

# KRISHI VIGYAN KENDRA, GAUTAM BUDH NAGAR

## ANNUAL PROGRESS REPORT (JANUARY, 2019 – DECEMBER, 2019)

### APR SUMMARY

#### 1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	68	1160	200	1360
Rural youths /Vocational	14	114	26	140
Extension functionaries	29	440	140	580
Sponsored Training (FTT)	1	50	-	50
Vocational Training (Skill)	2	31	9	40
<b>Total</b>	<b>114</b>	<b>1795</b>	<b>375</b>	<b>2170</b>

#### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	-	-	-
Pulses (CFLD)	36	13.4	-
Cereals	55	22.0	-
Vegetables	15	3.0	-
Other crops	15	0.16	-
Hybrid crops	-	-	-
<b>Total</b>	<b>121</b>	<b>38.56</b>	-
Livestock & Fisheries	25	-	-
Other enterprises	45	12.0	-
<b>Total</b>	<b>70</b>	<b>12.0</b>	-
<b>Sponsored project (CRM)</b>	<b>67</b>	<b>39.6</b>	-
<b>Grand Total</b>	<b>258</b>	<b>90.16</b>	-

#### 3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	09	09	36
Livestock	-	-	-
Various enterprises	02	02	10
<b>Total</b>	<b>11</b>	<b>11</b>	<b>46</b>
<b>Technology Refined</b>			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
<b>Total</b>	-	-	-
<b>Grand Total</b>	<b>11</b>	<b>11</b>	<b>46</b>

#### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	916	6916
Other extension activities	35	
<b>Total</b>	<b>951</b>	<b>6916</b>

#### 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Live-stock	Weather	Marketing	Aware-ness	Other enterprise	
GB Nagar	Text only	32	08	-	06	38	52	136
	Voice only	112	22	08	20	42	46	250
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	<b>144</b>	<b>30</b>	<b>8</b>	<b>26</b>	<b>80</b>	<b>98</b>	<b>386</b>
	<b>Total farmers Benefitted</b>	<b>144</b>	<b>30</b>	<b>8</b>	<b>26</b>	<b>80</b>	<b>98</b>	<b>386</b>

#### 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q) (Commercial)	50.65	1,23,092.00
Planting material (No.)	20800	5200.00
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

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

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

#### 8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	02
2	Conferences	03
3	Meetings	10
4	Trainings for KVK officials (attended)	12
5	Visits of KVK officials	07
6	Book published	01
7	Training Manual	04
8	Book chapters	-
9	Research papers	02
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	05
13	Proceedings	03
14	Award & recognition	02
15	On going research projects	-

## DETAIL REPORT OF APR - 2019

### 1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra, Chholas, G.B. Nagar	08178365872	-	gbnagarkvk@gmail.com mayankrai71@gmail.com

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

Address	Telephone		E-mail
	Office	FAX	
SVPUA&T, Meerut	0121-2888511 Mo- 09412923199	0121-2888511	deesvpuat2014@gmail.com

#### 1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Mayank Kumar Rai	-	08178365872	mayankrai71@gmail.com

1.4. Year of sanction: June, 2005

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

S N	Sanctioned post	Name of the incumbent	Design- ation	Discipline	Pay Scale (Rs.)	Present Total basic (Rs.)	Date of joining	Perman- ent /Temp- orary	Category (SC/ST/ OBC/ Others)	Mobile no.	Age	Email id
1	Head	<b>Dr. Mayank Kr Rai</b>	Prof. & Head	Entomology	37400- 67000	59950	28.06.08	Regular	Others	08178365872	48	mayankrai71@gmail.com
2	Subject Matter Specialist	Er. Madhvendra Singh	Asso. Dir. Ext.	Ag. Engg.	37400- 67000	62420	20.11.13	Regular	Others	09457363443	58	singhm1501@gmail.com
3	Subject Matter Specialist	Dr. Vipin Kumar	Asso. Dir.	Agronomy	15600- 39100	40010	25.04.18	Regular	Others	9013389751	47	drv_kumar1973@ rediffmail.com
4	Subject Matter Specialist	Dr. Laxmi Kant	Asst Prof. / SMS	Pl. breeding	15600- 39100	30860	01.01.09	Regular	Others	09457085593	53	laxmikant1965@yahoo.co.in
5	Subject Matter Specialist	Smt. Vinita Singh	Asst Prof. / SMS	Home Science	15600- 39100	29070	11.07.08	Regular	Others	09717091158	50	write2vinita1@gmail.com
6	Subject Matter Specialist	<b>VACCANT</b>										
7	Subject Matter Specialist	<b>VACCANT</b>										
8	Programme Assistant	Sh. Kunvar Ghanshyam	Training Assistant	Animal Husbandry	7 <sup>th</sup> Pay	76500	05.07.14	Regular	OBC	09412120240	52	kunwarg2011@gmail.com
9	Computer Programmer	Sh. Ashu Arora	Program Assistant	Computer Science	7 <sup>th</sup> Pay	70000	04.03.06	Regular	Others	08010907124	47	aaroragzb@gmail.com
10	Farm Manager	<b>VACCANT</b>										
11	Accountant / Superintendent	<b>VACCANT</b>										
12	Stenographer	Sh. Rakesh Kumar	Jr. Steno	-	7 <sup>th</sup> Pay	53600	06.06.06	Regular	OBC	09319367470	51	
13	Driver	Mohd. Shokin	Driver	-	7 <sup>th</sup> Pay	32300	01.08.17	Regular	Others	09058541050	47	
14	Driver	Sh. Sandeep Kumar	Driver	-	7 <sup>th</sup> Pay	29600	30.07.07	Regular	SC	09412833537	39	
15	Supporting staff	<b>VACCANT</b>										
16	Supporting staff	Sh. Praduman	Attendant	-	7 <sup>th</sup> Pay	24900	27.02.08	Regular	OBC	09675589243	42	

**1.6. Total land with KVK (in ha) : 15.04 ha**

S. No.	Item	Area (ha)
1	Under Buildings	1.0
2.	Under Demonstration Units	0.015
3.	Under Crops	14.025
4.	Orchard/Agro-forestry	
5.	Others (specify)	

**1.7. Infrastructural Development:**

**A) Buildings**

SN	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	-	-	-	Oct, 06	510	Work already completed.
2.	Farmers Hostel	ICAR	-	-	-	Oct, 06	300	
3.	Staff Quarter(6)	ICAR	-	-	-	Oct, 06	400	
4.	Demonstration Units (2)	ICAR	-	-	-	Oct, 06	160	
5.	Fencing	ICAR	-	-	-	Oct, 06	2000 r.m	
6.	Rain Water harvesting system	ICAR	-	-	-	-	-	
7.	Threshing floor	ICAR	-	-	-	Oct, 06	300	
8.	Farm godown	ICAR	-	-	-	Oct, 06	60	

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total Km. Run	Present status
Jeep (M & M) Bolero	2006	472210.00	262000	Not fit for use as per NGT directions for NCR
Tractor with implements	2006	360000.00	1981	Working

**C) Equipments & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Computers (03)	2017	-	Working
Laptop (01)	2017	-	Working
Laptop (01)	2013	-	Working
Chart, Poster & CD	2008	8500.00	Damage
LCD projector (01)	2007	68125.00	Working but condition is very poor
Computer with MFP (01)	2006	67000.00	Poor condition

