

**ICAR-ATARI, Pune**  
**ANNUAL ACTION PLAN OF KVK SURENDRANAGAR DURING 2021**  
**(1<sup>st</sup> January to 31<sup>st</sup> December, 2021)**

**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
	Office	FAX		
Krishi Vigyan Kendra, Junagadh Agricultural University Nana-Kandhasar-363 520 Dist: Surendranagar	(02751) 294120	02751 280121	surendranagar.kvk@gmail.com	Nil

**1.2. Name and address of host organization with phone, fax and e-mail (Not of KVK)**

Address with PIN code	Telephone		E mail	Website address
	Office	FAX		
Junagadh Agricultural University, Motibagh Junagadh – 362 001	285-2672080-90	0285-2672653	dee@jau.in	www.jau.in

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

Name	Telephone / Contact		
	Office	Mobile	Email
Mr. M.F. Bhoraniya	02751-294120	9428297 863	surendranagar.kvk@gmail.com

**1.4. Year of sanction: October, 2005**

**Type of host organization : State Agricultural University**

**1.5. Staff Position (as on 31<sup>st</sup>December, 2020)**

If Permanent, please indicate							If Temporary, pl. indicate the consolidated amount paid (Rs. /month)
Sl. No	Sanctioned post	Name of the incumbent	Discipline	Current Pay Band	Current Grade Pay	Date of joining	
1.	Senior Scientist and Head	-	-	-	-	-	-
2.	Subject Matter Specialist	Mr. M. F. Bhoraniya	Plant Protection	57700-182400 (UL-10)	-	18-09-2012	-
3.	Subject Matter Specialist	Dr. B. C. Bochalya	Extension Education	57700-182400 (UL-10)	-	23-08-2006	-
4.	Subject Matter Specialist	Dr. R. P. Kalma	Veterinary Science	57700-182400 (UL-10)	-	07-12-2016	-
5.	Subject Matter Specialist	Mr. D. A. Patel	Horticulture	57700-182400 (UL-10)	-	20-01-2017	-
6.	Subject Matter Specialist	-	Agronomy	-	-	-	-
7.	Subject Matter Specialist	-	Home Science	-	-	-	-
8.	Programme Assistant	Mr.A.K.vala	B. Sc. (Agri)	39900-126600(L-7)	-	10-08-2018	-
9.	Computer Programmer	Mr. P. T. Patel	Computer Science	39900-126600(L-7)	-	30-12-2008	-
10.	Farm Manager	Mr. M. N. Patel	B. Sc. (Agri)	39900-126600(L-7)	-	27-07-2018	-
11.	Accountant/Superintendent	Mr. R. P. Vagadiya	O.S. cum Accountant	39900-126600(L-7)	-	01-12-2011	-
12.	Stenographer	Mr. S. H. Shukla	Junior Steno	25500-81100(L-4)	-	19-11-2013	-
13.	Driver 1	-	-	-	-	-	-
14.	Driver 2	-	-	-	-	-	-
15.	Supporting staff 1	Mr. A. M. Dhadvi	Peon	14800-47100(L-IS-1)	-	01-10-2015	-
16.	Supporting staff 2	-	-	-	-	-	-

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

S. No.	Item	Area (ha)
1	Under Buildings	03.56
2.	Under Demonstration Units	00.34
3.	Under Crops	17.56
4.	Horticulture	02.96
5.	Pond	00.23
6.	Under Road	01.70
<b>Total</b>		<b>26.35</b>

**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	23/7/09	595	30,20,600	-	-	-
2.	Farmers Hostel			296	20,74,700	-	-	-
3.	Staff Quarters (6)			--	30,55,000	-	-	-
4.	Demonstration Units (2)			78	6,16,000	-	-	-
5	Fencing	RKVY	1/4/10	77	3,00,000	-	-	-
6	Rain Water harvesting system			191	13,94,500	-	-	-
7	Threshing floor			198	15,72,000	-	-	-
8	Farm godown			71	5,00,000	-	-	-
9	ICT lab	-	-	-	-	-	-	-
10	Other	-	-	-	-	-	-	-

**B. Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Bolero)	2006-07	4,96,000/-	374000	Working
Splender Bike	2010-11	42,980/-	53000	Working
Mahindra Scorpio	2019-20	10,44,743/-	7766	Working

### C. Equipments & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer	2006-07	49,968	Working Cond.
Copier Machine	2006-07	49816	Working Cond.
Automatic Seed Drill	2006-07	31,500	Working Cond.
Tractor mounted Sprayer (200ltr)	2007-08	43,000	Working Cond.
Shredder	2007-08	43,000	Working Cond.
Dibbler	2007-08	900	Working Cond.
Cotton stock puller	2007-08	1200	Working Cond.
Digital copier with network	2008-09	115300	Working Cond.
Rain gun	2007-08	19800	Working Cond.
LCD projector	2008-09	89985	Working Cond.
Rotavator	2008-09	96,000	Working Cond.
Laptop	2008-09	47,500	Working Cond.
Harrow cum cultivator (2)	2008-09	75,000	Working Cond.
Groundnut Decorticator	2008-09	96,530	Working Cond.
Mobile seed processing unit	2008-09	1685000	Working Cond.
Thresher	2008-09	1,14,000	Working Cond.
Zero till drill	2008-09	66,700	Working Cond.
Air assisted blower type sprayer	2008-09	98,750	Working Cond.
Digital Camera	2008-09	23,600	Not working
Plasma TV	2008-09	73,750	Working Cond.
Power Tiller	2010-11	1,15,000	Working Cond.
Mini Tractor (Mahindra)	2011-12	1,98,000	Working Cond.
Trinocular Microscope	2012-13	2,90,000	Working Cond.
B.O.D. Incubator	2012-13	1,14,000	Working Cond.
Laminar Air Flow	2012-13	1,99,000	Working Cond.
Batch top centrifuge	2012-13	46,524	Working Cond.
Electronic Balance	2012-13	19,905	Working Cond.
TDS meter	2012-13	6,333	Working Cond.
Temp & humidity indicator & controller	2012-13	33,071	Working Cond.
Digital Hot Air Oven	2012-13	46,333	Working Cond.
Deep Fridge	2012-13	47,571	Working Cond.
Computer (2 No)	2012-13	72,618	Working Cond.
Vertical Autoclave	2012-13	27,900	Working Cond.
Computer (3 No)	2016-17	1,02,345	Working Cond.
Kyan (integrated community computer)	2016-17	1,19,777	Working Cond.
Copier Machine	2016-17	1,44,391	Working Cond.
RO System	2016-17	79,900	Working Cond.
20 HP/10 STG Pump Set Falcon	2017-18	71,750	Working Cond.
HP 280 G4 MT-Core i5Computer-2	2018-19	98888	Working Cond.
20 HP 13 Stage Sub-Marshible Pumo	2018-19	86436	Working Cond.
Nikon D5600 Digital Camera	2018-19	49977	Working Cond.
Microtek Online UPS-2	2018-19	25600	Working Cond.

Water Motor Pump Mono	2018-19	8870	Working Cond.
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### 1.8. Details of SAC meetings to be conducted in the year

Sl.No.	Particulars	Proposed date of meeting
1	Scientific Advisory Committee – Meeting 1	February 2022

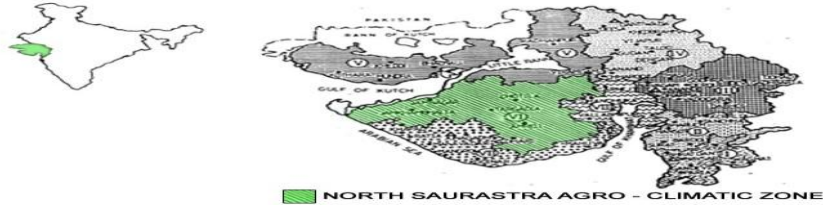
## 2. DETAILS OF JURISDICTION AREA UNDER KVK (No. of talukas)

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

S. No	Farming system/enterprise
1	<p>The district Surendranagar mainly falls in north Saurashtra agro-climatic zone. The district located in India at 22.30° to 23.45° North latitude and 71.00° to 72.15° East longitude. Surendranagar district is bounded in north by Gulf of Kutch and Mehasana district, in the south by Bhavnagar and part of Ahmedabad district, on the east by part of Ahmedabad and west by Rajkot district. The average annual rainfall is 585 mm. The average temperature of the district ranges with 41°C maximum to 11°C minimum. The soil is mostly medium black, shallow to moderately deep and calcareous in nature, therefore cotton is the major crop of the district. Some patches of saline soil found in Dasada and Lakhtar talukas, calcareous sandy soil found in some part of Chotila, Sayla, Thangadh &amp; Dhrangdhra taluka and loamy soil is found in some part of Dhrangdhra taluka. The pH of the soil is alkaline and underground water is non saline in nature.</p> <p>The district covers 10.45 lakh ha geographical area out of which 6.49 lakh ha under cultivation, of which only 0.62 lakh ha is irrigated. Major area comes under rainfed farming. The main sources of irrigation are wells, tube wells, ponds and canals. The major crops of this region are cotton, sesame &amp; pearl millet and others are sorghum, wheat, chick pea, groundnut, mustard, cumin, green gram, black gram, onion, garlic and vegetables. The fruit orchard area is very less.</p>

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

### a. Soil type

Agro-climatic Zone	Characteristics																				
<p><b>PROFILE OF THE NORTH SAURASHTRA AGRO - CLIMATIC ZONE VI - GUJARAT</b></p> 																					
<p>1. Total geographical area : 35.02 lakh ha.                  2. Area under forest : 1.47 lakh ha.                  3. Area under non agricultural use : 2.10 lakh ha.                  4. Barren and uncultivated land : 2.52 lakh ha.                  5. Permanent pasture : 2.45 lakh ha.                  6. Current fallows : 1.70 lakh ha                  7. Net sown area : 22.17 lakh ha                  8. Total cropped area : 25.77 lakh ha                  9. Area sown more than one : 3.61 lakh ha                  10. Climate : Arid and semi arid                  11. Average rainfall : 542.14 mm                  12. Soil type : Black to brown &amp; Shallow to moderately deep soil</p>																					
<p>13. Cropping pattern :</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Crop</th> <th>Area (lakh ha.)</th> </tr> </thead> <tbody> <tr> <td>Kharif cereals</td> <td>5.58</td> </tr> <tr> <td>Kharif pulses</td> <td>0.23</td> </tr> <tr> <td>Kharif oil seeds</td> <td>12.14</td> </tr> <tr> <td>Cash crops</td> <td>4.00</td> </tr> <tr> <td>Rabi cereals</td> <td>1.57</td> </tr> <tr> <td>Rabi pulses</td> <td>0.56</td> </tr> <tr> <td>Others</td> <td>1.69</td> </tr> </tbody> </table>		Crop	Area (lakh ha.)	Kharif cereals	5.58	Kharif pulses	0.23	Kharif oil seeds	12.14	Cash crops	4.00	Rabi cereals	1.57	Rabi pulses	0.56	Others	1.69				
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### b. Topography

