PROFORMA FOR PREPARATION OF ANNUAL REPORT (January-2023-December-2023)

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	42	1111	428	1539
Rural youths	2	39	1	40
Extension functionaries	3	48	52	100
Sponsored Training	6	123	147	270
Vocational Training	2	1	49	50
Total	55	1322	677	1990

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	225	90	-
Pulses	85	34	-
Cereals	148	59.2	-
Vegetables	20	1	-
Other crops	-	-	-
Hybrid crops	-	-	-
Total	478	184.2	-
Livestock & Fisheries	90	-	90
Other enterprises	40	-	40
Total	130	-	130
Grand Total	608	184.2	260

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	4	40	40
Livestock	2	20	20
Various enterprises	0	0	0
Total			

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	7994	366875
Other extension activities	34676	-
Total	42670	366875

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
	Text only			105		2		107

	Voice only							
	Voice & Text both							
	Total Messages			**105**		**2**		**107**
	Total farmers Benefitted			**32227**		**74**		**32301**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	175.69	762240
Planting material (No.)	62595	685896
Bio-Products (kg)	3758	101610
Livestock Production (No.)	18	93900
Fishery production (No.)	--	--

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	1006	37460
Water	787	22375
Plant	-	-
Total	**1793**	**59835**

8. HRD and Publications

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

DETAIL REPORT OF APR-2023

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra-Hanumangarh-I, Bhagatpura Road, SANGARIA Distt.-Hanumangarh (Raj.)	01499-252702	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 Senior Scientist and Head 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

1.5. Staff Position (as on 31st December, 2023)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay level	Present basic (Rs.)	Date of joining	Category (SC/ST/ OBC)	Mobile no.	Email id
1	Senior Scientist & Head	Dr. Anoop Kumar	SS & Head	Fisheries Science	13A	198700	10-11-2005	OBC	9414874800	anoopkvkhmh@gmail.com
2	Subject Matter Specialist	Dr. Chandra Shekhar Sharma	SMS (Agro)	Agronomy	10	117100	18-04-1998	Gen.	8432557123	drcssharma68@gmail.com drcssharma@rediffmail.com
3	Subject Matter Specialist	Sh. Umesh Kumar	SMS (PP)	Entomology	10	113700	11-05-1998	OBC	9414535717	umeshkvk@gmail.com
4	Subject Matter Specialist	Sh. Mahavir Prasad Kaswan	SMS (Horti.)	Vegetable Crops	10	113700	25-09-1998	OBC	9414577903	mahavir9.mahavir@gmail.com
5	Subject Matter Specialist	Dr. Santosh Jhajharia	SMS (H.Sc.)	H.Sc. Ext.	10	89800	08-09-2008	OBC	9462000090	santoshjhajhariakvk@gmail.com
6	Subject Matter Specialist	Dr. Mukesh Kumar	SMS (A.H.)	Livestock Production	10	73200	11-06-2014	OBC	9928800416	drmukesh@hotmail.com
7	Subject Matter Specialist	Dr. Kuldeep Singh	SMS (Ag Ext)	Agri. Ext.	10	82400	16-06-2014	OBC	9672133448	singhkuldeepkvk@gmail.com
8	Subject Matter Specialist	Sh. Pardeep Kumar	SMS (Agromet)	Agro meteorology	10	61300	03-06-2019	OBC	9461111006	pradeepbhakar94611@gmail.com
9	Farm Manager	Sh. Anand Prakash Singh	Farm Manager	Agriculture	6	76500	22-04-1998	Gen.	9413515815	anandprakash6@gmail.com
10	Computer Programmer	Sh. Ravinder Kumar Kulria	Programme Assistant (Computor)	Computer Science	6	76500	11-05-1998	OBC	9461107775	ravikulria9@gmail.com ravikulria@ymail.com
11	Programme Assistant	Sh. Raghuveer Singh Nain	Programme Assistant (Training)	Agriculture	6	62200	16-11-2007	OBC	9460026849	raghuveernain09@gmail
12	Accountant / Superintendent	Sh. Sandeep Kumar	Assistant	Accounts	6	60400	11-09-2008	Gen.	9461036002	sandeepbansal172@gmail.com
13	Stenographer	Vacant	Stenographer			NA	NA	NA	NA	NA
14	Agromet observer	Vacant	Agromet observer			NA	NA	NA	NA	NA
15	Driver	Sh. Subhash Chandra	Driver (Tractor)		3	39400	02-12-1996	Gen.	9413432466	
16	Driver	Sh. Surendra Kumar	Driver (Jeep)		3	32000	11-09-2008	Gen.	9315322635	
17	Supporting staff	Vacant	Watchman		1	NA	NA	NA	NA	NA
18	Supporting staff	Sh. Vijay Singh	Farm attendant		1	31500	24-06-1998	OBC	9460621549	
19	SRF	Sh. Ashvini Kumar	SRF	Soil Science	1			OBC		

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1.	Under Crops	13.50
2.	Orchard/Agro-forestry	02.50
3.	High tech nursery	00.75
4.	IFS unit & Demonstration units	00.75
5.	Staff quarters	00.50
6.	Office Buildings	00.375
7.	Mela ground	00.375
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. lacs)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	1997-98	568	15.28	--	--	--
2.	Farmers Hostel	ICAR	1998-99		10.37	--	--	--
3.	Staff Quarters (6)	ICAR	2005-07	400	25.95	--	--	--
4.	Demonstration Units (1) Fisheries Demonstration Unit	ICAR	2001-02	0.25 h	5.25	--	--	--
5	Rain Water harvesting system	Municipal Corporation	2018-19	40000 lit. capacity	--	--	--	--
6	Threshing floor	ICAR	2004-05	265	1.00	--	--	--
7	Farm godown	ICAR	2006-07	55.68	1.38	--	--	--
8	Seed processing unit &Godown, Pipeline, Drip irrigation and raingun	State Agri. Deptt.	2007-08	227	17.24	--	--	--
9	Ornamental hatchery	KVK	2015-16	80	-	--	--	--
10	Hightech Nursery	State Agri. Deptt.	2013-14	3280	25.00	--	--	--
11	Vermi compost	KVK	2004-05	40	0.75	--	--	--
12	Azolla unit	KVK	2014-15	20		--	--	--
13	Soil & water testing Lab	ICAR	2004-05	35	8.31	--	--	--
14	Plant Health clinic	ICAR	2010-11	38	10.00	--	--	--
15	Animal lab.	KVK	2015-16	35	0.10	--	--	--
16	Bee keeping unit	KVK	2007-08	4 boxes		--	--	--
17	Nutritional garden	KVK	2014-15	-		--	--	--
18	Crop museum	KVK	2009-10	0.5 ha		--	--	--
19	Integrated Farming system	ICAR	2017	1.0 ha	6.06	--	--	--
20	Goat unit	ICAR	2016-17	137.5 x 55 f	3.5	--	--	--
21	Poultry unit	ICAR	2016-17	20 x 35 f	2.0	--	--	--
22	ICT	ICAR	2017	12x14 feet	2.32	--	--	--
23	Diary unit	ICAR	2022	60x60 ft	18.0	--	--	--
24	Dal mill	ICAR	2022	12x12 ft	2.5	--	--	--
25	Natural farming unit	ICAR	2022	20x60 ft	1.5	--	--	--
26	Food processing unit	ICAR	2023		7.70	--	--	--
27	Farm fencing	KVK	2023	2900m	3.28	--	--	--

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Motorcycle	2011	47,624	82,203 kms.	Good
Bolero	2023	11,15,706	18,324 kms.	Good
Tractor	2018	5,90,000	3,190 hrs.	Good

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
OHP	2002	17,840	Not Working
Slide Projector (1)	2002	24,415	Not Working
Microscope (5)	1997	11,160	Not Working
AC (1)	2002	21,300	Not 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	Not Working
Handy camera (1)	2007	50,000	Not Working

Computer (1)	2007	39,000	Not Working
ERNET Hub (1)	2009	ICAR	Not Working
Plant Health Clinic	2011	10,00,000	Working
Mirdaparikshak (1)	2015	75,000	Not Working
OHP (1)	1997	3,600	Not working
Slide Projector (1)	1997	4,200	Not working
Mirdaparikshak (1)	2017	86,000	Not 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	Not Working
Printer (1)	2018	15,900	Working
Computer (1)	2018	48,800	Working
New LED	2020	33,500	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
Laptop	2021	62,800	Working
Projector	2021	45,026	Working
Printer (1)	2022	22,000	Working
Farm equipment's for custom hiring center under NICRA	2022	1,57,000	Working
Seed drum for seed treatment	2022	24,367	Working
Lecture stand with mic	2022	57,710	Working
Computer set with printer	2023	1,00,000	Working
Canon water machine	2023	2,79,000	Working
Generator set	2023	5,92,000	Working
Farm equipment's for custom hiring center under NICRA	2023	1,15,000	Working
Tractor mounted sprayer pump	2023	1,38,000	Working

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

कृषि विज्ञान केन्द्र – हनुमानगढ़ – I

(ग्रामोत्थान विद्यापीठ, संगरिया)