### 1.8. A). Details SAC meeting\* conducted in the year

SN	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.	24.12.2019	1. Dr. Gopal Singh, J.D.E., SVPUA&T, Meerut	1. Dr. Gopal Singh, JDE, Meerut suggested for mushroom training at KVK.	1. Established Mushroom Production Training Unit and conducted 5 trainings to farmers and women entrepreneurs.
		2. Dr. Satya Prakash, Head, Horticulture Dept., SVPUA&T, Meerut	2. Dr. Satya Prakash, Head, Horticulture department suggested for training and production of fruits and vegetables seedling at farmers field.	2. Established Shed Net House and produced onion seedlings. Also encourage farmers to produce and farmers are producing and selling onion / papaya seedling at their farm.
		3. Dr. K.G. Yadav Asso. Prof. (Agro.), SVPUA&T, Meerut	3. Sh. Jagpal Singh, Secretary, FARMER NGO suggested to use waste decomposer capsule for improvement of soil health and management of crop residues at farmers field.	3. We have encouraged 25 farmers to use waste decomposer in paddy and sugarcane field for both the purpose.
		4. Miss Vinita Srivastava, DDM, NABARD	4. Dr. Satya Prakash, Head, Horticulture suggested to promote vegetables production under sugarcane crop.	4. GB Nagar has less area under sugarcane. We have introduced onion/garlic and other vegetables at one farmer field.
		5. Sh. Jagpal Singh, Secretary, FARMAR NGO	5. Sh. V.P.S. Sisodia, Farmer has asked to utilize demo units at KVK.	5. KVK have NADEP, Vermi compost, Post harvest unit, Shed Net house, Mushroom units functioned and farmers are getting transform these units.
		6. Dr. Mayank Kumar Rai, Secretary/ Head, KVK, GB Nagar	6. Sh. Shiv Kumar, farmer suggested for promotion of organic production of vegetables at farmers field and development of linkage to sell their produce up to consumers level	6. We have encouraged 20 farmers for organic production of vegetables / paddy etc. Also linked them with a company namely “HEALTHY HAAT” for their best price
		7. Er. Madhvendra Singh, Assoc. Dir. Ag. Engg., KVK, GB Nagar	7. Dr. KG Yadav, Asso. Prof. (Agro) has suggested to cover or increase more area under crops at KVK farm	7. KVK has produced paddy and wheat in 1.0 ha area in Kharif and Rabi season during Kharif 2020. We are going to transplant 6 Acre paddy and 26 acre Dhaincha for green manuring.
		8. Dr. D.K. Sachan, SMS, Agronomy, KVK, GB Nagar	8. Miss Vinita Srivastava, DDM, NABARD suggested for training to women farmers under food processing sector.	8. 4 trainings conducted for skill development of womens for post harvest horticultural crops.
		9. Dr. Laxmi Kant, SMS, Plant Breeding, KVK, GB Nagar		
		10. Dr. Sheesh Pal Singh, SMS, Horticulture, KVK, GB Nagar		
		11. Sh. Kunwar Ghanshyam, Trg. Asstt (AH), KVK, GB Nagar		
		12. Sh. Ashu Arora, Prog. Asstt (Computer), KVK, GB Nagar		
		13. Sh. Rakesh Kumar, Jr. Steno, KVK, GB Nagar		
		14. Mohd. Shokin, Driver, KVK, GB Nagar		
		15. Sh. Sandeep, Driver, KVK, GB Nagar		
		16. Sh. Praduman, Attendent, KVK, GB Nagar		
		17. Sh. Vegraj, Progressive Farmer, GB Nagar		
		18. Sh. Maan Singh Bhati, Progressive Farmer, GB Nagar		
		19. Sh. Maninder, Progressive Farmer, GB Nagar		
		20. Sh. Sanjeev Kr. Premi, Progressive Farmer, GB Nagar		
		21. Sh. Vishan Pal Singh, Progressive Farmer, GB Nagar		
		22. Sh. Veerendra Singh, Farmer, GB Nagar		
		23. Sh. Brijesh, Farmer, GB Nagar		
		24. Sh. Dal Chandra, Farmer, GB Nagar		
		25. Sh. Jayant Teotia, Farmer, GB Nagar		
		26. Sh. Rajeev Kumar, Farmer, GB Nagar		
		27. Sh. Har Swaroop, Farmer, GB Nagar		
		28. Sh. Sonu Prakash, Farmer, GB Nagar		
		29. Sh. Satpal Singh, GB Nagar		

## **2. DETAILS OF DISTRICT (2019)**

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

<b>SN</b>	<b>Farming system / enterprises</b>
1	Crop Production + Dairy
2	Crop Production + horti (Fruit)
3	Crop Production + horti (Vegetable)
4	Crop Production + Backyard poultry
5	Piggery
6	Fisheries

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

<b>SN</b>	<b>Agro-climatic Zone</b>	<b>Characteristics</b>
1	Western Plain Zone	Sandy loam and loamy soil texture, canal and tube well irrigation, medium rainfall, sub-tropical climate, rice-wheat crop rotation crop production based dairy farming system.

<b>SN</b>	<b>Agro-ecological situation</b>	<b>Characteristics</b>
1	AES – I	<b>Soil type</b> - Sandy loam soil <b>Crop rotation</b> - Rice-Wheat, Jawar (fodder) -wheat, Arhar-wheat, Jawar(fodder) -lentil, Vegetables <b>Orchard</b> – Mango, Guava <b>Mixed farming system</b>
2	AES – II	<b>Soil type</b> - Sandy loam, Loam soil <b>Crop rotation</b> - Rice-wheat, Jawar(fodder)-wheat, Arhar-wheat, Jawar(fodder)-lentil, Vegetables <b>Mixed farming system</b> Some area water logged

### **2.3 Soil type/s**

<b>SN</b>	<b>Soil type</b>	<b>Characteristics</b>	<b>Area in (ha)</b>
1	Sandy loam	Sand percentage medium and water holding capacity medium.	37880
2	Loam	Soil fertility status and water holding capacity is high	100937

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

### Kharif, 2018

SN	Crop	Area (ha)	Production (Metric ton)	Productivity (q/ha)
1	Rice	15366	37498	25.33
2	Maize	442	237	5.36
3	Bajra	8304	9719	11.70
4	Urd	1	1	5.87
5	Moong	3	12.28	4.14
6	Arhar	3497	26228	7.50

### Rabi 2018-19

SN	Crop	Area (ha)	Production (Metric ton)	Productivity (q/ha)
1	Wheat	43503	190	41.76
2	Barley	963	3500	36.34
3	Gram	-	-	-
4	Pea	37	50	15.15
5	Lentil	7	9	12.86
6	Toria	236	379	16.06
7	Mustard	3553	3442	10.27

## 2.5. Weather data 2018-19 (up to 31.03.2019)

-

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
		Maximum	Minimum	
April, 2018	16.00	-	-	-
May, 2018	24.00	-	-	-
June, 2018	32.00	-	-	-
July, 2018	188.00	-	-	-
August, 2018	212.00	-	-	-
September, 2018	38.00	-	-	-
<b>Total Kharif</b>	<b>510.00</b>			
October, 2018	.00	-	-	-
November, 2018	22.00	-	-	-
December, 2018	26.00	-	-	-
January, 2019		-	-	-
February, 2019		-	-	-
March, 2019		-	-	-
<b>Total Rabi</b>	<b>48.00</b>			



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

Category	Population	Production	Productivity
<b>Cattle</b>			
Crossbred	15196	121568	8.00
Indigenous	16398	106587	5.50
<b>Buffalo</b>	272847	2319199	7.30
<b>Sheep</b>			
Crossbred	3770	4713	1.20
Indigenous	898	674	0.75
<b>Goats</b>	18176	327168	18.0
<b>Pigs</b>			
Crossbred	808	44440	51
Indigenous	7369	359788	44.0
<b>Poultry</b>			
Improved	22233	24456	1.20
<b>Category</b>	<b>Population</b>	<b>Production</b>	<b>Productivity</b>
Inland	-	3735 q	25/ha/year

## 2.7 Details of Operational area / Villages (2019)

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust area
Dadri	Dadri	Chhauas Nai basti Saithali Veerpura Nagla- Nainsukh Palla Luharli Chaysa Bambabad Akilpur Basantpur Milak Khandera Khursadpura	Rice Wheat Jawar Mustard Lentil Vegetables Orchards Dairy Poultry	<ul style="list-style-type: none"> <li>Lower yield of cereals due to imbalanced use of fertilizer and heavy weed infestations.</li> <li>In pulses pod borer's problem and wild cows.</li> <li>In oilseeds nutritional problems (Sulphur deficiency)</li> <li>Wilt in guava orchard</li> <li>Alternate bearing &amp; pest problem in mango orchard</li> <li>In milch animals repeat breeding</li> <li>Worm's infestation</li> </ul>	<ul style="list-style-type: none"> <li>IPNM</li> <li>IWM</li> <li>IPM</li> <li>Guava orchard management with respect to wilt.</li> <li>Mango orchard management</li> <li>Balanced animal feeding</li> <li>De-worming</li> </ul>
Sadar	Bisrakh	Duryai Thapkheda Dujana Moihayapur	Rice Wheat Jawar Mustard Lentil Vegetables Orchards Dairy Poultry	<ul style="list-style-type: none"> <li>Lower yield of cereals due to imbalanced use of fertilizer and heavy weed infestations.</li> <li>In pulses pod borer's problem and wild cows.</li> <li>In oilseeds nutritional problems (Sulphur deficiency)</li> <li>Wilt in guava orchard</li> <li>Alternate bearing &amp; pest problem in mango orchard</li> <li>In milch animals repeat breeding</li> <li>Worm's infestation</li> </ul>	<ul style="list-style-type: none"> <li>IPNM</li> <li>IWM</li> <li>IPM</li> <li>Guava orchard management with respect to wilt.</li> <li>Mango orchard management</li> <li>Balanced animal feeding</li> <li>De-worming</li> </ul>

