# **ANNUAL PROGRESS REPORT**

(APRIL-2018 TO MARCH-2019)

SUBMITTED TO ICAR-ATARI, ZONE-VIII, PUNE



# **SUMITTED BY**

# **KRISHI VIGYAN KENDRA**

SAMODA-GANWADA

**TA.SIDHPUR, DIST.PATAN (GUJARAT)** 

# ICAR-ATARI, Pune DETAILS OF ANNUAL PROGRESS REPORT OF KVK, District – Patan (Gujarat) (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	Office	FAX	kvksamoda@yahoo.c	
Saraswati Gram Vidhyapith Samoda-Ganwada Ta.Sidhpur, Di. Patan Gujarat, Pin. 384 151	02767 285528	02767 285528	om	

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

Address	Telephone		E mail	Website address
	Office	FAX		
Saraswati Gram Vidyapeeth,				-
Samoda-Ganwada	02767	02767	kvksamoda@ya	
Ta.Sidhpur, Di. Patan	285199	285528	hoo.com	
Gujarat, Pin. 384 151 (N.G.)				

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

Name	Telephone / Contact		
Dr. Upesh Kumar	Office	Mobile	Email
Senior Scientist and Head			
Krishi Vigyan Kendra			
Samoda-Ganwada	02767 285528	9425661514	kvksamoda@yahoo.com
Ta.Sidhpur, Di.Patan Gujarat			
Pincode-384151			

# 1.4. Year of sanction: 1993

#### 1.5. Staff Position (as on March 31, 2018)

				If Permanent, Please indicate			If Temporary,	
SI. No.	Sanctioned post	Name of the incumbent	Discipline	Current Pay Band	Current Grade Pay	Current basic	Date of joining	pl. indicate the consolidated amount paid (Rs./month)
1.	Senior Scientist and Head	Dr.Upesh Kumar	Plant Pathology	PB-4 - 37,400- 67000	9000	49240	01/10/2016	-
2.	Subject Matter Specialist	Shri G.A.Patel	Plant Pathology	PB-3 - 15600- 39100	6600	40450	06/5/1993	-
3.	Subject Matter Specialist	Shri H.P.Patel	Extension Education	PB-3 - 15600- 39100	6600	40450	08/5/1993	-
4.	Subject Matter Specialist	Smt. H.B.Patel	Home Science	PB-3 - 15600- 39100	6600	34280	19/8/2002	-
5.	Subject Matter Specialist	Shri S.S. Darji	Horticulture	PB-3 - 15600- 39100	5400	25080	02/4/2012	-
6.	Subject Matter Specialist	Shri R.P.Chaudhari	Agronomy	PB-3 - 15600- 39100	5400	22950	16/4/2015	-
7.	Subject Matter Specialist	Shri S.J.Patel	Animal Science	PB-3 - 15600- 39100	5400	22280	01/09/2016	-
8.	Programme Assistant	Smt. J.S.Patel	-	PB-2 - 9300- 34800	4600	26740	27/7/1996	-
9.	Computer Programmer	Shri D.R.Patel	-	PB-2 - 9300- 34800	4600	23840	06/05/1993	-
10.	Farm Manager	Shri D.N.Patel	-	PB-2 - 9300- 34800	4600	27240	22/2/1996	-
11.	Accountant/Superintendent	Shri N.B.Patel	-	PB-2 9300-34800	4600	27290	25/1/1996	-
12.	Stenographer	Shri J.K.Patel	-	PB-1 5200-20200	2800	13110	25/01/1996	-
13.	Driver 1	Shri R.A.Patel	-	PB-1 - 5200- 20200	2000	10250	14/8/2010	-
14.	Supporting staff 1	Shri R.H.Desai	-	PB-1 - 5200- 20200	1900	12060	14/5/1993	-
15.	Supporting staff 2	Shri R.D.Thakor	-	PB-1 - 5200- 20200	1900	12060	25/1/1996	-
16.	Supporting staff 3	Shri P.V.Senma		PB-1 - 5200- 20200	1900	12060	25/1/1996	-

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

S. No.	Item	Area (ha)
1	Under Buildings	1.00
2.	Under Demonstration Units	2.00
3.	Under Crops	9.00
4.	Orchard/Agro-forestry	5.00
5.	Others (specify)	3.00
	Total	20.00

# 1.7. Infrastructural Development:

# A) Buildings

		Source of	Stage					
S.	Name of building	funding		Complete		Incomplete		e
No.	Name of building		Completion	Plinth area	Expanditura (Ds.)	Starting	Plinth area	Status of
			Year	(Sq.m)	Experiature (Ks.)	year	(Sq.m)	construction
1.	Administrative Building	ICAR	1993	694	21,87,250=00	-	-	-
2.	Farmers Hostel	ICAR	1999-2000	308.82	12,37,848=11	-	-	-
3.	Staff Quarters (9)	ICAR	1996-97	731	16,89,512=74	-	-	-
4.	Demonstration Units (2)	RKVY	2012-13	4,000	5,45,000=00	-	-	-
5	Fencing	ICAR	2001-02	-	2,99,902=00	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	ICAR	2006-07	262.89	2,68,039=00	-	-	-
8	Farm Godown	ICAR	2006-07	44.89		-	-	-
9.	Implement shed	ICAR	2011-12	-	285640=00	-	-	-
10.	Other	-	-	-	-	-	-	-

#### B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor	1992-93	1,82,910=00	-	Not in working
Jeep	2009-10	7,60,236=00	174963	Working
Motorcycle	2010-11	49,695=00	51904	Working

#### C) Equipments& AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Slide Projector/ O.H.P.	1994	23,969=00	Working
Mega Phone	1994	2,140=00	Working
Computer + Printer	2006	66,530=00	Working
Stabilizer	2006	1,750=00	Working
LCD Projector	2007	54,326=92	Working
DVD Player	2007	3,846=16	Working
Laptop	2007	39,423=08	Working
P.A. System	2009	28,600=00	Working
Computer	2009	49,500=00	Working
Generator	2009	98,500=00	Working
Fax machine	2009	19,800=00	Working
Multicrop thresher	2011	1,46,000=00	Working
Rotary weeder	2011	51,450=00	Working
Power sprayer	2011	15,855=00	Working
Seed cum fertilizer drill	2011	27,250=00	Working
K-YAN	2013	76,650=00	Working
Oven	2014	7200=00	Working
Sewing Machine	2014	8700=00	Working
Computer (Dell inspiron 3250) (No.2)	2017	68000=00	Working

Epson –M-200 printer (No.1)	2017	12000=00	Working
AC (No.2)	2017	98000=00	Working
Podium –PD-900	2017	40000=00	Working
Promax audio trally	2017	16000=00	Working
Interactive white board-IR80	2017	32000=00	Working
Double sided pinup board	2017	17050=00	Working
Folding banner stand	2017	2000=00	Working
Projection screen	2017	3200=00	Working
Camera (No.3)			
Canon DLSR	2017	43495=00	
Sony digital	2017	8390=00	Working
Sony Handy cam	2017	31990=00	
Philips 55' digital signage display	2017	99800=00	Working
Magazin display stand (No.2)	2017	7640=00	Working
Motorized scroller	2017	17300=00	Working
Acrylic charts (57)	2017	79800=00	Working
Rolling charts (27)	2017	8910=00	Working
Standy with flex banner (No.4)	2017	3680=00	Working
GPS-Navigator	2017	8000=00	Working
Sprayers No.4)	2017		
-Aspee durotekic battery sprayer	2017	14650=00	
-Aspee Bolo motorized knapsack sprayer	2017		Working
-Aspee duroteck hitech sprayer	2017		
Nursery tools	2017	35965=00	Working
Water cooler with purifier	2017	52100=00	Working
Soil testing lab kit (No.2)	2017	172000=00	Working
Chaff cutter	2017	26964=00	Working

Grinder	2017	16065=00	Working
BP monitor	2017	1200=00	Working
Weighting scale	2017	1000=00	Working
Acrylic specimen box (30)	2017	10500=00	Working
Agrimedia video film (125)	2017	13125=00	Working
Double sided pinup board (No.2)	2017	34100=00	Working

# **1.8. Details of SAC meetings to be conducted in the year**

Date	Name and Designation of Participants	Salient Recommendations in 2018-19	Action taken report of last SAC (2017-18)
Date 22- 02- 2019	<ul> <li>Name and Designation of Participants</li> <li>Sri M.L. Patel, Director, SGVP, Samoda-Ganwada, District – Patan</li> <li>Shri A.K.Patel, Campus Director, SGVP, Samoda-Ganwada, District – Patan</li> <li>Dr K.A.Thakkar, DEE, SDAU, S.K. Nagar</li> <li>Dr.R.A.Patel, Sr. Scientist &amp; Head, KVK, Mahesana</li> <li>Shri M.J.Patel, Manager, Lead Bank, Patan</li> <li>Shri Rakesh Kumar Varma, D.D.M., NABARD, Patan</li> <li>Shri V.V. Desai, Assistant Director, G.L.D.C., Patan</li> <li>Solanki Sandip, D.P.D., ATMA, Patan</li> <li>Shri C.S.Patel, ADH, DHO, Patan</li> <li>A.G.Mangukiya, Incharge, G.N.F.C., Sidhpur</li> <li>Shri Vipul Parmar, Incharge, G.S.F.C., Sidhpur</li> <li>Shri J.P.Patel, Deputy Manager (A H), Dudha Sagar Dairy, Sidhpur</li> <li>Smt Dipali Desai, AO, Agriculture Department, Sidhpur</li> <li>Shri Bharat K.Chaudhary, News Reporter, D.D.News, Patan</li> <li>Shri J.K.Prajapati,, Reliance foundation, Patan</li> </ul>	<ul> <li>Salient Recommendations in 2018-19</li> <li>KVK promote IFS model among the farming community.</li> <li>Require more focus on popularization of organic farming.</li> <li>To promote Horticulture crop cultivation in district</li> <li>To create awareness regarding use of Biopesticides &amp; Bio-fungicides</li> <li>To promote the Green manuring for better soil health</li> <li>To organize Animal Health Camp with the coordination of Department</li> <li>To promote Azolla as Animal feed</li> <li>Aware to farmers about Hay/ Silage making</li> <li>Functional linkage should be developed in NABARD activities</li> <li>Focus on FPOs development &amp; strengthening</li> <li>To create awareness regarding balance use of chemical fertilizer</li> <li>To create awareness regarding use of water soluble fertilizers as well as micronutrient in field crop</li> <li>KVK should develop commodity based group in adopted villages</li> <li>KVK should provide technical backup for conducting FFS</li> </ul>	<ul> <li>Action taken report of last SAC (2017-18)</li> <li>Training – 06 No (128 Participants)</li> <li>Lecture delivered – 02 No (100 Participants)</li> <li>CD Show- 02 No (68 Participants)</li> <li>KVK sale - 3310 Kg Vermi compost</li> <li>KVK directly covered in all taluka except Radhanpur &amp; Santalpur. Thesetwo taluka are also covered by KVK through convergence programme of other department</li> <li>IFS Model is established at KVK &amp; Rs 65,156 income received in 1 Ha IFS Model</li> <li>Training – 05 No (139 Participants)</li> <li>Lecture delivered – 01 No (40 Participants)</li> <li>CD Show- 01 No (40 Participants)</li> <li>FLD - 06 No of FLDs (369 No of Demo.)</li> <li>KVK sale 6031 No of sampling of fruit plants, 15000 No of seedling of vegetables.</li> <li>Enhancing the area under horticultural crop with convergence programme of KVK &amp;ATMA</li> <li>With convergence of department, KVK organized 03 No of Animal Health Camp</li> <li>KVK conducted OFT on By pass fat &amp; By pass protein &amp; FLD on Probiotic, &amp; Mineral mixture</li> <li>KVK Conducted 02 No of Farmers training, 01 No of training to extension functionaries, 01 No of training to extension functionaries,</li> </ul>
	Shri V L Chaudhary, Progressive	✤ To develop strong linkage between KVK &	01 No of FLD, 02 No of Field Day & regularly visit to farmers field for promotion

Farmer, Village - Nagvasan	Reliance foundation in all the activities.	of round the year green fodder production
<ul> <li>Shri V V Patel, Progressive Farmer, Village - Danodarda</li> <li>Smt. Kajal J., Progressive Farm women, Village - Chandravati</li> <li>Smt. Jinal K., Progressive Farm women, Village - Chandravati</li> <li>Dr Upesh Kumar, Member Secretary and Senior Scientist &amp; Head, KVK, District – Patan</li> </ul>	<ul> <li>To promote live stock production for regular income</li> <li>To promote the value addition activities</li> <li>KVK aware to farming community about vermin compost production technology</li> <li>KVK should provide good quality of seed and sampling.</li> <li>KVK should organized the exposure visit</li> <li>More emphasis should be given on Rural craft activities for empowerment of rural income.</li> </ul>	<ul> <li>KVK conducted 06 No of training, 02 No of training to extension functionaries, &amp; 04 No of FLD for promotion of liquid bio fertilizer &amp; STV based nutrient management</li> <li>KVK conducted 02 No of training to farmers &amp; 01 No of FLD for promotion of green manuring in castor</li> <li>KVK regularly provide the technical support to line department as well as NGOs/ Private organization working in agriculture field</li> </ul>

# **2. DETAILS OF DISTRICT**

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

S. No	Farming system/enterprise
1.	Crop production – Dairy
2.	Crop Production – Horticulture – Dairy
3.	Poultry Farming.
4.	Cropping system predominant in district
	- Castor
	- Cotton
	- Green gram/ Black gram/ Cluster bean – Wheat/ Mustard/ Chickpea/ Cumin / Funnel – Pearl millet

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

a) Soil type

Sl. No.	Agro-climatic Zone	Characteristics				
1	Zone No.4	- Average rainfall is 610 mm.				
	(Patan, Saraswati, Sidhpur and Chansama taluka)	- Soil type is loamy, sandy, saline & medium black.				
		- Main crops- Cotton, Wheat, Castor, Cumin, Bajara, Mustard, Fennel, Chilli, Carrot				
2	Zone No.8	- Average rainfall is 500mm.				
	(Harij, Sami, Shankheswar, Radhanpur and Santalpur	- Soil type is loamy, sandy, saline and medium black.				
	taluka)	- Main Crops - Rainfed Cotton, Wheat, Gram, Dill seed, Mustard & Cumin.				

