

PROFORMA FOR PREPARATION OF ANNUAL REPORT (January-2020-December-2020)

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	73	1712	113	2019
Rural youths	5	134	63	197
Extension functionaries	7	88	49	137
Total	85	1934	225	2353
Sponsored Training	24	580	323	903
Vocational Training				

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	30	21	
Pulses	13	5.2	
Cereals	46	17.2	
Vegetables	97	17.1	
Other crops			
Hybrid crops			
Total	186	60.5	
Livestock & Fisheries	24		92
Other enterprises	110	2.5	
Total	134	2.5	92
Grand Total	320	63	92

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Crops	9	70	70
Livestock	2	48	16
Various enterprises	3	41	41
Total	14	159	127

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	403	14061
Other extension activities	246	Mass
Total	649	14061

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprises	
	Text only	21	18	2	2	16	-	59
	Voice only							

	Voice & Text both							
	Total Messages	21	18	2	2	16	-	59
	Total farmers Benefitted	7500	540	450	130	9000	-	17620

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.	Distributed to No. of farmers
Seed (q)	108.28	314100	Sell to seed hub for processing
Planting material (No.)	34830	12660	600
Bio-Products (kg)	10000	20000	Used in crop cafeteria
Livestock Production (No.)	(Two female calf) + 960 lit milk	43200	-
Fishery production (No.)	-	-	-

7. Soil, water & plant Analysis

Type of Samples	No. of samples analysed	No. of Beneficiaries	Value Rs.
Soil	250	700	-
Water			
Plant			
Total	250	700	

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops attended	4
2	Conferences attended	6
3	Meetings attended	22
4	Trainings for KVK officials	
5	Visits of KVK officials	5
6	Book published	-
7	Training Manual	-
8	Book chapters	2
9	Research papers	16
10	Lead papers	-
11	Seminar papers	8
12	Extension folder/newsletter	6
13	Proceedings	18
14	Award & recognition	05
15	On going research projects	03

DETAIL REPORT OF APR (Jan.2020 to Dec. 2020)

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	
College of Agriculture, BUAT, Banda	05192-232315	-	kvkbanda@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Directorate of Extension, Banda University of Agriculture & Technology, Banda	05192-232307	232307	Doe.buat@gmail.com

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Shyam Singh	-	9450791440	shyamsingh15350@gmail.com

1.4. Year of sanction: 2007

1.5. Staff Position (as on 31th December, 2020)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent/Temporary	Category (SC/ST/OBC/Other)	Mobile no.	Age	Email id
1	Programme Coordinator	Dr. Shyam Singh	Sr. Scientist & Head	Agronomy	37400-67000	50720	13.12.2017	Permanent	SC	9450791440	51	Kvkbanda@gmail.com
2	Subject Matter Specialist	Dr S.C. Singh	Scientist	Horticulture	15600-39100	35590	09.02.2018	Permanent	OBC	9411159717	43	Kvkbanda@gmail.com
3	Subject Matter Specialist	Dr. Pragya Ojha	Scientist	Home Science	15600-39100	22950	12.12.2017	Permanent	Other	9458891879	31	Kvkbanda@gmail.com
4	Subject Matter Specialist	Dr. Manjul Pandey	Scientist	Plant Protection	15600-39100	22950	12.12.2017	Permanent	Other	6394584646	43	Kvkbanda@gmail.com
5	Subject Matter Specialist	Dr. Manvendra Singh	Scientist	Animal Science	15600-39100	22950	15.12.2017	Permanent	Other	8168313754	36	Kvkbanda@gmail.com
6	Subject Matter Specialist	Dr. Diksha Patel	Scientist	Agriculture Extension	15600-39100	22280	16.04.2018	Permanent	Other	7404797378	29	Kvkbanda@gmail.com
7	Computer Programmer	Shri Avinash Nigam	Computer Programmer	-	9300-34500	14760	11.12.2017	Permanent	Other	8400120570	35	Kvkbanda@gmail.com

8	Farm Manager	Shri Ghan Shyam Yadav	Farm Manager /Lab Asstt.	-	9300-34500	14760	11.12.2017	Permanent	OBC	7007323455	28	Kvkbanda@gmail.com
9	Programme Assistant	Shri Ajay Kumar Tiwari	Farm Manager /Lab Asstt.	-	9300-34500	14330	24.02.2018	Permanent	Other	8933862656	29	Kvkbanda@gmail.com
10	Accountant / Superintendent	Shri Abhishhek Shahi	Accountant	-	9300-34500	14760	11.12.2017	Permanent	Other	7897830330	30	Kvkbanda@gmail.com
11	Stenographer	Shri Sarad Chandra	Stenographer	-	5200-20200	10840	11.12.2017	Permanent	OBC	9648711425	37	Kvkbanda@gmail.com
12	Driver	Shri Chandra Skekhar	Driver	-	5200-20200	9260	11.12.2017	Permanent	Other	9556407161	45	Kvkbanda@gmail.com
13	Driver	Shri Vikas Gupta	Driver	-	5200-20200	9260	11.12.2017	Permanent	Other	7379539458	29	Kvkbanda@gmail.com
14	Supporting staff	Shri Raghuv eer	Peon	-	18000-56	9740	01.06.2010	Permanent	SC	9452226449	51	
15	Supporting staff	Shri Preeta m	Peon	-	5200-20200	10040	01.09.2010	Permanent	SC		47	

1.6. Total land with KVK (in ha) : 8.89

S. No.	Item	Area (ha)
1	Under Buildings	01.69
2.	Under Demonstration Units	00.20
3.	Under Crops	07.00
4.	Orchard/Agro-forestry	--
5.	Others (specify)	--

1.7. Infrastructural Development:

C) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR			77.00	2011		Only Roof level construction
2.	Farmers Hostel	ICAR			25.50	2011		Foundation level
3.	Staff Quarters (6)				--	--		Nil
4.	Demonstration Units (2)				--	--		Nil
					--	--		Nil
5	Fencing				--	--		Nil
6	Rain Water harvesting system				--	--		Nil
7	Threshing floor				--	--		Nil
8	Farm godown				--	--		Nil

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep Bolero LX	2010	4,57,526		Good
Tractor Massy	2010	4,74,140		Good
Motorcycle	-	-	-	-

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Cultivator	2011	--	Old transferred from DDSF
Disc Harrow	2011	--	Old transferred from DDSF
Seeddril	2011	--	Old transferred from DDSF
Digital Camera	2014	7450	Good
Laptop+Biometric with UPS	2014	49000	Repairable
Desktop (Hp)	2019	49000	Good
UPS	2019	6000	Good
DSLR Camera	2019	43000	Good
Desktop (Lenova)	2020	28000	Good

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

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.	16.12.2020	<ol style="list-style-type: none"> 1. Dr. U.S. Gautam (Hon'ble Vice chancellor, BUAT, Banda) 2. Dr. G.S. Pawar (Dean, College of Agri.) 3. Dr. S.V. Dwevdi (Dean, Horticulture) 4. Dr. Narendra Singh (Asso. DE) 5. Shri. Ramkumar Mathur (DDA) 6. Shri Pramod Kumar (DAO) 7. Dr. Ram Kushwaha (VO) 8. Shri Pankaj Kulshrethra, (DDM, NABARD) 9. Dr. Parvej Khan (DHO) 10. Shree Shivendra Singh Bhaghel (Senior Horticulture Supervisor) 11. Smt. Seema Khan (Social Worker) 12. Shri. Shantibhusan Singh (Prog. Farmer) 13. Shri Jahid Ali ((Prog. Farmer) 14. Shri Ashok Singh (Prog. Farmer) 15. Shri Pramod Kumar (Prog. Farmer) 16. Shri Riyaz Ahmad (Prog. Farmer) 17. Smt. Malti Dixit, (Prog. Farm women) 18. Dr. Shyam Singh (Head, KVK) 19. Dr. Subhash Chandra Singh (SMS, Horticulture) 20. Dr. Manjul Pandey (SMS, Plant Protection) 21. Dr. Manvendra Singh (SMS, Animal Science) 22. Dr. Pragya Ojha (SMS, Home Science) 23. Dr. Diksha Patel (SMS, Agriculture Extension) 24. Ghanshyam Yadav (Fram Manager) 	<ol style="list-style-type: none"> 1. For promoting organic and natural farming each KVK should allocate 1-1 acre land. 2. Programmes on breed improvement and use of sexed semen technology should be promoted among farmers. 3. KVK and line departments should work in collaboration for effective transfer of technologies to farmers 4. Farmers should be motivated for cultivation of fruit crops like Date palm, fig, dragon fruit 5. Water harvesting structure and micro-irrigation technologies should be promoted among farmers 6. There is need to promote horticulture crops including spices, biofortified crops among farmers 7. There is need to promote enterpreurship among rural youth and women 8. More focus on liquid fertilizer use and CRM activities. 	All the suggestions have been included in Action Plan (2021) of KVK, Banda

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



कृषि विज्ञान केन्द्र, बाँदा

प्रसार निदेशालय

बाँदा कृषि एवं प्रौद्योगिक विश्वविद्यालय, बाँदा-210001, उ०प्र०

Telephone No:- 05192- 232315; website:- banda.kvk4.in, e-mail:- kvkbanda@gmail.com



