

# PROFORMA FOR PREPARATION OF ANNUAL REPORT (April-2018-March-2019)

## 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	37	747	163	910
Rural youths	4	16	86	102
Extension functionaries	4	93	0	93
Sponsored Training	3	66	0	66
Vocational Training	0	0	0	0
<b>Total</b>	<b>48</b>	<b>922</b>	<b>249</b>	<b>1171</b>

### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	10	10	-
Pulses	-	-	-
Cereals	30	15	-
Vegetables	33	5.6	-
Other crops	0	0	-
Hybrid crops	0	0	-
<b>Total</b>	<b>73</b>	<b>30.6</b>	<b>-</b>
Livestock & Fisheries	8	-	24
Other enterprises (KG)	15	0.25	-
<b>Total</b>	<b>23</b>	<b>0.25</b>	<b>-</b>
<b>Grand Total</b>	<b>96</b>	<b>30.85</b>	<b>24</b>

### 3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers/Animals
<b>Technology Assessed</b>			
Crops	7	49	49
Livestock	1	06	18
Various enterprises	-	-	-
<b>Total</b>	<b>8</b>	<b>55</b>	<b>67</b>
<b>Technology Refined</b>			
Crops			
Livestock			
Various enterprises			
<b>Total</b>			
<b>Grand Total</b>	<b>8</b>	<b>55</b>	<b>67</b>

### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	227	7955
Other extension activities	129	Mass
<b>Total</b>	<b>356</b>	<b>7955</b>

## 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Banda	Text only	10	2	-	-	11	-	23
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	10	2	-	-	11	-	23
	<b>Total farmers Benefitted</b>	<b>10000</b>	<b>2500</b>	-	-	<b>6000</b>	-	<b>18500</b>

## 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	61.48	614800
Planting material (No.)	60270	620*
Bio-Products (kg)		-
Livestock Production (No.)	1685 lit milk	67380
Fishery production (No.)	-	-

\*1240 planting material sold to farmers and remaining were distributed free of cost among farmers.

## 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	225	-
Water		
Plant		
<b>Total</b>	<b>225</b>	<b>-</b>

## 8. HRD and Publications

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

## 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	-	<a href="mailto:kvkbanda@gmail.com">kvkbanda@gmail.com</a>

### 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	<a href="mailto:Doe.buat@gmail.com">Doe.buat@gmail.com</a>

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

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

### 1.4. Year of sanction: 2007

### 1.5. Staff Position (as on 30<sup>th</sup> March, 2019)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discip-line	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Perman-ent /Temp-orary	Category (SC/ST/OBC/ Others)	Mobile no.	Age	Email id
1	Programme Coordinator	Dr. Shyam Singh	Sr. Scientist & Head	Agronomy	37400-67000	135300	13.12.2017	Permanent	SC	9450791440	49	Kvkbanda@gmail.com
2	Subject Matter Specialist	Dr S.C. Singh	Scientist	Horticulture	15600-39100	87200	09.02.2018	Permanent	OBC	9411159717	42	Kvkbanda@gmail.com
3	Subject Matter Specialist	Dr. Nikhil Kumar Singh	Scientist	Agornomy	15600-39100	57800	12.12.2017	Permanent	Other	9454192864	34	Kvkbanda@gmail.com
4	Subject Matter Specialist	Dr. Pragya Ojha	Scientist	Home Science	15600-39100	57800	12.12.2017	Permanent	Other	9458891879	30	Kvkbanda@gmail.com
5	Subject Matter Specialist	Dr. Manjul Pandey	Scientist	Plant Protection	15600-39100	57800	12.12.2017	Permanent	Other	6394584646	42	Kvkbanda@gmail.com
6	Subject Matter Specialist	Dr. Manvendra Singh	Scientist	Animal Science	15600-39100	57800	15.12.2017	Permanent	Other	8168313754	35	Kvkbanda@gmail.com
7	Subject Matter Specialist	Dr. Diksha Patel	Scientist	Agriculture Extension	15600-39100	56100	16.04.2018	Permanent	OBC	7404797378	28	Kvkbanda@gmail.com
8	Computer Programmer	Shri Avinash Nigam	Computer Programmer	-	5200-20200	36500	11.12.2017	Permanent	Other	8400120570	34	Kvkbanda@gmail.com
9	Farm Manager	Shri Ghan Shyam Yadav	Farm Manager/Lab Asstt.	-	5200-20200	36500	11.12.2017	Permanent	OBC	7007323455	27	Kvkbanda@gmail.com
10	Programme Assistant	Shri Ajay Kumar Tiwari	Farm Manager/Lab Asstt.	-	5200-20200	35400	24.02.2018	Permanent	Other	8933862656	28	Kvkbanda@gmail.com
11	Accountant / Superintendent	Shri Abhishek Shahi	Accountant	-	5200-20200	36500	11.12.2017	Permanent	Other	7897830330	29	Kvkbanda@gmail.com
12	Stenographer	Shri Sarad Chandra	Stenographe	-	5200-20200	26300	11.12.2017	Permanent	OBC	9648711425	36	Kvkbanda@gmail.com
13	Driver	Shri Chandra Skekhar	Driver	-	5200-20200	22400	11.12.2017	Permanent	Other	9556407161	44	Kvkbanda@gmail.com
14	Driver	Shri Vikas Gupta	Driver	-	5200--20200	22400	11.12.2017	Permanent	Other	7379539458	28	Kvkbanda@gmail.com
15	Supporting staff	Shri Raghuveer	Peon	-	5200-20200	24900	01.06.2010	Permanent	SC	9452226449	50	

16	Supporting staff	Shri Preetam	Peon	-	5200-20200	24200	01.09.2010	Permanent	SC		46	
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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:

A) 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
Seeddrill	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

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

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.	15.02.2019	1. Dr. U.S. Gautam (Hon'ble V.C., BUAT, Banda) 2. Dr. N. K. Bajpai (DE)	1. KVK and line departments should work in collaboration for effective transfer of	All the suggestions have