Jewar	Dankor	Parsol Bilaspur Cheersi Bagpur Cheetee Dadupur Atta- Fatehpur	Rice Wheat Jawar Mustard Lentil Vegetables Orchards Dairy	<ul style="list-style-type: none"> <li>• Lower yield of cereals due to imbalanced use of fertilizer and heavy weed infestations.</li> <li>• In pulses pod borer's problem and wild cows.</li> <li>• In oilseeds nutritional problems (Sulphur deficiency)</li> <li>• Wilt in guava orchard</li> <li>• Alternate bearing &amp; pest problem in mango orchard</li> <li>• In milch animals repeat breeding</li> <li>• Worm's infestation</li> </ul>	<ul style="list-style-type: none"> <li>• IPNM</li> <li>• IWM</li> <li>• IPM</li> <li>• Guava orchard management with respect to wilt.</li> <li>• Mango orchard management</li> <li>• Balanced animal feeding</li> <li>• De-worming</li> </ul>
	Jewar	Chakvee-rampur Dhansia Dastampur Mahmadpur- Jadaun Cheeti Astoli	Rice Wheat Jawar Mustard Lentil Vegetables Orchards Dairy	<ul style="list-style-type: none"> <li>• Lower yield of cereals due to imbalanced use of fertilizer and heavy weed infestations.</li> <li>• In pulses pod borer's problem and wild cows.</li> <li>• In oilseeds nutritional problems (Sulphur deficiency)</li> <li>• Wilt in guava orchard</li> <li>• Alternate bearing &amp; pest problem in mango orchard</li> <li>• In milch animals repeat breeding</li> <li>• Worm's infestation</li> </ul>	<ul style="list-style-type: none"> <li>• IPNM</li> <li>• IWM</li> <li>• IPM</li> <li>• Guava orchard management with respect to wilt.</li> <li>• Mango orchard management</li> <li>• Balanced animal feeding</li> <li>• De-worming</li> </ul>

## 2.8 Priority / thrust areas

Crop/Enterprise	Thrust area
Rice/Wheat	Integrated Plant Nutrient Management in Rice-wheat cropping.
Rice/Wheat	Integrated Weed Management in Rice-wheat cropping.
Pulse	Increase area under the kharif and rabi pulses.
Fodder	Round the year green fodder production
Cereals	Integrated Pest Management in crops.
Guava	Rejuvenation of old mango orchards and mgt. of guava orchards.
Vegetables	Organic Vegetables farming
Dairy	To reduce repeat breeding in buffaloes & cows and calf mortality
Poultry	Promotion of Backyard poultry.
Horticulture	Introduction of aromatic & medicine plants.
Kitchen Garden	Nutritional kitchen gardening.
Value Addition	Value addition in fruits and vegetables.

## 2.9 Intervention/ Programmes for the doubling the farmers income – during 2019

### Demonstrations

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent Yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Relay Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Relay Cropping System(Kharif-Rabi-Zaid)-Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mixed Farming System(Kharif-Rabi-Zaid)-Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mixed Farming System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
IFS System(Kharif-Rabi-Zaid) - Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
IFS System(Kharif-Rabi-Zaid) - Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

Note- Same format may be used for OFT.

### 3. TECHNICAL ACHIEVEMENTS

#### 3.A. Details of target and achievements of mandatory activities by KVK during 2019

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Total no. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
11	11	50	46	42.5	90.16	200	258

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	76	68	1520	1360	850	951	8000	6916
Rural youth	16	14	160	140				
E.F.	33	29	660	580				
Sponsored (FTT)		01	50	50				
Vocational (ASCI)	03	02	60	40				
<b>Total</b>	<b>128</b>	<b>114</b>	<b>2450</b>	<b>2170</b>				

Seed Production (q)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200	50.65	-	20000	20800	80

Soil/plant/water Analysis		
7		
Target	Achievement	No. of farmers covered

### I.A TECHNOLOGY ASSESSMENT

#### Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
IWM	Paddy	Assessment of different weedicides on weed control efficacy.	1	5
IWM	Wheat	To assess the various weedicides impact on narrow and broad leaf weed control.	1	4
Varietal Evaluation	Tomato	Assessment of HYV of tomato	1	3
Varietal Evaluation	Bottle guard	Assessment of HYV of Bottle guard	1	3
Varietal Evaluation	Carrot	Assessment of HYV of carrot	1	3
Varietal Evaluation	Paddy	To assess the adoptability of newly released scented basmati paddy variety for higher yield	1	5
Varietal Evaluation	Wheat	Evaluation of HY wheat variety for NWPZ	1	4
<b>Total</b>			<b>07</b>	<b>29</b>

#### Summary of technologies assessed under livestock by KVKs

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
<b>Total</b>				

### Summary of technologies assessed under various enterprises by KVKs

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
Farm machinery	Agril. Engineering	Puddling through Rotavator and harrow.	01	05
		Sowing through happy seeder after harvesting of paddy	01	04
Reduce time and energy	H.Sc.	To reduce time and energy by the use of revolving stool while milking animal	01	05
Value addition	H.Sc.	Preparation of mango squash	01	05
<b>Total</b>			<b>04</b>	<b>19</b>

### I.B. TECHNOLOGY REFINEMENT – N/A

### I.C. TECHNOLOGY ASSESSMENT IN DETAIL

#### Crop Production

#### I.C.1. Assessment of different post emergence weedicide on weed control efficacy in transplanted paddy Kharif 2019 (Weed Mgt)

**Problem definition:** Low yield and net return of rice due to heavy infestation of weed flora in puddle paddy under less irrigation facility.

**Technology Assessed:** To assess the weedicide efficiency for weed control.

*Table.*

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	No. of weeds/m <sup>2</sup>	Net Return (Rs./ha)	B:C Ratio
<i>T</i> <sub>1</sub> - Farmers practice {Pretilachlor @1.25 /ha}	05	42.0	-	16	26900.00	1.50
<i>T</i> <sub>2</sub> - Bispiribac Sodium 10%SL @ 250 ml/ha		44.6	6.2	11	40600.00	1.65
<i>T</i> <sub>3</sub> - Penoxulam 21.7% SC @ 93.75 ml/ha		45.2	7.6	08	41200.00	1.77

#### I.C.2. Assessment of different weedicides on grassy and broad leaf weed control efficacy in wheat Rabi 2019 -20 (Weed Mgt)

**Problem definition:** Low yield and net return of wheat due to heavy infestation of narrow as well as broad leave weed flora in wheat under rice wheat cropping system.

**Technology Assessed:** To assess the weedicide efficiency for weed control.

*Table.*

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	No. of weeds/m <sup>2</sup>		Net Return (Rs./ha)	B:C Ratio
				Grassy	Broad leaf		
<i>T</i> <sub>1</sub> - Farmers practice {Salphosulphuron @ 35gm / ha}	04	48.8	-	12	14	43140.00	1.65
<i>T</i> <sub>2</sub> - Clodinofof @ 160 gm/acre at 25-30 DAS		50.5	3.5	09	09	46712.00	1.70
<i>T</i> <sub>3</sub> - <i>T</i> <sub>2</sub> + Metribuzin 20% @240gm/Acre		52.2	8.3	08	05	51685.00	1.75



## Horticulture

### I.C.3. Assessment of high yielding varieties of tomato (Rabi, 2018-19) *Varietal Evaluation*

**Problem definition:** Low production of tomato due to use of local varieties.

**Technology Assessed:** Evaluation of newly hybrid variety of tomato.

An on farm trial under Horticulture discipline entitled “Evaluation of newly hybrid variety of tomato” has been conducted by introducing new tomato variety US-2853 in comparison of local variety HS-1 as farmers practice.