पत्रांक: / के०वी०के० / 2020

दिनांक 16 / 12 / 2020

वैज्ञानिक सलाहकार समिति दिनांक 16.12.2020 को आयोजित बैठक का कार्यवृत्त

मा० कुलपति महोदय की अध्यक्षता में आज दिनांक 16.12.2020 को कृषि विज्ञान केन्द्र, बाँदा की वैज्ञानिक सलाहकार समिति की बैठक केन्द्र के प्रशिक्षण कक्ष में सम्पन्न हुयी। इस बैठक में निम्न लिखित सदस्यों (जनपद के अधिकारी, वैज्ञानिक एवं प्रगतिशील कृषकों) ने प्रतिभाग किया-

1.	मा० कुलपति महोदय डा० यू०एस० गौतम	13.	श्री शान्ति भूषण, प्रगतिशील कृषक
2.	डा० नरेन्द्र सिंह, सह निदेशक प्रसार	14.	श्री जाहिर अली, प्रगतिशील कृषक
3.	डा० जी०एस० पवार, अधिष्ठाता कृषि महाविद्यालय	15.	श्री प्रमोद कुमार, प्रगतिशील कृषक
4.	डा० एस० वी० द्विवेदी, अधिष्ठाता उद्यान महाविद्यालय	16.	श्री रियाज अहमद, प्रगतिशील कृषक
5.	श्री राम कुमार माथुर, उप कृषि निदेशक	17.	श्रीमती मालती दीक्षित, प्रगतिशील महिला कृषक
6.	डा० प्रमोद कुमार, जिला कृषि अधिकारी	18.	डा० श्याम सिंह, अध्यक्ष कृषि विज्ञान केन्द्र
7.	डा० श्री राम कुषवाहा पशु चिकित्सा अधिकारी, बाँदा	19.	डा० सुभाष चन्द्र सिंह, वैज्ञानिक, उद्यान
8.	श्री परवेज खान, जिला उद्यान अधिकारी	20.	डा० मंजुल पाण्डेय, वैज्ञानिक फसल सुरक्षा
9.	श्री पंकज कुलश्रेष्ठ, डी०डी०एम नाबार्ड	21.	डा० मानवेन्द्र सिंह, वैज्ञानिक, पशु विज्ञान
10.	श्री शिवेन्द्र सिंह बघेल, वरिष्ठ उद्यान निरीक्षक	22.	डा० प्रज्ञा ओझा, वैज्ञानिक, गृह विज्ञान
11.	श्रीमती सीमा खॉन, समाज कल्याण सेवा समिति, बाँदा	23.	डा० दीक्षा पटेल, वैज्ञानिक, कृषि प्रसार
12.	श्री अशोक सिंह, प्रगतिशील कृषक	24.	श्री घनश्याम यादव, प्रक्षेत्र प्रबन्धक

बैठक में केन्द्र द्वारा समिति की पिछली बैठक दिनांक 15.02.2019 से सितम्बर, 2019 तक सम्पादित कराये गये क्रिया कलापों की समीक्षा हुयी एवं आगामी वर्ष नवम्बर, 2019 से नवम्बर, 2020 तक की कार्ययोजना पर विचार-विमर्श एवं सुझाव लिये गये। बैठक की शुरुआत करते हुये केन्द्र के अध्यक्ष डा० श्याम सिंह ने मा० कुलपति महोदय, सह निदेशक प्रसार एवं अन्य सभी माननीय सदस्यों को पुष्प देकर स्वागत किया तदपश्चात केन्द्र की संकलित प्रगति आख्या एवं आगामी वर्ष की कार्ययोजना को पावर प्वाइंट प्रजेन्टेशन के माध्यम से प्रस्तुत किया। प्रस्तुति के दौरान समिति के सदस्यों से सुझाव भी आमंत्रित किये गये। इसके पश्चात केन्द्र पर कार्यरत विभिन्न विषयों के विषय वस्तु विषेषज्ञों ने अपने-अपने विषय की प्रगति एवं कार्ययोजना प्रस्तुत की।

केन्द्र के विभिन्न वैज्ञानिकों द्वारा प्रस्तुत की गयी प्रगति आख्या एवं कार्ययोजना पर समिति के सदस्यों, उपस्थित प्रगतिशील कृषकों द्वारा संतोष व्यक्त किया गया साथ ही चर्चा के दौरान विभिन्न सदस्यों ने अपने-अपने सुझाव भी प्रस्तुत किये जो निम्नवत है।

मा० कुलपति महोदय के सुझाव-

1. बुन्देलखण्ड क्षेत्र में जैविक एवं प्राकृतिक खेती को बढ़ावा देने के उद्देश्य से प्रत्येक केवीके को 1-1 एकड़ क्षेत्रफल पर उपयुक्त की प्रदर्शन इकाई स्थापित की जाये।
2. किसानों को फलदार वृक्ष जैसे खजूर, अंजीर एवं ड्रैगन फ्रूट आदि फलों के प्रति जागरूकता पैदा की जायें।
3. पशुपालन एवं बकरी पालन के क्षेत्र में नस्ल सुधार हेतु रणनीतियां बनाई जायें एवं किसानों से इन आयामों के प्रति जागरूक किया जायें।
4. सेक्स साटेड सीमेन के प्रति कृषकों को अन्य विभागों के साथ सामंजस्य स्थापित कर जागरूकता फैलाई जाये जिससे कि कृषक इसका लाभ उठा सकें।

सह निदेशक प्रसार महोदय के सुझाव-

1. कोई भी तकनीक कृषक प्रक्षेत्र पर लगाने से पहले स्वयं केवीके के प्रक्षेत्र पर तकनीकी का प्रदर्शन किया जाये।
2. ओ०एफ०टी० तैयार करते समय समस्या की पूर्णतः जानकारी परिलक्षित की जायें।
3. कृषि विज्ञान केन्द्र की पहुँच को अधिक से अधिक ग्रामों में पहुंचाया जायें।
4. स्थानीय तकनीकी ज्ञान पर कार्य किया जाना चाहिये।
5. ग्रामीण युवाओं को मधुरम उत्पादन के क्षेत्र में प्रशिक्षित करें।
6. प्रत्येक केवीके 2-4 मिनट की वीडियो क्लिप बनाकर तैयार करें।
7. तरल उर्वरकों के उपयोग विषय पर जागरूकता फैलाई जायें।

डा0 एस0 वी0 द्विवेदी, अधिष्ठाता उद्यान के सुझाव –

1. कृषकों को दलहनी सब्जियों के बारे में जागरूकता फैलाई जायें।
2. औषधीय एवं सुगन्धीय खेती हेतु कृषकों को प्रेरित किया जायें।

उप कृषि निदेशक, बाँदा के सुझाव –

1. फसल चक्र एवं एकीकृत पोषक तत्व प्रबन्धन के बारे में कृषकों को जागरूक किया जायें।
2. असिंचित क्षेत्रों में कृषकों को मृदा एवं जल संरक्षण की नवीनतम तकनीकियों के बारे में जागरूक किया जाये।
3. खरीफ आच्छादन को बढ़ाने हेतु कार्य किया जाना चाहिये।
4. जैविक खेती को बढ़ावा दिया जायें।
5. कृषकों को पराली प्रबन्धन के विषय पर जागरूक किया जाये।

डी0डी0एम नाबार्ड के सुझाव–

1. उन्नतशील प्रजातियों को अपनाने के लिये कृषकों को प्रोत्साहित किया जाये।
2. मूल्य वर्धन क्षेत्र में महिलाओं को प्रशिक्षित किया जायें।

जिला कृषि अधिकारी–

3. दलहनी फसलों में खरपतवार प्रबन्धन एवं उर्वरकों के प्रयोग का सही समय एवं मात्रा के बारे में प्रशिक्षित किया जायें।

जिला उद्यान अधिकारी के सुझाव –

1. जनपद में कृषकों को मसाला की खेती के बारे में अधिक से अधिक जानकारी दी जायें।

श्री शान्ती भूषण प्रगतिशील कृषक –

1. सिंचाई की नवीनतम तकनीकियों के बारे में कृषकों को बताया जायें।
2. ज्वार, बाजरा, अलसी एवं मोटे अनाज की खेती पर बढ़ावा दिया जायें।
3. उन्नत नस्ल की गाय के बारे में जानकारी दी जायें।

श्री अशोक सिंह प्रगतिशील कृषक–

1. कृषकों को पशुपालन, मुर्गीपालन एवं बकरी पालन विषय पर अधिक से अधिक जानकारी कृषकों के बीच फैलाई जायें।

श्रीमती मालती दीक्षित –

1. राजगार परक प्रशिक्षणों की अवधि को बढ़ाया जायें।
2. दूध से तैयार किये जाने वाले विभिन्न उत्पादों के बारे में प्रशिक्षित किया जायें।

श्रीमती सीमा खॉन–

1. रसोई के अपशिष्ट पदार्थों से वर्मीकम्पोस्ट तैयार करने के बारे में महिलाओं को प्रशिक्षित किया जायें।

श्री जाहिद अली के सुझाव –

1. गेहूँ की उन्नतशील प्रजाति उपलब्ध करायी जायें।
2. कृषि विज्ञान केन्द्र के माध्यम से कृषकों को उनके कृषि फार्म का भ्रमण कराया जायें।
3. कृषि में यंत्रीकरण को बढ़ावा दिया जायें।

(श्याम सिंह)
अध्यक्ष

प्रतिलिपि: निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1. समन्वयक तकनीकी सेल, कुलपति कार्यालय
2. निदेशक प्रसार, बाँदा कृषि एवं प्रौद्योगिक विष्वविद्यालय, बाँदा।
3. सलाहकार समिति के मा0 सदस्य।

