

# DETAILS OF ACTION PLAN OF KVK, NOHAR, HANUMANGARH-II DURING 2017-18

(1<sup>st</sup> April 2017 to 31<sup>st</sup> March 2018)

## 1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Website
KVK, NOHAR, HANUMANGARH-II	Office	FAX	kvknohar@gmail.com	-
	01555-221171	-		

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

Address	Telephone		E mail	Website
DEE, RAJUVAS, Bikaner	Office	FAX	deerajuvass@gmail.com	www.rajuvas.org
	+91151-2200505	+91151-2549348		

1.2.b. Status of KVK website : **No**

1.2.c. No. of Visitors (Hits) to your KVK website (as on today) : -





1.2.d Status of ICT lab at your KVK : -

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

Name	Telephone / Contact		
Dr. R. K. Dhuria	Office	Mobile	Email
	0151-2200505	09414283388	deerajuvass@gmail.com

1.4. Year of sanction: **2012**

### 1.5. Staff Position (as on 15 January, 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Grade Pay	Present basic (Rs.)	Date of joining	Permanent / Temporary	Category (SC/ST/OBC)	Mobile No.	Email id	Please attach recent photograph
1	Programme Coordinator	Dr. R. K. Dhuria	DEE	Animal Nutrition	37400-67000	10,000	59950/-	31-06-15	Official	GEN	9414283388	dhuriark12@gmail.com	
2	Subject Matter Specialist	Akshaya Ghintala	Teaching Associate	Agri. Ext.	28000 / month	28000 / month	28000 / month	1-08-12	Contractual	OBC	9982407171	agriakshay@gmail.com	
3	Subject Matter Specialist	Dr. Naveen Saini	Teaching Associate	Vet. & Animal Sci.	28000 / month	28000 / month	28000 / month	6-12-12	Contractual	OBC	8387051484	naveensaini709@gmail.com	
4	Subject Matter Specialist	Bheiru Singh	Teaching Associate	Agronomy	28000 / month	28000 / month	28000 / month	7-01-17	Contractual	OBC	7022173662	chouhan9549@gmail.com	

5	Subject Matter Specialist												
6	Subject Matter Specialist												
7	Subject Matter Specialist												
8	Programme Assistant												
9	Computer Programmer	Through placement agency			11000/ month	11000/ month	11000/ month	Sept. 2014	-	OBC	-	-	-
10	Farm Manager												
11	Accountant / Superintendent												
12	Stenographer												
13	Driver												
14	Driver												
15	Supporting staff												
16	Supporting staff	Through placement agency			5500/ month	5500/ month	5500/ month	Oct. 2012	-	SC	-	-	-

**1.6. Total land with KVK (in ha) : 20.1 ha.**

S. No.	Item	Area (ha)
1	Under Buildings	Will be decided after funds are allocated by the ICAR
2.	Under Demonstration Units	
3.	Under Crops	
4.	Horticulture	
5.	Pond	
6.	Others if any	

**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	On Rent basis						
2.	Farmers Hostel	Funds not received						
3.	Staff Quarters (6)							
4.	Demonstration Units (2)							
5.	Fencing							
6.	Rain Water harvesting system							
7.	Threshing floor							
8.	Farm godown							
	Other							

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor	2012-13	4,40,107.00	-	Working condition
Trolley	2012-13	1,55,232.00	-	Working condition
Jeep	2013-14	6,65,306.00	24800	Working condition

**C) Equipments & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Digital Camera	2012-13	7990.00	All equipments are in working condition
Computer	2012-13	Transferred from the office of DEE	
Printer	2012-13	Transferred from the office of DEE	
Public Address System (Mike & Speaker)	2012-13	Transferred from the office of DEE	
Projector	2013-14	Transferred from the office of DEE	
Inverter	2013-14	Transferred from the office of DEE	
Xerox	2015-16	1,20,330.00	
Camera	2015-16	49,950.00	
Computer-3	2015-16	1,62,684.00	
Printer	2015-16	15981.00	
Printer	2015-16	17,370.00	

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

Sl.No.	Date

## 2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1.	Agriculture-Animal Husbandry
2.	Agriculture-Animal husbandry-Horticulture

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

#### a) Soil type

Sl. No.	Agro-climatic Zone	Characteristics
1	Zone 1b (Irrigated North-Western Plains)	This Zone lies between 20° N to 30° N latitude and 74° to 75° 30' longitudes. It is bounded on the North by Punjab, on the South by Bikaner and Churu, on the East by Haryana and on the West by Pakistan. In Hanumangarh District, we find hot summer, cool winter, unreliable rainfall and great variation in the temperature (2°C in Jan. to 48.9°C in June). The rainfall mostly restricted to rainy season. The monsoon normally comes in the first week of the July and recedes in the last week of September.

#### b) Topography

S. No.	Agro ecological situation	Characteristics
1	Rain Fed Area	Nohar & Bhadra tehsil posses fine sand to loamy sand soil, sand dunes found in the area. Guar, Bajra, kharif pulses Gram, Taramira, Barley & Wheat crops.
2	Salt affected soil	Rawatsar, Tibbi, Nohar and Bhadra tehsil sandy and alkaline soil. Saline ground water, not suitable for irrigation, Paddy wheat mustard, Toria and fodder crops.
3	Canal irrigated light & medium soil	Sangaria & Hanumangarh tehsil sandy loam to loamy sand having good drainage property & calcasious sub soil. Organic matter or nitrogen level low. P <sub>2</sub> O <sub>5</sub> low to medium & K <sub>2</sub> O medium to high. Ground water is saline.
4	Ghaghar flood prone soil	Tibbi & Hanumangarh tehsil loam to salty loam soil, Saline, alkaline problematic soils. Paddy, Wheat, Mustard & Gram.