**Table.**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub> - Farmer's practice (Local variety- HS-1)</i>	<b>03</b>	350	-	361500.00	7.17
<i>T<sub>2</sub> - SIRI-255</i>		405	15.71	425200.00	7.99
<i>T<sub>3</sub> - US-2853</i>		435	24.28	459500.00	8.35

Note: Tomato variety (US-2853) were superior over the farmer practice ( Local variety – HS-1)



**Photographs of Tomato at farmers field**

**Photographs of Tomato at farmers field**



### I.C.4. Assessment of high yielding varieties of bottle gourd (Zaid, 2019) *Varietal Evaluation*

**Problem definition:** Low yield of bottle gourd due to use of local varieties.

**Technology Assessed:** Assessment of high yielding variety of bottle gourd

**Table.**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub> - Farmer's practice (Desi variety)</i>	<b>03</b>	195	-	124050.00	1:3.97
<i>T<sub>2</sub> - Pusa Naveen</i>		245	25.64	163950.00	1:5.53

### I.C.5. To assess the performance of new variety of carrot (Rabi 2019-20) *Varietal Evaluation*

**Problem definition:** Old variety which has less market acceptability.

**Technology Assessed:** Assessment of high yielding variety of Carrot

**Table.**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub> - Farmer's practice (Local variety-Desi Red)</i>	<b>03</b>	230	-	1,48,000.00	5.11:1
<i>T<sub>2</sub> - Pusa Rudhira</i>		270	17.4	1,78,000.00	5.68:1

**Note:** Carrot variety Pusa Rduhira is better than the farmers practice (Local variety)



### Home Science

### I.C.6. To reduce time and energy by the use of revolving stool while milking animal (Zaid 2019)

**Problem definition:** Extra fatigue causes poor work efficiency and more physical stress.

**Technology Assessed:** Milking an animal by sitting over revolving stool.

An On Farm Trial under home science discipline has been conducted to reduce drudgery while milking of animals by using revolving stool in compared with traditional sitting position while milching. On the basis of recorded data, the technology was found highly acceptable and significantly reduced physical stress, bio-mechanical stress and improved work out put.

**Table.**

<b>Incidence of Muscular/skeletal problem during milking animals with Existing (squat position) and Improved Technology (Revolving Stool in sitting Position)</b>										
<b>1. Physical Stress</b>										
Body Parts	Existing Technology (Milking of animal in squat Position) (Total No. of Respondent = 5)					Improved Technology (Milking of animal by sitting over Revolving stool) (Total No. of Respondent = 5)				
	Very Severe Pain	Severe Pain	Moderate Pain	Mild Pain	Low Pain / No Pain	Very Severe Pain	Severe Pain	Moderate Pain	Mild Pain	Low Pain / No Pain
Neck Pain	-	-	4	1	-	-	-	1	-	4
Shoulder	-	-	3	2	-	-	-	-	2	3

Pain										
Back Pain	1	3	1	-	-	-	-	-	4	1
Thigh Pain	2	2	1	-	-	-	-	-	2	3

## 2. Bio Mechanical

Opinion	Existing (Total No. of Respondent = 5)		Improved (Total No. of Respondent = 5)	
	Yes	No	Yes	No
Maintain comfortable body Posture	-	5	5	-
Twisting of trunk easily while doing the activity	1	4	5	-
Able to synchronize the movement of animal	2	3	4	1

## 3. Work output

Opinion	Existing (Total No. of Respondent = 5)		Improved (Total No. of Respondent = 5)	
	Yes	No	Yes	No
Tool is effective as per time cost	NA	NA	3	2
Tool is effective in improving the production efficiency	NA	NA	2	3

## 4. Tool Factors

Opinion	Existing (Total No. of Respondent = 5)		Improved (Total No. of Respondent = 5)	
	Yes	No	Yes	No
The milking activity is light enough while using the revolving stool	NA	NA	5	-
Height of the stool needs to be adjusted to the working height	NA	NA	4	1
Easy to maintain or repair	NA	NA	5	-
Revolving stool is stable while sitting and performing the activity of milking	NA	NA	4	1

## 5. Field acceptability

Opinion	Existing (Total No. of Respondent = 5)		Improved (Total No. of Respondent = 5)	
	Yes	No	Yes	No
Improved tool is a good replacement to the existing work practice	NA	NA	5	-



### I.C.7. Preparation of mango squash (Value addition) (Kharif 2019)

**Problem definition:** Low income of farm women due to no value addition of Mango.

**Technology Assessed:** Mango squash preparation by using preservative

An On Farm Trial was conducted for value addition by mango squash preparation by using preservative (KMS) in view to increase the farmers income as compared to direct selling ripe mango on lower prices in local market. The recommended technology of mango squash preparation proved economic viable and increased farmer's income with 2.56 cost benefit ratio.

**Table.**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (Liter/kg of mango)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./kg)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub></i> - Farmer Practice (No value addition of mango, except pickle making)	<b>05</b>	-	-	-	-
<i>T<sub>2</sub></i> - Squash making from Mango		3.16	-	289.4	2.56:1

**B:C ratio calculated as on behalf of**

Ripe mango @ Rs. 121.8/kg

Sugar @ Rs. 47.6/kg

Lemon @ Rs. 10.2/100 gm

Other expenditure (Gas Flame + KMS) = Rs 5.00

**Total Cost of = Rs. 184.6/farm women**

Prepared amount of mango squash = 3.16 litre/unit

Sale price of mango squash as per market = Rs. 150/litre

Gross income Rs. 474/unit

Net Income = Rs. 474.00 – Rs. 184.60 = Rs. 289.40

BC Ratio = 474/184.6 = 2.56:1

### I.C.8. To assess the effect of puddling in grain yield of rice ( Kharif 2019) (A.E.)

**Problem definition:** Low water productivity of paddy due to improper puddling.

**Technology Assessed:** Puddling through Rotavator and Harrow

Improper puddling is a major cause of low water productivity in paddy in the district. An on farm trial under Agriculture Engineering discipline was conducted with recommendation of rotavator and harrow for puddling in comparison of farmers practice i.e. transplanting by contract labourer. As per recorded data both rotavator and harrow resulted increased yield 11.94 and 9.35 respectively.

**Table - Effect of various sowing methods on yield of rice.**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub> - Farmer's practice - transplanting by contract laborer</i>	05	38.5	-	27000.00	1.29:1
<i>T<sub>2</sub> – Puddling through Rotavator</i>		43.1	11.94	40800.00	1.43:1
<i>T<sub>3</sub> – Puddling through harrow</i>		42.5	9.35	39000.00	1.41:1

- B:C Ratio of the Rotavator as well as the puddling through harrow is greater than the check. Hence both the technologies are beneficial.

### I.C.9. Assessment of different wheat sowing implements after harvesting of paddy (Rabi 2019-20) (A.E.)

**Problem definition:** Low yield of wheat due to late sowing after paddy harvesting.

**Technology Assessed:** Sowing through happy seeder after harvesting of paddy

**Table - Effect of various sowing methods on yield of wheat.**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub> - Farmer's practice - Broadcasting after harrowing</i>	04	48.0	-	32800.00	1.49:1
<i>T<sub>2</sub> – Sowing through seed drill after one harrowing</i>		54.8	14.16	43880.00	1.65:1
<i>T<sub>3</sub> – Sowing through happy seeder after harvesting of paddy.</i>		52.0	8.33	38700.00	1.57:1

### I.C.10. To assess the adoptability of newly released scented rice variety for higher yield. (PB)

**Problem definition:** Low yield of old scented rice variety.

**Technology Assessed:** Evaluation of newly released basmati varieties

Newer varieties Pusa Basmati 1718 and Pusa Basmati 1637 were introduced among farmers by conducting an on farm trial in comparison of traditional sowing of Pusa 1121 as farmer's practice. It was observed that both newly introduced variety proved better in terms of net returns and cost benefit ratio. Results are as under.

**Table Performance of Basmati Rice Varieties**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub> - Farmers Practice (Variety- Pusa 1121)</i>	<i>05</i>	38.0	-	21900.00	1.57
<i>T<sub>2</sub> – Pusa Basmati 1718</i>		43.0	13.15	35900.00	1.77
<i>T<sub>3</sub> - Pusa Basmati 1637</i>		40.5	6.57	12700.00	1.45

- Rice variety Pusa Basmati 1718 is superior over the Pusa Basmati 1637 and farmer's practice (Pusa Basmati-1121).

