

PROFORMA FOR PREPARATION OF ANNUAL REPORT (January – December 2021)

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	27	413	329	742
Rural youths	-	-	-	-
Extension functionaries	1	-	26	26
Sponsored Training	12	472	57	529
Vocational Training	3	61	22	83
Total	43	956	434	1390

2. Frontline Demonstrations

Enterprises	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	50	20	
Pulses	85	34	
Cereals	7	2	
Vegetables	10	0.2	
Total	152		
Livestock & Fisheries	10	10 Animals	10 Animals
Other enterprises Kitchen Gardening	11	0.2	11
Total	31	0.2	
Grand Total	173	56.4	

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	2	10	10
Mustard	1	6	6
Various enterprises	1	5	5
Total	4	21	21

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1947	9081
Other extension activities		
Total	1947	9081

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	6	1	10	-	4	-	21
	Voice only	1150	225	30	20	20	60	1505
	Voice & Text both	1156	226	40	20	24	60	1526
	Total Messages	1156	226	40	20	24	60	1526
	Total farmers Benefitted	3776	265	5935	20	2316	60	12372

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	129.71	950820.00
Planting material (No.)	25660	53939.00
Bio-Products (kg)	12906	189359.00

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	130	5000
Water	80	300
Plant	226	-
Total	436	5300

8. HRD and Publications

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

DETAIL REPORT OF APR-2021

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, Nafed Complex, Village & Post -Ujwa, Nazafgarh, New Delhi - 110073	9667971155	011-28525129	kvkujwa@yahoo.com	www.kvkdelhi.org

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.org

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. P.K. Gupta	011- 45608126	8888867619	headkvkujwa@gmail.com

1.4. Year of sanction: 1995

1.5. Staff Position (as on 31st December, 2021)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale	Present basic (Rs.)	Date of joining	Permanent /Temp-orary	Category (SC/ST/OBC/ Others)	Mobile no.	Age	Email id
1	Sr. Scientist cum Head	Dr P.K. Gupta	Sr Sc. & Head	Horticulture	L-13	147910	28.02.17	Per.	Gen	8888867619	51	kvkujwa@yahoo.com
2	Subject Matter Specialist	Ritu Singh	SMS	Home Science	L-10	87450	10.02.05	-do-	Gen	9818550652	48	-do-
3	Subject Matter Specialist	Rakesh Kumar	SMS	Horticulture	L-10	87450	22.09.05	-do-	Gen	9313047633	47	-do-
4	Subject Matter Specialist	Dr. D. K. Rana	SMS	Plant Protection	L-10	75400	5.05.10	-do-	Gen	9310904705	46	-do-
5	Subject Matter Specialist	Dr Samar Pal Singh	SMS	Agronomy	L-10	59540	25.05.18	-do-	Gen	8650399054	33	-do-
6	Subject Matter Specialist	Sh Kailash	SMS	Agriculture	L-10	59540	27.06.18	-do-	Gen	9413060922	32	-do-

				Extensi on								
7	Subject Matter Specialist	Dr Jai Parkash	SMS	Animal Husbandry	L-10	56100	3.9.21	-do-	Gen	9813803111	36	-do-
8	Programme Assistant	Brijesh Yadav	PA	Soil Science	L-6	43570	17.02.14	-do-	Gen	8178929760	38	-do-
9	Computer Programmer	Manju	PA	Computer Science	L-6	52020	2.05.08	-do-	Gen	7065787046	40	-do-
10	Farm Manager	Ram Sagar	Farm Manager	Agriculture	L-6	36470	1.03.19	-do-	Gen	9718666917	29	-do-
11	Accountant / Superintendent	Subedar Pandey	OSCA	M Com	L-6	49030	24.3.21	-do-	Gen	8953751501	55	-do-
12	Stenographer	Atma Ram	Store Keeper	Administration	L-4	34300	10.02.05	-do-	Gen	9911395569	54	-do-
13	Agromet Observer	Vishal	Agromet Observer	Agromet Observer	L-4	8460	1.3.19	-do-	Gen	9466803902	24	-do-
14	Driver	Rajesh Kumar	Driver	-	L-3	32960	02.02.05	-do-	Gen	9466803902	47	-do-
15	Driver	Krishan	Driver	-	L-3	30180	02.05.08	-do-	Gen	9013553955	51	-do-
16	Supporting staff	Ramesh Chander	Attendant	-	L-2	28020	10.02.05	-do-	Gen	9899426775	50	-do-
17	Supporting staff	Sachin Kumar	Attendant	-	L-2	19060	18.05.18	-do-	Gen	8506920345	28	-do-

1.6. Total land with KVK (in ha) : 16.9

S. No.	Item	Area (ha)
1	Buildings	0.10
2.	Demonstration Units Mushroom unit -250 m ² Vermicompost unit -500 m ² Azolla unit-25 m ² Insect proof net house-50 m ² Apiculture-25 box Kinnow with Drip Irrigation -0.2 ha Aonla & Bael orchard-1.4 ha Water harvesting -200 m ² Rain Water Harvesting Pond -300 m ² Kitchen Garden – 0.1 ha Crop Cafeteria – 0.2 ha Drumstick Orchard – 0.2 ha Solar Farm Unit- 0.40 ha	2.6
3.	Crops (Seed Production)	11.2
4.	Others if any	
	a. Forestry	1.78
	b. Onion storage	1.35
	Total	16.9

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	548.3	54,38,664/-	NA	-	
2.	Farmers Hostel				NIL			
3.	Staff Quarters				NIL			
4.	Demonstration Units:							
I.	Pasteurized compost Mushroom unit	State Govt	1998	250 m ²	12,10,000/-			
II.	Vermicompost unit	NHRDF	2019	500 m ²	200000/-			
III.	Azolla unit	NHRDF	2018	25 m ²	25000/-			
IV.	Insect proof net house	NHRDF	2018	50 m ²	125000/-			
V.	Apiculture	NHRDF	2018	20 box	100000/-			
VI.	Kinnow & Aonla orchard	NHRDF	2019	3.5 acre	250000/-			
VII.	Water harvesting	ICAR	2017	200 m ²	150000/-			
VIII.	Drip irrigation system	NHRDF	2019	2 acre	360000/-			
IX.	Solar farm demonstration unit	NCT, Delhi	2021	2000 m ²	1,03,25,000/-			
X.	Goat demonstration unit	ICAR	2022	30 m ²	2,00,000/-			
5	Fencing				NIL			
7	Threshing floor	ICAR	17.2.2011	222.3	1,92,031/-			
8	Farm godown	ICAR	31.3.2011	35.0	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	73760	Working
Tractor	2017	700000	1579.1*	Working

*In hours

C) Equipment& AV aids

Sr. No	Name of the equipment	Number of Equipment	Year of purchase	Cost (Rs.)	Present status
1.	Air conditioner	1	2012	33975	Good
2.	Air Conditioner	1	2017	121600	
3.	Airtel 4G home Wi-Fi router	1	2018	2500	
4.	AV Aids Unit	1	2021	112625	
5.	B.O.D. incubator	1	2012	107730	
6.	Bag Closer Machine	1	2019	5040	
7.	Brio Web Cam	1	2021	23600	
8.	Camera	1	2010	1000	
9.	Camera Stand	1	2021	885	
10.	CC TV Unit	1	2020	244147	
11.	Ceiling speakers	6	2018	6018	
12.	Colony counter	1	2012	6156	
13.	Computer	1	2010	25725	
14.	Computer	1	2011	24210	
15.	Computer	1	2012	34000	
16.	Computer	1	2017	80850	
17.	Computer	1	2019	107100	
18.	Conference Speaker	1	2021	16500	
19.	Cultivator	1	2002	10900	
20.	Cultivator	1	2017	23800	
21.	Desert Cooler	5	2014	25594	
22.	Desert cooler	1	2019	10000	
23.	Digital still camera	1	2017	28000	
24.	Directional leveler condenser microphone	1	2020	949	
25.	Double Wheel Berrow Trolley	1	2012	4275	
26.	EC meter	1	2012	21038	
27.	Electric balance	1	2012	42750	
28.	Electric weighing machine	1	2020	1200	
29.	Electronic balance	1	2017	4000	
30.	Fertilizer Broadcaster	1	2008	900	
31.	Finger print attendance machine	1	2014	11250	
32.	Fire extinguisher	3	2018	6372	