27वीं वैज्ञानिक सलाहकार समिति (SAC) की बैठक की कार्यवाही

दिनांक : 14.06.2023 स्थान – प्रशिक्षण हॉल, कृषि विज्ञान केन्द्र, हनुमानगढ़ I

बैठक में निम्नलिखित सदस्यों ने भाग लिया :–

1. श्री सुखराज सिंह सलवारा, सचिव, ग्रामोत्थान विद्यापीठ, संगरिया।
2. डॉ. जे. पी. मिश्रा, निदेशक, आईसीएआर, अटारी, जोन 2, काजरी परिसर, जोधपुर।
3. डॉ. सुभाष चन्द्र, निदेशक, प्रसार शिक्षा, स्वामी केशवानन्द राजस्थान कृषि विश्वविद्यालय, बीकानेर।
3. श्री एल.एन. बैरवा, अतिरिक्त निदेशक कृषि, श्रीगंगानगऱ।
4. डॉ. विजय प्रकाश, क्षेत्रीय निदेशक अनुसंधान, श्रीगंगानगर।
5. डॉ. रमेश चन्द्र बराला, उप निदेशक कृषि, श्रीगंगानगर।
6. डॉ. राधेश्याम शर्मा, कृषि अनुसंधान अधिकारी, हनुमानगढ़।
7. श्री साहबराम गोदारा, उप निदेशक उद्यान, हनुमानगढ़।
8. श्री एम. आर. जाखड़, इफ्को, हनुमानगढ़।
9. डॉ. सुरेश चन्द कांटवा, वरिष्ठ वैज्ञानिक एवं अध्यक्ष, कृषि विज्ञान केन्द्र, नोहर।
10. डॉ. रामचन्द्र सिंवर, पशु चिकित्सालय, लीलांवाली।
11. डॉ. रामवतार मीणा, अधिष्ठाता कृषि, एस.के.डी. युनिवर्सिटी, हनुमानगढ़।
12. डॉ. गुरमेल सिंह, सेवानिवृत, मुख्य कृषि अधिकारी, पंजाब सरकार।
13. श्री डॉ. जितेन्द्र सिंह बराड़, सेवानिवृत, निदेशक, कृषि विज्ञान केन्द्र, बटिंडा।

14. डॉ. विक्रमजीत सिंह, विषय विशेषज्ञ, (पशु विज्ञान), कृषि विज्ञान केन्द्र, नोहर।

15. श्री संदीप सिंगला, शाखा प्रबन्धक, पंजाब नैशनल बैंक, संगरिया।

17. श्री अर्शदीप सिंह, पंजाब नैशनल बैंक, संगरिया।

18. श्री सुभाष, इफ्को, एसएफए

18. श्री साकेत मेहरा, दिल्ली।

19. श्री काना राम, निदेशक, सूर्योदय जैविक कृषि कम्पनी एवं प्रगतिशील कृषक, गांव खोथांवाली।

20. श्री दर्शन सिंह, प्रगतिशील कृषक, मोरजण्ड सिक्खान।

21. श्री नत्थू राम, प्रगतिशील कृषक, गांव ढ़ाबां।

22. श्रीमति सरिता, डॉ. भीमराव अम्बेडकर स्वयं सहायता समूह एवं महिला कृषक, लघु दाल मिल।

23. श्रीमति सन्जू, डॉ. भीमराव अम्बेडकर स्वयं सहायता समूह एवं महिला कृषक, लघु दाल मिल।

24. श्रीमति मन्जू, ग्राम साथिन।

25. डॉ. अनुप कुमार, वरिष्ठ वैज्ञानिक एवं अध्यक्ष, कृषि विज्ञान केन्द्र, संगरिया।

26. डॉ. चन्द्रशेखर शर्मा, विषय विशेषज्ञ, कृषि विज्ञान केन्द्र, संगरिया।

27. श्री उमेश कुमार, विषय विशेषज्ञ, कृषि विज्ञान केन्द्र, संगरिया।

28. श्री महावीर कस्वाँ, विषय विशेषज्ञ, कृषि विज्ञान केन्द्र, संगरिया।

29. डॉ. संतोष झाझड़िया, विषय विशेषज्ञ, कृषि विज्ञान केन्द्र, संगरिया।

30. डॉ. मुकेश कुमार, विषय विशेषज्ञ, कृषि विज्ञान केन्द्र, संगरिया।

31. डॉ. कुलदीप सिंह, विषय विशेषज्ञ, कृषि विज्ञान केन्द्र, संगरिया।

32. श्री प्रदीप कुमार, मौसम विशेषज्ञ, कृषि विज्ञान केन्द्र, संगरिया।

33. श्री आनन्द प्रकाश सिंह, कार्यक्रम सहायक , कृषि विज्ञान केन्द्र, संगरिया।

34. श्री रविन्द्र कुमार कुलड़िया, कार्यक्रम सहायक , कृषि विज्ञान केन्द्र, संगरिया।

35. श्री रघुवीर सिंह नैण, कार्यक्रम सहायक , कृषि विज्ञान केन्द्र, संगरिया।

36. श्री सन्दीप कुमार, कृषि विज्ञान केन्द्र, संगरिया।

37. श्री सुभाष चन्द्र, कृषि विज्ञान केन्द्र, संगरिया।

38. श्री सुरेन्द्र कुमार, कृषि विज्ञान केन्द्र, संगरिया।

39. श्री विजय सिंह, कृषि विज्ञान केन्द्र, संगरिया।

40. श्री हनुमान मेघवाल, प्रगतिशील कृषक, गांव बोलांवाली।

27$^{वी}$ वैज्ञानिक सलाहकार समिति की बैठक की कार्यवाही ग्रामोत्थान विद्यापीठए संगरिया के सचिव श्री सुखराज सिंह सलवारा की अध्यक्षता में प्रारम्भ हुई। बैठक में मुख्य अतिथि डॉ. जे. पी. मिश्रा, निदेशक, आईसीएआर, अटारी, जोन 2, जोधपुर तथा विशिष्ट अतिथि डॉ. सुभाष चन्द्र, निदेशक प्रसार शिक्षा, स्वामी केशवानन्द राजस्थान कृषि विश्वविद्यालय, बीकानेर थे।

बैठक की कार्यवाही परम श्रद्धेय शिक्षा संत स्वामी केशवानन्द जी के चरणों में पुष्पांजली अर्पण के साथ शुरु की गई। केन्द्र के वरिष्ठ वैज्ञानिक एवं अध्यक्ष डॉ. अनूप कुमार ने बैठक में पधारे सभी सम्मानित सदस्यों का ग्रामोत्थान विद्यापीठ परिवार की तरफ से स्वागत किया। केन्द्र के शस्य वैज्ञानिक डॉ. चन्द्रशेखर शर्मा ने बैठक का एजेण्डा प्रस्तुत किया तथा 26$^{वीं}$ वैज्ञानिक सलाहकार समिति की बैठक की कार्यवाही व एक्शन टेकन से सदन को अवगत कराया।

मुख्य शोधकर्ता निक्रा एवं वरिष्ठ वैज्ञानिक व अध्यक्ष डॉ. अनूप कुमार के निर्देशन में सह शोधकर्ता निक्रा व प्रसार वैज्ञानिक डॉ. कुलदीप सिंह व वरिष्ठ अनुसंधान अध्येता निक्रा श्री अश्विनी कुमार द्वारा तैयार ''**निक्रा एप्प**'' का शुभारम्भ मुख्य अतिथि डॉ. जे. पी. मिश्रा ने बटन दबाकर किया। यह एप्प गूगल प्ले स्टोर पर उपलब्ध है। डॉ. सुभाष

चन्द्र ने इस एप्प की प्रशंसा करते हुये कहा की राजस्थान में निक्रा की यह प्रथम एप्प है जिसमें जलवायु परिवर्तन सम्बंधी केन्द्र द्वारा किये जा रहे कार्यों का विवरण अंग्रेजी, हिन्दी व पंजाबी भाषा में उपलब्ध है।

इसके बाद डॉ. अनूप कुमार ने वर्ष 2022 का प्रगति प्रतिवेदन व आगामी वर्ष 2023 की कार्ययोजना प्रस्तुत की। तदुपरान्त विषय वार वैज्ञानिकों ने अपने–अपने कार्य की प्रगति व कार्ययोजना प्रस्तुत की।

श्रीमान निदेशक, अटारी, डॉ. जे.पी. मिश्रा ने प्रसार वैज्ञानिक के द्वारा किये गये ग्रामीण सहभागिता मूल्यांकन तथा अनुसूचित जाति मैपिंग के कार्य की सराहना करते हुये कहा कि इसी के आधार पर क्षेत्र की समस्याओं की प्राथमिकता के आधार पर विषय विशेषज्ञों को कम से कम एक प्रक्षेत्र परीक्षण लगाना चाहिये। केन्द्र पर 24 प्रदर्शन इकाईयां स्थापित हैं। कृषि विज्ञान केन्द्र की स्थापना को 25 वर्ष पूर्ण हो चुके हैं अतः प्रत्येक इकाई अनुसार नवाचार कर बढ़ावा देने की आवश्यकता बताई। द्वितीयक कृषि जैसे मशरुम उत्पादन, मूल्य संवर्द्धन, मछली पालन, बकरी पालन, मुर्गी पालन इत्यादि पर अधिक से अधिक कार्य करने की आवश्यकता बताई। श्रीमति सरिता, डॉ. भीमराव अम्बेडकर स्वयं सहायता समूह, बोलांवाली ने लघु दाल मिल इकाई को गांव में स्थानान्तरित करने की मांग की इस पर श्रीमान निदेशक महोदय ने कहा कि अनुसूचित जाति उपयोजनान्तर्गत स्थापित दाल मिल को बोलावाली गांव में स्थानान्तरित किया जा सकता है। केन्द्र पर व्यापारिक स्तर पर उत्पादन हेतु ट्राईकोडर्मा निर्माण इकाई का रजिस्ट्रेशन करवाया जावे; अन्यथा पैकेट के ऊपर यह अंकित किया जावे कि यह उत्पाद ''अनुसंधान/प्रदर्शन आयोजनार्थ'' है। क्षेत्र में निम्न गुणवत्ता वाला भूजल अत्यधिक है इसलिये भूजल के सिंचाई में उपयोग के लिये उसकी गुणवत्ता के अनुसार किसानों को उसके उचित प्रबन्धन की जानकारी दी जावे। नैनो उर्वरकों के अध्ययन के लिये उन्होंनें इफको के साथ मिलकर 10 किसानों के खेतों पर क्षेत्र की फसलों के अनुसार नैनो उर्वरकों के ट्रायल लगाये जाने की आवश्यकता जताई। क्षेत्र में मौसम परिवर्तन अध्ययन के लिये पांच वर्षों के आधार पर आंकड़ो का संकलन किया जाये। सहयोग व समन्वय अनुरुप संस्थागत जुड़ाव तंत्र का विकास स्वामी केशवानन्द राजस्थान कृषि विश्वविद्यालय, बीकानेर के साथ किया जाये।