### 2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1.	Rain Fed Area	Nohar & Bhadra tehsil posses fine sand to loamy sand soil, sand dunes found in the area. Guar, Bajra, kharif pulses Gram, Taramira, Barley & Wheat crops.	422077
2.	Salt affected soil	Rawatsar, Tibbi, Nohar and Bhadra tehsil sandy and alkaline soil. Saline ground water, not suitable for irrigation, Paddy wheat mustard, Toria and fodder crops.	15440
3.	Canal irrigated light & medium soil	Sangaria & Hanumangarh tehsil sandy loam to loamy sand having good drainage property & calcasious sub soil. Organic matter or nitrogen level low. P <sub>2</sub> O <sub>5</sub> low to medium & K <sub>2</sub> O medium to high. Ground water is saline.	353514
4.	Ghaghar flood prone soil	Tibbi & Hanumangarh tehsil loam to salty loam soil, Saline, alkaline problematic soils. Paddy, Wheat, Mustard & Gram.	21790

### 2.4. Area, Production and Productivity of major crops cultivated in the district (2015-16)

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
<b>RABI 2015-16</b>				
1	Wheat	2,42,021	11,37,498	47.00
2	Barley	11,592	51,005	44.00
3	Gram	86,763	78,078	9.00
4	Rapeseed & Mustard	1,19,549	2,15,188	18.00
5	Others- Tarameera	650	410	6.30
<b>KHARIF 2016</b>				
1	Desi Cotton	5,402	19,987	3.70
2	A. Cotton	21,100	82,290	3.90
3	Bt Cotton	1,14,520	5,13,050	4.48
4	Paddy	32,978	2,27,350	68.94
5	Clusterbean	3,42,434	2,98,260	8.71
6	Groundnut	7,791	16,990	23.94
7	Moongbean	14,262	9,185	6.44
8	Mothbean	18,675	7,563	4.05
9	Bajra	14,527	14,688	10.11
10	Til	1,583	1,173	7.41

Source: District agriculture department.

## 2.5. Weather data (2015-16)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April 15	26	42.5	14	-	-
May 15	-	46	19	-	-
June 15	90	45	22	-	-
July 15	220	41	22.5	-	-
August 15	16	40	23	-	-
September 15	47	42	21.5	-	-
October 15	14	38.5	13.5	-	-
November 15	-	32	8	-	-
December 15	-	29.5	3.5	-	-
January 16	-	25	4.5	-	-
February 16	6.5	28.5	5.5	-	-
March 16	29	31	13	-	-

## 2.6. Production and productivity of livestock, poultry, fisheries etc. in the district (Census 2012)

S N	Name of Animals	Numbers	%age
1.	Cattle	401596	26.65
2.	Buffaloes	323101	21.44
3.	Sheep	284446	18.87
4.	Goat	277612	18.42
5.	Camel	47006	03.12
6.	Horse	1060	00.07
7.	Mule	318	00.02
8.	Donkey	5281	00.35
9.	Pig	2373	00.15
10.	Poultry/Duck	91606	06.08
11	Others	72668	04.83

\*Statcal report

S. No.	Animal Product	Production Year 2011-12	Production Year 2012-13
1	Milk (000 Tones)	13512	13945.92
2	Egg (Lakhs Nos)	9605	10334.90
3	Meat (000 Tones)	122	151.72
4	Wool (000 Kg)	13192	14007.18

Source – Department of Animal Science, Hanumangarh

Year wise data	Fish seed production (Fry in lacs)		Fish production (MT)	
	Target	Achievement	Target	Achievement
2009-10	250	261.98	2300	2333
2010-11	250	465.33	2500	2585
2011-12	250	260	2500	2296
2012-13	250	336.71	2700	2762.04
2013-14	250	255.31	2700	2785