S. No.	Agro ecological situation	Characteristics
1	<p><b>North Saurashtra agro-climatic zone-VI, Gujarat</b></p> <p>Eight agro-climatic zones have been identified in Gujarat. The North Saurashtra Agro climatic Zone-VI falls in Saurashtra region. The influence area of North Saurashtra Agro climatic Zone is spread among five districts of Saurashtra region viz., Amreli (9 talukas out of 11), Bhavnagar (6 talukas out of 10), Jamnagar (all the 6 talukas), Rajkot (11 talukas out of 11), Morbi ( all the 5 talukas) and Surendranagar (7 talukas out of 10) covering 44 talukas in all. It is bounded in the north by the gulf of Kutch and parts of Rajkot as well as Surendranagar district, in the east by the Ahmadabad district and coastal part of Bhavnagar district, on the south by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arabian sea. The farming situation of the district Surendranagar is rainfed.</p>	

### 2.3. Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Medium black	Wadhwan & Muli	-
2	Saline & Alkaline soils	Dasada & Lakhtar	-
3	Shallow calcareous sandy	Dhranghadhra	-

	soil		
4	Red Loamy soil	Dhangdhra	-
5	Low land soils	Limbdi, Lakhtar	-
6	Calcareous Sandy soil	Chotila, Thangadh, Sayla	-

#### 2.4. Area, Production and Productivity of major crops cultivated in the district (Ref. Year 2019-20)

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
1	Bajara	5828	6215	10.66
2	Green gram	3987	1810	4.54
3	Pigeon pea	672	761	11.32
4	Groundnut	29786	77917	26.16
5	Castor	43572	74948	17.20
6	Sesame ( <i>Kharif</i> )	13281	6108	4.60
7	Sesame ( <i>Summer</i> )	6220	32	0.05
8	Total Sesame	19501	6140	3.15
9	Kharif-Cotton (Irrigated)	233651	17719	0.76
10	Kharif-Cotton ( <i>Rainfed</i> )	126074	5953	0.47
11	Total Cotton	359725	23672	0.66
12	Guar seed	1735	1231	7.10
13	Wheat (Irrigated)	32348	93471	28.90
14	Wheat (Unirrigated)	675	529	7.84
15	Total Wheat	33023	94000	28.47
16	Gram	11145	8133	7.30
17	Cumin	93287	70685	7.58
18	Funnel	10213	16617	16.27

Authentic Source: District Agriculture Department

#### 2.5. Weather data (2020)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June	45	-	-	-	-
July	161.5	-	-	-	-
August	330	-	-	-	-
September	129	-	-	-	-
October	10	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
<b>Total</b>	<b>675.5</b>	-	-	-	-

**2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (Ref. Year 2019-20)**

<b>Category</b>	<b>Population</b>	<b>Production (Per unit)</b>	<b>Productivity (Per unit)</b>
<b>Cattle</b>			
<i>Crossbred</i>	201	16,55,20,681 lit	-
<i>Indigenous</i>	2,93,557	-	-
<b>Buffalo</b>	2,02,939	-	-
<b>Sheep</b>	1,00,589	-	-
<b>Goats</b>	1,79,648	-	-
<b>Pigs</b>	22,948	-	-
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	-	-	-
<b>Rabbits</b>	-	-	-
<b>Poultry</b>			
Hens	-	-	-
<i>Desi</i>	-	-	-
<b>Category</b>		<b>Production (Q.)</b>	<b>Productivity (Per Unit)</b>
Fish (Reservoir)	-	-	-
Fish (Farm ponds)	-	-	-



## 2.7. Details of Operational area / Villages

Name of Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Chotila	Lakhchokiya	Cotton, Bajra, Sesame, Pulses, Dairy Farming,	Uncertain and scattered rainfall, pink bollworm in cotton, Reddening in cotton, Wild animals, Lower milk production.	Dry farming technology Awareness for vaccination & artificial insemination of animals
	Bhimora	Cotton, Bajra, Groundnut, Sesame, Pulses Dairy Farming,	Uncertain and scattered rainfall, infestation of pink boll worm in cotton, sucking pest in vegetables, HS disease	Dry farming technology Awareness for vaccination & artificial insemination of animals
	Rajawad	Cotton, Cumin, Groundnut, Sesame, Pulses, Vegetables Dairy Farming,	Lack of irrigation facility, Uncertain and scattered rainfall, Lower milk production, HS disease	Dry farming technology, Awareness for vaccination & artificial insemination of animals
	Sanosara	Cotton, Bajra, Cumin, Wheat, Sesame, Dairy Farming,	Uncertain and scattered rainfall, Injudicious use of fertilizers & Pesticides, Black quarter disease	Adoption of organic farming, Bio-fertilizers & Vermi-compost Dry farming technologies Awareness for vaccination & artificial insemination of animals
Sayla	Hadala	Cotton, Groundnut, Cumin, Wheat, Sesame, Dairy Farming	Lack of knowledge of modern dry land technologies, lack of Awareness for vaccination & artificial insemination of animals	Awareness for vaccination & artificial insemination of animals
	Chorvira	Cotton, Castor, G'nut, Wheat Dairy Farming,	Lack of knowledge of modern dry land technologies, FMD	Dry farming technologies, Awareness for vaccination & artificial insemination of animals
	Mangalkui	Cotton, Wheat, Cumin, Sesame, Bajra	Lack of knowledge of modern dry land technologies, Injudicious use of fertilizers & Pesticides	Dry farming technologies

	Dharadungari	Cotton, Bajra, Sesame, Wheat, Cumin, Dairy Farming,	Lack of knowledge about weed, pest and diseases & nutrient management HS disease, Trypanosomiasis disease	To motivate farmers to grow arid and semi arid horticultural crops. Awareness for vaccination & artificial insemination of animals
Chuda	Karmad	Dairy Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra, Gram	Soil salinity, poor drainage system FMD, Lack of knowledge of modern dry land technologies, INM and IPM etc	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals
	Ramdevgad	Dairy Farming, Cotton, G'nut, Sesame, Wheat, Gram, Cumin, Bajra	Soil salinity, Awareness for vaccination & artificial insemination of animals	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals
	Melapur	Dairy Farming, Cotton, G'nut, Sesame, Gram, Wheat, Cumin, Bajra	Soil salinity, low knowledge of scientific cultivation of crops , HS disease, Injudicious use of fertilizers & Pesticides	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals
	Chhatariyala	Dairy Farming, Cotton, G'nut, Sesame, Gram, Wheat, Cumin, Bajra	Soil salinity, poor water quality for irrigation, , low knowledge about INM, IPM , in crops,	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals

## 2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
<b>Cotton</b>	<ul style="list-style-type: none"> <li>✓ Increase productivity of the crops by adopting recommended practices of integrated pest management (Pink boll worm in Bt-cotton (IPM) and INM in cotton</li> <li>✓ Recycling of the cotton stalk by cotton shredder</li> </ul>
<b>Groundnut, Sesame Castor and Wheat</b>	<ul style="list-style-type: none"> <li>✓ Increase productivity of the crops by adopting recommended dry farming technologies, newly released varieties and INM in sesame</li> </ul>
<b>Cumin</b>	<ul style="list-style-type: none"> <li>✓ Integrated Diseases Management and IPM</li> </ul>
<b>Chickpea</b>	<ul style="list-style-type: none"> <li>✓ Increase productivity of the crops by newly released varieties and storage grain for seed purpose to farmers for next year.</li> </ul>
<b>Horticulture (Pomegranate, Lemon, Guava and chilly)</b>	<ul style="list-style-type: none"> <li>✓ Value addition in fruits and vegetables, INM, training and pruning orchard and promote the farmers to adopting arid horticulture crops</li> </ul>
<b>Agriculture</b>	<ul style="list-style-type: none"> <li>✓ Providing information and create interest to young generation for agriculture as a profession.</li> </ul>
<b>Farm waste</b>	<ul style="list-style-type: none"> <li>✓ Recycling of the farm waste through composting, Vermicomposting and green manuring.</li> </ul>
<b>Micro Irrigation</b>	<ul style="list-style-type: none"> <li>✓ Effective use of water by micro irrigation system, water harvesting structure and water harvesting techniques.</li> </ul>
<b>Animal Science</b>	<ul style="list-style-type: none"> <li>✓ Increase productivity of the milk by adopting scientific feeding and breeding technologies and to create awareness about clean milk production.</li> </ul>
<b>Post Harvesting Technology (PHT)</b>	<ul style="list-style-type: none"> <li>✓ <b>Create awareness for proper storage and reduce post harvest losses.</b></li> </ul>

## 3. TECHNICAL PROGRAMME

### 3.1. A. Details of targeted mandatory activities by KVK

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
8	30	81	235

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
50	1250	228	2534459

Seed Production (Qtl.)	Planting material (Nos.)	Livestock, poultry strains and Fish seed prod. (No's)	Soil, water and plant Samples
(5)	(6)	(7)	(8)
137	15,000	----	----





**B. Details of On Farm Trials/ Technology Assessment proposed during 2021**

Sr . No.	Crop/ enterprise	Prioritized problem	Title of intervention	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the Intervention (Rs.)	Parameters to be studied	Team members
1	Cotton	Less Knowledge of PGRs and detopping	Assessment use of plant growth regulator and detopping technique enhance yield of cotton.	3	CRS, JAU, Junagadh (2016) DFRS, JAU, Targhadia (2016)	low cost technology	-----	300	3	900	Yield	1
2	Sesame	Variety	Varietal assessment of Sesame in Surendranagar district	3	ARS, JAU, Amreli	Seed	-----	600	3	1800	Yield	1
3	Cumin	Wilt	Management of wilt in cumin.	3	CoA, JAU, Junagadh	<i>Trichoderma</i>	6 kg	420	3	1260	1. PDI 2. Yield	1
4	Wheat	INM-Bio fertilizer	Assessment of Response of Bio fertilizers to wheat yield	3	Dept. Agronomy, JAU, Junagadh	1. <i>Azotobacter</i> 2. PSB	3.0 lit	360	3	1080	Yield	1
5	Brinjal	Variety	Varietal assessment of Brinjal GJHB-4 in Surendranagar district	3	VRS, JAU, Junagadh, 2015	Seed & <i>Beauveria</i>	50 gm	900	4	3600	Yield	1
6	Tomato	Variety	Varietal assessment of Tomato GT-6 in	3	VRS, JAU, Junagadh, 2018	Seed & <i>Beauveria</i>	50 gm	650	4	2600	Yield	1

			Surendranagar district									
7	Buffaloes	Low milk production and high mortality in dairy buffaloes	Assessment of probiotic on buffaloes of Surendranagar district	2	SAU, Gujarat	: Probiotic	50 gm/anima l/day	15000	5	5000	1. Milk yield 2. mortality	1
8	Cow	Low milk production, lack of energy for milk production and lack of knowledge about concentrate & bypass fat feeding	Effect of concentrate and bypass fat feeding on milk production in Gir cow of Surendranagar district	2	Anand Agricultural University, Gujarat	Concentrate & Bypass Fat	Concentrate @5 Kg/ cow /day & Bypass Fat @ 50 gm/cow/day) for 60 days	21000/-	5	21000	Milk yield	1