बैठक के अध्यक्ष श्री सुखराज सिंह सलवारा ने कहा कि केन्द्र द्वारा प्रक्षेत्र पर परीक्षण तथा अग्रिम पंक्ति प्रदर्शन के आयोजनों की आगामी बैठक में किसान की क्रियाओं के साथ आय व ब्यौरे का तुलनात्मक सारणी बनाकर अध्ययन कर बताई जाये। सफलतम किसानों की कहानियां तैयार कर किसानों में प्रचार प्रसार किया जाये। उन्होनें कहा कि अग्रिम पंक्ति प्रदर्शन हेतु बजट का सही समय पर आवंटन होना चाहिये ताकि समय पर एफएलडी किसानों के खेतों पर लगाई जा सके।

स्वामी केशवानन्द राजस्थान कृषि विश्वविद्यालय, बीकानेर के निदेशक प्रसार, डॉ. सुभाष चन्द्र ने कृषि विज्ञान केन्द्र के कर्मचारियों को कैरियर एडवांसमेंट स्कीम का लाभ देने के लिये बैठक में कहा तथा उन्होंनें केन्द्र के मुख्य द्वार पर प्राकृतिक खेती एवं केन्द्र पर उत्पादित बीज व पौध सामग्री की सूचना दर्शाई जाये। न्यूट्री गार्डन में लोकल चैक की आवश्यकता नहीं है इसके लाभ किसानों को बताने के लिये कहा। उन्होंनें बताया कि आईसीएआर, केन्द्र सरकार तथा राज्य सरकार की कृषि सम्बंधी विभिन्न योजनाओं के बारे में फोल्डर, पॉकेट डायरी/बुकलेट के माध्यम से प्रकाशित करवाकर किसानों के बीच अधिक से अधिक प्रचारित किया जाना चाहिये ताकि किसान लाभान्वित हो सके तथा सभी वैज्ञानिकों को इन योजनाओं की जानकारी होनी चाहिये। मछली पालन में कृषि विज्ञान केन्द्र नोडल केन्द्र है।

डॉ. विजय प्रकाश आर्य ने कहा कि कपास में पैराविल्ट पर प्रथम सिंचाई देरी से करने के सम्बंध में ओएफटी लगाई जावे।

अतिरिक्त निदेशक कृषि श्री एल.एन. बैरवा ने कहा कि पोषण वाटिका लगाना एक अच्छा कन्सेप्ट है गांव में आंगनबाड़ी या सामुदायिक जगह पर पोषण वाटिका लगाई जानी चाहिये तथा पोषण वाटिका का अधिक से अधिक विस्तार किया जाये ताकि लोगों के स्वास्थ्य में सुधार हो।

डॉ. जितेन्द्र सिंह बराड़ द्वारा एनएचआरडीएफ, करनाल व बटिंडा से लहसून व प्याज की किस्में लेकर ट्रायल लगाने का सुझाव दिया। सिंचाई जल की बचत के लिये बैड प्लान्टर इत्यादि पर तकनीकी प्रदर्शन लगाने की आवश्यकता बताई।

डॉ. रामावतार मीणा ने कहा कि किसानों को कपास के संकर बीज उत्पादन के लिये प्रशिक्षण देना चाहिये तथा बीज उत्पादन के लिये प्रेरित करना चाहिये तथा सरसों की आरएच–725 किस्म को लोकप्रिय बनाने के लिये इसके प्रचार प्रसार का सुझाव दिया।

डॉ. सुरेश कांटवा ने कहा कि रबी व खरीफ फसल की बुवाई से पूर्व कृषि पर्यवेक्षक/सहायक कृषि अधिकारियों को इनसर्विस ट्रैनिंग दी जाये तथा समन्वित कीट प्रबन्धन तकनीकी को बढ़ावा देना चाहिये।

श्री गुरमेल सिंह सेवानिवृत मुख्य कृषि अधिकारी (पंजाब) ने सुझाव दिया कि कीटनाशियों के लेवल देखकर स्प्रे करने हेतु किसानों को प्रशिक्षणों के माध्यम से बताया जाये। प्राकृतिक खेती से जुड़े प्रगतिशील किसान श्री कानाराम ने

बैठक में प्राकतिक खेती को बढ़ावा देने की बात कही। प्रगतिशील किसान नत्थू राम सिंवर ने गोबर की खाद का उपयोग तथा फसल चक्र अपनाकर बुवाई करने के अपने अनुभव सांझा किये तथा इसके महत्व को किसानों को बताने के लिये कहा।

बैठक के अन्त में डॉ. अनूप कुमार ने आये सुझावों के अनुसार कार्य करने का आश्वासन दिया तथा पधारे सभी अतिथियों को धन्यवाद दिया।

वरिष्ठ वैज्ञानिक एवं अध्यक्ष

ACTION TAKEN REPORT (SAC 14.06.2023)

Name and Designation of Participants	Salient Recommendations	Action taken
डॉ. जे. पी. मिश्रा, निदेशक अटारी, जोधपुर	ग्रामीण सहभागिता मूल्यांकन तथा अनुसूचित जाति मैपिंग के कार्य के आधार पर क्षेत्र की समस्याओं की प्राथमिकता के आधार पर विषय विशेषज्ञों को कम से कम एक प्रक्षेत्र परीक्षण लगाना चाहिये।	श्रीमान जी, कृविके की कार्ययोजना तैयार करने से पहले चयनित गाँवों का ग्रामीण सहभागिता मूल्यांकन तथा अनुसूचित जाति मैपिंग किया गया है। तत्पश्चात किसानों की आवश्यकताओं व क्षेत्र की कृषि पारिस्थितिकी को ध्यान में रखकर कार्ययोजना तैयार की जाती है।
	केन्द्र पर व्यापारिक स्तर पर उत्पादन हेतु ट्राईकोडर्मा निर्माण इकाई का रजिस्ट्रेशन करवाया जावे; अन्यथा पैकेट के ऊपर यह अंकित किया जावे कि यह उत्पाद ''अनुसंधान/प्रदर्शन आयोजनार्थ'' है।	केन्द्र पर उत्पादित ट्राईकोडर्मा का उपयोग अनुसंधान/प्रदर्शन आयोजनार्थ'' ही किया जाता है।
	क्षेत्र में निम्न गुणवत्ता वाला भूजल अत्यधिक खारा है इसलिये भूजल के सिंचाई में उपयोग के लिये उसकी गुणवत्ता के अनुसार किसानों को उसके उचित प्रबन्धन की जानकारी दी जावे।	किसानों के द्वारा लाये गये भूजल के नमूनों का केन्द्र की प्रयोगशाला में परीक्षण कर किसानों को उसके उचित प्रबन्धन की जानकारी दी जाती है। इस वर्ष पानी के 895 नमूनों का परीक्षण किया गया है।
	नैनो उर्वरकों के अध्ययन के लिये उन्होंनें इफको के साथ मिलकर 10 किसानों के खेतों पर क्षेत्र की फसलों के अनुसार नैनो उर्वरकों के ट्रायल लगाये जाने की आवश्यकता जताई।	इस वर्ष की कार्ययोजना में आलू की फसल पर क्षेत्रीय अनुसंधान एवं प्रसार सलाहकार समिति के सुझाव पर एक ऑन फार्म ट्राइल प्रस्तावित किया गया है। जो रबी सीजन में आयोजित किया जावेगा।
	क्षेत्र में मौसम परिवर्तन अध्ययन के लिये पांच वर्षों के आधार पर आंकड़ो का संकलन किया जाये। सहयोग व समन्वय अनुरुप संस्थागत जुड़ाव तंत्र का विकास स्वामी केशवानन्द राजस्थान कृषि विश्वविद्यालय, बीकानेर के साथ किया जाये।	क्षेत्रीय कृषि अनुसंधान केन्द्र श्री गंगानगर के साथ मिलकर मौसम परिवर्तन का अध्ययन किया जा रहा है।
श्री सुखराज सिंह सलवारा, सचिव, ग्रा. वि., संगरिया	केन्द्र द्वारा प्रक्षेत्र पर परीक्षण तथा अग्रिम पंक्ति प्रदर्शन के आयोजनों की आगामी बैठक में किसान की क्रियाओं के साथ आय व ब्यौरे का तुलनात्मक सारणी बनाकर अध्ययन कर बताई जाये। सफलतम किसानों की कहानियां तैयार कर किसानों में प्रचार	आगामी बैठक में प्रस्तुत किया जावेगा।

