

**KRISHI VIGYAN KENDRA, DELHI**  
**ANNUAL PROGRESS REPORT (January 2019 - December, 2019)**

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## PROFORMA FOR PREPARATION OF ANNUAL REPORT (January-2019 - December-2019)

### 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	26	348	206	554
Rural youths	-	-	-	-
Extension functionaries	1	-	21	21
Sponsored Training	11	328	50	378
Vocational Training	6	102	21	123
<b>Total</b>	<b>44</b>	<b>778</b>	<b>298</b>	<b>1076</b>

#### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	116	46.6	
Pulses	109	43.6	
Cereals	17	7.2	
Vegetables	12	5	
Other crops	-	-	
Hybrid crops	-	-	
<b>Total</b>	<b>254</b>	<b>102.4</b>	
Livestock & Fisheries	-	-	
Other enterprises	27	3.2	
<b>Total</b>	<b>27</b>	<b>3.2</b>	
<b>Grand Total</b>	<b>281</b>	<b>105.6</b>	

#### 3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	5	23	23
Various enterprises	1	2	10
<b>Total</b>	<b>6</b>	<b>25</b>	<b>33</b>

#### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	346	7325
Other extension activities	18	6500
<b>Total</b>	<b>355</b>	<b>13287</b>

### 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	25	3	3	-	5	-	35
	Voice only							
	Voice & Text both							
	<b>Total Messages</b>	<b>25</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>35</b>
	<b>Total farmers Benefitted</b>	<b>11098</b>	<b>777</b>	<b>1671</b>	<b>-</b>	<b>3711</b>	<b>-</b>	<b>17257</b>

### 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	155.49	947282.50
Planting material (No.)	308750	27500
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

### 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	25	-
Water	55	-
Plant	58	-
<b>Total</b>	<b>138</b>	<b>-</b>

### 8. HRD and Publications

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

## 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	Website
	Office	FAX		
Krishi Vigyan Kendra, Village & Post -Ujwa, Nazafgarh, New Delhi – 110073	Office	FAX	kvkujwa@yahoo.com	www.kvkdelhi.org
	9667971155	011-28525129		

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






Address	Telephone		E mail	Website
	Office	FAX		
National Horticultural Research & Development Foundation (NHRDF), 47, Pankha Road Institutional Area, Janakpuri, New Delhi, Pin: 110058	011-28522211, 28524150	011-28525129	delhi@nhrdf.com	www.nhrdf.com












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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr P. K. Gupta	011- 28522211	8888867619	headkvkujwa@gmail.com

#### 1.4. Year of sanction: 1995

#### 1.5. Staff Position (as on 31<sup>st</sup> December, 2019)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Grade Pay	Present basic (Rs.)	Date of joining	Permanent /Temporary	(SC/ST/OB C/General)	Mobile No.	Email id	Please attach recent photograph
1	Programme Coordinator	Dr.P.K. Gupta	Sr. Scientist & Head	Horticulture	37400-67000	9000	38800+9000	28/2/17	Temp.	Gen	8888867619	kvkujwa@yahoo.com	
2	Subject Matter Specialist	Ritu Singh	SMS	Home Science	15600-39100	5400	25480+5400	10.02.05	-do-	Gen	9818550652	-do-	
3	Subject Matter Specialist	Rakesh Kumar	SMS	Horticulture	15600-39100	5400	25480+5400	22.09.05	-do-	Gen	9313047633	-do-	
4	Subject Matter Specialist	Dr. D. K. Rana	SMS	Plant Pathology	15600-39100	5400	21220+5400	5.05.10	-do-	Gen	9310904705	-do-	
7	Subject Matter Specialist	Dr Samar Pal Singh	SMS	Agronomy	15600-39100	5400	15600+5400	25.05.18	-do-	Gen	8650399054	-do-	

6	Subject Matter Specialist	Sh Kailash	SMS	Agriculture Extension	15600-39100	5400	15600+5400	27.06.18	-do-	Gen	9413060922	-do-	
5	Subject Matter Specialist	Dr Arpita Sharma	SMS	Agro-Metrology	15600-39100	5400	15600+5400	1.03.19	-do-	Gen	9070601618	-do-	
6	Subject Matter Specialist	Vacant	SMS	Animal Husbandry	-	-	-	-	-	-	-	-	-
7	Accountant / Superintendent	V. K. Dixit	OSCA	Administration and accounts	9300-34800	4200	20160+4200	21.10.05	-do-	Gen	9911395569	-do-	
8	Computer Programmer	Manju	PA	Computer Science	9300-34800	4200	13980+4200	2.05.08	-do-	Gen	9718666917	-do-	
9	Programme Assistant	Brijesh Yadav	PA	Soil Science	9300-34800	4200	11010+4200	17.02.14	-do-	Gen	7065787046	-do-	
10	Farm Manager	Ram Sagar	Farm Manager	Agriculture	9300-34800	4200	9300+4200	1.03.2019	-do-	-	8953751501	-do-	
11	Agromet Observer	Vishal	Agromet Observer	Agromet Observer	5200-20200	2000	5200+2000	1.3.2019	-do-	Gen	9466803902	-do-	
12	Stenographer	Atma Ram	Store Keeper	Administration	5200-20200	1900	9590+1900	10.02.05	-do-	Gen	9013553955	-do-	
13	Driver	Rajesh Kumar	Driver	Jeep Driver	5200-20200	1900	9580+1900	02.02.05	-do-	Gen	9899426775	-do-	
14	Driver	Krishan	Driver	Tractor Driver	5200-20200	1900	8540+1900	02.05.08	-do-	Gen	8506920345	-do-	
15	Supporting staff	Ramesh Chander	Attendant	Administration	4440-7440	1800	7680+1800	10.02.05	-do-	Gen	9560290407	-do-	
16	Supporting staff	Sachin Kumar	Attendant	Administration	4440-7440	1800	5200+1800	18.05.18	-do-	Gen	9012564616	-do-	

**1.6. Total land with KVK (in ha) :16.0**

S. No.	Item	Area (ha)
1	Buildings	0.7
2.	<b>Demonstration Units</b> Mushroom unit -250 m <sup>2</sup> Vermicompost unit -500 m <sup>2</sup> Azolla unit- 15 m <sup>2</sup> Insect proof net house-50 m <sup>2</sup> Apiculture-10 box Kinnow with Drip Irrigation & Aonla orchard-1.4ha Water harvesting -200 m <sup>2</sup>	1.5
3.	Crops (Seed Production)	9.8
4.	Kitchen Garden	0.2
5.	Others if any	
	a. Forestry	1.78
	b. Onion Storage	1.35

**1.7. Infrastructural Development:****A) Buildings**

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	17.2.2011	548.3m <sup>2</sup>	54,38,664/-	NA	-	
2.	Farmers Hostel				NIL			
3.	Staff Quarters				NIL			
4.	Demonstration Units :	State Govt.	1998	250 m <sup>2</sup>	12,10,000/-			
	Mushroom unit	ICAR	2019	500 m <sup>2</sup>	-			
	Vermi compost unit	ICAR	2018	15m <sup>2</sup>	200000/-			
	Azolla unit	NHRDF	2018	50 m <sup>2</sup>	25000/-			
	Insect proof net house	ICAR	2019	14000m <sup>2</sup>	125000/-			
	Apiculture	ICAR	2017	200 m <sup>2</sup>	250000/-			
	Kinnow & Aonla orchard	ICAR	2019	8000m <sup>2</sup>	150000/-			
	Water harvesting				360000/-			
	Drip irrigation system							
5	Fencing				NIL			
7	Threshing floor	ICAR	2011	222.3m <sup>2</sup>	1,92,031/-			
8	Farm Go down	ICAR	2011	35m <sup>2</sup>	1,99,869/-			
	Other				NIL			

**B ) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms Run	Present status
Scooter	1995	21818	-----	Not working
Motorcycle	2000	47063	51784	Not working
Jeep	2017	800000	45149	Working
Tractor	2017	700000	870.7*	Working