#### b)Topography

Sr.	Agro ecological	Soil texture	Rainfall	Specia	Special features		Princ	cipal crops	Taluka cover
No.			mm						
1.	Alluvial sandy soil with low	Loamy sand to sandy loam	500-700	Low rainfall dr	y climate		Castor,	Mustard,	Sidhpur :89.56%
	rainfall						Bajra,	Cotton,	Patan :79.9%
							Sorghum	ı	
2.	Saline soil with low rainfall	Sandy loam saline soil	500-700	Low rainfall,	dry clin	mate, and	Cotton,	Castor, Bajra,	Chanasma : 78.64%
				absence of vege	etative co	over	Pulses		
3.	Salt affected soil	Medium black saline soil	400-500	Low rainfall	dry cli	mate and	Bajra,	Sorghum,	Harij : 65.45%
				absence of vege	etative cov	ver	Cumin, (	Gram, Cotton	Sami :84.32%
									Radhanpur: 81.54%
									Santalpur ; 90.98%

# 2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1.	Heavy black soil	- High Water holding capacity	30400
		- Low permeability	
		- Water logging condition	
		- Fertile soil	
2.	Medium black soil	- Medium WHC	334400
		- Medium permeability	
		- Fertile soil	
3.	Loamy soil	- More retain water and nutrient than sandy soil and low retain water and nutrient	213220
		than black soil	
4.	Sandy soil	- Low WHC	165424
		- High permeability	
5.	Saline soil	- Salts accumulation on the soil surface	109535
		- Water logging condition	
		- Crack formation during Summer Season	

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

S. No	Сгор	Area (ha)	Production (MT.)	Productivity (Qt./ha)
Α	Field Crop		· · · · ·	
	Bajra-Kharif	1065	577	5.42
	Bajra-Summer	5745	15190	26.44
	Cotton- Desi	18290	12157	6.64
	Hybrid	34900	31375.1	8.99
	Castor	111980	180960	16.16
	Mustard	29262	44420	15.18
	Wheat	40180	137355	34.18
	Pulses Gram	7180	3698	5.15
	Green-gram	894	407	4.55
	Black-gram	1789	850	4.75
	Cluster bean (Seed)	42085	25335	6.02
	Moth bean & cowpea	321	157	4.88
В	Fruit crops (Area- Ha, Produc	tion in M.T. & Productivity in 1	M.T./Ha)- 2018-19	
	Citrus	827	8766.2	10.60
	Mango	98	465	4.74
	Ber	344	3618.88	10.52

Pomegranate         646         7106         11.00           Date Palm         165         1325         8.03           Papaya         125         5240         41.92           Aonla         152         1299.6         8.55           Total/Average         2377         28000.28         11.78           C         Vegetable crops (Area-IIa, Production in M.T. & Productivity in M.T./IIa)-2018-19         -           A         Potato         767         16877.57         22.00           Brinjal         343         6469.8         11.86           Cabbage         210         3792         18.06           Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Caurbits         657         8731.08         13.29           Total/Average         2427         45317.65         18.67           D         Spice crops (Area-Ha, Production in M.T. & Productivity in M.T./Ha)-2018-19         -         -           Currin         41672         214246.3         5.14         -           Fenuel         3360         7727.7         2.30         -           Gartic         1         5.6		Guava	20	179.6	8.98
Date Palm         165         1325         8.03           Papaya         125         5240         41.92           Aonla         152         1299.6         8.55           Total/ Average         2377         28000.28         11.78           C         Vegetable crops (Area-Ha, Production in M.T. & Productivity in M.T./Ha)-2018-19            A         Potato         767         16877.57         22.00           Brinjal         343         6469.8         18.86           Cabbage         210         3792         18.06           Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total/ Average         2427         45317.65         18.67           D         Spice crops (Arca-Ha, Production in M.T. & Productivity in M.T./Ha)-2018-19         -         -           Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Gartic         1         5.6         5.60           Coriander         30         50.7         1.69		Pomegranate	646	7106	11.00
Papaya         125         5240         41.92           Aonla         152         1299.6         8.55           Total/Average         2377         28000.28         11.78           C         Vegetable crops (Area-Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         11.78           V         Potato         767         16877.57         22.00           Brinjal         343         6469.8         18.86           Cabbage         210         3792         18.06           Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total/Average         2427         45317.65         18.67           D         Spice crops (Area-Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         -           Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek<		Date Palm	165	1325	8.03
Aonla         152         1299,6         8.55           Total/Average         2377         28000,28         11.78           C         Vegetable crops (Area-Ha, Production in M.T. & Productivity in M.T/Ha)-2018.19		Papaya	125	5240	41.92
Total/ Average         2377         28000.28         11.78           C         Vegetable crops (Area-Ha, Production in M.T. & Productivity in M.T./Ha)-2018-19		Aonla	152	1299.6	8.55
C         Vegetable crops (Area- IIa, Production in M.T. & Productivity in M.T./Ha)- 2018-19           Potato         767         16877.57         22.00           Brinjal         343         6469.8         18.86           Cabbage         210         3792         18.06           Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total / Average         2427         45317.65         18.67           D         Spice crops (Area- IIa, Production in M.T. & Productivity in M.T./Ha)- 2018-19             Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300		Total/ Average	2377	28000.28	11.78
N         Potato         767         16877.57         22.00           Brinjal         343         6469.8         18.86           Cabbage         210         3792         18.06           Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total/ Average         2427         45317.65         18.67           D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         Cumin         41672         214246.3         5.14           Ennel         3360         772.7         2.30         3         3         41.01         13.67           Fenuel         3360         772.7         2.30         3         41.01         13.67           Fenugreck         900         1782         1.98         149         198         149           Jayain         200         195         0.98         3         41.01         13.67           Fenugreck         900         1782         1.98         145         145         145           Jayain         200         195         0.98         300<	С	Vegetable crops (Area- Ha, P	roduction in M.T. & Productivity	/ in M.T./Ha)- 2018-19	
Brinjal         343         6469.8         18.86           Cabbage         210         3792         18.06           Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total/ Average         2427         45317.65         18.67           D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)-2018-19         5.14           Fennel         3360         7727.7         2.30           Garlie         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreck         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         5.14           Marigold         48	\	Potato	767	16877.57	22.00
Cabbage         210         3792         18.06           Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total/ Average         2427         45317.65         18.67           D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19            Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total / Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.01           Marigold         48		Brinjal	343	6469.8	18.86
Tomato         160         3987.2         24.92           Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total/Average         2427         45317.65         18.67           D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)-2018-19             Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19            Rose         42         365.82         8.71           Marigold         48		Cabbage	210	3792	18.06
Cauliflower         290         5460         18.83           Cucurbits         657         8731.08         13.29           Total/ Average         2427         45317.65         18.67           D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19            Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2 <th16<< td=""><td></td><td>Tomato</td><td>160</td><td>3987.2</td><td>24.92</td></th16<<>		Tomato	160	3987.2	24.92
Cucurbits         657         8731.08         13.29           Total/ Average         2427         45317.65         18.67           D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19            Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Other         2         16		Cauliflower	290	5460	18.83
Total/ Average         2427         45317.65         18.67           D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19             Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19            Rose         42         365.82         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00		Cucurbits	657	8731.08	13.29
D         Spice crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19           Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         1.45           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00		Total/ Average	2427	45317.65	18.67
Cumin         41672         214246.3         5.14           Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/ Average         94         837.81         8.91	D	Spice crops (Area- Ha, Produ	ction in M.T. & Productivity in N	И.Т./На)- 2018-19	
Fennel         3360         7727.7         2.30           Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00		Cumin	41672	214246.3	5.14
Garlic         1         5.6         5.60           Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00		Fennel	3360	7727.7	2.30
Coriander         30         50.7         1.69           Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         Kase         42         365.82         8.71           Marigold         48         439.99         9.17         8.00           Other         2         16         8.00         8.00           Total/ Average         94         837.81         8.91		Garlic	1	5.6	5.60
Turmeric         3         41.01         13.67           Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/Average         94         837.81         8.91		Coriander	30	50.7	1.69
Fenugreek         900         1782         1.98           Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/Average         94         837.81         8.91		Turmeric	3	41.01	13.67
Isangul         114         129.96         1.14           Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19            Marigold         42         365.82         8.71           Marigold         2         16         8.00           Other         2         16         8.00           Total/ Average         94         837.81         8.91		Fenugreek	900	1782	1.98
Ajwain         200         195         0.98           Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Rose         42         365.82         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/ Average         94         837.81         8.91		Isangul	114	129.96	1.14
Suwa         3300         4785         1.45           Total/ Average         49580         228963.3         4.62           E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19         8.71           Rose         42         365.82         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/ Average         94         837.81         8.91		Ajwain	200	195	0.98
Total/ Average49580228963.34.62EFlower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19Rose42365.828.71Marigold48439.999.17Mogra2168.00Other2168.00Total/ Average94837.818.91		Suwa	3300	4785	1.45
E         Flower crops (Area- Ha, Production in M.T. & Productivity in M.T./Ha)- 2018-19           Rose         42         365.82         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/ Average         94         837.81         8.91		Total/ Average	49580	228963.3	4.62
Rose         42         365.82         8.71           Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/ Average         94         837.81         8.91	Ε	Flower crops (Area- Ha, Proc	luction in M.T. & Productivity in	M.T./Ha)- 2018-19	
Marigold         48         439.99         9.17           Mogra         2         16         8.00           Other         2         16         8.00           Total/Average         94         837.81         8.91		Rose	42	365.82	8.71
Mogra         2         16         8.00           Other         2         16         8.00           Total/Average         94         837.81         8.91		Marigold	48	439.99	9.17
Other         2         16         8.00           Total/ Average         94         837.81         8.91		Mogra	2	16	8.00
Total/ Average         94         837.81         8.91		Other	2	16	8.00
		Total/ Average	94	837.81	8.91

Source: District agriculture/ Horticulture/ Animal Husbandry department.

# 2.5. Weather data (2018-19)

Month	Dainfall (mm)	Temperature 0 C			
IVIOIIUI	Kainian (inin)	Maximum	Minimum		
April-18	-	39.36	23.89		
May-18	-	40.91	27.82		
June-18	-	38.85	26.35		
July-18	-	33.48	21.08		
August-18	165 mm	30.96	23.84		
September-18	72 mm	31.76	23.04		
Oct 18	-	31.00	24.08		
Nov 18	-	30.84	20.07		
Dec 18	-	25.29	11.97		
Jan19	-	24.30	9.92		
Feb19	-	27.27	13.06		
March-19	-	33.40	19.30		

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

Category Population		Production	Productivity
Cattle			
Crossbred	123530	1104	3.68 kg./day
Indigenous	7493	2520	8.40 kg./day
Buffalo	363514	1350	4.50 kg./day
Sheep			
Crossbred	53750	-	-
Indigenous	-	-	-
Goats	102937	-	-
Pigs	131	-	-
Crossbred	-	-	-
Indigenous	-	-	-
Rabbits	185	-	-
Poultry			
Hens	26210	7207750 egg./yr.	275 egg./bird/yr.

#### 2.7. Details of Operational area / Villages

Taluka	Name of	Name of the	Major crops & enterprises	Major problem identified	Identified thrust area
	sub	Village			
	division				
Sidhpur	Patan	Madhupura,	Castor	-Average productivity is low in major	-Average productivity of major crops
		Sagodia,	Cotton	crop.	is low
		Vamaiya,	Mustard	-Leaf curl infestation in chilli	
		Matpur,	Wheat	-Low ground water table.	-Micro irrigation system
		Khimiyana	Bajra		
		Danodarda	Cumin	-Soil productivity status is low	-Reclamation of problematic soil
		Lanva	Fennel	-Problematic soil- Saline & Alkaline	
Patan		Biliya	Tobacco	soil	-Area under fruit & vegetable crop is
		Chandrawati	Carrot	-Flower dropping in cotton	very low
		Kanesara	Pomegranate	-Pest & diseases intensity high-para	
Chanasma		Ganglasan	Kagzi lime	wilt in cotton, termite in wheat, Blight	-Scope & Importance of secondary
Sami		Kakoshi	Chilli	in Cumin, Mealybug in Cotton, Semi-	agriculture
				looper & prodenia in castor, and citrus	
				canker & dieback in lime	-Average milk production per animal
				-Pink ball worm infestation in	is low
			Cumin	BT Cotton	
01 11 1			Ajwain		-Farm mechanization
Shankheshwar		77 1	Gram	-Less adoption of horticultural crops	
	L	Kukarana,			-Women empowerment through
TT	ind	Kathi,	Guar	-Loss of food grains due to poor	income generation activities
Harıj	lan	Orumana,		knowledge and storage facility	-No use of micronutrient in fruits &
D 11	adl	Tuvad	Castor		vegetable crop
Radhanpur	R	Biliya		-Average milk production per animal is	
		Kuwarad	Wheat	low	
			Dilseed		
Santalpur			Desi Cotton		

# **2.8.** Priority thrust areas:

Crop/ Enterprise	Thrust area	Crop/ Enterprise	Thrust area
Castor	Integrated Nutrient management	Chilli	Nursery Management
	Micro Irrigation System		Integrated Nutrient Management
	Integrated weed management		Micro Irrigation System
	Integrated pest management		Value Addition
	Integrated Disease management		Production Technology
			Integrated Disease Management
			Integrated Pest Management
Cotton	Integrated Nutrient management	Pomegranate and Lime	Plant propagation technique
	Integrated weed management		Training & Pruning
	Micro Irrigation System		Rejuvenation of old orchards
	Integrated pest management		Micro Nutrient Application
	Integrated Disease management		Micro Irrigation System
			Integrated Disease Management
			Integrated Pest Management
			Value Addition
Chickpea	Integrated Nutrient management	Soil Health	Production of Organic Inputs
	Integrated weed management		Soil Fertility Management
	Micro Irrigation System		Management of problematic soil
	Integrated pest management		
	Integrated Disease management		
Mustard	Integrated Nutrient management	Live-stock	Dairy Management
	Integrated weed management		Feed Management
	Micro Irrigation System		Disease Management
	Integrated pest management		Breeding Management
	Integrated Disease management		Production of livestock feed and fodder

			Animal nutrition management
Wheat	Integrated Nutrient management	Fodder Bajra and Sorghum	egrated Crop Management
	Integrated weed management		egrated Nutrient Management
	Micro Irrigation System		lder production
	Integrated pest management		
	Integrated Disease management		
Cumin/ Fennel/Ajwain	Production & management technology	Home Science	Use of solar cooker
	Water management		Fruits & veg. preservation
	Integrated Pest & Disease management		Farm women empowerment through income
	Value addition		generation activity
			Drudgery reduction
			House hold Food Security by kitchen
			gardening and nutritional gardening
			Income generating activity
			Low cost & high nutrition diet
			Women & child care

# **3. TECHNICAL PROGRAMME**

3.1. A. Details of targeted mandatory activities by KVK

#### 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
10	10	89	89	18	18	255	245

	Tra	ining		Extension Programmes					
	3				4				
Number of Courses		Number of Participants		Number of Programmes		Number of participants			
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement		
77	81	1850	1850         2123         1		204	6022	15859		

Seed Proc	luction (Qtl.)	Planting materials (Nos.)			
	5	6			
Target	Achievement	Target	Achievement		
20	18.75	10500	14394		

Livestock, poultry str	ains and fingerlings (No.)	Bio-products (Kg)			
7 Tourst Ashievement		8			
Target	Achievement	Target	Achievement		
		5000	10500		

# 3.1. B. Operational areas during 2018-19

S.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	Intervention (OFT, FLD, Training, extension activity etc.)*
1	Cotton	Imbalance use of nutrient Heavy infestation of pest- pink boll worm Heavy incidence of disease- Wilt	11,000 ha	Chansama	Training, FLD, Field Day, Field visit etc
2	Black gram	Use of old/ local variety Imbalance use of nutrient Infestation of pest Incidence of disease	1000 ha	Sankeshwar & Sami	Training, FLD, Field Day, Field visit etc
3	Castor	Imbalance use of nutrient Scarcity of irrigation water Infestation of pest Incidence of disease	75000 ha	Saraswati, Siddhapur	Training, FLD, Field Day, Field visit etc
4	Chickpea	Use of old/ local variety Imbalance use of nutrient Scarcity of irrigation water Infestation of pest- Heliothis Incidence of disease- Wilt	5000 ha	Sankeshwar & Sami	Training, FLD, Field Day, Field visit etc
5	Mustard	Use of old/ local variety Imbalance use of nutrient Scarcity of irrigation water Infestation of pest- Aphid Incidence of disease-blight	20000 ha	Chanasma & Patan	Training, OFT, FLD, Field Day, Field visit etc

6	Wheat	Imbalance use of nutrient	25000 ha	Siddhapur	Training, OFT, FLD, Field
		Scarcity of irrigation water			Day, Field visit etc
		Infestation of pest- termite			
7	Chilli	Imbalance use of major nutrient& no use of	75 ha	Biliya, Chandrawati &	Training, FLD, Field Day,
		micro nutrient		Madhopura	Field visit etc
		Scarcity of irrigation water			
		Infestation of pest- sucking pest			
		Incidence of disease – leaf curl			
8	Fennel, Ajwain &	Use of old/ local variety	25000 ha	Danodarda, Kathi, Patan	Training, FLD, Field Day,
	Cumin	Imbalance use of nutrient			Field visit etc
		Scarcity of irrigation water			
		Incidence of disease-blight			
8	Milch animal- Cow	Heavy infestation of endo & ecto parasite	675 % animal are	Madhopura, Agar,	Training, OFT, FLD, Field
	& Buffalo	No use of by pass fat	affected	Kimbuwa, Orumana	Day, Field visit etc
		No or improper use of mineral mixture			
		Not availability of green fodder in round the			
		year			

#### **3.2.Technologies to be assessed**

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation		01		Crops				crop5	Crops	01
Seed / Plant production										
Weed Management										
Integrated Crop Management		01		01	01					03
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries	01									01
Value addition										
Integrated Pest Management	01									01
Integrated Disease Management			01			01				02
Resource conservation technology										
Small Scale income generating										
enterprises										
TOTAL	02	02	01	01	01	01				08