33.	Flame photometer	1	2012	60750
34.	Gardner Sprinkler	1	2011	425
35.	Generator	1	2011	59000
36.	GPS Device Tracker*	1	2019	7000
37.	Gramin GPS 72 H	1	2017	9984
38.	Happy seeder 10 row	2	2018	332640
39.	Harrow	1	1999	8600
40.	Harrow	1	2017	57000
41.	Head phone	1	2017	400
42.	Head phone	1	2020	1050
43.	Heat convector	2	2014	1800
44.	Hot air oven	1	2012	45016
45.	Hydraulic reversible 2MB plough	1	2018	135615
46.	Hygrometer	1	2012	473
47.	Inverter set	1	2016	24700
48.	Juicer Mixer Grinder	1	2009	2050
49.	Laminar flow	1	2012	78874
50.	Laptop	1	2011	36170
51.	Laptop	1	2012	37000
52.	Laptop	1	2020	88500
53.	Lawn mover	1	2012	12915
54.	LCD Multimedia Projector	1	2007	97000
55.	LCD Multimedia projector	1	2017	52490
56.	Lecture stand	1	2017	8000
57.	LED TV	1	2017	72000
58.	Leveler	1	2017	13000
59.	Mega phone	1	2002	2100
60.	Microscope	1	2012	37822
61.	Mobile Hand Set	1	2020	15000
62.	Mrida parikshak soil testing Mini Lab	1	2015	75000
63.	Mrida parikshak soil testing Mini Lab	2	2017	90300
64.	Mulcher single speed	2	2018	336000
65.	PA Microphone	1	2018	3835
66.	PA Mixture amplifier	1	2018	8791
67.	PA Wireless Microphone	1	2018	5015
68.	pH meter	1	2012	19687

69.	Photocopier machine	1	2011	35000
70.	Planker (wood pata with chain)	1	2016	8947
71.	Plastic palates	8	2016	29560
72.	Plus Oximeter	1	2020	700
73.	Post hole digger	1	2012	42748
74.	Printer	1	2009	1850
75.	Printer	1	2010	7035
76.	Printer	1	2012	5350
77.	Printer	1	2017	15044
78.	Printer	1	2018	10400
79.	Printer	1	2021	13405
80.	Projector screen	1	2018	16461
81.	Refrigerator	1	2011	11200
82.	Refrigerator	1	2012	32600
83.	Reverse Osmosis (RO)	1	2014	15500
84.	Reverse Osmosis (RO)	1	2016	16500
85.	Room cooler	3	2012	20402
86.	Rotavator	2	2019	220000
87.	Sanitizer stand	1	2020	2124
88.	Scanner*	1	2010	4148
89.	Seed drill	1	1997	6150
90.	Shrub master	2	2018	103040
91.	Small autoclave	1	2012	67280
92.	Speaker	1	2010	1733
93.	Spectrophotometer	1	2012	39150
94.	Spray pump tractor mountain	1	2021	40500
95.	Sprit lamp	2	2012	157
96.	Stabilizer	4	2009	26680
97.	Stabilizer	1	2012	2000
98.	Stabilizer	3	2017	9000
99.	Stand Holder for Mobile phone & Camera	1	2020	699
100.	Straw reaper cum trolley	1	2012	342000
101.	TATA sky DTH connection	1	2018	2530
102.	Telephone land line	1	2021	2290
103.	Thermometer	1	2020	1000
104.	Tractor trolley*	1	1998	11000

105.	Tractor Trolley	1	2002	52970
106.	Trolley	1	2016	158832
107.	UPS	1	2013	2100
108.	UPS	2	2017	4106
109.	UPS	2	2018	4800
110.	UPS	2	2019	4300
111.	UPS	1	2021	2350
112.	Video Camera*	1	2002	59990
113.	Water cooler	1	2009	19700
114.	Water cooler	1	2016	20267
115.	Water distillation	1	2012	25650
116.	Water Tanker	1	2020	86140
117.	Webcam	1	2020	2950
118.	Weed cutter	1	2012	24675
119.	Wfi Connection Unit	1	2021	12502
120.	Wheel Hand Hoe	1	2007	400
121.	Wireless walkie phone*	1	2018	1750
122.	Zero seed cum fertilizer drill	1	2019	57000
123.	Zero till seed cum fertilizer	1	2012	47500
124.	Zero Till Seed cum Fertilizer Drill	3	2018	183849

***Required repair**

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

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.	30.10.2021	<p>Dr. Bijender Singh President, NHRDF(virtual mode)</p> <p>Dr. R. P. Gupta Ex-Director, NHRDF, Delhi(virtual mode)</p> <p>Dr. B. S. Tomar, Joint Director (Ext) ICAR-IARI, Pusa, Delhi</p> <p>Sh. Dalbir Singh, Govt of NCT Delhi,</p> <p>Sh. Vijay Dagar, Deptt of Animal Husbandry, GNCT, Delhi</p> <p>Shiv Nand Lal, Prog. Executive All India Radio, New Delhi</p> <p>Sh. Kuldeep Chand, Dy.Manager, NABARD, New Delhi</p> <p>Mrs. Geeta Devi, Lady Farmer, Vill. Ujwa, New Delhi</p> <p>Dr Ashok Kumar, Director, ICAR-NBPGR, Pusa, Delhi</p> <p>Director, Delhi Doordarshan Kendra,</p> <p>Sh. Ram Kumar, Dabur Kisan Club, Vill. Galibpur, Delhi</p>	<ol style="list-style-type: none"> 1. SMS (H.Sc.) should focus on post-harvest management, value addition of agricultural and horticultural products especially millets because the year 2023 has been declared by the WHO as a World Millet Year and has been organising various awareness and training programmes in view of nutritional security by millet and its products. 2. KVK should focus on production of quality seeds of okra, mustard, palak and other crops & varieties demanded by the farmers. So that the quality seed of such crop could be provided to them. 3. Scientists should visit farmers' field in group minimum twice in a week to understand their problems and recommend the new technologies and new varieties. 4. SMS (Agro.) should focus on testing salt tolerant varieties of cereals, pulses and oilseeds at KVK farm and recommend the same to farmers if result is satisfactory to enhance the productivity of crops. 5. In the "On Farm Trial" of plant protection, pesticides be used as per CIB&RC recommendation as well as their residual effect. 6. Committee also recommended KVK should focus on branding of KVK products in a big way to generate awareness among farmer and consumers to maximise revenue to meet the expenses of KVK. 7. The honey bee box was used for training as well as for honey products without migration. SMS (PP) should think the ways to enhance the honey bee boxes and also explore possibility of migration of bee boxes. 8. In the present scenario, ICT application has become most popular and easy to reach the world community. The committee suggested to make effective use of ICT tools/social media like you tube, Instagram, twitter, email, SMS, face book, mobile app to popularize its activities so that the target group could reap benefits from the activities of KVK. 9. KVK also organised exposure visit for 	Under process

	<p>Sh. Tribhavan, Farmer, Delhi</p> <p>Dr. P K Gupta, Head & Member Secretary, KVK, Ujwa, Delhi</p> <p>Dr. Ritu Singh SMS (HS), KVK, Ujwa, Delhi</p> <p>Sh. Rakesh Kumar SMS(Hort.), KVK, Ujwa, Delhi</p> <p>Dr. Devender Rana SMS (PP), KVK, Ujwa, Delhi</p> <p>Dr. Samarpal Singh SMS (Agro), KVK, Ujwa, Delhi</p> <p>Sh. Kailash SMS (Ext.) KVK, Ujwa, Delhi</p> <p>Dr Jai Parkash, SMS (AH),KVK, Ujwa, Delhi</p> <p>Mrs. Manju PA(Comp. Sc.), KVK, Ujwa, Delhi</p> <p>Sh. Brijesh Yadav, PA (Soil Sc.) KVK, Ujwa, Delhi</p>	<p>farmers of NCT, Delhi to show them the 3-tier farming system of solar.</p> <p>10. KVK should also prepare a video of successful entrepreneurs/ farmers who have been benefited from the KVK activities. So that other stakeholders could be motivated to participate in the activities of KVK.</p> <p>11. KVK should organise dietary camp, AI, improve the breed, vaccination to solve the problems of farmers in respect of Animal Husbandry in collaboration with Dept. of Animal Husbandry, GNCT, Delhi.</p> <p>12. Women in large number are involved in Animal Husbandry activities. During the training programme focus should be given on value addition of different milk products.</p> <p>13. The seeds and other products and training programmes of KVK may be popularized through DD Kisan Channel & Radio.</p> <p>14. The Committee also emphasised on giving more attention to developing kitchen garden to promote nutrient rich varieties.</p> <p>15. The Government of India is paying focused attention to promote organic farming. KVK should also develop an organic block and reflect the soil status data on the board for demonstration purpose as well as to promote organic farming through different extension modes.</p> <p>16. SMS (AH) was advised to make the survey of farmers' field to understand their cropping and make recommendation accordingly from time to time.</p> <p>17. SMS (AM) was also advised to prepare the data of beneficiaries of KVK on monthly basis and make efforts to enhance the number of beneficiaries.</p>	
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Note : This yellow mark may be treated as an example