	प्रसार किया जाये।	
डॉ. सुभाष चन्द्र, निदेशक प्रसार शिक्षा, स्वामी केशवानन्द राजस्थान कृषि विश्वविद्यालय, बीकानेर	प्राकृतिक खेती एवं केन्द्र पर उत्पादित बीज व पौध सामग्री की सूचना दर्शाई जाये। न्यूट्री गार्डन में लोकल चैक की आवश्यकता नहीं है इसके लाभ किसानों को बताने के लिये कहा। उन्होंनें बताया कि आईसीएआर, केन्द्र सरकार तथा राज्य सरकार की कृषि सम्बंधी विभिन्न योजनाओं के बारे में फोल्डर, पॉकेट डायरी/बुकलेट के माध्यम से प्रकाशित करवाकर किसानों के बीच अधिक से अधिक प्रचारित किया जाना चाहिये ताकि किसान लाभान्वित हो सके।	संबन्धित सूचनायें कृषि विज्ञान केन्द्र कैम्पस में यथास्थान पर लगाई गई हैं। पेम्पलेट/फोल्डर के माध्यम से किसानों को जानकारी उपलब्ध करवाई जा रही है।
डॉ. विजय प्रकाश, क्षेत्रीय निदेशक अनुसंधान, क्षेत्रीय कृषि अनुसंधान केन्द्र, श्रीगंगानगर	कपास में पैराविल्ट पर प्रथम सिंचाई देरी से करने के सम्बंध में ओएफटी लगाई जावे।	स्त्रोत से तकनीकी उपलब्ध होने पर खरीफ 2024 में ओएफटी लगाई जावेगी।
श्री एल.एन. बैरवा, अतिरिक्त निदेशक कृषि, श्रीगंगानगर	पोषण वाटिका लगाना एक अच्छा कन्सेप्ट है गांव में आंगनबाड़ी या सामुदायिक जगह पर पोषण वाटिका लगाई जानी चाहिये तथा पोषण वाटिका का अधिक से अधिक विस्तार किया जाये ताकि लोगों के स्वास्थ्य में सुधार हो।	इस वर्ष पोषण वाटिका पर 30 प्रदर्शनों का आयोजन किया गया गया है। इसके अलावा आंगनबाड़ी कार्यकर्ताओं का एक प्रशिक्षण करवाया गया है जिसमें .... फल–सब्जियों के बीज व पौध उपलब्ध करवाई गयी है जिसे उन्होंने आंगनवाड़ी केन्द्रों पर लगाया है।
	डॉ. जितेन्द्र सिंह बराड़ द्वारा एनएचआरडीएफ, करनाल व बटिंडा से लहसून व प्याज की किस्में लेकर ट्रायल लगाने का सुझाव दिया। सिंचाई जल की बचत के लिये बैड प्लान्टर इत्यादि पर तकनीकी प्रदर्शन लगाने की आवश्यकता बताई।	खरीफ प्याज की किस्म AL-883 व लहसुन की किस्म G-404 पर प्रदर्शन आयोजित किये जा रहे हैं। इसी प्रकार NICRA के अन्तर्गत बैड प्लान्टर तकनीकी पर प्रदर्शन लगाये जा रहे हैं।
	डॉ. रामावतार मीणा ने कहा कि किसानों को कपास के संकर बीज उत्पादन के लिये प्रशिक्षण देना चाहिये तथा बीज उत्पादन के लिये प्रेरित करना चाहिये तथा सरसों की आरएच–725 किस्म को लोकप्रिय बनाने के लिये इसके प्रचार प्रसार का सुझाव दिया।	किसानों को स्वंय की आवश्यकता तथा व्यावसायिक स्तर पर बीज उत्पादन कार्यक्रम आयोजित करने के लिये कृषि प्रसार माध्यमों से जानकारी व प्रेरणा प्रदान की जा रही है।
	डॉ. सुरेश कांटवा ने कहा कि रबी व खरीफ फसल की बुवाई से पूर्व कृषि पर्यवेक्षक/सहायक कृषि अधिकारियों को इनसर्विस ट्रैनिंग दी जाये तथा समन्वित कीट प्रबन्धन तकनीकी को बढ़ावा देना चाहिये।	आगामी कार्ययोजना में कृषि प्रसार कार्य कर्ताओं के लिये 3 प्रशिक्षण कार्यक्रमों को शामिल किया गया है।
	श्री गुरमेल सिंह सेवानिवृत मुख्य कृषि अधिकारी (पंजाब) ने सुझाव दिया कि कीटनाशियों के लेवल देखकर स्प्रे करने हेतु किसानों को प्रशिक्षणों के	प्रशिक्षणें के माध्यम से किसानों को जानकारी उपलब्ध करवाई जाती है।

	माध्यम से बताया जाये।	
	प्राकृतिक खेती से जुड़े प्रगतिशील किसान श्री कानाराम ने बैठक में प्राकतिक खेती को बढ़ावा देने की बात कही।	प्राकृतिक खेती को बढ़ावा देने के लिये 12 किसानों के यहाँ प्रदर्शन लगाये गये हैं व 8 प्रशिक्षण कार्यक्रम आयोजित किये जाने हैं। इसके अलावा 15 जागरूकता कार्यक्रमों का भी आयोजन किया जा रहा है।
	प्रगतिशील किसान नत्थू राम सिंवर ने गोबर की खाद का उपयोग तथा फसल चक्र अपनाकर बुवाई करने के अपने अनुभव सांझा किये तथा इसके महत्व को किसानों को बताने के लिये कहा।	कार्बनिक खादों के निर्माण व उपयोग की सलाह विभिन्न प्रशिक्षणें के माध्यम से दी जा रही है। साथ ही फसल–चक्र अपनाने के लिये प्रेरित किया जा रहा है।

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

2. DETAILS OF DISTRICT (2023)

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- Aquaculture
4	Agriculture-Animal Husbandry-Horticulture- Aquaculture-Beekeeping
5	Agriculture-Animal Husbandry-Horticulture- Aquaculture-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 type/s

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 dunes found in the area. Guar, Bajra, kharif pulses Gram, Tarameera, 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 (Kg./ha)**
Kharif (2022)				
1	Cotton	204644	892248 bales	4.36 bales
2	Paddy	34277	222801	6500
3	Groundnut	13161	17373	1320

4	Mungbean	101442	74053	730
5	Mothbean	49029	10296	210
6	Bajra	20867	17946	860
7	Clusterbean	329532	222874	693
8	Sesame	3154	1072	340
Rabi (2022-23)				
1	Wheat	246192	1105032	4479
2	Barley	10694	46108	4243
3	Gram	174120	179933	1096
4	Mustard	146867	257834	1755
5	Tarameera	22089	10294	480

Source: District agriculture department

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January 2023	3.5	21.4	0.2	100	29
February 2023	0.0	30.1	4.5	100	31
March 2023	51.5	33.4	11.0	100	21
April 2023	24	41.4	13.8	100	08
May 2023	178.5	44.5	17.1	100	07
June 2023	74.5	42.7	18.3	100	22
July 2023	131	40.3	25.6	100	35
August 2023	0.5	39.7	24.2	95	36
September 2023	26	38.6	21.4	100	29
October 2023	37	38.1	15.2	100	14
November 2023	0.5	32.1	8.4	100	24
December 2023	0.0	25.5	4.1	100	26
Total	**527**	-	-	-	-

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

Category	**Population**	**Production**	**Productivity**
Cattle			
Cow – indigenous	394301	139444 tons	-
Cow – crossbred	149963	233685 tons	-
Buffalo	302203	273542 tons	-
Sheep	170021	96885 kg (wool)	-
Goats	180537	33440 tons	-
Pigs	969	---	-
Crossbred	50	---	-
Indigenous	919	---	-
Rabbits	---	---	-
Poultry			
Hens	77204	---	-
Desi	59223	---	-
Category		Production (Q.)	Productivity
Fish (Reservoir)	---	2230(fry in lakh)	-

*Department of Animal Husbandry and Dairying. 2019

2.7 Details of Operational area / Villages (2023)

Sl.No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Sangaria	Sangaria	Nukera, Chak Hirasinghwala, Bagatpura, Haripura, Bolawali, Bhakarwali	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	1. 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.
2	Tibbi	Tibbi	Kharakhera, Sabuana, Kulchander, Gudia, Saliwala, Saharani			

3	Hanumangarh	Hanumangarh	Jodkiyan, Chistiyan, Hiranawali, Jandawali, Rodawali, Munda, Kohla, Gurusar		climate change. Lack of awareness about water management	Minimum budget Natural Farming. 2. Encouraging farmers for seed production to obtain good quality seed.
4	Pilibanga	Pilibanga	Longwala, Ayalki, Dabliwas molvi, Dabaliwas kutub, Sadasinghwala		Lack of knowledge about nutritional value of soil	3. To popularize Integrated Pest Management especially stress on seed

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. Minimum budget Natural Farming.
Cotton, Guar, Moong, Moth, Wheat, Gram, Mustard, Barley	To popularize Integrated Pest Management especially stress on seed treatment.
Seed production	Encouraging farmers for seed production to obtain good quality seed.
Beekeeping & Mushroom cultivation	To motivate the farmers for income generation through Bee- keeping and mushroom cultivation.
Kinno, Malta, Pomegranate, Aonla, 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 & Rural youth like fruit and vegetable preservation, tailoring, embroidery, soft toys making, production of bio control agents & biopesticides 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
6	6	60	60	125	184.2	330	478

Training (including sponsored, vocational, and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	46	42	1585	1539	40000	42670	350000	366875
Rural youth	2	2	50	40				
Extn. Functionaries	4	3	100	100				
Sponsord Training	0	6	0	270				
Vocational Training	4	2	100	50				

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
170	175.69	313	60,000	62,595	5501

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	Foliar application of 0.5% Manganese sulphate in wheat	10	10
	Kinnow	Foliar application of 0.1% KNO_3 in kinnow	10	10
Varietal Evaluation				
Integrated Pest Management	Cotton	Mass trapping of male adults of Pink bollworms by installing pheromone traps @ 16 per acre with IPM practices.	10	10
Integrated Crop Management				
Integrated Disease Management	Wheat	Sprays of Azoxystrobin 18.2% + Difenoconozole 11.4% W/W SC @ 1ml/lit.	10	10
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Post Harvest Technology / Value addition				
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)				
Total			**40**	**40**

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	Cross bread cattle	Assessment of clinical remedies to control repeat breeding in cross breed cattle	10	10
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management	Goatry	Dry fodder+ Green fodder + 50% concentrate + 50% moringa leaves.	10	10
Production and Management				
Others (Pl. specify)				
Total			**20**	**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

PEST AND DISEASE MANAGEMENT

Problem definition: *Heavy infestation of pink bollworm in cotton effecting in a yield loss of 30-50%.*

Technology Assessed : *Mass trapping of male adults of Pink bollworms by installing pheromone traps @ 16 per acre with IPM practices.*

KVK, Hanumangarh-I conducted trial to assess a potential solution for management of Pink bollworm in cotton crop and found that as potential solution is adoption of mass trapping of male adults of the pest to stop or minimize its population dynamics, ultimately management of the pest.

