ANNUAL PROGRESS REPORT (January-2021-December-2021)

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	33	971	213	1184
Rural youths	8	222	20	242
Extension functionaries	06	134	58	192
Sponsored Training	00	00	00	00
Vocational Training	03	109	29	138
Total	**50**	**1436**	**320**	**1756**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	363	145.2	-
Pulses	110	44.0	-
Cereals	-	-	-
Vegetables	10	0.5	-
Other crops	40	2.0	-
Hybrid crops	-	-	-
Total	**523**	**191.7**	**-**
Livestock & Fisheries	98	-	98
Kitchen gardening	40	-	40
Button Mushroom	06	-	06
Total	**144**	**-**	**144**
Grand Total	**667**	**191.7**	**144**

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	07	70	70
Livestock	02	20	20
Various enterprises	-	-	-
Total	**09**	**90**	**90**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	439	27815
Other extension activities	05	235
Total	**444**	**28050**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Mark e-ting	Awar e-ness	Other enterprise	Total

Hanumangarh-I	Text only	2	-	98	-	-	-	100
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	**2**	**-**	**98**	**-**	**-**	**-**	**100**
	Total farmers Benefitted	**70683**	**70000+19000**	**-**	**-**	**-**	**-**	**159683**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	110.06	537631
Planting material (No.)	66533	1175245
Bio-Products (kg)	29.06	187925
Livestock Production (No.)	777	130710
Fishery production (No.)	2.78q	27600

7. Soil, water & plant Analysis

Samples	Number	No. of Beneficiaries	Value Rs.
Soil (Crops)	971	855	29130
Soil (Orchards)	1372	213	27440
Water	867	730	21675
Plant	-	-	-
Total	**3210**	**1798**	**78245**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	06
2	Conferences	02
3	Meetings	08
4	Trainings for KVK officials	04
5	Visits of KVK officials	-
6	Book published	-
7	Training Manual	02
8	Book chapters	-
9	Research papers	06
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	06
13	Proceedings	-
14	Award & recognition	-
15	On going 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
Krishi Vigyan Kendra-Hanumangarh-I, Bhagatpura Road, SANGARIA Distt.-Hanumangarh (Raj.)	Office 01499-252702	FAX 01499-252702	kvksangariahmh@gmail.com

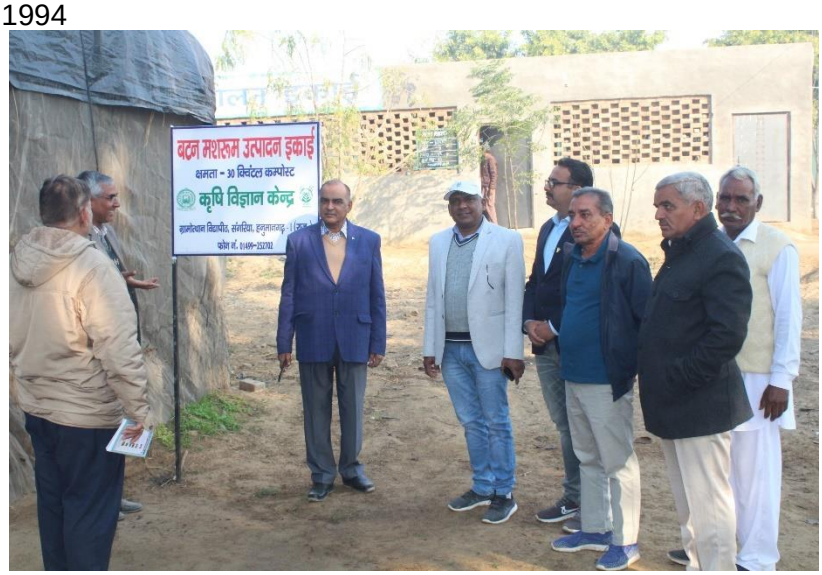
1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
Gramotthan vidyapeeth, Sangaria, Distt.- Hanumangarh (Raj.)	01499-250026	01499-250050	cosangariagv@gmail.com

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Anoop Kumar	01499-253512	09414874800	anoopkvkhmh@gmail.com

1.4. Year of sanction: 1994



Dr. S. K. Singh, Director, ATARI-Jodhpur visiting Button Mushroom Unit at KVK.

Chief guest Mrs. Salwara addressing the participants in skill-based 3-day training on tailoring & stitching.

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

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay level	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category)	Mobile No.	Email id
1	Senior Scientist cum Head	Dr. Anoop Kumar	Senior Scientist cum Head	Fisheries Science	13A	187300	10-11-2005	Permanent	OBC	9414874800	anoopkvkhmh@gmail.com
2	Scientist	Dr. Chandra Shekhar Sharma	SMS (Agro)	Agronomy	10	110400	18-04-1998	Permanent	Gen.	8432557123	drcssharma68@gmail.com drcssharma@rediffmail.com
3	Scientist	Sh. Umesh Kumar	SMS (PP)	Entomology	10	107200	11-05-1998	Permanent	OBC	9414535717	umeshkvk@gmail.com
4	Scientist	Sh. Mahavir Prasad Kaswan	SMS (Horti.)	Vegetable Crops	10	107200	25-09-1998	Permanent	OBC	9414577903	mahavir9.mahavir@gmail.com
5	Scientist	Dr. Santosh Jhajharia	SMS (H.Sc.)	H.Sc. Ext.	10	84700	08-09-2008	Permanent	OBC	9462000090	santoshjhajhariakvk@gmail.com
6	Scientist	Dr. Mukesh Kumar	SMS (A.H.)	Livestock Production	10	69000	11-06-2014	Permanent	OBC	9928800416	drmukesh@hotmail.com
7	Scientist	Dr. Kuldeep Singh	SMS (Ag Ext)	Agri. Ext.	10	77700	16-06-2014	Permanent	OBC	9672133448	singhkuldeepkvk@gmail.com
	Scientist	Sh. Pardeep Kumar	SMS (Agromet)	Agro meteorology	10	57800	03-06-2019	Contractual	OBC	9461111006	Pradeepbhakar94611@gmail.com
8	Programme Assistant	Sh. Anand Prakash Singh	Programme Assistant (Farm Manager)	Agriculture	6	72100	22-04-1998	Permanent	Gen.	9413515815	anandprakash6@gmail.com
9	Programme Assistant	Sh. Ravinder Kumar Kulria	Programme Assistant (Computor)	Computer Science	6	72100	11-05-1998	Permanent	OBC	9461107775	ravikulria9@gmail.com ravikulria@ymail.com
10	Programme Assistant	Sh. Raghuveer Singh Nain	Programme Assistant (Training)	Agriculture	6	58600	16-11-2007	Permanent	OBC	9460026849	raghuveernain09@gmail
11	Assistant	Sh. Sandeep Kumar	Assistant	Accounts	6	56900	11-09-2008	Permanent	Gen.	9461036002	sandeepbansal172@gmail.com
12	Stenographer	Sh. Mahendra Kumar	Stenographer		4	43500	06-07-1998	Permanent	Gen.	9461205050	
	Agromet observer	Sh. Neeraj Kumar	Agromet observer		3	22400	04-06-2019	Contractual	Gen.	8875009898	
13	Driver	Sh. Subhash Chandra	Driver (Tractor)		3	37200	02-12-1996	Permanent	Gen.	9413432466	
14	Driver	Sh. Surendra Kumar	Driver (Jeep)		3	30200	11-09-2008	Permanent	Gen.	9315322635	
15	Supporting staff	Sh. Isar Ram	Watchman		1	30600	01-12-1996	Permanent	Gen.	9571531482	
16	Supporting staff	Sh. Vijay Singh	Farm attendant		1	29700	24-06-1998	Permanent	OBC	9460621549	

1.6. Total land with KVK (in ha):

S. No.	Item	Area (ha)
1.	Under Crops	12.50
2.	Orchard/Agro-forestry	03.50
3.	High tech nursery	00.75
4.	IFS unit & Demonstration units	00.75
5.	Staff quarters	00.50
6.	Office Buildings	00.75
7.	Mela ground	00.75
8.	Others (Road etc)	00.50
	Total	**20.00**

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.in lacs)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	1997-98	568	15.28	--	--	--
2.	Farmers Hostel							
3.	Staff Quarters (6)	ICAR	--	400	25.95	--	--	--
4.	Demonstration Units (1) Fisheries Demonstration Unit	ICAR	2001-02	0.25 h	5.25	--	--	--
5	Fencing	ICAR	2005-06	3300m	8.10	--	--	--
6	Rain Water harvesting system	Municipal Corporation	2018-19	40000 lit. capacity	--	--	--	--
7	Threshing floor	ICAR	2004-05	265	1.00	--	--	--
8	Farm godown	ICAR	2006-07	55.68	1.38	--	--	--
9	Seed processing unit &Godown, Pipeline, Drip irrigation and raingun	State Agri. Deptt.	2007-08	227	17.24	--	--	--
10	Ornamental hatchery	KVK	2015-16	80	-	--	--	--
11	Hightech Nursery	State Agri. Deptt.	2013-14	3280	25.00	--	--	--
12	Vermi compost	KVK	2004-05	40	--	--	--	--
13	Azolla unit	KVK	2014-15	20	--	--	--	--
14	Mushroom unit	KVK	2015-16	25q	--	--	--	--
15	Soil & water testing Lab	ICAR	2004-05	35	--	--	--	--
16	Plant Health clinic	ICAR	2010-11	38	--	--	--	--
17	Animal lab.	KVK	2015-16	35	--	--	--	--
18	Bee keeping unit	KVK	2007-08	4 boxes	--	--	--	--
19	Nutritional garden	KVK	2014-15	-	--	--	--	--
20	Crop museum	KVK	2009-10	0.5 ha	--	--	--	--
21	Integrated Farming system	ICAR	2017	1.0 ha	--	--	--	--
22	Technology unit	ICAR	2017	1 Room	--	--	--	--
23	Goat unit	ICAR	2016-17	137.5 x 55 f	3.5	--	--	--
24	Poultry unit	ICAR	2016-17	20 x 35 f	2.0	--	--	--
25	ICT	ICAR	2017	35	--	--	--	--

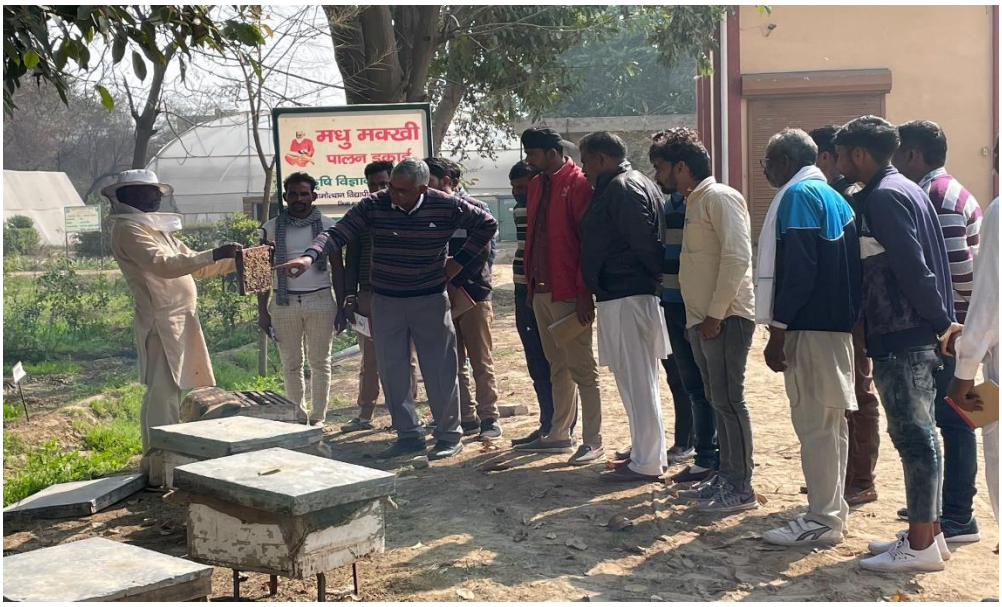
B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Motorcycle	2011	47,624	73950	Good
Bolero	2013	8,15,366	156816	Good
Tractor	2018	5,95,000	2110 hrs	Good

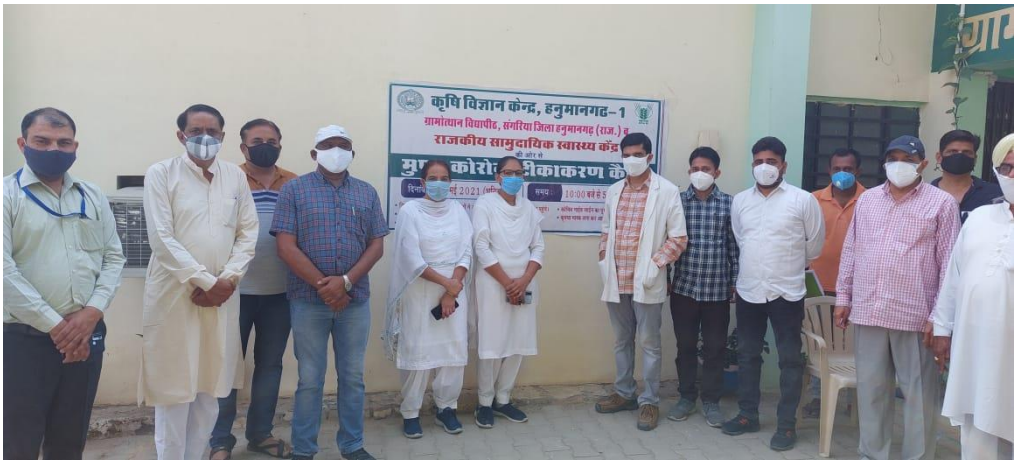
C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
OHP	2002	17,840	Working
Slide Projector (1)	2002	24,415	Working
Microscope (5)	1997	11,160	Working
Computer (1)	2000	69,070	Working
Colour TV (1)	2000	13,900	Working
Camera (1)	2000	5,550	Not Working
Xerox (1)	2002	1,13,400	Working
AC (1)	2002	21,300	Working
AC (1)	2015	37,500	Working
Soil & water testing equipments for lab.	2004	8,30,668	Working

LCD with computer(1)	2007	1,25,000	Working
Handy camera (1)	2007	50,000	Working
Computer (1)	2007	39,000	Working
ERNET Hub (1)	2009	ICAR	Not Working
Plant Health Clinic	2011	10,00,000	Working
Mirdaparikshak (1)	2015	75,000	Working
OHP (1)	1997	3,600	Not working
Slide Projector (1)	1997	4,200	Not working
Mirdaparikshak (1)	2017	86,000	Working
AC(3)	2017	1,12,500	Working
Camera (1)	2017	32,500	Working
RO (1)	2017	32,065	Working
LCD Projector	2018	69,850	Working
Cellphone	2018	17,000	Working
Printer (1)	2018	15,900	Working
Computer (1)	2018	48,800	Working
New LED	2020	18,750	Working
Camera CCTV	2020	51,800	Working
Printer/Laptop/UPS	2020	84,600	Working
AC	2020	1,30,700	Working
Furniture	2020	1,81,260	Working
Projector	2020	45,026	Working
Lift Trolley	2021	2,22,812	Working