*** Attach a copy of SAC proceedings along with list of participants**

2. DETAILS OF DISTRICT (2021)

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- Horticulture (Mushroom) system
5	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 ⁰ 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-Jan), summer (Apr-June) & Rainy season (June - 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	Net cultivated area (in ha)
1	Sandy 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.	33455

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

S. No	Crop	Area (ha)	Production (MT)	Productivity (Q/ha)
1	Paddy	6123	28530	46.6
2	Wheat	18090	81405	45.0
3	Barley	50	200	40.0
4	Bajra	1365	3750	27.5
5	Maize	20	102	51.0
6	Jowar	2890	2750	9.50
7	Gram	60	120	20.00
9	Mustard	4240	9750	23.0
11	Vegetable	22389	289492	-
12	Flowers	5645	-	-

2.5. Weather Data (January- December 2021)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January	65.7	18.0	6.0	90.7	62.6
February	7.0	26.4	8.7	88.6	37.7
March	2.0	32.0	15.0	80.4	34.8
April	5.4	37.0	18.3	68.0	32.1
May	215.0	36.4	23.2	68.6	46.0
June	50.1	37.5	26.0	73.8	50.3
July	514.5	36.1	27.3	84.5	67.6
August	255.8	34.6	26.6	88.0	69.9
September	528.6	32.4	24.8	90.4	77.4
October	127.7	32.3	19.3	88.7	59.5
November	0.0	27.1	10.6	91.6	52.0
December	9.6	21.7	7.1	90.6	65.2
Total	1781.4	30.9	17.7	83.6	54.6

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

Category	Population	Production	Productivity
Cattle	86433		
<i>Crossbred</i>	47935	606232 Litre Milk	12.65 Litre/ Animal/ Day
<i>Indigenous</i>	24498	97683 Litre Milk	3.98 Litre / Animal/ Day
Buffalo	162142	1286925 Litre Milk	7.94 Litre / Animal/ Day
Sheep	932		
<i>Crossbred</i>	654	9425 Kg Meat	14.4 Kg / Animal
<i>Indigenous</i>	278	3529 Kg Meat	12.6 Kg / Animal
Goats	30470	262042 Kg Meat	8.6 Kg / Animal
Pigs	76346		
<i>Crossbred</i>	8581		
<i>Indigenous</i>	67765		
Rabbits	6706		
Poultry	44000	58225 Kg Meat	1.33 Kg/ Bird
Hens	32202		
<i>Desi</i>	20530		
<i>Improved</i>	2667		
Ducks	2140		
Turkey and others	1329		

Category	Area	Production	Productivity
Fish			
<i>Marine</i>			
<i>Inland</i>	4000 Ha	70010 ton/ year	0.178 ton/ha/year
Prawn			
Scampi			
Shrimp			

Source: AHD, NCT Delhi

2.7 Details of Operational area / Villages (2021)

Sl.No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
01.	Alipur	Alipur	Tigipur, Palla, Ghoga, Dariyapur	<p>Rabi - Cauliflower, Spinach, Radish, Onion, Pea, Marigold, Wheat, Mustard</p> <p>Kharif - Tomato, Cucurbits, Okra &, Brinjal, Marigold, Radish & Spinach, Paddy</p> <p>Summer- Okra, Tomato, Brinjal, Cucurbits, Radish</p> <p>Enterprises: Mushroom, Vegetables Floriculture and Nursery Production.</p>	<ul style="list-style-type: none"> • Nutritional deficiency & disorders in cauliflower & cucurbits • Problem disease & insect in vegetables • Practices of inferior variety of crops/vegetables/ flowers • Intensive tillage practices in rice - wheat system & lower cropping intensity • Improper management of off-season vegetable cultivation & nursery raising • Imbalance use of fertilizers & pesticides • Post-harvest losses in cucurbits, tomato, okra& leafy vegetables 	<ul style="list-style-type: none"> • Integrated weed & nutrient management. • Resource conservation practices • Integrated pest management • Off season vegetable cultivation & nursery raising under protected cultivation • Integrated crop management • Post-harvest management of vegetable crops • Soil test-based fertilizer recommendation (STFR). • Organic farming
02.	Nazafgarh/ Kapashera	Nazafgarh	Kanganheri, Shikarpur, Pandwala Kalan, Jhatikara & Dhansa	<p>Rabi – Onion, Cauliflower, Spinach, Wheat, Mustard</p> <p>Kharif - Tomato, Cucurbits, Okra &, Brinjal, Paddy</p> <p>Summer- Okra, Tomato, Brinjal, Cucurbits,</p> <p>Enterprises: Dairy, Mushroom, Apiculture, Value addition to fruit & vegetable produce</p>	<ul style="list-style-type: none"> • Saline water and Imbalance use of fertilizer. • Problem of diseases and pest in onion, okra, oil seed& cereals. • Problem of endo-parasite and ecto-parasite in animals. • Disorders (Browning & Whiptail) in cauliflower crops. • Vegetable nursery raising in open condition. • Intensive tillage practices in rice - wheat system & lower cropping intensity • Improper nutrient management in rice & wheat • Post-harvest losses in fruit & vegetables 	<ul style="list-style-type: none"> • Promotion of salt tolerant HYV • Integrated Nutrient Management in crops. • Resource conservation practices • IDM & IPM approaches. • Value addition of locally grown crops. • Nutritional awareness among masses. • Promotion of organic farming • Soil test based fertilizers recommendation (STRF)

2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Cucurbits, Okra, cauliflower, onion, leafy vegetables tomato, & Brinjal	Integrated pest management, post-harvest management, weed and nutrient management, seed treatment, nursery raising, promotion of organic farming.
Flowering	Landscaping, Nursery rising of ornamental plants, production of loose flowers.
Paddy	Resources conservation techniques, Nutrient management, direct seeded rice, weed management / pest management and soil fertility management,
Wheat	Resources conservation techniques-zero tillage, weed management / pest management and soil fertility management.
Mustard	Screening of high yielding varieties of Rapeseed-mustard in NCT Delhi, Nutrient management.
Fruits (Aonla, Karonda, Guava, Strawberry & Papaya)	Promotion of HYV of fruits plants, IPM and INM.
Livestock	Repeat Breeding and Dairy Animals Management
Women in Agriculture	Women empowerment through strengthen of SHG's, preservation of fruits & vegetables, Health and nutrition awareness and promotion of nutritional garden in rural areas, terrace gardening in urban and post-harvest management.
Agri-based enterprise	Entrepreneurship development in agriculture (value addition, dairy, gardening & nursery raising of horticultural crops, mushroom farming, vermi-composting, organic farming & Bee keeping)

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2021

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
5	4	25	17	100	56.4	250	173

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	35	27	700	742	389	2304	4190	10675
Rural youth	5	3	125	83				
Extn. Functionaries	6	1	80	26				
Sponsored	2	12	40	529				
	48	43	945	1390				

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
230	129.71	2067	30000	25660	4567

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	6	6
Varietal Evaluation	Marigold	Assessment of marigold varieties (Pusa Narangi) for higher Productivity	1	5
Integrated Pest Management	Okra	Management of Shoot and fruit borer in okra	5	5
Total			12	16

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
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management				
Production and Management				
Others (Pl. specify)				
Total				

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

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
Household food security	Terrace Gardening	Assessment of grow media for better production in terrace gardening	5	5

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)

NUTRIENT MANAGEMENT

Problem definition: Poor pod development and flowering in rapeseed -mustard due to boron deficiency in soil identified through soil test basis.

Technology Assessed: Foliar application of Boron in Mustard crop.

Source of technology: ICAR-DRMR, Bhartpur

KVK, Delhi conducted an on-farm trial on mustard crop in the *rabi* season 2020-21 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 higher average mean 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 (%)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	B:C Ratio
T1-Farmers Practice (No use of Boron)	6	2000	--	21440	93000	71560	3.3:1
T2-Foliar application of Boron @ 0.25% boric acid at 40 and 60 Days after sowing.		2400	10.00	22290	111600	89310	4.0:1

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	5	430	13.5	195
T2-Foliar application of Boron @ 0.25% boric acid at 40 & 60 Days after sowing .	6	480	14	198

INTEGRATED CROP MANAGEMENT

Problem definition: Low yield and flower quality from local variety

Technology Assessed: Assessment of marigold varieties (Pusa Narangi) for higher Productivity

KVK, Ujwa, New Delhi conducted on-farm trial on marigold flower crop in the kharif season 21 to assessment of marigold varieties (Pusa Narangi) for higher Productivity of crop. The results of the trial indicated that Pusa Narangi variety earned the maximum net returns (Rs 1,34,655/- yielding 45.8 q/ha with B:C ratio 3.15) followed by T1 (Rs 96,875/- yielding 37.5q/ha with B:C ratio 2.55) and increase in yield 22.13%. Farmers were satisfied with the results of Pusa Narangi variety of Marigold.