\*In hours

**C) Equipment & AV aids**

Sr. No	Name of the equipment	Number of Equipment	Year of purchase	Cost (Rs.)	Present status
1.	Seed drill	1	1997	6150	Good
2.	Cultivator	1	1997	1672	
3.	Tractor trolley	1	1998	11000	
4.	Harrow	1	1999	8600	
5.	Juicer Mixer Grinder	1	2009	2050	
6.	Scanner	1	2010	4148	
7.	Speaker	1	2010	1733	
8.	Computer	4	2010	25725	
9.	Computer	5	2011	24210	
10.	Refrigerator	1	2011	11200	
11.	Photocopier machine	2	2011	35000	
12.	Laptop	1	2011	36170	
13.	Generator	1	2011	59000	
14.	Room cooler	3	2012	20402	
15.	Small autoclave	1	2012	67280	
16.	Hot air oven	1	2012	45016	
17.	Laminar flow	1	2012	78874	
18.	Colony counter	1	2012	6156	
19.	B.O.D. incubator	1	2012	107730	
20.	Microscope	1	2012	37822	
21.	Refrigerator	1	2012	32600	
22.	Electric balance	1	2012	42750	
23.	Water distillation	1	2012	25650	
24.	pH meter	1	2012	19687	
25.	EC meter	1	2012	21038	
26.	Spectrophotometer	1	2012	39150	
27.	Flame photometer	1	2012	60750	
28.	Computer	1	2012	34000	

29.	Air conditioner	1	2012	33975
30.	Laptop	1	2012	37000
31.	Sprit lamp	2	2012	157
32.	Stabilizer	1	2012	2000
33.	Hygrometer	1	2012	473
34.	Tally ERP 9 software	1	2014	16400
35.	Reverse Osmosis (RO)	1	2014	15500
36.	Finger print attendance machine	1	2014	11250
37.	Heat convector	3	2014	1800
38.	Mrida parikshak soil testing Mini Lab	1	2015	75000
39.	Trolly	3	2016	158832
40.	Plastic palates	8	2016	29560
41.	Water cooler with RO	3	2016	42550
42.	Inverter set	2	2016	24700
43.	Planker (wood pata with chain)	2	2016	8947
44.	Mrida parikshak soil testing Mini Lab	2	2017	90300
45.	Printer	5	2017	15044
46.	Harrow	3	2017	57000
47.	Leveler	2	2017	13000
48.	Lecture stand	2	2017	8000
49.	Cultivator	3	2017	23800
50.	Printer	5/	2017	15044
51.	Head phone	1	2017	400
52.	Gramin GPS 72 H	1	2017	9984
53.	Mulcher single speed	2	2018	336000
54.	Shrub master	2	2018	103040
55.	Hydraulic reversible 2MB plough	1	2018	135615
56.	Wireless walkie phone	1	2018	1750
57.	Happy seeder 10 row	2	2018	332640
58.	TATA sky DTH connection	1	2018	2530
59.	Airtel 4G home Wi-Fi router	1	2018	2500
60.	Fire extinguisher	3	2018	6372
61.	Desert cooler	6	2019	10000
62.	Zero seed cum fertilizer drill	4	2019	57000
63.	Computer	4	2019	107100
64.	UPS	5	2019	4300



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

S. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.	23.09.2019	<ol style="list-style-type: none"> <li>1. Dr. S.K. Singh, Director, ICAR-ATARI, Jodhpur</li> <li>2. Sh. Satish Gupta, SDM, Nazafgarh</li> <li>3. Sh. A.P. Saini, Joint Director (Agri.) Office of the Joint Director (Agri.) Govt. of NCT Delhi</li> <li>4. Dr. Anamika Sharma Programme Coordinator, KVK, Shikohpur, Gurgaon</li> <li>5. Programme Executive AIR, New Delhi</li> <li>5. Smt. Snehlata, Progressive farm woman, Village Mundka, Delhi</li> <li>6. Sh. Marcal Tirkey, Programme Executive, Doordarshan Kisaan, New Delhi</li> <li>7. Sh. Vishal Anand, Manager, NABARD, New Delhi.</li> <li>8. Dr. B.S.Panwar, Manager, NBPGR Farm, Issapur</li> <li>9. Dr. Rahul M. Panwar Veterinary Officer, Govt. of NCT Delhi.</li> <li>10. Sh. Ram Kumar, Progressive Farmer, village Galibpur</li> <li>11. Sh. Satyawar, Progressive Farmer, village Dariyapur</li> <li>12. Sh. Kunal Gehlot, Progressive Farmer Village Tigipur, Delhi</li> <li>13. Dr. P.K. Gupta, Head, KVK Ujwa</li> <li>14. Dr. Ritu Singh, SMS (HS), KVK, Ujwa</li> <li>15. Sh. Rakesh Kumar, SMS (Hort.)</li> <li>16. KVK, Ujwa, Delhi</li> <li>17. Dr. D.K. Rana, SMS(PP), KVK, Ujwa, Delhi</li> <li>18. Dr. Samarpal Singh, SMS (Agro), KVK, Ujwa</li> <li>19. Sh. Kailash Jakhar, SMS (Ext.), KVK, Ujwa, Delhi</li> <li>20. Sh. Ram Kumar, Progressive farmer, village Ghalibpur, New Delhi</li> <li>21. Sh. Brijesh Yadav, PA (SS), KVK, Ujwa</li> <li>22. Sh. Ram Sagar, Farm Manger, KVK, Delhi</li> </ol>	<ol style="list-style-type: none"> <li>1. It was advised that the district demographic should be presented in the slide.</li> <li>2. Under skill trainings impact should be included.</li> <li>3. Each on Farm Trial (OFT) should include problem cause diagram.</li> <li>4. Each OFT/FLD display board should be in hindi.</li> <li>5. Being horticulture-based host organization more number of front-line demonstrations should be conducted on vegetable crops.</li> <li>6. Follow up and impact study of every training/OFT/FLD should be followed by each SMS.</li> <li>7. While presenting the results of OFT in crops, NPK status and recommendation should be included.</li> <li>8. Under FLD programme on wheat, the recent variety HD-3226 should be promoted in the area.</li> <li>9. In horticulture drip irrigation should be promoted in the KVK district.</li> <li>10. KVK should identify goat rearing groups in the area and promote this venture for higher income and profitability.</li> <li>11. KVK should promote poultry farming in every adopted village.</li> <li>12. Animal vaccination camp should be organized on Foot and Mouth Disease.</li> <li>13. If possible KVK</li> </ol>	Noted for compliance

			<p>should promote fish farming in the area.</p> <p>14. It was advised that varietal evaluation should be removed from FLD thematic area.</p>	
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\* Attach a copy of SAC proceedings along with list of participants

## 2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	Agri-Dairy system (with rice in <i>kharif</i> and wheat in <i>rabi</i> as major crops)
2	Agri- Dairy system (Mustard as major oilseed crop and Jowar/Bajra as fodder crop)
3	Agri- Horticulture (Floriculture) system
4	Agri- Vegetables-Dairy system

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

#### a) Soil type

S.No.	Agro-Climatic Zone	Characteristics
1	Trans- Gangatic Plains region (Zone VI)	Semi-Arid, low rainfall, variation in temperature (2 - 47°C), frost occur once or twice in the year.

#### b) Topography

S. No.	Agro ecological situation	Characteristics
1	Climate	The state has three seasons viz., winter (Nov-Mar), summer (Apr-June) & Rainy season (July-Oct). The rainfall occurs during the month of July-Sept with occasional showers during Dec- Jan. The range of rainfall between 420-780 mm.