Source – Department of Fisheries, Hanumangarh

## 2.7 Details of Operational area / Villages

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Nohar	Nohar	Parlika, Ramgarh, 18 DPN, 17 DPN, Dilki, Ujjalvas, Chak-Sardarpura, Bhagwan, Bhukarkha, 19 NTR, 20 NTR, Dhani Arayan, Thaladka, 22 NTR, 23 NTR, Deeplana, Barwali, 13 NTR, Jasana, Rajpuria, Pandusar, Charanvasi, Chak- 14 DPN, Fefana, Dhani chranawali, Malwani, Lakhasar, Toparia, Dhani Bhambhuan Nithrana, Kansar, Karamsana, Ranisar, Kikrali & Birkali	Guar, Bajra, Moong, Gram, Mustard, Wheat, Barley, Oat & Dairy etc.	<ul style="list-style-type: none"> <li>• Unemployment.</li> <li>• Lack of knowledge about scientific cultivation.</li> <li>• Least use of bio pesticide products.</li> <li>• Lack of diversification in agriculture.</li> <li>• Lack of knowledge about climate change.</li> <li>• Lack of awareness about water management.</li> <li>• Lack of knowledge about nutritional value of soil.</li> </ul>	<ul style="list-style-type: none"> <li>• To increase the productivity of major field crops and encouraging farmers for sustainable agriculture through natural farming system using compost vermi-compost, FYM and moisture conservation technology.</li> <li>• Encouraging farmers for seed production to obtain good quality seed.</li> <li>• To popularize Integrated Pest Management especially stress on seed treatment and motivate the farmers for income generation through Bee-keeping and mushroom cultivation.</li> <li>• To motivate the farmers, youths and farm women for dairy, poultry and pig farming for self-employment and income generation.</li> <li>• To extend the area under fruit orchards and techniques in nursery raising and its proper management.</li> <li>• Introducing employment generation activities for farm women like fruit and vegetable preservation, tailoring, embroidery, soft toys making etc.</li> <li>• Motivate the farmers to check the soil &amp; water sample to know about nutritional value of soils.</li> </ul>
Bhadra	Bhadra	Karanpura, Sardargadia, Chhanibadi, Shotibadi, Sikrodi, Ninan, Sahuwala & Nua			
Rawatsar	Rawatsar	Chaiya, Chak-3 CYMS, Chak-4 AM, Kikraliya, Ramsara-Motoriya, Khetawali dhani, Dhannasar			

## 2.8 Priority thrust areas

Crop/Enterprise	Thrust area
Cotton, Guar, Moong, Moth, Wheat, Gram, Mustard, Barley	To increase the productivity of major field crops and encouraging farmers for sustainable agriculture through natural farming system using compost vermi compost, FYM and moisture conservation technology.
Cotton, Guar, Moong, Moth, Wheat, Gram, Mustard, Barley	To popularize Integrated Pest Management especially stress on seed treatment.
Seed production	Encouraging farmers for seed production to obtain good quality seed.
Animal Production	To motivate the farmers, youths and farm women for dairy, poultry and pig farming for self employment and income generation.
Kinnow, Malta, Pomegranate, Aonla, Ber, Carrot, Methi, Onion, Muskmelon, Garlic	To extend the area under fruit orchards and techniques in nursery raising and its proper management.
Beekeeping & Mushroom cultivation	To motivate the farmers for income generation through Bee- keeping and mushroom cultivation.
Income generate activities for farm women & rural youth	Introducing employment generation activities for farm women like fruit and vegetable preservation, tailoring, embroidery, soft toys making etc.
Fish Farming	To motivate the farmers for fish farming and fish seed production.

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

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (Nos)	Soil Samples
(5)	(6)	(7)	(8)
15	-	-	250

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1	Varietal Evaluation	Barley	Use of traditional varieties.	Evaluation of Barley Varieties	-	-	-	Training -Field visits -Scientist visit	Seed
2	ICM	Clusterbean	Wider spacing and seed rate	Wider spacing and seed rate in Guar	-	-	-	Training -Field visits -Scientist visit	
3	IPM	Wheat	Nematodes problem in wheat	Nematodes Management in wheat				Training -Field visits -Scientist visit	Paciliomayces lilacinus culture
4	NM	Cattle	Low growth rate	Impact of Mineral & Vitamin supplement in heifers on reproductive performance	-	-	-	Training -Field visits -Scientist visit	Mineral & Vitamin supplement
5	NM	Cattle	Low growth rate	Impact of Mineral Mixture feeding to animals on growth performance	-	-	-	Training -Field visits -Scientist visit	Mineral mixture & Deworming
6	PM	Cattle	Preservation of green forage as silage	Conservation and preservation of green forage as silage for providing green forage in lean periods to farm animals.	-	-	-	Training -Field visits -Scientist visit	Poly propylene bag

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

[illegible]

Farm machineries									
Value addition									
Integrated Pest Management	1								1
Integrated Disease Management									
Resource conservation technology									
Small Scale income generating enterprises									
<b>TOTAL</b>	<b>2</b>			<b>1</b>					<b>3</b>

#### A.2. Abstract on the number of technologies to be refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Kitchen garden	Tuber Crops	TOTAL
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Post Harvest Technology										
Integrated Pest Management										
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										
<b>TOTAL</b>										

#### A.3. Abstract on the number of technologies to be assessed in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Wormi culture	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management	2							2
Disease of Management								
Value Addition								
Production and Management								
Feed and Fodder	1							1
Small Scale income generating enterprises								
<b>TOTAL</b>	<b>3</b>							<b>3</b>

#### A.4. Abstract on the number of technologies to be refined in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								



Value Addition								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
<b>TOTAL</b>								

## B. Details of On Farm Trial

### OFT 1

#### Title: Evaluation of Barley Varieties. (1<sup>st</sup> year)

Problem: Use of traditional varieties.

Treatment details:

T1 : Farmers practice: RD-2035

T2 : Assessment: RD-2715

**No. of Replications:** 4

**Observation:** Yield

### OFT 2

#### Title: Wider spacing and seed rate in Guar. (1<sup>st</sup> year)

Problem: Wider spacing and seed rate

Treatment details:

T1 : (Farmer's practices) 90.0 cm. + 12 kg seed rate per ha

T2 : (Assessment) 67.5 cm. + 14 kg seed rate per ha

**No. of Replications:** 4

**Observation:** Yield

### OFT 3

#### Title: Nematodes Management in wheat. (1<sup>st</sup> year)

Problem: Nematodes problem in wheat.

