



**DR. RAJENDRA PRASAD CENTRAL AGRICULTURAL UNIVERSITY,
BIHAR**

PUSA, SAMASTIPUR - 848125 ATARI, Zone-IV

KRISHI VIGYAN KENDRA HARIHARPUR, VAISHALI

2022 ANNUAL REPORT



KRISHI VIGYAN KENDRA, HARIHARPUR, VAISHALI
DR. RAJENDRA PRASAD CENTRAL AGRICULTURAL UNIVERSITY, PUSA
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 Senior Scientist & Head

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Sr. Scientist & Head
 KVK, Vaishali

ANNUAL REPORT 2022 (1st January-31st December 2022)

1. GENERAL INFORMATION ABOUT THE KVK

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

Name and address of KVK	Telephone		E-Mail
	Office	FAX	
K.V.K., Hariharpur Hajipur, Via Rajauli, Vaishali- 844102	Office No land line connection 6287797172	FAX	head.kvk.vaishali@rpcau.ac.in www.vaishali.kvk4.in

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

Name and address of Host Organization	Telephone		E mail
	Office	FAX	
Dr. Rajendra Prasad Central Agricultural University, Bihar, Pusa, Samastipur- 848125	06274 -240226	06274-240226	raupusa@sancharnet.in

1.3. Name of Senior Scientist and Head with phone & mobile No.

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Sunita Kushwah	Hajipur	9431417421	sunita17kk@rediffmail.com

1.4. Year of sanction of KVK: 1997, 4-17/AE Dated 27.03.97

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

Sl. No.	Sanctioned post	Name of the Incumbent	Designation	Discipline	Pay Scale with Present Basic	Date of joining	Permanent/Temporary	Category (SC/ST/OBC/Others)
1.	Senior Scientist & Head	Dr. Sunita Kushwah	Senior Scientist & Head	Horticulture	37400-67000 143600	02.07.2019	Permanent	Other
2.	Subject Matter Specialist	Mrs. Swapnil Bharti	Subject- Matter Specialist	Horticulture	56100-177500 65000	17.12.2018	Permanent	Other
3.	Subject Matter Specialist	Mr. Prem Prakash Gautam	Subject- Matter Specialist	Plant Protection	56100-177500 63100	07.03.2019	Permanent	SC
4.	Subject Matter Specialist	Mrs. Kumari Namrata	Subject- Matter Specialist	Agriculture Engineering	56100-177500 56100	05.03.2022	Permanent	Other
5.	Subject Matter Specialist	Miss. Kavita Verma	Subject- Matter Specialist	Home Science	56100-177500 56100	07.03.2022	Permanent	OBC
6.	Subject Matter Specialist	Dr. Anup Kumar Singh	Subject- Matter Specialist	Animal Science	56100-177500 56100	07.03.2022	Permanent	Other
7.	Subject Matter Specialist	Miss. Sripriya Das	Subject- Matter Specialist	Crop Production	56100-177500 56100	16.03.2022	Permanent	OBC
8.	Programme Assistant	Vacant	-	-	-	-	-	-
9.	Computer Programmer	Vacant	-	-	-	-	-	-
10.	Farm Manager	Vacant	-	-	-	-	-	-
11.	Accountant / Superintendent	Mrs. Richa Srivastava	Assistant	M.Sc.	35400-112400 (41100)	23.10.2017	Permanent	Other
12.	Stenographer	Mr. Ravi Kumar	Stenographer – III	B.Sc.	25300-81100 (28700)	23.02.2018	Permanent	Other
13.	Driver	Mr. Sonu Kumar	Jeep Driver	Inter	21700-48500 (22400)	01.03.2021	Permanent	Other
14.	Driver	Mr. Randhir Kumar	Tractor Driver	B.Sc.	21700-48500 (22400)	08.03.2021	Permanent	OBC
15.	Supporting staff	Mr. Ramakant	Skilled supporting staff	B.A	18000-39900 (18500)	03.03.2021	Permanent	Other
16.	Supporting staff	Mr. Ravi Ranjan	Skilled supporting staff	I.Sc.	18000-39900 (18500)	13.04.2022	Permanent	Other

1.6. Total land with KVK (in ha):

S. No.	Item	Total Area (ha)	Office (ha)	Hariharpur (ha)	Goraul (ha)
1.	Under Buildings	0.14	0.14	0	0
2.	Under Demonstration Units	0.5	0.1	0.4	0
3.	Under Crops	7.74	0.5	4.52 (Demonstration unit area also included)	2.72
4.	Orchard / BRS/Poly House/Net House	0.116	0.116	0	0
5.	Others with details	1.544	1.144 (Roads, Threshing Floor)	0	0.4 (Pond)
	Total	10.04	2	4.52	3.12

Total area should be matched with breakup

1.7. Infrastructure Development:

A) Buildings and others

S. No.	Name of infrastructure	Not yet started	Completed up to plinth level	Completed up to lintel level	Completed up to roof level	Totally completed	Plinth area (sq.m)	Under use or not*	Source of funding
1.	Administrative Building	-	-	-	-	Completed	550 Sqm	Under use	ICAR
2.	Farmers Hostel	-	-	-	-	Completed	300 Sqm	Under use	ICAR
3.	Staff Quarters (6)	-	-	-	-	Completed	380 Sqm	Not use	ICAR
4.	Piggery unit	-	-	-	-	-	-	-	-
5.	Fencing	-	-	-	-	Completed	-	-	-
6.	Rain Water harvesting structure	-	-	-	-	-	-	-	-
7.	Threshing floor	-	-	-	-	Completed	500 Sqm	Under use	ICAR
8.	Farm godown	-	-	-	-	Completed	170 Sqm	Under use	ICAR
9.	Dairy unit	-	-	-	-	-	-	-	-
10.	Poultry unit	-	-	-	-	-	-	-	-
11.	Goatry unit	-	-	-	-	-	-	-	-
12.	Mushroom Lab	-	-	-	-	Completed	63 Sqm	Under use	ARYA
13.	Mushroom production unit	-	-	-	-	Completed	10.8 Sqm	Under use	ARYA
14.	Shade house	-	-	-	-	Completed	80 Sqm	Under use	ICAR
15.	Soil test Lab	-	-	-	-	Completed	70 Sqm	Under use	ICAR