#### A.2. Abstract on the number of technologies to be assessed in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Wormi culture	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management	02							02
Feed and Fodder								
Small Scale income generating								
enterprises								
TOTAL	02							02

#### B. Achievements on technologies Assessed

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

Thematic	Crop	Name of the technology assessed	No. of	Number of	Area in ha (Per
areas			trials	farmers	trail covering
					all the
					Technological
					<b>Options</b> )
Varietal	Castor	Assessment of Hybrid varieties in castor (GCH-8)	20	20	1.0
evaluation					
ICM	Mustard +Lucerne	Assessment of mixed cropping mustard with Lucerne	10	10	2.5
Farm	Wheat	Line sowing method through seed cum fertilizer drill with recommended seed rate-125	10	10	2.5
Machineries		kg./ha.			
ICM	Cumin + Ajwain	Intercropping – Cumin + Ajwain (4:1)	5	5	1.0
ICM	Chilli-water melon	cropping system –Chilli-water melon	4	4	1.0
IPM	Wheat	Assessment of IPM module (Seed treatment by Fipronil 5SC @ 600ml./5 lit. water/100kg	10	10	2.5
		seed before 8hrs of sowing and soil treatment by Fipronil 5SC @ 1.6 lit./ha. with 4 <sup>th</sup>			
		irrigation) for the management of termite in chickpea			
IDM	Chickpea	Assessment of IDM module (Seed treatment by T viridae @ 10 g/Kg seed along with soil	10	10	2.5
		inoculation by T viridae @ 2.5 Kg/ ha) for the management of wilt disease in chickpea			
IDM	Lime	Spraying of Fosetyle AL 80% WP @ 20gm./15 lit water immediately after the cutting of	10	10	-
		dry / disease twigs of the plants (2 sprays in 12-15 days interval) for management of			
		gummosis disease			
		Total	79	79	13

#### B.2 Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Feed management	Cross breed cow	Assessment of bypass fat (rumen protected fat) in diets of cross breed cows [Use of Dry fodder, Green fodder & concentrate with bypass fats (100 gm/day/animal) in diets of cross breed cows]	05	05
Feed management	Mahesani Buffalo	Assessment of bypass protein on milk production in Mehsani buffalo (Use of green fodder, dry fodder, concentrate with bypass protein concentrate @ 1 kg per day per animal for 60 days)	05	05
	10	10		

#### C1.Results of Technologies Assessed Results of Last Year OFT - - 2017-18 OFT-1

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trial s	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
Lime	Irrigat ed	Low fruit yield of lime due to incidence of Gummos is disease	Assessment of Fosetyl 80% WP fungicide for the management of Gummosis diseases in lime	10	Spraying of Fosetyle AL 80% WP @ 20gm./15 lit water immediately after the cutting of dry / disease twigs of the plants (3 sprays in 30 days interval) for management of gummosis disease management	Disease incidenc e (%) Yield	T <sub>1</sub> - 21.9 % T <sub>2</sub> - 9.62%	T1- 124.80 q/ha T2- 138.90 q/ha	Farmers are seen, in the technolo gy reduce the disease incidence 56.07% resulted enhance the yield is 11.3%	-	-

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
Technology option 1 (Farmer's practice)		124.80	Qtl/ha	190040	3.89
Technology option 2	SDAU, S K Nagar	138.90	Qtl/ha	212245	3.93

1	Title of Technology A	Assessed - Assessment of	Fosetyl 80% WI	P fungicide for the	e management of	Gummosis d	iseases in l	lime
			2	0	0			

- 2 **Problem Definition -** Low fruit yield of lime due to heavy incidence of Gummosis disease
- 3 **Details of technologies selected for assessment-** Spraying of Fosetyle AL 80% WP @ 20gm./15 lit water immediately after the cutting of dry / disease twigs of the plants (3 sprays in 30 days interval) for management of gummosis disease management
- 4 Source of technology- SDAU, S K Nagar
- 5 **Production system and thematic area-** Integrated Disease Management
- 6 Performance of the Technology with performance indicators-

**Disease Incidence (%)** –  $T_1$ - 21.9,  $T_2$ - 9.62 **Yield (Qtl/ha)**-  $T_1$ - 124.80,  $T_2$ -138.90

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques -

Farmers are seen in technology reduce the disease incidence 56.07% resulted enhance the yield is 11.30%

- 8 Final recommendation for micro level situation Technology of disease management of gummosis in lime is more profitable over farmers practice & recommendation for micro climatic situation.
- 9 Constraints identified and feedback for research- No any Constraints
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption

#### OFT-2

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
Mustard + Lucerne	Irrigated	Low net profit in existing cropping system- mustard grown as a sole crop	Assessm ent of mixed cropping of mustard with Lucerne	10	Mixed of mustard with Lucerne (Mustard seed – 3.5 Kg/ha + Lucerne – 5 Kg/ha)	Net Income (Rs/Ha) Yield	T <sub>1</sub> - Rs 38420	T <sub>1</sub> - 15.4 q/ha	Farmers are observed one more crop (Lucerne) are taken in same period resulted enhance the profitability under assessed technology	No	No

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	15.4 (Mustard)	Qtl/ha	Rs 38420	3.5
Technology option 2	SDAU, S K Nagar	17.2 (Mustard – 14.8 + Lucerne – 2.4)	Qtl/ha	Rs 53900	3.6

- 1 Title of Technology Assessed Assessment of mixed cropping of mustard with Lucerne
- 2 **Problem Definition** Low net profit in existing cropping system- mustard grown as a sole crop
- 3 Details of technologies selected for assessment- Mixed of mustard with Lucerne (Mustard seed 3.5 Kg/ha + Lucerne 5 Kg/ha)
- 4 Source of technology- SDAU, S K Nagar
- 5 **Production system and thematic area-** Cropping System
- 6 Performance of the Technology with performance indicators-

(A) Yield (qtl/ha)  $T_1$ - 15.4,  $T_2$ -17.5 (B) Net Income (Rs/Ha) - )  $T_1$ - 34,420,  $T_2$ -59,900

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are observed one more crop (Lucerne) are taken resulted enhance the profitability under assessed technology
- 8 Final recommendation for micro level situation – The technology was found more effective over farmers practice & recommendation after compilation of next year data
- 9 Constraints identified and feedback for research- No
- 10 Process of farmer's participation and their reaction- Farmers are involved in each & every activity during identification of problem, execution of technology & data collection. Farmers are seen more profit in recommended technology over own practice (farmers Practice) resulted farmers are appreciate the technology and agreed for future adoption.

#### OFT-3

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
Chilli- Water melon	Irrigated	Low profit of present cropping system – Chilli – Fallow	Assessm ent of cropping system – Chilli – Cucurbit fruit for enhancin g net profit	04	Chilli-Water melon	Yield (q/ha)	-	T1- 217 T2- 449	Farmers are found more net profit under technology over local practice		-

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	217	q/ha	1,02,729	2.26
Technology option 2	IIHR, Banglore	449	q/ha	3,04,938	3.74

- 1 **Title of Technology Assessed** Assessment of cropping system Chilli Cucurbit fruit for enhancing net profit
  - 2 **Problem Definition -** Low profit of present cropping system Chilli Fallow
- 3 **Details of technologies selected for assessment-** Chilli-Water melon
- 4 **Source of technology-** IIHR, Banglore
- 5 Production system and thematic area- ICM
- 6 Performance of the Technology with performance indicators-

Net Return (Rs/ha)- T1- 1,02,729 T<sub>2-</sub> 3,04,938

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmer are obtain more B:C ratio (3.74 in recommended practice over 2.26 in farmers practice)resulted farmers are convinced with the technology.
- 8 Final recommendation for micro level situation The technology was found more effective over farmers practice & recommendation after compilation of next year data
- 9 Constraints identified and feedback for research- Fruit fly is the major problem, so farmers need fruit fly resistant variety
- 10 Process of farmers participation and their reaction- Farmers are involved in each & every activity during identification of problem, execution of technology & data collection. Farmers are seen more profit in recommended technology over own practice (farmers Practice) resulted farmers are appreciate the technology and agreed for future adoption.

# **Results of On Farm Trial – 2018-19**

#### OFT-1

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
Castor	Irrigated	Low yield of castor due to high male flower & incidence of wilt disease in GCH-7	Assessm ent of hybrid variety in castor- GCH-8	20	Hybrid variety of castor- GCH-8	Yield Qtl/ha)	-	T1- 29.1 q/ha T2- 30.8 q/ha	Farmers are convinced with the technolog y because under technolog y they found 5.8 % higher yield over own practice.		-

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
Technology option 1 (Farmer's practice)	-	29.1	Qtl/ha	1,21,925	5.0
Technology option 2	SDAU, S K Nagar	30.8	Qtl/ha	1,30,100	5.1

- 1 Title of Technology Assessed Assessment of hybrid variety in castor- GCH-8
- 2 **Problem Definition -** Low yield of castor due to high male flower & incidence of wilt disease in GCH-7
- 3 Details of technologies selected for assessment- Hybrid variety of castor- GCH-8
- 4 Source of technology- SDAU, S K Nagar
- 5 **Production system and thematic area-** Varietal evaluation
- 6 Performance of the Technology with performance indicators-

**No of spikelet/ Plant-**  $T_1$ - 18.9,  $T_2$ - 21.1

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are convinced with the technology because under technology they found 5.8 % higher yield over own practice.
- 8 Final recommendation for micro level situation The technology was found more effective over farmers practice & recommendation after compilation of next year data
- 9 Constraints identified and feedback for research- No any Constraints
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption

#### OFT-2

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
Mustard + Lucerne	Irrigated	Low net profit in existing cropping system- mustard grown as a sole crop	Assessm ent of mixed cropping of mustard with Lucerne	10	Mixed of mustard with Lucerne (Mustard seed – 3.5 Kg/ha + Lucerne – 5 Kg/ha)	Yield (qtl/ha) Net Income (Rs/Ha)	Result awaited	-	-		

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	15.2	Q/ Ha	33780	3.2
Technology option 2	SDAU, S K Nagar	M- 13.9 L- 2.2	Q/ Ha	48225	3.3

- 1 Title of Technology Assessed Assessment of mixed cropping of mustard with Lucerne
- 2 **Problem Definition** Low net profit in existing cropping system- mustard grown as a sole crop
- 3 Details of technologies selected for assessment- Mixed of mustard with Lucerne (Mustard seed 3.5 Kg/ha + Lucerne 5 Kg/ha)
- 4 Source of technology- SDAU, S K Nagar
- 5 **Production system and thematic area-** Cropping System
- 6 Performance of the Technology with performance indicators-

(A) Yield (qtl/ha)  $T_1$ - 15.2,  $T_2$ -16.1 (B) Net Income (Rs/Ha) - )  $T_1$ - 33780,  $T_2$ -48225

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are observed one more crop (Lucerne) are taken resulted enhance the profitability under assessed technology
- 8 Final recommendation for micro level situation – The technology was found more effective over farmers practice & recommendation for micro climate condition
- 9 Constraints identified and feedback for research- No
- 10 Process of farmer's participation and their reaction- Farmers are involved in each & every activity during identification of problem, execution of technology & data collection. Farmers are seen more profit in recommended technology over own practice (farmers Practice) resulted farmers are appreciate the technology and agreed for future adoption.

#### OFT-3

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
Wheat	Irrigated	Low yield of wheat due to broad casting of seed & use of high seed rate (160Kh/ha)	Assessm ent of sowing method in wheat	10	Line sowing method through seed cum fertilizer drill with recommended seed rate-125 kg./ha	No of effective tillers/ plant Yield (qtl/ha)	T <sub>1</sub> - 3.8 No T <sub>2</sub> - 4.3 No	T <sub>1</sub> - 36.5 q/ha T <sub>2</sub> - 42.8 q/ha	Farmers are seen good growth of plant, more no of effective tillers/ plant resulted enhance the productivity in technology over own practice		

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	36.5	Qtl/ha	43,630	2.80
Technology option 2	SDAU, S K Nagar	42.8	Qtl/ha	52,552	3.01

- 1 **Title of Technology Assessed** Assessment of sowing method in wheat
- 2 **Problem Definition** Low yield of wheat due to broad casting of seed & use of high seed rate (160 Kg/ha)
- 3 Details of technologies selected for assessment- Line sowing method through seed cum fertilizer drill with recommended seed rate-125 kg./ha
- 4 Source of technology- SDAU, S K Nagar
- 5 **Production system and thematic area-** Farm Machinery
- 6 Performance of the Technology with performance indicators-

No of effective tillers/ plant- T<sub>1</sub>- 3.92, T<sub>2</sub>-4.38 Yield (Qtl/ha)- T<sub>1</sub>- 36.5, T<sub>2</sub>-42.8

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are seen good growth of plant, more no of effective tillers/ plant resulted enhance the productivity
- 8 Final recommendation for micro level situation Technology of sowing of seed through seed cum ferti drill machine was found effective over farmers practice & technology recommended for micro climate.
- 9 Constraints identified and feedback for research- No any Constraints
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption

#### OFT-4

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	Irrigated	Low net profit in existing cropping system - sole crop of cumin	Assessm ent of Intercrop ping of cumin + Ajwain for enhancin g the net profit	05	Intercropping – Cumin + Ajwain (4:1)	Yield	-	T1(Cumin)- 8.18 q/ha T2- 11.08 (Cumin- 7.96 q/ha Ajwain – 3.12 q/ha)	Farmers are observed in same time one more crop (Ajawain) are taken without effecting the main crop (Cumin) resulted enhance the profitability		

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	8.18	Qtl/ha	78,090	3.14
Technology option 2	SDAU, S K Nagar	Cumin- 7.96 Ajwain –3.12	Qtl/ha	94,398	3.43

- 1 **Title of Technology Assessed** Assessment of Intercropping of cumin + Ajwain for enhancing the net profit
- 2 **Problem Definition -** Low net profit in existing cropping system sole crop of cumin
- **3 Details of technologies selected for assessment-** T2-Intercropping Cumin + Ajwain (4:1)
- 4 **Source of technology-** SDAU, S K Nagar
- 5 **Production system and thematic area-** Cropping system
- 6 Performance of the Technology with performance indicators-

Yield (Qtl/ha)-  $T_1$ - (Cumin) – 8.18q/ha  $T_2$ - Cumin- 7.96 q/ha & Ajwain – 3.12 q/ha

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are observed one more crop (Ajawain) are taken without effecting the main crop (Cumin) resulted enhance the profitability
- 8 Final recommendation for micro level situation Technology of Intercropping of cumin + Ajwain was found effective over farmers practice & recommendation for micro climatic situation
- 9 Constraints identified and feedback for research- Framers need short duration variety of Ajwain which is mature with cumin crop.
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption
| Crop/<br>enterprise       | Farming<br>situation | Problem<br>definition  | Title of OFT   | No. of<br>trials | Technology<br>Assessed    | Parameters<br>of<br>assessment | Data on<br>the<br>parameter | Results of<br>assessment               | Feedback<br>from the<br>farmer | Any<br>refinement<br>needed | Justification<br>for<br>refinement |
|---------------------------|----------------------|--|--|------------------|---------------------------|--------------------------------|-----------------------------|--|--------------------------------|-----------------------------|------------------------------------|
| 1                         | 2                    | 3  | 4  | 5                | 6                         | 7                              | 8                           | 9                                      | 10                             | 11                          | 12                                 |
| Chilli-<br>Water<br>melon | Irrigated            | Low profit<br>of present<br>cropping<br>system<br>– Chilli<br>– Fallow | Assessment of<br>cropping<br>system<br>– Chilli<br>– Cucurbit fruit<br>for enhancing<br>net profit | 04               | Chilli-<br>Water<br>melon | Yield                          |                             | T1- 221<br>T2- 435<br>(C-215<br>W-220) | -                              |                             |                                    |

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	221	Q/ha	72425	1.88
Technology option 2	IIHR, Banglore	435 (C-215, W-220)	Q/ha	164000	2.44

- 1 **Title of Technology Assessed** Assessment of cropping system Chilli Cucurbit fruit for enhancing net profit
  - 2 **Problem Definition -** Low profit of present cropping system Chilli Fallow
- 3 Details of technologies selected for assessment- Chilli-Water melon
- 4 **Source of technology-** IIHR, Banglore
- 5 **Production system and thematic area- ICM**
- 6 Performance of the Technology with performance indicators-

Net Return (Rs/ha)- T1- 72,425  $T_{2-}$  1,64,000

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmer are obtain more B:C ratio (1.88 in recommended practice over 2.44 in farmers practice)resulted farmers are convinced with the technology.
- 8 Final recommendation for micro level situation The technology was found more effective over farmers practice & recommendation for micro level situation
- 9 Constraints identified and feedback for research- Fruit fly is the major problem, so farmers need fruit fly resistant variety
- 10 Process of farmers participation and their reaction- Farmers are involved in each & every activity during identification of problem, execution of technology & data collection. Farmers are seen more profit in recommended technology over own practice (farmers Practice) resulted farmers are appreciate the technology and agreed for future adoption.