### 2.3 Soil Types

S. No	Soil type	Characteristics	Area (in ha)
1	Sandy loam/ Sandy clay loam	Light to medium in texture, low water holding capacity, pH slightly saline with low organic matter content. Wide range of crops can be grown but constraint is saline water for irrigation.	43036

### 2.4. Area, Production and Productivity of major crops cultivated in NCT, Delhi

S. No	Crop	Area (ha)	Production (MT)	Productivity (Q/ha)
1	Paddy	5854	25256	43.14
2	Wheat	19350	83419	43.11
3	Barley	62	181	29.19
4	Bajra	1482	3256	21.97
5	Maize	34	174	51.18
6	Jowar	3161	3035	9.60
7	Gram	60	120	20.00
9	Mustard	3593	4527	12.60
11	Vegetable	23043	-	-
12	Flowers	5995	-	-

Source: 2017-18 State Agriculture Department, NCT Delhi.

### 2.5. Weather data (2019)

Month	Rainfall (mm)	Temperature <sup>0</sup> C	
		Maximum	Minimum
January, 2019	16	21.1	6.8
February, 2019	30	22.68	10.52
March, 2019	0	28.35	13.27
April, 2019	24	37.32	23.19
May, 2019	23	39.8	23.8
June, 2019	0	40.9	29.1
July, 2019	224	36.3	26.2
August, 2019	134	34.1	25.8
September, 2019	23.5	34.4	25.6
October, 2019	15	32.6	19.8
November, 2019	14.5	27.7	15.2
December, 2019	39	18.5	7.7
<b>Total</b>	<b>543</b>	<b>31.14</b>	<b>18.91</b>

## 2.6. Production and productivity of livestock, poultry, fisheries etc. in the state

Category	Population	Production	Productivity
Cattle	86433		
Crossbred	47935	606232 L Milk	12.65 L / Animal/ Day
Indigenous	24498	97683 L Milk	3.98 L / Animal/ Day
Buffalo	162142	1286925 L Milk	7.94 L / Animal/ Day
Sheep	932		
Crossbred	654	9425 Kg/ Meat	14.4 Kg/ Animal
Indigenous	278	3529 Kg/ Meat	12.6 Kg/ Animal
Goats	30470	262042 Kg/ Meat	8.6 Kg/ Animal
Pigs	76346		
Crossbred	8581	Data not Available	Data not Available
Indigenous	67765		
Rabbits	6706		
Poultry	44000	58225 Kg/ Meat	1.33 Kg/ Bird
Hens	32202	Data not Available	Data not Available
Desi	20530		
Improved	2667		
Ducks	2140		
Turkey and others	1329		
Category	Area	Production	Productivity
Fish			
Marine			
Inland	4000 Ha	70010 ton/year	0.178 ton/ha/year
Prawn		Data not Available	
Scampi			
Shrimp			

Source- Govt. of NCT Delhi 2017-18

## 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 Areas
Najafgarh	Najafgarh,	Ghumenhera Shikarpur, Kanganheri	<b>Rabi</b> - Onion, Cauliflower, Spinach, Wheat, Mustard <b>Kharif</b> - Tomato, Cucurbits, Okra &, Brinjal, Paddy <b>Summer</b> - Okra, Tomato, Brinjal, Cucurbits, <b>Enterprises:</b> Dairy, Mushroom Production, Apiculture, Value addition to fruit & vegetable produce	<ul style="list-style-type: none"> <li>Saline water and Imbalance use of fertilizer.</li> <li>Problem of diseases and pest vegetables &amp; cereals.</li> <li>Problem of endo-parasite and ecto-parasite in animals.</li> <li>Post-harvest losses in fruits and vegetables crops.</li> <li>Wide spread nutrient deficiency among rural youths &amp; rural women.</li> <li>Non availability of healthy vegetable nursery.</li> <li>Traditional sowing &amp; field preparation techniques.</li> <li>Problem of repeat breeding and low productivity in milch animals.</li> <li>Intensive tillage practices in rice -wheat system &amp; lower cropping intensity</li> </ul>	<ul style="list-style-type: none"> <li>Micro-irrigation</li> <li>Promotion of salt tolerant varieties</li> <li>Integrated Nutrient Management in crops.</li> <li>Integrated weed management.</li> <li>Resource conservation practices</li> <li>IDM &amp; IPM approaches.</li> <li>Value addition of locally grown crops.</li> <li>Nutritional awareness among masses.</li> <li>Vegetables/Nursery raising under protected condition.</li> <li>Popularization of improved varieties of wheat, mustard &amp; vegetables.</li> <li>Promotion of organic farming</li> </ul>
Narela	Alipur	Tigipur, Sungerpur & Dariyapur	<b>Rabi</b> - Cauliflower, Spinach, Radish, Onion, Pea, Marigold, Wheat, Mustard <b>Kharif</b> -Tomato, Cucurbits, Okra &, Brinjal, Marigold, Radish & Spinach, Paddy <b>Summer</b> - Okra, Tomato, Brinjal, Cucurbits, Radish <b>Enterprises:</b> Poultry, Dairy, Mushroom, Vegetables Floriculture and Nursery Production.	<ul style="list-style-type: none"> <li>Weed infestation in vegetables, rice &amp; wheat</li> <li>Post-harvest losses in vegetables cucurbits, tomato &amp; okra</li> <li>Nutritional deficiency &amp; disorders in vegetable/ mustard</li> <li>Disintegration of small farmers in agriculture</li> <li>Problem disease &amp; insect</li> <li>Practices of inferior variety of crops/vegetables/ flowers</li> <li>Intensive tillage practices in rice -wheat system &amp; lower cropping intensity</li> <li>Low productivity in dairy animals.</li> <li>Problem of ectoparasites in animals.</li> <li>Poor poultry management.</li> <li>Lack of awareness off season vegetable cultivation</li> </ul>	<ul style="list-style-type: none"> <li>Formation of farmers producer's organization (FPO)</li> <li>Integrated weed management.</li> <li>Resource conservation practices</li> <li>Production of low volume &amp; high-volume crops</li> <li>Integrated Nutrient Management.</li> <li>Crop diversification</li> <li>Integrated pest management</li> <li>Off season vegetable</li> <li>Integrated crop management</li> <li>Exotic vegetables</li> <li>Post-harvest management of vegetable crops</li> <li>Soil test-based fertilizer recommend-ation (STFR).</li> <li>Organic farming</li> </ul>

## 2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Wheat & Mustard	Crop Management, Soil moisture conservation, weed management.
Paddy	Weed management, integrated pest management, nutrient management, soil fertility management
Vegetables (cucurbits, cauliflower, onion, leafy &	Integrated Pest Management, Integrated Nutrient Management, Weed Management.

tomato)	
Animal Husbandry	Nutrient, Disease & Feed Management
Fruits (Aonla, Karonda, Guava & Papaya)	HYV, IPM, Value Addition
Women in agriculture	Women empowerment through strengthening of SHG's, Health and nutrition awareness, preservation & processing of fruits & vegetables,
Agri-based enterprise	Entrepreneurship development in agriculture (value addition, dairy, nursery raising of vegetable crops, mushroom cultivation, vermi -compost & bee keeping) & market linkage

### **3. TECHNICAL ACHIEVEMENTS**

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

OFT (Technology Assessment)				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
8	7	35	36	Oilseed= 40 ha. (20 ha. Mustard+ 20ha. Groundnut)	29	100	72
				Pulses = 50 ha. (30ha. Summer mung+ 20ha. Chickpea)	50	125	125
				Wheat = 7.2ha.	7.2	18	18
				Onion=2	5	5	12

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	30	700	26	608	200	355	4000	13287
Rural youth	6	120	6	122				
Extn. Functionaries	5	100	1	21				

Seed Production (q)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
150	155.49	1580	300000	308750	105

## 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
Integrated Nutrient Management	Mustard	Foliar application of Boron	5	5
	Onion	Nutrient management in <i>Rabi</i> onion	5	5
Varietal Evaluation	Wheat	Integrated Nutrient Management in wheat	3	3
	Cauliflower	Nutrient management in cauliflower.	5	5
Integrated Pest Management	Okra	Shoot and fruit borer management technique in okra.	5	5
Integrated Crop Management				
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Post Harvest Technology / Value addition	Ber, Aonla & Beet root	Assessment of the acceptability of the ladoo prepared from Beetroot, Ber & Aonla	2	10
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)				
<b>Total</b>			<b>25</b>	<b>33</b>

**Note:** Suppose **IPM in paddy** is the technology assessed by 50 KVKs in the Zone with 5 trials by each KVK, then IPM in paddy needs to be considered as a single technology, with  $50 \times 5 = 250$  trials and No. of KVKs will be 50 Shoot and fruit borer management technique in okra.. In addition, please note that even if IPM in paddy is done with various combinations of Technology Options (treatments), it may be considered as a single technology only.