16	Others, Please Specify								
	1. Polyhouse	-	-	-	-	Completed	600 Sqm	Under use	ICAR
	2. Quail Unit	-	-	-	-	Completed	1.62 Sqm	Under use	ARYA
	3. Azolla Unit (2)	-	-	-	-	Completed	4.32 Sqm	Under use	ICAR
	4. Vermi compost	-	-	-	-	Completed	45 Sqm	Under use	GOB
	5. Zero energy cool chamber	-	-	-	-	Completed	1.89 Sqm	Under use	ICAR
	6. Beekeeping Unit	-	-	-	-	Completed	10 Sqm	Under use	ICAR
	7. Nutritional Garden	-	-	-	-	Completed	125 Sqm	Under use	SCSP
	8. Medicinal Garden	-	-	-	-	Completed	1000 Sqm	Under use	ARYA

* If not in use then since when and reason for non-use

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Mahindra Marshal (BR31B 1080)	06.05.2003	417598.77	369102 (09.09.19)	Condem on 10.06.2020
Tractor (BR01GA 2896)	2009	4,05,000	2102 hrs (31.12.22)	Not functional
Tractor John Deere (New) (BR31GB 2244)	2019	6,26,743.84	974.9 hrs (31.12.22)	Functional
Tractor New Holland (BR31GB8210)	24.06.2021	9,96,151.52	402.3 hrs (31.12.22)	Functional
Motorcycle 1 (BR31Q 7048)	29.08.2016	59090	30063 (31.12.22)	Functional
Motorcycle 2 (BR31Q 7049)	29.08.2016	59090	33142 (31.12.22)	Functional

C) Equipment & AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
a. Lab equipment				
Water distillation	2005	54240	Working	ICAR
Physical Balance	2005	110740	Not working	ICAR
Chemical Balance	2005	8990		
Conductivity meter	2006	10170	Out of order	ICAR
Digital pH meter	2006	10170	Condemned	ICAR
Spectrophoto meter	2006	61020	Condemned	ICAR
Flame Photo meter	2006	47460	Need repair	ICAR
Hot Plate	2006	9040	Working	ICAR

Hot Air oven	2006	15255	Working	ICAR
Shaker	2006	25425	Working	ICAR
Kjheladhl (digital & Distillation System)	2006	27000	Condemned	ICAR
Willey mill Grinder	2006	25425	Condemned	ICAR
Photo Phonies Phil Meteor cover head Projector (twin lamp.)	2003	11172	Condemned	ICAR
Eutech PH miter	2018	24993	Working	ICAR
Laminar Air Flow (1)	2021	71982	Working	ARYA
BOD Incubator (1)	2021	46816	Working	ARYA
Spirt Lamp (2)	2021	1187.2	Working	ARYA
Temperature Meter	2022	33500	Working	ARYA
Egg Incubator	2022	42990	Working	ARYA
Digital Grain Moisture Meter	2022	37524	Working	SCSP
Digital Conductivity Meter	2022	29677	Working	SCSP
Micro Oven	2022	21990	Working	SCSP
Refractro Meter	2022	2583	Working	SCSP
Micro Scope	2022	14900	Working	ARYA
Autoclave Machine	2022	24000	Working	ARYA
b. Farm machinery				
Zero tillage machine	2003		Condemned	Received from ARI, Patna
Zero tillage machine	2007	49000	Condemned	Supply by R.A.U., Pusa
Box	2008	3200	Working	
Cultivator	2009	17000	Good	Supply by R.A.U., Pusa
Trailer with old tyre	2009	51923	Working	Supply by R.A.U., Pusa
MB plough	2009	15385	Good	Supply by R.A.U., Pusa
Laveller	2009	7692	Good	Supply by R.A.U., Pusa
Tractor (MF 1035 DIJ)	2009	405000	Condemned	Supply by R.A.U., Pusa
Trolly with storage box	2009	8900	Working	Supply by R.A.U., Pusa
Potato Planter	2010	40000	Working	NHB, Patna
Potato Digger	2010	46500	Working	NHB, Patna
Conoweeder	2010	1450	Condemned	Supply by

				R.A.U., Pusa
Zero Till Seed cum Fertilizer Drill	2011	-	Working	Supply by R.A.U., Pusa
Disc Harrow 12 disc (Mounted)	2012	-	Working	Supply by R.A.U., Pusa
Self Propelled Reaper	2012	-	Condemned	
Fruit pruning machine	2012	1960931	Working	NHB, Patna
Power Winnowing	2014	19425	Working	KVK
Shaktiman semi champion Rotavator 5.5'	2014	99750	Working	KVK
Grass Trimmer (1)	2021	9762	Working	ARYA
Chain Saw Cutter	2021	18762	Working	ARYA
Chaff Cutter	2022	8300	Working	ARYA
Paddy Thresher	2022	15500	Working	RF
Battery (Exide) - 2	2022	21000	Working	RF
c.AV Aids				
Godrej Prima 15" (38 cm) English type writer with dust cover	2001	11050	Condemned	
Godrej Prima Hindi Type writer	2003	11530	Condemned	
Projector overhead projector voltage stabilizer Laser Printer	2003	11172	Working	
Cylinder-2 regulator	2002	1800	(-do-)	
Generator	2004	40000	(-do-)	
HP Computer System	2004	37765	(-do-) Need upgrading	
Combo Drive	2004	3550	(-do-)	
HP Laser Jet Printer	2004	13699	Condemned	
UPS Elnova	2004	10160	Condemned	
Xerox Machine with stabliser	2004	63492	Condemned	
Refrigerator (Central Purchasing D.E.D., R.A.U., Pusa)	2005	-	Need major repairing	
Stabliser	2005	4400	Condemned	
Laser Pointer	2003	1936	Out of oeder	
Banana fibre extractor machine	2004	19720	Condemned	
Yasika MF2 No. 3514565	2006	1920	Condemned	
Fax Machine Panasonic Model	2005	8990	Condemned	
Fax Machine	2007	15600	Condemned	
Dim Display System (Hakins)	2005	13065	Condemned	
Storewell Grain	2006	10251	(-do-)	