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
Chick pea	Semi Irrigated	Low yield of chickpea due to incidence of wilt disease	Assessment of IDM module for the management of wilt disease in chickpea	10	Seed treatment by T viridae @ 10 g/Kg seed along with soil inoculation by T viridae @ 2.5 Kg/ ha.	Disease incidence (%) Yield	T <sub>1</sub> - 12.4 %	T <sub>1</sub> - 11.9 q/ha T <sub>2</sub> - 14.3 q/ha	Farmers are seen negligible incidence of wilt disease under assessed technology resulted enhance the productivity	-	-

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	11.9	Qtl/ha	34678	2.71
Technology option 2	SDAU, S K Nagar	14.3	Qtl/ha	43916	2.98

- 1 Title of Technology Assessed Assessment of IDM module for the management of wilt disease in chickpea
- 2 **Problem Definition -** Low yield of chickpea due to incidence of wilt disease
- 3 Details of technologies selected for assessment- Seed treatment by T viridae @ 10 g/Kg seed along with soil inoculation by T viridae @
  2.5 Kg/ ha.
- 4 **Source of technology-** SDAU, S K Nagar
- 5 **Production system and thematic area-** IDM
- 6 Performance of the Technology with performance indicators-

**Disease incidence (%)** - T<sub>1</sub>- 12.4, T<sub>2</sub>-7.8 **Yield (Qtl/ha)**- T<sub>1</sub>- 11.9 Qtl/ha T<sub>2</sub>- 14.3 Qtl/ha

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are seen negligible incidence of wilt disease under assessed technology resulted enhance the productivity
- 8 Final recommendation for micro level situation Technology of wilt disease management was found effective over farmers practice & recommendation after compilation of next year data
- 9 Constraints identified and feedback for research- No any Constraints
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption

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
Wheat	Semi Irrigated	Low yield of wheat due to infestation of termite	Assessment of IPM module for the management of termite in wheat	10	Seed treatment by Fipronil 5SC @ 600ml./5 lit. water/100 kg seed before 8hrs of sowing and soil treatment by Fipronil 5SC @ 1.6 lit./ha. with irrigation water	Termite infestation (%)	T <sub>1</sub> - 10.5 %	T <sub>1</sub> - 36.0 q/ha T <sub>2</sub> - 41.6 q/ha	Farmers are seen negligible infestation of termite under assessed technology resulted enhance the productivity	-	-

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. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	36.0	Qtl/ha	42940	2.84
Technology option 2	SDAU, S K Nagar	41.6	Qtl/ha	51344	3.03

- 1 Title of Technology Assessed Assessment of IPM module for the management of termite in wheat
- 2 **Problem Definition -** Low yield of wheat due to heavy infestation of termite
- 3 Details of technologies selected for assessment- Seed treatment by Fipronil 5SC @ 600ml./5 lit. water/100kg seed before 8hrs of sowing and soil treatment by Fipronil 5SC @ 1.6 lit./ha. with 4<sup>th</sup> irrigation
- 4 **Source of technology-** SDAU, S K Nagar
- 5 **Production system and thematic area-** IPM
- 6 Performance of the Technology with performance indicators-

**Termite infestation (%)** -  $T_1$ - 10.5,  $T_2$ - 4.3 **Yield** -  $T_1$ - 36.0  $T_2$ -41.6

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are seen negligible infestation of termite under assessed technology resulted enhance the productivity
- 8 Final recommendation for micro level situation Technology of termite management was found effective over farmers practice & recommendation after compilation of next year data
- 9 Constraints identified and feedback for research- No any Constraints
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption

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
Lime	Irrigated	Low fruit yield of lime due to heavy incidence of Gummosis disease	Assessment of Fojetile 80% WD fungicide for the management of Gummosis diseases in lime	10	Spraying of Fosetyl 80% WP @ 20gm./15 lit water immediately after the cutting of dry / disease twigs of the plants (3 sprays in 30 days interval) for management of gummosis disease management	Disease incidence (%) Yield (qtl/ha)	Results awaited		-	-	

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
Technology option 1 (Farmer's practice)	-		Results awaited		
Technology option 2	SDAU, S K Nagar				

- 1 Title of Technology Assessed Assessment of Fosetyle AL 80% WP fungicide for the management of Gummosis diseases in lime
- 2 **Problem Definition -** Low fruit yield of lime due to heavy incidence of Gummosis disease
- 3 **Details of technologies selected for assessment-** Spraying of Fosetyle AL 80% WP @ 20gm./15 lit water immediately after the cutting of dry / diseased twigs of the plants (3 sprays in 30 days interval) for management of gummosis disease management
- 4 Source of technology- SDAU, S K Nagar
- 5 **Production system and thematic area-** Integrated Disease Management
- 6 Performance of the Technology with performance indicators

- Disease Incidence (%) – Result awaited

Yield (Qtl/ha)- Result awaited

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Result awaited
- 8 Final recommendation for micro level situation Result awaited
- 9 Constraints identified and feedback for research- Result awaited
- **10 Process of farmers participation and their** reaction-Result awaited

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
Cross breed cow	-	Low milk yield due to negative energy balance	Assessment of bypass fat (rumen protected fat) in diets of cross breed cows	05	Use of green fodder, dry fodder, concentrate with by pass fat concentrate @100 gm per day per animal for 60 days	Fat % Milk yield	T <sub>1</sub> – 4.12 %	T <sub>1</sub> - 8.68 Lit./day (Average in 3 month T <sub>2</sub> - 9.1 Lit./day (Average in 3 month	Farmers are seen under the technology for use of bypass fat to enhance milk yield as well as fat % in milk resulted enhance the net profit	-	-

Technology Assessed	Technology Assessed Source of Technology		Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. For 3 Month	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	8.68	Lit./day for 3 month	9965	2.10
Technology option 2	NDRI, Karnal	9.10	Lit./day for 3 month	12487	2.21

- 1 Title of Technology Assessed Assessment of bypass fat (rumen protected fat) in diets of cross breed cows
- 2 **Problem Definition -** Low milk yield & net profit due to negative energy balance
- 3 **Details of technologies selected for assessment-** Use of green fodder, dry fodder, concentrate with by pass fat concentrate @100 gm per day per animal for 60 days in diet of cross breed cow
- 4 **Source of technology-** NDRI, Karnal
- 5 **Production system and thematic area-** LPM
- 6 Performance of the Technology with performance indicators-

Milk yield (Lit./day for 3 month)-  $T_{1}$ -, 8.68  $T_{2}$ - 9.10

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are seen under the technology for use of bypass fat to enhance milk yield as well as fat % in milk resulted enhance the net profit
- 8 Final recommendation for micro level situation Technology of bypass fat in cross breed cows was found effective over farmers practice & recommendation after compilation of next year data
- 9 Constraints identified and feedback for research- No any Constraints
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption

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
Mehsani Buffalo		Low milk production in buffalo	Assessment of by pass protein on milk production in Mehsani buffalo	05	Use of green fodder, dry fodder, concentrate with by pass protein concentrate @1 kg per day per animal for 60 days	Fat % Milk yield	$T_1 - 7.2 \%$ $T_2 - 7.5 \%$	T <sub>1</sub> - 6.0 Lit./day (Average in 3 month) T <sub>2</sub> - 6.7 Lit./day (Average in 3 month	Farmers are seen under the technology for use of by pass protein to enhance milk yield as well as fat % in milk resulted enhance the profitability		

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. For 3 Month	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	6.0	Lit./day for 3 month	13770	2.13
Technology option 2	NDRI, Karnal	6.7	Lit./day for 3 month	15894	2.22

- 1 Title of Technology Assessed Assessment of bypass protein on milk production in Mehsani buffalo
- 2 **Problem Definition -** Low milk production in buffalo
- 3 **Details of technologies selected for assessment-** Use of green fodder, dry fodder, concentrate feed with bypass protein concentrate feed @1 kg per day per animal for 60 days
- 4 **Source of technology-** NDRI, Karnal
- 5 **Production system and thematic area-** LPM
- 6 Performance of the Technology with performance indicators-

Milk yield (Lit./day for 3 month)-  $T_{1-}$  6.0,  $T_{2-}$  6.7

- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques Farmers are seen under the technology for use of bypass fat to enhance milk yield as well as fat % in milk resulted enhance the profitability
- 8 Final recommendation for micro level situation Technology of bypass fat in cross breed cows was found effective over farmers practice & recommendation after compilation of next year data
- 9 Constraints identified and feedback for research- No any Constraints
- 10 Process of farmers participation and their reaction- Farmers are involved each & every activity during technology assessment. They are convinced with the technology & agreed for future adoption

## **3.3. Frontline Demonstrations**

А.

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

S.	Crop/ Enterprise	Thematic	Technology demonstrated	Details of popularization methods suggested to the	Horizo te	ontal spread echnology	of
No		Area*		Extension system	No. of villages	No. of farmers	Area in ha
1	Castor	ICM & Variety	Hybrid Variety of castor -GCH-7	Training, Demo., Field visit, Field day, Group meeting etc	125	4500	630 0
2	Cotton	IPM	IPM module – Pheromone trap @ 40/ha + One spray of neem oil 1500 ppm@ 1.25 Lit/ha + one spray of spinosed 45 SC 2 0.25 Lit/ha	Training, Demo., Field visit, Field day, Group meeting etc	75	1500	900
3	Black gram	ICM	Improved variety of black gram (GU-1), seed treatment by fungicide, Seed inoculation with bio fertilizer, RDF, timely application of IPM module	Training, Demo., Field visit, Field day, Group meeting etc	50	750	450
4	Chickpea	ICM	Improved variety (GJG-3) +Soil inoculation of <i>Trichoderma viridae</i> @ 2.5 kg/ha + Pheroman trap @ 40/ha + RDF + Bio-fertilizer + Profenophos 50 EC	Training, Demo., Field visit, Field day, Group meeting etc	35	1100	950
5	Mustard	ICM	Improved variety (GDM-4) + Seed treatment with fungicide + RDF + Timely irrigation + IPM module for pest management	Training, Demo., Field visit, Field day, Group meeting etc	40	1200	105 0

6	Wheat- Variety	Varietal Demo	Improved variety of wheat - GW-451	Training, Demo., Field visit, Field day, Group meeting etc	75	250	300
7	Green fodder	Feed management	Kharif- Multi cut jowar & Rabi- Lucerne	Training, Demo., Field visit, Field day, Group meeting etc	20	200	40
8	Kitchen garden	Nutrition food security	Seasonal vegetable in backyard for supplementing additional vegetable in daily diet	Training, Demo., Field visit, Field day, Group meeting etc	15	300	-
9	Chilli	INM	Foliar application of Micronutrient (G-4) @ 2 Kg/ ha (Zn,Mn,Cu,B,Fe)	Training, Demo., Field visit, Field day, Group meeting etc	20	75	22
10	Fennel- Variety	Varietal Demo & IDM	Improved variety of fennel – Gujarat Fennel – 12	Training, Demo., Field visit, Field day, Group meeting etc	80	1500	900
11	Ajwain	Varietal demon	Improved variety of Ajwain - GA-2	Training, Demo., Field visit, Field day, Group meeting etc	50	500	330
12	Cumin- Variety	Varietal Demo & IDM	Improved variety of cumin - GC-4	Training, Demo., Field visit, Field day, Group meeting etc	75	1125	495
13	Milch animal	Feed management	Chelated mineral mixture @ 40 Gm / day/ animal (Cow/ Buffalo)	Training, Demo., Field visit, Field day, Group meeting etc	30	450	-

SI.	Cron	Thematic	Technology Demonstrated	Season and	Area (	(ha)	No. dei	. of farme monstrati	ers/	Reasons for shortfall in
No.	crop	area		year	Proposed	Actual	SC/ST	Others	Total	achievement
1		ICM	Improved variety of black gram (GU-1),	Kharif,	50	50	07	118	125	
	Blackgram		seed treatment by fungicide, Seed	2018						
	Diackgrain		inoculation with bio fertilizer, RDF, timely							
			application of IPM module							
2	Sunhemp-	INM	Green manuring of sunhemp crop. Seed	Kharif-	10	5	0	20	20	Scarcity of fund
	Castor		rate@ 60 kg/ha	2018-						
				2019						
3	Castor	ICM	Hybrid variety (GCH-7) +Seed treatment	Kharif,	30	30	26	49	75	-
			by carbendazim + Mancozeb @ 3 gm/ kg	2018						
			Seed +Soil inoculation with bio fertilizer							
			2.5 lit/ ha, Trichoderma & Psudomonas @							
			2.5 kg/ha in each +IPM							
4	Cotton	INM	Nitrogen 240 kg/ha + phosphorous 40	Kharif-	10	10	01	24	25	-
			kg/ha + spray 3% potassium nitrate (13-0-	2018-						
			45) at the time of flowering stage, ball	2019						
			formation stage, ball development							
5	Cotton	IPM	Pheromone trap @ 40/ha + One spray of	Kharif-	10	10	02	23	25	
			neem oil 1500 ppm@ 1.25 Lit/ha + one	2018-						
			spray of spinosad 45 SC @ 3 ml/ 10 lit of	2019						
			water							
6	Chickpea	ICM	Improved variety (GJG-3) +Soil	Rabi,	50	35	08	76	84	Timely
			inoculation of <i>Trichoderma viridae</i> @ 2.5	2018-						unavailability
			kg/ha + Pheroman trap @ 40/ha + RDF +	19						of fund
			Bio-fertilizer + Profenophos							

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.)