Practical session in the Beekeeping Unit of KVK



COVID vaccination camp at KVK HMH-I

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

—f"k foKku dsUnz & guqekux<+ & I

¼xzkeksRFkku fo|kihB] laxfj;k½

25oha oSKkfud lykgdkj lfefr (SAC) dh cSBd dh dk;Zokgh

fnukad % 22-09-2021 LFkku & izf'k{k.k gkWy] —f"k foKku dsUnz & guqekux<+ &I

cSBd esa fuEufyf[kr lnL;ksa us Hkkx fy;k %&

1- Jh lq[kjkt flag lyokjk] ekuuh; lfpo xzkeksRFkku fo|kihB] laxfj;kA [Online]
2- MkW- ,l-ds- flag] ekuuh; funs'kd] vVkjh] dktjh ifjlj] tks/kiqjA [Online]
3- MkW- jkts'k oekZ] mi funs'kd] izlkj f'k{kk] ,l-ds-vkj-,-;w- chdkusjA [Online]
4- Jh ujsUnz flag pkgj] mifuns'kd] i'kqikyu foHkkx] guqekux<+A
5- MkW- t;ukjk;.k csuhoky] funs'kd] e`nk tSfcd dkcZu lkslk;Vh] guqekux<+
6- Jh enu pUn Lokeh] izHkkjh vf/kdkjh] jktLFkku [kknh o xzkeks|ksx cksMZ] guqekux<+
7- MkW- vkj- ds- 'kekZ] lgk;d funs'kd] lhvkbZih,elh] JhxaxkuxjA
8- Jh gqdekjke] rduhdh vf/kdkjh] lhvkbZih,elh] JhxaxkuxjA
9- MkW- jaxiky flag Mkaxh] mifuns'kd ¼'kL;½ ,Vhlh] guqekux<+A
10- Jh ,e- vkj- tk[kM+] bQ~dks] guqekux<+A
11- Jh jktsUnz 'kekZ] dz; fodz; lgdkjh lfefr] laxfj;kA
12- Jh vkfnR;iky rwj] izkpk;Z] xzk- fo- ,l- ds- dkWyst] laxfj;kA
13- MkW- ,l-ds- lgkj.k] izkpk;Z] xzkeksRFkku fo|kihB f'k{kk egkfo|ky;] laxfj;kA
14- Jh v{k; f?kaVkyk] fo"k; fo'ks"kK] —f"k foKku dsUnz] uksgjA
15- Jh lkgcjke xksnkjk] d`f"k vf/kdkjh] guqekux<+A
16- Jh izse dqekj] cht vf/kdkjh] jktLFkku jkT; cht fuxe] guqekux<+A
17- Jh uhjt dqekj csnh] izHkkjh] ,u-,Q-,y- JhxaxkuxjA
18- Jh Hkxoku nRr] ,u-,Q-,y- JhxaxkuxjA
19- Jh nhukjke] ,u-,Q-,y-] guqekux<+A
20- Jh lq[kthr flag] d`"kd] lariqjkA
21- Jh tloUr Hkknw] d`"kd] iafMrkokyhA
22- Jh cyohj flag] iwoZ ljiap] d`"kd] lUriqjkA
23- Jherh 'kdqUryk] efgyk d`"kdA
24- Jherh lUrks"k f[kysjh] d`f"k l[khA
25- Jh efuUnj flag] d`"kd] iDdk lkj.kkA
26- Jh ftrsUnz xksnkjk] d`"kd] iDdk lkj.kkA
27- MkW- vuqi dqekj] ofj"B oSKkfud ,oa foHkkxk/;{k] —f"k foKku dsUnz] laxfj;kA
28- MkW- pUnz'ks[kj 'kekZ] fo"k; fo'ks"kK ¼'kL; foKku½] —f"k foKku dsUnz] laxfj;kA
29- Jh mes'k dqekj] fo"k; fo'ks"kK ¼ikni laj{k.k½] —f"k foKku dsUnz] laxfj;kA
30- Jh egkohj dLok¡] fo"k; fo'ks"kK ¼m|ku foKku½] —f"k foKku dsUnz] laxfj;kA
31- Jherh larks"k >k>fM+;k] fo"k; fo'ks"kK ¼x`g foKku½] —f"k foKku dsUnz] laxfj;kA [Online]
32- MkW- eqds'k dqekj] fo"k; fo'ks"kK ¼l”kq/ku foKku½] —f"k foKku dsUnz] laxfj;kA
33- MkW- dqynhi flag] fo"k; fo'ks"kK ¼d`f’k izlkj f”k{kk½] —f"k foKku dsUnz] laxfj;kA
34- Jh iznhi dqekj] fo’k; fo'ks"kK ¼ekSle foKku½] —f"k foKku dsUnz] laxfj;kA
35- Jh vkuUn izdk'k] dk;ZØe lgk;d] —f"k foKku dsUnz] laxfj;kA
36- Jh jfoUnz dqyfM+;k] dk;ZØe lgk;d] —f"k foKku dsUnz] laxfj;kA
35 Jh lUnhi dqekj] —f"k foKku dsUnz] laxfj;kA

37- Jh egsUnz dqekj] —f"k foKku dsUnz] laxfj;kA
38- Jh uhjt dqekj] —f"k foKku dsUnz] laxfj;kA
39- Jh lqHkk"k pUnz] —f"k foKku dsUnz] laxfj;kA
40- Jh lqjsUnz dqekj] —f"k foKku dsUnz] laxfj;kA
41- Jh bZlj jke] —f"k foKku dsUnz] laxfj;kA
42- Jh fot; flag] —f"k foKku dsUnz] laxfj;kA

—f"k foKku dsUnz] guqekux<+&A dh 25oha oSKkfud lykgdkj lfefr dh cSBd dh dk;Zokgh xzkeksRFkku fo|kihB ds lfpo Jh lq[kjkt flag lyokjk dh v/;{krk esa izkjEHk gqbZA cSBd esa eq[; vfrfFk MkW- ,l-ds- flag] funs'kd] tks/kiqj rFkk fof'k"V vfrfFk MkW- jkts'k oekZ] mifuns'kd ¼d`f"k izlkj f'k{kk½] Lokeh ds”kokuUn jktLFkku d`f’k fo”ofo|ky;] chdkusj] MkW- t;ukjk;.k csuhoky] funs'kd] e`nk tSfcd dkcZu lkslk;Vh] guqekux<+] MkW- jaxiky flag Mkaxh] mifuns'kd ¼'kL;½] guqekux<+] MkW- ujsUnz pkgj] mifuns'kd] i'kqikyu foHkkx] guqekux<+ FksA

cSBd dh dk;Zokgh ije J)s; f'k{kk lar Lokeh ds'kokuUn th ds pj.kksa esa iq"ikatyh viZ.k ds lkFk 'kq# dh xbZA dsUnz ds ofj"B oSKkfud ,oa v/;{k MkW- vuwi dqekj us cSBd esa i/kkjs lHkh lEekfur lnL;ksa dk xzkeksRFkku fo|kihB ifjokj dh rjQ ls Lokxr fd;k rFkk orZeku cSBd dk ,ts.Mk j[kkA MkW- pUnz'ks[kj 'kekZ us xr o"kZ dh dk;Zokgh o ,D”ku Vsdu izLrqr fd;kA

blds ckn MkW- vuwi dqekj us o"kZ 2021 dk izxfr izfrosnu o vkxkeh o"kZ 2022 dh dk;Z;kstuk izLrqr dhA rnqijkUr fo"k; okj oSKkfudksa us vius&vius dk;Z dh izxfr o dk;Z;kstuk izLrqr dhA

Jheku funs'kd] vVkjh] MkW- ,l- ds- flag us dgk fd lHkh oSKkfud izf'k{k.k dk;Zdze] iz{ks= ijh{k.k] rFkk vfxze iafDr izn'kuksa ds vk;kstu ds fy;s fdlkuksa dh vko';drkvksa o {ks= dh d`f"k ikfjfLFkfrdh dks /;ku esa j[kdj dk;Z;kstuk rS;kj djsa(ftlls vf/kd ls vf/kd fdlku ykHkkfUor gks ldsA

blds lkFk&lkFk dsUnz dh ulZjh esa lHkh izdkj dh lfCt;ksa o Qynkj ikS/ks T;knk la[;k esa rS;kj djsaA ftlls fdlkuksa dh vko';drk dh iwfrZ gksA dsUnz ij Qlyksa dk izekf.kr cht mRiknu fd;k tkosA efgykvksa ds fy;s d`f"k vk/kkfjr izf'k{k.k] iz{ks= ifj{k.k o izn'kZu vk;ksftr dj mudh d`f"k esa Hkkxhnkjh lqfuf'pr dh tk;sA blh izdkj Hkkstu dh Fkkyh dh iks"kdrk dks izLrqr fd;k tk;s rFkk dikl ds fifdax cSx ij iz{ks= ijh{k.k vk;ksftr u djds izn'kZu vk;ksftr djsaA izf'k{k.k vk;ksftr djus ls iwoZ izf'k{k.k dk;Z;kstuk rS;kj dj mlh ds vuqlkj izf'k{k.kksa dks vk;ksftr djsaA ftlls izf'k{k.kkFkhZ ds Kku] vaxhdj.k dk v/;;u gks ldsA dsUnz ds QkeZ ij ikap ns'kh xk; dh Ms;jh bdkbZ fjokWfYoax Q.M ls LFkkfir djus dk lq>ko fn;k rkfd fdlku Ms;jh ;wfuV ns[kdj okLrfod :i ls ykHkkfUor gks ldsaA

i'kq foKku izLrqrhdj.k esa ftys ds okrkoj.k ds vuqlkj mi;qDr fofHkUu i'kqvksa o eqfxZ;ksa dh uLy ds ckjs esa iw.kZ tkudkjh gksuh pkfg;s o ftys esa vf/kdka'kr% fdl uLy ds tkuoj o eqfxZ;ka ikys tkrs gSa Hkfo’; esa izLrqfrdj.k ds nkSjku foLrkj iwoZd tkudkjh nsaA lgtu dh vks,QVh esa lzksr ls ifRr;ksa dh mi;ksx dh tkus okyh ek=k Kkr djsaA

,d oksds'kuy VªSfuax dk vk;kstu djsa ftls izf'k{k.kkfFkZ;ksa dks i'kqvksa ds izkFkfed mipkj dh tkudkjh nh tk;s mldk yslu lyku cuk;k tk;sA yEch VªSfuax esa VªSfut dk yxkrkj mifLFkfr jg ikuk eqf'dy dke gks ldrk gS vr% bls 3&4 Hkkx esa foHkkftr djds yslu lyku cuk;s o VªSfuax dk vk;kstu djsaA

MkW- jkts'k oekZ mifuns'kd] d`f’k izlkj f'k{kk us dgk fd lHkh fo"k;ksa dh Impact study rFkk lQyrk dh dgkfu;ksa dks 'kkfey djsa o buds izHkko dk v/;;u Hkh djsaA

MkW- vkj-ds- 'kekZ] lgk;d funs'kd] lhvkbZih,elh] Jhxaxkuxj us lq>k;k fd fdlkuksa dks izf'k{k.kksa ds ek/;e ls 'kr izfr'kr chtksipkj ds ckjs esa tkx#d fd;k tkosA

MkW- ujsUnz pkgj] mifuns'kd i'kqikyu us lq>ko fn;k dh izf'k{k.kksa esa foHkkxh; vf/kdkjh dh mifLFkfr lqfuf'pr djus ds fy;s ftyk Lrj ij lEidZ djsaA lUrqfyr i'kq vkgkj ij lkfgR; o izf'k{k.k vk;ksftr fd;k tk;sA i'kqikydksa dks ljdkjh ;kstukvksa ls ykHkkfUor gksus ds fy;s i'kqvksa dks yxk;s x;s VSx ugha gVkus ds fy;s tkx#d djsaA MkW- vuwi dqekj us MkW- ujsUnz pkgj ls dgk fd xkaoksa esa i'kqvksa esa Vhdkdj.k dSEi dh lwpuk d`f"k foKku dsUnz dks feyuh pkfg;s rkfd dsUnz Hkh dSEi esa viuk lg;ksx dj ldsA

MkW- jaxiky flag Mkaxh] mifuns'kd ¼'kL;½ us lQsn yV cgqHk{kh dhV ij vk;ksftr iz{ks= ijh{k.k esa esVkjkbZft;e ,uklksiyhu mipkj dks tksM+ dj ewY;kadu djus dk lq>ko fn;kA

Jh lkgcjke xksnkjk] d`f"k vf/kdkjh us fdlkuksa ds [ksrksa ij [kjhQ I;kt ij iz{ks= ijh{k.k vk;ksftr djus dk lq>ko fn;kA

Jh n;kuUn dkdksfM;k us /kku ij Jh rduhd ds izpkj&izlkj ds fy;s QksYMj izdkf'kr djus o e/kqeD[kh ikyu ij ,d fnolh; izf'k{k.k xkaoksa esa djok;s tkus dh flQkfj'k dh]s ftlls xkaoksa esa e/kqeD[kh ikyu ds fy;s tkx#drk vk;sxh vkSj {ks= esa DyLVj dk fodkl gksxkA

Jh v{k; f/kaVkyk us ekSle tkx#drk dk;Zdze dsohds uksgj ds {ks= esa Hkh vk;ksftr fd;k tk;s ftlls ogka ds fdlku Hkh ykHk mBk ldsA bl ij MkW- vuwi dqekj us tkx:drk dk;Zdze vk;ksftr djokus dk vk”oklu fn;kA

Jh t;ukjk;.k csuhoky us dsUnz ij lHkh Qyo`{kksa dh fofHkUu fdLeksa dk ckxokuh dSQsVsfj;k rS;kj dj mudh fVdkÅiu dk irk dj fdlkuksa dks voxr djok;saA

izxfr'khy fdlku Jh lq[kthr flag us cgqo`r ckxokuh ij dk;Z djus dh vko';drk trkbZA lkFk gh tehu dk ikuh ehBk djus dh rduhd vxj lgh ugha gS rks tkx#drk dk;Zdzeksa ds ek/;e ls jksdus dk iz;kl djsaA

izxfr'khy fdlku Jh tloUr Hkknw us crk;k fd eSausa viuh Qly ij uSuksa moZjdksa dk iz;ksx fd;k vkSj mlds vPNs ifj.kke jgsA i'kqikyd Jh ftrsUnz xksnkjk us ns'kh uLyksa ij vk/kkfjr izf'k{k.k vk;ksftr djus dh lykg nhA efgyk i'kqikyd Jherh 'kdqUryk us izf'k{k.k vius {ks= esa xkaoksa esa vk;ksftr djus ds fy;s dgkA bl ij MkW- vuwi dqekj us xkaoksa esa vlaLFkkxr efgyk izf”k{k.k vk;ksftr djokus dk vk”oklu fn;kA

Jherh lUrks"k >k>fM+;k }kjk x`g foKku dh dk;Z;kstuk izLrqr dh xbZA bl ij Jheku funs'kd] vVkjh MkW- ,l- ds- flag }kjk iks"k.k okfVdk ij ;g lq>ko fn;k fd fo"k; fo'ks"kK m|ku ds lkFk feydj fdlkuksa ds ?kj ij oSKkfud rjhds ls iks"k.k okfVdk rS;kj djkosa rFkk blds egRo rFkk iks"k.k ewY; ds ckjs esa fdlku ifjokjksa dks fofHkUu izf'k{k.kksa esa Resource Person ds #i esa ykHkkfUor djs rFkk lHkh izdkj ds izf'k{k.kksa esa efgyk d`"kdksa dh vf/kd ls vf/kd Hkkxhnkjh lqfuf”pr djsaA bUgksausa crk;k fd x`g oSKkfud lHkh izf'k{k.kksa dh Need Assessment ij dk;Z djsa blds lkFk lkFk bl o"kZ fnlEcj] 2021 rd dk Action Plan cukdj izLrqr djsaA nksuksa vkWu QkeZ Vªk;y Mªtjh fjMsD'ku ds vykok d`f"k ls lEcaf/kr vU; fo"k;ksa ij ftlesa efgykvksa dh Hkkxhnkjh gks ij vk;ksftr djsaA MkW- ,l-ds- flag us ckxokuh esa lq>ko fn;k fd ve:n bl {ks= ds fy;s mi;qDr Qly gSA bldk {ks=Qy c<+kuk pkfg;sA