## I.B. TECHNOLOGY ASSESSMENT IN DETAIL

(From each state please include the full details of three OFTs on technology assessment under the broad thematic areas such as Integrated Crop Management, weed management, pest and disease management, nutrient management, resource conservation, livestock enterprises, Integrated Nutrient Management)

(The model for preparing the same is furnished below)

### INTEGRATED PEST MANAGEMENT

**Problem definition: Shoot and fruit borer management technique in okra.**

**Technology assessed:** Okra is an important commercial crop of Delhi NCT region.

Technology Option	No. of trials	Infestation (%)	Yield (kg/ha)	% Increase in yield over farmer's practice	Net return Rs/ha	B:C ratio
T <sub>1</sub> - Farmers Practice-cartaphydrochloride (SD) 1gm/lit water	05	14.6	7112	-	142240	1.42:1
T <sub>2</sub> - Spray of spinsol (45SL) @ 0.5ml/L water at 15 days interval		6.0	8066	11.8	161320	1.65:1

### NUTRIENT MANAGEMENT

**Problem definition: Areas are deficient in boron as per soil test basis.**

**Technology assessed:** Foliar application of Boron.

KVK, Delhi conducted an on-farm trial on mustard crop in the *rabi* season 2018-19 to assess the effect of foliar application of boron on yield and yield attributes of mustard crop to enhance the productivity of crop. The foliar application of Boron @ 0.25% boric acid was assessed at 40 and 60 days after sowing. The maximum average yield of mustard crop was reported with foliar application of Boron as compared to farmer practices.

Technology Option	No. of trials	Yield (kg./ha)	Increase in Yield (%)	B:C Ratio
T1-Farmers Practice (No use of micronutrient)	5	2250	--	2.64
T2-Foliar application of Boron @ 0.25% boric acid at 40 and 60 Days after sowing.		2474	10.00	2.85

**Growth and yield attributes:**

Treatments	Average primary branches per plant	Average number of siliquae per plant	Average number of seeds per siliquae	Average plant height (cm)
T1-Farmers Practice	4.3	410	11	190
T2-Foliar application of Boron @ 0.25% boric acid at 40 & 60 Days after sowing.	5.8	472	13.3	193

### ***NUTRIENT MANAGEMENT***

**Problem definition:** Lower productivity in *rabi* onion.

**Technology assessed:** Nutrient management in *rabi* onion.

KVK, Delhi conducted an on-farm trial to find out appropriate nutrient management practice to enhance the *rabi* onion productivity. The assessed practice of application of elemental sulphur @ 45 Kg/ha (basal dose) was found to be better with 4.82 % increase in yield.

**Table:** Effect of elemental sulphur on increasing yield in *rabi* onion crop.

Technology Option	No. of trials	Bulb size(cm)	Plant height (cm)	Yield (kg./ha)	Increase in Yield (%)	B:C Ratio
T1- Farmers Practice (No use of elemental sulphur)	05	52	41.6	19080	--	2.00
T2-Application of elemental sulphur @ 45 Kg/ha (basal dose)		62	44.8	20000	04.82	2.09

### ***NUTRIENT MANAGEMENT***

**Problem definition:** Lower productivity in cauliflower.

**Technology Assessed:** Nutrient management in cauliflower.

KVK, Delhi conducted an on-farm trial to find out appropriate nutrient management practice to control nutritional disorder & enhance the cauliflower productivity. The assessed foliar application of Borax @ 0.3% + Ammonium molybdate @ 0.05% at 45 DAT was found to be better with 8.00 % increase in yield.

**Table:** Effect of foliar application of Borax @ 0.3% + Ammonium molybdate @ 0.05% at 45 DAT in cauliflower.

Technology Option	No. of trials	Curd weight(gm)	Plant height (cm)	Yield (kg./ha)	Increase in Yield (%)	B:C Ratio
T1- Farmers Practice (No use of micronutrients)	5	775	27.1	18240	--	3.50
T2-Foliar spray of of Borax @ 0.3% + Ammonium molybdate @ 0.05% at 45 DAT		848	30.0	19700	8.00	3.78

### ***INTEGRATED NUTRIENT MANAGEMENT***

**Problem definition:** Lower yield in wheat crop.

**Technology Assessed:** Integrated Nutrient Management in wheat.

KVK, Delhi assessed the technology of Integrated Nutrient Management by the application of effect of fertilizer on the soil test basis with Nitrogen @ 120 kg, Phosphorus @ 60kg, Potassium @ 40kg and Zinc @ 5 kg / ha along with the bio fertilizers over the farmers practice of application of Nitrogen and Phosphorus only.



**Table:** Performance of wheat to integrated nutrient management

Technology Option	No. of trials	Yield q t./ha	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
T <sub>1</sub> – Farmer’s Practice (N&P application)	3	47.50	-	49625	2.48
T <sub>2</sub> – Application of fertilizer on the soil test basis N, P, K & Zinc + Bio fertilizers		50.50	6.50	54875	2.64

**Growth, yield attribute and soil fertility status:**

Treatments	Plant Height (cm)	1000 grain weight (g)	Fertility status of soil				
			N (Kg/ha)	P (Kg/ha)	K (Kg/ha)	Zn (ppm)	OC (%)
T <sub>1</sub> – Farmer’s Practice (N&P application)	91	37	280	12	150	1.2	0.48
T <sub>2</sub> – Application of fertilizer on the soil test basis N, P, K & Zinc + Bio fertilizers	98	40	310	14	165	1.6	0.51

**POST HARVEST TECHNOLOGY/VALUE ADDITION**

**Problem definition:** Non utilization of available Aonla, Ber and Beetroot in processed and preserved form.

**Technology assessed:** Assessment of the acceptability of the ladoo prepared from Beetroot, Ber & Aonla.

KVK, Delhi assessed the technology on value addition in the Beetroot, Ber & Aonla to develop ladoo. The preparation of ladoo from ber (20%), aonla (20%) and beetroot (10%) along with equal amount of sugar (50%) were kept in oven at 60°C for 2 hours. The material then taken out, cooled and then shaped in to the rounded structure.

**Table:** Acceptance of ladoo prepared with Aonla, Beetroot and Ber.

Technology Option	No. of trials	Organoleptic acceptability in terms of taste (%)	Organoleptic acceptability in terms of color (%)	Result of assessment	Famers reaction
T <sub>1</sub> – Farmer’s Practice (Aonla Ladoo)	5	55	40		
T <sub>2</sub> – Ber (20%), Aonla (20%) and Beetroot (10%) with equal amount of sugar (50%) ladoo		80	90	Ladoo in combination of ber, aonla beetroot was liked by the majority in terms of taste (80%)	Majority of the population showing keen interest in ladoo and it can become effective tool in improving the nutritional status of the masses.