(श्याम सिंह)
अध्यक्ष

2. DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	Paddy-Wheat (irrigated) Paddy-Wheat (Un-irrigated)
2	Fallow-Gram+Linseed
3	Sesamum-Gram/Lentil/Field pea

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

S. No	Agro-climatic Zone	Characteristics
1	Zone-VI	Arid climate

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Rakar	Heavy coarse soil	46670
2	Paruwa	Sandy-loam soil	142480
3	Mar	Loamy soil	78600
4	Kabar	Sandy soil	62509

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

S. No	Crop	Area (ha)	Production (Qt.)	Productivity (Qt./ha)
Kharif (2019-20)				
1	Paddy	46960	1237300	26.35
2	Til	13710	58790	4.29
3	Black gram	4940	33150	6.71
4	Green gram	3890	20830	5.36
5	Pigeon Pea	17070	245490	14.38
6	Jowar	22410	414390	18.50
Rabi (2019-20)				
1	Wheat	161000	4892900	30.63
2	Chickpea	93570	1082700	11.88
3	Mustard	2870	27050	9.44
4	Field Pea	3080	22980	12.71
5	Lentil	38620	294960	9.89
6	Linseed	3980	11200	10.0

2.5. Weather data

S. No	Month	Rainfall (mm)	Temperature 0 C		Average Relative Humidity (%)
			Maximum	Minimum	
1	Jan-20	19.1	24	5	58.95
2	Feb-20	0	27	8	60.83
3	March-20	8.8	32	14	36.53
4	April-20	7.75	39	25	46.00
5	May-20	28.6	39.5	25	52.40
6	June-20	173	41	21	69.15
7	July-20	262.8	40	25	81.60
8	August-20	356.45	39	24	88.60
9	September-20	165.75	41	25	79.60
10	Octo-20	0	40	17	55.25
11	Nov-20	0	34	15	38.66
12	Dec-20	0	24	5	58.95
Total		1021 in 43 rainy days			

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

Category	Population	Production	Productivity
Cattle			
Crossbred	720		
Indigenous	370789		
Buffalo	324091		
Sheep			
Crossbred	0		
Indigenous	12255		
Goats	125317		
Pigs			
Crossbred	0		
Indigenous	17566		
Rabbits			
Poultry			
Hens			
Desi			
Improved			
Ducks			
Turkey and others			

Category	Area	Production	Productivity
Fish			
Marine			
Inland			
Prawn			
Scampi			
Shrimp			

2.7 Details of Operational area / Villages (2020)

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Banda Sadar	Badokhar Khurd	Gureh, Jamunipurwa, Jamalpur, Kanwara	Arhar, Sesmum Gram, Lentill, Wheat	Lack of Irrigation water Unavailability of improved variety seed	Moisture, Conservation Technique, Introduction of HYV, IPM, INM, IDM
Bareru	Kamasin	Louhai Kamasin	Arhar, Sesmum, Gram, Lentill, Fieldpea, Paddy Wheat	Lack of Irrigation water Unavailability of improved variety seed	Moisture, Conservation Technique, Introduction of HYV, IPM, INM, IDM
Atarra	Bisanda	Atarra Rural, Kairi	Arhar, Sesmum, Paddy Gram, Lentill, Fieldpea Wheat	Unavailability of improved variety seed	Introduction of HYV, IPM, INM, IDM
Pailani	Tindwari	Bacheura Khaptiya kala Nari, Paprenda, Parsaada	Arhar, Sesmum, Guava Gram, Lentill, Wheat	Lack of Irrigation water Unavailability of improved variety seed	Moisture, Conservation Technique, Introduction of HYV, IPM, INM, IDM
Naraini	Naraini	Ganeshan purwa	Arhar, Rice-Wheat	Unavailability of improved variety seed	Introduction of HYV, IPM, INM, IDM

2.8 Priority/thrust areas

Crop/Enterprise	Thrust Area
Rice	Integrated Nutrient Management, IPM, Water Management
Urd & Til	Weed management, IDM, HYV
Sorghum	Moisture conservation, IPM, IDM
Pulse crops	Integrated Pest Management, IDM, HYV
Oilseed	Weed management, IPM, INM, HYV
Wheat	HYV, INM
Fruit & Vegetable crops	Varietal Assessment, ICM, Disease & Pest Management,
Animal Husbandary	Breed improvement, Feed, Balance Ration
Women Farmers	Drudgery, health

2.9 Intervention/ Programmes for the doubling the farmers income – during January- December, 2020

Adopted village: Bachheura

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Kharif – Til (Flat bed sowing, old variety and use of 20kg urea/ha)	1.5	-		5000	5500	2.1	
Rabi- Mustard (local variety, broadcast, 20:10:10 N:P:K kg/ha)	3.5	-	-	8000	5300	1.66	
Livestock with no use of dewormer and balance ration	4 litre/day/animal			Rs. 60/day//animal	Rs.100.00/day/animal	2.66	

Discussion: Farmers were not aware about latest variety and grow these crops using minimum amount of fertilizers (Fertility status- Organic carbon-0.3%, N&P-Low and K- medium). They were suggested to use RDF and sowing of on raised bed and mustard in line using IPM techniques). Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation (Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Kharif – Til (Raised bed sowing, HYV and use of 60:40:0 N:P:K kg/ha)	4.5	-	-	8000	23500	3.93	
Rabi- Mustard (HYV, line sowing, IPM, 60:40:40 N:P:K kg/ha)	12	-	-	13000	32600	3.50	
Livestock with use of dewormer and balance ration	6 litre/day/animal			Rs. 80/day//animal	Rs.160/day/animal	3.0	

Discussion: After creating awareness through trainings and demonstrations about latest varieties and recommended dose of fertilizers (60:40:0 N:P:K kg/ha for Til and 60:40:40 N:P:K kg/ha for Mustard) and IPM, net income has been increased by using new varieties and sowing methods.

Adopted village: Jakhani

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation (Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Kharif –Rice (old variety, PB-1121, No use of weedicide and plant protection measures)	19.00			22000	25500	2.15	
Rabi- Wheat (old variety WH-147, under use of fertilizers, no weedicide)	24.0			18000	25200	2.4	
Zaid- fallow							
Livestock with no use of dewormer and balance ration	4.5 litre/day/animal			Rs. 65/day//animal	Rs.115/day/animal	2.76	

Discussion: Farmers were not aware about latest variety and grow these crops without using any fertilizers (Fertility status- Organic carbon-0.3%, N&P-Low and K- medium). They were suggested to use RDF and use weedicide in both crops. Farmers also advised to take additional crop of green gram after wheat.

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation (Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Kharif –Rice (New variety, PB-1718, use of weedicide (Bispyribac) and IPM measures)	28.0			24000	46000	2.91	
Rabi- Wheat (HYV DBW-107, RDF 120:60:40:25 NPKZn, Sulphosuphuran + Metasuphuran)	35			22000	41000	2.86	

Zaid- Green gram	6.0			12000	24000	3.0	
Livestock with no use of dewormer and balance ration	6.5 litre/day/animal			Rs. 80/day//animal	Rs.180.00/day/animal	3.25	

Discussion: After creating awareness through trainings and demonstration about latest varieties and recommended dose of fertilizers, net income has been increased by using new varieties and RDF also taking benefit of newly introduced crop of Green gram in Zaid.

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2020

OFT (Technology Assessment and Refinement)				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
13	14	98	159	41.2	63	182 (100 animals)	320 (46 animals)

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	68	73	1530	2019	653	647	8721	14061
Rural youth	10	7	150	197				
Extn. Functionaries	11	5	190	137				
Sponsored training	-	24	-	903				

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
140	108.28	-	51600	34830	600

Soil/plant/water Analysis		
5		
Target	Achievement	No. of farmers covered
300	250	700

I. 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				
Varietal Evaluation	Rice	Varietal assessment	06	06
	Wheat	Varietal assessment	04	04
Integrated Pest Management	Paddy	Assessment of IPM approach for stem borer and leaf folder in Paddy	10	10
	Chickpea	Assessment of IPM approach for pod borer insect in chickpea	15	15
Integrated Crop Management	Paddy	Assessment of suitable chemical management of false smut disease in paddy	15	15
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management	Wheat	Chemical weed control	05	05
Resource Conservation Technology	Tomato	To assess the effect of crop residue mulch on tomato production	05	05
	Tomato	To assess the effect of staking with recommended spacing on yield and quality of tomato production	05	05
	Tomato	To assess the effect of staking with recommended spacing on yield and quality of tomato production	05	05
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Post Harvest Technology / Value addition				
Drudgery Reduction		Reduction of drudgery among farmers through vegetable transplanter	10	10
Storage Technique				
Others (Pl. specify) Agricultural Extension		Impact assessment of different extension teaching methods for adoption of scientific package of practices of Rabi pulse	15	15
		Effectiveness of different extension methods for reproductive management of dairy animals	16	16
Total			111	111

Summary of technologies assessed under **livestock** by KVKs

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management	Buffalo	Assessment of feeding calcium along with	24	8

		dewormer on health and production		
	Buffalo	Assessment of feeding calcium along with dewormer on health and production	24	8
Others (Pl. specify)				
Total			48	16

