Training programmes	2	2	-	-
4	Demonstrations	-	-	-	-
5	Extension Programmes			-	-
	KisanMela	1	1	-	-
6	Publications	-	-	-	-
7	Other Activities (Pl.specify)	-	-	-	-

**D. Give details of programmes implemented under National Horticultural Mission**

No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any
-	-	-	-	-	-

**E. Nature of linkage with National Fisheries Development Board**

No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
-	-	-	-	-	-

**F. Details of linkage with RKVY**

No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
-	-	-	-	-	-

**7. Convergence with other agencies and departments : Nil**

**8. Innovator Farmer's Meet**

No.	Particulars	Details
1	Have you conducted Farm Innovators meet in your district?	Yes/ No
2	Brief report in this regard	

**9. Farmers Field School (FFS)**

No	Thematic area	Title of the FFS	Budget proposed in Rs.	Brief report
-	-	-	-	-

### 10.1. Technical Feedback of the farmers about the technologies demonstrated and assessed:

- 1 To enhance the farmers to use recently developed certified varieties of different crops.
- 2 Proper use of fertilizers, Irrigation, insecticides and fungicide as per recommendation to reduce the production cost.

### 10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:

1. Reduction in white grub problem in groundnut due to adoption of technology
2. Reduction in pink boll worm in cotton due to adoption of technology
3. Cumin variety GC-4 is high yielding but gradually loosing wilt resistant character
4. Heavy infestation of *Thrips* in crops like onion, cotton
5. Research needed for control of insect-pests and diseases in organic farming

## 11. Technology Week celebration during 2018-19 Yes/No, If Yes

Period of observing Technology Week : From 24/09/2018 to 29/09/2018

Total number of farmers visited : 175

Total number of agencies involved : 03

Number of demonstrations visited by the farmers within KVK campus : ---

#### Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/ livestock technology
Gosthies	3	65	Crop / Human Nutrition / Value Addition/ Income Generating Activity
Lectures organized	6	35	Crop / Human Nutrition / Value Addition/ Income Generating Activity
Exhibition	1	175	Crop / Human Nutrition
Film show	2	75	Crop / Human Nutrition / Value Addition/ Income Generating Activity
Fair	-	-	-
Farm Visit	-	-	-
Diagnostic Practicals	-	-	-



Types of Activities	No. of Activities	Number of Farmers	Related crop/ livestock technology
Supply of Literature (No.)	7	175	Crop / Nutrition / Use of Biofertilizer
Supply of Seed (q)	-	-	-
Supply of Planting materials (No.)	-	-	-
Bio Product supply (Kg)	-	-	-
Bio Fertilizers (q)	-	-	-
Supply of fingerlings	-	-	-
Supply of Livestock specimen (No.)	-	-	-
<b>Total number of farmers visited the technology week</b>	<b>19</b>	<b>175</b>	<b>Crop / Human Nutrition / Value Addition/ Income Generating Activity</b>

## 12. Interventions on drought mitigation (if the KVK included in this special programme)

### A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries
-	-	-	-
-	-	-	-

### B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	-	-
Pulses	-	-
Cereals	-	-
<b>Total</b>	<b>-</b>	<b>-</b>

### C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No.of participants
	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>

**D. Animal health camps organized**

State	Number of camps	No.of animals	No.of farmers
	-	-	-
<b>Total</b>	-	-	-

**E. Seed distribution in drought hit states**

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
	-	-	-	-
<b>Total</b>	-	-	-	-

**F. Large scale adoption of resource conservation technologies**

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
	-	-	-
<b>Total</b>	-	-	-

**G. Awareness campaign**

State	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
	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-

**13. IMPACT****A. Impact of KVK activities (Not to be restricted for reporting period)**

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
-	-	-	-	-

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

**B. Cases of large scale adoption**

(Please furnish detailed information for each case)

**C. Details of impact analysis of KVK activities carried out during the reporting period**

## 14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2018	-	-	-
May	1	15	5
June	-	-	-
July	-	-	-
August	1	25	12
September	-	-	-
October	-	-	-
November	1	27	18
December	1	29	22
January 2019	-	-	-
February	1	30	24
March	-	-	-

  

Name of KVK	Message Type	Type of Messages						
		Crop	Live-stock	Weather	Marketing	Awareness	Other enterprise	Total
Morbi	Text only	05	-	-	-	-	-	05
	Voice only	1090	92	65	586	690	288	2811
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	<b>05</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>05</b>
	<b>Total farmers Benefitted</b>	<b>1095</b>	<b>92</b>	<b>65</b>	<b>586</b>	<b>690</b>	<b>288</b>	<b>2816</b>

## 15. PERFORMANCE OF INFRASTRUCTURE IN KVK

### A. Performance of demonstration units (other than instructional farm)

No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
-	-	-	-	-	-	-	-	-	-

**B. Performance of instructional farm (Crops) including seed production**

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
-	-	-	-	-	-	-	-	-	-

**C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.)**

No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
-	-	-	-	-	-

**D. Performance of instructional farm (livestock and fisheries production)**

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

**E. Utilization of hostel facilities :-**

Under Construction

**F. Database management**

No	Database target	Database created
1	36 farmers per village of 6 villages from Morbi district	36 farmers from 6 villages

**G. Details on Rain Water Harvesting Structure and micro-irrigation system**

---NIL---

## 16. FINANCIAL PERFORMANCE

### A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	SBI	Morbi	60071	Revolving Fund A/C,KVK,JAU, Morbi	36713882996	363002022	SBIN0060071
With KVK	SBI	Morbi	60071	Senior Scientist & Head , KVK,JAU, Morbi	36713882907	363002022	SBIN0060071