		3. Dr. G.S. Pawar (Dean, College of Agri.) 4. Dr. S.V. Dwevdi (Dean, Horticulture) 5. Dr. Narendra Singh 6. Shri. A.K. Singh (DDA) 7. Shri Pramod Kumar (DAO) 8. Dr. I.N. Singh (CVO) 9. Shri Subhash Chand Rajpoot (DPO, BAIF) 10. Shri Bholendra Singh (BAIF) 11. Smt. Seema Khan (Social Worker) 12. Shri Lallu ram Prajapati (Senior Horticulture Supervisor) 13. Shri. Shantibhusan Singh (Prog. Farmer) 14. Sri Rahul Awasthi (Prog. Farmer) 15. Shri Ramesh (Prog. Farmer) 16. Shri Jugal Kishore ((Prog. Farmer) 17. Shri Ashok Singh (Prog. Farmer) 18. Shri Vidyasagar (Prog. Farmer) 19. Shri Surendra Pal Singh (Prog. Farmer) 20. Dr. Shyam Singh (Head, KVK) 21. Dr. Subhash Chandra Singh (SMS, Horticulture) 22. Dr. Nikhil Kumar Singh (SMS, Agronomy) 23. Dr. Manjul Pandey (SMS, Plant Protection) 24. Dr. Manvendra Singh (SMS, Animal Science) 25. Dr. Pragya Ojha (SMS, Home Science) 26. Dr. Diksha Patel (SMS, Agriculture Extension) 27. Ghanshyam Yadav (Fram Manager) 28. Ajay Kumar Tiwari (Fram Manager)	2. technologies to farmers Programmes should be on breed improvement and round the year availability of green fodder 3. Zero tillage and micro- irrigation technologies should be promoted 4. There is need to promote horticulture crops including spices, biofortified crops among farmers 5. There is need to promote enterpreurship among rural youth and women 6. Ring budding in Ber plant should be promoted in adopted village under DFI	been included in Action Plan (2019-20) of KVK, Banda
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**Note : This yellow mark may be treated as an example**

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

## 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 / 2019

दिनांक 16 / 01 / 2019

### वैज्ञानिक सलाहकार समिति की दिनांक 15.02.2019 को आयोजित बैठक का कार्यवृत्त

मा० कुलपति महोदय की अध्यक्षता एवं निदेशक प्रसार महोदय की उपस्थिति में आज दिनांक 15.02.2019 को कृषि विज्ञान केन्द्र, बाँदा की वैज्ञानिक सलाहकार समिति की बैठक केन्द्र के प्रािक्षण कक्ष में सम्पन्न हुयी। इस बैठक में निम्न लिखित जनपद के अधिकारियों, वैज्ञानिकों एवं प्रगतिशील कृषकों ने प्रतिभाग किया-

1.	डा० यू०एस० गौतम, माननीय कुलपति महोदय	15.	अशोक सिंह, प्रगतिशील कृषक
2.	डा० एन० के० बाजपेयी, निदेशक प्रसार	16.	श्री विद्या सागर, प्रगतिशील कृषक
3.	डा० जी०एस० पवार, अधिष्ठाता कृषि महाविद्यालय	17.	श्री राहुल अवस्थी, प्रगतिशील जैविक कृषक
4.	डा० एस० वी० द्विवेदी, अधिष्ठाता उद्यान महाविद्यालय	18.	श्री शान्ती भूषण, प्रगतिशील कृषक
5.	डा० नरेन्द्र सिंह, सह निदेशक प्रसार	19.	श्री सुरेन्द्र पाल सिंह, प्रगतिशील कृषक
6.	डा० ए०के० सिंह, उप कृषि निदेशक, बाँदा	20.	डा० श्याम सिंह, अध्यक्ष कृषि विज्ञान केन्द्र
7.	डा० प्रमोद कुमार, जिला कृषि अधिकारी	21.	डा० सुभाष चन्द्र सिंह, वैज्ञानिक, उद्यान
8.	डा० आई०एन० सिंह, मु०प० चिकित्सा अधिकारी, बाँदा	22.	डा० निखिल कुमार सिंह, वैज्ञानिक, सस्य विज्ञान
9.	श्री सुभाष चन्द्र राजपूत, डी०पी०ओ०, बायफ, बाँदा	23.	डा० मंजुल पाण्डेय, वैज्ञानिक, फसल सुरक्षा
10.	श्रीमती सीमा खॉन, समाज कल्याण सेवा समिति, बाँदा	24.	डा० प्रज्ञा ओझा, वैज्ञानिक, गृह विज्ञान
11.	श्री शैलेन्द्र कुमार सिंह बायफ, बाँदा	25.	डा० मानवेन्द्र सिंह, वैज्ञानिक, पशु विज्ञान
12.	श्री लल्लू राम प्रजापति, वरिष्ठ उद्यान निरीक्षक	26.	डा० दीक्षा पटेल, वैज्ञानिक, कृषि प्रसार
13.	श्री रमेश, प्रगतिशील कृषक	27.	श्री घनश्याम यादव, प्रक्षेत्र प्रबन्धक
14.	जुगुल किशोर, प्रगतिशील कृषक	28.	श्री अजय कुमार तिवारी, प्रक्षेत्र प्रबन्धक

बैठक में केन्द्र द्वारा समिति की पिछली बैठक दिनांक 29.07.2017 से जनवरी, 2019 तक सम्पादित कराये गये क्रिया कलापों की समीक्षा हुयी एवं आगामी वित्तीय वर्ष 2019-20 की कार्ययोजना पर विचार-विमर्श कर सुझाव लिये गये। बैठक की शुरुआत करते हुये केन्द्र के अध्यक्ष डा० श्याम सिंह ने मा० कुलपति महोदय एवं अन्य सभी माननीय सदस्यों का पुष्प गुच्छ भेंट कर स्वागत किया तदपश्चात् 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 पश्चात् केन्द्र पर कार्यरत विभिन्न विषयों के विषय वस्तु विषयों 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. तकनीकी हस्तान्तरण को प्रभावी बनाने के लिये कृषि विज्ञान केन्द्र एवं कृषि विभाग मिलकर कार्य करें।
2. कार्ययोजना में आई०एफ०एस० मॉडल को नवविकसित प्रक्षेत्र पर स्थापित करें साथ ही जनपद के सभी विकास खण्डों का प्रतिनिधित्व करने वाले आदर्श मॉडल भी विकसित करने की सलाह दी।
3. अन्ना प्रथा की रोकथाम के लिये नस्ल सुधार एवं वर्ष भर हरे चारे की उपलब्धता के लिये कार्य करने पर जोर दिया।
4. बौछारी सिंचाई एवं टपक सिंचाई की विधि की जानकारी कृषकों तक पहुँचाई जाये।
5. अतिरिक्त आय के स्रोतों की जानकारी कृषकों तक पहुँचाये जिसमें महिलाओं की सहभागिता भी हो।
6. पशुओं के खाने योग्य कैक्टस एवं बहुवर्षीय चारे का प्रदर्शन अपने आई०एफ०एस० मॉडल पर करें।

#### निदेशक प्रसार महोदय के सुझाव-

1. ऑन कैम्पस प्रािक्षण न्यूनतम दो दिन की अवधि का होना चाहिये।
2. केन्द्र के आई०एफ०एस० मॉडल में अलसी, जौ, कठिया गेहूँ, मोटे अनाज एवं माईनर मिलेट्स को सम्मिलित करने पर जोर दिया जाय।
3. पॉली बैग्स में सब्जियों एवं अरहर की पौध तैयार करने के लिये कृषकों को एवं केन्द्र पर भी प्रदर्शन कर इस कार्य को बढ़ावा दिया जाये।
4. अलसी में मूल्य वर्धन के लिये गृह वैज्ञानिक कार्य करें एवं बायो फोर्टीफाईड प्रजातियों को न्यूट्रीशनल वाटिका में प्रदर्शित करें।
5. मसाला वर्गीय, केले की खेती, ड्रेगन फ्रूट, गुलाब, गेंदे आदि पर काम करने की आवश्यकता है।
6. कुक्कुट पालन एवं बकरी पालन की ईकाईयों को केन्द्र पर शीघ्र स्थापित करने का निर्देश दिया।