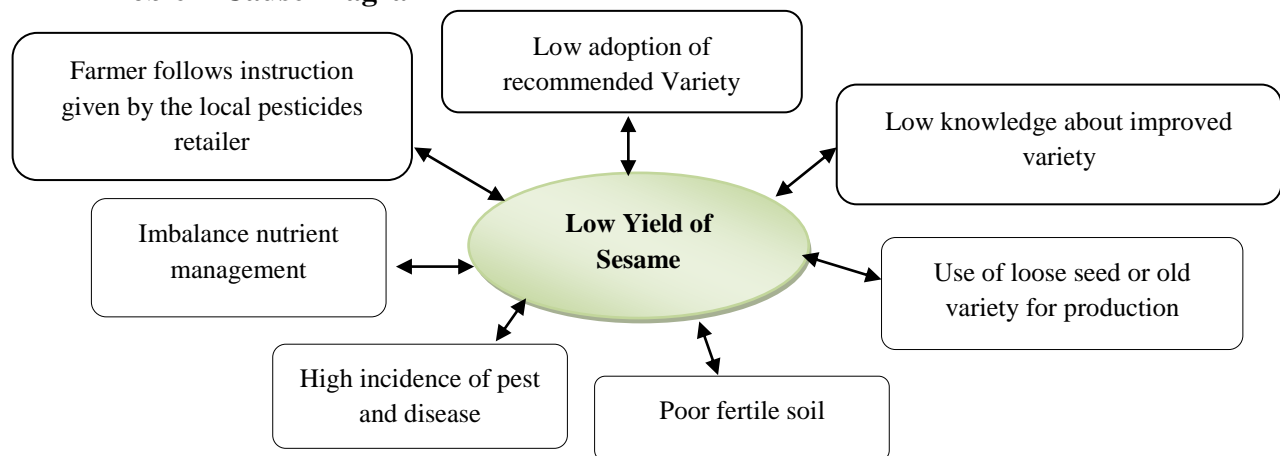
❖ **OFT 1 :-** Varietal assessment of Sesame in Surendranagar district

❖ **Title of OFT:** Varietal assessment of Sesame in Surendranagar district

1. **Agro Ecological Zone:-** North Saurashtra Agroclimatic Zone-VI
2. **Production system:-**

Sesame, (*Sesamum indicum*), also called benne, erect annual plant of the family Pedaliaceae, grown since antiquity for its seeds, which are used as food and flavouring and from which a prized oil is extracted. The sesame plant is found in most of the tropical, subtropical, and southern temperate areas of the world. The aroma and taste of sesame seed are mild and nutlike. The chief constituent of the seed is its fixed oil, which usually amounts to about 44 to 50 percent. Noted for its stability, the oil resists oxidative rancidity. The seeds are also high in protein and are rich in thiamin and vitamin B<sub>6</sub>. This crop is highly remunerative since last three years in Saurashtra region in Gujarat due to hike of price. The North Saurashtra agroclimatic zone is most suitable for its cultivation but due to lack of knowledge of newly released varieties among the farmers affects the yield of sesame.

• **Problem Cause Diagram**



<b>Objective</b>	<b>To increase yield of Sesame</b>
<b>Reason for low yield of Sesame</b>	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the specific variety.
<b>Technical Intervention</b>	Introduction new variety of Sesame
	T <sub>1</sub> -Variety: Local or GT-2 T <sub>2</sub> -Variety: GT-4 T <sub>3</sub> -Variety:GJT-6
<b>Excerpted cost</b>	Rs 1800
<b>Area</b>	0.75
<b>No. of replication</b>	03
<b>Source of Information</b>	Agricultural Research Station, JAU, Amreli.
<b>Technical Indicator</b>	<b>Economic Indicator</b>
Yield (qui/ha)	Cost of Production (Rs/ha)
	Gross return: (Rs/ha)
	Net return: (Rs/ha)
	B:C Ratio



❖ **OFT 2:- Assessment use of plant growth regulator and detopping technique enhance yield of cotton.**

**Title:-** Use of plant growth regulator and detopping technique enhance yield of cotton

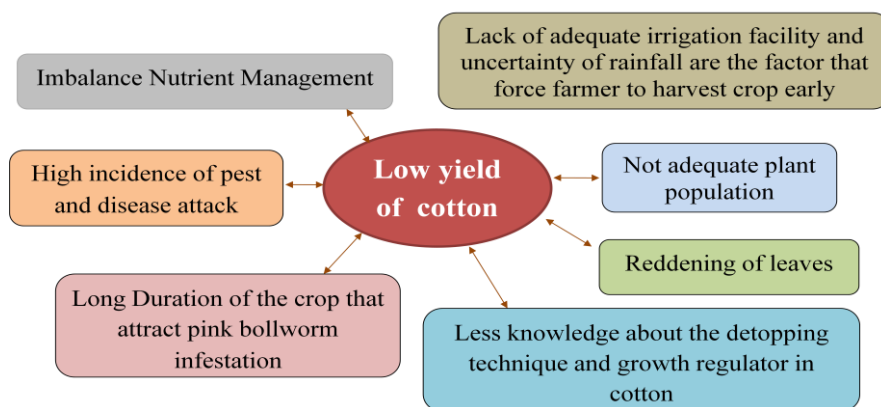
**Agro Ecological Zone:-** North Saurashtra Agroclimatic Zone-VI

**Production system:-**

Surendranagar district ranks first in total cotton production of the state (22 %), followed by Rajkot (16.6 %), Bhavnagar (15.8 %) respectively. Thus cotton is very important crop of the district for sustainability point of view.

Since last two to three years, infestation of pink bollworm in cotton, uncertainty of rainfall and scattered rain and changing climatic condition, now farmers are forced to harvest crop as against they assumed for 180 to 240 days period. Ultimately this resulted in low production due to inadequate plant population and less no. of bolls per plant and per unit area. So that use of plant growth regulator and detopping technique enhance yield of cotton.

**Problem Cause Diagram**



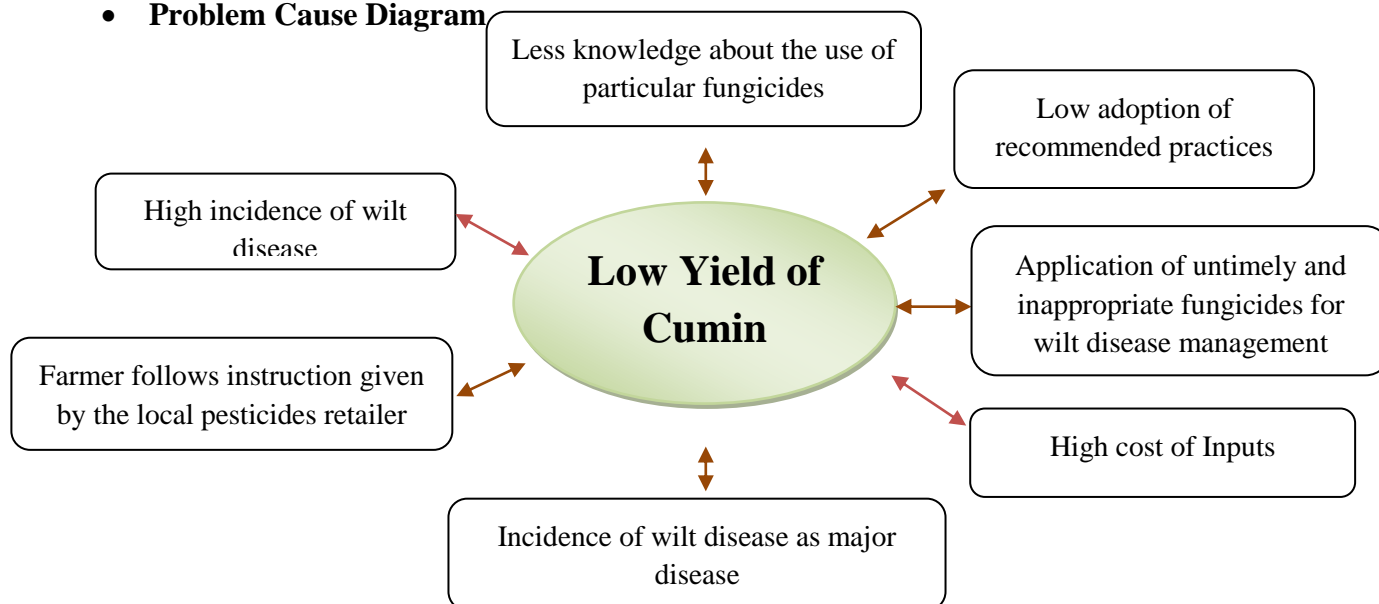
<b>Objective</b>	:	<b>To enhancement yield of cotton low cost technology</b>
<b>Reason for low yield of Cumin</b>	:	1. No adoption of recommended practices. 2. Farmers follows instruction given by the local pesticides retailer 3. Lack of knowledge about the new technique and growth regulator.
<b>Technical Intervention</b>	:	<b>Enhancement yield of cotton through low cost technique.</b>
<b>Treatments</b>	:	T <sub>1</sub> : Farmer practice : Natural growth of cotton plant T <sub>2</sub> : Detopping the cotton plant at 75 day after sowing for uniform height T <sub>3</sub> : Foliar spray with Ethylene 39% @ 2.0 ml/15 lit of water at 90 DAS
<b>Source of Technology</b>	:	T <sub>2</sub> : CRS, JAU, Junagadh (2016) T <sub>3</sub> : DFRS, JAU, Targhadia (2016)
<b>Area</b>	:	1.2 ha
<b>No. of replication</b>	:	03
<b>Cost of OFT</b>	:	900
<b>Technical Indicator</b>		<b>Economic Indicator</b>
<b>Yield (qui/ha)</b>		Cost of Production (Rs/ha)
		Gross return: (Rs/ha)
		Net return: (Rs/ha)
		B:C Ratio

❖ **OFT 3 : Management of wilt in cumin**

1. **Title of OFT: Management of wilt in cumin**
2. **Agro Ecological Zone** : North Saurashtra Agro-Climatic Zone- VI
3. **Production system** : Irrigated
4. **Problem Definition:**

Gujarat, which was the biggest producer of spices in the country, has slipped to third rank. Now, Andhra Pradesh tops in spice production with Rajasthan ranked second. Spice output, including that of coriander and cumin seeds, has dropped by 20% in Gujarat. In 2015-16 a disease had hit production of cumin and coriander in the state. Productivity of cumin crop first rank in India as well Asia in the world. Now a day productivity reduced and quality point of view suffering dueto incidence of diseases and pest. Farmers are practicing excess use fungicides without followed recommended dose as prescribed by concerned scientist. Therefore cost of cultivation inevitably increase and some time, crop get failure due to inappropriate and excessive use of fungicides. Application of recommended dose for the control of wilt disease in the cumin crop is being undertaken for OFT. This OFT traces the transformation in the cumin production through recommended technology in the Surendranagar district.