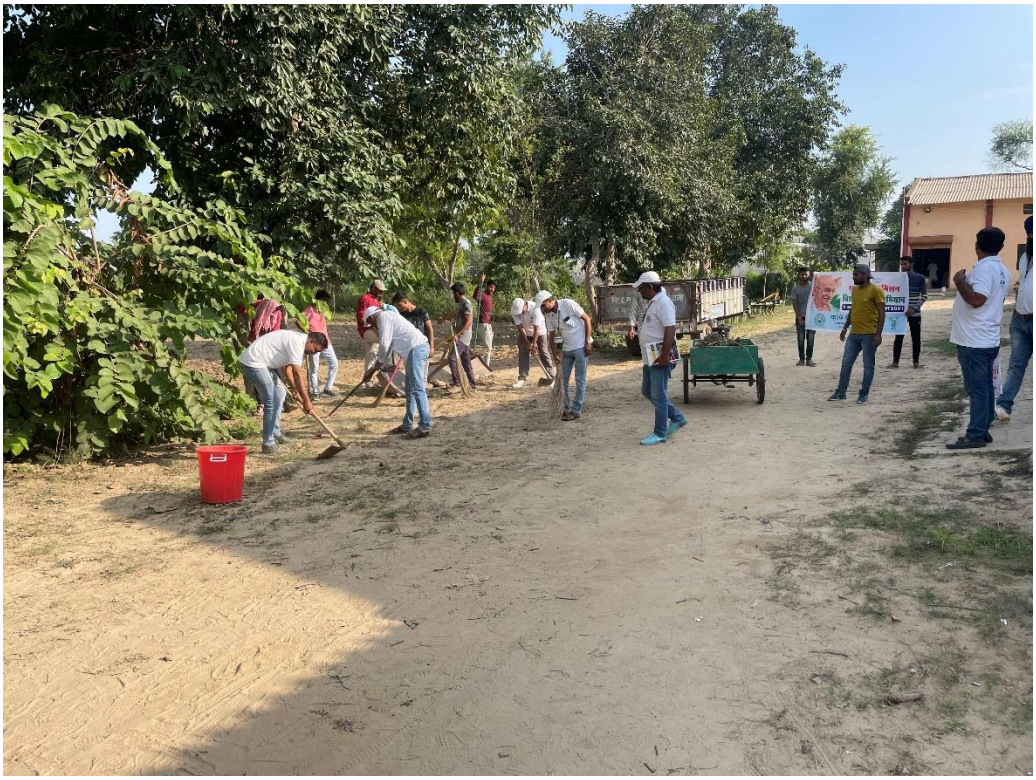
ofj"B oSKkfud ,oa foHkkxk/;{k

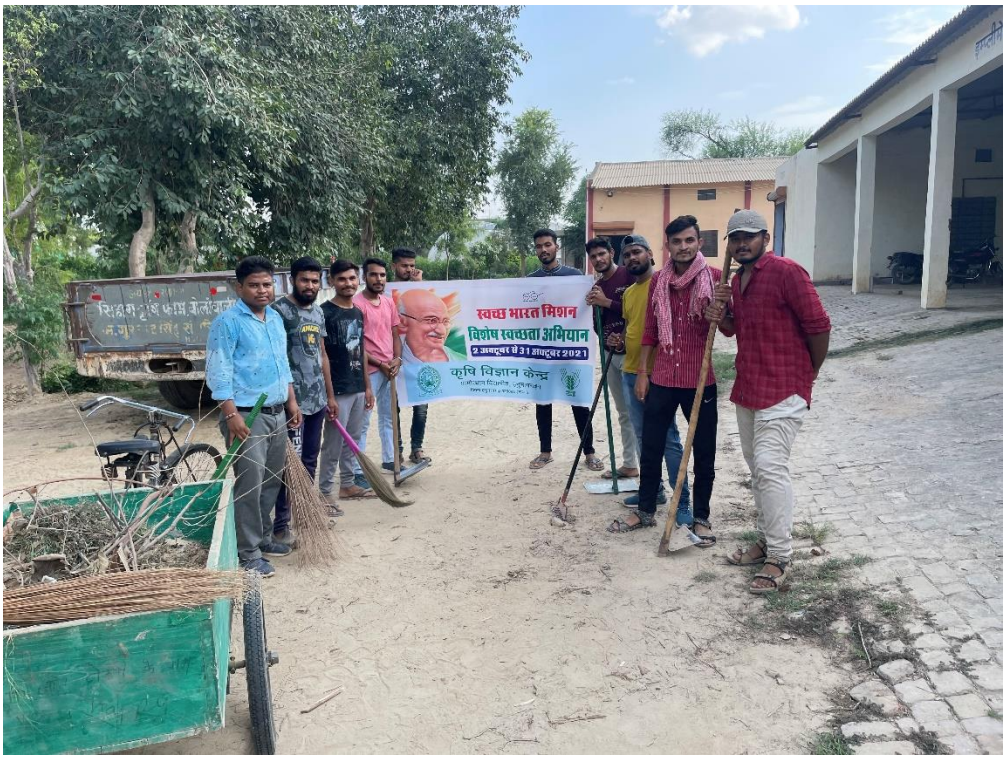
Action taken (SAC 16.12.2020)

Name and Designation of Participants	Salient Recommendations	Action taken
Jh eku lq[kjkt flag lyokjk] lfpo xzkeksRFkku fo|kihB] laxfj;kA	dksYM LVksjst o [kk| ifjj{k.k bdkb;ka dsUnz ij LFkkfir djus dk lq>koA	{kerk dk;ZØe ds vUrZxr ICAR esa izLrko fHktok;k tk pqdk gSA
	fdlkuks ds [ksrks ij vf/kd ls vf/kd czksdsyh ds iznZ"ku yxkus dk lq>ko fn;k]bldh iks'kd egrk o xq.kksa ds vk/kkj ij yksdfiz; cukus o {ks=Qy c<kus dk lq>ko fn;kA	dsUnz }kjk czksdsyh mRiknu dks c<+kok nsus ds fy, gj o'kZ 10&10 iznZ"ku yxkdj fdlkuksa rd rduhdh igqapk;h tk jgh gSA 30 iks'k.k x`g okfVdk ds ek/;e ls Hkh izpkj&izlkj fd;k tk jgk gSA dsUnz ij 10000 ikS/k rS;kj dj ds Hkh fdlkukas rd czksdsyh mRiknu rduhdh igqapk;h tk jgh gSA
	bl {ks= ds fy, vathj dh [ksrh mi;qDr Qly gSA bldk {ks=Qy c<k;s tkus dk lq>ko fn;kA	vathj dh [ksrh ij vHkh rd dEifu;ksa ds ek/;e ls vuqcU/k dj Qyo`{kksa dh [ksrh djok;h tk jgh gSA d`f'k foHkkx rFkk d`f'k vuqla/kku dsUnz }kjk vHkh rd dksbZ flQkfj'k ugha nh xbZ gSA {ks=Qy esa c<+ksrjh gks jgh gSA
	lk"kq ikydks dks vf/kd ykHk igqpkus ds m}s"; ls QhM pkVZ cukdj iznZ"ku yxkos rFkk bldh rduhdh dks dsUnz ij iznZf"kr iksYVªh] Ms;jh rFkk cdjh ikyu bZdkbZ;ks ij iznZf"kr djus dk lq>ko fn;k rkfd bl QhM QkZeqyks dks Lao; fdlku viukdj ykHkkfUor gks ldsA	QhM pkVZ dsUnz }kjk rS;kj fd;k x;k gSA blds izn'kZu dsUnz dh izn'kZu bdkbZ;ksa ij yxk;s x;s gSa rFkk ifj.kkeksa dh tkudkjh fdlkuks dks nh tk jgh gSA
	Rkduhdh lqpuk dsUnz ds ek/;e ls T;knk ls T;knk Specified Whatsapp leqg cukdj vf/kd ls vf/kd d`'kd rFkk d`'kd efgykvksa dks tksMdj mUur d`f'k rduhdh miyC/k djok;h tkus dk lq>ko fn;kA	d`f'k] ekSle o cktkj Hkko bR;kfn dh uohure tkudkjh 20 Whatsapp xzqi ls 3150 fdlkuksa rd fu;fer #i ls igqpk;h tk jgh gSA
	Xk`g iks'kd okfVdk ds izn'kZuksa ds ifj.kkeksa ds	QksYMj dk izdk"ku fd;k tk pqdk gSA vko";drkuqlkj

Mk- Xkqxujke eVksfj;k la;qDr funs”kd ¼d`f’k½	vk/kkj ij QksYMj dk izdk'ku djok;k tkuk pkfg,A	fdlkuksa o efgyk —"kdksa esa forfjr fd;k tkrk gSA
	lfCt;ks ij iksLV gkjosZLV dk;Z djus dh vko”;drk gSA	x`g oSKkfud mPp v/;;u ij gksus ds dkj.k dk;Z ugha gks ldkA bl o’kZ ;g dk;Z fd;k tk;sxkA
	izf”k{k.kksa eas efgyk d`’kdksa dh la[;k esa o`f) dh tkuh pkfg,A	djksuk dky o x`g oSKkfud ds vodk”k ij gksus ds dkj.k efgykvksa dh la[;k esa okaNuh; o`f) ugha gks ldhA bl o’kZ ls efgykvksa dh Hkkxhnkjh c<+kbZ tk;sxhA
MkW- nkukjke xksnkjk] mifuns’kd d`f"k] guqekux<+	ljlksa esa futh {ks= o ljdkjh fdLeksa esa rqyukRed v/;;u dj izpkj&izlkj djsA	blds vUrxZr ljlksa ds RH-0749 o RH-725 ds izn’kZu vk;ksftr dj o Qly laxzgky; ds ek/;e ls d`"kdksa dks tkudkjh ls voxr djok;k tk jgk gSA
	/kku dh ijkyh tykus dh leL;k ij Mh&dEikstj dk ijh{k.k fd;k tk;sA	bl ij OFT rS;kj dh x;h gSA osLV fMdEikstj dh 1000 cksry dk fdlkuksa dks miyC/k djok;h xbZ o rS;kj djus dh fof/k le>kbZ xbZA
	xr o"kksZa ds iks"kd rRoksa dh vf/kdrk o deh dk irk yxkus ds fy, e`nk ,oa ty ijh{k.kksa ds vk/kkj ij VªSaM fudkyk tkuk pkfg;sA	fjiksZV vkxs izLrqr gSA
MkW- ujsUnz flag] mi funs’kd i'kqikyu	cdjh ikyu dks c<+kok nsus dh vko’;drk crk;hA	izf'k{k.kks ds ek/;e c<kus ds iz;kl fd;k tk jgk gSA
	i'kqvksa esa Vhdkdj.k o iks"k.k ds izpkj izlkj djus ds fy, dgkA	
Jh enu flg] eRL; fodkl vf/kdkjh	>haxk eNyh dk izf’k{k.k vk;ksftr dj Lojkstxkj ls tksMus ds fy, dgkA	eNyh ikyu dks c<+kok nsus ds fy, xzkeh.k tyk’k; o [ksrksa ij cuh fMfXx;ksa ds {ks=Qy esa yxkrkj o`f} gks jgh gSA >haxk ikyu dh 'kq#vkr ftys esa dh tk pqdh gSA blds izf’k{k.k o losZ dh lwph rS;kj dh tk pqdh gSA izf'k{k.k CIFE jksgrd }kjk djokuk gSA vkRek guqekux<+ }kjk vUrZjkT;h; izf’k{k.k esa ctV tkjh fd;k x;k ysfdu dksjksuk ds dkj.k CIFE jksgrd us izf’k{k.k dh vuuqefr

		ugha nh FkhA bl o"kZ izf’k{k.k djokus dk iz;kl fd;k tk;sxkA
Jh lanhi pkgj] d`"kd	fdUuksa esa dPps Qy fxjus dh leL;k dks i'kqikyu ls tksM+dj pkjs ds #i esa f[kykus ij izf’k{k.k vk;ksftr djsaA	fdUuksa esa dPps Qy i’kqvksa dks f[ykus ls laEcf/kr vuqla/kku vHkh rd ugha gq;s gSaA blds fy;s jktwokl] chdkusj dks QhMcSd fn;k x;k gSA
Jherh eatw nsoh ¼efgyk d`"kd½	gjs pkjs ls gs o lkbyst cukus dh rdfud ij fdlkuks dks tkudkjh nsus dk lq>koA	izf'k{k.k ds nkSjku izk;ksfxd tkudkjh nh tkrh gS o dsUnz ij ,d NksVh bdkbZ dh LFkkiuk dh tk pqdh gSA {ks= esa fdlku izf’k{k.k i’pkr vius Lrj ij gs o lkbyst rS;kj dj jgs gSaA





Vishesh swachhata campaign 2021 under Swachh Bharat Mission

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
3.	Agriculture-Animal husbandry-Horticulture- Fisheries
4.	Agriculture-Animal husbandry-Horticulture- Fisheries-Poultry

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

S. No	Agro-climatic Zone	Characteristics
1	Zone 1b (Irrigated North-Western Plains)	It Zone lies between 20^0 N to 30^0 N latitude and 74^0 to 75^0 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 (2^0C in Jan. to 48.9^0C 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.

2.3 Soil types

S. No	Soil type	Characteristics	Area in ha
1	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_2O_5 low to medium & K_2O medium to high. Ground water is saline.	353514
2	Ghaghar flood prone soil	Tibbi & Hanumangarh tehsil loam to salty loam soil, Saline, alkaline problematic soils. Paddy, Wheat, Mustard & Gram.	21790
3	Rain Fed Area	Nohar & Bhadra tehsil fine sand to loam sand soil, sand dumes found in the area. Guar, Bajra, kharif pulses Gram, Taramira, Barley & Wheat crops.	422077

4	Salt affected soil	Tibbi, Rawatsar, Nohar and Bhadra. Sandy and alkaline soil. Saline ground water, not suitable for irrigation, Paddy wheat mustard, Toria and fodder crops.	15440

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

S. No	Crop	Area (ha)	Production (MT)	Productivity (Qtl /ha)
RABI (2020-21)				
1	Wheat	263880	1341544	50.84
2	Barley	14980	63337	42.28
3	Gram	144630	142960	9.88
4	Mustard	127680	228119	17.87
5	Tarameera	830	446	5.37
KHARIF (2021)				
1	Cotton	158700	370454	23.34
2	Paddy	34730	212279	61.12
3	Groundnut	13390	17659	13.19
4	Moongbean	101800	74602	7.33
5	Mothbean	55970	11692	2.09
6	Bajra	44810	38614	8.62
7	Clusterbean	268670	116898	4.35
8	Sesame	2640	887	3.36

Source: *Office of Deputy Director Ag. Hanumangarh (Raj.)*.