- जनपद में पशुपालकों को जागरूक करने के उद्देश्य से और अधिक पशु स्वास्थ्य विवर आयोजित कराये जायें।
- घरेलू मक्खी ल्यूड का प्रदर्शन करें।
- प्रशिक्षण के शीर्षक का उद्देश्य विस्तृत एवं सारगर्भित होना चाहिये।
- ऑन फार्म ट्रायल एवं अग्रिम पंक्ति प्रदर्शनों का प्रभावी आकलन किया जाना चाहिये साथ ही प्रदर्शित तकनीकों को कृषकों द्वारा अपनाये जाने के आंकड़े एकत्रित किये जायेंगे।

#### उप कृषि निदेशक महोदय—

- जनपद में धान वाले क्षेत्रों में जीरो टिलेज तकनीक का प्रचार प्रसार करवा जाये।
- चारा उत्पादन एवं सब्जी उत्पादन के क्षेत्रफल बढ़ाने हेतु प्रयास किये जायें।
- डी0एफ0आई0 हेतु चयनित ग्रामों में प्रदर्शन हेतु स्प्रींकलर सिस्टम उपलब्ध कराने का आवासन दिया।

#### जिला कृषि अधिकारी

- मसाला वर्गीय फसलों का एवं बायो फोर्टीफाइट प्रजातियों का प्रचलन बढ़ाने के लिये कार्य किया जाये।

#### मुख्य पशु चिकित्सा अधिकारी—

- पशुओं की नस्ल सुधारने हेतु थारपारकर एवं कान्क्रेज नस्लों द्वारा कृत्रिम गर्भाधान को बढ़ावा दिया जाय।
- कृषकों में पशुओं के टीकाकरण हेतु जागरूकता फैलाई जाये।

#### श्रीमती सीमा खॉन

- महिलाओं एवं बच्चों में कुपोषण की समस्या पर जागरूकता हेतु कार्यक्रम कराये जाये।
- शहरी क्षेत्रों की महिलाओं को भी स्वालम्बन सम्बन्धी प्रशिक्षण दिये जाये।
- स्वरोजगार के नये-नये आयामों की विस्तृत जानकारी प्रदान की जाये।

#### जिला उद्यान अधिकारी—

- फालसा की बागवानी को बढ़ावा दिया जाये तथा फलों एवं सब्जियों की खेती कर फसल सघनता बढ़ाने हेतु कृषकों में जागरूकता फैलाई जाये।

#### श्री अशोक सिंह प्रगतिशील कृषक—

- बकरी पालन पर प्रशिक्षण आयोजित करें तथा सीड-हब जैसे लाभकारी योजनाओं से अन्य किसानों को भी जोड़ने का कार्य करें एवं कृषकों में कृत्रिम गर्भाधान के प्रति जागरूकता एवं विवास को बढ़ावा दिया जायें।

#### श्री शान्ती भूषण प्रगतिशील कृषक —

- जनपद की फसलों की स्थानीय प्रजातियों को बढ़ावा/संरक्षित करने का कार्य किया जाये।

#### श्री राहुल अवस्थी प्रगतिशील कृषक —

- जैविक खेती को बढ़ावा देने के उद्देश्य से मॉडल गाँव विकसित करने के उद्देश्य से जैविक गाँव चयनित कर अभियान के रूप में जैविक खेती का प्रचार-प्रसार किया जाये।

#### डा0 जी0एस0 पवार प्राध्यापक सस्य विज्ञान—

- सब्जियों एवं फलों की पैकेजिंग कर मूल्यवर्धन करने की तकनीक को प्रचारित एवं प्रसारित करें।

#### डा0 एस0 वी0 द्विवेदी प्राध्यापक उद्यान विज्ञान—

- जनपद में केले, सब्जियों एवं औषधीय पौधों की खेती को बढ़ावा दिया जाये।

#### कृषकों की आय दोगुनी करने हेतु चयनित गाँव की प्रस्तावित कार्ययोजना में सुझाव—

- डी0एफ0आई0 हेतु चयनित गाँव सहित अन्य गाँव में पुराने बेर के पौधों पर रिंग बडिंग की तकनीक को प्रचलित करें।
- जखनी गाँव में केले की खेती को बढ़ावा दिया जाये।
- दोनो चयनित गाँव में बौछारी एवं टपक सिंचाई विधि का प्रचार करें।
- समय-समय पर पशु स्वास्थ्य विवर आयोजित कराये जाये।

कार्यक्रम के अन्त में केन्द्र के अध्यक्ष द्वारा सभी सदस्यों का आभार व्यक्त किया गया।

(श्याम सिंह)  
अध्यक्ष

प्रतिलिपि: निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

- समन्वयक तकनीकी सेल, कुलपति कार्यालय
- निदेशक प्रसार, बाँदा कृषि एवं प्रौद्योगिक विविद्यालय, बाँदा।
- सलाहकार समिति के मा0 सदस्य।

(श्याम सिंह)  
अध्यक्ष

## 2. DETAILS OF DISTRICT (2018-19)

### 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 (2017-18)

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
1	Wheat	158943	363699	22.88
2	Barley	846	2404	28.42
3	Gram	96314	87395	9.07
4	Pea	1543	1478	9.58
5	Lentil	30975	21001	6.78
6	Mustard	2886	1940	6.72
7	Linseed	2855	2295	8.04
8	Toria	1240	1170	9.69
9	Paddy	51760	102019	16.28
10	Sorghum	23715	38262	11.46
11	Bajara	3251	6092	12.27
12	Maize	9	20	17.50
13	Greengram	2777	1083	6.68
14	Blackgram	3374	2001	4.26
15	Pigeon pea	17753	26774	15.08
16	Soyabean	22	17	5.74
17	Til	11085	4556	1.51
18	Groundnut	403	656	7.24

### 2.5. Weather data

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
		Maximum	Minimum	
April-18	0	41.12	25.70	
May-18	22.7	41.61	28.39	
June-18	39.4	39.58	30.93	
July-18	373.54	33.28	28.87	



Aug-18	353.99	30.58	27.87	
Sept-18	107.8	30.50	26.25	
Oct-18	0	32.66	22.46	
Nov-18	0	26.78	16.33	
Dec-18	0	20.23	9.56	
Jan-19	2.65	19.55	9.25	
Feb-19	10.1	21.9	13.8	
March-19	0	25.9	15.8	