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (t/ha)</i>	<i>Net Returns (Rs. in lakh./ha)</i>
Local selection variety (Farmers Practice)	05	37.5 qt/ha	2.55
Pusa Narangi (Recommended Practice)		45.8 qt/ha	3.15

PEST AND DISEASE MANAGEMENT

Problem definition: Heavy infestation of Shoot and fruit borer in okra effecting in a yield loss of 10.6% and income loss of Rs.38200/ha

Technology assessed: Management of Shoot and fruit borer in okra.

Source of Technology: NCIPM, New Delhi

KVK, Delhi conducted an on-farm trial on shoot & fruit borer in okra crop in the *Kharif* season 2021 to assess the effect of foliar application of Spinosad (45SL) @ 0.5ml/L water at 15 days interval on low infestation of shoot and fruit borer in okra. The assessed foliar application of Spinosad (45SL) was found to be better with 10.6% increased yield as compared to farmer practices.

Technology Option	No. of trials	Shoot Infestation (%)	Fruit Infestation (%)	Yield (kg/ha)	% Increase in yield over farmer's practice	Net return Rs/ha	B:C Ratio
T ₁ - Farmers Practice-Cartap hydrochloride (SD) 1gm/lit water	05	12.58	11.4	17975	-	203125	1.82:1
T ₂ - Spray of Spinosad (45SL) @ 0.5ml/L water at 15 days interval		6.65	7.55	19887	10.59	256000	2.06:1

HOUSEHOLD FOOD SECURITY

Problem definition: Lower production in terrace gardening.

Technology Assessed: Assessment of grow media for better production in terrace gardening.

KVK, Delhi conducted trial to find out suitable measure for better production in terrace gardening by using the recommended practice to the desired level. On the basis of on farm trial it was found that one unit of Terrace Garden provides 41.5 kg of fresh vegetable during the *rabi* season with economic return of Rs.750/unit.

Technology Option	No. of trials	Yield (kg/unit(50m)²)	Net Returns (Rs./unit)	BC Ratio
T ₁ -Use of pot, soil+ compost in the ratio of 1:1 in pot (Farmers practice)	5	24.5	230	1.2:1
T ₂ -Use of cocopeat+ vermicompost+ soil in the ratio of 1:1:1. In grow bags (Recommended practice)		41.5	750	1.7:1

II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2020 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
1	Mustard	Integrated Crop Management	Improved variety of mustard crop- Giriraj and RH-749	Through Frontline demonstrations and result demonstrations and Trainings and other relevant extension activities	10	315	158
2	Gram	Integrated crop management	Improved variety (GNG 1958)+ Nutrient and weed management	Through Frontline demonstrations and result demonstrations and Trainings and other relevant extension activities		35	14
3	Summer moong	Crop diversification	Improved variety of summer moong	Through Frontline demonstrations and result demonstrations and Trainings and other relevant extension activities	5	75	30

* *Thematic areas as given in Table 3.1 (A1 and A2)*

b. Details of FLDs implemented during 2021 (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	
1	Mustard	Integrated crop management	Improved variety (Giriraj)+ Nutrient and weed management	Rabi 2021	20.00	20.0	5	45	50	
2	Gram	Integrated crop	Improved variety (GNG 1958)+	Rabi 2021	14.00	14.0	32	3	35	

		management	Nutrient and weed management							
3	Summer Mung	Integrated crop management	Improved variety of mung(MH-421)	Summer 2021	14	14.00	32	3	35	
4	Kharif Onion	Varietal Evaluation	Improved variety (ADR & L-883) Kharif Onion	Kharif 2021	2	2	5	5	Nil	Nursery damage due to heavy rainfall

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	08-18 Oct., 2020	01-03-2021 to 10-03-2021	76.50	4
Gram	Rabi	Irrigated	Sandy loam	M	M	M	Fallow/Rice	22 Oct to 05 Nov.2020	27-03-2021 to 10-04-2021	82.00	5
Mung	Summer	Irrigated	Sandy loam	M	M	M	Wheat	18 April to 5 May 2021	26-06-2021 to 07-7-2021	269.90	8
Kharif Onion	Kharif	Irrigated	Sandy loam	M	M	M	Wheat	11 July, 2021	22/12/2021 to 28/12/2021	345.5 mm (Avg.11.51 mm)	17 Days

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Giriraj is a high yielding variety of mustard crop for timely sown condition as compare to other varieties and found suitable for NCT Delhi.
2	Chickpea variety GNG 1958 found suitable for the region where irrigation water is not saline
3	Summer Mung variety MH 421 is suitable for Rice-Wheat cropping system.
4	In the technology demonstrated through seedlings and bulblets transplanting it was observed that transplanting through bulblets perform better at high temperature and heavy rainfall.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Mustard Variety Giriraj is a high yielding and bold seeded.
2	Chickpea variety GNG 1958 is bold seeded and high yielding.
3	MH 421 is higher yielding variety and suitable for rice-wheat system
4	The demonstrated technology fetches more income especially in lean period

Extension and Training activities under FLD

S.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	Field days	04	04-02-2021, 8-03-2021, 18-03-2021, 18-06-2021	177
2	Farmers Training	Farmers Training	3	28-01-2021, 13-04-2021, 30-12-2021	66

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

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	Crop management	Improved variety + Nutrient and weed management	Giriraj	125	50	25	17	20	17	47	23600	93000	69400	2.9	22580	79050	56470	2.5

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

** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

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										
Green gram	Crop management	Improved variety + Nutrient and weed management	MH 421	50	20	12	7.5	9.90	7	41.40	24400	59400	35000	2.43	22200	42000	19800	1.89
Chickpea	Crop management	Improved variety + Nutrient and weed management	GNG-1958	50	20	24	7.5	17.30	12.00	41.6	27332.00	88230.00	60898.00	2.2:1	26250.00	61200.00	34950.00	1.3:1

* 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	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	Average												
Onion Kharif through bulb lets	Varietal Evaluation	Improved variety of Kharif onion	05	0.1	160	146.25	152.95	137.5	11.23	-	-	62500	305900	243400	3.89:1	65000	206250	141250	2.17:1

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

** BCR= GROSS RETURN/GROSS COST

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle																	
	Herbal Uterine Cleanser	Use of Herbal Ecbohic	10	20	Expulsion of placenta 5hr	7hrs	40	Lochial discharge									

* 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
Nutritional Security	Demonstration on Biofortified crops	7	Iron and zinc content and yield	Demonstration on Biofortified Pearl millet variety AHB1200Fe	86M11

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 (saving/unit)		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)
<i>Kharif</i> season vegetables crops	Household Food security through Kitchen Gardening & Nutritional gardening	Kitchen Gardening & Nutritional gardening	5	5	450	300	50	6750/	5250/	1250 /unit	6750/ unit	4500/ unit	4.2:1	1500/ unit	5250/ unit	3000/ unit	2.0:1
<i>Rabi</i> season vegetables crops	Household Food security through Kitchen Gardening & Nutritional gardening	Kitchen Gardening & Nutritional gardening	6	6	650	500	20	5200/ unit	4000/ unit	1150/ unit	5200/ unit	4000/ unit	3.50:1	1250/ unit	4000/ unit	2700/ unit	2.2:1

III. Training Programme

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	1	15	-	15	1	-	1	16	-	16
Soil & water conservation										
Integrated nutrient management	1	4	20	24	-	-	-	4	20	24
Production of organic inputs										
Others (pl specify)										
Total	2	19	20	39	1	-	1	20	20	40
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops										
Off-season vegetables	1	15	-	15	1	-	1	16	-	16
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	1	15	-	15	1	-	1	16	-	16
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
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)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										

Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	1	15	-	15	1	-	1	16	-	16
III Soil Health and Fertility Management										
Soil fertility management	1	15	-	15	5	-	5	20	-	20
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	1	15	-	15	5	-	5	20	-	20
Others (pl specify)										
Total	2	30	-	30	10	-	10	40	-	40
IV Livestock Production and Management										
Dairy Management	1	0	31	31				0	31	31
Poultry Management	1	25	5	30				25	5	30
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total	2	25	36	61	-	-	-	25	36	61
V Home Science/Women empowerment										
Household food	1	28	30	58	-	2	2	28	32	60

security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	1	28	30	58	-	2	2	28	32	60
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest										

Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	1	24	-	24	-	-	-	24	-	24
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	1	24	-	24	-	-	-	24	-	24
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer										

production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	9	141	86	227	12	2	14	153	88	241

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies	1	13	-	13	2	-	2	15	-	15
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	1	20	-	20	5	-	5	25	-	25
Soil & water conservatioin										
Integrated nutrient management	1	20	-	20	6	-	6	26	-	26
Production of organic inputs										
Others (pl specify)										
Total	3	53	-	53	13	-	13	66	-	66
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	15	-	15	2	-	2	17	-	17
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	1	15	-	15	2	-	2	17	-	17
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
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)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest										

technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	1	15	-	15	2	-	2	17	-	17
III Soil Health and Fertility Management										
Soil fertility management	1	15	-	15	5	-	5	20	-	20
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers	1	15	-	15	5	-	5	20	-	20
Soil and Water Testing	2	30	-	30	10	-	10	40	-	40
Others (pl specify)										
Total	4	60	-	60	20	-	20	80	-	80
IV Livestock Production and Management										
Dairy Management	2	65	0	65				65	0	65
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	17	13	30				17	13	30
Disease Management										
Feed & fodder technology										
Production of quality animal products	1	0	30	30				0	30	30
Others (pl specify)										
Total	4	82	43	125				82	43	125
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	-	70	70	-	7	7	-	77	77
Design and	1	-	15	15	-	7	7	-	22	22

development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	1	-	14	14	-	20	20	-	34	34
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs	1	-	2	2	-	29	29	-	31	31
Women empowerment	1	-	32	32	-	3	3	-	35	35
Total	5	-	133	133	-	66	66	-	199	199
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total										

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

Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	17	210	176	386	35	66	101	245	242	487

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
I Crop Production										
Weed Management										
Resource Conservation Technologies	1	13	-	13	2	-	2	15	-	15
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										

Nursery management	1	13	-	13	2	-	2	15	-	15
Integrated Crop Management	2	35	-	35	6	-	6	41	-	41
Soil & water conservation										
Integrated nutrient management	2	24	20	44	6	-	6	30	20	50
Production of organic inputs										
Others (pl specify)										
Total	6	85	20	105	16	-	16	101	20	121
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	1	15	-	15	2	-	2	17	-	17
Off-season vegetables										
Nursery raising	1	15	-	15	1	-	1	16	-	16
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	2	30	-	30	3	-	3	33	-	33
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
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)										
Total (b)										
c) Ornamental Plants										
Nursery										

Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	2	30	-	30	3	-	3	33	-	33
III Soil Health and Fertility Management										
Soil fertility management	2	30	-	30	10	-	10	40	-	40

Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers	1	15	-	15	5	-	5	20	-	20
Soil and Water Testing	3	45	-	45	15	-	15	60	-	60
Others (pl specify)										
Total	6	90	-	90	30	-	30	120	-	120
IV Livestock Production and Management										
Dairy Management	3	65	30	95				65	30	95
Poultry Management	1	25	5	30				25	5	30
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	17	13	30				17	13	30
Disease Management										
Feed & fodder technology										
Production of quality animal products	1	0	30	30				0	30	30
Others (pl specify)										
Total	6	107	78	185				107	78	185
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	28	100	128	-	9	9	28	109	137
Design and development of low/minimum cost diet	1	-	15	15	-	7	7	-	22	22
Designing and development for high nutrient efficiency diet	1	-	14	14	-	20	20	-	34	34
Gender	1	-	2	2	-	29	29	-	31	31

mainstreaming through SHGs										
Women empowerment	1	-	32	32	-	3	3	-	35	35
Others (pl specify)										
Total	6	28	163	191	-	68	68	28	231	259
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	1	24	-	24	-	-	-	24	-	24
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	1	24	-	24	-	-	-	24	-	24
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish										

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

Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	27	351	286	637	47	70	117	398	356	754

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
Household food security	1	-	24	24	-	2	2	-	26	26
Any other (pl.specify)										
TOTAL	1	-	24	24	-	2	2	-	26	26

Training programmes for Extension Personnel including sponsored training programmes (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										
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)										
TOTAL										

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
Household food security	1	-	24	24	-	2	2	-	26	26
Any other (pl.specify)										
TOTAL	1	-	24	24	-	2	2	-	26	26

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
Crop production and management										
Increasing production and productivity of crops										
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops										
Bee-keeping	6	201	42	243	21	-	21	222	42	264
Others (pl. specify)										
Total	6	201	42	243	21	-	21	222	42	264
Post harvest technology and value addition										
Others (pl. specify)										
Total										
Farm machinery										
Farm machinery, tools and implements	04	108	-	108	12	-	12	120	-	120
Others (pl. specify)										
Total	4	108	-	108	12	-	12	120	-	120
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Total										
Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery										

reduction of women										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity Building and Group Dynamics										
Others (pl. specify) – Promote Energy Efficient Agricultural Pump Sets	01	80	10	90	10	-	10	90	10	100
Consumer awareness programme of BIS activities	01	50	05	55	05	-	05	50	05	55
Total	2	130	15	145	15	-	15	130	15	155
GRAND TOTAL	12	439	57	496	48	-	48	487	57	544

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
Crop production and management										
Commercial floriculture										
Commercial fruit production										
Organic farming										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Value addition	1	10	14	24	-	-	-	10	14	24
Total	1	10	14	24	-	-	-	10	14	24
Income generation activities										
Bee Keeping										
Mushroom cultivation	1	28	2	30	4	-	4	32	2	34
Nursery, grafting etc.	1	15	2	17	4	4	8	19	6	25
Total	2	43	4	47	8	4	12	51	8	59
Grand Total	3	53	18	71	8	4	12	61	22	83

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	1695	2355	20	4070
Diagnostic visits	39	254	6	299
Field Day	5	212	5	217
Group discussions	7	262	22	291
Kisan Ghosthi	8	248	21	277
Film Show	9	242	3	245
Self -Help Groups meetings	5	300	-	300
Kisan Mela	2	850	15	865
Exhibition	4	2150	18	2168
Scientists' visit to farmers field	151	809	16	976
Farmers visit at KVK	322	496	10	828
Animal health camps	1	40	3	43
Farmer Producer org meetings	4	81	10	94
Method Demonstrations	20	296	44	340
Celebration of important days	-	-	-	-
National Science Day	1	52	3	56
International Women Day	1	65	6	72
World Water Day	1	80	5	86
World Bee Day	1	79	7	87
World Milk Day	1	160	10	171
ICAR Foundation Day	1	30	4	35
Parthenium Awareness Week	3	42	3	48
Rashtriya Poshan Maah / Vatika	1	95	15	111
Mahila Kisan Diwas	1	45	2	48
World Food Day	1	35	5	40
World Soil Day	1	58	2	61
Kisan Diwas	1	25	5	31
Visesh Swacchta Abhiyaan (2 nd -31 st Oct. 21)	7	428	7	435
Swacchta Pakhwada(16-31 st December, 2021)	9	390	9	399
PM Kisan Scientists Interface	1	200	10	211
Exposure visits	1	4	1	5
Total	1947	8880	201	9081

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	02
Extension Literature/leaflet	04
News paper coverage	17
Popular articles	09
Radio Talks	02
TV Talks	26
Animal health camps (Number of animals treated)	40
Others (pl. specify)	-
Total	100

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	6	1	10	-	4	-	21
	Voice only	1150	225	30	20	20	60	1505
	Voice & Text both	1156	226	40	20	24	60	1526
	Total Messages	1156	226	40	20	24	60	1526
	Total farmers Benefitted	3776	265	5935	20	2316	60	12372

V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organised 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	Wheat	HD 3226	Certified	72.80	236600	182
Oilseeds	Mustard	Pusa Vijay	Foundation	14.10	183300	705
	Mustard	Giriraj IJ 31	Foundation	17.20	223600	860
Vegetables	Palak	Pusa All Green	Foundation	25.61	307320	320
Total				129.71	950820	2067

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	Cabbage		Sourav	1510	3020	604
	Cauliflower		Shreya	2051	4102	687
	Broccoli		NS 1253	1657	3314	531
	Chili		S -653	5545	11090	896
	Brinjal		NO-992	4759	9518	849
	Tomato		Himsona	9945	19890	946
Fruits	Papaya		Red Lady - 786	47	940	13
Ornamental plants	Marigold		Pusa Narangi	3000	6000	6
Plantation	Drumstick		PKM-1	101	2020	38
Total				25660	53939	4570