Digital Camera	2005	18750	Condemned	
HP Psc 1402 Serial No-MY58RCCOWY	2006	4500	Condemned	
LCD Projector with Stand & display Stand	2007	7512332	Working	
Photocopier machine Canon (Model No. IR 2018N)	2008	53040	Condemned	
Fax machine Canon-TKD-29711	2008	15600	Condemned	
Digital Camera (Canon 5x110)	2009	29995	Condemned	
Computer (2)	2022	100399	Working	FPO
HP Laser Printer (1)	2022	24293.45	Working	FPO
Table (2)	2022	32200	Working	FPO
Revolving chair (2)	2022	21680	Working	FPO
Vishala Almirah (2)	2022	24980	Working	FPO
Banana fiber extraction (5)	2022		Working	ARYA
Trunk (2)	2022	11600	-	ARYA
Drill Hole Machine	2022	2650	Working	ARYA
Vacuum Machine	2022	3100	Working	ARYA
Lawn Mower (1)	2022	10842	Working	ARYA
CCTV Camera	2022	23335	Working	ARYA
Flour Mill	2022	24990	Working	ARYA
Cabinet Dryer	2022	59964	Working	ARYA
Rapid Air Pryer	2022	7743	Working	ARYA
AC (1)	2022	33199	Working	ARYA
Metal Racks - 4 pic.	2022	18800	Working	ARYA

D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
Zero tillage machine	2003		Condemned	Received from ARI, Patna
Zero tillage machine	2007	49000	Condemned	Supply by R.A.U., Pusa
Box	2008	3200	Working	
Cultivator	2009	17000	Good	Supply by R.A.U., Pusa
Trailer with old tyre	2009	51923	Condemned	Supply by R.A.U., Pusa
MB plough	2009	15385	Good	Supply by R.A.U., Pusa

Leveler	2009	7692	Good	Supply by R.A.U., Pusa
Tractor (MF 1035 DIJ)	2009	405000	Good	Supply by R.A.U., Pusa
Trolley with storage box	2009	8900	Condemned	Supply by R.A.U., Pusa
Potato Planter	2010	40000	Working	NHB, Patna
Potato Digger	2010	46500	Working	NHB, Patna
Conoweeder	2010	1450	Condemned	Supply by R.A.U., Pusa
Marker	2010	1550	Damaged	Supply by R.A.U., Pusa
Zero Till Seed cum Fertilizer Drill	2011	-	Good	Supply by R.A.U., Pusa
Disc Harrow 12 disc (Mounted)	2012	-	Good	Supply by R.A.U., Pusa
Self Propelled Reaper	2012		Condemned	
Fruit pruning machine	2012	1960931	Needs servicing & new blade	NHB, Patna
Power Winnowing	2014	19425	Working	KVK
Shaktiman semi champion Rotavator 5.5'	2014	99750	Not in use	KVK
Zero tillage	2020	43120	Working	RPCAU, Pusa
Multi crop Thresher	2020	128800	Working	RPCAU, Pusa
Potato Planter	2020	97500	Working	RPCAU, Pusa
Power Weeder	2020	47600	Working	RPCAU, Pusa
Self Propelled Reaper cum Binder	2020	520000	Working	RPCAU, Pusa
Happy Seeder	2020	-	Working	BISA, Pusa
Multi Crop Planter (04)	2020	-	Working	BISA, Pusa
Raised Bed Planter (02)	2020	-	Working	BISA, Pusa
Green Seeker	2020	-	Working	BISA, Pusa
Soil Moisture Meter (02)	2020	-	Working	BISA, Pusa
Drum Seeder (02)	2020	-	Working	BISA, Pusa
Laser Land Leveller	2021	-	Working	BISA, Pusa
Raised Bed Planter	2021	-	Working	BISA, Pusa
Mounted Sprayer	2021	-	Working	BISA, Pusa
Zero Tillage	2021	-	Working	BISA, Pusa
Wheat Seeder	2021	-	Working	BISA, Pusa
Tractor Tailor Hydraulic	2021	143400	Working	RPCAU, Pusa

Cultivator	2021	-	Working	RPCAU, Pusa
Tractor Operated Disc Plough	2021	94657	Working	RPCAU, Pusa
Tractor Operated Boom Type Sprayer	2021	-	Working	RPCAU, Pusa
Tractor Operated Reaper cum Binder	2021	342000	Working	RPCAU, Pusa
Rotavator	2021	-	Working	RPCAU, Pusa
Tractor Operated Arrow Blast Sprayer	2021	-	Working	RPCAU, Pusa
Cultivator	2022	-	Working	RPCAU, Pusa

1.8. Details SAC meeting* conducted in the year

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1.	09.12.2021	33			

* Salient recommendation of SAC in bullet form

20वीं वैज्ञानिक सलाहकार समिति (दिनांक 09.12.2021) की बैठक में दिय गये सुझावों पर अनुपालन प्रतिवेदन

क्र० सं०	सुझाव	अनुपालन
1.	ग्रामीण महिलाओं एवं युवतियों को फल परिरक्षण एवं प्रसंस्करण हेतु प्रशिक्षण ।	<ul style="list-style-type: none"> कृषि विज्ञान केन्द्र पर ग्रामीण महिलाओं एवं युवतियों को फल परिरक्षण एवं प्रसंस्करण विषय पर प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 25 थी ।
2.	प्रशिक्षण पश्चात प्रशिक्षणार्थियों की प्रतिक्रिया को दर्ज करना ।	<ul style="list-style-type: none"> कृषि विज्ञान केन्द्र पर आयोजित विभिन्न विषयों पर प्रशिक्षण कार्यक्रम के पश्चात प्रशिक्षणार्थियों की प्रतिक्रिया को प्रश्नावली के माध्यम से दर्ज किया जा रहा है । प्रशिक्षण कार्यक्रम के पूर्व एवं उपरांत तकनीकी ग्रहण का ऑकलन किया जा रहा है ।
3.	कृषि विज्ञान केन्द्र द्वारा बीज उत्पादन विषय पर क्षमता विकास प्रदान करना ।	<ul style="list-style-type: none"> बीज उत्पादन को बढ़ावा देने के लिए वैशाली प्रखंड एवं जिले के अन्य प्रखंडों में किसानों के बीच जागरूकता एवं प्रशिक्षण कार्यक्रम का आयोजन किया गया । जागरूकता एवं प्रशिक्षण कार्यक्रम के उपरांत दलहनी फसल एवं फूलगोभी का बीज उत्पादन में वृद्धि हुई है । हाजीपुर प्रखंड के सेन्दुआरी गाँव में किसानों को फूलगोभी के बीज उत्पादन का प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 16 थी ।
4.	नयी तकनीकों को किसानों तक पहुँचाया जाना साथ ही इससे संबंधित कठिनाईयों का पता लगाना चाहिए और समाधान दिया जाना ।	<ul style="list-style-type: none"> किसानों को लीफ कलर चार्ट (LCC), अवशिष्ट बैग तकनीक से सब्जियों की खेती, एवं संशोधित दपोग नर्सरी का प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 50 थे । लेजर एवं लैंड लेवलर के माध्यम से किसानों के खेत का 100 एकड़ समतलीकरण किया गया । रेज्ड बेड प्लांटर के माध्यम से मक्का लगाया गया । जलमग्न की स्थिति में भी किसान द्वारा मक्के की बुआई मेड़