### I.C.11. Assessment of new high yielding wheat varieties for NWPZ ( Rabi 2019-20 ) (PB)

**Problem definition:** Low yield of wheat varieties due to Karnal bunt and yellow rust.

**Technology Assessed:** Evaluation of high yielding wheat varieties for NWPZ

**Table:**

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
<i>T<sub>1</sub> - Farmers Practice (Variety- PBW-2967)</i>	<i>04</i>	48.5	-	33225.00	1.49:1
<i>T<sub>2</sub> – HD-3086</i>		54.5	12.4	43825.00	1.65:1
<i>T<sub>3</sub> – PBW-3237</i>		56.5	16.5	47525.00	1.70:1

## II. FRONTLINE DEMONSTRATION

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

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

SN	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Black gram	ICM	Package of agronomic practices	Demonstration and Gosthi	05	42	16.0
2	Rice	INM	Use of balance fertilizer (Daincha (GM) + *:60:60:25) * Rest of nitrogen through urea upto 120 kg.	Demonstration, Training and Gosthi	29	278	63.0
3	Rice	Varietal Performance	Variety Pusa 1612	Demonstration, Training and Gosthi	37	248	109.0
4	Lentil (PL-8)	ICM	Package of agronomic practices	Demonstration and Gosthi	06	36	12.0
5	Wheat	Plant population	Sowing of wheat by ferti seed drill	Demonstration, Training and Gosthi	48	490	245.0
6	Bottlegourd	Varietal performance	Variety – Pusa Naveen	Demonstration, Training and Gosthi	16	40	21.0
7	Cauliflower	Browning	Use of boron	Demonstration, Training and Gosthi	06	18	8.0
8	Onion	Varietal Performance	Use of improved variety	Demonstration, Training and Gosthi	04	12	8.0
9	Okra	Varietal Performance	Use of improved YVMV resistant variety- Pusa A4	Demonstration, Training and Gosthi	18	100	40.0
10	Seasonal vegetables	House hold food security	<b>Kharif</b> –cucumber, pumpkin, bitterguard, spongguard, bottleguard <b>Rabi</b> – Spinach, Fenogreek, radish, carrat, tomato, brinjal, coriander, cabbage <b>Zaid</b> - cucumber, pumpkin, bitterguard, spongguard, bottleguard	Demonstration, Training and Gosthi	22	68	6.0
11	Wheat	Farm machinery	Seeds sowing by Ferti Seed Drill	Demonstration, Training and Gosthi	14	70	18.0
12	Paddy	Farm machinery	Popularization and importance of laser leveler	Demonstration, Training and Gosthi	22	82	22.0

## b. Details of FLDs implemented during 2019

S N	Crop / Enterprise	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Lentil (PL-8)	ICM	Package of agronomy practices for max. production	Rabi 2018-19	10.0	3.4	2	9	11	-
2	Green gram (IPM-2-3)	CRM	Package of agronomy practices for max. production	Zaid 2019	10.0	10.0	-	25	25	-
3	Paddy	INM	Balanced fertilizer(Daincha (GM) + *:60:60:25) * Rest of nitrogen through urea up to 120 kg.	Kharif 2019	4.0	4.0	2	08	10	-
4	Paddy (PB)	Varietal Evaluation	Variety Pusa Basmati 1612	Kharif 2019	4.0	4.0	-	10	10	-
5	Wheat	INM	Effect of secondary and micronutrient on wheat	Rabi 2018-19	2.0	2.0	-	05	05	-
6	Wheat (PB)	Varietal Evaluation	Variety HD-3086	Rabi 2018-19	4.0	4.0	-	10	10	-
7	Wheat	INM	Effect of secondary and micronutrient on wheat	Rabi 2019-20	4.0	4.0	-	10	10	-
8	Wheat (PB)	Varietal Evaluation	Variety DBW-88	Rabi 2019-20	4.0	4.0	-	10	10	-
9	Okra	Varietal Performance	Arka Anamika	Zaid, 2019	1.0	1.0	02	03	05	-
10	Cauliflower	-do-	Pusa Kartik	Kharif, 2019	1.0	1.0	02	03	05	-
11	Onion	-do-	Agri found light red	Rabi 2019-20	1.0	1.0	02	03	05	-
12	Dairy	Disease Mgt.	Use of mastiout plus kit	Kharif 2019	-	-	03	12	15	-
13	Dairy	Feed & Fodder Mgt	Use of mineral mixture @ 50 gm/day/animal + deworming 2-3 times in a year.	Rabi 2019-20	-	-	03	07	10	-
14	Mixed Pickle (HSc.)	Value addition	Pickle making	Zaid 2019	-	-	-	15	15	-
15	Ferti seed drill (AE)	Sowing methods	Sowing of wheat through ferti seed drill	Rabi 2018-19	4.0	4.0	-	10	10	-
16	Laser leveler	RCT	Importance & use of laser leveler	Kharif 2019	4.0	4.0	03	07	10	-
17	Ferti seed drill (AE)	Sowing methods	Sowing of wheat through ferti seed drill	Rabi 2019-20	4.0	4.0	-	10	10	-
18	Nutritional Kitchen Garden (H.Sc.)	House hold food security	Growing seasonal vegetables, fruits in the kitchen garden (100m <sup>2</sup> )	Rabi 2018-19	0.05	0.05	-	5	5	-
				Zaid 2019						
				Kharif, 2019						
19	Wheat, Mustard, Green gram & fellow	CRM	Mechanization for field preparation of wheat / mustard after paddy, Sowing of green gram	Rabi 2018-19, Zaid 2019 & Kharif, 2019	-	39.6	19	48	67	-





### Technical Feedback on the demonstrated technologies

S N	Crop	Feed Back
1	Lentil	Variety Pant Lentil – 8 yielded better than local variety and showed resistance against wilt disease
2	Paddy	Use of balance fertilizer produce higher yield and less incidence of diseases. Variety PS-1612 shows higher yield in its segment and resistance against false smut.
3	Wheat	Variety HD-3086 having good yield and showed resistance against Karnal Bunt disease.
4	Green gram	Variety not suitable for sowing after wheat harvest.
5	Seasonal vegetables	In no cash input except seed the vegetables were available throughout the season for the farmers' family and the neighbors as well.

### Farmers' reactions on specific technologies

S N	Crop	Feed Back
1	Lentil	Grain size is as per local mandi demand
2	Paddy	Variety PS-1612 received approximate similar rate as PB-1509 in local mandi.
3	Wheat	Variety HD-3086 did not find any disease in field.
4	Carrot	Market rate of produce was higher than other variety.

### Extension and Training activities under FLD

SN	Activity	No. of activities organized	Number of participants	Remarks
1	Field days	10	320	-
2	Farmers Training	05	122	-
3	Media coverage	03	-	-
4	Training for extension functionaries	02	40	-

## Performance of Frontline demonstrations

### Frontline demonstrations on oilseed crops: Not Applicable

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										

### Frontline demonstration on pulse crops (Cluster demonstration)

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Lentil (Masoor)																		
Rabi 2018-19	ICM	Package of agronomy practices for max. production	PL-8	11	3.4	15.2	9.5	11.8	9.2	28.2	41500.00	64900.00	23400.00	1.60	38800.00	50600.00	11800.00	1.30
Green gram (Moong)																		
Zaid 2019	ICM	Package of agronomy practices for max. production	IPM-2-3	25	10	9.20	8.25	8.65	7.06	22.5	42325.00	45672.00	3347.00	1.10	37825.00	39050.00	1225.00	1.03



## FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Avg.												
Scented Rice																			
CP Basmati Kharif 2019	INM	Dhaincha + NPK+Zn 120-Dhaincha:60:60:25)	10	4.0	47.50	42.60	44.80	38.5	16.2	No. of effective tillers – 132/m²	No. of effective tillers – 108/m²	84800	194200	109400	2.30	80800	169000	88200	2.00
PB (Kharif 2019)	Varietal Evaluation	Variety – Pusa 1612	10	4.0	59.0	54.0	56.5	47.5	18.9	No. of effective tillers – 142/m²	No. of effective tillers – 111/m²	72500	143600	71100	1.98	72000	126750	54750	1.76
Wheat timely sown																			
CP (Rabi 2018-19)	INM	Secondary & micronutrient	05	2.0	52.00	44.00	48.80	42.80	14.0	-	-	68500	110400	41900	1.6	67200	99900	32700	1.5
PB (Rabi 2018-19)	Varietal evaluation	Variety HD-3086	10	4.0	54.00	46.00	49.85	44.60	11.7	No. of effective tillers – 143./m²	No. of effective tillers – 115./m²	68500	112238	43738	1.60	67200	103050	35850	1.50
CP (Rabi 2019-20)	INM	Secondary & micronutrient	10	4.0	51.8	43.2	48.3	41.5	16.3	-	-	68800	112980	44180	1.65	67500	99990	32490	1.50
PB (Rabi 2019-20)	Varietal evaluation	Variety DBW-88	10	4.0	59.0	52.0	55.9	49.0	14.1	No. of effective tillers – 136./m²	No. of effective tillers – 114./m²	67000	113415	46415	1.69	66500	100650	34150	1.51
Vegetables																			
Okra																			
Zaid 2019	Varietal	Arka Anamika	05	1.0	136	128	133	112	18.8	-	-	48600	133000	84400	2.74	38400	89600	51200	2.33

	performance																		
<b>Cauliflower</b>																			
Kharif 2019	Varietal performance	Kartik	05	1.0	152	136	147	123	19.5	-	-	45700	147000	101300	3.22	42500	123000	80500	2.89
<b>Onion</b>																			
Rabi 2019-20	Varietal performance	Agri found light red	05	1.0	250	236	242	226	7.08	-	-	76000	242000	166000	3.18	73500	180800	107300	2.46