Summary of technologies assessed under various enterprises by KVKs

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
Integrated Pest Management	Paddy	Assessment of IPM approach for stem borer and leaf folder in Paddy	10	10
	Chickpea	Assessment of IPM approach for pod borer insect in chickpea	15	15
Integrated Crop Management	Paddy	Assessment of suitable chemical management of false smut disease in paddy	15	15
Varietal Evaluation	Rice	Varietal assessment	06	06
	Wheat	Varietal assessment	04	04
Weed Management	Wheat	Weed Management	05	05
Resource Conservation Technology	Tomato	To assay the effect of crop residue mulch on tomato production	05	05
	Tomato	To assess the effect of staking with recommended spacing on yield and quality of tomato production	05	05
	Tomato	To assess the effect of staking with recommended spacing on yield and quality of tomato production	05	05
Drudgery Reduction		Reduction of drudgery among farmers through vegetable transplanter	10	10
Others (Agricultural Extension)		Impact assessment of different extension teaching methods for adoption of scientific package of practices of Rabi pulse	15	15
		Effectiveness of different extension methods for reproductive management of dairy animals	16	16
Nutrition Management	Buffalo	Assessment of feeding calcium along with dewormer on health and production	24	8
	Buffalo	Assessment of feeding calcium along with dewormer on health and production	24	8

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

I.C. TECHNOLOGY ASSESSMENT IN DETAIL

WEED MANAGEMENT

Problem definition: Heavy infestation of weed in Wheat

Technology Assessed : Chemical Weed control in wheat

Wheat is the main crop during rabi season in district Banda. In many areas wheat crop has been taken just after rice crop and on the other hand fallow- wheat and pulses wheat cropping system is years of the practice. Wheat crop faces weed infestation mainly of *Phalaris minor*, *Avena Spp.*, *Anagalis arvensis* and *Solanum spp.* A chemical weed management method was evaluated by KVK, Banda at five farmers field's of four villages. A popular herbicide combination namely, Chlorimuron+Metsulfuron methyl @ 20g/ha were tested against the farmer practice (Iso proturon) during Rabi 2019-20. The chemical weedicide increases 11.31% yield in DBW 107 variety of wheat. Weed management by Chlorimuron+Metsulfuron methyl resulted maximum yield (36.4 q/ha) followed by farmers practice (32.7 q/ha). This treatment has also maximum net return (Rs. 63860 /ha) with 3.47 B:C ratio over farmers practice.

Effect of Chlorimuron+Metsulfuron methyl @ 20g/ha on weed control and yield Wheat

Technology Option	No.of trials	Grain Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
(Sulfosulfuron 95 WG @33.3 g/ha) (Farmers Practice)	05	32.7	-	56392	3.32
Chlorimuron+Metsulfuron methyl @ 20g/ha		36.4	11.31	63860	3.47

VARIETAL ASSESSMENT

Problem definition: Poor yield due to old variety WH 147 in Wheat

Technology Assessed : New HYV K-1317

Wheat is the main crop during Rabi season in district Banda. In many areas wheat crop has been taken in Fallow- wheat cropping system by farmers since a long time. Wheat sowing is done in second fortnight of October to first fortnight of November and crop faces water stress during its growth and maturity furthermore most of the farmers used very old variety WH 147 and get very poor yield. New variety K-1317 suitable for timely sowing and less water requirements was evaluated by KVK, Banda at four farmers field's of four villages during Rabi 2020-21. A New variety K-1317 was tested against the farmer practice (WH 147). The results shows that HYV K-1317 yielded 38.75 q/ha which was 16.54 % higher than farmers practice i.e. **WH 147**. tested variety also gave maximum Gross and net return with higher B:C ratio (Rs. 92531/ ha, Rs. 65533/ha and 3.42, respectively)

Table : Performance of New **HYV K-1317** and yield of wheat.

Technology Option	No.of trials	Grain Yield	Increase in yield	Net Return	B:C Ratio
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		(qt./ha)	(%)	(Rs./ha)	
Farmers Practice : (WH 147)	04	33.25	-	53568	3.09
New HYV K-1317		38.75	16.54	65533	3.42

VARIETAL ASSESSMENT

Problem definition: poor yield due to old variety Pusa Basmati 1121

Technology Assessed : New HYV Pusa Basmati 1718

Rice is the main crop during Kharif season in district Banda. In many areas bbbasmati rice has been taken and most of the farmers used very old variety Pusa Basmati 1121 and get very poor yield. due to disease infestation specially Bacterial Leaf Blight disease. New variety HYV Pusa Basmati 1718 suitable for late sowing and resistant to Bacterial Leaf Blight disease was evaluated by KVK, Banda at six farmers field's of six villages. A New variety Pusa Basmati 1121 was tested against the farmer practice (Pusa Basmati 1121) during Kharif 2020-21. The results shows that HYV Pusa Basmati 1718 yielded 39.67 q/ha which was 13.34 % higher than farmers practice i.e. Pusa Basmati 1121 tested variety also gave maximum Gross and net return with higher B:C ratio (Rs. 89257/ ha, Rs. 66357/ha and 3.89 respectively)

Table : Performance of New HYV Pusa Basmati 1718l and yield of Rice.

Technology Option	No.of trials	Grain Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
Farmers Practice : (Pusa Basmati 1121)	06	35.0	-	57250	3.66
New HYV Pusa Basmati 1718		39.67	13.34	66357	3.89

VARIETAL ASSESSMENT

Problem definition: poor yield due to old variety Pusa Basmati 1121

Technology Assessed : New HYV Pusa Basmati 1718

Rice is the main crop during Kharif season in district Banda. In many areas bbbasmati rice has been taken and most of the farmers used very old variety Pusa Basmati 1121 and get very poor yield. due to disease infestation specially Bacterial Leaf Blight disease. New variety HYV Pusa Basmati 1718 suitable for late sowing and resistant to Bacterial Leaf Blight disease was evaluated by KVK, Banda at six farmers field's of six villages. A New variety Pusa Basmati 1121 was tested against the farmer practice (Pusa Basmati 1121) during Kharif 2020-21. The results shows that HYV Pusa Basmati 1718 yielded 39.67 q/ha which was 13.34 % higher than farmers practice i.e. Pusa Basmati 1121 tested variety also gave maximum Gross and net return with higher B:C ratio (Rs. 89257/ ha, Rs. 66357/ha and 3.89 respectively)

Table : Performance of New HYV Pusa Basmati 1718l and yield of Rice.

Technology Option	No.of trials	Grain Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
Farmers Practice : (Pusa Basmati 1121)	06	35.0	-	57250	3.66
New HYV Pusa Basmati 1718		39.67	13.34	66357	3.89

PEST AND DISEASE MANAGEMENT

Problem definition: Heavy infestation of stem borer and leaf folder in Paddy effecting in a yield loss of 24% and income loss of Rs.8000/ha

Technology Assessed or Refined (as the case may be): stem borer and leaf folder in Paddy

In banda district paddy grown on about fifty thousand hectare land in upland condition and a large number of insect pest and diseases occurs in paddy fields. Remarkable reduction in yield has been observed due to heavy infestation of stem borer and leaf folder in paddy. KVK, Banda conducted OFT during kharif 2019-20 for assessing the integrated approach of stem borer and leaf folder management in paddy. Treatment under IPM module includes foliar spray of Azadirachtin(1500ppm)@5ml/lit, Fipronil@7.5kg/acre and Profenophos@2ml/lit spray at ETL .The results revealed that the crop yield increased 13.8% and the number of dead heart decreased by 22.6% and 5.2 % over T1 and T2 respectively. The net return and B:C ratio increased by Rs.62200 /ha and 0.18 over farmer's practice.

Technology Option	No.of trials	Dead heart plants(%)	Yield (kg/ha)	% Increase in yield over farmer's practice	Gross cost (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	B:C ratio
Spray of chloropyriphos @ 2 ml/lit (Farmers Practice)	10	22.6	36	-	26000	79200	53200	1.04
Foliar spray of Azadirachtin (1500ppm)@5ml/l +Fipronil@7.5kg/acre+ Profenophos@2ml/l spray at ETL		5.2	41	13.8	28000	90200	62200	1.22

PEST AND DISEASE MANAGEMENT

Problem definition: Heavy infestation of false smut disease in Paddy effecting in a yield loss of 18% and income loss of Rs.7000/ha

Technology Assessed or Refined (as the case may be): false smut disease in Paddy

Paddy is grown on large area(more than 50,000 ha.) in district Banda. Paddy crop is affected by several diseases from suffering stage to maturity stage. The false smut is major disease because the fungi affect during reproductive stage and directly reduce the yield. An Oft was conducted during to assess various chemical for management of this disease. Spraying of Propiconazole was found most effective for management of false smut disease of Paddy. It reduced the infected ears/square meter from 13 to 2. The yield enhancement was 15.1% with net return of Rs.79420/ha in comparison to farmer's practice(Rs.66640/ha).

Technology Option	No.of trials	No. of infected ear/m ² plants(%)	Yield (kg/ha)	% Increase in yield over farmer's practice	Gross cost (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	B:C ratio
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Precaution measure not in practice (Farmers Practice)	15	13	42.2	-	26200	92840	66640	1.54
Foliar spray 0.1% Propiconazole at 5% ear initiation		2	48.6	15.1	27500	106920	79420	1.88

PEST AND DISEASE MANAGEMENT

Problem definition: Low yield of chickpea due to severe infestation of pod borer

Technology Assessed or Refined (as the case may be): IPM approach for pod borer management in chickpea

Pod borer is a major pest of chickpea, responsible for heavy reduction 28.8 percent in yield. KVK, Banda conducted OFT on Integrated pod borer management in chickpea. IPM approach i.e., installation of bird percher@50/ha, nipping process before flowering stage and foliar spray of Azadirachtin(1500ppm)@5ml/lit at vegetable and flowering stage and Spray of Indexacarb@500ml/ha. at podding time at ETL(one larvae/ m row) was used for assessing the IPM approach for pod borer in chickpea. Results of on revealed that the yield of T² increased by 28.8 percent while no of larve/m² infestation decreased and increased yield 15.2 q/ha. and 11.5 q/ha respectively over farmer's practice. The net return and B:C ratio increased Rs.15980/ha. and 0.51 units respectively over farmer's practice. Farmers are satisfied by this technology for pod borer management.