• **Problem Cause Diagram**



<b>Objective</b>	<b>To minimize the incidence of wilt disease in cumin</b>
<b>Reason for low yield of Cumin</b>	1. No adoption of recommended practices. 2. Farmers follows instruction given by the local pesticides retailer 3. Lack of knowledge about the required of specific fungicides.
<b>Technical Intervention</b>	To minimize the incidence of wilt disease in cumin
<b>Treatments</b>	T <sub>1</sub> : Farmers practice (Use of mancozeb, copper oxychloride and sulphuretc fungicides after infestation). T <sub>2</sub> : Recommended practices Application of the <i>Trichoderma harzianum</i> (2x10 <sup>6</sup> cfu/gm) @ 5.0 kg mixed in 1000kg of FYM/ha at the time of sowing. T <sub>3</sub> : Application of the <i>Trichoderma harzianum</i> (2x10 <sup>6</sup> cfu/gm) @ 5.0 kg mixed in 100 kg of sand/ha at the one month after germination of crop.
<b>Cost</b>	Rs 1260/-
<b>Area</b>	1.2 ha

<b>No. of replication</b>	03
<b>Source of technology</b>	T <sub>2</sub> : Department of Plant Pathology, CoA, JAU, Junagadh-2015 T <sub>3</sub> : Department of Plant Pathology, CoA, JAU, Junagadh-2015
<b>Technical Indicator</b>	<b>Economic Indicator</b>
<b>Yield (qui/ha)</b>	Cost of Production (Rs/ha)
<b>Per cent Disease Incidence (PDI)</b>	Gross return: (Rs/ha)
	Net return: (Rs/ha)
	B:C Ratio

❖ **OFT 4: Assessment of response of Bio fertilizers to wheat crop yield**

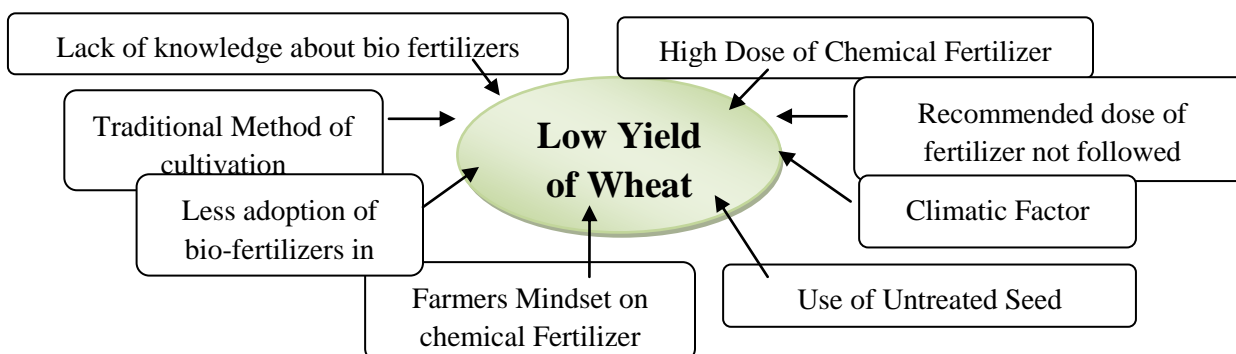
**1. Title of OFT: - Assessment of Response of Bio fertilizers to wheat yield**

**2. Introduction: -**

In Rabi season the area of wheat cultivation in Surendranagar district is higher after cumin crops as compare to other crops. Due to canal facilities increased in this area the area under wheat crop also increased. But the continuous use of chemical fertilizer in this crops the productivity is stagnating 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 bio-fertilizers to reduce cost of cultivation and increase soil fertility as well as quality and quantity of wheat yield.

**Problem definition:** Stagnant yield

• **Problem cause diagram:**



<b>Objective</b>	<b>Response of bio fertilizers to wheat yield</b>
<b>Reason for low yield of wheat</b>	1. Low adoption of recommended practices. 2. Farmers follows instruction given by the local pesticides retailer 3. Lack of knowledge about the required of specific dose of fertilizer.
<b>Technical Intervention</b>	Response of bio fertilizers to wheat yield
<b>Treatments</b>	T <sub>1</sub> : Farmer's practice: - 125- kg DAP & 190- Kg Urea /ha T <sub>2</sub> : Recommended dose of fertilizer: 132Kg DAP + 206 Kg Urea (120-60-00). T <sub>3</sub> :75 percent RDF+ 100- Kg DAP+156- Kg Urea+3.0 lit <i>Azotobacter</i> + 3.0 lit. PSB
<b>Cost</b>	Rs 1080/-
<b>Area</b>	1.2 ha
<b>No. of replication</b>	03
<b>Source of technology</b>	T <sub>2</sub> - Dept. Agronomy, JAU, Junagadh -2015

<b>Economic Indicator</b>	1. Cost of Production (Rs/ha) 2. Gross return: (Rs/ha) 3. Net return: (Rs/ha) 4. B: C Ratio
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❖ **OFT 5 :-** Varietal assessment of Brinjal GJHB-4 in Surendranagar district

**3. Title of OFT:** Varietal assessment of Brinjal GJHB-4 in Surendranagar district

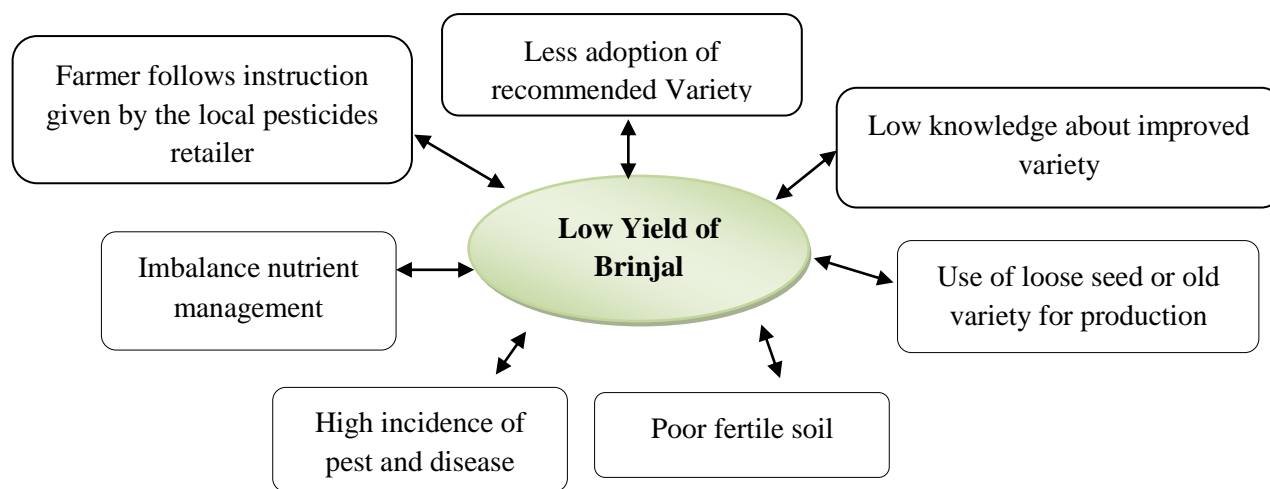
**4. Agro Ecological Zone:-** North Saurashtra Agroclimatic Zone-VI

**5. Production system:-**

Brinjal or eggplant (*Solanum melongena* L.) is an important solanaceous crop of subtropics and tropics. In India, it is one of the most common, popular and principal vegetable crops grown throughout the country except higher altitudes. It is a versatile crop adapted to different agro-climatic regions and can be grown throughout the year. It is a perennial but grown commercially as an annual crop. Brinjal cultivation in India is estimated to cover about 8.14% vegetable area with a contribution of 9% to total vegetable production. The crop is largely grown in small plots or as inter crop both for cash and domestic consumption by farmers all over India. The major brinjal producing states are West Bengal, Orissa, Gujarat, and Maharashtra. The state has a great potential for brinjal production for domestic and exports markets but the yield of this crop is relatively low especially in rainy season due to lack of improved varieties as well as resistance to insect-pest and disease of economic importance and suitability to changing climatic conditions.

Brinjal variety GJHB-4 found suitable for cultivation in North Saurashtra region of Gujarat. This variety resistance to jassid and fruit borer were less compared to local checks.

• **Problem Cause Diagram**



<b>Objective</b>	<b>To increase yield of Brinjal</b>
<b>Reason for low yield of Brinjal</b>	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the specific variety.
<b>Technical Intervention</b>	Introduction new variety of brinjal
	T <sub>1</sub> -Variety: Local T <sub>2</sub> -Variety: GJBH-4 -50 gm and Beauveria-2.0 kg T <sub>3</sub> -Variety: GNRB-1 -50 gm and Beauveria-2.0 kg

<b>Excepted cost</b>	Rs 3600
<b>Area</b>	0.25 ha
<b>No. of replication</b>	04
<b>Source of Information</b>	T <sub>2</sub> -Vegetable Research Station ., JAU, Junagadh, 2015 T <sub>3</sub> -Vegetable Research Station., NAU, Navsari, 2016

<b>Technical Indicator</b>	<b>Economic Indicator</b>
Yield (qui/ha)	Cost of Production (Rs/ha)
	Gross return: (Rs/ha)
	Net return: (Rs/ha)
	B:C Ratio

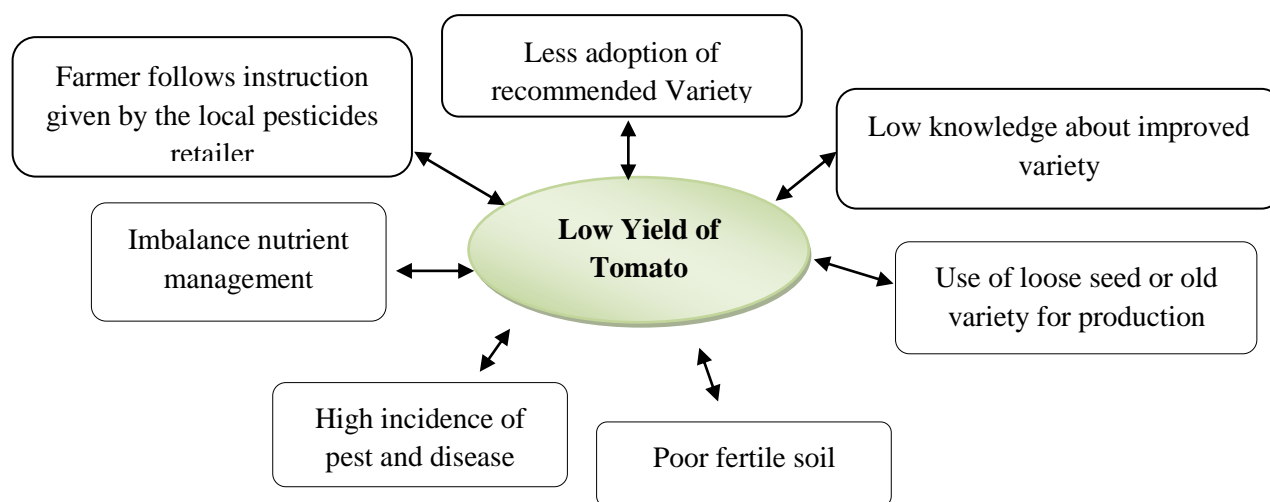
❖ **OFT 6:-** Varietal assessment of Tomato GT-6 in Surendranagar district

6. **Title of OFT:** Varietal assessment of Tomato GT-6 in Surendranagar district
7. **Agro Ecological Zone:-** North Saurashtra Agroclimatic Zone-VI
8. **Production system:-**

Tomato (*Lycopersicon esculentum*) belongs to the genus *Lycopersicon* under Solanaceae family. Tomato is one of the most important "protective foods" because of its special nutritive value. It is one of the most versatile vegetable with wide usage in Indian culinary tradition. It is a perennial but grown commercially as an annual crop. Tomato cultivation in India is estimated to cover about 8.14% vegetable area with a contribution of 9 % to total vegetable production. The crop is largely grown in small plots or as inter crop both for cash and domestic consumption by farmers all over India. The major tomato producing states are Andhra Pradesh, Bihar, Chhattisgarh and Gujarat.