		<p>पर की जा सकती है। गाँव का नाम—नीरपुर, रेपुरा, बड़डीहा, रसलपुर, बाजितपुर।</p> <ul style="list-style-type: none"> ● लत्तीदार सब्जियों में फ्रूट फलाई नियंत्रण हेतु फ्रूट फलाई ट्रैप का प्रयोग लगभग 25 किसानों के द्वारा करवाया गया जिससे उपज में 15 प्रतिशत की वृद्धि हुई। ● मल्विंग पद्धति द्वारा सब्जी उत्पादन। ● पॉलीटनल में नर्सरी स्थापित करना। ● मशीनों द्वारा बड़े पेड़ों की कटाई—छँटाई करायी गयी है।
5.	कृषि विज्ञान केन्द्र द्वारा जीविका समूह का नर्सरी की तकनीक पर प्रशिक्षण।	<ul style="list-style-type: none"> ● कृषि विज्ञान केन्द्र द्वारा जीविका समूह का नर्सरी की तकनीक पर प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 32 थी। ● देसरी प्रखंड के देसरी गाँव के जीविका के समूह को जैविक विधि द्वारा सब्जी का पौधा तैयार करने का प्रशिक्षण दिया गया जिसमें 52 जीविका दीदी उपस्थित थी। ● लालगंज प्रखंड के गुड़मियों गाँव में किसानों को धान के विभिन्न नर्सरी प्रबंधन विकल्प पर दो दिवसीय प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 20 थी। ● सेन्टर ऑफ एक्सलेंस, देसरी में आयोजित खरीफ किसान चौपाल में किसानों एवं प्रसार कार्यकर्ताओं को खरीफ मौसम में होने वाले फसलों के नर्सरी के विषय पर प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 100 थी।
6.	कृषि विज्ञान केन्द्र द्वारा जलमग्न क्षेत्रों में फसल उत्पादन कार्य।	<ul style="list-style-type: none"> ● इस वर्ष 2022 में बिहार राज्य में पिछले वर्ष की अपेक्षाकृत 18 प्रतिशत कम वर्षा हुई जिसके कारण जल जमाव की स्थिति नहीं हुई और यह कार्य नहीं किया गया।
7.	उद्यमिता विकास पर प्रशिक्षण एवं प्रशिक्षणार्थियों पर इसके प्रभाव का दर्ज करना।	<ul style="list-style-type: none"> ● मशरूम एवं मधुमक्खी पालन में उद्यमिता विकास के लिए प्रशिक्षण का आयोजन किया गया तथा इसके प्रभाव को सफलता की कहानी में दर्ज किया गया। राजीव रंजन, विभा सिन्हा, मीना कुशवाहा इत्यादि किसानों का नाम (मशरूम) सम्मिलित किया गया। ● केला रेशा विषय पर उद्यमिता विकास हेतु 05 प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 123 थी। ● बटेर पालन में उद्यमिता विकास के लिए प्रशिक्षण दिया गया है एवं प्रभाव का विश्लेषण किया गया जिसे इण्डियन जरनल ऑफ एक्सटेंशन एडुकेशन के शोध पत्र में प्रकाशित होने के लिए भेजा गया। ● 160 किसानों की आय दोगुनी की सफलता की कहानी को भारतीय कृषि अनुसंधान परिषद, नई दिल्ली को भेजा गया जिसका विमोचन भारतीय कृषि अनुसंधान परिषद के 94वें स्थापना दिवस पर किया गया।
8.	नई तकनीकों का प्रत्यक्षण एवं अंतरवर्ती फसल उत्पादन।	<ul style="list-style-type: none"> ● पातेपुर प्रखंड के बाजितपुर गाँव में बाजरा मूँग की अंतरवर्ती खेती का प्रत्यक्षण किया गया। ● पातेपुर प्रखंड के बरडीहा गाँव में मक्का – सोयाबीन की अंतरवर्ती खेती का प्रत्यक्षण किया गया। ● आलू-मक्का की अंतरवर्ती खेती का प्रत्यक्षण पातेपुर प्रखंड के रेपुरा एवं नीरपुर गाँव में किया गया। ● अनानास एवं ड्रैगन फ्रूट की खेती।
9.	शून्य जुताई द्वारा आलू उत्पादन, कीटनाशक एवं अन्य पौधा रोगों के दवाई को ड्रोन पद्धति से छिड़काव करना।	<ul style="list-style-type: none"> ● 2.5 एकड़ में शून्य जुताई द्वारा आलू लगाया गया जिसका उपज करीब 1.5 क्विंटल प्रति कट्टा उपजाया गया। ● ड्रोन से दवाई का छिड़काव करने हेतु कृषि विज्ञान केन्द्र को किसी प्रकार की राशि प्राप्त नहीं हुई जिसके कारण यह कार्य सम्पन्न नहीं हो पाया।
10.	केला चिप्स बनाने में नारियल तेल का उपयोग, केला के फूल का आचार बनाना।	<ul style="list-style-type: none"> ● ग्रामीण महिलाओं एवं युवतियों को केला चिप्स बनाने में नारियल तेल के उपयोग विषय पर बिदुपुर गाँव में प्रशिक्षण दिया गया जिसमें लाभार्थियों की संख्या – 23 थी।