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

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

Category	Area	Production	Productivity
Fish			
<i>Marine</i>			
<i>Inland</i>			
Prawn			
Scampi			
Shrimp			

## 2.7 Details of Operational area / Villages (2018-19)

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Banda Sadar	Badokhar Khurd	Bargahni Luktara	Arhar, Sesmum Gram, Lentill, Wheat	Lack of Irrigation water Unavailability of improved variety seed	Moisture, Conservation Technique, Introduction of HYV, IPM, INM, IDM
	Tindvari	Bacheura	Arhar, Sesmum , Guava Gram, Lentill, Wheat	Lack of Irrigation water Unavailability of improved variety seed	Moisture, Conservation Technique, Introduction of HYV, IPM, INM, IDM

Baberu	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
	Baberu	Chhanera Lalpur	Arhar, Sesmum, Paddy Gram, Lentill, Fieldpea Wheat	Unavailability of improved variety seed	Introduction of HYV, IPM, INM, IDM
Atarra	Bisanda	Bisanda Atarra Rural	Arhar, Sesmum, Paddy Gram, Lentill, Fieldpea 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
Sorghum	Moisture conservation, IPM, IDM
Pulse crops	Integrated Pest Management, IDM
Oilseed	Weed management, IPM, INM
Wheat	HYV, INM
Fruit & Vegetable crops	Varietal Assessment, ICM , Disease & Pest Management,

## 2.9 Intervention/ Programmes for the doubling the farmers income – during 2018-19

### Demonstrations

<b>Before Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent Yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

<b>After Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

### Adopted village: Bachheura

<b>Before Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							
Kharif (Urd var. Local)	4.8	-	-	12800	11200	1.87	
Rabi (Pea var. Local)	9.35	-	-	11403	11037	1.96	

**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- median). They were suggested to use 100Kg DAP/ha).

Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

<b>After Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							
Kharif (Urd var. IPU-02-43)	6	-	-	14000.0	16000.0	2.14	
Rabi (Pea var. Aman)	16.55	-	-	14660.0	25060.0	2.7	

**Discussion:** After creating awareness through trainings about latest varieties and recommended dose of fertilizers, net income has been increased by using new varieties and 100Kg DAP/ha.

#### **Adopted village: Jakhani**

<b>Before Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							
Rice-Wheat-Summer Moong	1.8	-	-	12800	3800	0.64	
	9.35	-	-	11403	11037	1.96	

**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 100Kg DAP/ha).

<b>After Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							
Kharif (Urd var. IPU-02-43)	2.4	-	-	14000.0	2000.0	0.85	
Rabi (Pea var. Aman)	16.55	-	-	14660.0	25060.0	2.7	

**Discussion:** After creating awareness through trainings about latest varieties and recommended dose of fertilizers, net income has been increased by using new varieties and 100Kg DAP/ha.

<b>Before Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Relay Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

<b>After Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>

Relay Cropping System(Kharif-Rabi-Zaid)-Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

<b>Before Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Mixed Farming System(Kharif-Rabi-Zaid)-Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

<b>After Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
Mixed Farming System(Kharif-Rabi-Zaid) -Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

<b>Before Interventions</b>	<b>Main crop Yield(q/ha)</b>	<b>Inter crop Yield(q/ha)</b>	<b>Equivalent yield(q/ha)</b>	<b>Cost of cultivation(Rs/ha)*</b>	<b>Net income(Rs/ha)</b>	<b>B.C: Ratio</b>	<b>Remark if any</b>
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IFS System(Kharif-Rabi-Zaid) - Livestock etc.							

**Discussion:** 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
IFS System(Kharif-Rabi-Zaid) - Livestock etc.							

**Discussion:** Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \*

Note- Same format may be used for OFT.

### 3. TECHNICAL ACHIEVEMENTS

#### 3.A. Details of target and achievements of mandatory activities by KVK during 2018-19

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
11	8	82	67	30	30.85	95	96

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	74	37	1545	910	244	356	4744	7955
Rural youth	9	4	120	102				
Extn. Functionaries	13	4	229	93				
Sponsored	-	3	-	66				

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
140	61.48	-	10000	60270	-

## 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				
Varietal Evaluation				
Integrated Pest Management	Okra	Assessment of IPM practice for shoot and fruit borer in Okra	4	4
	Gram	Assessment of IPM practice for pod borer in Gram	5	5
Integrated Crop Management	Tomato	To assess the effect of staking with recommended spacing on yield and quality of tomato production	5	5
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management	Wheat	Assessment of chemical weedicide in wheat crop	5	5
	Paddy	Assessment of chemical weedicide in Paddy crop	5	5



Resource Conservation Technology				
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)		Impact assessment of different extension teaching methods for adoption of scientific package of practices of Rabi pulse	15	15
<b>Total</b>			<b>49</b>	<b>49</b>

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

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management				
Production and Management	Buffalo	Calcium supplement and dewormer bolus	18	06
Others (Pl. specify)				
<b>Total</b>			<b>18</b>	<b>06</b>

#### 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	Okra	Assessment of IPM practice for shoot and fruit borer in Okra	4	4
	Gram	Assessment of IPM practice for pod borer in Gram	5	5
Weed management	Paddy	Assessment of chemical weedicide in Paddy crop	5	5
	Wheat	Assessment of chemical weedicide in wheat	5	5
Integrated Farming System				
Resource conservation	Tomato	To assess the effect of staking with recommended spacing on yield and quality of tomato production	5	5
Drudgery Reduction		Reduction of drudgery among farmers through vegetable transplanter	10	10
Production and Management	Buffalo	Calcium supplement and dewormer bolus	18	06
Others		Impact assessment of different extension teaching methods for adoption of scientific package of practices of Rabi pulses	15	15

**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.B. TECHNOLOGY REFINEMENT

### Summary of technologies refined under various **crops** by KVKs

Thematic areas	Crop	Name of the technology refined	No. of trials	No. of farmers
Integrated Nutrient Management				
Varietal Evaluation				
Integrated Pest Management				
Integrated Crop Management				
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Value addition				
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)				
<b>Total</b>				

### Summary of technologies refined under various **livestock** by KVKs

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials	No. of farmers
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management				
Production and Management				
Others (Pl. specify)				
<b>Total</b>				

## Summary of technologies refined under various enterprises by KVKs

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

**Note:** Suppose **IPM in paddy** is the technology refined 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 AND REFINEMENT IN DETAIL

### WEED MANAGEMENT

**Problem definition:** Heavy infestation of weed in Paddy crop

**Technology assessed or refined (as the case may be):** Assessment of Herbicide in Paddy crop

An herbicide evaluation on transplanted rice was carried out by KVK, Banda at five farmers field's of two villages namely; Pachnehi and Bargahani. A popular herbicide namely, Bispyribac Sodium (Nominee Gold) were tested against the farmer practice (hand weeding). The chemical weedicide increases 8.71% yield in NDR-359 variety of rice. Weed management by bispyribac resulted maximum yield (36.7 q/ha) followed by farmers practice (33.5q/ha). This treatment has also maximum net return (Rs. 42405/ha) and 2.9 B:C ratio over farmers practice.