Treatment details:

T1 : (Farmers practices) FYM @ 25 qtl. per ha.

T2 : (Assessment) Paciliomayces lilacinus culture @ 100 gm with FYM @ 25 qtl. per ha.

**No. of Replications:** 4

**Observation:** Yield

### OFT 4

#### Title: Impact of Mineral & Vitamin supplement in heifers on reproductive performance. (1<sup>rd</sup> year)

Problem: Low growth rate

Treatment:

T1 : Farmers practice: Feeding straw + Cotton Seed Cake

T2 : Feeding straw+ Balanced Ration + @ Mineral 30 g/day/Animal & Vitamin supplement 50 g/day/Animal

**Number of animals:** 15 (5 in each group)

### OFT 5

#### Title: Impact of Mineral Mixture feeding to animals on growth performance (1<sup>st</sup> year)

Problem: Low growth rate

Treatment:

T1 : Mineral mixture @30 gm/animal/day (No deworming) for 120 days.

T2 : Mineral mixture @30 gm/animal/day (Deworming) for 120 days.

**Number of animals:** 15 (5 in each group)

### OFT 6

#### Title : Conservation and preservation of green forage as silage for providing green forage in lean periods to farm animals. (3<sup>rd</sup> year)

Problem: Preservation of green forage as silage

Treatment:

T1 : Silo pits as per recommended method of silage

T2 : Poly propylene Silo bag convenient & effective for silage making

**Number of farmers:** 15 (5 in each group)

**Observation:** Quality of forage preserved in new technology and convenience achieved by farmers.

### 3.2 Frontline Demonstrations

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

Sl. No.	Crop	Variety	Thematic area	Technology for demonstration	Critical inputs	Season and year	Area (ha)	No. of farmers/ demon.	Parameters identified
1	Cluster bean	HG-2-20	Productivity enhancement in field crops	Use of improved variety seed, Seed treatment, use of ferti. & PP measures.	Seed	Kharif-2017	4.0	10	Yield in (Qtl./ha)
2	Green gram	IPM-02-3 / MH-2-15 / WH-421	Productivity enhancement in field crops	Use of improved variety seed, Seed treatment, use of ferti. & bio-ferti.	Seed, fertilizer, Rhizo. Culture & Plant protection inputs	Kharif-2017	4.0	10	Yield in (Qtl./ha)
3	Moth bean	RMO-40	Productivity enhancement in field crops	Use of improved variety seed, Seed treatment, use of ferti. & bio-ferti.	Seed, fertilizer, Rhizo. Culture & Plant protection inputs	Kharif-2017	4.0	10	Yield in (Qtl./ha)
4	Pearl millet	HHB-67 Improved	Productivity enhancement in field crops	Use of improved variety seed	Seed & fertilizer.	Kharif-2017	4.0	10	Yield in (Qtl./ha)
5	Wheat	WH-1105/ HD-2967 / Raj-4037	Productivity enhancement in field crops	Use of improved variety seed	Seed	Rabi-2017-18	4.0	10	Yield in (Qtl./ha)
6	Barley	RD-2052/ RD-2715	Productivity enhancement in field crops	Use of improved variety seed	Seed	Rabi-2017-18	4.0	10	Yield in (Qtl./ha)
7	Gram	GNG-1958 / GNG-1581	Productivity enhancement in field crops	Improved variety, use of seed treatment, use of balance ferti. & PP measures and seed treatment	Seed, Rhizo. Culture & fertilizer.	Rabi-2017-18	4.0	10	Yield in (Qtl./ha)
8	Mustard	RH-749/ RGN-298/ RGN-229	Productivity enhancement in field crops	Use of improved variety seed, Seed treatment & use of ferti.	Seed, fertilizer, VAM, Rhizo. Culture & PSB.	Rabi-2017-18	4.0	10	Yield in (Qtl./ha)
9	Oat	JHO-822	Productivity enhancement in fodder crops	Use of improved variety seed	Seed	Rabi-2017-18	4.0	10	Yield in (Qtl./ha)
10	Lucerne	NDRI Selection-1/ Paras	Productivity enhancement in fodder crops	Use of improved variety seed	Seed	Rabi-2017-18	4.0	10	Yield in (Qtl./ha)
11	Livestock		Feed Management	Morden manger	Manger	Through out the year	10	10	Feed Management
12	Livestock		Hygiene Management	Cow mat	mat	"	10	10	Hygiene Management
13	Livestock		Health and Production Management	Importance of feeding Urea Molasses Block	Urea Molasses Block	"	25	25	Health and Production
14	Livestock		Health and Production Management	Modern Technique of Azolla production	Azolla Unit	"	15	15	Health and Production
					<b>Total</b>		<b>40/60</b>	<b>160</b>	

#### Sponsored Demonstration: As per Allotment

Crop	Area (ha)	No. of farmers

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

S. No.	Activity	No. of activities	Month	Number of participants
1	Field days	6	September, October, March	400
2	Farmers Training	4	Jun.- July, Oct.-Nov.	150
3	Media coverage	8	-	Mass
4	Training for extension functionaries	1	-	30