7	Mustard	ICM	Improved variety (GDM-4) + Seed treatment with fungicide + RDF + Timely irrigation + IPM module for pest management	Rabi, 2018- 19	30	15	0	37	37	Timely unavailability of fund
8	Wheat	Varietal Evaluation	Improved variety of wheat GW - 451	Rabi- 2018- 2019	10	10	0	25	25	
9	Chilli	Nutrient management	Balance use of major plant nutrient along with foliar application of micronutrient (G4)	Kharif, 2018	5.0	5.0	00	20	20	-
10	Fennel	Varietal demonstration	Improved variety of fennel - GF-12	Rabi, 2018- 19	10.0	10.0	00	25	25	-
11	Fennel	IDM	Foliar spay of carbendazim 12% + Mancozeb 63% @ 1.5 Kg/ha at 45,60 & 75 DAS	Rabi, 2018- 19	10	10.0	01	24	25	
12	Ajwain	Varietal demonstration	Improved variety of Ajwain - GA-2	Rabi, 2018- 19	10.0	10.0	00	25	25	-
13	Cumin	Varietal demonstration	Improved variety of cumin - GC-4	Rabi, 2018- 19	10.0	5.0	1	19	20	Scarcity of fund
14	Cumin	IDM	Seed treatment by Trichoderma viridae @ 10gm/ Kg Seed along with soil treatment by T. viridae @ 2.5 Kg/ha	Rabi, 2018- 19	10.0	10.0	01	24	25	
15	Kitchen garden	H&VC	Cultivation of seasonal vegetable in backyard for supplementing additional vegetable in daily diet	Kharif, Rabi, 2018- 19	-	-	6	34	40	

# Details of farming situation

Сгор	ason	rming lation rrigated )	l type	Sta	Status of soil		ous crop	ng date	est date	isonal all (mm)	of rainy lays
	Š	Fal situ (RF/I	Soi	N	Р	K	Previ	Sowi	Harv	Sea rainfa	No. 6 d
Blackgram	Kharif, 2018	Semi irrigated	Sandy loam	L	L	M	Fallo w	18 to 29/7/2017	07 to 21-02-2018	237	09
Sunhemp- Castor	Kharif, 2018-19	Irrigated	Sandy loam to sandy soil	L	L	M	Fallo w	Sunhemp – I <sup>st</sup> Fortnight of June & Castor – II <sup>nd</sup> Fortnight of August	Up to April 2019	237	09
Cotton	Kharif, 2018-19	Irrigated	Sandy loam	L	L	M	Fallo w	Last week of May to First Week of June	Up to February.2019	237	09
Castor	Kharif, 2018-19	Irrigated	Sandy loam to sandy soil	L	L	M	Fallo w	II <sup>nd</sup> Fortnight of August	Up to April 2019	237	09
Cotton	Kharif- 2018-2019	Irrigated	Sandy loam	L	L	M	Fallo w	Last week of May to First Week of June	Up to February.2019	237	09
Chickpea	Rabi, 2018- 19	Semi irrigated	Sandy loam	L	L	M	Chick pea/ Cumi n	II <sup>nd</sup> Fortnight of October	II <sup>nd</sup> Fortnight of March	237	09
Mustard	Rabi, 2018- 19	Irrigated	Sandy loam to sandy soil	L	L	M	Pulses	II <sup>nd</sup> Fortnight of October	1 TO 15/3/2019	237	09
Wheat	Rabi, 2018- 19	Irrigated	Sandy loam to sandy soil	L	L	M	Pearl millet	II <sup>nd</sup> Fortnight of November	Last week of March	237	09
Chilli	Kharif, 2018	Irrigated	Sandy loam	L	L	M	Summ er Pearl millet	II <sup>nd</sup> Fortnight of July	I <sup>st</sup> Fortnight of March	237	09
Fennel	Rabi, 2018-	Irrigated	Sandy loam	L	L	М	Pulses	I <sup>st</sup> Fortnight of October	II <sup>nd</sup> Fortnight of	237	09

	19								March		
Fennel	Rabi, 2018- 19	Irrigated	Sandy loam	L	L	M	Pulses	I <sup>st</sup> Fortnight of October	II <sup>nd</sup> Fortnight of March	237	09
Ajwain	Rabi, 2018- 19	Irrigated	Sandy loam	L	L	M	Pulses	I <sup>st</sup> Fortnight of October	II <sup>nd</sup> Fortnight of March	237	09
Cumin	Rabi, 2018- 19	Irrigated	Sandy loam	L	L	M	Pulses	I <sup>st</sup> Fortnight of November	Last week of February to I <sup>st</sup> Week of March	237	09
Cumin	Rabi, 2018- 19	Irrigated	Sandy loam	L	L	M	Pulses	I <sup>st</sup> Fortnight of November	Last week of February to I <sup>st</sup> Week of March	237	09
Kitchen garden	Kharif, Rabi, 2018- 19	Irrigated	Sandy loam	L	L	M	-	Last week of June	End of March	237	09

# Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Need to develop improved/ hybrid variety of wheat, Cumin, Funnel, Ajawain, Castor, Groundnut, Mustard, Green gram & Chickpea
2	Need to develop climate resilient technologies/ varieties
3	Need to develop of crop based complex fertilizer
4	Need to develop INM module on cropping system
5	Need to develop water soluble complex fertilizer as per crop for foliar spray.
6	Need to develop drought tolerant/ resistant variety.
7	Need to develop IPM module for the management of major insect in vegetable crop.
8	Need to develop to resistant variety against disease & insect.

# Farmers' reactions on specific technologies

S. No	Feed Back
	Cereals
1.	Farmers observe good growth of plant, no lodging & more no of effective tillers are found in improved variety of wheat (GW-451)
	Horticultural crops
1.	Chilli : Good growth during the season and good quality of fruits due to spraying of Micronutrient (Zn,Mn,Fe,Cu,B)
2.	Cumin (Var.) :GC-4 variety have less incidence of blight disease & also high yielding
3.	Cumin (IDM) : Spraying of SAAF (Carbendazim 12% + Mancozeb 63%) reduce the disease incidence
4.	Fennel (IDM) : Spraying of SAAF (Carbendazim 12% + Mancozeb 63%) reduce the disease incidence
5.	Fennel (Var.) : GF-12 variety is high yielding
6.	Ajwain : No. of umbels per plants and seed per umbels are comparatively more over old/ local variety
	Oil seeds
1.	Use Sunhemp as a green manure to reduce the dose of fertilize & enhance FUE in Castor resulted enhance the profitability
2.	Castor : GCH-7 variety having excellent growth & more yield over their own practice
3.	Mustard : GDM-4 variety having excellent growth & more yield over their own practice
	Pulses
1.	Black gram :GU-1 variety having excellent growth & more yield over their old/ local variety
2.	Chickpea : Under technology reduce the wilt incidence & pod borer infestation resulted enhance the productivity
	Cotton
1	Good growth of plant, more number of bolls per plant obtain under INM in cotton resulted enhance the productivity
2	Very less infestation of pink boll worm in demonstrated plot of IPM in cotton resulted enhance the productivity
	Animal Science
1	Round the year availability of green fodder under demonstrated technology resulted enhance the milk yield as well as reduce the cost

# Extension and Training activities under FLD

Sl.No.	Activity	Number of	Remarks					
		participants						
A	Cotton- INM	Cotton- INM						
1	Farmers Training	02	25/5/2018, 28/6/2018	49				
2	Field visit	03	During Crop Period	68				
3	Field Day	01	21-12-2018	42				
4	Training for extension functionaries	01	24/5/2018	30				
В	Cotton- IPM							
1	Field days	01	21-12-2018	37				
2	Farmers Training	03	14-08-2018, 02-06-2018 & 20-07-2018	103				
3	Training for extension functionaries	01	22-05-2018	24				
4	Field visit	04	During Crop Period	102				
C	Black gram							
1	Field days	01	25-09-2018	41				
2	Farmers Training	03	20-06-2018,21-06-2018 & 11-07-2018	125				
3	Training for extension functionaries	01	22-05-2018	24				
	Field visit	03	During Crop Period	130				
D	Castor – Green manuring							
1	Field days	01	02/11/2019	54				
2	Farmers Training	01	23/6/2018	20				
3	Training for extension functionaries	01	24/5/2018	30				
4	Field visit	02	During Crop Period	35				
E	Castor- Variety							
1	Field days	01	13/2/2019	29				
2	Farmers Training	04	11/7/2018, 13/8/2018, 16/8/2018, 18,8,2018	102				
3	Training for extension functionaries	01	24/5/2018	30				
4	Field visit	06	During Crop Period	114				
F	Chickpea							
1	Field days	02	25-02-2019 & 15-03-2019	80				
2	Farmers Training	03	11-10-2018, 12-10-2018 & 13-10-2018	86				
3	Training for extension functionaries	01	25/10/2018	23				
4	Field visit	03	During Crop Period	98				

G	Mustard				
1	Field days	02	12/2/2019, 6/3/2019	73	
2	Farmers Training	03	26/10/2018, 27/10/2018, 24/11/2018	65	
3	Training for extension functionaries	01	25/10/2018	23	
4	Field visit	03	During Crop Period	78	
Н	Wheat- Variety				
1	Field days	01	03/06/2019	42	
2	Farmers Training	01	20/11/2018	25	
3	Training for extension functionaries	01	25/10/2018	23	
4	Field visit	02	During Crop Period	55	
Ι	Kitchen garden				
1	Farmers Training	03	07-07-18, 17-07-18 & 11-12-18	107	
2	Field Day		19-12-2018	35	
3	Field visit	03	During Crop Period	72	
J	Chilli	``			
1	Field days	01	18-12-2018	41	
2	Farmers Training	03	8/8/2018,24/8/2018 & 22-27/06/2018	69	
	Field visit	07	During crop period	42	
K	Fennel- Variety				
1	Field days	01	12/03/2019	30	
2	Farmers Training	01	04/10/2018	26	
3	Training for extension functionaries	01	03-10-2018	23	
4	Field visit	06	During Crop Period	68	
L	Fennel- IDM				
1	Field days	01	08-03-2019	44	
2	Farmers Training	01	01-11-2018	25	
3	Training for extension functionaries	01	03-10-2018	23	
	Field visit	02	During Crop Period	68	
M	Ajwain				
1	Field days	01	11/03/2019	28	
2	Farmers Training	01	26/09/2018	25	
3	Training for extension functionaries	01	03-10-2018	23	
4	Field visit	05	During Crop Period	58	
N	Cumin- Variety				
1	Field days	01	25/02/2019	30	
2	Farmers Training	01	02/11/2018	24	
3	Training for extension functionaries	01	03-10-2018	23	

4	Field visit	06	During Crop Period	61	
0	Cumin- IDM				
1	Field days	01	12-03-2019	44	
2	Farmers Training	01	05-11-2018	25	
3	Training for extension functionaries	01	03-10-2018	23	
4	Field visit	02	During Crop Period	62	
Р	Round the Year Green fodder				
1	Field days	02	12-10-2018 & 12-12-2018	44	
2	Farmers Training	01	26-07-2018	12	
3	Training for extension functionaries	01	13-11-2018	15	
4	Field visit	04	During demonstration period	32	
Q	Feed supplement- Probiotic in Mehsani Buffalo				
1	Field days	01	14-12-2018	24	
2	Farmers Training	01	19-12-2018	35	
3	Field visit	05	During demonstration period	38	
R	Feed supplement- Chelated Mineral Mixture in				
	Mehsani Buffalo				
1	Field days	01	08-03-2019	37	
2	Farmers Training	01	14-11-2018	20	
3	Field visit	03	During demonstration period	26	
S	Back yard poultry				
1	Field days	01	15-06-2018	17	
2	Farmers Training	01	06-07-2017	15	
3	Field visit	06	During demonstration period	86	

### C. Performance of Frontline demonstrations

### Frontline demonstrations on Oilseed crops

Cuan	Thematic	technology Va	Variaty	No. of	Area	Yield	Yield (q/ha) %			omics of (Rs.	demonst /ha)	ration	E	conomic (Rs.	s of chec /ha)	:k
	Area	demonstrated		Farmers	(ha)	Demo	Check	in yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Castor – Green manuring	Soil fertility management	Sunhemp (seed @ 60 kg./ha.) as a green manuring + Castor as a main crop	GCH-7	20	05	29.7	26.9	10.41	30700	155925	125225	5.1	29100	141225	112125	4.9

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

\*\* BCR= GROSS RETURN/GROSS COST

### Frontline demonstrations on Pulses crops - No

Cron	Thematic	technology	Variaty	No. of	Area	Yield	(q/ha)	% Increase in	Econ	omics of (Rs	demonstr ./ha)	ation	E	conomic (Rs	s of chec ./ha)	k
Crop Th	Area	demonstrated	variety	Farmers	(ha)	Demo	Check	yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)

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

\*\* BCR= GROSS RETURN/GROSS COST

# Frontline Demonstration on Other crops

			No.			Yield	(q/ha)		%	Otl Para te	her ame rs	Eco	nomics of (Rs	demonstra ./ha)	ation	Econ	omics of cł	ieck (Rs./	/ha)
Category	Thematic	Name of the	of F	Area		Demo			Increas										
& Crop	Area	technology	armers	(ha)	High	Low	Average	Check	e in yield	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cotton	IPM	IPM module – Pheromone trap @ 40/ha + One spray of neem oil 1500 ppm@ 1.25 Lit/ha + one spray of spinoced 45 SC 2 0.25 Lit/ha	25	10	28.2	22.4	25.7	21.3	20.7			38400	132355	93955	3.45	35900	109695	73795	3.1
Cotton	INM	Nitrogen 240 kg/ha + phosphorous 40 kg/ha + spray 3% pottasium nitrate (13- 0-45) at the time of flowering stage, ball formation stage, ball development	25	10	30.4	20.7	26.8	21.9	22.37			38700	138020	99320	3.6	36100	112785	76685	3.1
Chilli	INM	Foliar application of Micronutrient (G-4) @ 2 Kg/ ha (Zn,Mn,Cu,B,Fe)	20	5	252	222	235.2 1	214.3 7	9.72			81729	164647	82918	2.01	80617	150058	69441	1.86
Wheat	Varietal demo	Improved variety of wheat - GW-451	25	10	47.3	37.6	42.5	36.4	16.76			25400	78200	52800	3.1	23500	66976	43476	2.9
Fennel	Varietal demo	Improved variety of fennel – Gujarat Fennel – 12	25	10	17.7	14.1	15.97	13.96	14.45			36040	111804	75764	3.10	34960	97692	62732	2.79
Fennel	IDM	Foliar spay of carbendazim 12% +	25	10	20.4	16.3	18.1	15.2	19.1			24650	131225	106575	5.32	22900	110200	87300	4.81

		Mancozeb 63% @ 1.5 Kg/ha at 45,60 & 75 DAS																
Ajwain	Varietal demo	Improved variety of Ajwain - GA-2	25	10	19.2	14.8	16.6	14.22	16.80		32360	116228	83868	3.59	31860	99512	67652	3.12
Cumin- Variety	Varietal demo	Improved variety of cumin - GC-4	20	5	9.3	6.2	7.52	6.26	20.22		38300	105280	66980	2.75	36100	87570	51470	2.43
Cumin	IDM	Seed treatment by Trichoderma viridae @ 10gm/ Kg Seed along with soil treatment by T. viridae @ 2.5 Kg/ha	25	10	8.7	5.6	6.8	5.5	23.6		31200	95200	64000	3.05	30750	72800	42050	2.37

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

\*\* BCR= GROSS RETURN/GROSS COST

### FLD on Livestock - 2017-18:-

Category	Thematic	Name of the	No. of	No.of	M	ajor	%	Other pa	arameter		Econor	nics of		Ec	onomic	s of che	ck
	area	technology	Farmer	Units	para	meters	change			demo	onstratio	on (Rs./ I	bird)		(Rs./	bird)	
		demonstrated		(Animal/	Demo	Check	in major	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
				Birds, etc)			parameter			Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Poultry	Breed	Breed for backyard poultry- RIR	10	25 chicks	Body weight 2.250 – Kg	Body weight– 1.85 Kg	21.62	Egg Production -168	Egg Production -220	450	1760	1310	3.91	380	1344	964	3.53

### FLD on Livestock - 2018 - 19:-

Category	Thematic area	Name of the technology	No. of Farmer	No.of Units (Animal/	Ma parai	ajor neters	% change	Ot para	her meter	Econo	mics of a (R	lemonst s.)	ration	Ec	onomics (R	s of che s.)	ck
		demonstrated		Poultry/ Birds, etc)	Demo	Check	in major parameter	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cross breed cow	Feed management	Kharif- Multi cut jowar- (CoFS-29) & Rabi- Lucerne (AL-3)	10	1 Animal	Milk Yield – 8.45 L/day for 10 month	Milk Yield – 7.48 L/day for 10 month	12.97			32430	70980	38550	2.19	30630	62832	32202	2.05
Buffalo	Nutritional Management	Mineral mixture@40gm/ day	10	1 Animal	Milk Yield – 7.07 L/day for 3 month	Milk Yield – 6.44 L/day for 3 month	9.78			12210	30572	18319	2.50	11394	27821	16427	2.44
Buffalo	Nutritional Management	Probiotic @20 gm/day	10	1 Animal	Milk Yield – 6.78 L/day for 3 month	Milk Yield – 6.17 L/day for 3 month	9.89			14148	27459	13311	1.95	13446	24989	11543	1.87

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

\*\* BCR= GROSS RETURN/GROSS COST

### **FLD on Fisheries**

Catagory	Thematic	Name of the	No. of	No.	Major pa	arameters	% change	Otl parar	her neter	Econ	omics of (R	demonsti (s.)	ration	E	conomic (F	s of chec ks.)	k
Category 2	area	demonstrated	Farmer	units	Demons ration	Check	in major parameter	Demons ration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Common Carps																	

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

# \*\* BCR= GROSS RETURN/GROSS COST

# FLD on Other enterprises

Category	Name of the technology	No. of Farmer	No.of units	Maj param	or eters	% change in major	Other pa	arameter	Econ	omics of (Rs.) or	demonstr Rs./unit	ation		Economic (Rs.) or	s of check Rs./unit	
	demonstrated			Demo	Check	parameter	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Oyster Mushroom																