## FLD on Livestock

### 1. Control of Mastitis disease in milch animal (Kharif 2019)

Enterprise	Type of animal	Name of the technology	No. of animals	No. of demonstration	Animal cured number	Cured %age
Dairy husbandry	Buffalo	Use of Masti out Plus Kit	15	15	14	93.33



**Masti out plus kit distributed to farmers**



### 2. Feeding of mineral mixture and deworming to enhance milk production and regulate normal fertility (Rabi 2019-20)

Enterprise	Type of animal	Name of the technology	No. of animals	No. of demonstration	Fertility parameter conception after parturition (70 days)		Milk yield parameter Additional milk yield (l/day)	
					Demo	Check	Demo	Check
Dairy husbandry	Buffalo	Use of mineral mixture @ 50 gm/day/animal + deworming 2-3 times in a year	10	10	10	06	9.50	8.00

#### Use of mineral mixture



## FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
<b>Value Addition</b>																
Zaid, 2019	Preparation of mixed pickle	15	15	Product : 1.34 kg	Product : 1.09 kg	22.93	-	-	80.50	160.80	80.30	1.99:1	72.00	109.00	37.00	1.51:1



**Training & FLD on prepration of mixed vegetable pickle**

## FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labor	Irrigation	Total
Ferti Seed Drill (Rabi 2018-19)	Wheat	Seeds sowing by seed drill	10	4.0	Tillers/m <sup>2</sup> Yield (q/h)	146 52.5	123 48	18.6 9.4	-	6	62	68	-	23800	-	23800
Laser leveler (Kharif, 2019)	Paddy	Importance and use of laser leveler for Field leveling	10	4.0	Low Cost of irrigation	04	06	-33	-	2	-	2	-			
Ferti Seed Drill (Rabi 2019-20)	Wheat	Seeds sowing by seed drill	10	4.0	Tillers/m <sup>2</sup> Yield (q/h)	152 53	127 49	19.7 8.2	-	6	65	71	-	24200	-	24200



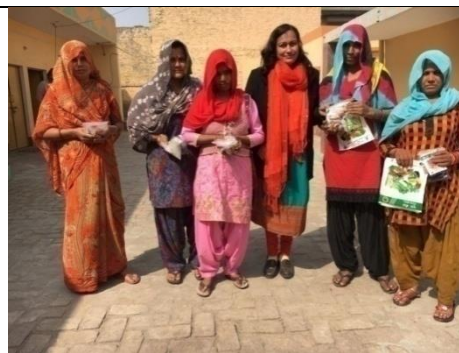


# FLD on Other Enterprise:

## Name of Technology demonstrated - Kitchen Gardening

## Thematic area – House hold food security

Category and Crop	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
			Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
<b>Seasonal vegetables for Rabi, 2018-19</b> – Tomato, brinjal, spinach, peas, cauliflower, turnip, raddish, mustard, Bakla, Methi, carrot, coriander.	05	05	136.5	112.3	21.50	-	-	750.00	6075.00	5325.00	8.10:1	615.00	4135.00	3520.00	6.70:1
<b>Seasonal vegetables for Zaid, 2019</b> –Brinjal, Raddish, Bottle gourd, Bitter gourd, Torai, Bhindi, Cucumber, Tinda, Lobia, Chakai, Kharbooja	05	05	169.8	118.7	43.00	-	-	720.00	5110.00	4390.00	7.09	640.00	3705.00	3065.00	5.78
<b>Seasonal vegetables for Kharif, 2019</b> – Bitter gourd, Torai, Bhindi, Radish, Brinjal, Bottle gourd Cucumber, Tinda, Kashipul, Lobia	05	05	220.2	144.7	52.17	-	-	650.00	5066.00	4416.00	7.79:1	530.00	3107.00	2577.00	5.86:1



[illegible]





[illegible]

[illegible]



[illegible]



<b>b) Fruits</b>										
Training and Pruning										
Layout and Management of Orchards	2	36	-	36	4	-	4	40	-	40
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
<b>Total (b)</b>										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (Production of low value and high volume crops)										
<b>Total (c)</b>										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (d)</b>										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (e)</b>										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (f)</b>										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
<b>Total (g)</b>										
<b>GT (a-g)</b>										
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	2	36	-	36	4	-	4	40	-	40
Integrated water management										
Integrated Nutrient Management	1	18	-	18	2	-	2	20	-	20
Production and use of organic inputs	1	18	-	18	2	-	2	20	-	20
Management of Problematic soils										
Micro nutrient deficiency in crops	1	18	-	18	2	-	2	20	-	20

[illegible]

Others (pl specify)										
<b>Total</b>										
<b>VIII Fisheries</b>										
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)										
<b>Total</b>										
<b>IX Production of Inputs at site</b>										
Seed Production (Pl. Breeding)	12	215	-	215	25	-	25	240	-	240
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)										
<b>Total</b>										
<b>X Capacity Building and Group Dynamics</b>										
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)										
<b>Total</b>										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>										
<b>GRAND TOTAL</b>	<b>68</b>	<b>1055</b>	<b>113</b>	<b>1168</b>	<b>105</b>	<b>87</b>	<b>192</b>	<b>1160</b>	<b>200</b>	<b>1360</b>

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

[illegible]

Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>										

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	Fe	T	Ma	Fe	T	M	Fe	T
Nursery Management of Horticulture crops										
Training and pruning of orchards	1	8	-	8	2	-	2	10	-	10
Protected cultivation of vegetable crops	1	8	-	8	2	-	2	10	-	10
Commercial fruit production										
Integrated farming										
Seed production	2	17	-	17	3	-	3	20	-	20
Production of organic inputs	1	8	-	8	2	-	2	10	-	10
Planting material production										
Vermi-culture	1	8	-	8	2	-	2	10	-	10
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements	2	17	-	17	3	-	3	20	-	20
Value addition	1	-	3	3	-	7	7	-	10	10
Small scale processing										
Post Harvest Technology	2	8	4	12	2	6	8	10	10	20
Tailoring and Stitching										
Rural Crafts (Tie & dye)										
Production of quality animal products										
Dairying	1	10	-	10	-	-	-	10	-	10
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	10	-	10	-	-	-	10	-	10
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Income generation activities for employment of rural women (Printing & Designing)	1	-	6	6	-	4	4	-	10	10
<b>TOTAL</b>	<b>14</b>	<b>94</b>	<b>13</b>	<b>107</b>	<b>16</b>	<b>17</b>	<b>33</b>	<b>114</b>	<b>26</b>	<b>140</b>



**Table. Sponsored training programmes**[illegible]

Area of training	No. of Courses	No. of participants								
		General			SC/ST			Grand Total		
		M	Fe	T	M	Fe	T	M	Fe	T
Farmer's Technical Training	1	38	-	38	12	-	12	50	-	50
<b>GRAND TOTAL</b>	<b>1</b>	<b>38</b>	<b>-</b>	<b>38</b>	<b>12</b>	<b>-</b>	<b>12</b>	<b>50</b>	<b>-</b>	<b>50</b>

SN	Sponsoring agency name
1	State Govt. through university

[illegible]



Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.										
Agril. para-workers, para-vet training										
Others (Orchard mgt. & maintenance)										
<b>Total</b>										
<b>Agricultural Extension</b>										
Capacity building and group dynamics										
Others (pl. specify)										
<b>Total</b>										
<b>Grand Total</b>	<b>2</b>	<b>28</b>	<b>6</b>	<b>34</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>31</b>	<b>9</b>	<b>40</b>