Table Effect of mass trapping & IPM practices in management of Pink bollworms in cotton.

Technology Option	No. of trials	Av. no. of moth catches per trap	% no. of infested bolls	Yield (q/ha)	Net Return (Rs./ha)	B:C Ratio
Using various insecticides for pink bollworm management (Farmers Practice)	10	-	6.5	12.5	44250	1.79
Mass trapping for male adults of pink bollworms by Installing Pheromone traps @16 per acre +IPM (Assessment)		7.52	3.25	14.38	62290	2.18

PEST AND DISEASE MANAGEMENT

Problem definition: *Incidence of Yellow & brown rust in wheat crop.*

Technology Assessed : *Use of new molecules for management of yellow & brown rust in wheat crop.*

KVK, Hanumagarh-I conducted trial to find out suitable management of yellow & brown rust in wheat crop as the farmer's practice could not manage the incidence of yellow & brown rust to the desired level. Use of new molecules found better and that the same had enhanced the yield by 8.96 per cent compared to farmer's practice.

Table Effect of foliar spray of Manganese Sulphate on yield of wheat

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
Spray of Propiconazole 25 EC @ 1 ml/lit. (Farmers Practice)	10	40.73	--	70531	2.96
Sprays of Azoxystrobin 18.2% + Difenoconozole 11.4% W/W SC @ 1ml/lit.		44.38	8.96	77625	3.06

NUTRIENT MANAGEMENT

Problem definition: *Poor quality & low yield in Kinnow.*

Technology Assessed : *Nutrient management in Kinnow.*

KVK, Hanumangarh-I assess the technology of integrated nutrient management by the foliar application of potassium nitrate and found that the same had enhanced the yield by 6.9 per cent compared to farmers practice and quality also improved of kinnow {Mandarin hybrid (Citrus nobilis lour X citrus deliciosatan)} fruits.

Table Effect of foliar spray of KNO_3 in kinnow for improve the quality & yield.

Technology Option	No. of trials	Yield (q/ha)	Increase in Yield (%)	Net Returns (Rs./ha)	B:C Ratio
No foliar spray of KNO_3 (Farmers Practice)	10	384.0	-	265554	3.70
Three foliar spray of KNO_3 @ 0.1% in the end of May, June & July month. (Assessment)		410.5	6.9	329159	4.20

NUTRIENT MANAGEMENT

Problem definition: *Low yield of wheat.*

Technology Assessed : *Nutrient management in wheat crop.*

KVK, Hanumangarh-I assess the technology of integrated nutrient management by the foliar application of Manganese Sulphate solution in wheat crop and found that the same had enhanced the yield by 9.15 per cent compared to farmer's practice.

Table Effect of foliar spray of Manganese Sulphate on yield of wheat

Technology Option	*No. of trials*	*Yield (qt./ha)*	*Increase in yield (%)*	*Net Return (Rs./ha)*	*B:C Ratio*
No foliar spray of $MnSO_4$ (Farmer's Practice)	*10*	*40.86*	*--*	*72619*	*3.12*
Two sprays of 0.5% Manganese Sulphate @ 200 lit./ha when deficiency symptoms appear and one week thereafter.		*44.20*	*8.18*	*79475*	*3.25*

LIVE STOCK ENTERPRISES

Problem definition: *Poor economics of male goat rearing for meat purpose.*

Technology Assessed: *Dry fodder+ Green fodder + 50% concentrate + 50% moringa leaves. (2nd year 2022-23)*

KVK, Hanumangarh-I conducted trial to evaluate low cost and nutritious feed for goat kids. In which Moringa leaves were included in place of concentrate feed. Moringa leaves that have 18.23% CP, and 9.6 MJ/kg energy which improve the growth performance in goats. Feeding Moringa leaves increases goat body weight, improve the digestion and absorption of nutrients in GI track.

Table Performance of moringa leaves as source of protein

Technology Option	*No. of trials*	*Body wt. gain (kg/ani.)*	*body wt. gain (%)*	*Gross cost (Rs./ani.)*	*Net Returns (Rs./ha)*	*BC Ratio*
T_1- Dry fodder+ Green fodder + concentrate (Farmer's practice)	*10*	***28.60***	*16.78*	*5236.35*	*8952.65*	*2.71*
T_2 - Dry fodder+ Green fodder + 50% concentrate + 50% moringa leaves (according to body weight) (Assessment)		***30.97***	*17.02*	*5033.18*	*9954.83*	*2.97*

LIVE STOCK ENTERPRISES

Problem definition: *Higher incidences of repeat breeding, Anestrous in crossbreed cattle due to hormonal imbalance.*

Technology Assessed: *Assessment of clinical remedies to control repeat breeding in cross breed cattle.*

KVK, Hanumangarh-I conducted trial to improvement of conception rate in cross breed cattle by using Dewormer (inj. ivermectin S/C 10 ml)/animal + Chelated Mineral mixture supplementation @ 30 g/bd /animal & inj. Receptal I/M 2.5ml (72-96 hrs before AI). Results reveled that the same had enhanced the conception rate by 90 per cent compared to farmer's practice.

Table Performance of clinical remedies on conception rate in cross breed cattle.

Technology Option	*No. of trials*	*No. of animals comes in heat & conceived*
T_1- Balanced diet (balance feed with deworming and mineral mixture) (Farmer's practice)	10	------
T_2 - Use of Dewormer (10 ml ivermectin inj.)/animal + Mineral mixture supplementation @ 30 g/bd /animal & Receptal inj 2.5ml (72-96 hrs before AI) (Assessment)		*9 Animals conceived out of 10*

II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2022 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	45	126	2162
2	Sesame	Integrated Crop Management	Package of practices (NFSM)		11	330	765
3	Mustard	Integrated Crop Management	Package of practices (NFSM)		87	1331	5220
4	Chickpea	Integrated Crop Management	Package of practices (NFSM)		92	1012	1454
5	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)		24	105	290
6	Oat	Foder production	Full package		12	521	36
7	Wheat	Integrated Crop Management	Full package		8	200	140
8	Broccoli	Exotic vegetables	Production Technology		15	150	35
9	Onion	Production of low volume & high value crop	Production Technology		5	20	3
10	Cattle	Nutriation management	Use of probitic in cross breed cattle		28	242	325 ani.
11	Buffalo	Disease management	Use of chelated mineral mixture		66	1351	2235 ani.
12	Fisheries	Composite fish culture	Popularize fish culture in water storage tanks		20	41	41 units
13	Button Mushroom	Mushroom production	Production technology		12	35	35 units
14	H. Sc.	House hold food security of kitchen gardenig & nutritional gardening	Nutritional kitchen gardenig		25	175	175 units

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

b. Details of FLDs implemented during 2023 (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 2022-23	60	60	22	128	150	NA
2	Sesame	Integrated Crop Management	Package of practices	Kharif 2023	30	30	05	70	75	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 2022-23	Irrigated	Sandy loam	Low	Low-medium	High	Mungbean, Clusterbean, Sesame, A. cotton, Pearlmillet, Fellow	05.10.2022 to 29.10.2023	20.03.2023 to 05.04.2023	59	8
Sesame	Kharif 2023	Irrigated	Sandy loam	Low	Low-medium	High	Mustard, Wheat, Chickpea, Barley	29.06.2023 to 13.07.2023	28.09.2023 to 15.10.2023	178.5	7

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 developed 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-725 variety 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 organized	Date	Number of participants	Remarks
1	Field days	11	28.02.2023, 01.03.2023, 02.03.2023, 03.03.2023, 27.09.2023, 29.09.2023	278	
2	Farmers Training	02	16.09.2022, 05.07.2023	78	

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 2022-23	30	30	06	69	75	NA
2	Chickpea	Integrated Disease Management	Bio-agent (Trichoderma)	Rabi 2022-23	4	4	01	09	10	NA

Details of farming situation

Crop	Season	Farming situation (Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Chickpea	Rabi 2022-23	Irrigated	Sandy loam	Low	Low-medium	High	A. cotton, Clusterbean, Mungbean, Paddy, Fellow	24.10.2022 to 17.11.2022	04.04.2023 to 16.04.2023	73	8
Chickpea	Rabi 2022-23	Irrigated	Sandy loam	Low	Low-medium	High	A. cotton, Clusterbean, Mungbean	26.10.2022 to 12.11.2022	05.04.2023 to 14.04.2023	73	8

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.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of GNG 2171 variety of gram.
2	Good response of basal application of fertilizers & IPM practices.
3	Good response of soil treatment by Trichoderma in gram crop.
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 organized	Date	Number of participants	Remarks
1	Field days	3	02.03.2023, 31.03.2023	94	
2	Farmers Training	1	14.11.2022	58	
3	Media coverage	2	03.03.2023 & 01.04.2023	Not fixed	

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	Onion	Integrated Crop Management	Package of practices	Kharif 2023	0.5	0.5	0	10	10	NA
2	Garlic	Integrated Crop Management	Package of practices	Rabi 2022-23	0.5	0.5	10	0	10	NA

Details of farming situation

Crop	Season	Farming situation (Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Onion	Kharif 2023	Irrigated	Sand loam	Low	Low to medium	High	Wheat, Mustard	August 2023	December 2023	64	7
Garlic	Rabi 2022-23	Irrigated		Low	Low to medium	High	Clusterbean, Mungbean	October 2022	April 2023	73	8

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Heat tolerant variety should be develop/evaluate of Kharif onion.
2	POP should be developed for kharif onion.
3	POP should be developed for garlic cultivation for the area.
4	The seeds of public sector varieties are not available to the farmers, So the availability of these seeds should be ensured. (Kitchen gardening)
5	There is need to promote Nutritional Kitchen Gardening to ensure fresh vegetables at door steps any time.
6	Jayanti rohu found 20% higher growth rate then rohu. So need to promote the species.