Technology Option	No. of trials	Yield (q/ha)	Yield increase (%)	Net Return (Rs./ha)	B:C Ratio
T-1: Farmer's practice (one hand weeding)	5	33.5	-	35725	2.5
T-2: Bispyribac (35 gm/ha)		36.7	8.71	42405	2.9

### WEED MANAGEMENT

**Problem definition:** Poor yield due to Infestation of weeds in wheat crop

**Technology assessed or refined (as the case may be):** Chemical weed management in wheat crop

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 two villages. A popular herbicide combination namely, Chlorimuron+Metsulfuron methyl were

tested against the farmer practice (hand weeding). The chemical weedicide increases 8.95% yield in Raj 4120 variety of wheat. Weed management by Chlorimuron+Metsulfuron methyl resulted maximum yield (32.4 q/ha) followed by farmers practice (29.5 q/ha). This treatment has also maximum net return (Rs. 39206 /ha) and 2.92 B:C ratio over farmers practice.

Technology Option	No. of trials	Yield (q/ha)	Yield increase (%)	Net Return (Rs./ha)	B:C Ratio
T-1: Farmer's practice (one hand weeding)	5	29.1	-	39206	2.62
T-2: Chlorimuron+Metsulfuron methyl (8 gm/ha)		32.4	10.18	33134	2.92

#### PEST AND DISEASE MANAGEMENT

**Problem definition:** Heavy infestation of fruit and shoot borer in Okra crop

**Technology Assessed or Refined (as the case may be):** Assessment of IPM practice for shoot and fruit borer in Okra

Okra is highly remunerative vegetable crop but fruit and shoot borer affect the yield and profitability of this crop. KVK, Banda conducted on farm trial to assess the best possible measures to manage this insect (crop losses -14 per cent). Treatment includes Pheromones trap's installation to 25-30 DAT@20/ha as a monitoring trap and application of one spray of azadirachtin (1500ppm) @5ml/lit after removal of the infested plants in the field and two spray of Trizophos 35%+ Delta methrin 1%EC @2ml/lit with use of wetting sticker @2ml/lit of water at flowering and fruiting time and second spray after infestation at 15 days interval, found more effective in managing the fruit and shoot borer in okra and 16.1% yield was increased with net return of Rs. 51300 over farmers practice.

Technology Option	No. of trials	Yield (q/ha)	Yield increase (%)	Net Return (Rs./ha)	B:C Ratio
Farmer's practice (spray of improper chemical and conc. Of insecticide)	04	62.8	-	37200	2.45
T2_ (Pheromone trap's installation to 25-30 DAT@20 traps/ha, foliar spray of Azadirachtin(1500PPM) @5ml/lit, spray of Trizophos 35%+Delta methrin 1%EC@2ml/litre +2ml sticker/litre of water at flowering and fruiting phase)		78.9	16.1	51300	2.85

#### 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 (23.4 percent) in yield. KVK, Banda has conducted OFT on integrated pod borer management in chickpea. IPM approach i.e. installation of bird perchers@ 50/ha, nipping process before flowering stage, foliar spray of Azadirachtin (1500ppm)@ 5ml/lit at vegetative and flowering stage and spray of Indoxcarb@500ml/ha at podding time at ETL(one larvae/m row length) was used for assessing the IPM approach for pod borer in chickpea. Results of OFT revealed that the yield of T2 was increased by 23.4 percent while number of larvae/m<sup>2</sup> infestation decreased to 14.2 q/ha and the yield was increased to 11.5q/ha over farmers practice. The net return was Rs 11224/ha and B:C ratio was 0.39. Farmers are satisfied by this technology for pod borer management.

<i>Technology Option</i>	<i>No. of trials</i>	<i>Plant infestation (%)</i>	<i>No. of larvae/plant</i>	<i>Yield (kg/ha)</i>	<i>% Increase in yield over farmer's practice</i>	<i>Gross cost (Rs./ha)</i>	<i>Gross return (Rs/ha)</i>	<i>Net Return (Rs/ha)</i>	<i>B:C ratio</i>
T1- Only chemical spray of Emamectin benzoate @500ml/ha (Farmers Practice)	10	16.1	1.8	11.5	--	23000	53130	30130	2.31
T2- Bird percher@50/ha, nipping process before flowering, spray of Azadirachtin (1500ppm)@ 5ml/lit, spray of Indexcarb@ 500ml/ha at podding time		3.2	0.56	14.2	23.4	24250	65604	41354	2.70

**MSP@4620Rs/Q**

### ***Integrated Crop Management***

**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 60) on yield and quality of tomato where 3 trials have been conducted at farmers field. It was found that 52.50 per cent yield increased by staking with proper spacing method over flat bed method.

<b>Treatments</b>	<b>Yield (Q/ha.)</b>	<b>% change in Yield</b>	<b>No. of fruit/plant</b>	<b>Cost of cultivation (Rs/ha)</b>	<b>Gross return (Rs/ha)</b>	<b>Net Income</b>	<b>BC Ratio**</b>
T <sub>1</sub>	178.0	-	26	55900	178000	122100	3.18
T <sub>2</sub>	272.0	52.80	42	62900	272000	199600	4.32

Interference & Feed back	Staking with proper spacing (60cm X 60cm) method was found effective than flat bed method
Farmers Reaction	Staking method of planting of tomato gave higher yield accepted by majority of farmers of Banda District

### ***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 <sub>1</sub> (Traditional Method)	21 Kg	132/89 mmHg	110	55 %	68	48
T <sub>2</sub> (Mechanized Method)	30 Kg	119/80 mmHg	81	22 %	48	23

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.

## ANIMAL SCIENCE

**Problem Definition:** Low milk production in dairy buffaloes

**Technology Assessed or Refined (as the case may be):** To assess the effect of feeding calcium supplement after deworming on milk production in buffaloes

KVK Banda has conducted trial to find out the reason for low milk production in dairy buffaloes kept by farmers. Lack of knowledge regarding feeding of calcium supplement among farmers is the key reason behind the low production problem. The technology recommended (feeding calcium supplement @70 ml/day/animal) resulted in increase in milk yield by 17.30 %.

Technology Option	No. of trials	Milk Yield lt./day/animal	Yield increase (%)	Gross cost (Rs./day/animal)	Gross return (Rs./day/animal)	Net Return (Rs./day/animal)	B:C Ratio
T <sub>1</sub> Farmers Practice (Straw+Green Fodder + Concentrate)	6	5.2	-	60	208	148	3.46
T <sub>2</sub> Calcium supplement @70 ml /day/animal + Farmers Practice		6.1	17.30	68	244	173	3.58

## II. FRONTLINE DEMONSTRATION

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

FLD or OFT has not been conducted during 2017-18 as there was no staff at KVK Banda.