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

#### IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	75	465	38	<b>503</b>
Diagnostic visits	45	380	12	<b>434</b>
Field Day	12	140	22	<b>162</b>
Group discussions	01	35	02	<b>38</b>
Kisan Ghosthi	08	510	80	<b>598</b>
Kisan Mela	01	600	30	<b>630</b>
Exhibition	01	520	28	<b>549</b>
Scientists' visit to farmers field	250	1530	-	<b>1530</b>
Ex-trainees Sammelan	-	-	-	<b>0</b>
Method Demonstrations	01	25	04	<b>30</b>
Celebration of important days	03	112	02	<b>117</b>
Exposure visits	03	144	-	<b>147</b>
Lecture delivered	228	1890	-	<b>1890</b>
Farmers visit to KVK	288	216	72	<b>288</b>
<b>Total</b>	<b>916</b>	<b>6567</b>	<b>290</b>	<b>6916</b>

#### Details of other extension programmes

Particulars	Number
Extension Literature	04
News paper coverage	12
Research Paper	-
Popular articles	02
TV Talks	12
Leaflet	01
Technical Article	-
Technical Report	04
<b>Total</b>	<b>35</b>

#### Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
KVK, GB Nagar	Text only	32	08	-	06	38	52	136
	Voice only	112	22	08	20	42	46	250
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	<b>144</b>	<b>30</b>	<b>8</b>	<b>26</b>	<b>80</b>	<b>98</b>	<b>386</b>
	<b>Total farmers benefitted</b>	<b>144</b>	<b>30</b>	<b>8</b>	<b>26</b>	<b>80</b>	<b>98</b>	<b>386</b>

## V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS – Not Carried out

Number of KVKs organized Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
	Gosthies			
	Lectures organised			
	Exhibition			
	Film show			
	Fair			
	Farm Visit			
	Diagnostic Practicals			
	Distribution of Literature (No.)			
	Distribution of Seed (q)			
	Distribution of Planting materials (No.)			
	Bio Product distribution (Kg)			
	Bio Fertilizers (q)			
	Distribution of fingerlings			
	Distribution of Livestock specimen (No.)			
	Total number of farmers visited the technology week			

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

### Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals						
Oilseeds						
Pulses						
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
<b>Total</b>						

**Production of planting materials by the KVKs**

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings	Tomato	Pusa Rohini	-	20800	5200	80
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
<b>Total</b>						

**Production of Bio-Products**

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
<b>Total</b>				

**Table: Production of livestock materials**

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
<b>Poultry</b>				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
<b>Piggery</b>				
Piglet				
Others (Pl. specify)				
<b>Fisheries</b>				
Indian carp				
Exotic carp				
Others (Pl. specify)				
<b>Total</b>				

## VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

**Note: - Funds needed for purchase of instruments and infrastructure development**

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil				-
Water				
Plant				
Manure				
Others (pl.specify)				
<b>Total</b>				-

## VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
<b>KVK, G.B. Nagar</b>	<b>1. dated 13<sup>th</sup> February, 2019</b> <b>2. dated 24<sup>th</sup> December, 2019</b>

## IX. NEWSLETTER/MAGAZINE

Name of News letter	No. of Copies printed for distribution

## X. PUBLICATIONS

Category	Number
Research Paper	02
Technical bulletins	-
Technical Report	04

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

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

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

Introduction of alternate crops/varieties

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

Major area coverage under alternate crops/varieties

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

## Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No.of participants
Total		

## Animal health camps organised

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

## Seed distribution in drought hit states

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

## Large scale adoption of resource conservation technologies

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

## Awareness campaign

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

**XIII. DETAILS ON HRD ACTIVITIES - NA****A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension**

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

**B. HRD activities organized in identified areas for KVK staff by Zonal Project Directorate**

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

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

*Each Zone should propose a minimum of three case studies with good action photographs (with captions on the backside of the hard copy of the photos) on the following topics*

- Effective popularization on a larger scale of any one FLD technology and its role in transformation of district agriculture with respect to that particular crop or enterprise*
- Performance of the end results of any one technology assessed, its refinement if any and its impact in district agriculture with respect to that crop or enterprise*
- Effect of production and supply of seeds and planting material / animal breed / or bio-product and its impact on district agriculture with respect to that crop/ enterprise/ bio-product*

*The general format for preparing the above case studies are furnished below*



**D.2 . Publications (Print & Electronic media) (Jan 2019 to Dec 2019)**

S. No	Particulars	Number sold	Revenue generated in Rs.	Number of farmers benefited
01	Books			
02	Technical bulletins			
03	Technology Inventory			
04	CDs			
05	DVDs			
06	Video films			
07	Audio CDs			
08	Others if any (please specify)			

**E. Technology Products provided (Jan 2019 to Dec 2019)**

S. No	Particulars	Quantity	Unit of quantity	Value in Rs.	Number of farmers benefited
01	Seeds		Quintal		
02	Planting materials		Numbers		
03	Livestock		Numbers		
04	Poultry birds		Numbers		
05	Bio-products		Quintals		
06	Others pl. specify				

**F. Technology services provided (Jan 2019 to Dec 2019)**

S. No	Particulars	Number of farmers benefited
01	Soil and water testing	
02	Plant diagnostics	
03	Details about the services to line Departments	
04	Others if any (please specify)	

**XV. TECHNOLOGICAL BACKSTOPPING BY DIRECTORATES OF EXTENSION**

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## DETAILS OF TRAINING PROGRAMMES

### 1.1 On-Campus Training for Practicing farmers & Farm Women

Subject	Title of the training programme	Date	Duration in days	G. Total
	<b>1<sup>st</sup> Quarter (Jan., 2019 – March, 2019)</b>			
Crop Production	Importance of manures and bio-fertilizer in crop production & soil health.	21.01.2019	1	20
	Micro-nutrient deficiency in crops: Symptoms & correction	11.02.2019	1	20
Horticulture	Production technology of onion crops	06.02.2019	1	20
Live stock production	Infertility mgt. in dairy animals	05.02.2019	1	20
Agri. Engg.	Optimum use of ferti seed drill	12.02.2019	1	20
	Operation & maintenance of motor pump	26.02.2019	1	20
Home science	Method of preparation of different types of low cost Nutritious diet	29.01.2019	1	20
Plant breeding	Technique of roughing in wheat seed production	29.01.2019	1	20
	<b>2<sup>nd</sup> Quarter (April, 2019 - June, 2019)</b>			
Crop production	Increase farm income by adopting integrated farming system approach	10.05.2019	1	20
Horticulture	Nursery raising technique of papaya	11.04.2019	1	20
Live stock production	H.S. disease: Its symptom and preventive measures.	25.06.2019	1	20
Agri. Engg.	Safe use of thresher during operation	27.04.2019	1	20
Home science	Processing of soybean to make different product for income generation	24.05.2019	1	20
Plant breeding	Seed Production technique of Urd.	26.04.2019	1	20
	Seed Production of scented rice.	25.06.2019	1	20
	<b>3<sup>rd</sup> Quarter (July, 2019 – Sept.,2019)</b>			
Crop production	Advance production technology of lentil	14.09.2019	1	20
Horticulture	Cultivation technique of cauliflower	17.07.2019	1	20
Live stock production	Symptom of heat and time of insemination in milch animal.	18.09.2019	1	20
Agri. Engg.	Use & importance of improved implement (Drum seeder) for paddy crop	26.07.2019	1	20
Home science	Preservation of fruits and vegetables	31.07.2019	1	20
Plant breeding	Seed production of Toria/Mustard.	14.09.2019	1	20
	<b>4<sup>th</sup> Quarter (Oct., 2019 – Dec., 2019)</b>			
Crop production	Advanced production technology of wheat	19.10.2019	1	20
Horticulture	Protective nursery raising technique of cucurbitaceous crops	09.10.2019	1	20
Live stock production	Importance of green fodder in animal feed.	19.12.2019	1	20
Agri. Engg.	Use of Rotavator in paddy transplanting.	25.10.2019	1	20
	Raised bed planting technique by using Bed planter.	19.12.2019	1	20
Home science	Development, Maintenance and Importance of Nutritional Garden	02.11.2019	1	20
Plant breeding	Identification of rust resistant varieties of lentil & their seed production	06.11.2019	1	20
	Seed production technology of wheat crop.	14.11.2019	1	20