11.	कृषि विज्ञान केन्द्र द्वारा विकसित तकनीकों को प्रशिक्षण के माध्यम से किसानों तक पहुँचाना एवं मधु उत्पादन को बढ़ावा देना।	<ul style="list-style-type: none"> नवयुवक/नवयुवती प्रशिक्षण एवं आर्या परियोजना के अन्तर्गत मधु उत्पादन तकनीक पर 03 प्रशिक्षण के माध्यम से 75 बेरोजगार नवयुवक/नवयुवती को प्रशिक्षण दिया गया जिससे मधु उत्पादन को बढ़ाया जा सके।
12.	OFT के तकनीकों का FLD में उपयोग करना।	<ul style="list-style-type: none"> OFT में Pheromone trap का परिणाम मिलने के बाद FLD में 25 किसानों को वितरित किया गया। ऑन फार्म ट्रॉयल विधि से गेन्दे में 30 और 40 दिनों पर पिंचिंग तकनीक को अग्रिम पंक्ति प्रत्यक्षण में लिया गया। ऑन फार्म ट्रॉयल विधि से मशरूम का पाउडर 1 प्रतिशत KMS के द्वारा उपचारित मशरूम पाउडर को अग्रिम पंक्ति प्रत्यक्षण में लाया जागा।
13.	फसलों में कीट को पकड़ने के लिए फेरोमोन ट्रैप एवं फ्रूट फ्लाई ट्रैप का इस्तेमाल करना।	<ul style="list-style-type: none"> टमाटर, भिंडी, फूलगोभी इत्यादि फसलों में Pheromone trap का इस्तेमाल किया गया। आत्मा के द्वारा प्रदत्त कोष से चकवारा एवं भागवतपुर पटेढा गाँव में फूलगोभी लगाने वाले 10-10 किसानों के खेतों में कीट का पता लगाने एवं नियंत्रण हेतु Pheromone trap का प्रयोग किया गया।
14.	कृषि विज्ञान केन्द्र के विभिन्न परियोजनाओं की सहायता की कहानियों से लघु फिल्म विकसित करना।	<ul style="list-style-type: none"> 5वीं प्रसार शिक्षा परिषद् में कृषि विज्ञान केन्द्र पर चल रहे रावे कार्यक्रम के तहत लघु फिल्म विकसित की गई जिसका प्रदर्शन पूर्व कुलपति डॉ० रमेशचन्द्र श्रीवास्तव के का कमलों के द्वारा किया गया। कृषि विज्ञान केन्द्र के दैनिक क्रियाकलाप पर 5 मिनट की लघु फिल्म विकसित की गई जिसे केन्द्र पर चल रहे सभी प्रशिक्षण कार्यक्रम एवं विशेष कार्यक्रम में दिखाया जाता है।

Attach a copy of SAC proceedings along with list of participants

2.a. District level data on agriculture, livestock and farming situation (2022)

Sl.No.	Items	Information
1	Major Farming system/enterprise	Agri. Horti (Vegetable) –Horticulture (Fruits) –A.H. (Animal Husbandry) (Dairy, Goatry& Fishery) (Irrigated and high cropping intensity area) Horti. (Veg.) – A.H.-Agri- Horti (fruits). (Diara area) Agri- A.H.- Hort..(Fruit)- Hort. (Veg). (Rainfed Area) Agri- A.H. (Flood Prone area) Agriculture- A.H. (Water logged or Chaur Area)
2	Agro-climatic Zone	Zone – I, Bihar
3	Agro ecological situation	Upland irrigated/RF, Midland irrigated/RF, Low land rainfed & Chaur land
4	Soil type	Sandy Loam

5	Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others	1.Cereals-Wheat 4151 kg/ha, Rice 1347 kg/ha, Maize 5024 kg/ha 2. Pulses- Lentil 635 kg/ha pigeon pea 760 kg/ha, Green Gram 406 kg/ha 3. Oilseeds- 1190 kg/ha R/M Tisi- 464 Sesame- 394 kg/ha 4. Vegetables- Cauliflower-71371 metric ton, Tomato-13785 metric ton,
6	Mean yearly temperature, rainfall, humidity of the district	Mean Yearly temperature 25.8° C average rainfall 993 mm.
7	Production of major livestock products like milk, egg, meat etc.	Live Stock Dairy Animal- 1. Cross breed Cow- (Average milk yield 10 liter per day) Local Cow- (Average milk yield 03 liter per day) Total Cow- 212170 2. Buffalow- 170804 (Average milk yield in 12 liter per day) 3. Total Production five lakh liter per day

Note: Please give recent data only

2.b. Details of operational area / villages (2022)

Sl. No.	Name of Taluk	Name of the block	Name of the villages	Major crops & enterprises	Major problems identified (crop-wise)	Identified Thrust Areas
1.	Hajipur	Hajipur	Hariharpur	Cauliflower Bringal Paddy Moong Litchi Dairy	Seed certification Boron deficiency Insect pest disease attack. Off season production Uneven floor in dairy house	Quality Seed production. Girdling technology Housing management
2.	Hajipur	Hajipur	Gurmia	Cauliflower Bringal Paddy Maize Litchi Dairy	- do -	- do -
3.	Hajipur	Hajipur	Chakwara	Cauliflower Bringal Tomato	- do -	- do -
4.	Hajipur	Bhagwanpur	Bhagwanpur, Alawalpur, Prataptand	Paddy Maize Mustard Tomato Potato Wheat Litchi	Quality seed material Off season production	Seed production technique for quality crop production. Girdling technology

5.	Hajipur	Hajipur	Ghoshwar	-	Plant Material replacement in banana. Pest Management in Mango. Quality seed material required in time.	Training in Banana & Mango. Production technique. Seed Production technique.
6.	Mahnar	Jandaha	Jandaha	Value addition & income generating activity	Unskilled way for making value added product	Training in making value added product
7.	Hajipur	Lalganj	Jalalpur	Wheat	Quality seed material required	Seed production technique
8.	Hajipur	Hajipur	Hilalpur	Mushroom production Quail production	Economical weaker people	Unemployed Rural youth
9.	Rajapakar	Rajapakar	Faridpur	Integrated pest Management	Farmers are unaware about the IPM technologies	Integrated Pest Management/Integrated Disease management

10.	Mahua	Raja pakar	MukundpurSarsai	Quail	Availability of Quail chick	Hatchery to be established
11.	Hajipur	Hajipur	Senduari	Paddy Maize Mustard Tomato Potato Wheat	Quality seed material, irrigation problem	Seed production technique for quality crop production.
12.	Rajapakar	Rajapakar	Bakhari Barai	Paddy Maize Mustard Tomato Potato Wheat	Quality seed material, irrigation problem	Seed production technique for quality crop production.
13.	Rajapakar	Rajapakar	Sarsai	Papaya Guava Litchi Cauliflower Potato Pointed gourd Capsicum	Problem in cultivation of Papaya Old orchard of Guava	Pruning in Guava Cultivation of Papaya Quality seed production Production of Exotic vegetables
14.	Bidupur	Bidupur	Bidupur	Banana	Unemployed youth	Value addition in banana