(i) **Farm Implements:** As per Allotment

**(ii) Livestock Enterprises:** As per Allotment

### 3.3 Training (Including the sponsored and FLD training programmes):

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
<b>(A) Farmers &amp; Farm Women</b>								
<b>I Crop Production</b>								
Weed Management	1							30
Resource Conservation Technologies								
Cropping Systems								
Crop Diversification								
Integrated Farming	1							30
Water management								
Seed production	1							30
Nursery management								
Integrated Crop Management	1							30
Fodder production								
Production of organic inputs								
<b>II Horticulture</b>								
<b>a) Vegetable Crops</b>								
Production of low volume and high value crops								
Off-season vegetables								
Nursery raising								
Exotic vegetables like Broccoli								
Export potential vegetables								
Grading and standardization								
Protective cultivation (Green Houses, Shade Net etc.)								
<b>b) Fruits</b>								
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								
<b>c) Ornamental Plants</b>								
Nursery Management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of Ornamental Plants								
<b>d) Plantation crops</b>								
Production and Management technology								
Processing and value addition								
<b>e) Tuber crops</b>								

Production and Management technology								
Processing and value addition								
<b>f) Spices</b>								
Production and Management technology								
Processing and value addition								
<b>g) Medicinal and Aromatic Plants</b>								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
<b>III Soil Health and Fertility Management</b>								
Soil fertility management								
Soil and Water Conservation								
Integrated Nutrient Management								
Production and use of organic inputs								
Management of Problematic soils								
Micro nutrient deficiency in crops								
Nutrient Use Efficiency								
Soil and Water Testing								
<b>IV Livestock Production and Management</b>								
Dairy Management	1							30
Poultry Management								
Piggery Management								
Rabbit Management/goat								
Disease Management	1							30
Feed management	1							30
Production of quality animal products	1							30
<b>V Home Science/Women empowerment</b>								
Household food security by kitchen gardening and nutrition gardening								
Design and development of low/minimum cost diet								
Designing and development for high nutrient efficiency diet								
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques								
Value addition								
Income generation activities for empowerment of rural Women								
Location specific drudgery reduction technologies								
Rural Crafts								
Women and child care								
<b>VI Agril. Engineering</b>								
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								
<b>VII Plant Protection</b>								
Integrated Pest Management								
Integrated Disease Management								
Bio-control of pests and diseases								
Production of bio control agents and bio pesticides								
<b>VIII Fisheries</b>								
Integrated fish farming								
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture								
Hatchery management and culture of freshwater prawn								
Breeding and culture of ornamental fishes								
Portable plastic carp hatchery								
Pen culture of fish and prawn								
Shrimp farming								
Edible oyster farming								
Pearl culture								
Fish processing and value addition								

<b>IX Production of Inputs at site</b>								
Seed Production								
Planting material production								
Bio-agents production								
Bio-pesticides production								
Bio-fertilizer production								
Vermi-compost production	1							30
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								
<b>X Capacity Building and Group Dynamics</b>								
Leadership development								
Group dynamics								
Formation and Management of SHGs								
Mobilization of social capital								
Entrepreneurial development of farmers/youths								
WTO and IPR issues								
<b>XI Agro-forestry</b>								
Production technologies								
Nursery management								
Integrated Farming Systems								
<b>XII Others (Pl. Specify)</b>								
<b>TOTAL</b>								
<b>(B) RURAL YOUTH</b>								
Mushroom Production	2							60
Bee-keeping	2							60
Integrated farming								
Seed production								
Production of organic inputs								
Integrated Farming (Medicinal)								
Planting material production								
Vermi-culture	1							30
Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production								
Repair and maintenance of farm machinery and implements								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Value addition								
Production of quality animal products								
Dairying								
Sheep and goat rearing	2							60
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Small scale processing								
Post Harvest Technology								
Tailoring and Stitching								

Rural Crafts								
<b>TOTAL</b>								
<b>(C) Extension Personnel</b>								
Productivity enhancement in field crops	1							30
Integrated Pest Management								
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Formation and Management of SHGs								
Group Dynamics and farmers organization	1							30
Information networking among farmers								
Capacity building for ICT application	1							30
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production	1							30
Household food security								
Women and Child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs								
Gender mainstreaming through SHGs								
Any other (Pl. Specify)								
<b>TOTAL</b>								
<b>G. Total</b>	<b>20</b>							<b>600</b>

## B) OFF Campus

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
<b>(A) Farmers &amp; Farm Women</b>								
<b>I Crop Production</b>								
Weed Management	1							40
Resource Conservation Technologies	1							40
Cropping Systems	1							40
Crop Diversification	1							40
Integrated Farming	2							80
Water management	1							40
Seed production	1							40
Nursery management	1							40
Integrated Crop Management	1							40
Fodder production	1							40
Production of organic inputs	1							40
<b>II Horticulture</b>								
<b>a) Vegetable Crops</b>								
Production of low volume and high value crops	1							40
Off-season vegetables								
Nursery raising								
Exotic vegetables like Broccoli								
Export potential vegetables								
Grading and standardization								
Protective cultivation (Green Houses, Shade Net etc.)	1							40
<b>b) Fruits</b>								
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								