2.5. Weather data

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January 2021	5	24.8	1.2	95	40
February 2021	0	32.2	2.8	90	37
March 2021	4	34.8	8.0	91	19
April 2021	12	42.2	12.0	84	04
May 2021	13	45.2	19.2	80	17
June 2021	64	44.8	21.0	86	20
July 2021	130	42.5	25.4	82	29
August 2021	5	39.7	24.6	83	35
September 2021	99	35.6	22.0	94	43
October 2021	45	39.4	12.9	99	15
November 2021	0	32.3	6.7	100	12
December 2021	2	26.3	0.7	100	19
Total	**379**	-	-	-	-

Source- DAMU, Hanumangarh-I

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district 2021

Category	Population	Category	Population
Cattle	544264	Rabbits	973
Cross breed/Exotic	149963	Poultry	1,36,427
Indigenous	394301	Backyard	59,223
Buffalo	302203	Poultry farm	77,207
Sheep	170021	Horse	1,223
Goats	175745	Mules	407
Pigs	969	Camel	31,226
Horse	1223	Donkey	3,370
Mules	407	-	-

Source – Department of Animal Science, Hanumangarh

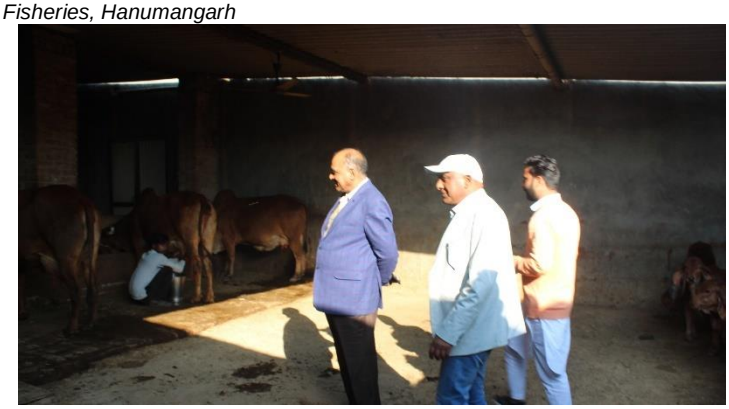
S.No.	Animal Product	Production

1	Milk (000 Tones)	17845.24
2	Egg (Lakhs Nos)	12925.00
3	Meat (000 Tones)	198.85
4	Wool (000 Kg)	1228.14

Source – Department of Animal Science, Hanumangarh

Year	Fish seed Production (Fry in Lakh)	Fish Production (MT)	Income (Lakh)
2016-17	500	2967.55	75.64
2017-18	800	2905.77	84.71
2018-19	900	2270.00	94.88
2019-20	800	2050.25	81.25
2020-21	850	2165.48	87.26

Source – Department of Fisheries, Hanumangarh



Dr. S. K. Singh, Director, ATARI-Jodhpur visiting Jeevan Gaushala in village Pakka Saharana

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
1	Pilibanga	Pilibanga	Amar Singh wala, Goluwala, Ayalki, Nandewalidhani, Fattewali, 3 TKW, 23 STG	Cotton, Guar, Moong, Wheat, Gram & Mustard, Dairy, Poultry and fisheries	Unemployment Lack of knowledge about scientific cultivation. Least use of bio pesticide products Lack of diversification in agriculture Lack of knowledge about climate change. Lack of awareness about water management Lack of knowledge about nutritional value of soil	1.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. 2. Encouraging farmers for seed production to obtain good quality seed. 3. To popularize Integrated Pest Management especially stress on seed treatment and motivate the farmers for income generation through Bee- keeping and mushroom cultivation. 4. To extend the area under fruit orchards and techniques in nursery raising and its proper management. 5. Introducing employment generation activities for farm women like fruit and vegetable preservation, tailoring, embroidery, soft toys making etc. 6. To motivate the farmers for fish farming, fish seed production and ornamental fish culture. 7.To motivate the farmers, youths and farm women for dairy, poultry and pig farming for self employment and income generation.
	Hanumangarh	Hanumangarh	Pakka Sarna, Banwala, Hirnawali, Fatehgarh, Gurusar, Makkasar, Jandawali, Dhankawali, Pucca Bhadva, Sahjipura			
	Sangaria	Sangaria	Indergarh, , Bhakrawali, Santpura, Nagrana, Singhpura, MorjanSekhon, ChakHirasinghwala, LambiDhab, ChakPratapnagar, JandwalaSikhan, Kishanpura Uttradha			
	Tibbi	Tibbi	Kulchander, Surewala, Basir, TalwaraJhil, Naiwala, Saliwala, Saharani, Sabuana, Mirzawali Mer, Tibbi, Masitawali			

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, FYM and moisture conservation technology.
	To popularize Integrated Pest Management especially stress on seed treatment.
Seed production	Encouraging farmers for seed production to obtain good quality seed.
Beekeeping & Mushroom cultivation	To motivate the farmers for income generation through Bee- keeping and mushroom cultivation.
Kinno, Malta, Aonla, Pomegranate, Ber, Carrot, Methi, Onion, Muskmelon, Garlic,	To extend the area under fruit orchards and techniques in nursery rising and its proper management.
Fish Farming	To motivate the farmers for fish farming and fish seed production.
Animal Production	To motivate the farmers, youths and farm women for dairy, goat, poultry and pig farming for self employment and income generation.
Income generating activities for farm women & rural youth	Introducing employment generation activities for farm women like fruit and vegetable preservation, tailoring, embroidery, soft toys making etc.

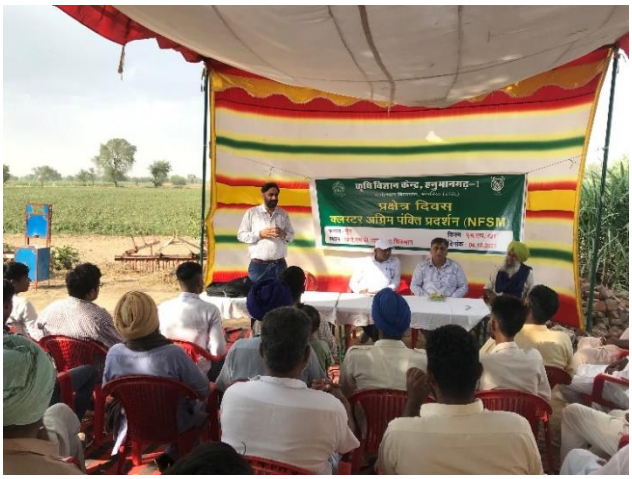
3. TECHNICAL ACHIEVEMENTS

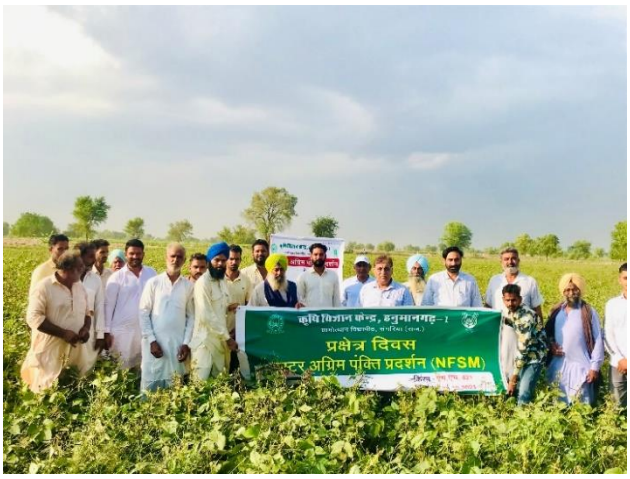
3.A. Details of target and achievements of mandatory activities by KVK during 2021

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
10	09	100	90	200 ha	191.7 ha & 144 nos	700	667

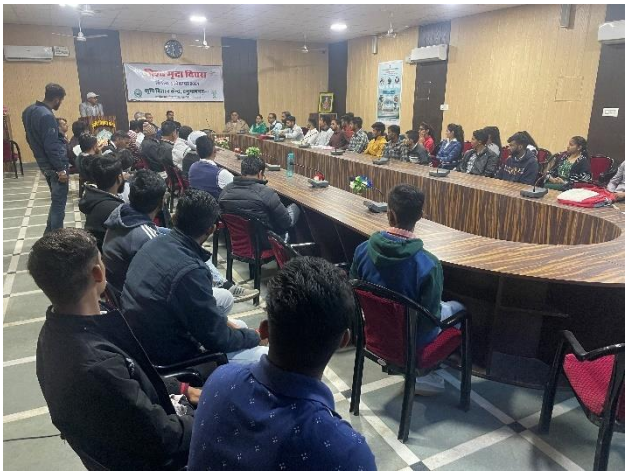
Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	30	33	1200	1184	450	439	28000	27815
Rural youth	10	11	350	380				
Extn. Functionaries	5	6	200	182				

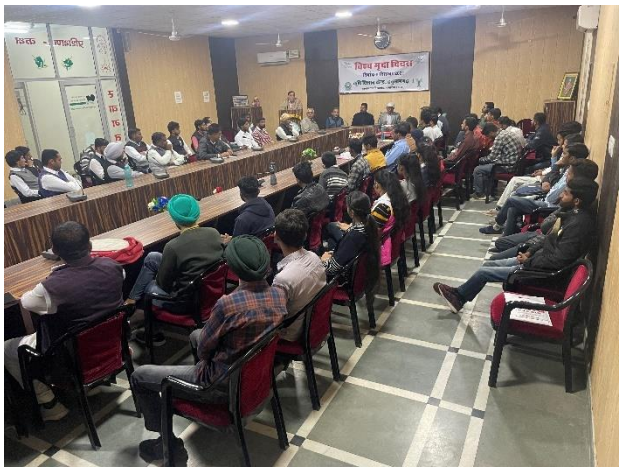
Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
	110.06	369	70000	66533	4047





Field day on Moong under CFLDs (NFSM)





Celebration of World Soil Day 2021

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	Wheat	Demand driven need-based fertilizer N application through LCC.	1	10
	Kinnow	Foliar spray of nutrients at fruit developing stage in kinnow.	1	10
	Onion	Foliar spray of micronutrients at bulb developing stage in onion	1	10
Varietal Evaluation				
Integrated Pest Management	Sorghum	Chlorantraniliprole 18.5% SC @ 0.40 ml/lit for stem borer Management in sorghum fodder crop.	1	10
	Tinda	Emamectin benzoate 5% SG @ 0.4 gm/lit. water for thrips management in Tinda.	1	10
Integrated Crop Management				
Integrated Disease Management	Kinnow	Sodium Hypochlorite 5% for gummosis management in kinnow.	1	10
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology	Chickpea	Use of liquid Bio-fertilizers in Gram crop.	1	10
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Post Harvest Technology / Value addition				
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)				
Total			**7**	**70**

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	Milk producton	Balance feeding with probiotic supplementation in cattle	1	10
	Milk producton	Balance feeding with chelated mineral mixture in buffalo	1	10
Production and Management				
Others (Pl. specify)				
Total			**2**	**20**

Summary of technologies assessed under various enterprises by KVKs

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers

I.B. TECHNOLOGY ASSESSMENT IN DETAIL

INTEGRATED NUTRIENT MANAGEMENT

1.

Problem definition: Non judicius use of N fertilizers. (1st year)

Technology Assessed: Demand driven need-based fertilizer N application through LCC**.**

Wheat is the prime crop of Hanumangarh district. As we know the nitrogen is one of the major plant nutrients which govern the proper growth of plants, its judicious and optimum application is must. Non judicious application of nitrogen causes nutrient imbalance and increases the susceptibility of plants to pests and diseases. This is not only responsible for higher cost of production but also causes environmental pollution. Therefore, demand driven need-based fertilizer N application through LCC can help efficient nitrogen management in wheat crop. For this purpose, an OFT was conducted and found that the difference in yield of T_1 and T_2 was found to be non-significant. There was not much difference in the amount of nitrogen used by the farmer and the amount of nitrogen used with the help of leaf color chart.

Table: Performance of technology in reference of yield and income of Wheat.

Technology Option	No. of trials	Yield (q/ha)	Increase in yield (%)	Net Returns (Rs./ha)	B:C Ratio
Farmer's Practice	10	46.89	-	78949	3.62
Leaf Color Chart (LCC) based nitrogen management (Assessment)		47.05	0.34	80654	3.69

RESOURCE CONSERVATION

2.

Problem definition: Incompetence of carrier-based inoculants

Technology Assessed: Use of liquid Bio-fertilizers in Gram crop.

Chickpea is a major pulse crop of Hanumangarh district in Rabi season. There ia a good possibility to increase its production by inoculation with Rhizobium & Phosphate solubilizing bacteria (PSB) inoculants to the seed or to the soil even in fields where chickpea have been grown for many years.

At present, Bio-fertilizers are supplied to the farmers as carrier-based inoculants. Bio-fertilizer consumption is not very satisfactory due to certain disadvantages associated with carrier-based bio-fertilizers, while liquid bio fertilizer does not have these disadvantages. Therefore, this trial was conducted. The effect of liquid and carrier-based bio-fertilizers on grain yield was significant. Higher yield was recorded with liquid bio-fertilizers (18.74q/h) over carrier-based bio-fertilizer treatment (18.00q/h) and uninoculated control (16.95q/h).

At vegetative stage, a significant increase in nodulation was observed with both liquid and carrier-based bio-fertilizers over control treatment.

Table: Performance of varieties in reference of yield and income of Chickpea.

Technology Option	No. of trials	Yield (q/ha)	Increase in Yield (%)	Net Returns (Rs./ha)	B:C Ratio	Number of nodules plant^{-1}
No use of Bio-fertilizers. (Control)	10	16.95	--	62664	3.11	12
Use of Bio-fertilizers as per recommendation (Carrier based inoculants). (RP)		18.00	6.19	71337	3.30	26
Use of liquid Bio-fertilizers (Assessment)		18.74	10.56	72202	3.42	32

PEST AND DISEASE MANAGEMENT

3.

Problem definition: Gummosis management in Kinnow.

Technology Assessed: Sodium Hypochlorite 5% for gummosis management in kinnow.

Kinnow is an important fruit crop of Hanumangarh district. The plants mainly suffer from gummosis (Foot rot) caused by *Phytophthora polmivora*. Phytophthora is most destructive pathogen of Kinnow plant and responsible for

significant economic losses to orchardist. To combat this problem, we frame a work on farm trial and found that on the management of gummosis in kinnow. Farmers generally used Paste the solution of Ridomil MZ @ 2g + 100 ml linseed oil on infected trunk and branches and drenching of Redomil MZ @25 gm per plant twice in a year but is not effective to control this disease so, we design to conduct OFT on Gummosis management. Results showed that the spray of Sodium Hypochlorite 5% was found to be more effective than Ridomil MZ in the management of gummosis disease.

Table Efficacy of different pesticides for Gummosis management in Kinnow.

Technology Option	No. of trials	Recovery from trunk lesion (%)	Reduction in Phytophthora propagule density (%)	Yield (q/ha)	Spray cost per plant (Rs.)	B:C Ratio
T_1- Paste of Ridomil MZ @ 2g + 100 ml linseed oil on infected trunk and branches and drenching of Redomil MZ @25 gm per plant twice in a year. (Farmer's practice)	10	60.03	79.16	325	113.00	4.15
T_2- Spray of Sodium Hypochlorite 5% @ 50 ml/ 10 liter water on affected trunk & branches twice in a year		64.49	84.72	345	31.90	5.10

4.

Problem definition: Stem borer management in sorghum

Technology Assessed: Chlorantraniliprole18.5% SC @ 0.40 ml/lit for Stem borer management in Sorghum fodder crop.

Sorghum (Jowar) is an important fodder crop during Kharif season accounting for about 177 ha area in the Hanumangarh district 2017-18. Livestock is the main base of agriculture in Hanumangarh district. In India nearly 150 insect species have been reported as pests on sorghum (Jotwani*et al*., 1980, Sharma, 1993), of which sorghum shoot fly (*Atherigona soccata*), and stem borers (*Chilo partellus,)* are important pests. Stem borer, *Chilo partellus* is a common pest in sorghum fodder crop. Stem borer infestation starts about 20 days after seedling emergence, and deadhearts appear on 30 to 40 day old-crop. During the off-season, the larvae diapauses in plant stalks and stubbles. With the onset of rainy season, the larvae pupate and the adults emerge in 7 days. The first indication of stem borer infestation is the appearance of small-elongated windows in whorl leaves where the young larvae have eaten the upper surface of the leaves. Later, the plant presents a ragged appearance as the severity of damage increases. Normally, two leaves dry up as a result of stem borer damage. Larvae continue to feed inside the stem throughout the crop growth. Extensive tunneling of the stem and peduncle leads to drying up of the panicle, production of a partially chaffy panicle or peduncle breakage. *Chilo partellus* Swinhoe is regularly causing economic losses during kharif seasons. Looking the seriousness of these pests an attempt was made to gather information on pest management. The existing chemicals are not controlling the insect and farmers are incurring heavy losses of fodder yield and poor quality.