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilizers	Vermicompost	12906	189359	436
Others				
Total		12906	189359	436

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	130	130	35	5000	130
Water	80	80	30	300	80
Plant	226	226	26	-	-
Total	436	436	91	5300	210

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Date of SAC Meeting	Participants
Delhi	30/10/2021	23

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
Krishi Vahini January-June 2021	200

X. PUBLICATIONS

Category	Number
Research Paper	03
Technical bulletins	04
Technical reports	03
Others (pl. specify)	-

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.)
Training Programme under Jal Shakti Abhiyan	-	-	30	5
Kisan Ghosti and Plant Distribution	-	100	30	5
On line Webinar on water harvesting	-	-	160	10

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		
Total		

Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No. of participants
Cattle, Buffalo and Poultry	20	300
Total		

Animal health camps organised

Number of camps	No. of animals	No. of farmers
1 (Vaccination camp)	80	40
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

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
ICAR-IIVR, Varanasi	Hi-tech vegetable production - 2021	01	01	-
ICAR-IIHR, Bangalore	National Horticulture Mela- 2021	01	03	-
Indian Pulses Research and Development Society, Kanpur	Pulses Workshop- 2021	01	01	-
ICAR-IISR, Indore	Organic Farming	01	01	-
ICAR-ATARI, Kanpur	National Webinar: Preparation for Kharif Season on Monsoon 2021	01	01	-
ICAR-NAARM, Hyderabad	Formation of FPO/PPC and Preparation its business plan	01	02	-

ICAR-IARI, New Delhi	Kisan Ghosti on optimum use of chemicals in Basmati rice production	01	04	-
ICAR-CSWRI, Avikanagar	One day workshop on “Present status, challenges and prospectus of livestock especially small and marginal farmers”	01	01	-
ICAR-IIVR, Varanasi	International conference on vegetable research and innovations for nutrition, entrepreneurship and the environment	01	01	-
Total		10	15	

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-2021 of KVK of Haryana & Delhi under ICAT-ATARI, Jodhpur Zone-II, Jodhpur on 15 th Feb., 2021	1	7	-
Kitchen Garden and Nutritional Garden Workshop	1	1	-
Annual workshop for Krishi Vigyan Kendras on production and technology of oilseed crops	1	1	-
Impact Assessment Intervention for Doubling of Farm Income by Krishi Vigyan Kendra	1	2	-
Annual Regional Review Workshop of Krishi Vigyan Kendra on 1 st to 3 rd July, 2021	1	8	-
Annual workshop-cum-training program of Krishi Vigyan Kendras on the production and technology of pulse crops.	1	1	-
Total	6	20	

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

Success Story 1

Title: General information about the farmer

Introduction

1.	Name of Farmer	Mr. Pawan Kumar	
2.	Address	Vill.-Hasanpur, Post- Ujwa, District- South-West, Delhi-110043	
3.	Mobile No.	981854599	
4.	Qualification	Metric	

KVK intervention

In search of which agri-based enterprise, Mr. Pawan came to know about KVK, Delhi and visited there. He has detailed discussion with KVK scientist about establish earning enterprises, where got the idea to start mushroom cultivation in order to release his dream. Keeping this in view, he attended a vocational training on mushroom cultivation at KVK campus, Delhi in 2016. After that he established a unit at his farm and continues taken advised from KVK, Delhi. KVK provided technical support on Preparation of huts for maintaining suitable temperature & humidity, compost preparation, spawning, casing, picking and other practices time to time. He also contacted with ICAR- Directorate of Mushroom Research, Solan, for increase the efficiency of this mushroom farm.

Output & Outcome

At the time of starting of unit he has to purchase pasteurized compost from outside for mushroom cultivation. He constructed a permanent shed for mushroom cultivation and Mushroom was taken from November, 2016 to February, 2017 in first year. He has increased his mushroom production capacity with an area 3500 Sq fit covered area however at the time of starting unit it was 900 Sq.ft. He is selling through direct marketing to the Restaurants and mall etc atNajafgarh, New Delhi. The mushroom is being average sold @ Rs 120/- kg during present time. His producing 35750 kg Mushroom from his unit with Rs.12, 87,000 net income per year (Table 2).

Table 1. Year wise details of cost of production in mushroom production

Year	Compost (ton.)	Production (kg)	Production cost (Rs.)	Gross Income (Rs.)	Net Income from mushroom (Rs.)
2016-17	30	4200	3,52,800	50,4000	1,51,200
2017-18	35	6300	5,29,200	75,6000	2,26,800
2018-19	110	21400	17,97,600	25,68,000	7,70,400
2019-20	110	22060	18,53,040	26,47,200	7,94,160
2020-21	175	35750	30,03,000	42,90,000	12,87,000

Impact

Adoption of mushroom by farmers of various states may be credited of the Hi-tech mushroom grower as in made the availability of high-quality mushroom grower of NCT, Delhi. He has provided very efficacy demonstration center serving for KVK trainees. His hard worker and reservoir of experience in mushroom production has earned him a status of very successful farm entrepreneur in the NCT, Delhi. Therefore, several organizations invite him as a master trainer in different trainings state department. He also motivates farmers and advises them to adopt latest technologies in button mushroom. Mr. Pawan has guided many people of Delhi and Haryana State for production of high-tech mushroom production. The peoples who have interest or want to start mushroom production always visit his unit.

Mr.Pawan is a role model for NCT Delhi, Haryana, Rajasthan and Uttarakhand State. He helping the fellow farmers in developing the mushroom till date he supported in development of 21units of new entrepreneurs. Also helped to interested people through phone call what's app, visit and other social media apps.

Success Story 2



Title: Strawberry Production for diversifying agricultural Income: A success story from Alipur district of NCT Delhi

Introduction

In the agricultural context, diversification can be regarded as the re-allocation of some of a farm's productive resources, such as land, capital, farm equipment and paid labour, into new activities. These can be new crops or livestock products, value-adding activities, provision of services to other farmers. Factors leading to decisions to diversify are many, but include; reducing risk, responding to changing consumer demands or changing government policy, responding to external shocks and, more recently, as a consequence of climate change. He has understood the fact that being a small only diversification of the crops can help them earn more. He also understood that small farmers can only sustain themselves if they diversify their cropping system and that was the major reason that they were motivated to grow more of vegetables, flowers, fruits, etc Strawberry is one of the most desired commodities in India. It is one of the most important fruit crops which can be used as culinary purposes, value added products like, jam, jelly, preserves, ice creams, etc. It is produced throughout India, with most of the production emanating from the commercial sector and a small contribution from the smallholder sector. The industry is operating in a free market economy, where prices are determined by demand and supply. The industry contributes significantly to the livelihoods of many people in India, including income generation for producers and job creation for many people in the primary and secondary industries. Mr. Satish Kumar Chauhan, the focus of this study, is a successful strawberry producer in the Alipur district of the Delhi State. He has been producing it since 2017 and has continued to reap the rewards of becoming strawberry growers, supplying runners to the farmers of his area and informal markets. Farming has not come easy for him. However, through the assistance of Krishi Vigyan Kendra, Ujwa, New Delhi, he has managed to overcome many difficulties and is become as a successful commercial strawberry farmer.

Mr. Satish Kumar Chauhan is 47 years old, and is a successful producer of strawberry. He owns 2.0 ha farm and 4.0ha farm on lease at Sungerpur village of Alipur block (North District) of Delhi. He is also growing Spongy gourd, Leafy (Palk & Sarson sag)&root vegetables (Radish &Turnip), cucurbits (watermelon), Pea, paddy and wheat. His land is cent percent irrigated through bore wells. By education he is only 12th pass but has grasped practical skills in his area of farming. He had grown. Strawberry with drip irrigation system in 2.5acre land, 5 acre Watermelon with drip irrigation system, 10 acre Sarsosaag + Pea and rest of the area in paddy and wheat.

Despite his belief in lifelong learning and the academic standard passed by Satish Kumar Chauhan is senior secondary school. He had no formal training in strawberry, except for knowledge passed onto him through informal talks with experts from Krishi Vigyan Kendra, Delhi and other scientists from IARI, Pusa, New Delhi. He is doing farming since 2007, when he was having 2.0 ha of land. Once he visited Azad pur mandi, Delhi for vegetable sale and saw strawberry was being sold by one of the vendors and discussed with vendor regarding strawberry fruit requirement and sale possibilities. After enquiring, he came to know that it was strawberry. After coming back, he planned for strawberry cultivation and meet KVK expert to provide him know-how. He started growing strawberry in 1 acre of land and since then he has not looked back. His knowledge has also been broadened by frequent visits & contacts to KVK and IARI, Pusa, New Delhi. Currently, Satish Kumar Chauhan receives assistance from various sources. Farming requires continuous monitoring of all the activities on the farm, including the crop itself. According to him, fellow farmers in his area have been very helpful since he started farming. KVK Delhi provided valuable assistance to him. Satish Kumar Chauhan member of Gro Free Farmer Producer Organization Tigipur, New Delhi and highlights marketing information that guides his marketing decisions, information on developments and participating in meetings.