Tomato variety GT-6 found suitable for cultivation in North Saurashtra Region of Gujarat. This variety tolerant against leaf curl disease compared to local checks.

• **Problem Cause Diagram**



<b>Objective</b>	<b>To increase yield of Tomato</b>
<b>Reason for low yield of Tomato</b>	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the specific variety.
<b>Technical Intervention</b>	Introduction new variety of Tomato
<b>Treatments</b>	T <sub>1</sub> - Variety: Local/Private sector T <sub>2</sub> - Variety: GT-6 -50 gm and <i>Beauveria</i> -2.0 kg T <sub>3</sub> - Variety: GAT-5 -50 gm and <i>Beauveria</i> -2.0 kg
<b>Excepted cost</b>	Rs 2600
<b>Area</b>	0.25 ha
<b>No. of replication</b>	04
<b>Source of Information</b>	T <sub>2</sub> - Vegetable Research Station ., JAU, Junagadh, 2017 T <sub>3</sub> - Main Vegetable Research Station., AAU, Anand,2017
<b>Technical Indicator</b>	<b>Economic Indicator</b>
Yield (qui/ha)	Cost of Production (Rs/ha)
	Gross return: (Rs/ha)
	Net return: (Rs/ha)
	B:C Ratio

### OFT: 7 Assessment of use of probiotic in buffaloes of Surendranagar district

1. **Title of OFT:** Assessment of use of probiotic in buffaloes of Surendranagar district

2. **Agro Ecological Zone:-** North Saurashtra Agroclimatic Zone-VI

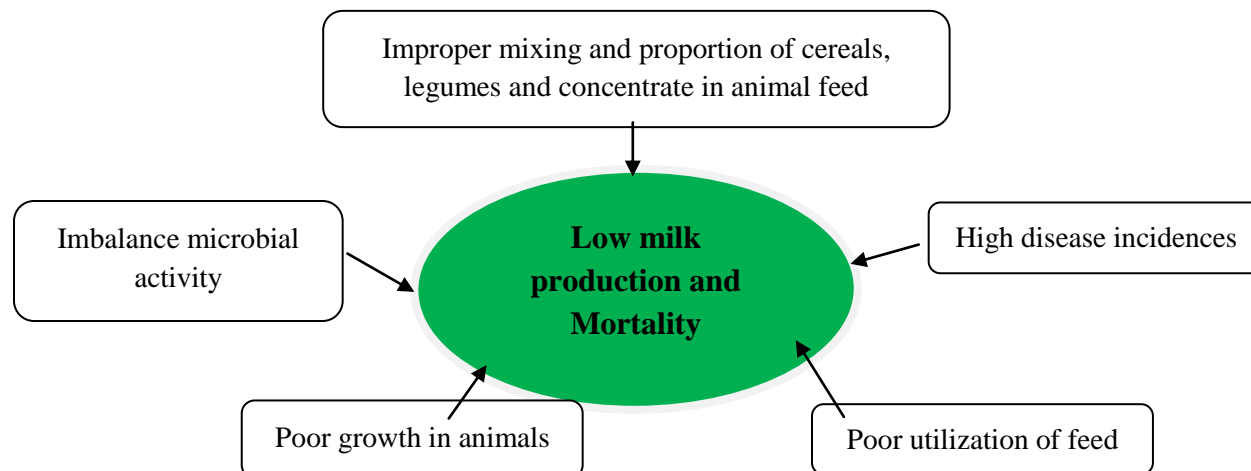
3. **Production system:-**

The efficiency of ruminants to utilize such a wide variety of feeds is due to highly diversified rumen microbial ecosystem. The rumen harbours a dense and complex microbial population responsible for 60-70 % of total digestion. Improper mixing and proportion of cereals, legumes and concentrate in animal feed leads to imbalance microbial activity and result in to low digestibility which leads to decrease milk production. Modern animal production requires the use of safe and effective feed additives as rumen manipulators to increase animal productivity. The use of probiotics culture in ruminants has been appreciated for the improvement in feed intake and nutrient utilization. Probiotics enhances body weight gains and increased milk production in livestock.

<b>Objective</b>	<b>To increase milk yield with reduction of mortality in buffaloes</b>
<b>Reason</b>	Low milk production and high mortality in dairy buffaloes
<b>Technical Intervention</b>	Enhancement of milk production and reduce mortality
<b>Treatments</b>	T <sub>1</sub> : Farmer practice (No probiotic ) T <sub>2</sub> : Probiotic supplement @50 gm/animal/day for 90 days
<b>No. of farmers</b>	5
<b>No of animals</b>	5
<b>Cost of OFT</b>	Approximately Rs. 5000/-
<b>Parameter</b>	Milk yield and mortality
<b>Source</b>	SDAU, Gujarat
<b>Technical Indicator</b>	<b>Economic Indicator</b>
1. Milk Yield (lit/Day) 2. Mortality	1. Cost of production (Rs/Animal)
	2. Gross return (Rs/Animal)

	3. Net return (Rs/Animal)
	4. B:C ratio (Rs/Animal)

**Problem Cause Diagram:**



**OFT 8:** Effect of concentrate and bypass fat feeding on milk production in Gir cow of Surendranagar district

**1 Title of OFT:** Effect of Concentrate and bypass fat feeding on milk production in Gir cow of Surendranagar district

**2 Agro Ecological Zone:-** North Saurashtra Agroclimatic Zone-VI

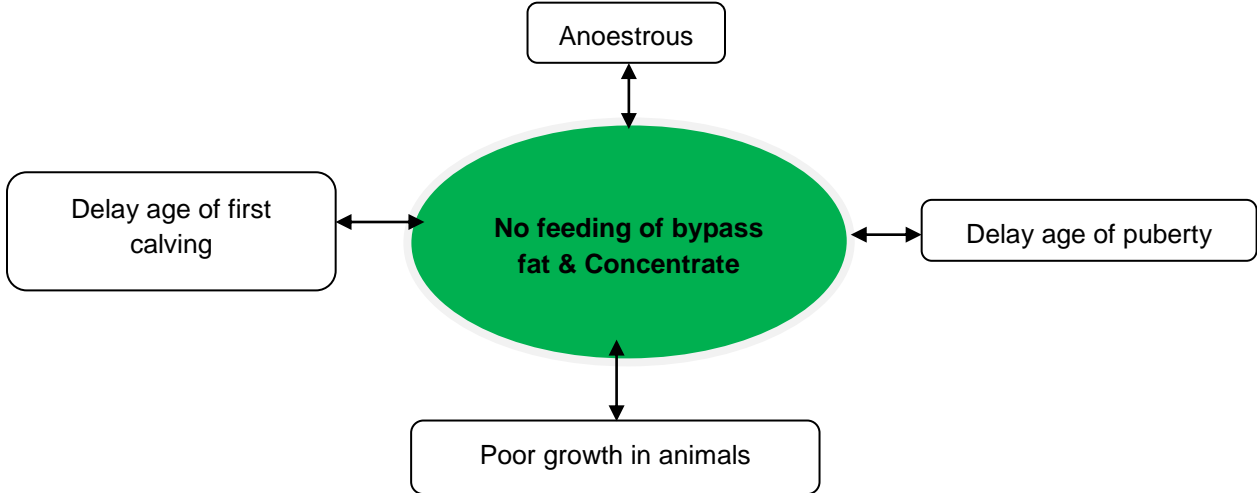
**3. Production system:-**

During lactation, the amount of energy required for maintenance of body tissues and milk production often exceeds the amount of energy available from the diet, thus forcing mobilization of body fat reserves to satisfy energy requirement. Rising milk yield during early lactation presents a feed problem in dairy cows. There are many alternatives to overcome these problems. One of them is feeding of concentrates to dairy animals. Feeding fat to lactating animals is another alternative as it provides a dense source of non-fermentable energy. Fats improve rumen fermentation and have increased digestibility.

<b>Objective</b>	<b>To increase milk yield</b>
<b>Reason</b>	Low milk production, lack of energy for milk production and lack of knowledge about concentrate & bypass fat feeding
<b>Technical Intervention</b>	Enhancement of milk production
<b>Treatments</b>	T <sub>1</sub> : Farmer practice (No use of concentrate & bypass fat feeding ) T <sub>2</sub> : Concentrate @5 Kg/ cow /day & Bypass Fat @ 50 gm/cow/day) for 60 days
<b>No. of farmers</b>	5
<b>No of animals</b>	10
<b>Cost of OFT</b>	Approximately Rs. 21000/-

<b>Parameter</b>	Milk yield
<b>Source</b>	Anand Agricultural University, Gujarat
<b>Technical Indicator</b>	
<b>Economic Indicator</b>	
1. Milk Yield (lit/Day)	1 Cost of production (Rs/Animal)
	2 Gross return (Rs/Animal)
	3 Net return (Rs/Animal)
	4 B:C ratio (Rs/Animal)

**Problem Cause Diagram:**





### 3.3. Frontline Demonstrations

#### A. Details of FLDs to be organized

Sl. No.	Crop	Variety	Thematic area	Technology for demonstration	Critical inputs	Inputs with cost (Rs.)	Season and year	Area (ha)	No. of farmers/demo.	Parameters identified
1	Sesame	Guj-Til-4/6	CP	Variety	Seed: 1.0 kg	2000	Kharif-2021	04	10	Yield
2	Groundnut	GJG-31/GG-20	PP	White grub	Sawaj <i>Metarizium</i> : 4 kg	6000	Kharif-2021	04	10	Yield
3	Groundnut	GG-20	PP	Bio-agent	<i>Trichoderma</i> : 2.0 kg	1400	Kharif-2021	02	05	1. PID 2. Yield
4	Groundnut (CFLD-Oil-seed)	GJG-22/32	CP	Variety	Seed: 30 kg, <i>Rhizobium</i> -0.5 lit, <i>Trichoderma</i> -2 kg, <i>Beauveria</i> -1 kg, PSB-0.5 lit	115000	Kharif-2021	20	50	Yield
5	Cotton	Bt Cotton	PP	MDP technology	MDP : 400 gm	22000	Kharif-2021	04	10	Yield
6	Guava	-	PP	IPM	Fruit fly lure : 3	500	Kharif-2021	04	10	% damage Fruit
7	Tomato	JT-3/GT-6	CP	Variety	Seed : 50 gm, <i>Beauveria</i> -2 kg	4000	Kharif-2021	01	10	Yield
8	Kichen Garden	-----	-----	-----	Vegetable Seed Packets 1 Brinjal, 2 Tomato, 3 Valol, 4 Okra, 5 Guar	250	Kharif-2021	00	05	-
9	Lucerne	Anand Lucerne 3	CP	Variety	Seed: 1.0 kg	4000	Rabi-2021	01	10	Yield
10	Buffalo	-	NM	Mineral mixture	40 gm /day for 60 days	2500	Rabi-2021	00	05	Milk Yield