15.	Hajipur	Hajipur	Jadhua, Panapur Langa	Nursery	Unemployed youth	Establishment of Nursery
16.	Bidupur	Bidupur	Dhobauli	Papaya Litchi Pointed gourd	Disease infestation in Papaya, Alternate bearing in Litchi Poor quality planting material	Cultivation of Papaya Girdling technology & Good quality planting material
17.	Dharhara	Bhagwanpur	Dharhara	Field crops Mango Litchi	1. Labour availability 2. Fruit drop 3. Alternate bearing	Use of machinery in cultivation Application of Boron Good quality planting material
18.	Hilalalpur	Hajipur	Hilalpur	Wheat Potato	Lower land availability & productivity	Use of Nano fertilizer in Wheat & Potato
19.	Bakhari Barai	Rajapakar	Bakhari Barai	Rice Wheat Mustard	Good quality seed and deficiency of micro nutrient	Use of Sulphur and Boron fertilizer and supply of good quality seeds
20.	Gurmia	Lalganj	Gurmia	Rice Wheat Potato	Lack of assured irrigation and lodging problem	Use of Silica fertilizer in cereal crops

2. c. Details of village adoption programme:

Name of the villages adopted by Sr. Scientist & Head and SMS (in year 2022) for its development and action plan

Name of village	Block	Action taken for development
Villages adopted by SMS (Plant protection)		
Faridpur	Raja Pakar	Integrated pest management (Pheromone trap, Yellow sticky trap, Fruit fly trap)
Senduari	Hajipur	Mushroom spawn and Integrated pest management technology
Naya Gaon	Sahdai	Bee keeping and Integrated pest management technology
Villages adopted by SMS (Horticulture)		
Gurmia	Hajipur	Seed production in Cauliflower, Regular bearing in Litchi
Sarsai	Rajapakar	Pruning in Guava orchard, Cultivation of Casicum, Good quality planting material of Pointed gourd
Dhabauli	Bidupur	Good quality planting material of Pointed gourd, Papaya seedlings
Prataptand	Bhagwanpur	Regular bearing in Litchi
Villages adopted by SMS (Crop Production)		
Dahrara	Hajipur	Sulphur application in Musturd, Pulse Seed treatment with <i>Rhizobium</i> ,
Faridpur	Rajapakar	Leaf Colour Chart (LCC) use in Rice, Natural Farming
Hilalpur	Hajipur	Nano urea application in Wheat
Gurmia	Lalganj	Silica application in Rice
Villages adopted by SMS (Agriculture Engineering)		
Faridpur	Rajapakar	Mulching in Tomato/Farm mechanization
Hilalpur	Hajipur	Food processing and preservation
Senduari	Hajipur	Food processing and preservation
Bidupur	Bidupur	Food processing and preservation
Villages adopted by SMS (Home Science)		
Gurmiya	Hajipur	Nutri garden
Bidupur	Bidupur	Value addition

Hilalpur	Hajipur	Value addition
Villages adopted by SMS (Animal Science)		
Hilalpur	Hajipur	Quail farming
Mansinghpur Rajauli	Hajipur	Goat farming
Gurmia	Hajipur	Dairy farming

2.1 Priority thrust areas

S. No	Thrust area
1.	IFS based model
2.	Vegetable seed Production
3.	Off season vegetables cultivation
4.	Yield increment in Vegetable crops by use of good planting material
5.	Cultivation of fruit (Mango, Litchi & Guava)
6.	Nursery raising
7.	Plant propagation techniques
8.	Fodder Production
9.	Poultry & Quail Production
10.	Integrated Pest Management in Crop, Fruit and Vegetable
11.	Integrated Disease Management in Crop, Fruit and Vegetable
12.	Mushroom & Mushroom Spawn Production
13.	Scientific Beekeeping
14.	Dairy & Goatry for Doubling Income
15.	Vermi compost Production
16.	Food processing and preservation
17.	Farm Mechanization

18.	Value Addition
19.	Women and Child care
20.	Nutrition and Health
21.	Nutri garden
22.	Nutrient Management
23.	Organic Farming
24.	Water Management
25.	Weed Management
26.	Training & Pruning
27.	Seed Production

3. TECHNICAL ACHIEVEMENTS

3.1.Summary details of target and achievement of mandatory activities by KVK during the year2022

OFT												FLD													
No. of technologies tested:												No. of technologies demonstrated:													
Number of OFTs		Number of farmers										Number of FLDs				Number of farmers									
Target	Achievement	Target	Achievement									Target	Achievement	Target	Achievement										
			SC		ST		Others		Total						SC		ST		Others		Total				
			M	F	M	F	M	F	M	F	T				M	F	M	F	M	F	M	F	T		
11	5	49	4	3	0	0	27	5	3	8	3	16	5	16	14	11	0	0	5	4	44	68	55	12	3

Training												Extension activities											
Number of Courses		Number of Participants										Number of activities				Number of participants							
Target	Achievement	Target	Achievement									Target	Achievement	Target	Achievement								
			SC		ST		Others		Total						SC		ST		Others		Total		
			M	F	M	F	M	F	M	F	T				M	F	M	F	M	F	M	F	T
185	101	4650	40	34	0	0	14	61	19	10	27	4921	12206	11970	53	23	0	0	175	814	22	10	33
			6	5			57	9	22	65	86				58	15			42	6	90	46	36
																					0	1	1

Impact of capacity building											Impact of Extension activities										
Number of Participants trained		Number of Trainees got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)									Number of Participants attended		Number of participants got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)								
Target	Achievement	SC		ST		Others		Total			Target	Achievement	SC		ST		Others		Total		
		M	F	M	F	M	F	M	F	T			M	F	M	F	M	F	M	F	T
125	153	16	18	0	0	15	9	31	27	58	4970	12320	267	4	0	0	32	12	59	16	75