KVK, Hanumangarh-1st assessed the efficacy of Lambda Cyhalothrin 5% EC @ 1.5 ml/lit., Chlorantraniliprole18.5% SC @ 0.40 ml/lit. and Tricogramma chilonis 2.5lac egg parasite per ha two time use at one-week interveal against stem borer management in sorghum at ten different locations of Hanumangarh district. The highest yield, B:C ratio and perent pest reduction was obtained T_2 and T_3 treatment. The highest longevity duration of pest out break was find in T_2 and T_3 treatment.

Table Efficacy of different pesticides for stem borer management in sorghum.

Technology Option	No. of trials	Pest reduction (%)	Yield (q/ha)	Increase in yield (%)	Net ns (Rs./ha)	B:C
T_1-Lambda Cyhalothrin 5% EC @ 1.5 ml/lit. (Farmers practice)	10	61.15	463	--	33945	1.75
T_2- Chlorantraniliprole18.5% SC @ 0.40 ml/lit. (Assessment)		71.26	496	7.13	35640	1.88

5.

Problem definition: Sucking pest management in tinda vegetable.

Technology Assessed: Emamectin benzoate 5% SG @ 0.4 gm/lit. water for thrips management in Tinda.

Tinda (*Praecitrullusfistulosus*) which is also called Round Melon or squash melon, or Indian squash is a cucurbit grown for its immature fruits, as a vegetable popular in the area. In last two years, its area gradually increased in Hanumangarh district. Like other crops, there are many insects, pest and diseases in tinda. Among them, thrips is a major pest that leads to significant damage to the crop. Thrips suck the sap from the leaves regularly, due to this

yellowing and drooping of leaves. As a result, the size and quality of fruits are affected. Prevalent pesticides are not considered more effective in thrips management. Many new molecules are available in the market for thrips management in tinda crop, which are quite effective. Therefore, there is a need to assess the new molecules in present scenario. In Tinda, spraying of 0.4 g Emamectin benzoate 5% SG per liter of water for thrips management was found effective as well as increased production, net profit and B:C ratio.

Table Efficacy of different pesticides for thrip management in tinda.

Technology Option	No. of trials	Pest reduction (%)	Yield (q/ha)	Increase in yield (%)	Net (Rs./ha)	B:C
T_1-Use of Fipronil 5% SC @ 1.5 ml/lit. water. (Farmer's practice)	10	59.86	61.12	--	65857	2.56
T_2-Use of Emamectin benzoate 5% SG @ 0.4 gm/lit. water. (Assessment)		80.56	83.20	36.13	76208	3.01
T_3-Use of Neem based insecticide (300 PPM) @ 5 ml/lit. water (Assessment)		65.18	67.10	09.78	76115	2.82

INTEGRETED NUTRIENT MANAGEMENT

6.

Problem definition: Poor quality of fruit & low yield.

Technology Assessed: Foliar spray of nutrients at fruit developing stage in kinnow.

Kinnow, a mandarin hybrid (citrus nobilis lourx citrus deliciosatan) has become an important variety in north India occupying a major part of area under cultivation of fruit crops. It has assumed a special economics importance and export demand due to its high juice content, special flavor and as a rich source of vitamin C. It is a well-established fact that deficiency of nutrient deteriorates vegetative growth quality and production of fruit and causes heavy flower and fruit drops which resulted in production of poor quality fruit coupled with yield losses.

Table **Impact of foliar spray of nutrient on fruit quality, size and yield of kinnow**

Technology Option	*No. of trials*	*Yield (q/ha)*	*Increase in yield (%)*	*Net Returns (Rs./ha)*	*BC Ratio*
T_1-Spray of micronutrients (6 elements) (Farmers Practice)	10	337.0	--	227264	3.5
T_2-Three times spray of nutrients in June to August ($ZnSO_4$ 0.3% + K_2SO_4 0.8% + $MgSO_4$ 0.2% + $MnSO_4$ 0.2% + Urea 0.15%) (Assessment)		379.1	12.5	302043	4.2

Foliar spray of nutrients at fruit developing is improved the quality & size of fruits which gave more B:C Ratio.

7.

Problem definition: Poor quality & low yield of onion.

Technology Assessed: Foliar spray of micronutrients at bulb developing stage in onion.

Onion is a cash crop the grown mainly in summer season in north India. It is very important in cooking. Hence it is called the Queen of kitchen. It is valued for in distinct pungent flavour. Nutrients play a major role in production. Nutrients normally applied in soil at primary stage of crops by the farmers. But foliar spray of micronutrients at bulb stage may play a major role in increase the yield.

Table **Impact of foliar spray of nutrient on fruit quality, size and yield of onion**

Technology Option	*No. of trials*	*Yield (q/ha)*	*Increase in yield (%)*	*Net Returns (Rs./ha)*	*BC Ratio*
T_1-No use of micronutrients (Farmers Practice)	10	233.9	--	211848	2.8
T_2-Foliar spray of micronutrients (Zn+Fe+Mn+Cu+Bo+Mo) (Assessment)		245.7	4.8	225968	2.9

Foliar spray of micronutrient at bulb developing stage is improved the quality & size of bulbs which gave more B:C Ratio.

LIVESTOCK ENTERPRISES

8.

Problem definition: Low milk production due to low digestibility of feed stuff given to animals.

Technology Assessed: Balance feeding with probiotic supplementation in cattle. (2^{nd} year 2020-21)

Low milk production due to low digestibility of feed stuff given to animals because of improper activity of microbes on feed stuff. Resulting undigested/unabsorbed feed stuff come out in faeces.

Probiotics are feed additives used to strengthen the animal digestive system and increase digestibility. Probiotic increases the number of micro-organisms of the GI track (gastro intestinal track) in animals. Therefore, the maximum digestion of feed is done, and proper use of the digestive food is utilized by animal for health and milk production.

Probiotics can be used to strengthen the animal digestive system and increase its digestibility. Use of probiotics increases animal production and reproductive efficiency.

Therefore, need to assess probiotics use in lactating animals.

Table Performance of technology

Technology option	Ave. Milk Prod.(lit.)	Average increase in milk prod.	Cost of feeding (Rs. / Ani. / day)	Gross cost of Milk (Rs. / Ani. /day)	Net profit (Rs.)	B:C Ratio
T_1 Balance feeding (include Mineral mixture)	11.1	25.23%	164.2	288.6	124.4	1.76
T_2 : Balance feeding + Probiotics (Assessment)	13.9		189.8	361.4	176.6	1.90

The results showed that supplementation of probiotic with balance diet improve digestion of animals, resulting milk production of animals increases by 25.23% (T1 – 11.1 lit/day/animal and T2 - 13.9 lit/day/animal). Cost Benefit ratio was found to be maximum in T2 group (1.90) as compared to T1 groups (1.76); however, the net profit was the highest from T2 group of lactating cattle (Rs 176.6/unit).

9.

Technological Problem: Low milk production in lactating buffalo

Technology Assessed : Balance feeding with chelated mineral mixture in buffalo. (2nd year 2020-21)

Green fodder, dry fodder, concentrate with mineral mixture are normal component of feed of animal diet, out of which various minerals like Ca, P, Na, Cl, S, Cu, Co, Fe, Zn, Mn, Mg, I, etc play important role (catalyst) in chemical reactions of body which are necessary for production, reproduction, and maintenance of animal body. It has been observed that most of the farmers are using non chelated mineral mixture in normal diet of dairy animals. Sometimes animal body is not able to absorb minerals due to inactive/non-chelated form of minerals.

Non-chelated form of minerals sometime alters during digestion process and not absorbed by intestine. Resulted, animal production and reproduction performance decreases.

Chelated form of minerals is active and organic form of minerals which is easily absorbed in intestine. So, need to assess chelated mineral mixture in lactating buffalo.

Table Performance of technology

Technology option	Ave. Milk Prod.(lit.)	Average increase in milk prod.	cost of feeding (Rs. / Ani. / day)	Gross cost of Milk (Rs. / Ani. /day)	Net profit (Rs.)	B:C Ratio
T_1 Balance feeding (include Mineral mixture)	19.11	24.54	273.05	535.08	262.03	1.96
T_2 : Balance feeding + Chelated Mineral mixture (Assessment)	23.8		283.96	666.4	382.44	2.35

Stall exhibition during Credit Outreach Programme at Hanumangarh

II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2020-21 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	Moong	Integrated Crop Management	Package of practices (NFSM)	Training, Field Day, Film Show, Print media, Kisan Ghoshthi, Kisan Mela, Radio Talks, TV Show	43	1123	1887
2	Mustard	Integrated Crop Management	Package of practices (NFSM)		85	1105	4137
3	Chickpea	Integrated Crop Management	Package of practices (NFSM)		146	901	1332
4	Gram	Integrated Pest Management	Use of Bio-agent (Trichoderma)		21	88	271
5	Broccoli	Exotic vegetables	Production technology		8	40	32
6	Cotton	Integrated Pest management	Pest management		32	168	687
7	Cattle	Disease Management	Popularization of teat cup to reduce mastitis		17	38	128 animals
8	Cattle	Feed management	Cattle silo bag (Silage Making)		7	21	76 bags
9	Poultry	Backyard Poultry	RIR, Kadaknath, Pratapdhan		60	241	241 Unit
10	Home Science	Household food security of kitchen gardening and nutrition gardening	Nutritional Kitchen garden		18	110	110

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

b. Details of FLDs implemented during 20221 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Oilseeds: -

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	Package of practices	Rabi 2020-21	135.2	135.2	24	314	338	NA
2	Sesame	Integrated Crop Management	Package of practices	Kharif 2021	10	10	2	23	25	NA

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 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, A. cotton, Fellow, G.nut, Pearl millet, Sesame	22-10.2020 to 07.11.2020	26.3.2021 to 4.4.2021	12	3
Sesame	Kharif 2021	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard, Barley, Oat	07.07.2021 to 25.07.2021	10.10.2021 to 28.10.2021	127	13

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Development of frost resistant bold seeded mustard varieties.
2.	Need for research on planting space in mustard crop.
3.	Strong strategies should be developled for sclerotinia stem rot disease in mustard.
4.	Evaluation of some effective herbicides to control of weeds in mustard.
5.	Need for research on phyllody resistant variety of sesame.

Farmers' reactions on specific technologies

S. No	Feed Back
1	*Farmers were satisfied with the performance of RH-0749 & RH-725 varieties of mustard in reference of seed yield.*
2	*Good response of basal application of fertilizers.*
3	*Farmers were satisfied with the performance of RT-351 variety of sesame in reference of seed yield.*

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	7	01.03.2021, 01.03.2021, 05.03.2021, 06.03.2021, 06.03.2021, 22.03.2021 & 05.10.2021	284	
2	Farmers Training	1	18.11.2020	34	
3	Media coverage	3	02.03.2021, 07.03.2021 & 23.03.2021	Not fixed	

Pulses:-

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	Chickpea	Integrated Crop Management	Package of practices	Rabi 2020-21	20	20	02	48	50	NA
2	Chickpea	Integrated Disease Management	Bio-agent (Trichoderma)	Rabi 2020-21	4	4	01	09	10	NA

3	Moong	Integrated Crop Management	Package of practices	Kharif 2021	20	20	05	45	50	NA

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					
Chickpea	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, fellow, sorghum, G.nut, Paddy	20.10.2020 to 15.11.2020	01.04.2021 to 16.04.2021	12	3
Chickpea	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, fellow	20.10.2020 to 10.11.2020	01.04.2021 to 16.04.2021	12	3
Moong	Kharif 2021	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard, Barly, Oat	06.07.2021 to 25.07.2021	22.09.2021 to 07.10.2021	207	12

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Recommended herbicides are not effective for control of pyaji (*Asphodelus tenuifolius*) in gram crop. Therefore, there is a need for research on effective herbicides to control pyaji in gram crop.
2	Need of varieties, who have tolerance or resistance to yellow mosaic virus and suitable for rain fed areas in moong.
3	Need of research on bio pesticides to control white fly & pod borer.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of GNG 2171 & GNG 2144 varieties of gram.
2	Good response of basal application of fertilizers & IPM practices.
3	Good response of soil treatment by Trichoderma in gram crop.
4	Good response of MH 421 variety of Mungbean. Good response of basal application of fertilizers.
5	Good results of bio-pesticides to management of white fly & pod borer in mungbean.
6	Trichoderma is easily available in market. Farmers can be preparing at home.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	5	22.03.2021, 22.03.2021, 24.03.2021, 01.10.2021, 04.10.2021	207	
2	Farmers Training				
3	Media coverage	3	23.03.2021, 25.03.2021, 05.10.2021	Not fixed	
4	Film show				

Other 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	Oat (F)	Fodder production	Full package	Rabi 2020-21	2	2	0	40	40	NA

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					
Oat (F)	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, fellow, sorghum	10.10.2020 to 15.11.2020	Last week of January to last week of March	12	3

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Need of varieties of new varieties.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of JHO 822 in reference of green fodder production..

Horticulture 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	Broccoli	Extotic vegetable	Production technology	Rabi 2020-21	0.5	0.5	00	10	10	NA

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					
Broccoli	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Okra, Cucurbits	25.10.2020 to 15.11.2020	February-March	12	3

Technical Feedback on the demonstrated technologies

S. No	Feed Back

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of Green magic variety of broccoligram.

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	Integrated Crop management	Full package	RH-0749	169	67.6	26.4	16	20.52	18.10	13.37	23727	112860	89133	4.76	23332	99550	76218	4.27
			RH-725	169	67.6	24.9	16	21.69	18.10	19.83	23727	119295	95568	5.03	23332	99550	76218	4.27
Sesame	Integrated Crop management	Full package	RT-351	25	10	10.6	6.8	8.85	6.32	40.03	22781	88500	65719	3.88	19300	63200	43900	3.27

* 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										
Chickpea	Integrated Crop management	Full package	GNG-2171	26	10.4	22.8	16.4	18.74	15.92	17.71	30521	99322	68801	3.25	28097	84376	56279	3.00
			GNG-2144	24	9.6	22.2	16.4	18.23	15.92	14.51	30521	96619	66098	3.17	28097	84376	56279	3.00
Trichoderma	Integrated Pest Management	Bio-agent	GNG-1581	10	4	20.25	16.13	18.56	16.45	13.00	29971	92950	62979	3.10	28471	82250	53779	2.90
Greengram	Integrated Crop management	Full package	MH-421	50	20	14.60	7.90	9.52	7.62	24.93	18748	61880	43132	3.300619	16436	49530	33094	3.013507

*** 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												
Fodder crops																			
Oat (F)	Fodder production	Full package	40	2.0	670	540	612	548	11.68	-	-	48563	153000	104437	3.15	46663	137000	90337	2.94

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No .of Units (Animal/ Poultry/ Birds, etc)	Major parameters Ave. milk Prod./day/Ani.		% 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	Nutrition Management	Use of by pass protein with mineral mixture	10	10	19.30	15.40	25.32	-	-	233.28	521.10	287.82	2.23	180.40	338.80	158.40	1.88
Buffalo	Disease management	Anestrous in lactating buffalo	50	50	37 animal conceived	13 animal conceived	184.61	-	-	-	-	-	-	-	-	-	-
Backyard poultry	Poultry management	RIR	28	28	2053 eggs	1606 eggs	27.83	16.5 kg meat	10.5 kg meat	9025	32372	23347	3.6	8760	26400	17640	3.0

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

** BCR= GROSS RETURN/GROSS COST

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Fish Culture	**Composite fish culture**	**Popularise fish culture in water storage tank**	**10**	**10**	**1040**	**-**	**-**	**-**	**-**	**42700**	**114400**	**71700**	**2.68**	**-**	**-**	**-**	**-**

* 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 Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Home Science	Household food security of kitchen gardening and nutrition gardening	Nutritional Kitchen Garden	40	40	249.7	106.2	135.12	Maximum	Least	893	7739	6846	8.67	406	2190	1784	5.39