11	Onion	GJRO-11	CP	Variety	100 gm seed	2000	Rabi-2021	01	10	Yield
12	Wheat	GW – 451	CP	Variety	40 kg seed	30000	Rabi-2021	08	20	Yield
13	Cumin	GC-4	PP	DM	Mancozeb 63% + Carbendazim 12% - 500 gm	10000	Rabi-2021	08	20	1. PDI 2. Yield
14	Gram	GG-5	CP	Variety	40 kg seed	15000	Rabi-2021	04	10	Yield
15	Gram (CFLD-Pulse)	GG-5	CP	Variety	Seed 25 kg, <i>Rhizobium</i> -0.5 lit, <i>Trichoderma</i> -2 kg, <i>Beauveria</i> -1 kg, PSB-0.5 lit	125000	Rabi-2021	20	50	Yield
<b>Total</b>								<b>81</b>	<b>235</b>	-

**Sponsored Demonstration (ATIC Scheme)**

Crop	Area (ha)	No. of farmers
Sesame	16	40
Cotton	16	40
Wheat	16	40
Cumin	16	40

**B. Extension and Training activities under FLDs**

S. No.	Activity	No. of activities	Month	Number of participants
1	Field days	10	September, October, January and February	350
2	Farmers Training	70	Throughout year	1750
3	Media coverage	15	As and When	-
4	Training for extension functionaries	05	July, November	250

**C. Details of FLD on Enterprises****a. Farm Implements**

Name of the implement	Crop	Season and year	No. of farmers	Area (ha)	Critical inputs	Performance parameters / indicators
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**b. Livestock and Fisheries Enterprises**

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Critical inputs	Performance parameters / indicators
Buffalo	Jafarabadi	5	5	Mineral mixture: 40 gm /day for 60 days.	Milk Yield

**c. Other Enterprises (Mushroom, Apiculture, Sericulture, Vermicompost, Value Addition, Women empowerment, etc)**

Enterprise	Technology demonstrated	No. of farmers	No. of units	Critical inputs	Performance parameters / indicators
-	-	-	-	-	-
-	-	-	-	-	-
--	-	-	-	-	-



Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
<b>f) Spices</b>	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
<b>g) Medicinal and Aromatic Plants</b>	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0
<b>III Soil Health and Fertility Management</b>	0	0	0	0	0	0	0	0
Soil fertility management	0	0	0	0	0	0	0	0
Soil and Water Conservation	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0
<b>IV Livestock Production and Management</b>	0	0	0	0	0	0	0	0
Dairy Management	2	23	23	46	2	2	4	50
Poultry Management	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0
Rabbit Management/goat	0	0	0	0	0	0	0	0
Disease Management	1	23	0	23	2	0	2	25
Feed management	1	23	0	23	2	0	2	25
Production of quality animal products	1	0	23	23	0	2	2	25
<b>V Home Science/Women empowerment</b>	0	0	0	0	0	0	0	0
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0
Value addition	1	0	23	23	0	2	2	25
Income generation activities for empowerment of rural Women	1	0	23	23	0	2	2	25
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0
<b>VI Agril. Engineering</b>	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0

Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
<b>VII Plant Protection</b>								
Integrated Pest Management	2	46	0	46	4	0	4	50
Integrated Disease Management	1	23	0	23	2	0	2	25
Bio-control of pests and diseases	1	23	0	23	2	0	2	25
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0
<b>VIII Fisheries</b>	0	0	0	0	0	0	0	0
Integrated fish farming	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0
<b>IX Production of Inputs at site</b>	0	0	0	0	0	0	0	0
Seed Production	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0
<b>X Capacity Building and Group Dynamics</b>	0	0	0	0	0	0	0	0
Leadership development	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0
Formation and Management of SHGs	1	22	0	22	3	0	3	25
Mobilization of social capital	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
<b>XI Agro-forestry</b>	0	0	0	0	0	0	0	0
Production technologies	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0

XII Others (Pl. Specify) Agril Extension	3	68	0	68	0	7	7	75
<b>Total</b>	<b>25</b>	<b>438</b>	<b>140</b>	<b>578</b>	<b>19</b>	<b>28</b>	<b>47</b>	<b>625</b>
<b>(B) RURAL YOUTH</b>	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0
Integrated Farming (Medicinal)	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
Tailoring and Stitching	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0
<b>TOTAL</b>	0	0	0	0	0	0	0	0
<b>(C) Extension Personnel</b>	0	0	0	0	0	0	0	0
Productivity enhancement in field crops	0	0	0	0	0	0	0	0
Integrated Pest Management	1	20	0	20	0	5	5	25
Integrated Nutrient management	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0

Information networking among farmers	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Any other (Pl. Specify)	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>G. Total</b>	<b>26</b>	<b>438</b>	<b>140</b>	<b>578</b>	<b>19</b>	<b>28</b>	<b>47</b>	<b>625</b>

## B. OFF Campus

Thematic Area	No. of Courses	No. of Participants						Grand Total
		Others			SC/ST			
		Male	Female	Total	Male	Female	Total	
<b>(A) Farmers &amp; Farm Women</b>								
<b>I Crop Production</b>								
Weed Management	1	23	0	23	2	0	2	25
Resource Conservation Technologies	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0
Integrated Farming	1	23	0	23	2	0	2	25
Water management	2	46	0	46	4	0	4	50
Seed production	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Crop Management	2	46	0	46	4	0	4	50
Fodder production	0	0	0	0	0	0	0	0
Production of organic inputs	1	20	0	20	5	0	5	25
<b>II Horticulture</b>								
<b>a) Vegetable Crops</b>								
Production of low volume and high value crops	2	43	0	43	7	0	7	50
Off-season vegetables	0	0	0	0	0	0	0	0
Nursery raising	1	22	0	22	3	0	3	25
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)	1	25	0	25	0	0	0	25
<b>b) Fruits</b>								



Training and Pruning	1	22	0	22	3	0	3	25
Layout and Management of Orchards	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	1	23	0	23	2	0	2	25
Plant propagation techniques	0	0	0	0	0	0	0	0
<b>c) Ornamental Plants</b>	0	0	0	0	0	0	0	0
Nursery Management	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0
<b>d) Plantation crops</b>	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
<b>e) Tuber crops</b>	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
<b>f) Spices</b>	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
<b>g) Medicinal and Aromatic Plants</b>	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0
Post harvest technology and value addition	1	0	20	20	0	5	5	25
<b>III Soil Health and Fertility Management</b>	0	0	0	0	0	0	0	0
Soil fertility management	0	0	0	0	0	0	0	0
Soil and Water Conservation	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0
<b>IV Livestock Production and Management</b>								



Carp fry and fingerling rearing	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0
<b>IX Production of Inputs at site</b>	0	0	0	0	0	0	0	0
Seed Production	0	0	0	0	0	0	0	0
Planting material production (Horti.)	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0
Vermi-compost production (Horti.)	0	0	0	0	0	0	0	0
Organic manures production (A.S.)	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0
<b>X Capacity Building and Group Dynamics</b>	0	0	0	0	0	0	0	0
Leadership development	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0
Formation and Management of SHGs(HS)	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths (Agro.)	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
<b>XI Agro-forestry</b>	0	0	0	0	0	0	0	0
Production technologies	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Farming Systems (Agro)	0	0	0	0	0	0	0	0
<b>XII Others (Pl. Specify) Agril Extension</b>	4	90	0	90	10	0	10	100
<b>TOTAL</b>	<b>34</b>	<b>653</b>	<b>106</b>	<b>759</b>	<b>72</b>	<b>19</b>	<b>91</b>	<b>850</b>







Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
<b>XI Agro-forestry</b>								
Production technologies	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0
Sponsored training	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>49</b>	<b>860</b>	<b>244</b>	<b>110</b>	<b>4</b>	<b>92</b>	<b>29</b>	<b>121</b>
<b>(B) RURAL YOUTH</b>								
Mushroom Production	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
Tailoring and Stitching	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0





Popular articles	5	-	-	-	-	-	-	-	-	-
Extension Literature	10	1300	700	2000	-	-	-	1300	700	2000
Advisory Services	47	-	-	-	-	-	-	-	-	251600 4
Scientific visit to farmers field	25	70	0	70	50	-	25	120	-	120
Farmers visit to KVK	50	1500	1000	2500	75	25	100	1575	1025	2600
Diagnostic visits	10	10	0	10	40	-	40	50	-	50
Exposure visits	-	-	-	-	-	-	-	-	-	-
Ex-trainees Sammelan	-	-	-	-	-	-	-	-	-	-
Soil health Camp	1	200	50	250	4	-	4	204	50	254
Animal Health Camp	3	100	50	150	3	-	3	103	50	153
Agri mobile clinic	-	-	-	-	-	-	-	-	-	-
Soil test campaigns	1	250	50	300	10	-	10	260	50	310
Farm Science Club Conveners meet	-	-	-	-	-	-	-	-	-	-
Self Help Group Conveners meetings	-	-	-	-	-	-	-	-	-	-
Mahila Mandals Conveners meetings	1	0	50	50	0	2	2	0	52	52
Celebration of important days (specify)	4	1400	200	1600	16	0	16	1416	200	1616
Krishi Mohostva	2	2000	1000	3000	30	10	40	2030	1010	3040
Krishi Rath	-	-	-	-	-	-	-	-	-	-
Pre Kharif workshop	1	125	25	150	5	0	5	130	25	155
Pre Rabi workshop	1	125	25	150	5	0	5	130	25	155
PPVFRA workshop	-	-	-	-	-	-	-	-	-	-
Any Other (Specify)	-	-	-	-	-	-	-	-	-	-
Total	228	1173 0	6300	18030	383	42	400	12113	6342	253445 9

### 3.6. Target for Production and supply of Technological products

#### SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)
<b>CEREALS</b>	-	-	-
<b>OILSEEDS</b>	Groundnut	GJG-31/22/9/32	120
	Sesame	GT-3/4/6	12
<b>PULSES</b>	-	-	-
<b>VEGETABLES</b>	-	-	-

Spices	Cumin	GC-4	05
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### PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)
<b>FRUITS</b>	Papaya	GJP-1	150
	Lemon	Kagdi	150
<b>VEGETABLES</b>	Brinjal	GJHB-4	5000
	Tomato	GT-6	2500
	Chilli	Wadhvani Marchi	2500
	Brinjal	GRB-5	5000
<b>SPICES</b>	-	-	-
<b>FOREST SPECIES</b>	-	-	-
<b>FLOWERS AND ORNAMENTAL</b>	-	-	-
<b>FODDER SLIPS</b>	-	-	-
<b>Sugarcane settlings / seedlings</b>	-	-	-
<b>Total</b>			<b>15300</b>