Farmers' reactions on specific technologies

S. No	Feed Back
1	AL-883 is a high yielding variety and suitable for cultivation in Kharif season.
2	G-404 is a good variety and colour of cloves is attractive.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	2	24.03.2023, 05.12.2023	42	
2	Media coverage	-	-	-	

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-725	150	60	25.96	21.05	23.29	19.98	16.56	29386	104805	75419	3.57	27686	89910	62224	3.25
Sesamum	Integrated Crop management	Full package	RT-351	75	30	10.20	5.40	7.16	4.96	44.35	32233	103820	71587	3.22	29265	71920	42655	2.46

* 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	75	30	17.40	12.60	14.99	12.84	16.74	29410	67455	38045	2.29	26545	57780	31235	2.18
Trichoderma	Integrated Pest Management	Bio-agent	GNG-1581	10	4	15.35	10.23	14.25	12.26	16.23	29335	66925	37590	2.28	27745	57770	30025	2.08

* 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												
Cereals																			
Wheat	Integrated Crop management	Popularisation of new varieties DBW-3226, HD-3086 & DBW-222	50	20	56.86	44.72	48.98	46.74	4.79	-	-	36697	127858	91161	3.48	36120	121654	85534	3.37
			50	20	56.48	46.96	49.74	46.74	6.42	-	-	36720	129454	92734	3.53	36120	121654	85534	3.37
			48	19.2	58.52	4214	51.86	46.74	10.95	-	-	37125	134906	97781	3.63	36120	121654	85534	3.37
Vegetables																			
Garlic	Low volume & high value crop	Introduction of new variety (G-404)	10	0.5	14220	11490	12610	11570	8.99	-	-	150014	504400	354386	3.40	150014	462800	312786	3.10
Kharif onion	Low volume & high value crop	Introduction of Kharif Onion	10	0.5	269.2	234.1	247.9	221.0	12.2	-	-	107878	272690	164812	2.5	107340	243100	135760	2.3

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

** BCR= GROSS RETURN/GROSS COST

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle	Nutrition Management	Use of probiotic in cross breed cattle	10	10	16.26 lit./day/ani.	14.15 lit./day/ani.	14.91	-	-	209.6/day/ani.	585.5/day/ani.	375.9/day/ani.	2.79	202.4/day/ani.	495.3/day/ani.	292.9/day/ani.	2.45
Buffalo	Nutrition Management	Use of chelated mineral mixture in buffalo	10	10	15.23 lit./day/ani.	13.30 lit./day/ani.	14.51	-	-	356/day/ani.	852.88/day/ani.	496.88/day/ani.	2.40	336/day/ani.	731.5/day/ani.	395.5/day/ani.	2.18
Poultry (ATMA)	Production and management	Backyard poultry (Kadaknath)	10	30/unit	1207 eggs	919 eggs	31.34	10.1 kg meat	12 kg meat	3610	32395	28785	8.97	3554	15453	11899	4.35
Poultry (SCSP)		Backyard poultry (Kadaknath)	50	30/unit	1207 eggs	924 eggs	30.63	10.6 kg meat	12 kg meat	3619	31223	27604	8.63	3572	15549	11977	4.35

* 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)
Composite fish culture	Integrated fish farming	Popularize fish culture in water storage tank	10	10 (0.25 ha each)	1045	-	-	-	-	48500	114950	66450	2.37	-	-	-	-

* 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 enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Azola (SCSP)	Popularization of Azola cultivation	10	10	14.44 lit milk/day	13 lit milk/day	11.08	-	-	356	664.24	308.24	1.9	336	546	210	1.6

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg/ha)		% 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 (SCSP)	Household food security of kitchen gardening and nutrition gardening	Nutritional kitchen garden	30	30	13653	4216	223.84	Maximum	Least	60462	499268	438806	8.26	25244	132491	107247	5.25

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

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	1	46	1	47	2	0	2	48	1	49
Cropping Systems				0			0	0	0	0
Crop Diversification	1	21	0	21	0	0	0	21	0	21
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	2	6	30	36	35	2	37	41	32	73
Soil & water conservation	1	18	0	18	3	0	3	21	0	21
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total	**5**	**91**	**31**	**122**	**40**	**2**	**42**	**131**	**33**	**164**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards	1	16	0	16	3	0	3	19	0	19
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)	**1**	**16**	**0**	**16**	**3**	**0**	**3**	**19**	**0**	**19**
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										

Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**1**	**16**	**0**	**16**	**3**	**0**	**3**	**19**	**0**	**19**
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										
Organic farming	1	17	3	20	0	1	1	17	4	21
Total	**1**	**17**	**3**	**20**	**0**	**1**	**1**	**17**	**4**	**21**
IV Livestock Production and Management										
Dairy Management	1	17	3	20	4	0	4	21	3	24
Poultry Management	1	0	0	0	18	3	21	18	3	21
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology	1	0	0	0	16	4	20	16	4	20
Production of quality animal products										
Goatary management	2	61	9	70	10	4	14	71	13	84
Total	**5**	**78**	**12**	**90**	**48**	**11**	**59**	**126**	**23**	**149**
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										
Storage loss minimization techniques										
Value addition	2	0	1	1	0	44	44	0	45	45
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**2**	**0**	**1**	**1**	**0**	**44**	**44**	**0**	**45**	**45**
VI Agril. Engineering										
Farm Machinery and its maintenance	1	19	1	20	0	0	0	19	1	20
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	1	21	0	21	0	0	0	21	0	21
Others (pl specify)										
Total	**2**	**40**	**1**	**41**	**0**	**0**	**0**	**40**	**1**	**41**
VII Plant Protection										
Integrated Pest Management	3	29	7	36	26	0	26	55	7	62
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**3**	**29**	**7**	**36**	**26**	**0**	**26**	**55**	**7**	**62**
VIII Fisheries										

Integrated fish farming	1	18	0	18	4	0	4	22	0	22
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	**1**	**18**	**0**	**18**	**4**	**0**	**4**	**22**	**0**	**22**
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	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths	1	13	2	15	5	1	6	18	3	21
WTO and IPR issues										
ICT										
Total	**1**	**13**	**2**	**15**	**5**	**1**	**6**	**18**	**3**	**21**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**21**	**302**	**57**	**359**	**126**	**59**	**185**	**428**	**116**	**544**

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	1	72	0	72	7	0	7	79	0	79
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	3	54	0	54	53	20	73	107	20	127
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										

Total	**4**	**126**	**0**	**126**	**60**	**20**	**80**	**186**	**20**	**206**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
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)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
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										
Organic farming										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IV Livestock Production and Management										
Dairy Management	2	51	10	61	30	36	66	81	46	127
Poultry Management										
Piggery Management										

Rabbit Management										
Animal Nutrition Management										
Disease Management	1	25	4	29	3	4	7	28	8	36
Feed & fodder technology										
Production of quality animal products										
Goatary management										
Total	**3**	**76**	**14**	**90**	**33**	**40**	**73**	**109**	**54**	**163**
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	1	8	29	37	1	4	5	9	33	42
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**1**	**8**	**29**	**37**	**1**	**4**	**5**	**9**	**33**	**42**
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	3	63	18	81	27	6	33	90	24	114
Integrated Disease Management										
Bio-control of pests and diseases	4	161	0	161	14	0	14	175	0	175
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**7**	**224**	**18**	**242**	**41**	**6**	**47**	**265**	**24**	**289**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture	2	24	0	24	38	0	38	62	0	62
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	**2**	**24**	**0**	**24**	**38**	**0**	**38**	**62**	**0**	**62**
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	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs	2	73	0	73	6	0	6	79	0	79
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues	1	40	0	40	2	0	2	42	0	42
ICT	1	42	0	42	0	0	0	42	0	42
Total	**4**	**155**	**0**	**155**	**8**	**0**	**8**	**163**	**0**	**163**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**21**	**613**	**61**	**674**	**181**	**70**	**251**	**794**	**131**	**925**

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	1	72	0	72	0	7	7	72	7	79
Resource Conservation Technologies	1	46	1	47	2	0	2	48	1	49
Cropping Systems										
Crop Diversification	1	21	0	21	0	0	0	21	0	21
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	5	60	30	90	55	75	130	115	105	220
Soil & water conservation	1	18	0	18	3	0	3	21	0	21
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total	**9**	**217**	**31**	**248**	**60**	**82**	**142**	**277**	**113**	**390**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards	1	16	0	16	3	0	3	19	0	19
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)	1	16	0	**16**	3	0	**3**	**19**	**0**	**19**
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**1**	**16**	**0**	**16**	**3**	**0**	**3**	**19**	**0**	**19**
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										
Organic farming	1	17	3	20	0	1	1	17	4	21
Total	**1**	**17**	**3**	**20**	**0**	**1**	**1**	**17**	**4**	**21**
IV Livestock Production and Management										
Dairy Management	3	68	13	81	40	66	106	108	79	187
Poultry Management	1	0	0	0	18	3	21	18	3	21
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	1	25	4	29	4	7	11	29	11	40
Feed & fodder technology	1	0	0	0	16	4	20	16	4	20
Production of quality animal products										
Goatary management	2	61	9	70	10	4	14	71	13	84
Total	**8**	**154**	**26**	**180**	**88**	**84**	**172**	**242**	**110**	**352**
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	1	8	29	37	4	5	9	12	34	46
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	2	0	1	1	0	44	44	0	45	45
Women empowerment										
Location specific drudgery reduction technologies										

Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**3**	**8**	**30**	**38**	**4**	**49**	**53**	**12**	**79**	**91**
VI Agril. Engineering										
Farm Machinery and its maintenance	1	19	1	20	0	0	0	19	1	20
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	1	21	0	21	0	0	0	21	0	21
Others (pl specify)										
Total	**2**	**40**	**1**	**41**	**0**	**0**	**0**	**40**	**1**	**41**
VII Plant Protection										
Integrated Pest Management	6	92	25	117	32	33	65	124	58	182
Integrated Disease Management										
Bio-control of pests and diseases	4	161	0	161	0	14	14	161	14	175
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**10**	**253**	**25**	**278**	**32**	**47**	**79**	**285**	**72**	**357**
VIII Fisheries										
Integrated fish farming	1	18	0	18	4	0	4	22	0	22
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture	2	24	0	24	0	38	38	24	38	62
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	**3**	**42**	**0**	**42**	**4**	**38**	**42**	**46**	**38**	**84**
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	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs	2	73	0	73	0	6	6	73	6	79
Mobilization of social capital										
Entrepreneurial development of farmers/youths	1	13	2	15	5	1	6	18	3	21
WTO and IPR issues	1	40	0	40	0	2	2	40	2	42
ICT	1	42	0	42	0	0	0	42	0	42
Total	**5**	**168**	**2**	**170**	**5**	**9**	**14**	**173**	**11**	**184**
XI Agro-forestry										
Production technologies										

Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**42**	**915**	**118**	**1033**	**196**	**310**	**506**	**1111**	**428**	**1539**

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	1	17	0	17	2	0	2	19	0	19
Bee-keeping	1	13	0	13	7	1	8	20	1	21
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	**2**	**30**	**0**	**30**	**9**	**1**	**10**	**39**	**1**	**40**

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	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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	1	17	0	17	2	0	2	19	0	19
Bee-keeping	1	13	0	13	7	1	8	20	1	21
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	**2**	**30**	**0**	**30**	**9**	**1**	**10**	**39**	**1**	**40**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management	**2**	**48**	**9**	**57**	**0**	**1**	**1**	**48**	**10**	**58**
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										
Value Addition	**1**	**0**	**32**	**32**	**0**	**10**	**10**	**0**	**42**	**42**
TOTAL	**3**	**48**	**41**	**89**	**0**	**11**	**11**	**48**	**52**	**100**

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										
Integrated Pest Management	2	48	9	57	0	1	1	48	10	58
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)	1	0	32	32	0	10	10	0	42	42
TOTAL	3	48	41	89	0	11	11	48	52	100

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	1	29	6	35	0	0	0	29	6	35
Commercial production of vegetables	1	1	33	34	0	0	0	1	33	34
Production and value addition										
Fruit Plants	4	93	108	201	0	0	0	93	108	201
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total	6	123	147	270	0	0	0	123	147	270
Post harvest technology and value addition										
Processing and value addition										
Others (pl. specify)										
Total	0	0	0	0	0	0	0	0	0	0
Farm machinery										
Farm machinery, tools and implements										
Others (pl. specify)										
Total	0	0	0	0	0	0	0	0	0	0
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										

Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Agricultural Extension										
Capacity Building and Group Dynamics										
Others (pl. specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**6**	**123**	**147**	**270**	**0**	**0**	**0**	**123**	**147**	**270**

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										
Composite fish culture										
Sheep and goat rearing										
Piggery										
Poultry farming										
Others (pl. specify)										
Total										
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.	**2**	**0**	**0**	**0**	**1**	**49**	**50**	**1**	**49**	**50**
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total										
Grand Total	**2**	**0**	**0**	**0**	**1**	**49**	**50**	**1**	**49**	**50**

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of	TOTAL

			Extension Personnel	
Agro Advisory Services	104	319434	12120	331554
Diagnostic visits	1	115	2	117
Field Day	14	385	8	393
Group discussions	6	113	8	121
Kisan Ghosthi	22	1208	22	30
Film Show	232	5113	104	5217
Self -help groups	5	66	0	66
Kisan Mela	1	3192	63	3255
Exhibition	8	7979	218	8197
Scientists' visit to farmers field	82	961	11	972
Farmers visit to KVK	6627	6627	0	6627
Plant/animal health camps	1	16	2	18
Farm Science Club	8	222	0	222
Ex-trainees Sammelan	1	19	2	31
Farmers' seminar/workshop attended	16	21	0	21
Method Demonstrations	7	95	6	101
Celebration of important days	9	446	4	450
Lecture deliverd	837	8961	169	9130
Exposure visits	13	325	28	353
Others (pl. specify)	0	0	0	0
Total	**7994**	**355298**	**12768**	**366875**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	7
News paper coverage	185
Popular articles	24
Radio Talks	-
TV Talks	2
Animal health amps (Number of animals treated)	1 (18)
Teliphone helpline	34457
Total	**34676**

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
	Text only			105		2		107
	Voice only							
	Voice & Text both							
	Total Messages			**105**		**2**		**107**
	Total farmers Benefitted			**32227**		**74**		**32301**

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	DBW-332		12.55	39900	16
	Wheat	DBW-327		12.40	36860	13
	Wheat	DBW-303		40.80	149340	36
	Wheat	DBW-222		86.30	319600	63
Oilseeds	Sesame	RT-351		2.00	45000	62
	Mustard	RH-0749		4.29	45045	39
	Mustard	RH-725		4.62	48510	47
Pulses	Mungbean	MH-1142		0.64	8000	16
	Mungbean	MH-421		0.04	500	01
	Chickpea	GNG-2171		3.60	29925	08
Fodder crop seeds	Oat	JHO-822		8.45	39560	12
Total				**175.69**	**762240**	**313**

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
Vegetable seedlings	Cauliflower	Anandi		19298	19298	345
	Broccolli	Besty		3519	7038	215
	kakadi	Kesri		575	4025	96
	Muskmelon	Muskan		581	4067	100
	Watermelon	Kesar		590	4130	78
	Ridge gourd	Aalok		1124	7868	125
	Bottle gourd	MAHY-1		1350	9450	120
	Chilli	Kranti		11197	22394	412
	Tomato	NS 2535		3257	9771	745
	Brijal	Nishant		2867	2867	880
	Pumpkin	Badshah-251		538	3766	105
	Bitter gourd	Aman sri		767	5369	130
Fruits	Malta	Blood red		5924	296200	755
	Kinnow	Kinnow		5183	207320	640
	Nimboo	Kumbhkath		634	25360	200
	Others			1591	31820	450
Ornamental plants	Rose	Ganganagri		50	500	10
	Marigold			62	725	15
	Others			524	10670	80
Total				**62595**	**685896**	**5501**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilizers	Vermi-compost	3000 (241 sold)	30000 2410	Used in farm 26
	Worms	23.5	4700	11
Bio Agents	Trichoderma	340	51000	28
Others	Azolla	133 20	13300 200	45 In stock
Total		**3757.5**	**101610**	**110**

Table: Production of livestock materials

Particulars of Live stock	**Name of the breed**	**Number**	**Value (Rs.)**	**No. of Farmers**
Dairy animals				
Cows	-	-	-	-
Milk	Sahiwal	2207 lit.	89436	18
Calves	Sahiwal	2	30,000	In stock
Goat	Sirohi	5	60000	In stock
Poultry	-	-	-	-
Broilers	-	-	-	-
Layers	-	-	-	-
Duals (broiler and layer)	-	-	-	-
Japanese Quail	-	-	-	-
Turkey	-	-	-	-
Emu	-	-	-	-
Ducks	Indian goose	3	1500	In stock
Others (Pl. specify)	-	-	-	-
Rabit	Newzealand White	5 3	1500 900	In Stock 2
Others (Pl. specify)	-	-	-	-
Fisheries	-	-	-	-
Indian carp	-	-	-	-
Exotic carp	-	-	-	-
Others (Pl. specify)	-	-	-	-
Total		**2207 lit. & 18**	**1,83,336**	**20**

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)	**1042**	**949**	**52**	**31260**	**1042**
Soil (Orchard)	**310**	**57**	**38**	**6200**	**69**
Water	**895**	**787**	**41**	**22375**	**895**
Plant	**-**	**-**	**-**	**-**	**-**
Total	**2247**	**1793**	**-**	**59835**	**2006**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Date of SAC Meeting	Participants
Hanumangarh-I	14.06.2023	40

IX. NEWSLETTER/MAGAZINE

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

X. PUBLICATIONS

Category	Number
Research Paper	05
Technical bulletins	-
Technical reports	10
Others (pl. specify)	-

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			

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 January of each year
January 2021 to December 2021	4550397.45	6850837.16	3541103.80	8058771.81
January 2022 to December 2022	7148394.74	4889741.32	5144306.39	7148394.74
January 2023 to December 2023	7148394.74	5114752	5333066.33	7743166.41

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 village 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, 04 trainings and 02 awareness programmes were organized with 386 farmers and farm women in the village to create awareness about nutrition sensitive agriculture among farmers, farm women and rural youth. In order to promote nutrition sensitive agriculture, 30 demonstrations on "Kitchen Gardening" were conducted in the village.

S. No.	Area of training	Participants		
		Male	Female	Total
1	Household food security by kitchen gardening and nutrition gardening (2)	24	107	131
2	Nutritional importance and preparation of Nutri Thali (1)	19	33	52
3	Production of low value and high-volume crops (1)	12	36	48
	Total (4)	**55**	**176**	**231**

Nutritional Map

S.No.	Block	Crop/Fruit/Vegetable
1	Hanumangarh	Rice, Wheat, Kinnow, Peas, Cucurbits .
2	Tibbi	Rice, Wheat, Kinnow, Guava, Potato, Onion, Chilli .
3	Sangaria	Wheat, Gram, Mustard, Kinnow, Malta, Carrot, Tinda, Cole crops.
4	Pilibanga	Rice, Wheat, Kinnow, Date palm, Onion, Chilli , Peas,Tomato, Okra.