FLD on Demonstration details on crop hybrids (*Details of Hybrid FLDs implemented during 2021)*

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Vegetable crop	Production technology	Green magic F1`	10	0.5	269.1	215.4	237.7	249.4	-4.69	68954	427860	358906	6.2

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

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters Yield (Kg)		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Button Mushroom	Production Technology	06	06	74.00	-	-	-	-	4250	9250	5000	2.18	-	-	-	-

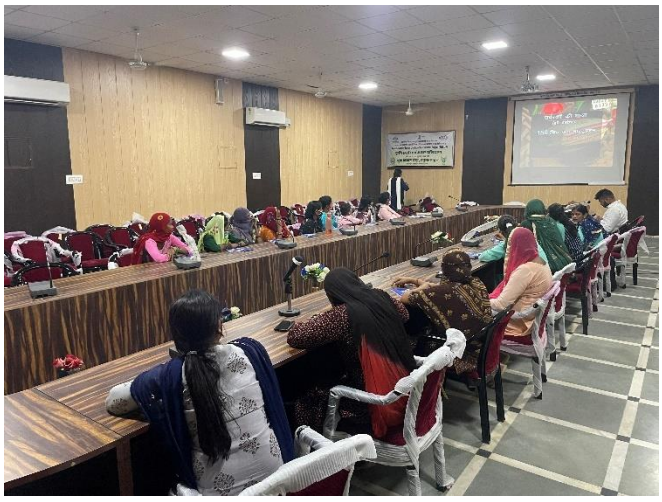
III. Training Programme

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	2	21	1	22	32	3	35	53	4	57
Soil & water conservation										
Integrated nutrient management	1	31	0	31	4	0	4	35	0	35
Production of organic inputs										
Others (pl specify)										
Total	**3**	**52**	**1**	**53**	**36**	**3**	**39**	**88**	**4**	**92**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	13	0	13	2	0	2	15	0	15
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**1**	**13**	**0**	**13**	**2**	**0**	**2**	**15**	**0**	**15**
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**	**13**	**0**	**13**	**2**	**0**	**2**	**15**	**0**	**15**
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management	1	13	2	15	3	0	3	16	2	18
Poultry Management	1	0	0	0	29	3	32	29	3	32
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total	**2**	**13**	**2**	**15**	**32**	**3**	**35**	**45**	**5**	**50**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs	1	0	12	12	0	1	1	0	13	13
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies	1	0	0	0	0	26	26	0	26	26
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**2**	**0**	**12**	**12**	**0**	**27**	**27**	**0**	**39**	**39**
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides	1	17	0	17	0	0	0	17	0	17
Others (pl specify)										
Total	**1**	**17**	**0**	**17**	**0**	**0**	**0**	**17**	**0**	**17**

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	3	26	11	37	44	1	45	70	12	82
Apiculture										
Others (pl specify)										
Total	**3**	**26**	**11**	**37**	**44**	**1**	**45**	**70**	**12**	**82**
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) ICT application	1	14	4	18	5	2	7	19	6	25
Total	**1**	**14**	**4**	**18**	**5**	**2**	**7**	**19**	**6**	**25**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**13**	**135**	**30**	**165**	**119**	**36**	**155**	**254**	**66**	**320**



Krishi Sakhi and ARP Training programme

Off campus training programme

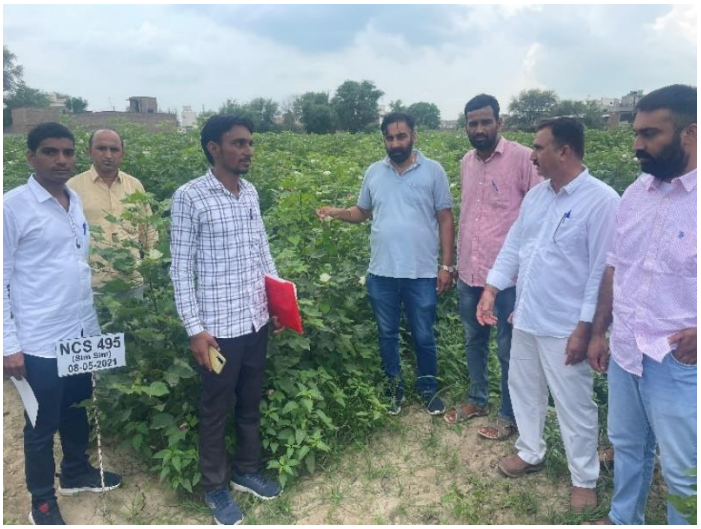
Farmers' Training including sponsored training programmes (off campus)

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										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil & water conservatioin	3	98	8	106	25	19	44	123	27	150
Integrated nutrient management										
Production of organic inputs	1	42	2	44	7	1	8	49	3	52
Others (pl specify)										
Total	**4**	**140**	**10**	**150**	**32**	**20**	**52**	**172**	**30**	**202**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	1	0	0	0	5	38	43	5	38	43
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**1**	**0**	**0**	**0**	**5**	**38**	**43**	**5**	**38**	**43**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	2	46	13	59	11	0	11	57	13	70
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)	1	16	0	16	0	0	0	16	0	16
Total (b)	**3**	**62**	**13**	**75**	**11**	**0**	**11**	**73**	**13**	**86**
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)	**4**	**62**	**13**	**75**	**16**	**38**	**54**	**78**	**51**	**129**
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	2	97	2	99	12	0	12	109	2	111
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total	**2**	**97**	**2**	**99**	**12**	**0**	**12**	**109**	**2**	**111**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs	1	0	16	16	0	0	0	0	16	16
Storage loss minimization techniques										
Value addition										
Women empowerment	1	0	0	0	0	36	36	0	36	36
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**2**	**0**	**16**	**16**	**0**	**36**	**36**	**0**	**52**	**52**
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	2	37	0	37	59	0	59	96	0	96
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**2**	**37**	**0**	**37**	**59**	**0**	**59**	**96**	**0**	**96**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										

Carp fry and fingerling rearing										
Composite fish culture	2	102	3	105	13	3	16	115	6	121
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) Ornamental Fish culture	1	40	1	41	8	0	8	48	1	49
Total	**3**	**142**	**4**	**146**	**21**	**3**	**24**	**163**	**7**	**170**
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	1	30	0	30	0	0	0	30	0	30
Formation and Management of SHGs										
Mobilization of social capital	2	22	3	25	47	2	49	69	5	74
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total	**3**	**52**	**3**	**55**	**47**	**2**	**49**	**99**	**5**	**104**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**20**	**530**	**48**	**578**	**187**	**99**	**286**	**717**	**147**	**864**

15 days Certificate Course on INM



Visit of crop meusium at KVK

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										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	2	21	1	22	32	3	35	53	4	57
Soil & water conservatioin	3	98	8	106	25	19	44	123	27	150
Integrated nutrient management	1	31	0	31	4	0	4	35	0	35
Production of organic inputs	1	42	2	44	7	1	8	49	3	52
Others (pl specify)										
Total	**7**	**192**	**11**	**203**	**68**	**23**	**91**	**260**	**34**	**294**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	2	13	0	13	7	38	45	20	38	58
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**2**	**13**	**0**	**13**	**7**	**38**	**45**	**20**	**38**	**58**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	2	46	13	59	11	0	11	57	13	70
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)	1	16	0	16	0	0	0	16	0	16
Total (b)	**3**	**62**	**13**	**75**	**11**	**0**	**11**	**73**	**13**	**86**
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)	**5**	**75**	**13**	**88**	**18**	**38**	**56**	**93**	**51**	**144**
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management	1	13	2	15	3	0	3	16	2	18
Poultry Management	1	0	0	0	29	3	32	29	3	32
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	2	97	2	99	12	0	12	109	2	111
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total	**4**	**110**	**4**	**114**	**44**	**3**	**47**	**154**	**7**	**161**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs	2	0	28	28	0	1	1	0	29	29
Storage loss minimization techniques										
Value addition										
Women empowerment	1	0	0	0	0	36	36	0	36	36
Location specific drudgery reduction technologies	1	0	0	0	0	26	26	0	26	26
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**4**	**0**	**28**	**28**	**0**	**63**	**63**	**0**	**91**	**91**
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	2	37	0	37	59	0	59	96	0	96
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides	1	17	0	17	0	0	0	17	0	17
Others (pl specify)										
Total	**3**	**54**	**0**	**54**	**59**	**0**	**59**	**113**	**0**	**113**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										

Carp fry and fingerling rearing										
Composite fish culture	2	102	3	105	13	3	16	115	6	121
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) Ornamental Fish Culture	1	40	1	41	8	0	8	48	1	49
Total	**3**	**142**	**4**	**146**	**21**	**3**	**24**	**163**	**7**	**170**
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	3	26	11	37	44	1	45	70	12	82
Apiculture										
Others (pl specify)										
Total	**3**	**26**	**11**	**37**	**44**	**1**	**45**	**70**	**12**	**82**
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	1	30	0	30	0	0	0	30	0	30
Formation and Management of SHGs										
Mobilization of social capital	2	22	3	25	47	2	49	69	5	74
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)	1	14	4	18	5	2	7	19	6	25
Total	**4**	**66**	**7**	**73**	**52**	**4**	**56**	**118**	**11**	**129**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**33**	**665**	**78**	**743**	**306**	**135**	**441**	**971**	**213**	**1184**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping	3	42	0	42	53	1	54	95	1	96
Sericulture										

Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying	2	24	0	24	28	2	30	52	2	54
Sheep and goat rearing	1	0	0	0	23	14	37	23	14	37
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture	1	0	0	0	28	2	30	28	2	30
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify) Group Dynamics	1	19	1	20	5	0	5	24	1	25
TOTAL	**8**	**85**	**1**	**86**	**137**	**19**	**156**	**222**	**20**	**242**

Training for Rural Youths 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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										

Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL										

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping	3	42	0	42	53	1	54	95	1	96
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying	2	24	0	24	28	2	30	52	2	54
Sheep and goat rearing	1	0	0	0	23	14	37	23	14	37
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture	1	0	0	0	28	2	30	28	2	30
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify) Group Dynamic	1	19	1	20	5	0	5	24	1	25
TOTAL	**8**	**85**	**1**	**86**	**137**	**19**	**156**	**222**	**20**	**242**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	**3**	**65**	**19**	**84**	**12**	**2**	**14**	**67**	**21**	**88**
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	**2**	**49**	**9**	**58**	**8**	**3**	**11**	**57**	**12**	**69**
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) Krishi Sakhi ARP	**1**	**0**	**14**	**14**	**0**	**11**	**11**	**0**	**25**	**25**
TOTAL	**6**	**114**	**42**	**156**	**20**	**16**	**36**	**134**	**58**	**192**

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
Productivity enhancement in field crops	**3**	**65**	**19**	**84**	**12**	**2**	**14**	**67**	**21**	**88**
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	**2**	**49**	**9**	**58**	**8**	**3**	**11**	**57**	**12**	**69**
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) Krishi Sakhi ARP	**1**	**0**	**14**	**14**	**0**	**11**	**11**	**0**	**25**	**25**
TOTAL	**6**	**114**	**42**	**156**	**20**	**16**	**36**	**134**	**58**	**192**

Table. Sponsored training programmes

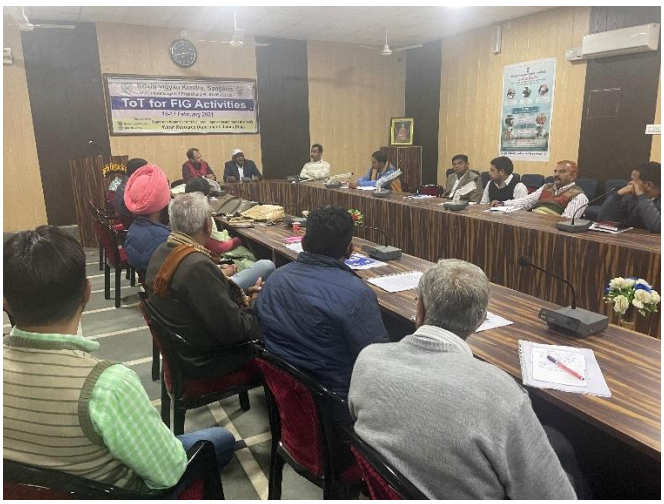
Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Increasing production and productivity of crops										
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Processing and value addition										
Others (pl. specify)										
Total										
Farm machinery										
Farm machinery, tools and implements										
Others (pl. specify)										
Total										
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total										
Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity Building and Group Dynamics										
Others (pl. specify)										
Total										
GRAND TOTAL										

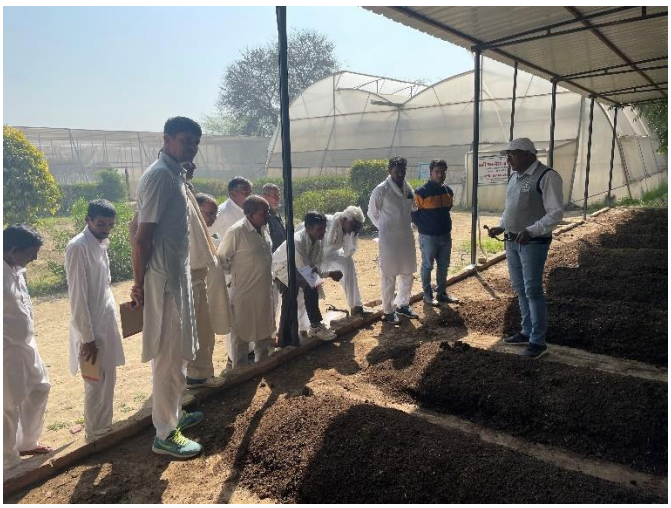
Name of sponsoring agencies involved

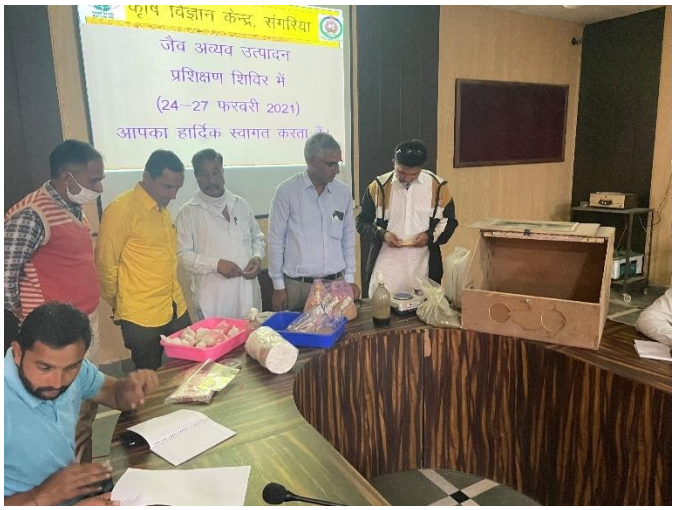
Details of vocational training programmes carried out by KVKs for rural youth

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										
Commercial vegetable production										
Integrated crop management										
Organic farming										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Value addition										
Others (pl. specify)										
Total										
Livestock and fisheries										
Dairy farming	**1**	**24**	**0**	**24**	**1**	**0**	**1**	**25**	**0**	**25**
Composite fish culture										
Sheep and goat rearing										
Piggery										

Poultry farming										
Others (pl. specify)										
Total	**1**	**24**	**0**	**24**	**1**	**0**	**1**	**25**	**0**	**25**
Income generation activities										
Vermicomposting										
Production of bio-agents, bio-pesticides,										
bio-fertilizers etc.										
Repair and maintenance of farm machinery										
and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.	**1**	**0**	**0**	**0**	**0**	**28**	**28**	**0**	**28**	**28**
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total	**1**	**0**	**0**	**0**	**0**	**28**	**28**	**0**	**28**	**28**
Agricultural Extension										
Capacity building and group dynamics	**1**	**19**	**1**	**20**	**65**	**0**	**65**	**84**	**1**	**85**
Others (pl. specify)										
Total	**1**	**19**	**1**	**20**	**65**	**0**	**65**	**84**	**1**	**85**
Grand Total	**3**	**43**	**1**	**44**	**66**	**28**	**94**	**109**	**29**	**138**