<b>c) Ornamental Plants</b>								
Nursery Management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of Ornamental Plants								
<b>d) Plantation crops</b>								
Production and Management technology								
Processing and value addition								
<b>e) Tuber crops</b>								
Production and Management technology								
Processing and value addition								
<b>f) Spices</b>								
Production and Management technology								
Processing and value addition								
<b>g) Medicinal and Aromatic Plants</b>								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
<b>III Soil Health and Fertility Management</b>								
Soil fertility management	1							40
Soil and Water Conservation	1							40
Integrated Nutrient Management	1							40
Production and use of organic inputs								
Management of Problematic soils	1							40
Micro nutrient deficiency in crops								
Nutrient Use Efficiency								
Soil and Water Testing	2							80
<b>IV Livestock Production and Management</b>								
Dairy Management	2							80
Poultry Management	1							40
Piggery Management	1							40
Rabbit Management /goat	2							80
Disease Management	2							80
Feed management	2							40
Production of quality animal products	1							
<b>V Home Science/Women empowerment</b>								
Household food security by kitchen gardening and nutrition gardening								
Design and development of low/minimum cost diet								
Designing and development for high nutrient efficiency diet								
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques								
Value addition								
Income generation activities for empowerment of rural Women								
Location specific drudgery reduction technologies								
Rural Crafts								
Women and child care								
<b>VI Agril. Engineering</b>								
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								
<b>VII Plant Protection</b>								
Integrated Pest Management	1							40
Integrated Disease Management	1							40
Bio-control of pests and diseases								

Production of bio control agents and bio pesticides	1						40
<b>VIII Fisheries</b>							
Integrated fish farming							
Carp breeding and hatchery management							
Carp fry and fingerling rearing							
Composite fish culture	1						40
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							
<b>IX Production of Inputs at site</b>							
Seed Production							
Planting material production (Horti.)							
Bio-agents production							
Bio-pesticides production							
Bio-fertilizer production	1						40
Vermi-compost production (Horti.)							
Organic manures production (A.S.)							
Production of fry and fingerlings							
Production of Bee-colonies and wax sheets							
Small tools and implements							
Production of livestock feed and fodder	1						40
Production of Fish feed							
<b>X Capacity Building and Group Dynamics</b>							
Leadership development							
Group dynamics							
Formation and Management of SHGs							
Mobilization of social capital							
Entrepreneurial development of farmers/youths (Agro.)							
WTO and IPR issues							
<b>XI Agro-forestry</b>							
Production technologies							
Nursery management							
Integrated Farming Systems (Agro)							
<b>XII Others (Pl. Specify)</b>							
<b>TOTAL</b>	<b>37</b>						<b>1480</b>

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
<b>(A) Farmers &amp; Farm Women</b>								
<b>I Crop Production</b>								
Weed Management	2							70
Resource Conservation Technologies	1							40
Cropping Systems	1							40
Crop Diversification	1							40
Integrated Farming	3							110
Water management	1							40
Seed production	2							70
Nursery management	1							40
Integrated Crop Management	2							70
Fodder production	1							40
Production of organic inputs	1							40
<b>II Horticulture</b>								
<b>a) Vegetable Crops</b>								



Production of low volume and high value crops	1						40
Off-season vegetables							
Nursery raising							
Exotic vegetables like Broccoli							
Export potential vegetables							
Grading and standardization							
Protective cultivation (Green Houses, Shade Net etc.)	1						40
<b>b) Fruits</b>							
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							
<b>c) Ornamental Plants</b>							
Nursery Management							
Management of potted plants							
Export potential of ornamental plants							
Propagation techniques of Ornamental Plants							
<b>d) Plantation crops</b>							
Production and Management technology							
Processing and value addition							
<b>e) Tuber crops</b>							
Production and Management technology							
Processing and value addition							
<b>f) Spices</b>							
Production and Management technology							
Processing and value addition							
<b>g) Medicinal and Aromatic Plants</b>							
Nursery management							
Production and management technology							
Post harvest technology and value addition							
<b>III Soil Health and Fertility Management</b>							
Soil fertility management	1						40
Soil and Water Conservation	1						40
Integrated Nutrient Management	1						40
Production and use of organic inputs							
Management of Problematic soils	1						40
Micro nutrient deficiency in crops							
Nutrient Use Efficiency							
Soil and Water Testing	2						80
<b>IV Livestock Production and Management</b>							
Dairy Management	3						110
Poultry Management	1						40
Piggery Management	1						40
Rabbit Management/goat	2						80
Disease Management	3						110
Feed management	3						110
Production of quality animal products	2						70
<b>V Home Science/Women empowerment</b>							
Household food security by kitchen gardening and nutrition gardening							
Design and development of low/minimum cost diet							
Designing and development for high nutrient efficiency diet							
Minimization of nutrient loss in processing							
Gender mainstreaming through SHGs							
Storage loss minimization techniques							
Value addition							
Income generation activities for empowerment of rural Women							
Location specific drudgery reduction technologies							