Various National Programmes organized during 2023

International Women Day (8 March, 2023)

Guests: Smt. Snehalat Gabha, Principal, G.V. Girls Sr. sec. School, Sagaria

Participants: 30

World Bee Day (20 May, 2023)

Participants: 44

World Milk Day
(01 June, 2023)

Participants: 26

World Environment Day
(05 June, 2023)

Participants: 76

National Fish Farmer Day

(10 July, 2023)

Guests: Sh. Sukh Pal Singh, Chairman, Hanuraj Fish Farmer Producer Co. Ltd, Sangaria
Participants: 15

ICAR Foundation Day

(16 July, 2023)

Guests: Sh. K. C. Bishnoi, State Minister, GOR
Sh. Vijay Nain, Chairmen, KVSS, Sangaria

Participants: 75

Rashtriya Poshan Mah & Rashtriya Poshan Day
(30 September, 2023)

Participants: 47

World Soil Day
(5 December, 2023)

Participants: 60

Successful cases

(1)

Brief introduction: - Sh. Rajendra Kumar is a 35-year-old farmer from village-Nukera, Tehsil-Sangria Disst.-Hanumangarh (Rajasthan). He cultivates 10 hectares of land. Generally, they used to apply undecomposed farm yard manure in their fields, which caused the spread of many types of pests and diseases in the crops. They also used to sell or burn crop residues. Due to lack of organic matter in the soil, its fertility was reduced and production was decreasing. Concerned about the continuously decreasing production in farming, Rajender Kumar contacted the Krishi Vigyan Kendra, Sangria.

Interventions: - After meeting the scientists of Krishi Vigyan Kendra Sangria, Sh. Rajender Kumar was advised to prepare farm yard manure and other organic manure scientifically and use them. Subsequently, the Krishi Vigyan Kendra, Sangaria provided a vermi bag to Sh. Rajendra Kumar under the Swakshata campaign and explained the method of making vermi compost from cow dung and agricultural wastes and gave detailed information about its benefits.

Output: - In 2019, he started the work of preparing vermi compost by filling raw dung and agricultural waste in this vermi bag. After 70-75 days of filling the bag for the first time, they got 5 quintals of vermicompost from one bag. After this, they are continuously producing vermi compost. Till now they have produced vermi compost 6 times in this bag. By December 2022, about 40 quintal production has been achieved whose market value is Rs 24000 which has been achieved at zero cost.

Outcomes: - When Sh. Rajender Kumar used the vermicompost prepared from this unit in his crop production, the yield increased by 18 percent. It was also observed that the incidence of pests and diseases reduced in the fields where vermicompost was used.

Impact:- Inspired by the increasing yield through the use of vermicompost, Sh. Rajender Kumar has established a permanent large vermicompost unit on his farm. Sh. Rajender Kumar is getting inspired towards organic farming. He is also motivating the farmers around him to set up vermi compost production units. Farmers are convincing with them.

(2)

Brief introduction: - Sh. Sandeep Kumar is a 43-year-old progressive farmer from village Kharkheda, Tehsil-Tibbi, Disstt.-Hanumangarh (Raj.). He has been cultivating horticulture crops since 2006. Among horticultural crops, he is getting full benefits from the cultivation of Kinnow, Malta, Garlic and Broccoli. He cultivates Malta in 2.25 acres, Kinnow in 5.75 acres, Garlic in 1 acre and Broccoli in one canal area. They are getting more production by incorporating new technologies in their farming.

Interventions: - Sh. Sandeep Kumar maintains constant contact with the technical experts of Krishi Vigyan Kendra, Sangaria. Regularly participates in training, farmer seminars and farmer fairs organized at the KVK. Frontline demonstrations on a new vegetable crop, Broccoli, were conducted on his farm by the Krishi Vigyan Kendra, and impressed by the results, he is continuously cultivating broccoli. Along with this, by taking technical knowledge from the scientists of the Centre, they have been successful in increasing the production through balanced use of nutrients in Kinnow and Malta.

Output: - Along with increasing the production, the quality of the fruit has also improved through integreted agricultural practices in Kinnow and Malta.

Crop	Yield (q/acre)	Gross cost (Rs/acre)	Gross Return (Rs/acre)	Net return (Rs/acre)	B:C ratio
Malta	117.5	56000	411250	355250	7.3
Kinnow	129.7	61500	350190	288690	5.7

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. Apart from this, precision irrigation can be promoted.
- 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.
- Need for research on herbicidal weed management in sesame crop.
- 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 & Pink bollworm 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.
- To promote natural farming, more and more demonstrations, trainings and awareness programms should be organized/conducted.
- Refresher courses/training programmes should be organized for field staff. So that their knowledge can be updated about new technologies.

Scheduled Castes Sub Plan (SCSP)

S. no.	Items/Activities	No. of programmes		No. of benificiaries	
		Targets	Achievements	Targets	Achievements
1	**Trainings**	14	19	330	590
2	**On Farm Trials**	3	2	30	20
3	**Frontline demonstrations (FLDs) and other demonstrations**	5	6	130	152
4	**Awareness camps, exposure visits etc**	8	13	320	488
5	**Input distribution**				
5.1	Seed (Field crops)	3	2	300	130
5.2	Fish spawn	1	1	10	10
5.3	Live stock strains	3	1	60	360
5.4	Planting material	1500	2340	50	120
6	**Services/facilitation**				
6.1	Testing samples of soil and water	600	392	600	392
6.2	Promotion of Agri/entrepreneurship	2	0	50	0
6.3	**Natural farming**				
6.3.1	No. of demonstrations	0	0	0	0
6.3.2	No. of training	2	0	80	0
6.3.3	No. of awareness programmes	7	6	280	289

Performance of Farmer Producer Organization (one page write up with scientific base and Cluster Based Business Organization)

Name of Farmer Producer Organization: - Hanuraj Fish farmer Producers Company Ltd. Sangaria

GST Registration Number: 08AAGCH8392H1Z4

Identification of the potential Cluster Area: - Fisheries and Aquaculture constitute an important economic activity, with a vast potential for sustainably exploiting a wide variety of inland and marine fisheries resource in the country. Currently there is a shift in emphasis from capture fisheries to culture-based capture fisheries and from semi-intensive to intensive aquaculture and from empirical farming to knowledge-based farming. Fisheries and aquaculture is considered as one of the best option towards intensification of small holder farm income to ensure sustainable livelihood. Integration of resources is made through a combination of land, water, and animal resources of a farm through careful planning including recycling of bio-resources. Governments and development agencies have designed projects/programmes in promoting fisheries and aquaculture through demonstration of successful models and other means. There are abundant possibilities of fisheries and aquaculture in **Sangaria, Tibbi, Hanumangarh and Pilibanga blocks** of the Hanumangarh district.

Objectives/Activities: -

The fundamental objective of this project is to organize fisheries and aquaculture and benefit them. The main objective is to organize members of fish farming families on a common platform for economic development through FPO. Through the farmers Producer Organization, farmers must be informed about the basic principles of fish farming and aquaculture and their management. The work of all the members will be through a platform for various activities.

1. Mobilizing farmers in groups and build their associations (FPOs) to plan and implement product specific cluster/ commercial fisheries cycles.
2. Strengthening farmer capacity through modern tools of research and development for optimizing production and productivity from fisheries.
3. Ensuring access to and usage of quality inputs and services for intensive fish production and enhancing cluster competitiveness.
4. Facilitating access to fair and remunerative market including linking of producer groups to marketing opportunities through market aggregators.
5. Providing modern infrastructure mechanisms for effective fisheries management and optimum utilization.
6. Achieving sustainable management and conservation of natural aquatic resources.
7. Liaising with certification Agencies for certification of produce.

Strategy for promoting Pos, Commodity Identified, expected membership, market availability, etc.

First, a fisheries and aquaculture farming cluster have constructed in the Sangaria, Pilibanga, Hanumangarh and Tibbi blocks of Hanumangarh district. A total of 5 villages of at least 10 farmers have selected for board of directors and promoters. In this way, the FPO have formed by 10 farmers who do fish farming and aquaculture. Later the number of these farmers can be increased from 500.

- ❖ Farmers Producer Organization will work based on Government scheme.
- ❖ To increase fisheries production.
- ❖ To achieve economic benefits from relation of high levels.
- ❖ Increasing sales of group production.
- ❖ Providing wide market through FPO.

All members will be trained to ensure participation in the FPO by developing a complete management and common benefit mechanism involving small and marginal farmers.

The entire program of FPO will be prepared for 30 months and the BDO will be made responsible for the work of the overall development in a given time limit. Shares with a face value of Rs 1000/- will be

issued in the FPO and the minimum authorized capital of producing company will be 5 lakhs at the time of incorporation.

Expected role of other stakeholders/ networking with corporate/Govt. Schemes.

Krishi Vigyan Kendra Sangaria will act as a facilitator in place of a promoter. Members can get benefits for a long time this type program will be prepared. NABARD, fisheries farming Certification institution and department of agriculture etc. will be included for plan of work.

Through the FPO, farmers will continue to take advantage of existing NABARD and Other Government schemes and work in a planned manner in the respective area. The CEO of working with all the members will work to make them financially stable by helping to increase the efficiency and productivity of farmers by doing scientific method of farming.

Project cost section for three years 11,44000 by NABARD, Jaipur

Acceptance of terms & conditions July 21, 2022 Ref. No-K.V.K./G.V./42

Execution of MoA with NABARD October 10, 2022 Ref. No-K.V.K./G.V./658

Farmers Mobilization -

One programme organized at KVK Campus on Dated July 21, 2022 with total paricipants-30 and officials-04.

Awareness Programme Conducted- 05

S. no.	Village Name	Date	Participants
1	Jandwala Sikhan	04.11.2022	43
2	Morjand Sikhan	23.11.2022	62
3	Bhakhranwali	24.11.2022	28
4	Hirnawali	25.11.2022	119
5	Malarampura	20.12.2022	26