Technology Option	No. of trials	No. of plant infestation(%)	No. of larvae / plant	Yield (kg/ha)	% Increase in yield over farmer's practice	Gross cost (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	B:C ratio
Farmers Practice- (spray of improper chemical and conc. Of insecticides)	15	22.4	2.6	11.8	28.8	24700	61360	36660	1.48
Bird percher 50/ha, nipping at 30 DAS, Pheromones traps@50/ha, Azadirachtin (1500ppm)@5ml/l, Spray of Indexacarb14.5 SC@ 500ml/ha at podding time		8.5	1.2	15.2		26400	79040	52640	1.99

RESOURCE CONSERVATION

Problem definition: Poor yield and quality of tomato fruits due to lack of knowledge about staking and proper spacing

Technology Assessed or Refined (as the case may be): To assess the effect of staking with recommended spacing on yield and quality of tomato production

KVK, Banda has assessed the effect of staking with recommended spacing (60cm X 60cm) on yield and quality of tomato where 5 trials have been conducted at farmers field. It was found that 51.53 per cent yield increased by staking with proper spacing method over flat bed method.

Treatments	Yield (Q/ha.)	% change in Yield	No. of fruit/plant	Cost of cultivation (Rs/ha)	Gross return (Rs/ha)	Net Income	BC Ratio**
T1-Farmers practice (without staking)	196.00	-	31	55500	19600	140500	3.53
T2-Staking with recommended spacing	297	51.53	53	68500	29700	228500	4.34

(Sale @ Rs. 10/Kg)

RESOURCE CONSERVATION

Problem definition: Poor yield and quality of tomato fruits due to lack of knowledge about Mulching

Technology Assessed or Refined (as the case may be): To assess the effect of Mulching with recommended spacing on yield and quality of tomato production

KVK, Banda has assessed the effect of Crop residue mulch with recommended spacing (60cm X 60cm) on yield and quality of tomato as well as per cent save in irrigation where 5 trials have been conducted at farmers field. It was found that 48.18 per cent yield increased by use of Crop residue mulch with proper spacing method over without use of crop residue mulch.

Treatments	Yield (Q/ha.)	% change in Yield	No. of fruit/plant	No. of irrigation	% save in irrigation	Cost of cultivation (Rs/ha)	Gross return (Rs/ha)	Net Income	BC Ratio*
T1-Farmers practice (without Mulching)	193	-	29	12	-	55500	193000	137500	3.47
T2-mulching with recommended spacing	286	48.18	37	9	25	66600	286000	219400	4.29

(Sale @ Rs. 10/Kg)

ANIMAL SCIENCE

Problem definition: Low milk production in dairy buffaloes

Technology Assessed or Refined (as the case may be): Calcium supplement along with dewormer

KVK, Banda conducted trial to enhance the milk production in buffaloes reared by the farmers as the farmers practice results in low milk production. The technology includes supplementation of liquid calcium along with dewormer.

Effect of calcium supplement along with dewormer on health and production

Technology Option	No. of trials	Milk yield per animal per day(lit.)
T1- Straw (5 kg) +Green Fodder (10 kg)	24	5.2
T2 – T1 + Calcium supplement (@70 ml/day/animal)+ Dewormer		6.1

DRUDGERY REDUCTION

Problem Definition: Reduction of Human drudgery through Hand Operated Vegetable Transplanter

Technology Assessed or Refined (as the case may be): To assess the level of human drudgery during traditional and mechanized methods of vegetable transplanting.

Comparative Ergonomic study on the assessment of the level of human drudgery during traditional and mechanized methods of vegetable transplanting has been performed. Physiological parameters of farmers were assessed to analyze the work capacity and productivity during traditional and mechanized methods of vegetable transplanting.

Treatments	Handgrip Strength	Blood Pressure	Heart Rate	Postural Discomfort (% Change)	Center of Gravity (% Change)	Drudgery Index
T ₁ (Traditional Method)	21 Kg	132/89 mmHg	110	55 %	68	48
T ₂ (Mechanized Method)	32 Kg	118/78 mmHg	71	21 %	38	19

Interference & Feed back	The level of human drudgery was highly reduced with Hand Operated Vegetable Transplanter as compare to traditional method of vegetable transplanting. The work capacity and work performance of the farmers was also improved.
Farmers Reaction	Majority of farmers of Banda District revealed that Hand Operated Vegetable Transplanter was energy and time saving farm equipment and very easy to operate.

VALUE ADDITION

Problem Definition: Malnutrition among farm women and children

Technology assessed or refined (as the case may be): Value addition of coarse grains and green leafy vegetable in wheat flour to remediate the problem of malnutrition.

Preparation of Mathari with coarse grain flour to remediate the problem of iron deficiency anemia and vitamin A deficiency among farm women and children.

Treatments	Weight	BMI	Hemoglobin

T ₁ (Traditional Method)	45	17	7.5
T ₂ (Mechanized Method)	51	22	11

Interference & Feed back	The level of Hemoglobin has been raised among farm women and children after introducing iron and vitamin A enrich diet.
Farmers Reaction	Majority of farmers of Banda District revealed that addition of coarse grain and green leafy vegetables is very simple and easy methods to remediate the problem of malnutrition.

AGRICULTURAL EXTENSION

Problem definition: Poor yield of Rabi pulse (Chickpea) due to less adoption of scientific package of practices of Chickpea

Technology Assessed or Refined (as the case may be): Impact assessment of different extension teaching methods for adoption of scientific package of practices of Rabi pulses (Chickpea)

Chickpea is the main Rabi pulse crop under rainfed condition of U.P. Bundelkhand. There is wide variation in the yield of Chick pea across the 7 districts of U.P. Bundelkhand because of the low adoption of recommended package of practices of Chickpea among the farming community. To accelerate adoption among farming community extension teaching methods were playing a crucial role. Hence KVK, Banda has initiated the trial on impact assessment of different extension teaching methods for adoption of scientific package of practices of Rabi pulse (Chickpea). In this trail one training on scientific package of practices of Chickpea and CFLD on Chick pea has been given to 5-5 farmers and their level of adoption of scientific package of practices of Chickpea crop have been assessed and it was found that the level of adoption has increased by 14.75 and 21.50 per cent after exposure to training and demonstration respectively to the farmers.

S. No.	Extension teaching methods	Level of adoption (%)		
		Pre	Post	Difference
1	Check (n=5)	38.50	41.75	3.25
2	Training (T1) (n=5)	37.50	52.25	14.75
3	Demonstration (T2) (n=5)	41.75	63.25	21.5

AGRICULTURAL EXTENSION

Problem definition: Poor milk yield dairy animals due to incidence of reproductive problems

Technology Assessed or Refined (as the case may be): Effectiveness of extension teaching methods for managing reproductive problems in dairy animals.

Reproductive problems and associated infertility among cattle and buffalo pose considerable economic loss to farmers in terms of low returns and high veterinary expenses. It is mainly attributed to the lack of adoption of scientific know-how regarding management of reproductive problems among them. This warrants a need to ascertain the extent of adoption among farmers in scientific management of reproductive problems in dairy animals. Therefore, KVK, Banda has initiated the trial on effectiveness of different extension methods for reproductive management of dairy animals in the year 2020-21. In this trial a Booklet and a video which was developed by ICAR-NDRI, Karnal were shown to 8-8 farmers and their level of adoption of management of reproductive problems in dairy animals have been assessed and it was found that the level of adoption has increased by 11.11 and 13.08 per cent after exposure to booklet and video respectively to the farmers and the both extension methods was found significant at 0.05 level of significance in increasing adoption. It is also concluded that the among two extension method the video was found more effective in term of increase in adoption of scientific management of reproductive problems in dairy animals as it involves more number of senses i.e., the sense of seeing and hearing. The very fact that involvement of more number of senses allows people to grasp more information within stipulated time.