Farmer's Practices before Intervention

Before intervention of Krishi Vigyan Kendra, Delhi, the Satish Kumar Chauhan mostly concentrated on the traditional cropping pattern of Rice –Wheat and few vegetables for home consumption. Being a resident of irrigated area, he was not aware of the potential of vegetables and floriculture as an enterprise. Krishi Vigyan Kendra Jammu has intervened in 2016 and shown them the potential of fruit and vegetable cultivation and he was provided desired information in fruit and vegetable cultivation. He was also given proper orientation about market and marketing his produce in Delhi and other nearest mandies.

Technical Intervention by KVK

The prioritized problems of that area were thoroughly discussed by conducting group meeting with the active involvement of KVK Scientists and his interest in diversification, it was decided to diversify from Rice-wheat cropping system to Floriculture, vegetable production and fruit cultivation which giving good returns as compared to only cereal crops. This has motivated him to-

- Grow strawberry and its value addition.
- Grow vegetable (Spongy gourd, Palk, Sarsonsag, Radish, Turnip, watermelon, Pea, etc.) commercially along with Rice & Wheat.

Member of Farmer Producer Organization

He has joined the membership of Grofree Farmer Producer Organization Tigipur, New Delhi and sale strawberry produce through FPO to Beverage Company, Malls and direct retailing.

Output & Outcome

The KVK has limited resources and manpower so it cannot reach directly to the each and every farmer of the district and cannot have close contact at all times. The KVK Delhi has conceived the idea of horizontal

spread of technology through its resource farmers. In this context the KVK has selected few farmers for intensive training so that they can train to fellow farmers. Keeping in view KVK trained farmers used as resource persons for strawberry and vegetable cultivation in this area. The farmer has developed entrepreneurship for rural youth and village women. The rural youth use to go different place in search of job. At present, 20 youth/ women are employed on a regular basis and about 30-40 persons are engaged on seasonal basis for agricultural activities on his farm. Thus, he has also contributed towards growth of neighborhood as well by generating livelihood for rural youth and women. Enhancement in income of these people had transformed their quality of life. Farmers are coming to him regularly for advice and he is sincerely guiding them and providing technical as well as logistic facilitation.

Agriculture infrastructure

He has a tractor; bore wells, drip irrigation system and sprinkler system. Production Strategy He is following the crop rotation as under:

- Paddy- Wheat
- Paddy- Strawberry
- Vegetables –strawberry
- Paddy- Vegetables

Economic Information (Traditional vs. Diversified)

Economic Information (Traditional Farming)

S.no.	Crop	Area (acre)	Production (Q/acre)	Cost of Production (Rs)	Gross Income	Net income
1.	Wheat	13	234	162500	432000	269500
2.	Paddy	13	208	195000	416000	221000
3.	Palak	2	110	17000	82500	65500
4.	Spongy gou	2	110	25000	137500	112500
Total income					1068000	668500

Economic Information (Diversified Farming)

S.No	Crop	Area (Acre)	Production (Q/acre)	Cost of Cultivation (Rs.)	Gross Return (Rs.)	Net return (Rs.)
1.	Paddy	13	208	195000	416000	221000
2.	Palak	4	260	34000	195000	161000
3.	Wheat	6	120	87000	237000	150000
4.	Pea	2	36	24000	126000	102000
5.	Sarson sag	0.5	40	4000	24000	20000
6.	Strawberry	2.5	75	875000	1687500	812500
7.	Water melon (Summer)	2.5	190	88000	475000	387000
Total income					3160500	1853500

Impact

The farmer used to get net annual income of Rs. 668500/- from field crops and vegetables in traditional farming. He faced problems like low productivity and less income, lack of knowledge good agricultural practices. With new interventions like introduce new low volume high value crops, GAP, new improve varieties, crop diversification and timely advisory etc., he is getting net annual income of Rs. 1853500/-.

Future plans and constraints

Since labour is very costly now a days and looking into this constraint, he has started promoting horticulture as it is less labour intensive. He is facing lot of problems in getting things done for logistic support and that's why he wants a single window system to solve all problems related to agriculture, electricity, water and marketing.



XIII. STATUS REVOLVING FUNDS

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
January 2019 to December 2019	8205455.35	1106942.50	968207.82	8344190.03
January 2020 to December 2020	8344190.03	1373740.11	1138564.82	8579365.32
January 2021 to December 2021	8579365.32	2054486.00	1297118.45	9336732.87

The KVKs implementing VATICA, NARI & Doubling Farmers income should submit one page report with salient achievements along with photographs pertaining to year 2021.

Annual Report Format for 2021

1. Performance of various interventions carried out under NARI Scheme during January to December 2021

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 2020:

- Under NARI programme, which is being started in the village Mitraon, Nazafgarh, New Delhi, during the year 2021 different agriculture interventions like field demonstrations on nutri- rich varieties, capacity building programmes, and minimal processing techniques of pearl millet. The details of activities conducted during the year 2021 is given below:

1. Field Demonstrations on Nutri-crops:

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 AHB-1200Fe. This high iron content dual purpose pearl millet variety (AHB- 1200Fe) 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

S. No.	Season	Crops & Variety	Thematic area	Total Area (ha)	No. of Demo.	Yield (q/acre)	Coordinator
1.	<i>khariif</i>	Pearl Millet AHB-1200Fe (Bio-fortified variety)	Nutrition security	2	7	12.0	SMS (HS) & SMS (Agro)

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 Seed distribution



Pearl Millet at vegetative stage at Farmer's field



Pearl Millet at cob stage at Farmer's field

FLD Nutritional kitchen garden –

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

2. Front Line Demonstrations on kitchen garden

S. No.	Name of crop	Variety	No. of demonstrations	Nutrient value
1	Kharif kitchen garden seed kit	KVK KG kit	5	Iron, Vitamin A and Vitamin C rich vegetables
2	Rabi kitchen garden seed kit	KVK KG kit	6	Protein, Iron, Vitamin A and Vitamin C rich vegetables



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). Training programme on value added products 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	Value addition of pearl millet	20
2	Low cost nutritious recipies	35



Training on value added products from pearl millet



Training program on low cost nutritious recipies

ANNEXURE - I

PROCEEDINGS OF THE 21stSCIENTIFIC ADVISORY COMMITTEE MEETING OF KVK, UJWA, DELHI HELD ON 30th OCTOBER, 2021 AT KVK CAMPUS, NEW DELHI

The 21stScientific Advisory Committee (SAC) Meeting of Krishi Vigyan Kendra (KVK), Ujwa, Delhi was conducted with various stakeholders as per ICAR guideline on 30th October, 2021 at KVK, Campus. Hon'ble President of NHRDF Dr. Bijender Singh, who could not chair the meeting physically due to his indisposition but for a short while participated in the meeting virtually and requested Dr. B. S. Tomar, Joint Director, ICAR-IARI, Pusa, New Delhi to chair the meeting. Before commencing the meeting, the member of the committee took around of the entire campus and inspected the demonstration unit and orchards to know the progress and effectiveness of KVK activities, and to know how these activities and technologies were helping the farming community.

At the outset, Dr. B. S. Tomar, Chairman of the committee in his opening remarks welcome the Hon'ble members and appreciated KVK scientists for taking up new initiatives in last 5 years, such as, setting up of Solar Farm Demonstration Unit, establishment of Aonla, Beal, Kinnow, Drumstick orchards, commercialization of organic and agri-inputs namely: vermicompost, wheat, mustard, palak, okra seeds, vegetable seedlings as well as kitchen garden seed kits. He also appreciated the efforts made by the KVK, Delhi in obtaining the fund from Govt. of NCT, Delhi, NABARD, Govt. of India and other funding agencies. He also assured KVK for providing all support from his institute for the welfare of farmer of NCT, Delhi.

Dr Ashok Kumar Singh, Director, ICAR-NBPGR also lauded the efforts of KVK for taking several new initiatives in different areas for improving the economic condition of the farmers of NCT, Delhi.

Sh. Kuldeep Chand, DGM, NABARD, Delhi also assured to provide financial assistance to KVK to further diversify farm activities into other new areas includes dairy, mushroom, beekeeping etc.