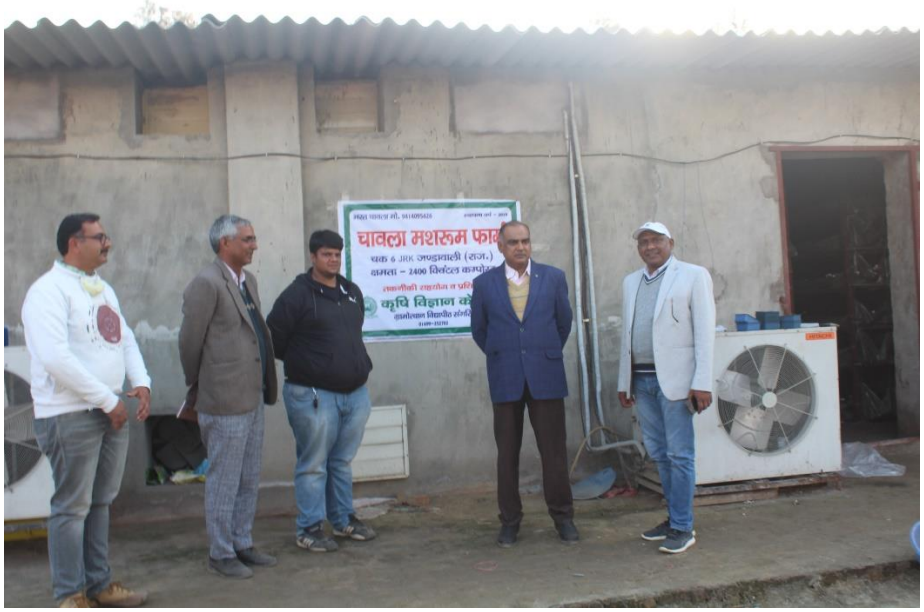
Extension Activities

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	106	18780	932	19712
Diagnostic visits	00	00	00	00
Field Day	11	478	14	492
Group discussions	02	84	04	88
Kisan Ghosthi	10	746	12	758
Film Show	166	692	182	774
Self -help groups	07	112	00	112
Kisan Mela	1 (Bangalore Virtual)	74	04	78
Exhibition	00	00	00	00
Scientists' visit to farmers field	78	2239	56	2295
Plant/animal health camps	00	00	00	00
Farm Science Club	07	189	06	195
Ex-trainees Sammelan	01	23	00	23
Farmers' seminar/workshop	16	829	31	860
Method Demonstrations	05	103	03	106
Celebration of important days	09	744	53	797
Special day celebration	14	1095	55	1150
Exposure visits	06	375	00	375
Others (pl. specify)	0	0	0	0
Total	**439**	**26563**	**1352**	**27815**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	8
News paper coverage	164
Popular articles	16
Radio Talks	45
TV Talks	2
Animal health camps (Number of animals treated)	0
Others (pl. specify)	0
Total	**235**



Dr. S. K. Singh, Director, ATARI-Jodhpur visiting Chawala Mushroom Farm-Jandawali

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterprise	Total
Hanumangarh 1	Text only	2	-	98	-	-	-	100
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	**2**	**-**	**98**	**-**	**-**	**-**	**100**
	Total farmers Benefitted	**70683**	**-**	**70000+ 19000**	**-**	**-**	**-**	**159683**

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– 3117	--	1.60	4616	2
	Wheat	HD-3086	--	38.20	127305	82
	Wheat	HD-3226	--	46.20	150179	83
Oilseeds	Mustard	RH 749	--	5.05	54391	21
	Mustard	RH 725	--	5.85	64615	27
	Til	RT-351	--	0.31	4725	15
Pulses	Moong	MH 421	--	2.20	25300	35
	Gram	GNG-2171	--	6.90	69000	29
Commercial crops	--	--	--	--	--	--
Vegetables	--	--	--	--	--	--
Flower crops	--	--	--	--	--	--
Spices	--	--	--	--	--	--
Fodder crop seeds	Oat	JHO-822	--	3.75	37500	75
Fiber crops	--	--	--	--	--	--
Forest Species	--	--	--	--	--	--
Others	--	--	--	--	--	--
Total	--	--	--	**110.06**	**537631**	**369**

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	Cabbage	Anandi	--	9160	9137	214
	Broccoli	Besty	--	12942	25824	432
	Kakadi	Kesri	--	415	2905	55
	Muskmelon	Muskan	--	387	2709	42
	Watermelon	Kesar	--	395	2765	34
	Sponge gourd	Aalok	--	768	5376	178
	Bottle gourd	MAHY-1	--	884	6188	228
	Chilli	Kranti	--	7118	12645	465
	Tomato	NS 2535	--	4838	14515	315
	Brinjal	Nishant	--	2390	2390	270
Vegetable seedlings	Pumpkin	Badshah-251	--	510	3570	61
	Bitter gourd	Aman sri	--	618	4326	83
Fruits	Malta	Blood red	--	11990	591440	485
	Kinnow	Kinnow	--	10014	400560	312
	Nimboo	--	--	940	37600	142
	Other fruits	--	--	1447	28940	310
Ornamental plants	Rose	Ganganagri	--	625	6250	170
	Marigold	--	--	5	50	1
	Others	--	--	975	16625	214
Medicinal and Aromatic	Aloevera	--	--	25	250	5
	Sudarshana	--	--	15	300	3
Plantation	Varmidek	--	--	32	480	8
	Neem	--	--	40	400	20
Spices	--	--	--	--	--	--
Tuber	--	--	--	--	--	--
Fodder crop saplings	--	--	--	--	--	--
Forest Species	--	--	--	--	--	--
Others	--	--	--	--	--	--
Total	--	--	--	**66533**	**1175245**	**4047**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity q	Value (Rs.)	No. of Farmers
Bio Agents	Vermi compot	16.52	13130	124
	Worms	5.49	82250	72
Others	Trichoderma	5.30	79500	40
	Azolla	1.75	13045	53
Total	-	**29.06**	**187925**	**249**

Table: Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows	--	--	--	--
Buffaloes	--	--	--	--
Calves	--	--	--	--
Others (Rabbit)	Soviat chinchilla	2	600	1
Goats	Sirohi	5	41050	4
Poultry				
Broilers	--	--	--	--
Layers	--	--	--	--

Duals (broiler and layer)	Kadaknath	766	87050	32
Japanese Quail	--	--	--	--
Turkey	--	--	--	--
Emu	--	--	--	--
Ducks	Indian goose	4	2010	2
Others (Pl. specify)	--	--	--	--
Piggery				
Piglet	--	--	--	--
Others (Pl.specify)	--	--	--	--
Fisheries				
Indian carp	Catla, Rohu, Mrigle	2.78q	27600	1
Exotic carp	--	--	--	--
Others (Pl. specify)	--	--	--	--
Total	--	**777 & 2.78q**	**158310**	**40**

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 (Crop)	971	855	56	29130	855
Soil (Orchards)	1372	231	42	27440	231
Water	867	730	44	21675	730
Plant	-	-	-	-	-
Total	**3210**	**1798**		**78245**	**1798**

VIII. SCIENTIFIC ADVISORY COMMITTEE

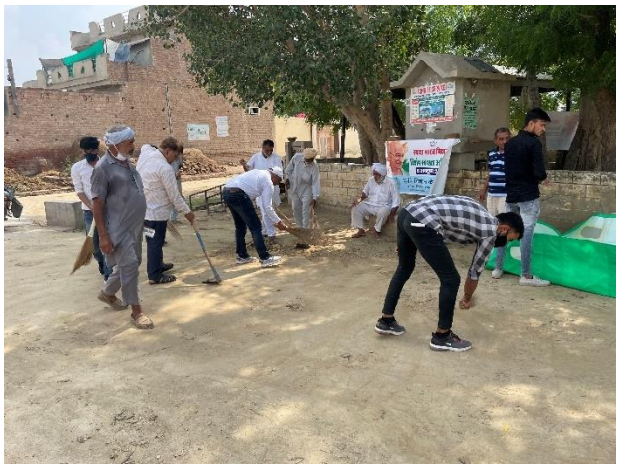
Name of KVK	Date of SAC Meeting	Participants
Hanumangarh1	22.09.2021	42

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
Keshaw Kheti (Quaterly)	1000 Each

X. PUBLICATIONS

Category	Number
Research Paper	6
Technical bulletins	0
Technical reports	7
Pamphlets & Folders	6



Dr. Anoop Kumar, delivering a lecture during the Off campus training & Swachhata Abhiyan at Chak Hirasinghwala.

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

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

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**
NA			
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**
Total		

Animal health camps organised

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

Seed distribution in drought hit states

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

Large scale adoption of resource conservation technologies

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

Awareness campaign

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

XIII. DETAILS ON HRD ACTIVITIES

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
	NA			
Total				

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
NA			
Total			

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

(1)

Name of the KVK - Krishi Vigyan Kendra, Hanumangarh-1st

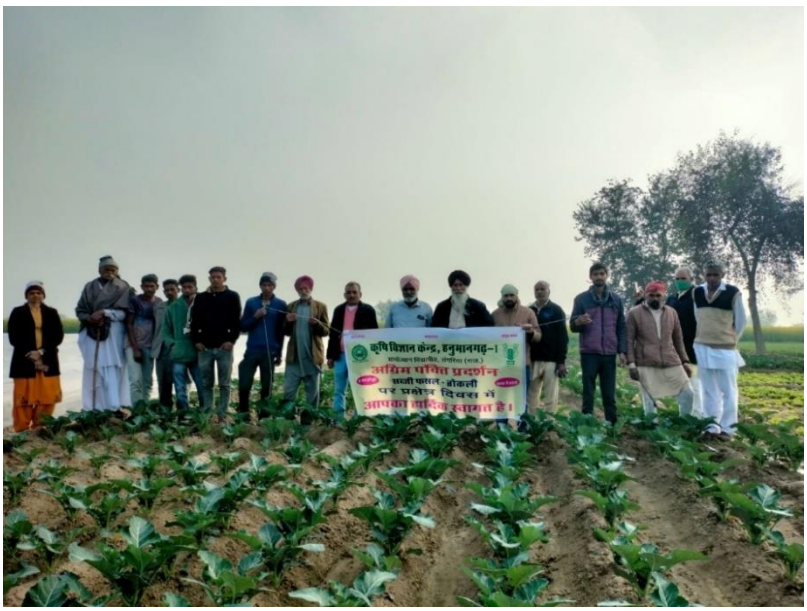
TITLE -Broccoli Production Technology

Introduction - Broccoli (Brassica oleracea) is an edible green plant in the cabbage family whose large flowering head is eaten as a vegetable. Broccoli is known to be a healthy and tasty vegetables which is rich in dozens of nutrients. It has high content of vitamin, iron and calcium. It contain 3.3% protein and high content of vitamin A & C and appreciable quantity of Thaimine, Niacin and riboflavin. It is also a rich source of sulphosphance (Singarin) compound associated with reducing the risk of cancer. Due to these qualities of Broccoli its demand is increasing day by day, the market price of broccoli is three to four times more than cabbage. Climate of this area is suitable for Broccoli and farmers can grow easly. Three year ago the area under Broccoli in our district was nil but now It cultivated in around 50 hac. land

Practice used	Yield	Increase yield	Gross Cost	Gross Income	Net Income	B:C Ratio
Cabbage Cultivation	249.4	--	65358	199520	134162	3.1
Broccoli Cultivation	237.7	(-)4.7%	69954	427860	358906	6.2

Output – KVK Hanumangarh-I, conducted an FLD on broccoli during 2020-21and promote among the farmer for cultivation of broccoli. It was orserved that the highest B:C ratio from broccoli was 6.2 as compare to 3.1 from cabbage.

Outcome - The farmer showed interest in cultivation of farming due to high benefit cost ratio. Now the area of broccoli gradually increases day by day.



(2)

Name of the KVK - Krishi Vigyan Kendra, Hanumangarh-1st

TITLE:- Nutritional kitchen gardening-A success story of innovative farm woman

Introduction:- Adequate nutrition is very important during all the stage of life, as healthy life cannot be sustained without adequate nourishment. Deficiency diseases caused by micro nutritive is one of the serious problems. Nutritional deficiency is most prevalent in rural areas where the habitual diet lacks variety and people cannot afford to diversify their diets and unable to include fruit and vegetables in their diet. The sustainable solution to their problem lies in the improvement and diversification of household diet by growing kitchen gardening.

KVK Intervention:- The main objective of these kitchen gardens is to provide good nutritional vegetables to the family members because in the present scenario it is hard to attain such vegetables. Preparing such kitchen garden in the village makes availability of all types of vegetables in the village. Mrs. Simarjeet Kour is successful backyard Kitchen gardener from Bhakaranwali village within Sangaria block of Hanumangarh district in Rajasthan, started kitchen gardening in 2017 very small area. She did not have prior more knowledge of kitchen gardening. Mrs. Kour came in contact with the Home Scientist of Krishi Vigyan Kendra and showed her keen interest in kitchen gardening and other technical support from the scientists. She is hard working farm women and she is able to grasp the technologies faster and adopt it.

Output:- The detailed components of kitchen garden model were demonstrated, constant follow up visits, trainings, field days and other extension activities has been concentrated. Initially, she was adopting kitchen garden with constant encouragement, KVK scientist are successful in building up confidence in them. Now she is happy to enhance the nutritional affordability for her family. These kitchen gardens are meant to increase food diversity in the diets of the participating families and reduce reliance on the market for introduced vegetables and fruits. Really, she developed a beautiful and attractive kitchen garden with the help of KVK scientist.

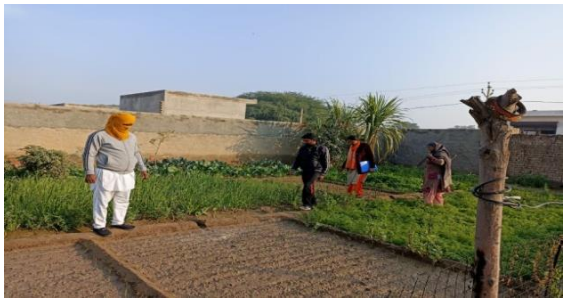
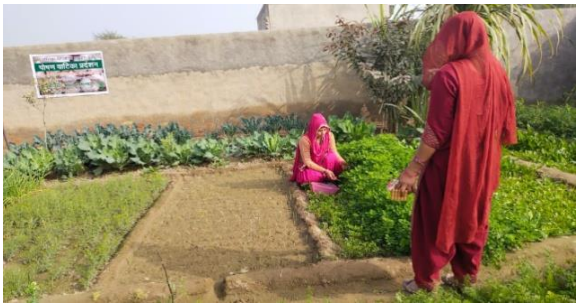
Particular	Yield (Kg.)	Gross cost (Rs/Unit)	Gross return (Rs/Unit)	Net return (Rs/Unit	B:C Ratio	Other Parameters
Demonstration	286.3	926	10067	9141	10.87	Availability of maximum fresh vegetable.
Local Check	107.9	572	3176	2604	5.51	Availability of least fresh vegetable

Outcome:- According to Mrs. Kour, the kitchen garden has been impactful for her family and in her village as well as other villages of district. There is seen increase in the Micro monthly savings which has led to financial stability. Her family gets proper nutritional balanced diet that consists of green vegetables, root crop, leafy vegetables like Okra, Bitter guard, Cluster bean, Cucumber, Pumpkin, Bottle guard, Brinjal, Chilli, Tomato, coriander, carrot, radish etc. She also planted fruit plants such as Guava, Kinnow, Malta and Ber. Mrs. Kour proudly claimed that the vegetables and fruits grown in the garden were being utilized in recipes within their home. Additionally, she said the quantity was more than sufficient for the foods to be distributed equally for the whole family. Now she is happy to enhance the nutritional affordability for her family. Kitchen gardens help to increase household income either by sale of the food products grown in the gardens or by the consumption of the same food items that the families would have otherwise purchased from markets using a significant portion of the family income.