List of technologies demonstrated during previous year and popularized during 2018-19 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							

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

### b. Details of FLDs implemented during **2018-19** (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.**)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Paddy	WM	(Bispiyribac (35gm/h)	Kharif (2018-19)	5	5	0	5	5	
2	Wheat	INM	Water soluble fertilizer application	Rabi (2018-19)	10	10	2	23	25	
3	Okra	VE	HYV (Kashi Kranti)	Kharif (2018-19)	1	1	0	5	5	
4	Tomato	VE	HYV (Kashi Aman)	Rabi (2018-19)	1	1	5	3	8	
5	Chilli	VE	HYV (Kashi Anmol)	Rabi (2018-19)	1	1	6	2	8	
6	Brinjal	VE	HYV (Kashi Uttam)	Rabi (2018-19)	1	1	6	2	8	
7	Mustard	IPM	IPM	Rabi (2018-19)	5	10	1	9	10	
8	Brinjal	IPM	IPM	Rabi (2018-19)	4	1.6	0	4	4	
9	Buffalo	Feed management	Mineral Mixture	Rabi (2018-19)	24	24	0	8	8	
10	Kitchen Garden	Kitchen Garden	Kitchen Garden Kit	Rabi (2018-19)	15	15	7	8	15	

Details of farming situation



Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)
				N	P	K				
Paddy	<i>Kharif</i>	Irrigated	Clay loam	low	Medium	Medium	Fellow	July, 3 <sup>rd</sup> week	Nov. 4 <sup>th</sup> week	835 mm
Wheat	<i>Rabi</i>	Irrigated	Clay loam	low	Medium	Medium	Paddy	Dec. 1 <sup>st</sup> week	April 4 <sup>th</sup> week	12.75
Okra	<i>Kharif</i>	Irrigated	Clay loam	low	Medium	Medium	Fellow	June, 2 <sup>nd</sup> week	Sept. 3 <sup>rd</sup> week	874 mm
Tomato	<i>Rabi</i>	Irrigated	Clay loam	low	Medium	Medium	Okra	Nov. 2 <sup>nd</sup> week	March, 2 <sup>nd</sup> week	12.75
Chilli	<i>Rabi</i>	Irrigated	Clay loam	low	Medium	Medium	Cucurbits	Nov. 2 <sup>nd</sup> week	March, 2 <sup>nd</sup> week	12.75
Brinjal	<i>Rabi</i>	Irrigated	Clay loam	low	Medium	Medium	Cucurbits	Nov. 2 <sup>nd</sup> week	March, 2 <sup>nd</sup> week	12.75
Mustard	<i>Rabi</i>	Irrigated	Clay loam	low	Medium	Medium	Fellow	Nov. 1 <sup>st</sup> week	March 1 <sup>st</sup> week	12.75

#### Technical Feedback on the demonstrated technologies

S. No	Feed Back
1 Bispiyribac (35gm/ha)	Bispyribac applied in upland condition control weed infestation upto 70%.
2 Water soluble fertilizer application	It enhance the nutrient use efficiency of plant.
3 Okra (Kashi Kranti)	Resistant to YMV, medium plant height, 35-40 fruits/plant
4 Chilli (Kashi Anmol)	Resistant to leaf curl virus, profuse flowering and fruiting
5 Tomato (Kashi Aman)	Determinate type, Resistant to leaf curl virus, medium fruits size, 35-38 fruits/plant
6 Brinjal (Kashi Uttam)	Fruits are round in shape, profuse flowering and fruiting
7 Kitchen Garden	It promotes the food and nutritional security and helpful to combat the problem of malnutrition
8 IPM in Mustard	It enhance the yield of mustard due to effective management of Aphid
9 IPM in Brinjal	It enhance the yield of Brinjal due to effective management of Shoot and fruit borer

#### Farmers' reactions on specific technologies

S. No	Feed Back
1 Bispiyribac (35gm/ha)	Farmers were satisfied with the result of chemical weedicide in term of weed infestation and crop yield.
2 Water soluble fertilizer application	Farmers were satisfied with the result of Water soluble fertilizer application due to instant change in leaf color and also increased in yield.
3 Okra (Kashi Kranti)	Farmers liked the variety Kashi Kranti due to resistant to YMV and yield performance.
4 Chilli (Kashi Anmol)	Farmers liked the variety Kashi Anmol due to resistant to leaf curl virus and yield performance
5 Tomato (Kashi Aman)	Farmers liked the variety Kashi Aman due to resistant to leaf curl virus and yield performance
6 Brinjal (Kashi Uttam)	Maximum number of fruits per plant (20-25 fruits/plant) and resistant to mycoplasma disease but this variety was less preferred by the farmers of Banda due to its indigo colour
7 Kitchen Garden	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.
IPM in Mustard	Farmers were satisfied with the IPM technologies as it was low cost and locally manageable
IPM in Brinjal	Farmers were satisfied with the IPM technologies as it was low cost and locally manageable

#### Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	10	224	
2	Farmers Training	5	115	
3	Media coverage	25	Mass	

## 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										
Groundnut																		
Sesamum																		
Mustard																		
Mustard	IPM	Yellow sticky trap@12/Acre, Spray Azadirachtin (1500PPM)@5ml/lit at pre flowering time and spray of Imidacloprid <a href="#">17.8 SL@ 1ml/3 lit</a> +1ml sticker/litre of water at 15 days of interval	Pitambari	10	10	13.1	10	12.0	9.3	29.0	16500	50400	33900	3.05	15200	39060	23860	2.56
Toria																		
Linseed																		
Sunflower																		
Soybean																		

\* 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										
Pigeonpea																		
Blackgram																		
Greengram																		
Chickpea																		
Fieldpea																		
Lentil																		
Horsegram																		

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

\*\* BCR= GROSS RETURN/GROSS COST

[illegible]

Bajra																			
Barnyard millet																			
Finger millet																			
Vegetables																			
Bottlegourd																			
Bittergourd																			
Cowpea																			
Spongegourd																			
Petha																			
Tomato																			
	Varietal evaluation	Kash Aman	8	1.0	286	232	259	163	58.89			55900	259000	203100	4.63	47300	163000	115700	3.44
Frenchbean																			
Capsicum																			
Chilli																			
	Varietal evaluation	Kashi Anmol	8	1.0	112	97	104.5	76.5	36.60			43000	104500	62500	2.43	39100	76500	38400	1.95
Brinjal																			
	Varietal demo	Kashi Uttam	8	1.0	286	211	248.5	167	48.80			51300	248500	197200	4.84	49400	167000	117600	3.38
Brinjal	IPM	Clipping of damaged shoots and early infested fruits at weekly interval, foliar spray of Azadirachtin (1500PPM) @5ml/lit, spray of Trizophos	04	1.6	168	136	152.8	120.8	26.4			21700	76400	54700	3.5	20500	60400	39900	2.9