Extension teaching methods	Level of adoption (%)			't' value
	Pre	Post	Difference	
Booklet (n=8)	56.62	67.73	11.11	9.734**
Video (n=8)	57.24	70.32	13.08	9.243**

II. FRONTLINE DEMONSTRATION

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

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

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Tomato	VE	HYV	Through Demonstration	5	15	3
2	Tomato	VE	HYV	Through Demonstration	7	10	1
3	Chilli	VE	HYV	Through Demonstration	3	10	1
4	Chilli	VE	HYV	Through Demonstration	7	10	1
5	Brinjal	VE	HYV	Through Demonstration	3	10	1
6	Cauliflower	VE	HYV	Through Demonstration	6	10	1
7	Okra	VE	HYV	Through Demonstration	6	10	0.5
8	Onion	VE	HYV	Through Demonstration	2	2	0.6
9	Sessame (ACRIP)	VE	HYV	Through Demonstration	5	15	6
10	Brinjal	IPM	HYV	Through Demonstration	3	22	8.8
11	Mustard	IPM	Giriraj	Through Demonstration	8	20	10

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

b. Details of FLDs implemented during 2020 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Propo	Actual	SC/ST	Others	Total	
1	Wheat	Varietal	HYV DBW - 107	Rabi 2020-21	6.0	6.0	5	13	18	
2	Paddy	Varietal	HYV (Pusa basmati -1718)	Kharif 2020-21	5.0	5.2	1	12	13	
3	Black Gram	Weed Control	Imazethapyr 10 SL @ 1.0 l/ha	Kharif 2020-21	5.0	5.2	1	12	13	
4	Tomato	VE	HYV	Rabi, 2019-20	3	3	-	15	15	
5	Tomato	VE	HYV	Rabi, 2020-21	1	1	-	10	10	
6	Chilli	VE	HYV	Rabi, 2019-20	1	1	-	10	10	
7	Chilli	VE	HYV	Rabi, 2020-21	1	1	-	10	10	
8	Brinjal	VE	HYV	Rabi, 2019-20	1	1	-	10	10	
9	Cauliflower	VE	HYV	Rabi, 2020-21	1	1	-	10	10	
10	Okra	VE	HYV	Kharif, 2020-21	0.5	0.5	1	9	10	

11	Onion	VE	HYV	Kharif, 2020-21	0.6	0.6	-	2	2	
12	Sessame (ACRIP)	VE	HYV	Kharif, 2020-21	6	6	3	12	15	
13	Brinjal	IPM	HYV	Kharif 2019-20	3	8	-	20	20	
14	Mustard	IPM	Giriraj	Rabi-2020-21	10	15	-	15	15	
15	Kitchen Garden	Kitchen Garden	Kitchen Garden Kit	Rabi (2019-20)	1.5	1.5	37	23	60	
16	Kitchen Garden	Kitchen Garden	Kitchen Garden Kit	Kharif (2019-20)	1.0	1.0	28	12	40	
17	Parad Tikiya	Storage loss minimization	Parad Tikiya	Rabi (2020-21)	10	10	-	10	10	
18	Buffalo	Feed Management	Mineral Mixture	Rabi (2019-20)	7	7	-	7	7	
19	Buffalo	Feed Management	Mineral Mixture	Rabi (2020-21)	7	7	-	7	7	
20	Sheep & Goat	Nutrient Management	Vitamin supplement	Rabi (2019-20)	5	5	-	5	5	
21	Sheep & Goat	Nutrient Management	Vitamin supplement	Rabi (2020-21)	5	5	-	5	5	

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					
Paddy	Kharif 2020-21	Irrigated	Black soils	Low	Low	Medium	Wheat	15-25.07.2020	01-15.12.20	958	36
Black Gram	Kharif 2020-21	Irrigated	Black soils	Low	Low	Medium	Wheat	10-15.07.2020	01-07.10.20	958	36
Wheat	Rabi 2020-21	Irrigated	Black soils	Low	Low	Medium	Rice	05-15.12.2020	10-20.04.21	-	-
Okra	Kharif-2020-21	Irrigated	Clay loam	low	Medium	Medium	Fellow	August, 1 nd week	Dec. 1 st week	785 mm	23
Onion	Kharif-2020-21	Irrigated	Clay Loam	Low	Medium	Medium	Fellow	August, 1 nd week	-	785 mm	23
Tomato	Rabi 2020	Irrigated	Clay loam	low	Medium	Medium	Okra	Nov. 2 nd week	March, 2 nd week	12.75	1
Chilli	Rabi 2020	Irrigated	Clay loam	low	Medium	Medium	Cucurbits	Nov. 2 nd week	March, 2 nd week	12.75	1
Brinjal	Rabi 2020	Irrigated	Clay loam	low	Medium	Medium	Cucurbits	Nov. 2 nd week	March, 2 nd week	12.75	1
Mustard	Rabi 2020	Irrigated	Clay loam	low	Medium	Medium	Fellow	Nov. 1 st week	March 1 st week	12.75	1

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1. Okra (Kashi Kranti)	Resistant to YMV, medium plant height, 35-40 fruits/plant
2. Wheat	Heat tolerant variety, Good for late sowing condition in Rice-wheat crop rotation
3. Rice	Blast resistant basmati variety, Good for late harvesting condition in Rice-wheat crop rotation
4. Black Gram	The Satin (Imazaethapyr) @ 75% controlled almost all prevailed weed flora in Urd crop under Banda.
5. Brinjal (Hybrid)	Fruits are round in shape, profuse flowering and fruiting
6. IPM in Brinjal	It enhance the yield of Brinjal due to effective management of Shoot and fruit borer
7. Kitchen gardening	It promotes the food and nutritional security and helpful to combat the problem of malnutrition

8. IPM in Brinjal	It enhance the yield of Brinjal due to effective management of Shoot and fruit borer
9. Mineral Mixture application in Buffalo	It enhance the milk production by 10% in buffalo
10. Vitamin supplement application in Goat	It promotes the daily gain in body weight of goat. And the daily body weight gain was 115gm per day per animals.

Farmers' reactions on specific technologies

S. No	Feed Back
1. Wheat	Farmer liked this variety because of its greenery at maturity time and production.
2. Rice	Farmer liked this variety because of its tillring and production.
3. Black Gram	Farmer liked this weed control technology because of effective weed control and higher crop production.
4. Okra (Kashi Kranti)	Farmers liked the variety Kashi Kranti due to resistant to YMV and yield performance.
5. Cauliflower (HYV)	Farmers liked the hybrid variety due to better yield performance
6. Chilli (Hybrid)	Farmers liked the hybrid variety due to resistant to leaf curl virus and better yield performance
7. Tomato (Kashi Aman)	Farmers liked the variety Kashi Aman due to resistant to leaf curl virus and yield performance
8. Brinjal (Hybrid)	Maximum number of fruits per plant (22-25 fruits/plant) and resistant to mycoplasma disease but this variety preferred by the farmers of Banda
9. Kitchen gardening	Farmers were impressed with the concept of Kitchen gardening due to the availability of fresh and nutritious vegetables round the year. It was also cost effective.
10. IPM in Brinjal	Farmers were satisfied with the IPM technologies as it was low cost and locally manageable
11. IPM in Brinjal	Farmers were satisfied with the IPM technologies as it was low cost and locally manageable
12. Mineral mixture	Farmers were satisfied with the Mineral mixture technologies as it increase the milk production of buffalo
13. Vitamin supplements	Farmers were satisfied with the Vitamin supplements technologies as it enhances the daily gain in body weight of Goat.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	3	7.9.2020 17.10.2020 24.10.2020	63	-
2	Farmers Training	7	25.6.2020 4.1.2020 21.8.2020 27.11.20, 28.08.20, 28.08.20, 24.10.20	159	
3	Media coverage	7	17.10.2020, 24.10.20	mass	
4	Training for extension functionaries				

Coarse Rice																			
Scented Rice																			
Rice	Varietal	HYV (Pusa basmati -1718)	13	5.2	43.8	34.6	38.4	34.5	11.3			22900	86400	63500	3.8	21500	77625	56125	3.6
Wheat Timely sown																			
Wheat	Varietal	HYV DBW - 107	18	6.0	38.4	32.8	34.9	30.50	14.42			26600	82267	56367	3.12	25600	72998	47398	2.85
Wheat Late Sown																			
Mandua																			
Barley																			
Maize																			
Amaranth																			
Millets																			
Jowar																			
Bajra																			
Barnyard millet																			
Finger millet																			
Vegetables																			
Bottlegourd																			

Value Addition																		
Vermi Compost																		

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)					
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total		

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Vegetables	Nutritional Security through kitchen gardening	Kitchen gardening kit	60	60	310	-	44.0	Easy availability and fresh veg.	-	210.00	1750.00	1380.00	8.33	-	-	-	-
Vegetables	Nutritional Security through kitchen gardening	Kitchen gardening kit	40	40	119		39.0	Easy availability and fresh veg.	-	260.00	1825.00	1565	7.01				

FLD on Demonstration details on crop hybrids (*Details of Hybrid FLDs implemented during 2019*)

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo					Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Oilseed crop													
Pulse crop													
Cereal crop													
Vegetable crop													
Fruit crop													
Other (specify)													

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

VII Plant Protection										
Integrated Pest Management	2	44	0	44	5	0	5	49	0	49
Integrated Disease Management	2	47	0	47	7	0	7	54	0	54
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	4	91	0	91	12	0	12	103	0	103
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	1	18	0	18	4	0	4	22	0	22
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues	1	24	0	24	1	0	1	25	0	25
Others (pl specify) ICT Utilization	4	70	0	70	25	0	25	95	0	95
Total	6	112	0	112	30	0	30	142	0	142
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	31	468	32	500	287	35	322	755	67	822

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	1	18	0	18	8	0	8	26	0	26
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	1	18	0	18	8	0	8	26	0	26

Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts	1	0	9	9	0	19	19	0	28	28
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	18	0	18	8	0	8	26	0	26
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	7	92	33	125	42	30	72	134	63	197

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	1	21	-	21	04	-	04	25	-	25
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 (Propagation Methods of horticultural crops)										
TOTAL	1	21	-	21	04	-	04	25	-	25

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	1	21	0	21	12	0	12	33	0	33
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	1	0	14	14	0	17	17	0	31	31

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 (Propagation techniques in fruit crops and Integrated weed management)	2	21	0	21	25	2	27	46	2	48
TOTAL	4	42	14	56	37	19	56	79	33	112

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	42	0	42	16	0	16	58	0	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	1	0	14	14	0	17	17	0	31	31
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 (Propagation techniques in fruit crops and Integrated weed management)	2	21	0	21	25	2	27	46	2	48
TOTAL	5	63	14	77	41	19	60	104	33	137