Seed production (q)					Planting material (in Lakh)				
Target		Achievement			Target		Achievement		
550 q		Paddy – 70.0 q Potato – 400.0 q Tori – 8.0 q Green gram – 16.5 q Lentil - 42.5 q Maize - 3.5 q Millet - 2.0 q			0.5		Mango- 0.06 Vegetable Seedling – 0.44 Ornamental plants - 0.32 Medicinal & Aromatic plants- 0.005		

Livestock strains and fish fingerlings produced (in lakh)*					Soil, water, plant, manures samples tested (in lakh)				
Target		Achievement			Target		Achievement		
540 Chick/year		Chick-550 pc Egg-350 pc			0.015		0.01522		

* Give no. only in case of fish fingerlings

Publication by KVKs							
Item	Number	No. circulated	No. of Research papers in NAAS rated Journals	Highest NAAS rating of any publication	Average NAAS rating of the publications	Details of awarded publication, if any	Details of Award given to the publication
Research paper	4	Among extension workers, Scientists	4	7.79	5	-	-
Seminar/conference/ symposia papers	5	Mass					
Books							
Bulletins							

News letter							
Popular Articles	9	Mass					
Book Chapter							
Extension Pamphlets/ literature	2	Mass					
Technical reports	13	Official					
Electronic Publication (CD/DVD etc)	3	Among Farmers					
TOTAL	36	0					

3.1.1 Achievements on technologies assessed and refined

A) Agronomy - OFT- 1

1.	Title of On farm Trial	Weed management in wheat
2.	Problem diagnosed	Yield loss due to lack of knowledge of herbicide application in wheat.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmer practice- 1 hand weeding Technology option 1- Sulfosulfuran 25 g ai/ha Technology option 2- Sulfosulfuran 25 g ai/ha + Metasulfuran 4 g ai/ha
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	RPCAU, Pusa, Samastipur
5.	Production system and thematic area	Weed management
6.	Performance of the Technology with performance indicators	Yield, Yield attributes, B:C ratio
7.	Final recommendation for micro level situation	Application of Sulfosulfuran 25 g ai/ha + Metasulfuran 4 g ai/ha in wheat.
8.	Constraints identified and feedback for research	Lack of knowledge of weed management in wheat.
9.	Process of farmers participation and their reaction	Satisfactory.

Thematic area: Weed management

Problem definition: Low yield due to heavy weed infestation

Technology assessed:

Farmer practice (1 hand weeding)

Technology I – Sulfosulfuran 25 g ai/ha

Technology II – Sulfosulfuran 25 g ai/ha + Metasulfuran 4 g ai/ha

Table :

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		No. of effective tillers /hill	No. of spikelet per panicle	Test wt. (100 grain wt.)						
Farmer practice: 1 Hand weeding (30DAS)	07	12	72	23.26	19	28.9	-	40200	16100	1.61
Technology Option I – Pyrazosulfuron @120 g ai/ha followed by conoweeder (25DAS)		26	114	24.08	10	40.50	40.13	62800	34300	2.21
Technology Option II – Bispyribac sodium @ 20 gram /a.i./ha (25DAS)		22	101	23.92	14	38.04	31.62	57500	29900	2.09
Technology Option III - Fenoxaprop-p-ethyl @ 60 gram a.i./ha + 2,4-D@ 0.5 kg ai /ha (25 DAS).		18	89	23.81	17	35.60	23.18	51900	27400	2.06

Results: On Farm Trial has been conducted at 7 locations to evaluate the weed management in wheat for sustainable and higher productivity. It was observed that application of Sulfosulfuran 25 g ai/ha + Metasulfuran 4 g ai/ha in wheat performed based result and yield was 41.2 q/ha.



OFT on weed management in Wheat

B) Crop Production - OFT - 2

1.	Title of On farm Trial	Effect of silica (Si) application in Rice (<i>Oryza sativa</i>)
2.	Problem diagnosed	Rice is a major crop in Vaishali district of Bihar where the crop faces lodging and abiotic stress at maturity due to excessive rainfall and water stagnation. Thus, soil application of Si may be helpful and effective in hardening the plants resulting in resistance to lodging, waterstress and related diseases and pest.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- RDF (N:P ₂ O ₅ :K ₂ O=120:60:40 kg/ha) Technology option 1- RDF (N:P ₂ O ₅ :K ₂ O=120:60:40 kg/ha) + Si @ 25 kg/ha Technology option 2- RDF (N:P ₂ O ₅ :K ₂ O=120:60:40 kg/ha) + Si @ 50 kg/ha
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	PJTSAU, Hyderabad
5.	Production system and thematic area	Nutrient Management
6.	Performance of the Technology with performance indicators	Plant height (cm) No. of effective tiller/hill No. of spikelet/ panicle Test wt. (g) Panicles/m ² Grains/panicle Grain yield (q/ha) Straw yield (q/ha) Cost of cultivation (Rs/ha) Gross Return (Rs/ha) Net Return (Rs/ha) B:C Ratio
7.	Final recommendation for micro level situation	Use of silica (Si) @ 50 kg/ha along with recommended dose of fertilisers in rice crop
8.	Constraints identified and feedback for research	Proper time of application of silicate fertilizer is not clear
9.	Process of farmers participation and their reaction	Training and Short lecture, group discussion, field visits

Thematic area: Nutrient Management

Problem definition: Rice is a major crop in Vaishali district of Bihar where the crop faces lodging and abiotic stress at maturity due to excessive rainfall and water stagnation. Thus, soil application of Si may be helpful and effective in hardening the plants resulting in resistance to lodging, water stress and related diseases and pest.

Technology assessed: Silica fertilizer

Table:

Technology option	No. of trials	Yield component			Disease/ insect pest incidence (%)	Yield(q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return(Rs./ha)	BC ratio
		No. of effective tillers/hill	No. of spikelet per panicle	Test wt. (1000 grain wt.)						
FP: RDF (N:P ₂ O ₅ :K ₂ O=1 20:60:40 kg/ha)	08	20	283.87	23.25g	16 %	36.30	34565	63294	28729	1.83
TO₁: RDF (N:P ₂ O ₅ :K ₂ O=1 20:60:40 kg/ha) + Si@ 25 kg/ha		25	292.25	25.35g	7.5 %	44.31	33774	64847	30428	1.92
TO₂: RDF (N:P ₂ O ₅ :K ₂ O=1 20:60:40 kg/ha) + Si @ 50 kg/ha		25	319.00	25.50g	5.5 %	46.01	33312	66958	33555	2.01

Results: The technology option 2 (TO₂) resulted in maximum grain yield with highest B:C ratio and is recommended for rice crop in Vaishali district of Bihar.