### FLD on Women Empowerment

Category	Name technology	of	No. of demonstrations	Name of observations	Demonstration	Check

# FLD on Farm Implements and Machinery

Name of the	Crop	Technology	No. of	Area	Major	File	ed	% change	Labor	reduction	n (man da	nys)		Cost red	uction	
implement		demonstrated	Farmer	(ha)	parameters	Demo	Check	in major	Land	Sowing	Weeding	Total	Land	Labour	Irrigat	Total
								parameter	preparation				preparat ion		ion	

### FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology	No. of Farmer	No. of Units	Yield	(Kg)	% change	Other	parameters	Eco	nomics of ( (Rs./Plot	lemonstrat )-800 <sup>2</sup> M	ion		Economics (Rs./Plot)	of check -800 <sup>2</sup> M	
		demonstrated			Demons ration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Kitchen garden	Nutrition food security	Seasonal vegetable in backyard for supplementing additional vegetable in daily diet	40	No	194.85 Kg/ plot	111.95 Kg/ plot	74.05	Availabi lity – 08 month	Availability – 12 month	377	1559	1182	4.14	264	840	576	3.19

### FLD on Demonstration details on crop hybrids

	technology	Hybrid	No. of	Area		Yie	d (q/ha)		%	Econ	omics of (Rs.	demonstra /ha)	ation	Eco	nomics of (Rs./ha)	check	
Crop	demonstrated	Variety	Farmers	(ha)		Dem	0		Increase	Gross	Gross	Net	BCR				
	ucinonstructu	, and y	1 armers	(114)	High	Low	Average	Check	in yield	Cost	Return	Return	(R/C)	Gross	Net Return	BCR	
Oilseed cr	rop													Iteturn		(NC)	
Castor	Varietal demonstration	Hybrid variety – GCH-7	75	30.0	34.9	27.2	32.3	28.00	15.36	32254	169666	137412	5.3	31022	147007	115985	4.7

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

### **D.** Performance of Cluster Frontline Demonstrations (CFLD)

# **CFLD on Oilseed crops**

G	Thematic	technology		No. of	Area		Yi	eld (q/ha)		%	Econ	omics of (Rs.	demonstr /ha)	ation	1	Economic (Rs.	s of checl /ha)	ĸ
Crop	Area	demonstrated	Variety	Farmers	(ha)		Den	10	Chaoly	Increase in vield	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
						High	Low	Average	Спеск		Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Castor	Varietal demonstrati on	Castor Seeds GCH- 7,Sulphur, Quinalphos, Trichoderma, Puseudomonas, N,P & K liquid bio fertilizer, Neem Oil & Quinalphos insecticide	GCH-7	75	30.0	34.9	27.2	32.3	28.00	15.36	32254	169666	137412	5.3	31022	147007	115985	4.7
Mustard	ICM	Improved variety (GDM-4) + Seed treatment with fungicide + RDF + Timely irrigation + IPM module for pest management	GDM-4	37	15	22.2	15.1	18.9	15.7	20.38	17447	61425	43978	3.5	15721	51025	35304	3.2

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

# \*\* BCR= GROSS RETURN/GROSS COST

### **CFLD on Pulse crops**

Сгор		Technology demonstrated			Area (ha)		Yie	eld (q/ha)			Ecor	omics of	demonstra	ation	Economics of check			
	Thematic Area		Var	No. of Farmers						% In 2002 200		(Rs.	/ha)		(Rs./ha)			
			iety			Demo		10	Check	in vield	Gross	Gross	Net	BCR	Gross	(Rs./ha) Gross Gross Net Cost Return Return		
						High	Low	Average	Check		Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)

Black	ICM	Improved variety of	GU-	125	50	9.4	5.9	7.8	6.6	18.2	15150	43860	28710	2.88	13700	36960	23260	2.70
gram		black gram (GU-1),	1															
		seed treatment by																
		fungicide, Seed																
		inoculation with bio																
		fertilizer, RDF,																
		timely application of																
		IPM module																
Chickpea	ICM	Improved variety	GJG	84	35	15.8	11.6	13.9	11.1	25.2	21900	64218	42318	2.90	19700	51282	31582	2.60
		(GJG-5) +Soil	-5															
		inoculation of																
		Trichoderma																
		<i>viridae @</i> 2.5 kg/ha																
		+ $RDF + Bio-$																
		fertilizer +																
		Pheroman trap @																
		40/ha + Profenophos																
		50 EC																

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

\*\* BCR= GROSS RETURN/GROSS COST

# **3.4.** Training (Including the sponsored and FLD training programmes):

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of	f Participants									
	courses		Others			SC/ST		0	Grand Tot	al	
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
I Crop Production											
Weed Management	01	24	0	24	1	0	1	25	0	25	
Resource Conservation Technologies											
Cropping Systems											
Crop Diversification											
Integrated Farming											
Micro Irrigation/irrigation	01	23	0	23	2	0	2	25	0	25	
Seed production											
Nursery management											
Integrated Crop Management	05	86	0	86	29	0	29	115	0	115	
Soil & water conservation											
Integrated nutrient management											
Production of organic inputs											
Increasing production and productivity of crops	01	35	00	35	04	00	04	39	00	39	
Total	8	168	0	168	36	0	36	204	0	204	
II Horticulture											
a) Vegetable Crops											
Production of low value and high volume crops	01	20	7	27	0	0	0	20	7	27	
Off-season vegetables											

Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	01	20	7	27	0	0	0	20	7	27
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	02	90	00	90	00	00	00	90	00	90
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)	02	90	00	90	00	00	00	90	00	90
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total ( c)										

d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology	03	67	7	74	1	0	1	68	7	75
Processing and value addition										
Others (pl specify)										
Total (f)	03	67	7	74	1	0	1	68	7	75
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	6	177	14	191	1	0	1	178	14	192
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										

Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	01	60	0	60	0	0	0	60	0	60
Others (pl specify) – Organic Farming	01	23	0	23	2	0	2	25	0	25
Total	02	83	0	83	2	0	2	85	0	85
IV Livestock Production and Management										
Dairy Management	01	14	00	14	00	00	00	14	00	14
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	01	20	00	20	00	00	00	20	00	20
Disease Management	01	15	00	15	00	00	00	15	00	15
Feed & fodder technology	01	12	00	12	00	00	00	12	00	12
Production of quality animal products										
Others (pl specify)										
Total	4	61	0	61	0	0	0	61	0	61
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										

Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	03	00	48	48	00	06	06	00	54	54
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	03	00	48	48	00	06	06	00	54	54
VI Agril. Engineering										
Farm Machinery and its maintenance	01	10	00	10	00	00	00	10	00	10
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total	01	10	00	10	00	00	00	10	00	10
VII Plant Protection										
Integrated Pest Management	04	113	00	113	10	00	10	123	00	123
Integrated Disease Management	03	75	00	75	07	00	07	82	00	82
Bio-control of pests and diseases	03	102	00	102	04	00	04	106	00	106
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	10	290	0	290	21	0	21	311	0	311

VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
---	----	-----	----	-----	----	---	----	-----	----	-----
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	34	789	62	851	60	6	66	849	68	917

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

Thematic area	No. of	No. of Participants									
	courses		Others			SC/ST		(	Frand Tot	al	
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
I Crop Production											
Weed Management											
Resource Conservation Technologies											
Cropping Systems											
Crop Diversification											
Integrated Farming											
Micro Irrigation/irrigation	01	24	0	24	3	0	3	27	0	27	
Seed production											
Nursery management											
Integrated Crop Management											
Soil & water conservatioin											
Integrated nutrient management											
Production of organic inputs											
Others (pl specify)											
Total	01	24	0	24	3	0	3	27	0	27	
II Horticulture											
a) Vegetable Crops											
Production of low value and high valume crops	3	67	0	67	0	0	0	67	0	67	
Off-season vegetables											
Nursery raising											
Exotic vegetables											

Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify) – MIS	1	20	0	20	0	0	0	20	0	20
Total (a)	4	87	0	87	0	0	0	87	0	87
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	20	13	33	0	0	0	20	13	33
Management of young plants/orchards										
Rejuvenation of old orchards	1	19	0	19	1	0	1	20	0	20
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)	2	39	13	52	1	0	1	40	13	53
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total ( c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										

Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	6	126	13	139	1	0	1	127	13	140
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management	02	24	0	24	25	0	25	49	0	49
Production and use of organic inputs	01	18	0	18	0	0	0	18	0	18
Management of Problematic soils										
Micro nutrient deficiency in crops										

Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total	3	42	0	42	25	0	25	67	0	67
IV Livestock Production and Management										
Dairy Management	01	00	29	29	00	01	01	00	30	30
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	06	128	51	179	03	07	10	131	58	189
Feed & fodder technology	01	22	07	29	01	00	01	23	07	30
Production of quality animal products										
Others (pl specify)										
Total	8	150	87	237	4	8	12	154	95	249
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	02	00	42	42	00	05	05	00	47	47
Design and development of low/minimum cost diet	01	00	60	60	00	00	00	00	60	60
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking	01	00	15	15	00	09	09	00	24	24
Gender mainstreaming through SHGs	01	00	15	15	00	18	18	00	33	33
Storage loss minimization techniques	01	00	25	25	00	00	00	00	25	25
Value addition	02	00	43	43	00	08	08	00	51	51

Women empowerment	01	00	27	27	00	05	05	00	32	32
Location specific drudgery reduction technologies	01	00	16	16	00	04	04	00	20	20
Rural Crafts	01	00	20	21	00	04	04	01	24	25
Women and child care	01	00	27	27	00	00	00	00	27	27
Others (pl specify)										
Total	12	00	290	291	0	53	53	00	343	343
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	04	124	00	124	03	00	03	127	00	127
Integrated Disease Management	02	57	00	57	01	00	01	58	00	58
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides	01	14	00	14	01	00	01	15	00	15
Others (pl specify)										
Total	7	195	0	195	5	0	5	200	0	200
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										

Carp fry and fingerling rearing					
Composite fish culture					
Hatchery management and culture of freshwater prawn					
Breeding and culture of ornamental fishes					
Portable plastic carp hatchery					
Pen culture of fish and prawn					
Shrimp farming					
Edible oyster farming					
Pearl culture					
Fish processing and value addition					
Others (pl specify)					
Total					
IX Production of Inputs at site					
Seed Production					
Planting material production					
Bio-agents production					
Bio-pesticides production					
Bio-fertilizer production					
Vermi-compost production					
Organic manures production					
Production of fry and fingerlings					
Production of Bee-colonies and wax sheets					
Small tools and implements					
Production of livestock feed and fodder					
Production of Fish feed					
Mushroom Production					

Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	01	19	00	19	00	00	00	19	00	19
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total	01	19	00	19	00	00	00	19	00	19
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	38	557	390	947	38	61	99	595	451	1046

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

Thematic area	No. of					Participants	5			
	courses		Others			SC/ST			Grand Tota	1
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	24	0	24	1	0	1	25	0	25
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation	02	47	0	47	5	0	5	52	0	52
Seed production										
Nursery management										
Integrated Crop Management	5	86	0	86	29	0	29	115	0	115
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Increasing production and productivity of crops	1	35	0	35	4	0	4	39	0	39
Total	9	192	0	192	39	0	39	231	0	231
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	04	87	07	94	00	00	00	87	07	94
Off-season vegetables										

Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify) – MIS	01	20	00	20	00	00	00	20	00	20
Total (a)	05	107	7	114	00	00	00	107	07	114
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	3	110	13	123	0	0	0	110	13	123
Management of young plants/orchards										
Rejuvenation of old orchards	01	19	00	19	01	00	01	20	00	20
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)	4	129	13	142	1	0	1	130	13	143
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total ( c)										

d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology	03	67	07	74	01	00	01	68	07	75
Processing and value addition										
Others (pl specify)										
Total (f)	3	67	07	74	01	00	01	68	07	75
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	12	303	27	330	2	0	2	305	27	332
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management	2	24	0	24	25	0	25	49	0	49

Production and use of organic inputs	1	18	0	18	0	0	0	18	0	18
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	1	60	0	60	0	0	0	60	0	60
Others (pl specify)	1	23	0	23	2	0	2	25	0	25
Total	5	125	0	125	27	0	27	152	0	152
IV Livestock Production and Management										
Dairy Management	2	14	29	43	0	1	1	14	30	44
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	20	0	20	0	0	0	20	0	20
Disease Management	7	143	51	194	0	0	0	143	51	194
Feed & fodder technology	2	34	7	41	1	0	1	35	7	42
Production of quality animal products										
Others (pl specify)										
Total	12	211	87	298	1	1	2	212	88	300
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	0	42	42	0	5	5	0	47	47
Design and development of low/minimum cost diet	1	0	60	60	0	0	0	0	60	60
Designing and development for high nutrient efficiency diet										

Minimization of nutrient loss in processing										
Processing and cooking	1	0	15	15	0	9	9	0	24	24
Gender mainstreaming through SHGs	1	0	15	15	0	18	18	0	33	33
Storage loss minimization techniques	1	0	25	25	0	0	0	0	25	25
Value addition	5	0	91	91	0	14	14	0	105	105
Women empowerment	1	0	27	27	0	5	5	0	32	32
Location specific drudgery reduction technologies	1	0	16	16	0	4	4	0	20	20
Rural Crafts	1	0	20	21	0	4	4	0	24	24
Women and child care	1	0	27	27	0	0	0	0	27	27
Others (pl specify)										
Total	15	0	338	339	0	59	59	1	397	397
VI Agril. Engineering										
Farm Machinery and its maintenance	01	10	00	10	00	00	00	10	00	10
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total	01	10	00	10	00	00	00	10	00	10
VII Plant Protection										
Integrated Pest Management	8	237	0	237	13	0	13	250	0	250

Integrated Disease Management	5	132	0	132	8	0	8	140	0	140
Bio-control of pests and diseases	3	102	0	102	4	0	4	106	0	106
Production of bio control agents and bio pesticides	1	14	0	14	1	0	1	15	0	15
Others (pl specify)										
Total	17	485	0	485	26	0	26	511	0	511
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										

Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics	01	19	00	19	00	00	00	19	00	19
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total	01	19	00	19	00	00	00	19	00	19
XI Agro-forestry										
Production technologies										
Nursery management										

Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	72	1346	452	1798	95	60	155	1441	512	1953

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

	No. of				No. of	Participant	S				
Area of training	INU. 01 Courses		General			SC/ST		Grand Total			
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Nursery Management of Horticulture crops	01	19	06	25	05	07	12	24	13	37	
Integrated farming	01	26	00	26	04	00	04	30	00	30	
Production of organic inputs	01	51	09	60	00	00	00	51	09	60	
Value addition	01	00	25	25	00	16	16	00	41	41	
Any other (pl.specify)											
TOTAL	04	96	40	136	09	23	32	105	63	168	

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

	N f		No. of Participants											
Area of training	NO. OI Courses		General			SC/ST		Grand Total						
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total				
Nursery Management of Horticulture crops														
Integrated farming														
Production of organic inputs														
Value addition														

Any other (pl.specify)					
TOTAL					

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

	No. of	No. of Participants											
Area of training	INO. 01 Courses		General			SC/ST		Grand Total					
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total			
Nursery Management of Horticulture crops	01	19	06	25	05	07	12	24	13	37			
Integrated farming	01	26	00	26	04	00	04	30	00	30			
Production of organic inputs	01	51	09	60	00	00	00	51	09	60			
Value addition	01	00	25	25	00	16	16	00	41	41			
Any other (pl.specify)													
TOTAL	04	96	40	136	09	23	32	105	63	168			

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

	No of	No. of Participants										
Area of training			General			SC/ST		<b>Grand Total</b>				
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Productivity enhancement in field crops	02	48	0	48	5	0	5	53	0	53		
Productivity enhancement in spices crops	01	19	4	23	0	0	0	19	4	23		
Integrated Pest Management	01	24	00	24	00	00	00	24	00	24		
Integrated Nutrient management												
Rejuvenation of old orchards												
Protected cultivation technology												

Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care	01	00	17	17	00	09	09	00	26	26
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)- PRA technique & training need assessment	01	22	00	22	00	00	00	22	00	22
TOTAL	6	113	21	134	5	9	14	118	30	148