## II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2019 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
	Mustard	Varietal Evaluation	Improved variety of mustard crop- Giriraj and RH-749	Through Frontline demonstrations and result demonstrations and Trainings and other relevant extension activities	8	375	150
	Mustard	Integrated disease management	IDM in Mustard	Through Frontline demonstrations and result demonstrations and other relevant extension activities	7	80	32
	Wheat	Varietal Evaluation	HYV of wheat- HD-3086	Through Frontline demonstrations and result demonstrations and Trainings and other relevant extension activities	15	400	160
	Gram	Varietal Evaluation	Improved variety –GNG-1958	Through Frontline demonstrations and result demonstrations and Trainings and other relevant extension activities	8	125	50
	Onion	Varietal Evaluation	Improved variety <i>Rabi</i> onion	Through Frontline demonstrations and result demonstrations and other relevant extension activities	5	75	35

	Summer moong	Crop diversification	Improved variety of summer moong	Through Frontline demonstrations and result demonstrations and Trainings and other relevant extension activities	6	75	30
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\* Thematic areas as given in Table 3.1 (A1 and A2)

b. Details of FLDs implemented during 2019 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
01.	Mustard	Varietal Evaluation	Improved variety of mustard	Rabi 2018-19	30.00	42.6	-	106	106	-
02.	Mustard	Integrated disease management	IDM in Mustard	Rabi 2018-19	4.00	4.00	2	8	10	-
03.					4	4	-	10	10	-
03.	Wheat	Varietal Evaluation	HYV of wheat- HD-3086	Rabi 2018-19	7.20	7.20	-	17	17	-
04.	Gram	Varietal Evaluation	Improved variety – GNG-1958	Rabi 2018-19	20.00	13.60	-	34	34	-
05.	Onion	Varietal Evaluation	Improved variety Rabi variety	Rabi 2018-19	-	5	2	10	12	-
07.	Summer moong	Crop diversification	Improved variety of summer moong MH-21	Summer 2019	30	30	-	75	75	-

#### Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Mustard	Rabi	Irrigated	Sandy loam	M	M	M	Fallow/Rice	16-22/10/2018	5-10/03/2019	54.6 mm	7 Days
Mustard	Rabi	Irrigated	Sandy loam	M	M	M	Fallow	9/10/2018	22/3/2019	54.6 mm	7 Days
Wheat	Rabi	Irrigated	Sandy loam	M	M	M	Fallow/Rice	7-10/11/2018	10-20/04/2019	54.6 mm	7 Days
Gram	Rabi	Irrigated	Sandy loam	M	M	M	Rice	02-05/10/2018	10-15/04/2019	54.6 mm	7 Days
Rabi Onion	Rabi	Irrigated	Sandy loam	M	M	M	Fallow	25/11/2018	12/5/2019	54.6 mm	7 Days
Green gram	kharif	Irrigated	Sandy loam	M	M	M	Wheat/Mustard	10/4/2019-20/04/2019	1/07/2019-5/07/2019	47 mm	7days
Pearl Millet	kharif	Irrigated	Sandy loam	M	M	M	Wheat/Mustard	2/07/2019-15/07/2019	25/09/2019-15/10/2019	47mm	7 days

### Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	RH 749 is high yielding variety of mustard crop followed by Giriraj for timely sown condition and better performance in Delhi NCT Region.
2	Chick pea variety GNG 1958 found suitable for the region.
3	The variety of wheat crop HD 3086 performed better on timely sown in Delhi NCT region.
4	MH-421 variety of moong crop is suitable in rice -wheat cropping system.
5	Mustard variety P-30 was suitable to the area with average yield of 30-36q/ha

### Farmers' reactions on specific technologies

S. No	Feed Back
1 Mustard	Demonstrated plots reported 15.5% more yield than local check plots due to better management practice.
2 Wheat	Cost of cultivation reduces on using happy seeder and zero-seed cum ferti-seed drill.
3 Mustard	The variety P-30 was good in yield and used for consumption

### Extension and Training activities under FLD

S. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	5	01/03/2019 (Mustard), 29.03.2019 (Gram), wheat (4/4/2019)1/07/2019 (summer moong)	164	
2	Farmers Training	1	23-24/01/2019	24	
3	Media coverage	2	1/1/2019	-	
4	Training for extension functionaries	-	-	-	

## Performance of Frontline demonstrations

### Frontline demonstrations on oilseed crops (including NSFМ)

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										
Mustard	Varietal Evaluation	Improved variety + Nutrient and weed management	RH-749	66	26.4	27.00	18.00	23.8	19.00	25.26	23570	83300	59730	2.53	21375	66500	45125	2.11
			Giriraj	40	16.00	25.00	17.00	21.8	19.00	14.70	23570	76300	52730	2.23	21375	66500	45125	2.11
	Integrated Disease Management	IDM in Mustard	RH 749	10	4	24.20	21.10	22.86	20.10	13.73	22100	82296	60196	3.72	22100	92840	70740	3.20

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

\*\* BCR= GROSS RETURN/GROSS COS

### Frontline demonstration on pulse crops (including NSFМ)

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										
Summer Green gram	Varietal Evaluation	Improved variety + Nutrient and weed management	MH-421	75	30	7.00	11.00	9.20	7.50	22.00	22200	53360	29405	2.2	23955	43500	21300	1.93
Chickpea	Varietal Evaluation	Improved variety + Nutrient and weed management	GNG-1958	34	13.6	20.00	13.30	16.52	14.00	18.00	26197	82500	56300	2.14	24852	70000	45148	1.82

\* 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 crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
<b>Cereals</b>													
<b>Wheat</b>	Varietal Evaluation	Improved variety of wheat HD-3086	18	7.2	-	-	49.5	45.00	19.00	54000	91080	37080	1.68
<b>Onion</b>	Varietal Evaluation	Improved variety of Rabi onion	12	5	212.5	182	193.8	187.5	3.36	68750	145350	76600	2.11

\* 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 Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
Mustard	Nutritional Security	10	low erucic acid	Demonstration on Biofortified crops	
Pearl Millet	Nutritional Security	7	Iron and zinc content and yield	Demonstration on Biofortified crops	

### FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	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)
Rabi season vegetables crops	Household Food security through Kitchen Gardening & Nutritional gardening	Kitchen Gardening & Nutritional gardening	10	10	145	-	-	145	-	1500/unit	5400/unit	3900/unit	3.60:1	-	-	-	-

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















Others (pl specify)										
<b>Total</b>										
<b>IX Production of Inputs at site</b>										
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)										
<b>Total</b>										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	-	18	18	-	2	2	-	20	20
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
<b>Total</b>	<b>1</b>	<b>-</b>	<b>18</b>	<b>18</b>	<b>-</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>20</b>	<b>20</b>
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>										
<b>GRAND TOTAL</b>	<b>21</b>	<b>275</b>	<b>148</b>	<b>423</b>	<b>21</b>	<b>13</b>	<b>34</b>	<b>296</b>	<b>161</b>	<b>457</b>

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>I Crop Production</b>										
Weed Management	1	18	-	18	-	-	-	18	-	18
Resource Conservation Technologies										
Cropping Systems	1	18	2	20	-	-	-	18	2	20
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	1	20	-	20	2	-	2	22	-	22
Soil & water conservatiion										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
<b>Total</b>	<b>3</b>	<b>56</b>	<b>2</b>	<b>58</b>	<b>2</b>	<b>-</b>	<b>2</b>	<b>58</b>	<b>2</b>	<b>60</b>







bio pesticides										
Others (pl specify) Cultivation of oyster mushroom	1	16	-	16	3	-	3	19	-	19
<b>Total</b>	<b>4</b>	<b>62</b>	<b>-</b>	<b>62</b>	<b>9</b>	<b>-</b>	<b>9</b>	<b>71</b>	<b>-</b>	<b>71</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										
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	1	-	18	18	-	2	2	-	20	20
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
<b>Total</b>	<b>1</b>	<b>-</b>	<b>18</b>	<b>18</b>	<b>-</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>20</b>	<b>20</b>
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>										
<b>GRAND TOTAL</b>	<b>26</b>	<b>322</b>	<b>196</b>	<b>518</b>	<b>26</b>	<b>10</b>	<b>36</b>	<b>348</b>	<b>206</b>	<b>554</b>