Dr. R. P. Gupta, former Director, NHRDF & Consultant, MIDH, Govt. of India laid emphasis on promoting vegetable and fruit cultivation including terrace farming in NCT, Delhi and advised to submit project under MIDH through Govt. of NCT, Delhi & NHB, Gurgaon for promotion of horticulture in Delhi state.

Dr. P. K. Gupta, Sr. Scientist & Head, KVK, Ujwa & Director (Acting), NHRDF, New Delhi before taking up the agenda for the meeting extended a very warm welcome to the Hon'ble members of SAC and other stakeholders on behalf of KVK. He briefed the members about the objectives of SAC meeting and presented the agenda papers of 21stSAC meeting and also highlighted the new initiatives taken by KVK viz. completion of pilot project of Solar Farm Demonstration Unit, Dehumified Seed Storage (15 ton capacity), Rain Water Harvesting Pond (30 Lakh Liter capacity), Promote the Vegetable Seedlings, Demonstration of potato, onion, garlic, mustard, wheat in large area of KVK, campus under crop cafeteria during the year 2021. Thereafter, he presented the agenda paper for consideration of the committee.

Agenda Item No.1:

Confirmation of the proceedings of 20th SAC meeting of KVK, Ujwa:

- Perused and confirmed.

Agenda Item No.2:

Follow up actions on the proceedings of 20th SAC meeting of KVK, Ujwa held on 26/12/2020 at KVK, Campus with the following suggestions:

1. KVK should contact the respective line department to conduct inservice training programmes on need basis.
2. SMS (AH) should work in close collaboration with Animal Husbandry Department, Delhi.
3. All SMSs of KVK should focus on seed replacement ratio of all horticultural and cereal crops on mission mode.
4. SMS (Hort.) must focus on urban pockets for development of various horticultural activities in collaboration with Delhi Govt., NGOs, Self Help Groups and other stockholders.
5. Soil rating of each block of different districts in which KVK was working should be prepared and the same be also displayed at a prominent place in KVK premises so that farmers, whenever they visit KVK could have a look at it and get enthused to improve the soil health in their respective fields.

Agenda Item No.3:

Progress of KVK during January 2021 – October, 2021:

As per action plan approved by the ICAR-ATARI, Zone-II for the year 2021 as well as suggestions received in the 20th SAC meeting & PRA survey, the scientists made a detailed presentation of work performed by them during the period under review. The committee after perusing the presentation made the following recommendations.

1. SMS (H. Sc.) should focus on post-harvest management, value addition of agricultural and horticultural products especially millets because the year 2023 has been declared by the WHO as a World Millet Year and has been organising various awareness and training programmes in view of nutritional security by millet and its products.
2. KVK should focus on production of quality seeds of okra, mustard, palak and other crops & varieties demanded by the farmers. So that the quality seed of such crop could be provided to them.
3. Scientists should visit farmers' field in group minimum twice in a week to understand their problems and recommend the new technologies and new varieties.
4. SMS (Agro.) should focus on testing salt tolerant varieties of cereals, pulses and oilseeds at KVK farm and recommend the same to farmers if result is satisfactory to enhance the productivity of crops.
5. In the "On Farm Trial" of plant protection, pesticides be used as per CIB&RC recommendation as well as their residual effect.

6. Committee also recommended KVK should focus on branding of KVK products in a big way to generate awareness among farmer and consumers to maximise revenue to meet the expenses of KVK.
7. The honey bee box was used for training as well as for honey products without migration. SMS (PP) should think the ways to enhance the honey bee boxes and also explore possibility of migration of bee boxes.
8. In the present scenario, ICT application has become most popular and easy to reach the world community. The committee suggested to make effective use of ICT tools/social media like you tube, Instagram, twitter, email, SMS, face book, mobile app to popularize its activities so that the target group could reap benefits from the activities of KVK.
9. KVK also organised exposure visit for farmers of NCT, Delhi to show them the 3-tier farming system of solar.
10. KVK should also prepare a video of successful entrepreneurs/ farmers who have been benefited from the KVK activities. So that other stakeholders could be motivated to participate in the activities of KVK.
11. KVK should organise dietary camp, AI, improve the breed, vaccination to solve the problems of farmers in respect of Animal Husbandry in collaboration with Dept. of Animal Husbandry, GNCT, Delhi.
12. Women in large number are involved in Animal Husbandry activities. During the training programme focus should be given on value addition of different milk products.
13. The seeds and other products and training programmes of KVK may be popularized through DD Kisan Channel & Radio.
14. The committee observed that the progress of FPO supported by NABARD was not satisfactory and the committee therefore, recommended to focus on making FPO successful in Delhi so that NABARD may consider to financially supporting them.
15. The Committee also emphasised on giving more attention to developing kitchen garden to promote nutrient rich varieties.
16. The Government of India is paying focused attention to promote organic farming. KVK should also develop an organic block and reflect the soil status data on the board for demonstration purpose as well as to promote organic farming through different extension modes.
17. SMS (AH) was advised to make the survey of farmers' field to understand their cropping and make recommendation accordingly from time to time.
18. SMS (AM) was also advised to prepare the data of beneficiaries of KVK on monthly basis and make efforts to enhance the number of beneficiaries.

A list of participants is at Annexure –I

The meeting was ended with a vote of thanks to the chair.

(Dr. P. K. Gupta), Member Secretary
Head, KVK

(Dr. B.S. Tomar), Chairman
Joint Director (Ext), ICAR-IARI, Delhi



Krishi Vigyan Kendra (NHRDF), Delhi



21st Scientific Advisory Committee Meeting of KVK, Ujwa

Venue: Conference Hall, KVK, Delhi – 110073

30/10/2021

3.00 pm

Attendance Sheet

No.	Name	Designation	Contact	Signature
	Dr. Bijender Singh, President	Chairman		
	Dr. SK Singh, Director	Member		
	Dr. R. P. Gupta Ex-Director	Invitee Member	On line	
	Dr. B. S. Tomar, Joint Director (Ext)	Member	9868336217	Ujwa 30/10/21
	Ms Shurbi Rai, Chief Executive Officer	Member		
	Sh. A. P. Saini, DALBIR SINGH Joint Director (Agriculture)	Member	9643844287	S
	Branch Manager, State Bank of India	Member		
	Director, DR. Vijay Krishna Dagar Dept of Animal Husbandry	Member	9840711024	DR
	Dr. Director General - Prof. Executive All India Radio SHYAMNANDAN LAL	Member	9868576638	SL
	Director, Delhi Doordarshan Kendra	Member		
	Sh. R K Yadav Ex Programme Coordinator	Invitee Member		
	Shri. R.V. Ramakrishana, in. Kuldeep Choud General Manager online	Invitee Member		online.
	Dr Ashok Kumar, Director, NRB OGR	Invitee Member	9868115373	Ashok Kumar
	Mrs. Geeta Devi, Lady Farmer	Member		Geeta Devi
	Manager, Bank of Baroda	Invitee Member		

16.	Development Commissioner, Delhi	Member		
17.	Secretary, Department of Irrigation & Flood	Member		
18.	Principal Chief Conservator, Department of Forestry & Wild Life	Member		
19.	The Director, Department of Environment	Member		
20.	Sh Amit Kale, IAS Sub Divisional Magistrate (Najafgarh)	Invitee Member		
21.	Sh. Ram Kumar, Dabur Kisan Club	Invitee Member	9916719507	Ram Kumar
22.	Sh Tribhavan, Farmer	Invitee Member	9540001424	Tribhavan
23.	Sh. Satyawan, Farmer	Invitee Member		
24.	Dr. Ritu Singh SMS (HS)	Invitee Member		RE
25.	Sh. Rakesh Kumar SMS(Hort.)	Invitee Member		Rakesh
26.	Dr. Devender Rana SMS (PP)	Invitee Member	9310904705	Dr
27.	Dr. Samarpal Singh SMS (Agro)	Invitee Member	8887869969	SP Singh
28.	Sh. Kailash SMS (Ext.)	Invitee Member	8619296181	Kailash
29.	Dr Jai Parkash SMS (AH)	Invitee Member	98138 03111	Jai Parkash
30.	Sh Ramesh Chand Bana, SMS (AM)	Invitee Member		-
31.	Mrs. Manju PA(Comp. Sc.)	Invitee Member	9718 666917	Manju
32.	Sh. Brijesh Yadav, PA (Soil Sc.)	Invitee Member	8178929760	Brijesh Yadav
33.	Dr. P K Gupta, Head	Member Secretary	98888 67613	P Gupta 20.10.21
34.				
35.				