Rural Crafts								
Women and child care								
<b>VI Agril. Engineering</b>								
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								
<b>VII Plant Protection</b>								
Integrated Pest Management	1							40
Integrated Disease Management	1							40
Bio-control of pests and diseases	1							30
Production of bio control agents and bio pesticides	1							40
<b>VIII Fisheries</b>								
Integrated fish farming								
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture	1							40
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								
<b>IX Production of Inputs at site</b>								
Seed Production								
Planting material production								
Bio-agents production								
Bio-pesticides production								
Bio-fertilizer production								
Vermi-compost production	1							30
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	1							40
Production of Fish feed								
<b>X Capacity Building and Group Dynamics</b>								
Leadership development								
Group dynamics								
Formation and Management of SHGs								
Mobilization of social capital								
Entrepreneurial development of farmers/youths								
WTO and IPR issues								
<b>XI Agro-forestry</b>								
Production technologies								
Nursery management								
Integrated Farming Systems								
Sponsored training								
<b>TOTAL</b>								
<b>(B) RURAL YOUTH</b>								
Mushroom Production	2							100
Bee-keeping	2							100
Integrated farming								
Seed production								
Production of organic inputs								
Integrated Farming								
Planting material production								
Vermi-culture	1							30

Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production								
Repair and maintenance of farm machinery and implements								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Value addition								
Production of quality animal products								
Dairying								
Sheep and goat rearing	2							100
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Small scale processing								
Post Harvest Technology								
Tailoring and Stitching								
Rural Crafts								
<b>TOTAL</b>								
<b>(C) Extension Personnel</b>								
Productivity enhancement in field crops	1							30
Integrated Pest Management								
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Formation and Management of SHGs								
Group Dynamics and farmers organization	1							30
Information networking among farmers								
Capacity building for ICT application	1							30
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production	1							40
Household food security								
Women and Child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs								
Gender mainstreaming through SHGs								
Any other (Pl. Specify)								
<b>G. TOTAL</b>	<b>57</b>							<b>2080</b>

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

### 3.4. Extension Activities (including activities of FLD programmes)

[illegible]

### 3.5 Target for Production and supply of Technological products

#### SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)
<b>CEREALS</b>			
	Peral millet	HHB-67 Improved	2.00
	Wheat	WH-1105/ HD.-2967	5.00
<b>OILSEEDS</b>			
	Mustard	RH-749/RGN-298	1.00
<b>PULSES</b>			
	Green gram	MH-2-15/IPM-02-3	2.00
<b>VEGETABLES</b>			
<b>OTHERS (Specify)</b>			
	Clusterbean	HG-2-20	5.00

#### PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)
<b>FRUITS</b>	-		
<b>SPICES</b>	-		
<b>VEGETABLES</b>	-		
<b>FOREST SPECIES</b>	-		
<b>ORNAMENTAL CROPS</b>	-		
		<b>Total</b>	

#### Bio-products

Sl. No.	Product Name	Species	Quantity	
			No	(kg)
<b>BIO PESTICIDES</b>				

#### LIVESTOCK

Sl. No.	Type	Breed	Quantity	
			(Nos)	Unit
Cattle	-			
GOAT	-			
SHEEP	-			
POULTRY	-			
Pig farming	-			
FISHERIES	-			
	-			

#### Literature to be Developed/Published

##### (A) KVK News Letter

Date of start : Nil

Number of copies to be published :

**(B) Literature developed/published**

S.No.	Topic	Number
1	Research paper each scientist	3
2	Technical reports	10
3	News letters	
4	Training manual all discipline	
5	Popular article	10
6	Extension literature	5
	<b>Total</b>	<b>28</b>

**(C) Details of Electronic Media to be Produced**

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

**3.7. Success stories/Case studies identified for development as a case. - 5**

- a. Brief introduction
- b. Interventions
- c. Output
- d. Outcomes
- e. Impact
  - i) Social economic
  - ii) Bio-Physical
- f. Good Action Photographs

**3.8 Indicate the specific training need analysis tools/methodology followed for Practicing Farmers**

- a)
- b)

**Rural Youth**

- a)
- b)
- c)

**In-service personnel**

- a)
- b)

**3.9 Indicate the methodology for identifying OFTs/FLDs****For OFT :**

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

**For FLD :**

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

### 3.10 Field activities

- |      |  |       |
|------|--|-------|
| i.   | Name of villages identified/adopted with block name (from which year) -          | 2     |
| ii.  | No. of farm families selected per village :                                      | Whole |
| iii. | No. of survey/PRA conducted :  | 8     |
| iv.  | No. of technologies taken to the adopted villages                                | 6     |
| v.   | Name of the technologies found suitable by the farmers of the adopted villages:  |       |
| vi.  | Impact (production, income, employment, area/technological– horizontal/vertical) |       |
| vii. | Constraints if any in the continued application of these improved technologies:  |       |

### 3.11. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab:

1. **Year of establishment** : Not established

#### 2. List of equipments purchase with amount

Sl. No.	Name of the equipment	Quantity	Cost (Rs)
1	-		

#### 3. Targets of samples for analysis:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount to be realized
Soil Samples	250			
Water	-			
Plant	-			
<b>Total</b>	<b>250</b>			