## 1.2 Off Campus Training for Practicing farmers & Farm Women

Subject	Title of the training programme	Date	Duration in days	Total
	<b>1<sup>st</sup> Quarter (Jan., 2019 – March, 2019)</b>			
Crop production	Advanced prodn. tech. of summer moong	03.02.2019	1	20
	Dhaincha green manuring to rice.	05.03.2019	1	20
	Method of soil sampling and importance of fertilizer use on soil test basis.	10.03.2019	1	20
Horticulture	Cultivation technique of tomato crop	08.01.2019	1	20
Live stock production	Mastitis in milch animals: Its symptoms and control.	29.01.2019	1	20
	Urea treatment of wheat straw for improving nutritive value	19.02.2019	1	20
Agri. Engg.	Save fuel operation of motor pump	16.01.2019	1	20
	Maintenance and care of ferti seed drill	18.03.2019	1	20
Home science	Malnutrition: Causes and dietary prevention	30.01.2019	1	20
Plant breeding	Technique of roughing in wheat seed production.	16.02.2019	1	20
	Quality seed production technique of cauliflower	15.03.2019	1	20
	<b>2<sup>nd</sup> Quarter (April, 2019 - June, 2019)</b>			
Crop production	Techniques of raising healthy paddy seedlings.	20.05.2019	1	20
	IWM in Rice	15.06.2019	1	20
Horticulture	Cultivation technique of early cauliflower	14.05.2019	1	20
Live stock production	Vaccination and deworming in dairy animals.	27.04.2019	1	20
	Importance of AI and mgt. of pregnant animals.	29.05.2019	1	20
Agri. Engg.	Use of repair, maintenance of plant protection equipments	14.06.2019	1	20
Home science	Formation and importance of Self Help Group (SHG) for generating income	27.04.2019	1	20
Plant breeding	Seed production of Moong bean	20.04.2019	1	20
	<b>3<sup>rd</sup> Quarter (July, 2019 – Sept.,2019)</b>			
Crop production	INM in rice	03.07.2019	1	20
	Advanced prodn. Technology of toria & sarson.	24.08.2019	1	20
Horticulture	Layout & planting method of orchards	10.08.2019	1	20
Live stock production	Nutritional requirement of lactating, pregnant and dry animals.	24.07.2019	1	20
	Control measures of Endo-Ecto parasitic infestation	28.08.2019	1	20
Agri. Engg.	Operation & maintenance of micro-irrigation system.	05.09.2019	1	20
Home science	Establishment and importance of zero energy cool Chamber (ZECC) to increase market value	18.08.2019	1	20
Plant breeding	Seed production of scented rice.	04.07.2019	1	20
	Seed production of toria	18.09.2019	1	20
	<b>4<sup>th</sup> Quarter (Oct., 2019 – Dec., 2019)</b>			
Crop production	IWM in wheat	15.11.2019	1	20
Horticulture	Scientific cultivation technique of marigold.	19.11.2019	1	20
Live stock production	F.M.D.: Its symptoms and preventive measures.	30.10.2019	1	20
	Care and feeding of newly born calf	27.11.2019	1	20
Agri. Engg.	Different type of equipment required for processing of fruit & vegetables.	11.10.2019	1	20
	Maintenance of seed drill and sowing equipments	30.11.2019	1	20
	Save water through sprinkler irrigation	26.12.2019	1	20
Home science	Safe Grain storage at household level to maintain the quality of grain	30.10.2019	1	20
	Drudgery Reduction of farm women through work simplification technique	01.11.2019	1	20
	Dehydration: Causes and dietary prevention	21.12.2019	1	20
Plant breeding	Technology of quality wheat seed production	23.10.2019	1	20

### 1.3 On campus Income and Employment Generating Training Programmes for Rural Youths

Crop / Enterprise	Training title*	Date / Month	Duration (days)	G.Total
	<b>1<sup>st</sup> Quarter (Jan., 2019 – March, 2019)</b>			
(Crop Prodn.)	Production technology of vermi compost	18-22 Feb., 2019	5	10
Cucurbits (Horti)	Low cost poly house and low tunnel for cucurbits crops	07-11 Jan., 2019	5	10
Food industry (H.Sc.)	Preparation of different types of pickles	21-25 Jan., 2019	5	10
Plant Breeding	Roughing technique in wheat seed production	15-19 Jan., 2019	5	10
	<b>2<sup>nd</sup> Quarter (April, 2019 - June, 2019)</b>			
Tomato (Horti.)	Post Harvest Technology in tomato crops	04-08 June, 2019	5	10
Poultry production	Backyard Poultry farming	21-25 May, 2019	5	10
Ag. Engg.	Repair & maintenance of farm machinery & implements.	14-18 May, 2019	5	10
Food industry (H.Sc.)	Preparation of different types of Mango Product	04-08 June, 2019	5	10
	<b>3<sup>rd</sup> Quarter (July, 2019 – Sept.,2019)</b>			
Plant Breeding	Seed production of Basmati rice	24-28 July, 2019	5	10
	<b>4<sup>th</sup> Quarter (Oct., 2019 – Dec., 2019)</b>			
(Crop Prodn.)	Production technology of vermi culture	22-26 Oct., 2019	5	10
Guava (Horti.)	Training & pruning of old guava orchard	13-17 Oct., 2019	5	10
Dairying	Scientific dairy farming	10-14 Dec., 2019	5	10
Ag. Engg.	Repair & maintenance of diesel engine	03-07 Dec., 2019	5	10
Textile (H.Sc.)	Technique of Tie and Dye	13-17 Nov., 2019	5	10

### 1.4 In-service Extension worker's Training Programs

Clientele	Title of the training programme	Date	Duration in days	G. Total
	<b>1<sup>st</sup> Quarter (Jan., 2019 – March, 2019)</b>			
Crop Production	Micronutrient deficiency in major crops and their correction.	19.02.2019	1	20
Horticulture	Production technology of bottle gourd	13.02.2019	1	20
Livestock Prodn & Mgt.	Care and feeding of newly born calf.	22.01.2019	1	20
Agriculture Engineering	Use of sprinkler irrigation for saving water	30.01.2019	1	20
Home Science	Malnutrition: causes and Prevention	18.03.2019	1	20
Plant Breeding	Seed production of cauliflower.	21.02.2019	1	20
	<b>2<sup>nd</sup> Quarter (April, 2019 – June, 2019)</b>			
Crop Production	Advances in basmati rice production technology.	25.05.2019	1	20
Horticulture	Nursery raising technique of kharif vegetables.	16.05.2019	1	20
Livestock Prodn & Mgt.	Urea treatment of wheat straw for improving nutritive digestive value	28.06.2019	1	20
Agriculture Engineering	Importance of laser land leveling	29.06.2019	1	20

Home Science	Problem of anaemia during pregnancy: Causes and Prevention	18.05.2019	1	20
	Importance and schedule of immunization for child and pregnant women	28.06.2019	1	20
Plant Breeding	Seed production of moong bean.	19.04.2019	1	20
<b>3<sup>rd</sup> Quarter (July, 2019 – Sept.,2019)</b>				
Horticulture	Fertilizer mgt in carrot crop.	19.09.2019	1	20
Livestock Prodn & Mgt.	Vaccination and deworming schedule in dairy animals	08.08.2019	1	20
Agriculture Engineering	Operation & maintenance of plant protection equipments.	28.08.2019	1	20
Home Science	Preparation and Importance of Amylase rich food	30.07.2019	1	20
	Formation, management and importance of Self Help Group (SHG)	16.08.2019	1	20
Plant Breeding	Seed production of scented rice.	19.07.2019	1	20
<b>4<sup>th</sup> Quarter (Oct., 2019 – Dec., 2019)</b>				
Crop Production	Advances in wheat production technology.	01.11.2019	1	20
	Increase farm income by adopting IFS approach	21.12.2019	1	20
Horticulture	Nursery mgt. of ornamental plants	12.12.2019	1	20
Livestock Prodn & Mgt.	Use and importance of mineral mixture.	05.12.2019	1	20
Agriculture Engineering	Maintenance and care of ferti seed drill	13.10.2019	1	20
Home Science	Preparation of different types of low cost nutritious diet	25.10.2019	1	20
	Balanced Diet and its importance	04.12.2019	1	20
Plant Breeding	Seed production technique of wheat.	21.11.2019	1	20