### B. Utilization of KVK funds during the year 2018-19 (Rs. in Lac)

No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	37,01,439/-	37,01,439/-	24,76,874/-
2	<b>Traveling allowances</b>	71,217/-	71,217/-	33,491/-
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3,66,936/-	3,66,936/-	4,89,602/-
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	2,00,000/-	2,00,000/-	3,77,501.5
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
<b>TOTAL (A)</b>		<b>43,39,592/-</b>	<b>43,39,592/-</b>	<b>33,77,468.5</b>

<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>	1,24,50,000/-	1,24,50,000/-	46,09,868/-
2	<b>Equipments including SWTL &amp; Furniture</b>	-	-	-
3	<b>Vehicle</b> (Four wheeler / <del>Two wheeler</del> , please specify)	8,00,000/-	8,00,000/-	-
4	<b>Library</b> (Purchase of assets like books & journals)	-	-	-
<b>TOTAL (B)</b>		<b>1,32,50,000/-</b>	<b>1,32,50,000/-</b>	<b>46,09,868/-</b>
<b>C. REVOLVING FUND</b>		-	-	-
<b>GRAND TOTAL (A+B+C)</b>		<b>1,75,89,592/-</b>	<b>1,75,89,592/-</b>	<b>79,87,336.5</b>

### **C. Status of revolving fund (Rs. in Lac) for the three years**

<b>Year</b>	<b>Opening balance as on 1<sup>st</sup> April</b>	<b>Income during the year</b>	<b>Expenditure during the year</b>	<b>Net balance in hand as on 1<sup>st</sup> April of each year</b>
April 2016 to March 2017	-	3,01,000/-	4300/-	2,96,700/-
April 2017 to March 2018	2,96,700/-	21,80,514/-	19,98,445/-	4,78,769/-
April 2018 to March 2019	4,78,769/-	8,79,198/-	9,07,466/-	4,50,501/-

### **17. Details of HRD activities attended by KVK staff during year**

<b>Name of the staff</b>	<b>Designation</b>	<b>Title of the training programme</b>	<b>Institute where attended</b>	<b>Dates</b>
Dr. Hemangi D. Mehta	Subject Matter Specialist, (Home Science) Senior Scientist & Head, Krishi Vigyan Kendra, J.A.U. , Morbi	National Seminar on Extension Strategies for Doubling The Farmers Income for Livelihood Security	Anand Agricultural University, Anand	26/04/2018 & 27/04/2018
D.A.Saradava	Subject Matter Specialist, (Plant Protection) Senior Scientist & Head, Krishi Vigyan Kendra, J.A.U. , Morbi	Model Training Course “Role of Biopesticides & Biofertilizers in sustainable Agriculture”	Department of Plant Pathology , Junagadh Agricultural University , Junagadh.	06/08/2018 to 13/08/2018
Dr. Hemangi D. Mehta	Subject Matter Specialist, (Home Science) Senior Scientist & Head, Krishi Vigyan Kendra , J.A.U. , Morbi	Refresher Course “Women Empowerment – The Winds of Change”	UGC : HUMAN RESOURCE DEVELOPMENT CENTER , Saurashtra University , Rajkot.	31/12/2018 to 20/01/2019



**18. List the other collaborative research/ extension projects and also write brief key achievements of the projects.**

**---Nil---**

**19. Please include any other important and relevant information which has not been reflected above (write in detail).**

- As the KVK, Morbi sanctioned during year 2017 and land acquired for the KVK is government waste land having very undulating topography. So, at initial stage requires much attention on farm development work particularly clearing of site by removing unwanted vegetation, wire fencing, land leveling etc., where as in infrastructure road and building, electric supply, water supply for domestic use as well as for irrigation also prime important to start basic activities.
- Keeping in view above mentioned aspect, we have started temporary office at Marketting Yard in Morbi city and started extension activities and other aspects of mendatory works by KVK. We have popularized bio- control methods and arrange for timely supply of our Savaj brand Breauveria and Tricoderma to farmers of Morbi district.
- On farm activities of clearing the site as well as wire fencing almost completed. Office and hostel building constructon works are in progress. Land leveling and infrastructure facilities like road works are also in progress.

## APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

### 1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	28	773	140	913
Rural youths	-	-	-	-
Extension functionaries	02	65	11	76
Sponsored Training	03	168	59	227
Vocational Training	-	-	-	-
<b>Total</b>	<b>33</b>	<b>1006</b>	<b>210</b>	<b>1216</b>

### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	10	4.0	-
Pulses	10	4.0	-
Cereals	-	-	-
Vegetables	-	-	-
Other crops	30	12.0	-
Hybrid crops	-	-	-
<b>Total</b>	<b>50</b>	<b>20.0</b>	-
Livestock & Fisheries	-	-	-
Other enterprises	-	-	-
<b>Total</b>	-	-	-
<b>Grand Total</b>	<b>50</b>	<b>20.0</b>	-

### 3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	2	20	20
Livestock	-	-	-
Various enterprises	-	-	-
<b>Other (Malnutrition)</b>	1	08	08
<b>Total</b>	<b>3</b>	<b>28</b>	<b>28</b>

#### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	193	23225
Other extension activities	44	681
<b>Total</b>	<b>237</b>	<b>23906</b>

#### 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Morbi	Text only	05	-	-	-	-	-	<b>05</b>
	Voice only	1090	92	65	586	690	288	<b>2811</b>
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	<b>05</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>05</b>
	<b>Total farmers Benefitted</b>	<b>1095</b>	<b>92</b>	<b>65</b>	<b>586</b>	<b>690</b>	<b>288</b>	<b>2816</b>

#### 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	23.5 qut.	3,21,700/-
Planting material (No.)	-	-
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

#### 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	-	-
Water	-	-
Plant	-	-
<b>Total</b>	<b>-</b>	<b>-</b>

## 8. HRD and Publications

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