Impact:- Now she became a motivator for many of farm women in the village. She adopted the technology and she produce year-round vegetables. She was also found to actively guide other farm women in adoption of new technologies. With his intervention they have started to grow different

vegetable crops in a season in the village. The key to her success seems to her eagerness to learn and understand very soon, hard work & positive attitude. She is a model and an example for other farm women of the village.



(3)

Name of the KVK - Krishi Vigyan Kendra, Hanumangarh-1st

TITLE:- Sukhjeet Kour: A Success Story on Kitchen Garden

Introduction:- Kitchen gardens are cost-effective, practical and easily meet the balanced dietary requirements of rural households as well as add substantially to the family income. Crops are selected considering the prevailing food habits and climatic conditions of the implementation areas, and with the larger goal of ensuring availability of wholesome and nutritious food. Smt. Sukhjeet Kour, a progressive farm woman of kitchen garden initiative and a resident of Jandwala Sikhan village in Sangaria says, "Apart from an increase in income, the kitchen garden initiative also helped me to ensure food security and improve the nutrition status of my family".

KVK Intervention:- Krishi Vigyan Kendra promote through small kitchen garden (150 sqm) with an aim to improve nutrition security and supplement house hold income. Motivate farm women through training, lecture and practical work to adopt Kitchen Garden. Mrs. Sukhjeet Kour was join the training programme on kitchen garden intervention & got the benefit of demonstration also organized by the KVK. The reason for her intrigue in the program was due to the nature of her family's diet. Sukhjeet Kour mentioned that prior to joining this program her family's diet lacked diversity and consisted mostly of the crops they could grow on their farmland or what they could purchase in the market. Mrs. Sukhjeet Kour further noted that relying on the market for food can be costly; thus, their family could not expand their diets through the market.

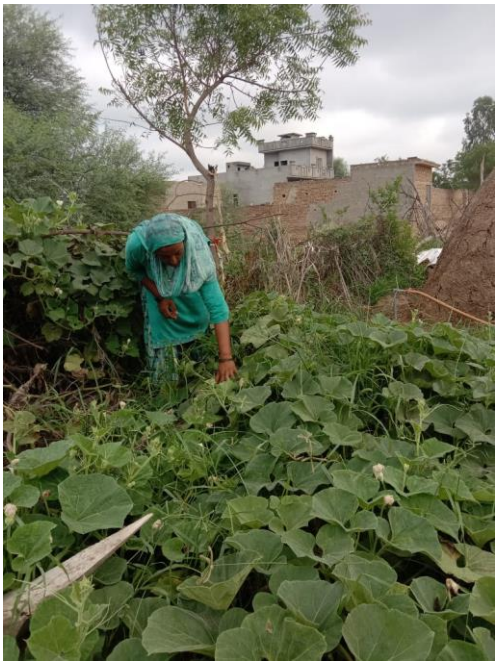
Output: A key intervention through the demonstration program is distributing seeds and seedling through FLD programme of the KVK and helping create kitchen gardens near where families are disposing of waste water. These kitchen gardens are meant to increase food diversity in the diets of the participating families and reduce reliance on the market for introduced vegetables and fruits.

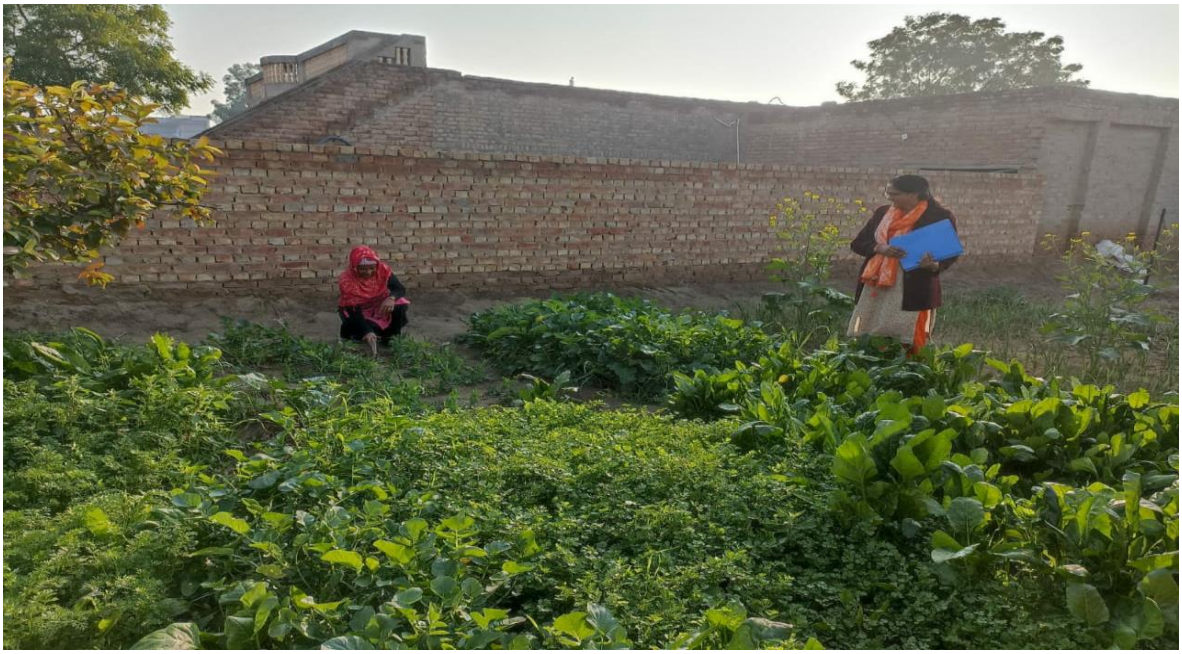
Particular	Yield (Kg.)	Gross cost (Rs/Unit)	Gross return (Rs/Unit)	Net return (Rs/Unit	B:C Ratio	Other Parameters
Demonstration	198.6	683	8579	7896	12.56	Availability of maximum fresh vegetable.

Local Check	86.5	341	1860	1826	5.45	Availability of least fresh vegetable

Outcome: According to Mrs. Sukhjeet Kour, the kitchen garden has been impactful for her family and in her village. The initial batch of seeds have since grown into a beautiful, diverse, garden. This garden includes green vegetables, root crop, leafy vegetables like Okra, garlic, Bitter guard, Cluster bean, Cucumber, Pumpkin, Bottle guard, Brinjal, Chilli, Tomato, coriander, carrot, radish etc. She also planted fruit plants such as Guava, Kinnow, Malta and Ber. Mrs. Kour proudly claimed that the foods grown in the garden were being utilized in recipes within their home. Additionally, she said the quantity was more than sufficient for the foods to be distributed equally for the whole family.

Impact: As a part of the programme Mrs. Kour and all participants are encouraged to exchange seeds with other households to increase food diversity within the whole village. Seed exchange and proper maintenance of the kitchen garden will allow this intervention to be sustainable for the foreseeable future. Mrs. Sukhjeet Kour is very happy with this improved kitchen garden intervention and an example for other farm women of the village.





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Name of the KVK - Krishi Vigyan Kendra, Hanumangarh-1st

TITLE -Backyard poultry farming

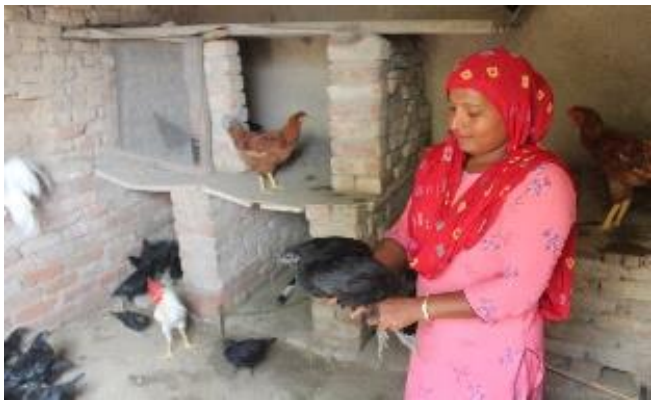
Introduction- Backyard poultry farming is a widely adopted technology by the farm families of the district. Various breeds of poultry can be reared under backyard poultry such as kharknaath, RIR, FFG, and Pratapdhan for meat and egg purpose. These units act as best scavenger of kitchen waste and external parasite of farm animals also produce small income and nutritional security to farm families.

During last decades, several efforts such as trainings, FLDs made to boost backyard poultry farming, among farmer community. There are many factor effecting backyard poultry farming such as no nearby poultry market for desi chicken, no nearby poultry hatchery, no nearby poultry feed industry and there is no nearby poultry disease diagnostic laboratory.

KVK Interventions- During various training programmes and FLDs conducted on backyard poultry, telephonic advisory, motivation to farmers for backyard poultry farming.

Output- 48 FLDs were demonstrated under backyard poultry farming in 2021 at farmer field of hanumangarh district of Rajasthan. It was observed that highest production among demonstration total 2160 egg and 17 kg meat was produced at Smt. Amandeep Kaur w/o Sh. Satpal Singh backyard unit.

Practice used	Egg production	Meat production	% Increase	Gross cost (Rs/unit)	Gross income (Rs/unit)	Net income (Rs/unit)	B:C Ratio
No backyard poultry	-	-	-	-	-	-	-
Kharknaath poultry as backyard poultry	2160	17	100	9067	29070	20003	3.2



Smt. Amandeep Kaur at Backyard Poultry unit

The KVKs implementing VATICA, NARI & Doubling Farmers income should submit one page report with salient achievements along with photographs pertaining to year 2020.

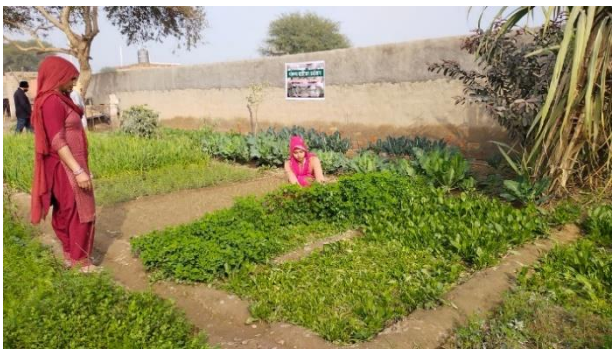
Nutrition-Sensitive Agricultural Resources and Innovation (NARI)

As a part of this programme major focus is establishment of Nutri Garden to grow essential vegetables. The kitchen and nutri gardens are the most ancient type of gardens. These main highlights of this programme will be "Grow what you eat and eat what you grow."

Keeping in view the need for nutritional security in rural areas, Nutrition-Sensitive Agricultural Resources and Innovation (NARI) programme initiated by Indian Council Agricultural Research, was implemented in Bhakranwali & Jandawala sikhan villages by Krishi Vigyan Kendra Hanumangarh-I. The main objectives of this programme are- connecting agriculture with nutrition to promote nutrition sensitive agriculture; creating awareness about nutrition sensitive agriculture among farm women and rural youth;

creating awareness on nutritional gardening. Keeping these objectives in mind, Krishi Vigyan Kendra, Hanumangarh-I has run some special programms in Adopted Villages such as: to make women and rural youth aware of nutritional crop production; organizing demonstrations of nutritious crops and varieties on farmers' fields and promoting nutrition sensitive agriculture; Value addition of available food and capacity development of training

Under the NARI programme, 05 trainings were organized with 163 farm women in the village to create awareness about nutrition sensitive agriculture among farm women and rural youth. In order to promote nutrition sensitive agriculture, 45 demonstrations on "Kitchen Gardening" were conducted in the village.



Feedback for policy makers: -

- Increase the number of water storage tanks (Diggis) under subsidy programme; So that more number of diggies can be constructed on the farmers' fields and farmers' crops can be saved from canal closure and water scarcity.
- To popularize the Drip/Sprinkler irrigation system, the subsidy amount should be increased on their establishment.
- The subsidy amount should be increased for the establishment of new orchards so that the interest of the farmers increases in this direction.
- Attractive rates of milk should be ensured to encourage dairy business.
- Ensure availability of pregnancy diagnostic kit for animals.
- The seeds of public sector vegetable varieties are not available to the farmers, so the availability of these seeds should be ensured.

Feedback for researchers: -

- Development of frost resistant bold seeded mustard varieties.
- Need for research on planting space in mustard crop.
- Strong strategies should be developed for sclerotinia stem rot disease in mustard.
- Evaluation of some effective herbicides to control of weeds in mustard.
- Need for research on phyllody resistant variety of sesame.

- Recommended herbicides are not effective for control of pyaji (*Asphodelus tenuifolius*) in gram crop. Therefore, there is a need for research on effective herbicides to control pyaji in gram crop.
- Need of varieties, who have tolerance or resistance to yellow mosaic virus and suitable for rain fed areas in moong.
- Need of research on bio pesticides to control white fly & pod borer.
- Parawilt management in cotton.
- To prevent the problem of fruit drop and Phytopthora in citrus, suitable strategies should be developed.

Feedback for Development Department

- Demonstrations and awareness programmes should be conducted on Bio fortified varieties.
- Gear up the seed production of bio fortified varieties.
- Refresher courses/training programmes should be organized for field staff. So that their knowledge can be updated about new technologies.

Doubling Farmers income (DFI)

Since independence there has been a radical change in production and productivity of different crops by use of new farm technologies which has contributed to a lot in farm income. Though there has been a remarkable change made in this field still the agriculture sector is suffering from many of social, economical and technological problems. The income of farmers is not up to the mark to lead a comfortable life for them in the society of the state and country; many rural youths are leaving villages for nearby towns in search of jobs. For them agriculture is a non-profitable business. To overcome this situation, efforts is being made to **double the income of the farmers by 2022** through agro-climatic system approach (modules) by KVKs. This will not only enhance the income of the rural people but it will also give them employment opportunities in their own village.

Keeping this in mind, two villages (Jandawala sikhan and Malarampura) were selected by the Krishi Vigyan Kendra, Hanumangarh-I then prepared an action plan and implemented in adopted villages for farmer covering. For this, many extension activities were organized in these villages by Krishi Vigyan Kendra, Hanumangarh-I. In order to promote pulses & oilseed crops and increase productivity per unit, 55 cluster frontline demonstrations on green gram, chickpea, mustard and sesame crops were organized. Similarly, in order to reduce the cost of production in cotton & chickpea crop and to keep the environment safe, 12 demonstrations were organized on integrated paste management. 8 Off-campus training programs were organized with Kisan Club and other allied departments to make them aware of the latest technology and capacity building. 20 demonstrations of Nutritional Kitchen Gardening were also organized in these villages with the aim of providing pure fresh vegetables at low cost to the farming families in the backyard/ front yard of the house.

To ensure that animals get green fodder of high quality, 17 demonstrations were organized on oat crop. Advanced breed chickens were given for organizing demonstrations to provide nutritious food to farmer families and to encourage backyard poultry. These programs are continuing. Not only hope but full confidence, that by 2022 the income of farmers will double. Krishi Vigyan Kendra is engaged in this work with its available resources.

XIII. STATUS REVOLVING FUNDs

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
January 2019 to December 2019	2767231.87	3555513.84	3053112.77	3234883.94
January 2020 to December 2020	3234883.94	5399164.75	3502180.24	4550397.45

January 2021 to December 2021	4550397.50	6850837.16	3541103.80	8058771.81