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	1	10	8	18	-	1	1	10	9	19
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
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) Asst.										
<b>TOTAL</b>	<b>1</b>	<b>10</b>	<b>8</b>	<b>18</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>9</b>	<b>19</b>



Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	1	10	8	18	-	1	1	10	9	19
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
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>	<b>1</b>	<b>10</b>	<b>8</b>	<b>18</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>9</b>	<b>19</b>

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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	1	-	20	20	-	1	1	-	21	21
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)										
<b>TOTAL</b>	<b>1</b>	<b>-</b>	<b>20</b>	<b>20</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>21</b>	<b>21</b>

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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	1	-	20	20	-	1	1	-	21	21
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)										
<b>TOTAL</b>	<b>1</b>	<b>-</b>	<b>20</b>	<b>20</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>21</b>	<b>21</b>

Table. Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop production and management</b>										
Increasing production and productivity of crops										
Commercial production of vegetables										
<b>Production and value addition</b>										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management	1	35	10	45	10	5	15	45	15	60
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
<b>Total</b>	<b>1</b>	<b>35</b>	<b>10</b>	<b>45</b>	<b>10</b>	<b>5</b>	<b>15</b>	<b>45</b>	<b>15</b>	<b>60</b>
<b>Post harvest technology and value addition</b>										
Processing and value addition										
Others (pl. specify)										
<b>Total</b>										
<b>Farm machinery</b>										
Farm machinery, tools and implements	7	180	20	200	30	10	40	210	30	240
Others (pl. specify)										
<b>Total</b>	<b>7</b>	<b>180</b>	<b>20</b>	<b>200</b>	<b>30</b>	<b>10</b>	<b>40</b>	<b>210</b>	<b>30</b>	<b>240</b>
<b>Livestock and fisheries</b>										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
<b>Total</b>										
<b>Home Science</b>										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
<b>Total</b>										
<b>Agricultural Extension</b>										
Capacity Building and Group Dynamics										
Others (pl. specify) Capacity building on farm machineries under <i>In-Situ</i> CRM	2	55	-	55	5	-	5	60	-	60
Preparation and Dissemination of Agromet Advisories at Block level	1	13	5	18	-	-	-	13	5	18
<b>Total</b>	<b>3</b>	<b>68</b>	<b>5</b>	<b>73</b>	<b>5</b>	<b>-</b>	<b>5</b>	<b>73</b>	<b>5</b>	<b>78</b>
<b>GRAND TOTAL</b>	<b>11</b>	<b>283</b>	<b>35</b>	<b>318</b>	<b>45</b>	<b>15</b>	<b>60</b>	<b>328</b>	<b>50</b>	<b>378</b>

Name of sponsoring agencies involved

- ICAR

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop production and management</b>										
Commercial floriculture										
Commercial fruit production										
Commercial vegetable production										
Integrated crop management										
Organic farming										
Others (pl. specify) Nursery Worker (Under ASCI)	1	16	1	17	3	-	3	19	1	20
Asst. Gardener (Under ASCI)	1	16	1	17	3	-	3	19	1	20
<b>Total</b>	<b>2</b>	<b>32</b>	<b>2</b>	<b>34</b>	<b>6</b>	<b>-</b>	<b>6</b>	<b>38</b>	<b>2</b>	<b>40</b>
<b>Post harvest technology and value addition</b>										
Value addition	1	10	14	24	-	-	-	10	14	24
Others (pl. specify)										
<b>Total</b>	<b>1</b>	<b>10</b>	<b>14</b>	<b>24</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10</b>	<b>14</b>	<b>24</b>
<b>Livestock and fisheries</b>										
Dairy farming										
Composite fish culture										
Sheep and goat rearing										
Piggery										
Poultry farming										
Others (pl. specify)										
<b>Total</b>										
<b>Income generation activities</b>										
Vermicomposting	1	18	2	20	-	-	-	18	2	20
Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
Repair and maintenance of farm machinery and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation	1	16	2	18	1	-	1	17	2	19
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.										
Agril. para-workers, para- vet training										
Others (pl. specify) Bee- Keeping	1	16	1	17	3	-	3	19	1	20
<b>Total</b>	<b>3</b>	<b>50</b>	<b>5</b>	<b>55</b>	<b>4</b>	<b>-</b>	<b>4</b>	<b>54</b>	<b>5</b>	<b>59</b>
<b>Agricultural Extension</b>										
Capacity building and group dynamics										
Others (pl. specify)										
<b>Total</b>										
<b>Grand Total</b>	<b>6</b>	<b>92</b>	<b>21</b>	<b>113</b>	<b>10</b>	<b>-</b>	<b>10</b>	<b>102</b>	<b>21</b>	<b>123</b>

### IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	10	200	5	205
Diagnostic visits	70	110	2	112
Field Day	6	178	4	182
Group discussions	15	150	5	155
Kisan Ghosthi	6	945	5	950
Film Show	10	120	5	125
Self -help groups	16	800	5	805
Kisan Mela	2	1400	15	1415
Exhibition	4	1500	30	1530
Scientists' visit to farmers field	170	242	2	244
Plant/animal health camps	1	20	5	25
Farmers' seminar/workshop	1	350	15	365
Method Demonstrations	10	230	20	250
I. Financial Literacy Week (3-8 <sup>th</sup> June 2019)	1	42	-	42
II. International Yoga Day (21 <sup>st</sup> June 2019)	1	35	-	35
III. Parthenium Week (15-22 Aug., 2019)	3	100	-	100
IV. World Soil Day (5 <sup>th</sup> December, 2019)	1	42	-	42
V. Kisan Samman Divas (23 <sup>rd</sup> December, 2019)	1	150	10	160
Exposure visits	6	275	-	275
Others (pl. specify)				
Seed treatment campaign	5	80	-	80
Pradhanmantri Kisaan Samman Nidhi	1	110	-	110
Agriculture Graduates Internship under RAWE	2	3	-	3
Soil testing campaign	3	50	5	55
Pashu Arogya Mela (11/09/2019)	1	60	-	60
<b>Total</b>	<b>346</b>	<b>7192</b>	<b>133</b>	<b>7325</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media (CD/DVD)	2
Extension Literature	5
News paper coverage	15
Popular articles	2
Radio Talks	4
TV Talks	18
Animal health camps (Number of animals treated)	1
Others (pl. specify)	-
<b>Total</b>	<b>47</b>



**Kisan Mobile Advisory**

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	25	3	3	-	5	-	35
	Voice only							
	Voice & Text both							
	<b>Total Messages</b>	<b>25</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>35</b>
	<b>Total farmers Benefitted</b>	<b>11098</b>	<b>777</b>	<b>1671</b>	<b>-</b>	<b>3711</b>	<b>-</b>	<b>17257</b>

## 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						
	Wheat	HD-2967	-	62.45	202962.50	150
Oilseeds	Mustard	Giriraj Pusa Vijay RH-749	-	29.10 34.14 10.10	232800 273120 80800	550 600 200
Pulses						
Commercial crops						
Vegetables	Spinach	Pusa All Green	-	19.70	157600	80
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
<b>Total</b>				<b>155.49</b>	<b>947282.50</b>	<b>1580</b>

## Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings	Tomato	Arka Rakshak	-	2500	5000	25
	Brinjal	Pusa Uttam	-	1500	3000	25
	Cabbage	Golden Acre	-	1000	2000	15
	Chilli	P-Sadabahar	-	250	500	10
	Cauliflower	Agehni	-	2500	5000	15
	Onion	NHRDF Red-2 NHRDF Red-3 NHRDF Red-4 ALR		300000(100 kg)	10000	10
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings	Napier grass	-	Hybrid Bajra	1000	2000	5
Forest Species						
Others						
Fodder						
<b>Total</b>				<b>308750</b>	<b>27500</b>	<b>105</b>

## Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others	Vermi compost	4565	45560	50
<b>Total</b>		<b>4565</b>	<b>45560</b>	<b>50</b>