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	2	61	21	82	33	8	41	94	29	123
Commercial production of vegetables	1	26	0	26	9	0	9	35	0	35
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops	1	24	5	29	13	0	13	37	5	42
Soil health and fertility management	1	22	0	22	10	0	10	32	0	32
Production of Inputs at site	3	60	17	77	30	4	34	90	21	111
Methods of protective cultivation										
Others (Management of fruits and vegetable nursery production for employment generation)	2	54	0	54	16	0	16	70	0	70
Total	10	247	43	290	111	12	123	358	55	413
Post harvest technology and value addition										
Processing and value addition	3	0	60	60	0	45	45	0	105	105

Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dyeing etc.										
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total										
Grand Total										

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	Total
Advisory Services	66	342	19	361
Diagnostic visits	55	230	15	245
Field Day	07	116	04	120
Group discussions	12	56	12	68
Kisan Ghosthi	22	2500	45	2545
Film Show	03	65	04	69
Self -help groups	02	30	2	32
Kisan Mela	04	2550	47	2597
Exhibition	06	2560	115	2675
Farmer's visit to KVK	84	1025	55	1080
Scientists' visit to farmers field	92	192	22	214
Plant/animal health camps	02	65	07	72
Farm Science Club				0
Ex-trainees Sammelan				0
Farmers' seminar/workshop	02	250	16	266
Method Demonstrations				0
Celebration of important days	5	284	54	338
Special day celebration	5	852	112	964
Exposure visits	2	70	04	74
Others (pl. specify) Live-telecast of PM's programme	5	190	25	215
Distribution of Hand made Mask to needy people and farmers	04	975	25	1000
Seed treatment campaign	03	52	3	55
Plantation programme	05	365	15	380
Celebration of Parthenium awareness week	04	74	8	82
Posan Abhiyan- 2020	05	265	90	355
Swachchata Pakhwada	08	241	13	254
Total	403	13349	712	14061

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	-
Extension Literature	06
News paper coverage	232
Popular articles	06
Radio Talks	-

TV Talks	-
Animal health camps (Number of animals treated)	-
Others (pl. specify)	
Total	244

Mobile advisory services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	21	18	2	2	16	-	59
	Voice only							
	Voice & Text both							
	Total Messages	21	18	2	2	16	-	59
	Total farmers Benefitted	7500	540	450	130	9000	-	17620

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
01 (12.10.2020 to 18.10.2020)	Gosthies	2	184	On the occasion of Mahila Kisan diwas and World food day
	Lectures organized	20	356	In trainings and ghosthies
	Exhibition	01	65	On the occasion of World food day
	Film show	01	65	On the occasion of World food day
	Fair	-		
	Farm Visit	04	42	In field day
	Diagnostic Practicals	04	42	In field day
	Distribution of Literature (No.)	02	125	On the occasion of Mahila Kisan diwas and World food day
	Distribution of Seed (q)	4.30	50	Seed distribution under CFLD-Pulse and oilseed
	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	Paddy	PB-1718		44.00	98120	
	Wheat	DBW-107		8.66	15500	
Oilseeds	Sesamum	RT-351		1.9	12480	
	Mustard	Giriraj		2.09	6000	

Pulses	Lentil	IPL-316		48.26	170000	
	Chickpea	JG-14		3.37	12000	
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
Total				108.28	314100	

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings	Brinjal			3000	600	50
	Chilli			5000	1000	50
	Tomato			10000	2000	110
	Cabbage			3000	600	120
	Cauliflower			10000	2000	100
	Broccoli			300	60	10
	Knolkhol			3000	600	50
Fruits						
	Jackfruit			50	500	20
	Jamun			30	300	15
	Karonda			150	750	10
	Citrus			100	1000	15
	Custard Apple			150	3000	50
	Mulberry plant			50	250	-
Ornamental plants						

Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
Total				34830	12660	600

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers	NADEP Compost	10000	20000	
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
Total				

Table: Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows	Tharparkar	(2 female calf) 960 litres milk	43200	
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp				
Exotic carp				
Others (Pl. specify)				
Total				

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	250	700	10	
Water				
Plant				
Manure				
Others (pl.specify)				
Total	250	700	10	

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
KVK, Banda	1 (16.12.2020)

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
Banda Krishi Samachar issue- 06	1000
Banda Krishi Samachar issue- 07	1000
Gudkari Til ki Vaigyanik kheti	100
Performance of technological interventions in Banda district of Uttar Pradesh	100
Krishi avam krishi Udyog apshishat ka jaivik apghatan duara prabandhan and mahataav	200
Tikaw kheti me jaivik khadon avam jaiv urvarkon ka mahataav	200

X. PUBLICATIONS

Category	Number
Research Paper	16
Technical bulletins	02
Technical reports	08
Others (pl. specify)/Abstract	04

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.)

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
Total				

B. HRD activities organized in identified areas for KVK staff by Zonal Project Directorate

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Total			

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

Each Zone should propose a minimum of three case studies with good action photographs (with captions on the backside of the hard copy of the photos) on the following topics

- a) Effective popularization on a larger scale of any one FLD technology and its role in transformation of district agriculture with respect to that particular crop or enterprise*
 - b) Performance of the end results of any one technology assessed, its refinement if any and its impact in district agriculture with respect to that crop or enterprise*
 - c) Effect of production and supply of seeds and planting material / animal breed / or bio-product and its impact on district agriculture with respect to that crop/ enterprise/ bio-product*
- The general format for preparing the above case studies are furnished below*

KVK Case study-01

Integrated Farming system model: A Boon For Bundelkhand region

Situation analysis/ Problem statements:- Mrs. Ashma Khatoon, W/o shri Aslam Khan resident of village Chhanehara Lalpur, block: Badhokhar Khurd, district: Banda, was given training on different aspect of Integrated farming system. She was earlier involved with traditional; agriculture. she used to grow paddy-wheat/Gram/ Lentil in his 2.4 hac. Land. she was hardly getting net profit of Rs.1.25 lakh Per year.

Plan, Implement and Support:- KVK Bnada given training on different aspect of Integrated farming system model like crop production, Horticulture, Dairy, Poultry, Goatary, Fisheries, Azolla cultivation and vermicomposting, mushroom production, Beekeeping etc. KVK along with line department help to established different unit of IFS model in her farm. She has herself established *Bundelkhand Jaivik Krishi Farm* at her village.

Output:- Mrs. Ashma Khatoon, adopted the different aspect of IFS model as per suggestion of KVK's scientist for her 2.4 ha land. She allocate 1.18 ha for field crop, 0.3 ha for horticultural crops, 0.3 ha for other units. Under her Farm total 8 units are working in interconnected way. She has taken A2 milk certification from ICAR- National Dairy Research Institute, Karnal. By her innovative move she is now able to sell cow milk @ Rs. 50/ Litre. She used to sell milk, egg, meat, fruits so she continuously earning income in whole year. The economical gain in terms of net return and BCR are recorded. Rs 4.4 lakhs and 3.13 respectively.

Outcome:- The outcome in terms of daily income by selling different produces motivated the other small farmers to establish IFS model at their farm. She is very happy with improvement in her income, livelihood and set forth example for others. During the year 2020 she received IARI Fellow 2020/IARI-Innovative Farmer award for her outstanding contribution in the field Integrated Farming System model.

Impact:- Mrs. Ashma Khatoon has become one of the progressive and learned farmers for others with regards to popularization of IFS model in Bundelkhand region. She is also promoted by KVK as well as Different Line departments of Banda. She is very happy with improved production and management technology and set forth example for other farmers of the district. Farmers used to visit her farm. She has motivated approx. 1500 farmers to adopt IFS model.



Azolla unit at her Farm



Goatory unit at her farm

KVK Case study-02

Mushroom Production: additional source for income

Situation analysis/ Problem statements:- Mr. Rajesh Singh, S/o Chhedilal Singh resident of village Pachnehi, block: Badhokhar Khurd district: Banda, was selected Rural youth training on Mushroom production. He has 1 ha land on which he used to grow crops like Gram, Lentil, Green gram through traditional agricultural system. His income was limited with this profession. He hardly get Rs. 45000 per year.

Plan, Implement and Support:- KVK, Banda has encouraged the farmer to include mushroom production as a source of additional income from agriculture. By taking Rural youth training on Mushroom production he got enough knowledge and spawn to grow mushroom at his home.

Output:- Mr. Singh grow the mushroom as suggested by KVK scientist. He produced 50 kg of mushroom in the last year and sold it to local market by packaging of 200gms packets. He also made mushroom powder which he consumed himself. He is started earning more net income by utilizing locally available resources. His Gross income is 2.18 lakhs/year with B:C ratio of 6.22.

Outcome:- By utilizing locally available resources he is now able to grow mushroom at his home. By producing mushroom his health and economic status has enhanced. Mr. Singh is very happy with quality and production of vegetable. He is also satisfied with improvement in his income, livelihood and also set forth example for other farmers.

Impact:- About 40 farmers are continuously interacting with Mr. Rajesh Singh and some of them getting advice on Mushroom production and crop production also. He is now became one of the innovative farmer and entrepreneur of Banda District. He has also been awarded by KVK, Banda on the occasion of Kisan Samman Diwas.