## 4.0 LINKAGES

### 4.1 Functional linkage with different organizations

Sl.No.	Name of organization	Nature of Linkage
1.	Department of Agriculture, Hanumangarh	Identification of training needs & conducting of training programmes, Joint implementation of programme for increasing productivity of crops/enterprises, joint diagnostic survey.
2.	Department of Horticulture, Hanumangarh	Identification of training needs & conducting of training programmes, Joint implementation of programme for increasing productivity of crops/enterprises, joint diagnostic survey.
3.	Department of Animal Husbandry, Hanumangarh	Identification of training needs & conducting of training programmes, Joint implementation of programme for increasing productivity of crops/enterprises, joint diagnostic survey.
4.	Department of fisheries, Hanumangarh	Identification of training needs & conducting of training programmes, Joint implementation of programme for increasing productivity of crops/enterprises, joint diagnostic survey.
5.	Rajasthan State Seed Corporation, Hanumangarh	Providing Seeds and Agricultural inputs.
6.	ARS and ARSS	Identification of training needs & conducting of training programmes, joint diagnostic survey, identification of target groups for implementing the KVK activities such as training.
7.	LRS, Nohar	Training needs and Diagnostic survey on Animals.
8.	IFFCO	Providing Seeds and Agricultural inputs and trainings.
9.	KRIBHCO	Providing Seeds and Agricultural inputs and trainings.
10.	Rajuvas, Bikaner	Identification of training needs & conducting of training programmes, joint diagnostic survey, identification of target groups for implementing the KVK activities such as training, gosthi etc
11.	SKRAU, Bikaner	Identification of training needs & conducting of training programmes, joint diagnostic survey, identification of target groups for implementing the KVK activities such as training.
12.	Gangmul Dairy	Involvement in training programme.
13.	ATMA, Hanumangarh	Involvement in conducting various training programmes, Gosthi, Demonstration etc.
14.	ICICI Bank, Nohar	Financial Management
15.	KVSS Nohar (Coop. Society)	Purchase of Agricultural inputs.
16.	Fruit & Veg. KVSS Nohar	Purchase of Agricultural inputs.

**4.2 Details of linkage with ATMA****a) Is ATMA implemented in your district****Yes**

S. No.	Programme	Nature of linkage
1	To be Conducted ATMA as per allotment	
2		

**4.3 Give details of programmes under National Horticultural Mission**

S. No.	Programme	Nature of linkage
1	To be Conducted NHM as per allotment	
2		

**4.4 Nature of linkage with National Fisheries Development Board**

S. No.	Programme	Nature of linkage
1	To be Conducted NFDB as per allotment	
2		

**5.0 Utilization of hostel facilities**

S. No.	Programme	No. of days
1		
2		
3		
4		
	<b>Total</b>	

**6.0 Convergence with departments:****7.0 Feedback of the farmers about the technologies demonstrated and assessed:****8.0 Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:**



## Training Programme

## i) Farmers &amp; Farm women (On Campus)

Date	Clientele	Title of the training programme	Duration in days	No. of participants			SC/ST participants			G. Total
				M	F	T	M	F	T	
Crop Production										
	PF	Weed Management	4-6							30
	PF	Integrated Farming	4-6							30
	PF	Seed Production	4-6							30
	PF	Integrated Crop Management	4-6							30
Livestock prod.										
	PF/FW	Dairy Management	4-6							30
	PF	Disease Management	4-6							30
	PF/FW	Feed management	4-6							30
	PF/FW	Production of quality animal products	4-6							30
	PF/FW	Production of livestock feed and fodder	4-6							30
Plant Protection										
	PF	Bio-control of pests and diseases	4-6							30
Production of Inputs at site										
	PF	Vermi-compost production	4-6							30

## i) Farmers &amp; Farm women (Off Campus)

Date	Clientele	Title of the training programme	Duration in days	No. of participants			SC/ST participants			G.
				M	F	T	M	F	T	Total
Crop Production										
	PF	Weed Management	1							40
	PF	Resource Conservation Technologies	1							40
	PF	Cropping Systems	1							40
	PF	Crop Diversification	1							40
	PF	Integrated Farming	1							80
	PF	Water management	1							40
	PF	Seed production	1							40
	PF	Nursery management	1							40
	PF	Integrated Crop Management	1							40
	PF	Fodder production	1							40
	PF	Production of organic inputs	1							40
Horticulture										
	PF	Production of low volume and high value crops	1							40
	PF	Protective cultivation (Green Houses, Shade Net etc.)	1							40
Live Stock Production.										
	PF	Dairy Management	1							80
	PF	Poultry Management	1							40
	PF	Piggery Management	1							40
	PF	Rabbit Management /goat	1							80
	PF	Disease Management	1							80
	PF	Feed management	1							80
	PF	Production of quality animal products	1							40
Plant Protection										
	PF	Integrated Pest Management	1							40
	PF	Integrated Disease Management	1							40
	PF	Production of bio control agents and bio pesticides	1							40
Soil health										
	PF	Soil fertility management	1							40
	PF	Soil and Water Conservation	1							40
	PF	Integrated Nutrient Management	1							40
	PF	Management of Problematic soils	1							40
	PF	Soil and Water Testing	1							80
Fisheries										
	PF	Composite fish culture	1							40
Production of Inputs at site										
	PF	Production of livestock feed and fodder	1							40

[illegible]

Date	Clientele	Title of the training programme	Duration in days	No. of participants			SC/ST participants			G. Total
				M	F	T	M	F	T	
<b>On Campus</b>										
		Productivity enhancement in field crops	4-6							20
		Livestock feed and fodder production	4-6							20

[illegible]