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

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)	No. of soil health cards distributed
Soil	25	25	10	-	25
Water	65	55	19	-	-
Plant	58	58	16	-	-
Manure					
Others (pl.specify)					
<b>Total</b>	<b>148</b>	<b>138</b>	<b>45</b>	<b>-</b>	<b>-</b>

## VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Date of SAC Meeting	Participants
KVK, Delhi	23/09/2019	22

## IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
Krishi Vahini (January- June 2019)	500

## X. PUBLICATIONS

Category	Number
Research Paper	1
Technical bulletins	5
Technical reports	3
Others (pl. specify) Training Manual (Seasonal Preservation of Fruits & Vegetables)	1

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

Activities conducted				
No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
10	4	5000	200	25

## XII. Large scale adoption of resource conservation technologies

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Happy Seeder in wheat	25	20
Zero Tillage in wheat crop	150	80
Mulcher /Shrub Master	250	100
<b>Total</b>	<b>425</b>	<b>200</b>

### Awareness campaign under Jal Shakti

	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
	8	222	5	590	-	-	2	1415	2	1400	-	-
<b>Total</b>	<b>8</b>	<b>222</b>	<b>5</b>	<b>590</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>1415</b>	<b>2</b>	<b>1400</b>	<b>-</b>	<b>-</b>

### Awareness campaign under FPO formation

	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
	3	50	1	76	-	-	-	-	-	-	-	-
<b>Total</b>	<b>3</b>	<b>50</b>	<b>1</b>	<b>76</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

### Fertilizer uses Awareness Programme dated 15/10/2019 and 22/10/2019

	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
	-	-	1	40	-	-	-	-	-	-	1	157
<b>Total</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>157</b>

**Swachata Awareness Programme (dated 11/9/2019-2/10/2019 & 16/12/2019 – 31/12/2019)**

	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
	6	133	2	80	-	-	-	-	-	-	-	-
<b>Total</b>	<b>6</b>	<b>133</b>	<b>2</b>	<b>80</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**DELHI-ENVIRO-QUEST-2019-20**

KVK organized a State Level Programme in the form of “Delhi-Enviro-Quest-2018-20” held at Shishka Bharati Global School, Dwarka, New Delhi on 19 to 20 November, 2018 and 27 to 28 November, 2019 under Central Sector Scheme “*In-Situ Crop Residue Management*” Sponsored by Indian Council of Agricultural Research, New Delhi. The main motive of the programme was to stimulate the thoughtful minds of Delhi youth about this burning issue through different events like Debate, Extempore, Slogan Writing, Poster Making and General Knowledge Quiz competition at school level.

**NUMBER OF PARTICIPATING SCHOOLS****Number of participating schools in Delhi Enviro-Quest-2018-20**

Number of Schools Participated			
S. No.	School Name	Total Participation by Schools -2018	Total Participation by Schools -2019
1	<b>Kendriya Vidyalaya, NCT of Delhi</b>	31	18
2	<b>Government Schools, NCT Delhi</b>	26	63
3	<b>Private/Public Sector School</b>	28	36
<b>Total</b>		<b>85</b>	<b>117</b>

**EVENT-WISE DETAILS OF PARTICIPATING STUDENTS**

In this competition, more than 1825 students participated from 202 Central, Government and Public Schools of NCT of Delhi. The events-wise details are given below:

**Number of participating students in Delhi Enviro-Quest-2018**

S.No.	Activities / Events	2018-19		2019-20	
		Group A (6 <sup>th</sup> to 8 <sup>th</sup> Classes)	Group B (9 <sup>th</sup> to 10 <sup>th</sup> Classes)	Group A (6 <sup>th</sup> to 8 <sup>th</sup> Classes)	Group B (9 <sup>th</sup> to 10 <sup>th</sup> Classes)
1.	<b>Debate</b>	75	79	104	97
2.	<b>Extempore</b>	60	58	92	92
3.	<b>Slogan Writing</b>	92	79	156	92
4.	<b>Poster Making</b>	103	90	168	145
5.	<b>General Knowledge Quiz / Suggest the Best</b>	74	90	20	22
<b>Total</b>		<b>404</b>	<b>396</b>	<b>542</b>	<b>485</b>
<b>Total Student Participated</b>		<b>800</b>		<b>1025</b>	

### XIII. DETAILS ON HRD ACTIVITIES

#### A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension/ICAR/other Institutes

Name of the SAU	Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
HAIC, Sonipat, Haryana	National Seminar on Mushroom production technology & Innovation	1	2	1
NHB, Gurgaon	National workshop on cluster development of pomegranate, banana and mango	1	3	1
RBI, New Delhi	Financial Literacy Week on Responsible Borrowing and Agricultural Finance	1	42	1
Min. of Agri.& Farmers Welfare	National conference of farmers on In-situ crop residue management	1	60	1
NABARD, Mumbai	Seminar on Engaging Youth Gainfully.	1	4	1
ISEE, CCSHAU, Hisar & Banda University of Agriculture & Technology, Banada	National Seminar on Socio-Digital Approaches for transforming Indian Agriculture	1	1	1
CEZ Co.Ltd., New Delhi	Awareness workshop on Solar energy water use	1	2	1
Manage, Hyderabad	ICT Application in E-governance	1	1	1
<b>Total</b>		<b>8</b>	<b>123</b>	<b>8</b>

#### B. HRD activities organized in identified areas for KVK staff by ATARI

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Annual Action Plan-2019-20 and State Level Work plan (2019-20) workshop for KVK of Haryana and Delhi	1	3	1
Zonal Workshop-cum-Training Programme on oilseed Production Technology	1	1	1

Zonal review workshop for KVKs of Rajasthan, Haryana and Delhi	1	4	1
Innovative Farmers Meet	1	2	1
Training programme o Preparation and Dissemination of Agromet Advisories at Block level	1	2	1
Stakeholder meet on crop residue management project	1	5	1
Zonal Workshop-cum-Training Programme on oilseed Production Technology	1	1	1
<b>Total</b>	<b>7</b>	<b>18</b>	<b>7</b>

#### XIV. CASE STUDIES

##### 1. Processing of pearl millet – An emerging enterprise

**INTRODUCTION:** The rural Delhi is undergoing tremendous change and unprecedented transformation, especially shift from farm to non-farm economy in NCT region and adjoining areas. Declining land-holding, rain fed conditions in the rural districts and landlessness is cause of concern in the state. This calls for development of farm based social micro enterprises especially value addition of pearl millet and locally produced fruits and vegetables. This can play an important role by providing health package to the people coupled with their sustainable economic development too. Moreover, nutritionally rich high yielding varieties of pearl millet are coming up on a larger area under district. This nutri-millet will provide health package to people by preventing them from micro-nutrient deficiency diseases. Value added products of pearl millet can also provide nutritional security and economic empowerment of rural women.