[illegible]

[illegible]

\*\* BCR= GROSS RETURN/GROSS COST

[illegible]



<b>Dairy</b>																	
<b>Poultry</b>																	
<b>Sheep &amp; Goat</b>																	
<b>Vaccination</b>																	

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

\*\* BCR= GROSS RETURN/GROSS COST

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.  
 \*\*  $BCR = \text{GROSS RETURN} / \text{GROSS COST}$

## FLD on Other enterprises

[illegible]

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

[illegible][illegible]

**FLD on Demonstration details on crop hybrids** (*Details of Hybrid FLDs implemented during 2018-19*)

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

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

Thematic area	No. of	Participants
---------------	--------	--------------

[illegible]

[illegible]

[illegible]









Others (pl specify)										
<b>Total (a)</b>	<b>4</b>	<b>93</b>	<b>3</b>	<b>96</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>102</b>	<b>3</b>	<b>105</b>
<b>b) Fruits</b>										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	26	0	26	2	0	2	28	0	28
Management of young plants/orchards	1	26	0	26	1	0	1	27	0	27
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
<b>Total (b)</b>	<b>2</b>	<b>52</b>	<b>0</b>	<b>52</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>55</b>	<b>0</b>	<b>55</b>
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
<b>Total (c)</b>										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (d)</b>										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (e)</b>										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (f)</b>										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
<b>Total (g)</b>										
<b>GT (a-g)</b>	<b>6</b>	<b>145</b>	<b>3</b>	<b>148</b>	<b>12</b>	<b>0</b>	<b>12</b>	<b>157</b>	<b>3</b>	<b>160</b>
<b>III Soil Health and Fertility Management</b>										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
<b>Total</b>										
<b>IV Livestock Production and Management</b>										
Dairy Management	1	15	0	15	13	0	13	28	0	28
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	22	0	22	4	0	4	26	0	26
Disease Management	2	44	3	47	0	0	0	44	3	47



		No. of Participants
--	--	---------------------

[illegible]

[illegible][illegible]

[illegible]

[illegible]

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	8	0	8	12	0	12	20	0	20
Integrated Nutrient management										
Rejuvenation of old orchards	1	16	0	16	6	0	6	22	0	22
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	1	11	0	11	14	0	14	25	0	25
Management in farm animals	1	26	0	26	0	0	0	26	0	26
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
<b>TOTAL</b>	<b>4</b>	<b>61</b>	<b>0</b>	<b>61</b>	<b>32</b>	<b>0</b>	<b>32</b>	<b>93</b>	<b>0</b>	<b>93</b>

[illegible]



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

[illegible]

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.										
Agril. para-workers, para-vet training										
Others (pl. specify)										
<b>Total</b>										
<b>Agricultural Extension</b>										
Capacity building and group dynamics										
Others (pl. specify)										
<b>Total</b>										
<b>Grand Total</b>										

#### IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	7	337	3	340
Diagnostic visits	37	156	27	183
Field Day	12	223	26	249
Group discussions	27	815	8	823
Kisan Ghosthi	31	2162	55	2217
Film Show	-	-	-	0
Self -help groups	-	-	-	0
Kisan Mela	01	602	15	617
Exhibition	04	1320	42	1362
Scientists' visit to farmers field	94	182	21	203
Plant/animal health camps	02	52	05	57
Farm Science Club	-	-	-	0
Ex-trainees Sammelan	-	-	-	0
Farmers' seminar/workshop	-	-	-	0
Method Demonstrations	-	-	-	0
Celebration of important days	5	1256	114	1370
Special day celebration	4	345	23	368
Exposure visits	03	158	08	166
Others (pl. specify)	-	-	-	-
<b>Total</b>	<b>227</b>	<b>7608</b>	<b>347</b>	<b>7955</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	-
Extension Literature	11
News paper coverage	102
Popular articles	8
Radio Talks	0
TV Talks	6
Animal health camps (Number of animals treated)	2 (256)
Others (pl. specify)	-
<b>Total</b>	<b>129 (256)</b>

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Banda	Text only	10	2	-	-	11	-	23
	Voice only							
	Voice & Text both							
	<b>Total Messages</b>	10	2	-	-	11	-	23
	<b>Total farmers Benefitted</b>	<b>10000</b>	<b>2500</b>	<b>-</b>	<b>-</b>	<b>6000</b>	<b>-</b>	<b>18500</b>

## 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						
Oilseeds						
Pulses	Blackgram			4.25	42500	
	Chick pea			39.23	392300	
	Lentil			18.00	180000	
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
<b>Total</b>				<b>61.48</b>	<b>614800</b>	

### 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			15000		
	Chilli			15000		
	Tomato			20000		
	Cauliflower			10000		
Fruits						
	Papaya			25		
	Jack Fruit			15		
	Custard apple			80		
	Jamun			50		
Ornamental plants						
	Bogenvillia			100		
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
-	-	-	-	-	-	-
-	-	-	-	-	-	-
Others						
<b>Total</b>				<b>60270</b>	<b>620*</b>	

\*1240 planting material sold to farmers and remaining were distributed free of cost among farmers

**Production of Bio-Products**

<b>Bio Products</b>	<b>Name of the bio-product</b>	<b>Quantity</b>	<b>Value (Rs.)</b>	<b>No. of Farmers</b>
		<b>Kg</b>		
Bio Fertilisers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
<b>Total</b>				

**Table: Production of livestock materials**

<b>Particulars of Live stock</b>	<b>Name of the breed</b>	<b>Number</b>	<b>Value (Rs.)</b>	<b>No. of Farmers</b>
<b>Dairy animals</b>				
Cows	Tharparkar	1685 lit milk	Rs. 67380	
Buffaloes				
Calves				
Others (Pl. specify)				
<b>Poultry</b>				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
<b>Piggery</b>				
Piglet				
Others (Pl. specify)				
<b>Fisheries</b>				
Indian carp				
Exotic carp				
Others (Pl. specify)				
<b>Total</b>				

## VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	225	225	7	
Water				
Plant				
Manure				
Others (pl.specify)				
<b>Total</b>	<b>225</b>	<b>225</b>	<b>7</b>	

## VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
KVK, Banda	1 (15/02/2019)

## IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
बाँदा कृषि समाचार पत्र द्वितीय एवं तृतीय अंक (Banda Krishi Samachar Issue 2 and 3)	1000 copies of each issue
फसल सुरक्षा में सहयोगी मित्र कीट (Insect Helping in Crop Protection)	1000 copies
पशुओं में कृत्रिम गर्भाधान एवं इसका महत्व (Importance of A.I. in Livestock)	1000 copies
पशुओं के अपात कालीन रोग एवं उपचार (Emergency Diseases and their Management)	1000 copies
वैज्ञानिक विधि से मृदा परीक्षण (Scientific Method of Soil Testing)	1000 copies
रसोई वाटिका (Kitchen Garden)	1000 copies
फसल सुरक्षा हेतु जैविक विधियाँ (Biological Method of Crop Protection)	1000 copies
फैरोमोन ट्रैप का उपयोग (Importance and Use of Pheromon Trap)	1000 copies
पशुओं का स्वास्थ्य, प्रमुख रोग एवं उनका उपचार (Important diseases and their treatment in animals )	1000 copies
सूखे की स्थिति में वैकल्पिक कृषि पद्धति सर्वोत्तम उपाय (Alternative agriculture systems in drought condition)	1000 copies

## X. PUBLICATIONS

Category	Number
Research Paper	15
Technical bulletins	3
Technical reports	-
Popular Articles	5
Abstract	8
Others (pl. specify) Extension folders/pamphlets	11

## 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.)



Crops/cultivars	Area (ha)	Extent of damage	Recovery of damage through KVK initiatives if any
Total			

Major area coverage under alternate crops/ varieties		
Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
<b>Total</b>		

Livestock components	Number of interactions	No.of participants
<b>Total</b>		

Number of camps	No. of animals	No. of farmers
2	256	82
<b>Total</b>		

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
<b>Total</b>			

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

[illegible]

### 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
<b>Total</b>				

#### 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
<b>Total</b>			

### 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*

- 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*
- 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*
- 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*

**Name of the KVK**

**TITLE**

**Introduction**

**KVK intervention**

**Output**

**Outcome**

**Impact**

## KVK Case study

### Organic farming: a boon for Bundelkhand

**Situation analysis/ Problem statements:-** Mr. Vigyan Sukha, village Attara Gramin, Post: Atarra block: Naraini, district: Banda, was given training on different aspect of organic farming.. He was earlier involved with traditional; agriculture. He was growing paddy-wheat/Gram/ Lentil in his 1.5 hac. Land. He was hardly getting net profit of 1.00 lakh Rs. Per year.

**Plan, Implement and Support:-** KVK Bnada given training on different aspect of organic farming like preparation of vermicomposting, NADEP compost, bio-fertilizers, bio-pesticide, mushroom etc. This KVK has encouraged the farmer for preparation and marketing of organic products.

**Output:-** Mr. Vigyan Sukla adopted the different aspect of organic farming as per suggestion of KVK's scientist for his 1.5 ha land. He has also opened a commercial dairy with 62 indigenous cows and 4 Murrah Buffaloes. Currently he is producing 220 litres milk per day and 5000 qt. vermicompost per year. The economical gain in terms of per unit expenditure gross income, net return and BCR are recorded. Rs 263000, Rs. 1582000, Rs. 1319000 and 6.01 respectively.

**Outcome:-** The outcome in terms of quality and price of produce motivated the other farmers to produce organic products. Mr. Vigyan Sukla is very happy on improvement in their income, livelihood and set forth example for others. He also promoted by Line department of Banda. He got sanction of opening Jaivik outlet centre under RKVY scheme.

**Impact:-** Mr. Vigyan Sukla is becoming one of the progressive and learned farmers for others with regards to popularization of organic farming in Bundelkhand region. This technology helps him for livelihood, empowerment and make him enthusiastic regards organic farming. He is one of the progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development. Mr. Sanjay Singh is very happy with this improved production and management technology and set forth example for other farmers of the district.



Farmer with Hon'ble MP, Banda and Chitrakoot and KVK's scientist



KVK, Scientists inspecting vermicompost unit

## KVK Case study

### Vegetable production: boon for small and marginal farmers

**Situation analysis/ Problem statements:-** Mr. Gaya Prashad, village Bargaahni, block: Badhokhar Khurd district: Banda, a farmer who was selected for Front line demonstration of Tomato (Kashi Aman). He was earlier involved production of agricultural crops like Gram, Lentil, Green gram in his 1 acre land. He has limited income with this profession.

**Plan, Implement and Support:-** KVK, Banda has encouraged the farmer for scientific package of practices of Tomato, chilli, and Brinjal crop starting from land preparation to harvesting. The High yield variety of Tomato, chilli, and Brinjal was adopted by the farmers.

**Output:-** Mr. Gaya Prashad adopted the scientific package of practices of Tomato, chilli, and Brinjal crop as per suggestion of KVK's scientist. He has taken 3 acre land on lease for vegetable production. Now he is growing HYV of Tomato, chilli, and Brinjal in 4 acres of Land. The economical gain in terms of per unit expenditure gross income, net return and BCR are recorded. Rs 0.9 Lakh, Rs. 3.45 Lakh , Rs. 2.54 Lakh and 3.89 correspondingly.

**Outcome:-** Mr. Gaya Prashad 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:-** Mr. Gaya Prashad is becoming one of the progressive and learned farmers for others with regards to popularization of Vegetable farming. Mr. Sanjay Singh is very happy with this improved production and management technology and set forth example for other farmers of the district. He has also been awarded by KVK, Banda on the occasion of Kisan Samman Diwas.



A farmers with KVK's scientist



Brinjal Crop at farmers field

## XIV. AGRICULTURAL TECHNOLOGY INFORMATION CENTRE

### A. Details on ATICs

S. No	Name of the ATIC	Name of the Host Institute	Name of the ATIC Manager

### B. Details on Farmer's visit

S. No	Purpose of visit	Number of farmer's visited
01	Technology Information	
02	Technology Products	
03	Others if any pl. specify	

### C. Facilities in the ATIC which are in operation

S. No	Particulars	Availability (Please $\sqrt$ mark)	Number of ATICs
01	Reception counter		
02	Exhibition / technology museum		
03	Touch screen Kiosk		
04	Cafeteria		
05	Sales counter		
06	Farmer's feedback register		
07	Others if any (please specify)		

### D. Technology information provided

#### D.1. Details on technology information

S. No	Information category	Number of ATICs	Total number of farmers benefitted	Category of information						
				Varieties / hybrids	Pest management	Disease management	Agro-techniques	Soil and water conservation	Post Harvest technology and Value addition	Animal Husbandry and fisheries
01	Kisan Call Centre / other Phone calls from farmers									
02	Video shows									
03	Letters received									
04	Letters replied									
05	Training to farmers / technocrats / students									
06	Others pl. specify									

#### D.2 . Publications (Print & Electronic media)

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

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

S. No	Particulars	Number of farmers benefited
01	Soil and water testing	225
02	Plant diagnostics	
03	Details about the services to line Departments	
04	Others if any (please specify)	

## XV. TECHNOLOGICAL BACKSTOPPING BY DIRECTORATES OF EXTENSION

**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)
1	BUAT, Banda	Dr. N.K. Bajpai						

### B. Workshops / meetings organized

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

### C. Visits made by DE / Officials in the Directorate to KVKs

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

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

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

**F. Technological Products provided to KVKs**

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

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