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

	Nuc	No. of Participants											
Area of training	NO. 0I		General			SC/ST		Grand Total					
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total			
Productivity enhancement in field crops													
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Production and use of organic inputs													

Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production	01	15	00	15	00	00	00	15	00	15
Household food security										
Any other (pl.specify)										
TOTAL	01	15	00	15	00	00	00	15	00	15

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

	No. of	No. of Participants										
Area of training	INO. 01 Courses		General			SC/ST		G	Frand Tot	and Total		
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Productivity enhancement in field crops	02	48	0	48	5	0	5	53	0	53		
Productivity enhancement in spices crops	01	19	4	23	0	0	0	19	4	23		
Integrated Pest Management	01	24	00	24	00	00	00	24	00	24		
Integrated Nutrient management												
Rejuvenation of old orchards												
Protected cultivation technology												
Production and use of organic inputs												
Care and maintenance of farm machinery and implements												

Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care	01	00	17	17	00	09	09	00	26	26
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production	01	15	00	15	00	00	00	15	00	15
Household food security										
Any other (pl.specify)- PRA technique & training need assessment	01	22	00	22	00	00	00	22	00	22
TOTAL	7	128	21	149	5	9	14	133	30	163

### Sponsored training programmes

	No. of No. of Participants										
Area of training	Courses		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Crop production and management											
Increasing production and productivity of crops	01	35	00	35	04	00	04	39	00	39	
Integrated Farming System	01	26	00	26	04	00	04	30	00	30	
Production and value addition											
Fruit Plants	02	90	00	90	00	00	00	90	00	90	
Ornamental plants											
Spices crops											
Soil health and fertility management											

Production of Inputs at site										
Methods of protective cultivation										
Others (Organic Farming)	01	51	09	60	00	00	00	51	09	60
Total	05	202	09	211	08	00	08	210	09	219
Post harvest technology and value addition										
Processing and value addition	01	00	25	25	00	16	16	00	41	41
Others (pl. specify)										
Total	01	00	25	25	00	16	16	00	41	41
Farm machinery										
Farm machinery, tools and implements										
Others (pl. specify)										
Total										
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total										
Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
Total										

Agricultural Extension										
CapacityBuilding and Group Dynamics										
Other (Agriculture skill training programme for farmers)	01	50	10	60	00	00	00	50	10	60
Total	01	50	10	60	00	00	00	50	10	60
GRAND TOTAL	07	252	44	296	08	16	24	260	60	320

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

		No. of Participants								
Area of training	No. of		General			SC/ST			Grand Tota	al
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management	:									
Commercial floriculture										
Total										
Post harvest technology and value addition										
Value addition										
Others (pl. specify)										
Total										
Livestock and fisheries										
Dairy farming										
Poultry farming										
Others (pl. specify)										
Total										
Income generation activities										
Vermicomposting										
Production of bio-agents, bio-										

pesticides,										
bio-fertilizers etc.										
Repair and maintenance of farm										
machinery										
and implements										
Rural Crafts	01	00	11	11	00	01	01	00	12	12
Seed production										
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.	01	08	07	15	0	0	0	08	07	15
Tailoring, stitching, embroidery,										
dying etc Preparation of dormate &	01	00	19	19	00	02	02	00	21	21
rope swing										
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group										
dynamics										
Others (pl. specify)										
Total										
Grand Total	3	8	37	45	0	3	3	8	40	48

Details of trainings organized under ASCI – No

Area of training	No. of	No. of Participants								
	INO. 01 Courses		General		SC/ST			Grand Total		
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
TOTAL										

# **3.5. Extension Activities (including activities of FLD programmes)**

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	29	10,24,243	-	10,24,243
Diagnostic visits	3	38	-	38
Field Day	22	748	23	771
Group discussions	8	125	-	125
KisanGhosthi	3	192	6	198
Film Show	19	493	38	531
Self -help groups meeting	01	33	-	33
Kisan Mela	1	3100	34	3134
Exhibition	2	3638	27	3638
Scientists' visit to farmers field	102	1046	-	1046
Farmers visit at KVK Farm	1567	1422	145	1567
Lecture delivered	27	1427	68	1495
Animal health camps	03	136	12	148

Farm Science Club	1	44	8	52
Ex-trainees Sammelan	2	55	-	55
Farmers' seminar	1	82	5	87
Method Demonstrations	03	75	-	75
Mobile conference	02	-	-	-
TV talk	07	-	-	-
PRA	03	-	-	-
PM - farmers interaction – Live	01	143	10	153
PM - SHG farm women interaction – Live	01	32	03	35
Sadbhavna Diwas	01	27	02	29
Telephonic help line	238	238	-	238
Soil health card campaign	03	171	28	199
Kisan kalian Mahotsav	03	1698	32	1730
Celebration of important days				
World Food Day		34	0	34
World Soil Health Day	04	130	20	150
Kisan Diwas		37	0	37
World Environment Day		54	4	58
Special day celebration Women Day Kisan Mahila Diwas International Women Day	03	60 27 50	2 0 1	62 27 51
Exposure visits	02	18	2	20
Others (pl.specify)				
Total	2036	1039715	387	1040102

# Details of other extension programmes

Particulars	Number
Extension Literature	02
Newspaper coverage	14
TV Talks	08
Animal health amps (Number of animals treated)	03 (268 Animal)
Swachchh Bharat Abhiyan Campaign	02
(01 to 15 <sup>th</sup> August, 2018 & 16 <sup>th</sup> to 31 <sup>st</sup> December, 2018)	
Soil health campaign	05
Total	39

## 3.6. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

#### Production of Seeds by the KVKs

Category	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed	Value	Number of farmers
				(q)	(Rs)	
Cereals	Wheat	GW-451	-	16.20		In stock
	Wheat	GW-451	-	25.20	90,720	57
Oilseeds	Mustard	GDM-4	-	2.55		In Stock
	Mustard	GDM-4	-	0.87	6,960	47
Commercial crops	LIME SEED	KAGZI LIME	-	1	900	1
Total				45.82	98580	

## **Production of Planting Materials by the KVK**

Сгор	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Cabbage	Sygenta	Hybrid	2000	2000	100
	Cauliflower	Sygenta	Hybrid	2500	2500	100
	Lime	Kagzi lime	-	5293	79335	83
Б. '4	Papaya	Madhubindu	-	574	2570	82
Fruits	Gauva	L-49	-	4	80	1
	Drumstick	Maltiplex	-	500	5000	100
Ornamental plants	Ornamental plants	Local	-	23	230	6
Others	Tobacco	DTC-4	-	3500	700	1
	Total				92415	473

## **Production of Bio-Products**

Rio Products	Name of the big product	Quantity	Valua (Ds.)	No of Formors
Dio i roducis	Name of the bio-product	Kg		NO. OF FAI IIICTS
Bio Fertilizers	Vermi Compost	10500 7310 Kg Sale to Farmers & rest used at KVK Farm	36,550	130
Total				

## Production of livestock materials

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

# 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	Management of termite in wheat crop under rain fed/ semi	Kumar Upesh, Patel G A, Patel H P, Chaudhari	
	irrigated condition. <i>Bhartiya Anushandhan Patrika</i> . 33 (4):287-290	R P & Darji S S (2018).	
	Impact of Frontline Demonstration Programme on the Yield of	Kumar Upesh, Patel G A, Patel H P, Chaudhari	
	Chickpea (Cicer arietinum L.) in Patan District of Gujarat,	R P & Darji S S (2018).	
	India. Legume Research. DOI: 10.18805/LR-4081. pp-1-4.		
	A Study on Integrated management of gram pod borer in	Kumar Upesh & Raghav R SS (2018).	
	chickpea. Bhartiya Anushandhan Patrika. 33 (4):275-278		
Extension	Technologies for Low cost & high income	Dr Upesh Kumar, G A Patel, H P Patel & R P	1000 Сору
literature		Chaudhari	
	Production technology of black gram	-	1000 Сору
TOTAL	05 No	-	2000 Сору

## C. Details of Electronic Media Produced

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

D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs: The Success Stories / Case Studies need not be restricted to the reporting period). At this point please give titles of the success stories/ case studies. Detailed case study documents may be given at the end as an Annexure. - Attach in Annexure - I

The Broad outline for the case study may be Title, Background, Interventions (Process and Technology) and Impact (Horizontal Spread, Economic gains and Employment Generation) etc.

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

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**

- a) Bench mark survey
- b) PRA
- c) Field visit
- d) Group Discussion etc

#### **B. Rural Youth**

- a) Field visit
- b) PRA
- c) Training
- d) Group discussion

#### C. In-service personnel

- a) Field visit/ Diagnostic visit
- b) SAC meeting

#### 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 farmers 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

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

Biliya & Hajipur Village survey in progress

# 6. LINKAGES

## A. Functional linkage with different organizations

Name of organization	Nature of linkage		
Sardarkrushinagar Dantiwada Agril.	-Technical Back stopping		
University, S.K.Nagar			
Agril. Department Gujarat State,	-Linkage for exchange of information regarding farming.		
Patan	-Linkage for training programme of seasonal crops for practicing farmers.		
	-Linkage for training of extension functionaries.		
Gujarat State Fertilizer & Chemical	-linkage for demonstration about efficient and proper use of chemical fertilizer and importance of bio-fertilizer.		
Ltd. Sidhpur	-Linkage for soil and water analysis and training programme to farmers		
G.N.F.C. Sidhpur	-Linkage for soil and water analysis.		
	-Linkage for farmer training programme		
Department of Animal Husbandry,	-Linkage for training of management of milking animal & steps to solve the burning problem of cattle owner.		
Gujarat State, Patan	-Linkage for training to Ext. functionaries.		
Dudhsagar Dairy, Mehsana			
Dept. of Horticulture Gujarat State,	To create awareness regarding different schemes of Horticulture development.		
Patan	-To increase the awareness about protective cultivation in shade net		
Farmers Training Centre, Patan	-linkage for imparting training to farmers & farm women & rural youth		
ICDS Patan	In-service training programme and sponsored training programme		
ATMA Patan	-Seasonal training programme		
	-Demonstration of Agril. technology		
IWMP, Patan	Imparting training to the extension functionaries, farmers & farm women about soil reclamation & other enterprises		
NABARD, Patan	Training to members of farm science club		
Reliance	Quick delivery of message in large scale through Kisan Mobile sandesh		

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?

#### Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
	Meetings	ATMA Management Committee Meeting	07		
		Review meeting on skill development training at Gandhinagar	01		
01		BTT meeting	01		
01		Meeting for ATMA Award	01		
		Meeting Selection of best farmers	01		
		SAC Meeting		01	
		Meeting for Kisan Mela	01		
02	Research projects				
03	Training programmes	Awareness programme like- Low cost technology for higher production in major filed crops, Fruit & vegetable preservation, Crop production, Animal Science & Horticulture etc	11	05	

04	Demonstrations				
	Extension				
	Programmes				
	Kisan Mela	Kisan Mela	01		
	Exhibition	Exhibition of latest technology	03		
	Soil health camps	World Soil Health Campaign	01	01	
05	Others (specify)	Farmers Field School	08		
		Kisan Gosthi	02		
		Kisan Seminar	01		
		Kisan Kalyan Mahotsav	03		
		PM-Kisan Samman Nidhi	01		
		women empowerment week celebration	01		

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

S. 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

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

## F. Details of linkage with RKVY

S. 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: Activities may be specified under DAESI, YCMOU study centres and others Progressive farmers meet jointly organized by KVK & Yuganjali

Date	Venue	Participants		•	Remark
		SC/ST	Other	Total	
			S		
13-3-2019	Patan	20	158	178	Scientific cultivation of Bt cotton in Cotton under connect programme
14-03-2019	Patan	22	168	190	Scientific cultivation of Bt cotton in Cotton under connect programme
22-03-2019	Sujintra	12	118	130	Scientific cultivation of Bt cotton in Cotton under connect programme

# 8. Innovator Farmer's Meet - No

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

# 9. Farmers Field School (FFS) - No

S. 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:

- Need to develop yellow mosaic resistant variety of black gram.
- Need to develop high yielding, wilt resistant & drought tolerance variety of chickpea.
- Need to develop wilt resistant variety in castor
- Need to develop wilt & pink boll worm resistant/ tolerance variety in cotton
- Need to develop cropping system module of vegetable crops.
- Need to develop INM module as per cropping system.
- Need to develop to resistant variety of chilli against viral diseases.
- Need to develop IPM module in major insect of vegetable crop.
- Need to develop complex fertilizer as per crops.

Name of scientist	Feed back
Mr R.P.Chaudhri, SMS- Crop Production	Need to develop high yielding & drought tolerant variety of chickpea
	Need to develop INM module in field crop as per cropping system
	Need to develop complex fertilizer as per crops
Mr S S Darji, SMS- Horticulture	Need to develop cropping system module of vegetable crops
	Need to develop INM module in vegetable crop as per cropping system
Mr G A Patel, SMS- Plant Protection	Need to develop yellow mosaic resistant variety of black gram.
	Need to develop wilt resistant variety of chickpea
	Need to develop wilt resistant variety in castor
	Need to develop wilt & pink boll worm resistant/ tolerance variety in cotton
Dr S J Patel, SMS- Animal Science	Need to develop high yielding & high protein contain variety of fodder crop

#### 10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:
# 11. Technology Week celebration during 2018-19: Yes/No, If Yes

to

No

-

Period of observing Technology Week: From

Total number of farmers visited

Total number of agencies involved :

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			
Lectures organized			
Exhibition			
Film show			
Fair			
Farm Visit			
Diagnostic Practicals			
Supply of Literature (No.)			
Supply of Seed (q)			
Supply of Planting materials (No.)			
Bio Product supply (Kg)			
Bio Fertilizers (q)			
Supply of fingerlings			
Supply of Livestock specimen (No.)			
Total number of farmers visited the technology week			

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

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		
Vegetable crops		
Tuber crops		
Total		

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

State	Livestock components	Number of interactions	No.of participants
Total			

#### D. Animal health camps organized

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

## E. Seed distribution in drought hit states

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

F. Large scale adoption of resource conservation technologies

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

G. Awareness campaign

State	Meetings		Gosthies		Field da	ays	Farmers fa	ir	Exhibition		Film sh	OW
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
Total												

# **13. IMPACT**

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

Name of specific technology/skill transferred	No. of	% of	Change in income (Rs.)		
	participants	adoption	Before (Rs./Unit)	After (Rs./Unit)	
Varietal adoption					
Castor-GCH-7	50	81	-	-	
Fennel-GF-12	25	56	-	-	
Wheat-GW-451	50	64	-	-	
Cumin-GC-4	25	72	-	-	
Ajwain- GA-2	25	52	-	-	
Wilt disease management in Cumin through use of Bio- fungicide (Trichoderma spp.)	25	28	-	-	
Management of pink boll worm through IPM	25	38	-	-	
Application of sulpher in mustard	25	82	-	-	
Management of wilt in fennel	25	88	-	-	

- NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.
- B. Cases of large scale adoption- full cases may be given at the end as Annexure.(Please furnish detailed information for each case and )
- C. Details of impact analysis of KVK activities carried out during the reporting period

# 14. Kisan Mobile Advisor y Services

Month	No. of SMS sent	No. of farmers to which SMS	No. of feedback / query on SMS
		was sent	sent
April 2018	02	4325	34
May	01	27014	22
June	04	143079	106
July	05	177550	98
August	04	143081	152
September	04	72402	102
October	04	143090	128
November	02	35343	142
December	03	106008	82
January 2019	05	51691	94
February	01	35329	86
March	00	00	00

			Type of Messages					
Name of KVK	Message Type	Сгор	Livestock	Weather	Marke- ting	Aware- ness	Other enterprise	Total
	Text only	7	4	4	4	-	16	35
	Voice only							
	Voice & Text both							
	Total Messages	7	4	4	4	-	16	35
	Total farmers Benefitted	250837	143312	141343	142232		261188	938912