Farmer's showcasing his produce at KVK, programme



Mushroom production at farmer's home

D.2 . Publications (Print & Electronic media) (Jan 2020 to Dec 2020)

S. No	Particulars	Number sold	Revenue generated in Rs.	Number of farmers benefited
01	Books			
02	Technical bulletins			
03	Technology Inventory			
04	CDs			
05	DVDs			
06	Video films			
07	Audio CDs			
08	Others if any (please specify)			

E. Technology Products provided (Jan 2020 to Dec 2020)

S. No	Particulars	Quantity	Unit of quantity	Value in Rs.	Number of farmers benefited
01	Seeds		Quintal		
02	Planting materials		Numbers		
03	Livestock		Numbers		
04	Poultry birds		Numbers		
05	Bio-products		Quintals		
06	Others pl. specify				

F. Technology services provided (Jan 2020 to Dec 2020)

S. No	Particulars	Number of farmers benefited
01	Soil and water testing	
02	Plant diagnostics	
03	Details about the services to line Departments	
04	Others if any (please specify)	

XV. TECHNOLOGICAL BACKSTOPPING BY DIRECTORATES OF EXTENSION (Jan 2020 to Dec 2020)

States covered:

Number of Directorates of Extension:

A. Details on Directors of Extension

S. No	Name of the SAU	Name of the Director of Extension	Number of KVKs for which technological backstopping is provided					
			SAU/CAU	DU	ICAR	NGO	SDA	Others (pl. specify)

B. Workshops / meetings organized during Jan 2020 to Dec 2020

S. No.	Details of workshop/meeting conducted	No. of KVKs participated

C. Visits made by DE / Officials in the Directorate to KVKs during Jan 2020 to Dec 2020

S. No.	Particulars	Number of visits
01	SAC meetings	
02	Field days	
03	Workshops / seminars	
04	Technology week	
05	Training programmes	
06	Others pl. specify	

D. Overseeing of KVKs activities during Jan 2020 to Dec 2020

S. No.	Particulars	Number of fields visited	Major observations / remarks	Major suggestions given
01	On Farm Trials			
02	Front Line Demonstration			
03	Others pl. specify			

E. Publication on Technology inventory during Jan 2020 to Dec 2020

S. No.	Particulars	Number
01	Directorates published the technological inventory	
02	Directorates constantly updating the technological inventory	

F. Technological Products provided to KVKs

S. No.	Major technologies provided	Number of KVKs
01	Seeds	
02	Planting materials	
03	Bio-products	
04	Livestock breed	
05	Livestock products	
06	Poultry breed	
07	Poultry products	
08	Others pl. specify	

2) Achievements under Crop Residue Management (CRM) Project by KVKs

a) CRM Machinery procured by KVKs

S · N o ·	Name of the Machine/ Equipment	No. of machines procured
1	Happy Seeder	
2	Reversible M.B. Plough	
3	Paddy Straw Chopper/ Shredder / Mulcher	
4	Zero Till Drill	
5	Rotavator	
6	Tractor	
	Total	

b) IEC activities organized under CRM Project by KVKs

S. No.	Name of IEC activity	No. of activities	No. of Participants
	Kisan Melas organized		
1.	Awareness programmes conducted at Village Panchayat/ Block/ District Level		
2.	Mobilization of schools and colleges through essay completion, painting, debate etc.		
3.	Demonstration conducted (ha)		
4.	Training Programmes conducted		
5.	Exposure visits organized		
6.	Field /harvest days organized		
	Total		

4) Achievement of KSHAMTA (Knowledge Systems And Home Based Agricultural Management in Tribal Areas)

Number of Adopted Villages	No. of Activities		No. of farmers benefited	
	Demo	Training	Demo	Training

5) Achievements of SCSP KVKs

Farmer Training		Women Farmer Training		Rural Youths		Extension Personnel		Number of farmers involved			Participants in extension activities (No.)	Production of seed (q)	Production of Planting material (Number in lakh)	Production of Livestock strains (Number in lakh)	Production of fingerlings (Number in lakh)	Testing of Soil, water, plant, manures samples (Number)
No. of Trainings/Demos	No. of Farmers	No. of Trainings/Demos	No. of Women Farmers	No. of Trainings/Demos	No. of Youths	No. of Trainings/Demos	No. of Ext. Person	On- farm trials	Frontline demos	Mobile agro-advisory to farmers						

6) Achievement under IFS KVKs

Sl. No.	IFS (Component Name)	No. of IFS established	Area (ha)	Number of Activities		No. of farmers benefited	
				Demo	Training	Demo	Training
1							
2							

3							
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7) Achievements under Mera Gaon Mera Gaurav (MGMG) project

No. of institutes/ universities involved	Total No of Groups/team formed	No. of Scientists Involved	No. of villages covered	No. of field activities conducted	No. of messages/ advisory sent	Farmers benefited (No.)

8) Achievements of Farmers FIRST programme

NRM Module		Crop Module		Horticulture Module		Livestock & Poultry			IFS Model		Extension Activities	
Demon.	No Farm Families	Demon.	No Farm Families	Demon.	No Farm Families	Demon.	No Farm Families	No of Animals	Demon.	No Farm Families	No. of prog	Farmers

9) Activities performed under NARI programme

Activities	Number of activity	No. of farmers/ beneficiaries
OFTs - Nutritional Garden (activity in no. of Unit)	1	10
OFTs - Bio-fortified Crops (activity in no. of Unit)	1	40
OFTs - Value addition (activity in no. of Unit/Enterprise)	2	30
OFTs - Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)	-	-
FLDs - Nutritional Garden (activity in no. of Unit)	2	100
FLDs - Bio-fortified Crops (activity in no. of Unit)	2	100
FLDs - Value addition (activity in no. of Unit/Enterprise)	1	20
FLD- Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)	-	-

Trainings	9	254
Extension Activities	08	456
Grand Total	26	1010

10) Achievements of Soil, water, plant and manure samples analyzed by KVKs and soil health cards issued

Sample	No. of Samples in lakh	No. of Farmers in lakh	No. of Villages in lakh	Amount realized (Rs. in lakhs)	No. of Soil Health Cards issued (lakhs)
Soil	0.0025	0.007	0.0001		
Water					
Plant					
Manure					0.007
Total	0.0025	0.007	0.0001		0.007

11) Achievements under NICRA Project

NRM		Crop production		Livestock & Fisheries			Capacity Building		Extension Activities	
Demo	Area (ha)	Demo	Area (ha)	Demo	Area (ha)	No. of animals	No of Courses	Farmers	No. of programmes	Farmers

12) Achievements under ARYA Project

Name of entrepreneurial units	No. of entrepreneurial units established	No. of Training programs organised	No. of rural youth trained		No. of youth established units	
			Male	Female	Male	Female
Mushroom production						
Fruits and vegetable processing units, Horticulture nursery						
Fish farming						

Poultry						
Goat farming						
Piggery						
Duck farming						
Bee keeping						
Others if any						

13) Achievements under Rainwater Harvesting Structures

Sr. No.	Activities	Number
1	Training programmes	
2	Demonstration	
3	Plant materials produced	
4	Visit by farmers	
5	Visit by officials	

14) Achievements under Pulses Seed Hub programme

Season/Crop	Name of Pulse crop	Variety	Production			Category of seed (F/S, C/S)
			Target (q)	Area sown (ha)	Actual Production (q)	
Kharif	Black gram					
	Green Gram					
	Pigeon pea					
Total (Kharif)						
Rabi	Chick pea					

	Field pea					
	Lentil					
Total (Rabi)						
Summer	Black gram					
Total (Summer)						
Grand Total						

15) NEMA (New Extension Methodologies and Approaches)

Name of Crop with variety	No. of districts	No. of Villages selected	No. of Blocks	No. of household selected	
				Adapter household	Non adapter household

16) Achievements under CSISA (Cereal System Initiative for South Asia) project

S.No.	Name of Programme	Number/quantity
1	Plantation by paddy uppulling	-
2	DSR	-
3	Laser leveler	-
4	Training	-
5	Kisan Mela	-
6	Seminar	-

7	Seed production (q)	-
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(* Only survey work of Rice-Wheat cropping system was done by KVK as per target given by CSISA)

17) Achievements under NIFTD (National Initiatives for fodder technology demonstrations)

Name of fodder	Variety	Production (q)	Training courses	No. of farmers benefitted

18) Achievements under Swachhata Abhiyan Mission

S.No.	Items	No. of Programmes	No. of persons participated
1	Toilet maintenance	-	-
2	Road, drain cleaning	2	25
3	Garbage disposal	4	54
4	Door to door awareness	12	450
5	Awareness campaign	4	152
6	Nookkad Drama	-	-
7	School Drama	-	-
8	School rally	-	-
9	Writing painting slogans	2	16
10	Composting	8	44
11	Other		
12			
13			

19) Achievements under Aspirational District Scheme

Name of programme	Number
Training	
Session No.	
No. of farmers	
Officers/staff involved	
Seed & Plant Distribution	
Programme number	
Seed distribution in q	
No. of plant distributed	
Biological products distributed	
No. of programme organised	
No. of farmers	
Officers/staff involved	
Animal husbandra & fish distribution programme	
Vaccination	
Medicine for control of parasite	
Distribution of mineral mixure	
No. of farmers	
Officers/staff involved	

XVI Awards

S.No.	Name of Award received	Name of KVK/farmer	Year of Award	Date on which award received
1	IARI Fellow 2020/IARI-Innovative Farmer-2020	Mrs. Ashma Khatoon	2020	29.02.2020
2	Jagjivan Ram Abhinav Kisan Puruskar (Zonal)- 2019	Mr. Vigyan Shukla	2019	16.07.2020

Note: Please also mention name of farmer who received the award.

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