### Bio-products

Sl. No.	Product Name	Species	Quantity		
			Kg	Lit	No.
<b>BIO PESTICIDES</b>					
1	Sawaj Beauveria	<i>Beauveria bassiana</i>	20000	-	
2	Sawaj Trichoderma	<i>Trichoderma</i>	25000	-	
3	Sawaj pink boll worm traps	Pheromone traps (for pink bollworm control)	-	-	150
4	Sawaj lure	Lure of pink bollworm	-	-	450
5	Sawaj MDP paste	-	-	-	500
6	Sawaj Fruit Fly Trap	Fruit Fly Trap	-	-	100
7	Sawaj Lure of fruit fly	Lure of fruit fly	-	-	200
<b>BIO FERTILIZERS</b>					
	Sawaj Rhizobium	<i>Rhizobium</i>	-	250	-
	Sawaj Azotobacter	<i>Azotobacter</i>	-	250	-
	Sawaj PSM	PSM	-	250	-

### LIVESTOCK

Sl. No.	Type	Breed	Quantity (No.)
CATTLE	-	-	-

GOAT	-	-	-
SHEEP	-	-	-
POULTRY	-	-	-
PIGS	-	-	-
FISHERIES	-	-	-

### VALUE ADDED PRODUCTS

Crop / Commodity	Name of the product	Quantity to be prepared (kg or litre)	Sale value (Rs)
Fruit crops	-	-	-
Vegetables	-	-	-
Cereals and Millets	-	-	-
Oilseeds and pulses	-	-	-
Spices and condiments	-	-	-
Any other (Pl specify)	-	-	-
	Total	-	-

### 3.7. Action plan for management of KVK instructional farm

Total land with KVK : 26.35 ha      Cultivable land : 20.59 ha (Irrigated : 3 ha, Rainfed : 17.59 ha)

Micro-irrigation facility available at KVK : Yes

S. No.	Name of crop	Area (ha)	Variety	Date of sowing / Planting	Date of harvest	Expected yield (q)
1	Seed production : Groundnut, sesamum,	15	GJG 9, GJG 32, Gujarat Til 3,	After onset of monsoon	September - october	groundnut : 1000- 1200 Kg/ha sesamum: 500-600kg/ha
2	Fruit crops Sapota, datepalm, guava, Tamarind, Jamun, Citrus	2.97	Berhi, Kagdi, local variety	After onset of monsoon	-	-
3	Vegetable crops	-	-	-	-	-
4	Fodder crops : Marvel grass	0.1	Gujarat marvel 8	June -july	October - November	40 quintal
5	Technology cafeteria : Groundnut, Sesamum, mung, udad, cotton, wheat, cumin, gram	0.2	GJG 9, GJG 32, Gujarat Til 3,	<i>Kharif</i> : after onset of monsoon, <i>Rabi</i> 1-15 november	September - october	For demonstration
6	Nutritional Garden : Brinjal, tomato, chilli, guvar, okra, onion, garlic	0.1	GJLB, GT 6, Wadhvani chilli, GJRO 11	Seasonal	-	-

7	IFS Model : Citrus, Brinjal	Kagdi	GJLB 4, GJRO 11	Seasonal	-	-
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#### 4. Literature to be Developed/Published

##### A. Literature developed/published

S.No.	Topic	Number
1	Research papers	4
2	Technical reports	5
3	News letters	4
4	Training manuals	4
5	Popular articles	6
6	Extension literature	6
7	E-publication	4
<b>Total</b>		<b>33</b>

##### B. Details of Electronic Media to be produced

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

##### C. Details of social media platforms to be started / continued

S. No.	Type of social media platform	Title / Purpose	Number
1	YouTube Channel	For extension purpose	1
2	Facebook page	For extension purpose	1
3	Mobile Apps	For extension purpose	1
4	WhatsApp groups	For extension purpose	4
5	Twitter Account	For extension purpose	1
6	Any other (Pl. Specify)	-	-

##### D. Success stories/Case studies identified for development as a case (Based on previous years success)

S. No.	Title of success story / case study identified	Proposed month for case/story to be prepared/ developed
1	-	-

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

##### A. Practicing Farmers

- a)
- b)
- c)

##### B. Rural Youth

- a)
- b)
- c)

##### C. In-service personnel

- a)

- b)
- c)

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

### For OFT:

- i) PRA
- ii) Problem identified from Matrix
- iii) Field level observations
- iv) Farmer group discussions
- v) Others if any

### For FLD:

- i) New variety/technology
- ii) Poor yield at farmer's level
- iii) Existing cropping system
- iv) Others if any

## 5.3. Field activities

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

## 6. LINKAGES

### 6.1. Functional linkage with different organizations

Sl.No.	Name of organization	Nature of Linkage
1.	NABARD	Technology back stopping and member of SAC
2.	Jilla Udyog Kendra	Technology back stopping and member of SAC
3.	Milk Co-operative Society	Technology back stopping and member of SAC
4.	AFPRO, (NGO)	Farmer's training, Technology back stopping
5.	ATMA, Surendranagar	Training, Technology back stopping
6.	AKRSP (NGO)	Technology back stopping
7.	Gramin Suvidha Kendra (Indian Post)	Technology back stopping
8.	RSETI, Surendranagar	Technology back stopping
9.	GGRC, Surendranagar	Technology back stopping

### 6.2. Details of linkage with ATMA

S. No.	Programme	Nature of linkage
1	Training	Collaborative
2	Farmer Field Visit	
3	Diagnostic Visit	
4	Farm Field School	

### 6.3. Give details of programmes under National Horticultural Mission

S. No.	Programme	Nature of linkage
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1	-	-
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**6.4. Nature of linkage with National Fisheries Development Board**

S. No.	Programme	Nature of linkage
1	-	-

**6.5. Additional Activities planned including sponsored projects (NARI/DAESI/DAMU/DFI/PKVY/ Skill Trainings/TSP/KKA/Seed Hub on Pulses, etc.) schemes during 2021, if involved.**

S.No.	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.)	Names of the team members involved
1	-	-	-	-	-

**6.5.1. Details of activities planned in Doubling Farmers' Income (DFI) villages**

Name of DFI village selected	Total No. of families in the village	Interventions planned during 2021	No. of families to be covered under the intervention	Present annual income of the family (Rs/annum)	Expected annual income of the family after intervention (Rs/annum)
Karmad	358	Large scale adoption of GM and IPM technology in cotton, Area increased under MIS in cotton & vegetable crops, Diversification towards high value vegetable crops, Potentiality for profitable diversification of existing cropping pattern within crops and with non crop husbandry with scientific integration as per market demands, Bridging yield gaps between average yield and attainable and FLDs yield in Major crops, Adoption of superior plating material like hybrids or HYVs (Cotton, Greengram, gram, Vegetables), Increase the Seed replacement rate in cereal and pulse crops, Use of Pest and diseases resistant varieties and hybrids help in increase the yield, Integrated nutrient management (INM) can boost crop productivity & reduce the cost of cultivation, Integrated pest management technologies reduce the pest population up to 30 percent and increase the yield up to 10-12 percent, Use bio pesticides insecticides for controlling the pest, Seed treatment and enhancing seed replacement rate, Promoting pest and disease resistant varieties of crops (Pulses) for	358	87714	119291

		maximizing the production, IDM for reduction in cost of cultivation and improve in soil health in Cumin & Cotton crops, Traditional expertise in cattle rearing with almost every farm house holds possessing milch animals in varying numbers.			
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Ramdevgadh	130	<p>Large scale adoption of GM and IPM technology in cotton, Area increased under MIS in cotton &amp; vegetable crops, Diversification towards high value vegetable crops, Potentiality for profitable diversification of existing cropping pattern within crops and with non crop husbandry with scientific integration as per market demands, Bridging yield gaps between average yield and attainable and FLDs yield in Major crops, Adoption of superior plating material like hybrids or HYVs (Cotton, Greengram, gram, Vegetables), Increase the Seed replacement rate in cereal and pulse crops, Use of Pest and diseases resistant varieties and hybrids help in increase the yield, Integrated nutrient management (INM) can boost crop productivity &amp; reduce the cost of cultivation, Integrated pest management technologies reduce the pest population up to 30 percent and increase the yield up to 10-12 percent, Use bio pesticides insecticides for controlling the pest, Seed treatment and enhancing seed replacement rate, Promoting pest and disease resistant varieties of crops (Pulses) for maximizing the production, IDM for reduction in cost of cultivation and improve in soil health in Cumin &amp; Cotton crops, Traditional expertise in cattle rearing with almost every farm house holds possessing milch animals in varying numbers.</p>	130	90660	117858
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**6.5.2. Details of activities planned under NARI (Including FSN project)**

S. No.	Name of the village	Activities planned	No. of families to be covered
1	-	-	-

**6.5.3. Details of activities planned under Paramaparagat Krishi Vikas Yojana (PKVY)**

S. No.	Name of the village	Activities planned	No. of families to be covered
1	-	-	-

**6.5.4. Details of skill trainings planned (sponsored by ASCI)**

S. No.	Name of Job Role	Duration (No. of hours)	No. of participants
1	Organic grower	200	20
2	Quality seed grower	200	20

**6.5.5. Details of activities planned under TSP**

S. No.	Name of the village	Activities planned	No. of families to be covered
1	-	-	-

**6.5.6. Details of activities planned under Krishi Kalyan Abhiyan (KKA)**

S. No.	Name of the village	Activities planned	No. of families to be covered
1	-	-	-

**6.5.7. Details of seed production planned under Seed Hub on Pulses**

S. No.	Name of the crop	Variety	Stage(Foundation/Certified)	Quantity of seed to be produced (q)
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
<b>Total</b>				-

**6.6. Activities planned in respect of FPOs / FPCs**

1. No. of FPOs / FPCs to be formed:
2. No. of existing FPOs / FPCs to be facilitated:
3. Type of support to be provided to existing FPOs / FPCs:

S. No	Name of the FPO / FPC	No. of members	Major activities of FPO / FPC	Type of support to be provided by KVK
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

**6.7. Activities planned in respect of developing Integrated Farming System (IFS) Models on farmers' fields during 2021**

S. No	Name of the village	No. of IFS models to be identified / developed	Major components of IFS model
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

**7.0 Convergence with other agencies and line departments in the district:**

S. No.	Name of the department / Agency	Type of convergence	Area (ha) / No. of farmers to be benefited
1	State department of Agriculture - Dy. Director of Agriculture (Extension)	Collaborative	-
2	Dy. Director of Horticulture	Collaborative	-
3	Dy. Director of Animal husbandry	Collaborative	-
4	Dy. Director of Soil Conservation	Collaborative	-
5	Dy. Director of Social Forestry	Collaborative	-
6	Dy. Director of Fisheries	Collaborative	-
7	State bank of (Lead bank)	Collaborative	-
8	Doordarshan Kendra,	Collaborative	-
9	All Radio,	Collaborative	-
10	Farmers Training Centre (FTC), Surendranagar	Collaborative	-
11	Information Department, Surendranagar	Collaborative	-

**8. Innovator Farmer's Meet 2021**

Sl.No.	Particulars	Details	Expected No. of participants
1	-	-	-

**9. Utilization of hostel facilities**

S. No.	Month	No. of days to be utilized
1	January	-
2	February	-
3	March	-
4	April	-
5	May	-
6	June	-
7	July	-
8	August	-
9	September	-
10	October	-
11	November	-
12	December	-
	<b>Total</b>	-