# **15. PERFORMANCE OF INFRASTRUCTURE IN KVK**

A. Performance of demonstration units (	other than instructional farm including	value added products)

SI	Domo	Year of	Area	Deta	ails of produc	tion	Amo	unt (Rs.)	
51. No.	Unit	establishmen t (ha)	Variety	Produce	Qty.	Cost of inputs	Gross income	Remarks	
1	Nursery	2012-13		Lime- Kagaji Lime	Seed	1 Kg	55,100.00	900.00	Sale to
	unit			Lime- Kagaji Lime	Seedling	5293 No		79,335.00	farmers
				Papya- Madhubindu	Seedling	574 No		2,570.00	
				Guava- L-49	Seedling	04 No		80.00	
				Drum Stick –	Seedling	500 No		5,000.00	
				Multiplex	Seedling	4500 No		4,500.00	
				Vegetable seedling	Sapling	23 No		230.00	
				Rose - Desi	Seedling	3500 No		700.00	
				Tobacco Seedling					
			Tot	al	·	14394 No/ 01 Kg	55,100.00	93,315.00	
2	Vermi	2012-13		Icenia foetida	Compost	10500 Kg	20,000.00	36,550.00	7310 Kg
	compost								Sale to
									Farmers &
									rest used
									at KVK
									гапп
			Tot	al			20,000.00	36,550.00	
			Grand	Total			75,100.00	1,29,865.00	

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

Namo	Detes	Date of harvest	Area (ha)	Details of production			Amou	ınt (Rs.)		
of the crop	sowing			Variety	Type of Produce	Qty.	Cost of inputs	Gross income	Remarks	
Cereals										
Wheat	19-11- 2018	01 & 02- 04-2019	0.75	GW-451	Seed	16.20	13,250	59,400	Total produce 21.60 qtl & stock for seed - 16.20 qtl	
Oilseeds										
Mustard	26-10- 2018	14 to 16- 03-2019	0.50	GDM-4	Seed	2.55	4,541	18,275	Total produce 3.40 qtl & stock for seed -2.55 qtl	
Castor	10to21- 08-2018	In progress	4.50	GCH-7	Commercial	68.74	43,625	3,67,104	Picking of spike in progress	
Other- Tobacco	03 to 05-12- 2018	04 to 06- 04-2019	0.75	GCT-3	Commercial	-	10,031	-	In progress	
Fruits										
Lime	2004		2.70						1.0 ha in good condition & rest 1.70 ha plant are pulled & replanting of new orchard	
Mango	1994	May to June	0.95	Kesar	Fruit	-	-	50,000.00	Auction from 01 <sup>st</sup> January, 2018 to 24	
Sapota	1994	Marchl to May	0.60	Kali Patti	Fruit	-			January, 2020	
Papaya	July,	February	0.25	Madhubindu	Fruits	Kg	2,000.00	20,000.00	Auction from 25	

	2018	to March, 2019							January, 2018 to 24 January, 2020
Vegetables - Bottle gourd, Cucumber, Fenugreek, Coriander &Spinach	July, 2018	March, 2019	0.2	Hybrid	Fruits	4039 Kg	-	30,459.00	Auction from July, 2018 to March, 2019
Others (specify)									

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

Sl.	Name of the Product	Otty	Amou	Remarks		
No.	Name of the Floduct	Qıy	Cost of inputs	Gross income	Remarks	
1	Vermi Compost	10,500 Kg	20,000.00	36,550.00	7310 Kg Sale to Farmers & rest used at KVK Farm	

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

S1.	Name	Det	tails of production		Amou		
No	of the animal / bird / aquatics	Breed	Type of Produce	Qty.	Cost of inputs	Gross income	Remarks

#### E. Utilization of hostel facilities

Accommodation available (No. of beds):

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018	40	75	
May 2018			
June 2018	15	05	
July 2018	34	75	
August 2018			
September 2018	10	10	
October 2018	13	10	
November 2018			
December 2018			
January 2019			
February 2019			
March 2019	10	05	

#### F. Database management

S. No	Database target	Database created

G. D	etails on	Rain	Water	Harvesting	Structure and	micro-iı	rrigation	system
0. D	ctunis on	1	·· acci	man vesting	Sti uctui c una	mici o n	i i igativii	System

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.		Activiti		Quantity of water harvested in '000 litres	Area irrigated / utilization pattern		
			No. of Training programm es	No. of Demonstratio n s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		

### **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							
With KVK	State Bank of India	Kahoda, Mahesana	15232	KVKSGVS Ganwada, Saraswati Gram Vidyapeeth, Ganwada, Siddhpur	10265325092	384002509	SBIN0015232

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recur	ring Contingencies			
1	Pay & Allowances	140.00	140.00	138.04
2	Traveling allowances	0.50	0.50	0.48
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	5.50	5.50	1.30
В	POL, repair of vehicles, tractor and equipments			1.34
С	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			0.59
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			0.13
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			1.89
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			0.48
G	Training of extension functionaries			0.06
Н	Maintenance of buildings			0.01
Ι	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
	TOTAL (A)	146	146	144.32
B. Non-F	Recurring Contingencies			
1	Works			
2	Equipments including SWTL & Furniture			

3	Vehicle (Four wheeler, please specify)					
4	4 Library (Purchase of assets like books & journals)					
TOTAL	FOTAL (B)					
C. REVO	C. REVOLVING FUND					
GRAND	GRAND TOTAL (A+B+C)					

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2016 to March 2017	6,23,281	3,81,768	4,71,649	5,33,400
April 2017 to March 2018	5,33,400	6,48,341	7,86,540	3,95,201
April 2018 to March 2019	3,95,201	11,90,694	5,69,709	10,16,186

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr Upesh Kumar	Senior Scientist & Head	Designing Farming Systems for Enhanced Income and Resilience in Low Rainfall Areas under Climate Change Scenario	CAZRI, Jodhpur	28-08-2018 to 17-09- 2018
Dr Upesh Kumar & Mr R P Chaudhari	Senior Scientist & Head, SMS, Agronomy	Eco agriculture and organic revolution	SDAU,S.K.NAGAR	27-09-2018
Mr S S Darji & Mr R P Chaudhari	SMS, Horticulture SMS, Agronomy	Rabi Pre Seasonal Workshop	SDAU,S.K.NAGAR	9-10/10/2018
Dr Upesh Kumar, Mr S S Darji & Mr R P Chaudhari	Senior Scientist & Head, SMS, Horticulture SMS, Agronomy	Zonal Research Extension Advisory Committee	SDAU,S.K.NAGAR	17/10/2018
Mr S S Darji	SMS, Horticulture	Weather & Climate Services For Agriculture & Media	IMD,AHMEDABAD	26/10/2018
H P Patel	SMS Agri Extension	Workshop attended- New Dimension in Agri Marketing	SDAU, S K Nagar	03 to 05-12-18
Dr Upesh Kumar, Mr S S Darji & Dr S j Patel	Senior Scientist & Head SMS, Horticulture SMS, Animal Science	Bimonthly Review Meeting & Workshop On Production Technology Management Of Potato	SDAU,S.K.NAGAR	11/12/2018
G A Patel	SMS Plant Protection	Training attended at SDAU on Nematode Management	SDAU, S K Nagar	11-01-2019
Mr S S Darji & Dr S J Patel	SMS, Horticulture SMS, Animal Science	Workshop On Production Technology Management Of Mustard	SDAU,S.K.NAGAR	17-01-2019 to 18-01-2019
Dr Upesh Kumar & Mr S S Darji	Senior Scientist & Head SMS, Horticulture	Skill Development Programme Of Agriculture & It's Allied Subject At Kaushalya Vardhan Kendra	State Nodal Office of ATMA, Gandhinagar	05/02/2019

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

- Pro SOIL
- NARI (Please indicate the name of one adopted village and give the activities carried over on nutri sensitive agriculture) Adopted Village- Madhupura, Taluka- Siddhapur, District- Patan (Gujarat)

Collaboration with

Krishi VIgyan Kendra Department of Women & Child care ATMA Village Panchayat Dairy

**Training Programme** -03 No of training programme to Farm Women for awareness programme

- VATICA
- Seed Hub
- Others (if any)
- **19.** Please include any other important and relevant information which has not been reflected above (write in detail).

# **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	72	1422	512	1934
Rural youths	04	105	63	168
Extension functionaries	06	111	30	141
Sponsored Training	07	260	60	320
Vocational Training	03	8	40	48
Total	92	1906	705	2611

### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	37	15	
Pulses	209	85	
Cereals	25	10	
Vegetables	180	50	
Other crops	50	20	
Hybrid crops	95	35	
Total			
Livestock & Fisheries	30	-	
Other enterprises			
Total			
Grand Total			

### 3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	08	79	79
Livestock	02	10	10
Various enterprises			
Other			
Total	10	89	89

## 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	204	15859
Other extension activities	39	-
Total	243	15859

## 5. Mobile Advisory Services

		Type of Messages						
Name of KVK	Message Type	Сгор	Livestock	Weather	Marke- ting	Aware- ness	Other enterprise	Total
	Text only	7	4	4	4	-	16	35
	Voice only							
	Voice & Text both							
	Total Messages	7	4	4	4	-	16	35
	Total farmers Benefitted	250837	143312	141343	142232		261188	938912

# 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	18.75	77,675.00
Planting material (No.)	14394	92,415.00
Bio-Products (kg)- Vermi Compost	10500	36,550
	7310 Kg Sale to Farmers & rest used at KVK Farm	
Livestock Production (No.)		
Fishery production (No.)		

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

Samples	No. of Beneficiaries	Value Rs.
Soil		
Water		
Plant		
Total		

#### 8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	05 No
2	Conferences	01 No
3	Meetings	06 No
4	Trainings for KVK officials	03 No
5	Visits of KVK officials	-
6	Book published	-
7	Training Manual	-
8	Book chapters	-
9	Research papers	03 No
10	Lead papers	-

11	Seminar papers	-
12	Extension folder	03 No
13	Proceedings	-
14	Award & recognition	01 No
15	On going research projects	-

### Annexure – I

### SUCCESS STORY OF GRADUATE FARMERS

1.	Name	:	Patel Govindbhai Ma	dhavlal	
2.	Village	:	Madhupura		
3.	Taluka	:	Sidhpur		
4.	District	:	Patan		
5.	Education	:	B.Com.		
6.	Year of Graduation	:	1985		
7.	Farming experience	:	26 years		
8.	Land holding	:	Own	:	2.0 ha.
9.	Annual Income	:	Agriculture	:	Rs 1,31,000=00
			Horticulture	:	Rs 5,40,000=00
			Total	:	Rs 6,71,000=00



Shri Govindbhai Madhavlal Patel is a enthusiastic farmer. He did his Graduation in B.Com. in the year 1985. He has 26 years experience of farming.

He always think over the market oriented horticultural farming i.e. Vegetable crop cultivation viz. Onion, Chilli, Indian bean etc. His average annual income from agriculture is about Rs. 1,31,000=00 while from Horticulture annual income is Rs. 5,40,000=00. In addition to this he is expertise in nursery raising of vegetable crop. So every some income by selling vegetable seedling viz. Onion and chilli etc. His source of technical information is Krishi Vigyan Kendra, Samoda-Ganwada, Di.Patan and SDAU, S.K.nagar. His future vision is expansion of Horticultural crop cultivation with Micro irrigation system.

#### PHOTOGRAPHS



**Fennel Cultivation** 

Chilli & Shimal Mirch

Papaya Cultivation & Production of organic pesticide

### Success story of youth farmers for enhancing income through adoption of latest technologies

1.	Name	:	Patel Vinodbhai Nar	anbhai	i
2.	Village	:	Ganglasan		
3.	Taluka	:	Sidhpur		
4.	District	:	Patan		
5.	Education	:	B.R.S. (Agri.)		
6.	Year of Graduation	:	1996		
7.	Farming experience	:	22 years		
8.	Land holding	:	2.5 ha		
9.	Annual Income	:	Agriculture	:	Rs 1,31,000=00
			Animal husbandry	:	Rs 3,40,000=00
			Total	:	Rs 4.71.000=00



Shri Vinodbhai Naranbhai Patel is an innovative and early adopter of latest technology farmer. He did his Graduation in BRS (Agri.) in the year 1996. He has 22 years of farming experience. He always think about the low cost technology for farming. He generally grown the cotton, castor, fennel, Cumin, wheat, Green-gram and Til every year. With a view to save the irrigation water, he has adopted the alternate furrow method of irrigation in cotton, castor and fennel.

By experience and assumption of his adoption of alternate furrow method of irrigation, he has found that saving of irrigation up to 40% and decrease the pest & disease, incidence up to 30%.

He is expertise in cotton seed production technology. So every year he has produced the seed of cotton of his own and gains some income by selling the Cotton seed. He gain about Rs. 1,31,000=00 from agriculture and about Rs. 3,40,000=00 from animal husbandry every year. The source of agriculture technological information in Krishi Vigyan Kendra, Samoda-Ganwada, Di.Patan . His future vision is adopting the micro irrigation system in total land.

### PHOTOGRAPHS





**Castor Cultivation** 

**Cotton Cultivation** 





**Cumin Cultivation** 

**Fennel Cultivation** 

#### Enhancing profitability through adoption of IFS system

1.	Name	:	Patel Shaileshkumar Naranbhai			
2.	Village	:	Kuwara			
3.	Taluka	:	Sidhpur			
4.	District	:	Patan			
5.	Education	:	B.E. (Mechanical)			
6.	Year of Graduation	:	1997			
7.	Farming experience	:	20 years			
8.	Land holding	:	Own		:	2.0 ha.
			Lease base		:	4.0 ha.
9.	Annual Income	:	Agriculture	:	1,71,	000=00 Rs.
			Horticulture	:	1,80,	000=00 Rs.
			Animal husbandry : 4,40,000		000=00 Rs.	
			Total	:	7,91,0	00=00 Rs.



Shri Shaileshkumar Naranbhai Patel is Mechanical engineer. He has completed his Graduation in 1997. He has 20 years of farming experience. 2.0 ha. land is under micro irrigation system for horticultural crops like pomegranate , cucumber and Bottle guard. During kharif cotton, castor and sorghum are grown while in Rabi season wheat and Lucerne are grown. Fodder crops like sorghum and Lucerne are grown in summer season & m for like stock production. He is doing scientific farming with all the production technology of respective crops like high yielding varieties. Integrated nutrient management, production and use of organic manure, micro irrigation system in horticultural crops. Tissue culture variety of pomegranate (sinduri) are grown in 2.0 ha for last 3 years. It is expected to give excellent income in next year.

Shaileshbhai is interested in live stock production. Today he is keeping 29 miching Buffaloes. He is doing scientific dairy farming practices like breeding, feeding and health and hygiene for milk production. He earned Rs. 1,71,000=00 from agronomy crops like cotton, castor and wheat and Rs. 1,80,000=00 from horticultural crops like pomegranate, cucumber and bottle guard. He also earned Rs. 4,40,000=00 from live stock production. Thus he earned annually 7,91,000=00 Rs. from agriculture and horticulture. Now a day he belongs to progressive farmers of Sidhpur taluka.

#### PHOTOGRAPHS



Dairy - Cow & Buffalo

Feed Management



**Pomegranate Cultivation** 



Intercropping of vegetable in new orchard of pomegranate

# Preparation of Doormat and Rope swing

1	Name of Rural youth women	:	Patel Kajalben Dhavalkumar
2	Village	:	Chandravati
3	Taluka	:	Sidhpur
4	District	:	Patan
5	Mobile No.	:	6388300038
6	Age	:	22
7	Education	:	M.A
1	Name of Rural youth women	:	Patel Ramilaben Rameshbhai
2	Village	:	Chandravati
3	Taluka	:	Sidhpur
4	District	:	Patan
5	Mobile No.	:	9712555404
6	Age	:	48
7	Education	:	10 Std.



For empowerment of Rural women KVK Patan has organized vocational training programme (19-06-2018 to 26-06-2018) for the Rural and farm women. In this porogramme, Scientist of Home Science has imparted the training about preparation of Rural craft activities i.,e. Rope swing, Baby cradle, Kundaa stand etc.

After completion of the programme two enthusiastic Rural women has been started to prepare and sale the rural craft articles. Now a days they are earning from the self prepared articles.

#### **Economic Impact :**

Items	No. of articles	Expenditure per article	Price per article (Rs.)	Income per articles	Net profit per articles
		(R6s.)		(Rs.)	(Rs.)
Rope swing	35	1500	3000	1500	1500
Baby cradle	08	950	1800	850	850
Kundaa stand	18	70	150	80	80
Small swing	11	900	1500	600	600