**KVK INTERVENTION:** KVK has been conducting trainings, demonstrations and other extension activities on value addition of pearl millet. Rigorous campaigning through trainings, demonstrations, extension literature, exposure visits has been done on nutritional importance of pearl millet as a rich source of protein, calcium, iron, potassium, fiber and other micro-nutrients essential for good health. On farm trial was also conducted on pearl millet/*bajra* biscuits for assessment and refinement for further modifications. During the year 2012-13 KVK conducted vocational training on processing of pearl millet, sponsored by NABARD, New Delhi. A total of 25 trainees successfully attended the programme. The technique for making pearl millet biscuit attracted the one of trainee Smt. Sunita from village Mitraon and wants to start this as an income generation enterprise. Smt. Sunita running an Self help Group, named Ganga with the support of NGO. She was very keen to involve her group members in this enterprise and in future want to establish this practice as a source of regular income generation enterprise by involving more women. Training and high-level motivation encouraged her to start her own entrepreneur of *bajra* biscuit bakery unit. Smt. Sunita has started with the initial investment of Rs. 4000/ and baked 8kg of *bajra* biscuits at local bakery. At that time only 10-12 packets were sold in local market and rest were distributed in neighborhood for tasting, since the product was new for the area and was not liked very much by the locals. Smt. Sunita put up this problem to KVK expert, she guided the right procedure for *bajra* biscuit preparation and refinement in recipe of pearl millet biscuit was done as per the opinion of majority of people and she successfully prepared *bajra* biscuits as per guidance. During the year 2013-14, KVK, expert motivated her to participate in the Pusa Krishi Vigyan Mela, she participated in the mela by putting up a stall to showcase value added *bajra* biscuits, with an investment of Rs.5000 – 6000/ the *bajra* biscuits fetched a good price i.e. Rs.18000- 20000. This initiative brought confidence in Smt. Sunita. After that she put up the stall at Trade



Fair and Suruj Kund Mela from where she got a good response. With support of KVK she participated in Pusa Horticulture Show in February, 2016, held at IARI, New Delhi. At that show she won first prize for her bajra biscuit, as this was new, nutritious and tasty product in the market.

**OUTCOME:** During the year 2015-16, she applied for setting up of small-scale bakery unit through PMEGP scheme of KVIC, New Delhi and her loan for Rs. 4.0 lakh was sanctioned during the same period. With that she has established her own bakery unit of pearl millet in her village Mitraon. As a result of the above coordinated efforts, a full-scale production unit has been established with technological back up/training from KVK, Ujwa. She has carefully developed a low-cost technology package, recipes and processing protocols through field trials based on her traditional knowledge/techniques upgraded with modern science technology inputs, availability of raw material in the area and market demand of innovative products.

**IMPACT:** In a short span of 4 years she has expanded her enterprise tremendously with 15 different types of *bajra* biscuits like *bajra- jeera* biscuit, *bajra ajwain*, *bajra til bajra* coconut, *bajra besan*, sugar free biscuit and *bajra* chocolate biscuit especially for children etc. At present, 160 qt of her products are generating a net income of Rs.22 lakhs from the unit and providing employment to others. Her success story has been covered by various print and electronic media like news papers (Hindi), Doordarshan channel.

### XIII. STATUS REVOLVING FUNDS

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 31 <sup>st</sup> March of the year
April 2017 to March 2018	7420062	1184544	399150	8205456
April 2018 to March 2019	8205456	1106942	968208	8344190
April 2019 to December 2019	8344190	377892	774011	7975071

The KVKs implementing VATICA, NARI & Doubling Farmers income should submit one-page report with salient achievements along with photographs pertaining to year 2019.

### Initiative under NARI scheme during the year

The level of nutrition in NCT Delhi is disturbing in spite of production of crops and vegetables. According to NFHS 4 (2015-16) survey, about 35% of all adults have BMI<18.5 in Delhi, more than 25% of women have a BMI below 18.5 in the age groups of 15-49 years, about 22 per cent of women suffer from chronic energy deficiencies, 78% of women (rural) in the age group of 15-49 years are anemic and 63% children in the age group of 6 months to 5 years are anemic.

It shows that food security does not directly translate into nutritional security. There is a disconnect between agriculture and nutrition which needs to be bridged. To address these issues, a scheme on Nutri Sensitive Agricultural Research and Innovation (NARI) was initiated by KVK, Ujwa, Delhi, during the year 2019. Under the scheme one village: Mitraon in Nazafgrh block, New Delhi had been selected. The following initiatives were undertaken during the year 2019:

- Under NARI programme, which is being started in the village Mitraon, Nazafgarh, New Delhi, during the year 2018-19 different agriculture interventions like field demonstrations on nutri- rich varieties, capacity building programmes, minimal processing techniques of pearl millet. The details of activities conducted during the year 2019 is given below:

#### 1. Field Demonstrations on Nutri-crops

S. No.	Name of crop	Variety	No. of demonstrations	Nutrient value
1	Mustard	PM- 30	10	low erucic acid Zero erucic acid
2	Pearl Millet	AHP-1200	12	high Fe (87 ppm) and high Zn (38 ppm)





Mustard in farmer's field

### FLD Pearl Millet:

Pearl millet is an important coarse grain cereal cultivated in states like Rajasthan, Uttar Pradesh and Haryana. It has rich composition of proteins and minerals and has several health benefits. It has the highest protein content for any grain. It contains several essential minerals like phosphorus, zinc, magnesium, essential vitamins and amino acids etc. Even though, it was part of the traditional diet pattern, but, now a days, due to changing cropping pattern and consumption pattern, such crops are disappearing from the field and diet as well (even though, pearl millets are being cultivated by the farmers but it was only for the fodder purpose). Vasantrao Naik Marathwada Krishi Vidhyapeeth, Parbhani, Maharashtra, developed iron rich pearl millet variety AHP-1200. This high iron content dual purpose pearl millet variety (AHP- 1200) has been demonstrated to create awareness about its high iron content and how important it is with respect to nutrition. As it was a dual-purpose variety, the stem can be used as fodder for livestock. As the farmers were having livestock, the straw (stem) was used as cattle feed, which is again an additional nutritional benefit to human beings who consume such milk and milk products.

### FLD Nutritional kitchen garden –

To ensure the regular supply and consumption of seasonal nutritious vegetables (winter vegetables), farm trainings on nutri-kitchen garden are given to farmers from project village. The vegetables included Spinach, Amaranths, Brinjal, Sem, Tomato, Carrot, Radish, Cauliflower, Vegetable Mustard, Pea, Bean, drumstick etc. Under this programme 10 demonstrations were conducted.





Nutritional kitchen garden seed distribution



Kitchen garden at farmer's field

### Capacity building interventions:

Pearl millet is an important coarse grain cereal cultivated in states like Rajasthan, Uttar Pradesh and Haryana. It has rich composition of proteins and minerals and has several health benefits. It has the highest protein content for any grain. It contains several essential minerals like phosphorus, zinc, magnesium, essential vitamins and amino acids etc. Even though, it was part of the traditional diet pattern, but, now a days, due to changing cropping pattern and consumption pattern, such crops are disappearing from the field and diet as well (even though, pearl millets are being cultivated by the farmers but it was only for the fodder purpose). Awareness cum training programme regarding shelf life enhancement of pearl millet was conducted at the village. Farm women were trained to prepare the value added products from pearl millet and oats and explained about their importance and nutritive value.

S.No.	Title of training	No. of participants
1	Importance of nutritional kitchen garden	18
2	Value addition of nutricereals	20
3	Health awareness programme	33



Demonstration on preparation of Bajra cookies

### **Initiative under Doubling Farmers Income (DFI)**

#### **Action Taken**

- Formation of FPO: In this regard KVK formed one Farmer producer organizations with the financial support of NABARD name GROFREE as a way forward to get some form of land consolidation – and an integration of smallholders within an agricultural value chain – which is critical to tackle the problem rural agrarian crisis. Such a consolidation, together with appropriate training and skill development of rural youth of the district for emerging farm and non-farm jobs, would appear to be the key to lifting the economic situation of the farmers' district. The objective of the GROFREE FPO is to form collectivize small farmers or producers for :
  - (a) Backward linkage for inputs like seeds, fertilisers, credit, insurance, knowledge and extension services and
  - (b) Forward linkages such as collective marketing, processing, market agriculture production etc. At the heart of this effort is to gain collective bargaining power for small farmers/ producers.

At present there are 100 members from Tigipur, Sungurpur and other neighbouring villages



FPO awareness and selection of Board of Directors for FPO

- The cropping system of selected villages for DFI is Rice – Wheat system result intensive tillage practices, over exploitation of natural resources declining the factor of productivity of existing

system to overcome these factor KVK introduce the moong crop in summer season for stability and productivity of system and chickpea in *rabi* season through frontline demonstrations.



Field Day on Summer Moong in DFI Villlage



Front Line Demonstration on Chickpea