**10. Details of online activities planned (If any)**

S. No.	Type of activities	No. of programmes	Mode of implementation (Video conferencing / Audio Conferencing / Facebook Live / YouTube Live, etc)	No. of participants to be covered
1	Farmers trainings	4	YouTube Live	300
2	Farmers scientist's interaction programme	3	YouTube Live	225

3	Farmers seminars	-	-	-
4	Expert lectures	--	-	-
5	Any other (Pl. specify)	-	-	-

### 11. Details of collaborative applied research projects planned if any

S. No.	Name of the research project	Funding agency	Collaborating organizations	Year of commencement	Major activities planned
1	-	-	-	-	-

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	
<b>Crop Production</b>										
13/01/2021	PF	Improved cultivation practices for Summer groundnut and Sesame	1	23	0	23	2	0	2	25
30/04/2021	PF	Improved cultivation practices for cotton Crop	1	23	0	23	2	0	2	25
18/05/2021	PF	Improved cultivation practices for Sesame and groundnut Crops	1	22	0	22	3	0	3	25
29/07/2021	PF	Irrigation methods in cotton crop	1	23	0	23	2	0	2	25
27/10/2021	PF	Organic farming in field crops and its market management	1	23	0	23	2	0	2	25
<b>Horticulture</b>										
18/01/2021	RW	Protected cultivation	1	0	20	20	0	5	5	25
20/02/2021	PF	Value addition in horticulture crops	1	25	0	25	0	0	0	25
03/05/2021	FW	Raising of seedlings of vegetable crops and nursery management	1	0	23	23	0	2	2	25
05/06/2021	FW	Kitchen gardening	1	00	25	25	0	0	0	25
16/10/2021	PF	Improved cultivation practices for Onion crop	1	23	0	23	2	0	2	25
24/12/2021	PF	Organic farming in vegetable crops	1	25	0	25	0	0	0	25
<b>Livestock production</b>										
15/02/2021	PF	Diseases management in farm Animals	1	23	0	23	2	0	2	25
31/05/2021	PF/FW	Scientific breeding strategies in dairy animals	1	0	23	23	0	2	2	25
03/06/2021	FW	Care and management of milch animals	1	0	23	23	0	2	2	25

12/07/2021	PF	Fodder production technology of sorghum and fodder bajara	1	23	0	23	2	0	2	25
23/11/2021	PF/FW	Clean milk production	1	23	0	23	2	0	2	25
<b>Agril. Engg.</b>										
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<b>Home Science</b>										
----	FW	Value addition in fruits and vegetables	1	0	23	23	0	2	2	25
----	FW	Income generation through Sewing and embroidery	1	0	23	23	0	2	2	25
<b>Plan Protection</b>										
18/02/2021	PF	Precaution while handling pesticides.	1	23	0	23	2	0	2	25
16/06/2021	PF	Importance of bio agents & Seed Treatment in <i>Kharif</i> crops	1	20	0	20	5	0	5	25
27/07/2021	FW	Integrated pest management in Sesame and groundnut crop	1	0	23	23	0	2	2	25
14/11/2021	PF	Biological & chemical control measures for pest and disease of cumin and chick-pea	1	23	0	23	2	0	2	25
<b>Fisheries</b>										
----	----	-----	----	----	----	----	----	----	----	----
<b>Soil Health</b>										
----	----	-----	----	----	----	----	----	----	----	----
<b>Agril. Extension</b>										
15/03/2021	PF	Entrepreneurial developments for rural youth	1	25	0	25	0	0	0	25
27/06/2021	PF	Use of ICT in agriculture	1	23	0	23	2	0	2	25
31/07/2021	PF	Effect of global warming and climatic changes in Agriculture	1	20	0	20	5	0	5	25
26/11/2021	FW	Formation & management of SHGs	1	22	0	22	3	0	3	25
<b>Total</b>			<b>26</b>	<b>412</b>	<b>183</b>	<b>595</b>	<b>38</b>	<b>17</b>	<b>56</b>	<b>651</b>

#### 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	
<b>Crop Production</b>										
30/01/2021	PF	Efficient water management in summer ground nut and sesame crops	1	23	0	23	2	0	2	25
05/02/2021	PF	Importance & use of bio -fertilizers	1	20	0	20	5	0	5	25
22/04/2021	PF	Crop production technology in	1	23	0	23	2	0	2	25

		green gram and gum guar								
17/06/2021	PF	Integrated nutrient management in cotton	1	23	0	23	2	0	2	25
13/09/2021	PF	Improved cultivation practices for cumin & fennel	1	23	0	23	2	0	2	25
23/09/2021	PF	Micro irrigation system in cotton crop	1	23	0	23	2	0	2	25
09/11/2021	PF	Integrated weed management in cumin and chickpea crops	1	23	0	23	2	0	2	25
<b>Horticulture</b>										
15/01/2021	PF	Storage practices of onion crop	1	23	0	23	2	0	2	25
11/02/2021	PF	Protected cultivation	1	23	0	23	2	0	2	25
21/04/2021	PF	Training and pruning in horticultural crops	1	23	0	23	2	0	2	25
15/06/2021	RY	Improved cultivation practices of tomato , brinjal & capsicum	1	23	0	23	2	0	2	25
16/08/2021	PF	Raising of seedlings of vegetable crops	1	22	0	22	3	0	3	25
12/10/2021	PF	Improved cultivation practices of onion and garlic	1	20	0	20	5	0	5	25
04/12/2021	RY	Micro irrigation in fruit and vegetable crops	1	23	0	23	2	0	2	25
<b>Live Stock Production</b>										
18/02/2021	PF	Health management in cattle and use of traditional treatments	1	23	0	23	2	0	2	25
05/05/2021	PF	Feeding management of new born calves and milch animals	1	23	0	23	2	0	2	25
17/06/2021	PF	Awareness about control of Mastitis, FMD, HS and BQ in animal	1	23	0	23	2	0	2	25
02/07/2021	PF	Infertility management in cow & buffalo	1	23	0	23	2	0	2	25
17/09/2021	PF	Clean milk production	1	23	0	23	2	0	2	25
15/10/2021	FW	Fodder crop production technologies for Lucerne and sorghum	1	0	23	23	0	2	2	25
09/11/2021	PF	Role & importance of minerals in feeding of dairy animals	1	23	0	23	2	0	2	25
<b>Agril. Engg.</b>										
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>Home Science</b>										
-	FW	Value addition in Aonla& Preparation of different bakery items	1	0	23	23	0	2	2	25
<b>Plant Protection</b>										
09/05/2021	FW	Importance of seeds treatment in <i>kharif</i> crops	1	0	20	20	0	5	5	25

25/06/2021	PF	Importance of natural enemies of the pest in the crops.	1	20	0	20	5	0	5	25
20/07/2021	PF	Management of pink boll worm in cotton	1	23	0	23	2	0	2	25
10/08/2021	PF	IPM in cotton & groundnut crop	1	23	0	23	2	0	2	25
05/09/2021	PF	Importance & uses of bio agents & bio pesticides	1	23	0	23	2	0	2	25
28/10/2021	FW	Importance of seeds treatment in <i>Rabi</i> crops	1	20	0	20	0	5	5	25
11/11/2021	PF	Diseases and pests management in chickpea	1	23	0	23	2	0	2	25
16/12/2021	PF	Integrated pests and diseases management in cumin	1	20	0	20	5	0	5	25
<b>Fisheries</b>										
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>Soil health</b>										
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>Agril. Extension</b>										
19/02/2021	RY	Income generation activities for farmers through secondary agriculture	1	25	0	25	0	0	0	25
12/04/2021	PF	Organic farming practices and certification process for organic farming	1	23	0	23	2	0	2	25
08/06/2021	PF	Group dynamics for farmers interest group	1	20	0	20	5	0	5	25
24/09/2021	PF	Govt. subsidy schemes for farmers	1	22	0	22	3	0	3	25
<b>Total</b>			<b>34</b>	<b>695</b>	<b>66</b>	<b>761</b>	<b>75</b>	<b>14</b>	<b>89</b>	<b>850</b>

### 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	
-	-	-	-	-	-	-	-	-	-	-	-

### 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	

<b>On Campus</b>										
--	Ext Workers	Pre-seasonal training on <i>Kharif</i> crops	1	18	0	18	1	1	2	20
--	Ext Workers	Pre-seasonal training on <i>Rabi</i> crops	1	20	0	20	0	0	0	20
--	Ext Workers	Preventive measure and first aid treatment of important diseases in dairy animals	1	20	0	20	0	0	0	20
--	Ext Workers	Control of Pink bollworm and sucking pest in cotton crop	1	20	0	20	0	0	0	20

**iv) Sponsored programmes**

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	
<b>a) Sponsored training programme</b>											
-	-	-	-	-	-	-	-	-	-	-	
			<b>Total</b>	-	-	-	-	-	-	-	
<b>b) Sponsored research programme</b>											
-	-	-	-	-	-	-	-	-	-	-	
			<b>Total</b>	-	-	-	-	-	-	-	
<b>c) Any special programmes</b>											
-	-	-	-	-	-	-	-	-	-	-	
			<b>Total</b>	-	-	-	-	-	-	-	

Annexure - II

**Details of Budget Estimate (2021-22) based on proposed action plan**

S. No.	Particulars	Proposed BE 2021-22 (Rs.)
<b>1</b>	<b>Recurring Contingencies</b>	
1.1	<b>Pay &amp; Allowances</b>	<b>90 lakhs</b>
1.2	<b>Traveling allowances</b>	<b>0.60 lakhs</b>
1.3	<b>Contingencies</b>	<b>17 lakhs</b>
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	<b>4 lakhs</b>
B	POL, repair of vehicles, tractor and equipments	<b>2 lakhs</b>
C	Meals/refreshment for trainees (ceiling upto Rs.150/day/trainee be maintained)	<b>3 lakhs</b>
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	<b>2 lakhs</b>
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	<b>1 lakhs</b>
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	<b>1 lakhs</b>
G	Training of extension functionaries	<b>1 lakhs</b>



<i>H</i>	Maintenance of buildings	<b>1 lakhs</b>
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory	<b>1 lakhs</b>
<i>J</i>	Library	<b>1 lakhs</b>
	<b>TOTAL Recurring Contingencies</b>	<b>124.6 lakhs</b>
<b>2</b>	<b>Non-Recurring Contingencies</b>	<b>0.0</b>
2.1	<b>Works</b>	<b>0.0</b>
2.2	<b>Equipments including SWTL &amp; Furniture</b>	<b>0.0</b>
2.3	<b>Vehicle</b> (Four-wheeler/Two-wheeler, please specify)	<b>0.0</b>
2.4	<b>Library</b> (Purchase of assets like books & journals)	<b>0.0</b>
	<b>TOTAL Non-Recurring Contingencies</b>	<b>0.0</b>
<b>3</b>	<b>REVOLVING FUND</b>	<b>0.0</b>
	<b>GRAND TOTAL</b>	<b>124.6 lakhs</b>

-----x-----x-----