OFT on silica (Si) application in Rice

C) Crop Production - OFT - 3

1.	Title of On farm Trial	Improvement of Nitrogen use efficiency in Wheat
2.	Problem diagnosed	Excessive use of chemical fertilizer and Spiralling price of Urea leads to increase in cost of cultivation
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- RDF (100:40:20) Kg/ha Technology option 1- 50% of RDN & 100% PK + Nano urea @4ml/lt. water (Single spray at 35 DAS). Technology option 2- 50% of RDN & 100% PK + 2 spray of nano urea at 35 DAS) and (60-65 DAS) @ 4ml/lt. water
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Proceeding of OFT finalization workshop at BAU, Sabour (1-3 September, 2022)
5.	Production system and thematic area	Integrated Nutrient Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Soil data before and after pH, EC, OC, NPK) • Yield/ha • No. of effective tillers/m² • 1000 grain weight (g) • Panicle weight (g) • Straw yield (q/ha) • Economics
7.	Final recommendation for micro level situation	Ongoing.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Training and Short lecture, group discussion, field visits

D) Plant Protection - OFT - 4

1.	Title of On farm Trial	Ecofriendly management of Early blight (<i>Alternaria solani</i>) in Tomato
2.	Problem diagnosed	<ul style="list-style-type: none"> ➤ Vaishali district is the major vegetable growing area ➤ Yield losses 40-45% due to infestation of early blight disease ➤ farmers are not aware about new technologies available
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<p>Farmers practice- Spray of any chemical fungicides as per suggestion of locally available pesticide shops</p> <p>Technology option 1- (i) Soil application of multiplied <i>Trichoderma viride</i> @ 1kg in 25kg of Vermicompost before transplanting</p> <p>(ii) Seedling treatment by root dipping in <i>Trichoderma viride</i> solution @ 10g/Liter of water at the time of planting</p> <p>(iii) Spray <i>Trichoderma viride</i> (0.5%) @ 10g/Liter of Water at 7 days interval on standing crop</p> <p>Technology option 2- Spray with Azoxystrobin 23% SC @ 1g/ Liter of water at 10 days interval</p>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Indian Institute of Vegetable Research, Varanasi
5.	Production system and thematic area	Integrated Disease Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • % infected plant before spraying • % infected plant after spraying • Fruit yield (t/ha) • % increase in yield over control • B:C Ratio
7.	Final recommendation for micro level situation	(i) Soil application of multiplied <i>Trichoderma viride</i> @ 1 kg in 25 kg of Vermicompost before transplanting (ii) Seedling treatment by root dipping in <i>Trichoderma viride</i> solution @ 10g/Liter of water at the time of planting (iii) Spray <i>Trichoderma viride</i> (0.5%) @ 10 g/Liter of Water at 7 days interval on standing crop. performed the best result
8.	Constraints identified and feedback for research	No constraints
9.	Process of farmers participation and their reaction	They appreciated and ready for adoption

Table :

Technological Options	% infestation before spraying	% infestation after spraying			Mean	Fruit yield (t/ha)	% increase in yield over control	B:C Ratio
		30 DAT	60 DAT	90 DAT				
PF	38.45	31.50	33.60	37.66	34.25	13.42	-	1.02
TO1	23.64	09.16	14.52	19.41	14.36	18.23	35.84	3.05
TO2	28.33	17.08	22.58	29.50	23.05	16.45	30.02	2.81
SEd	0.06	0.09	0.12	0.19	0.35	0.72	-	-
CD (P=0.05)	0.15	0.20	0.27	0.42	0.81	1.52	-	-
CV (%)	3.68	1.87	1.73	2.79	1.66	1.43	-	-

OFT on Early blight (*Alternaria solani*) in Tomato

E) Plant Protection - OFT- 5

1.	Title of On farm Trial	Efficacy of borer and sucking pest management practices in Okra (<i>Abelmoschus esculentus</i>)
2.	Problem diagnosed	<ul style="list-style-type: none"> ➤ Major infestation of fruit and shoot borer ➤ Whiteflies and other sucking pest damage the crop vigorously ➤ It is estimated that 34-45% damage ➤ farmers are not aware about new technologies available
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<p>Farmers practice- Spray of any insecticide as per suggestion of locally available pesticide shops</p> <p>Technology option 1- Yellow/blue sticky traps @ 10-20 traps/acre + Spray Azadirachtin (1500 ppm) @ 5ml/liter of water + Pheromone trap @15/acre</p> <p>Technology option 2- Installation of Pheromone trap @15/acre + Yellow/blue sticky traps @ 10-20 traps/acre</p> <p>Spray and spray of Enamectin Benzoate 5% SG @ 0.4 g/liter of water.</p>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Directorate of Plant Protection, Quarantine & Storage Faridabad
5.	Production system and thematic area	Integrated Pest Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • No. of nymph and adult/plant • No. of curled leaf/plant • Per plant larval population • Fruit yield (t/ha) • % increase in yield over control • B:C Ratio
7.	Final recommendation for micro level situation	(Yellow/blue sticky traps @ 10-20 traps/acre + Spray Azadirachtin (1500 ppm) @ 5ml/liter of water + Pheromone trap @15/acre) performed the best result
8.	Constraints identified and feedback for research	No constraints
9.	Process of farmers participation and their reaction	They appreciated and ready for adoption

Table :

Technological Options	Mean no. of adult Whitefly/plant				Mean no. of curled leaf/plant				Mean no. of larval population/Plant				Fruit yield t/h	% increase in yield over control	B:C Ratio
	45 DAS	60 DAS	75 DAS	Mean	45 DAS	60 DAS	75 DAS	Mean	45 DAS	60 DAS	75 DAS	Mean			
PF	7.62	11.45	8.31	9.12	7.83	12.27	8.56	9.55	6.93	11.44	6.53	8.3	6.27	-	1.69
TO1	2.41	5.53	3.12	3.68	2.56	5.73	4.12	4.13	4.95	8.21	4.73	5.96	8.66	38.11	3.03
TO2	3.65	7.34	4.23	5.07	4.56	6.89	5.44	5.63	6.43	8.62	7.30	7.45	8.03	28.07	2.81
SEd	0.07	0.36	0.08	0.11	0.13	0.42	0.06	0.12	0.79	1.26	0.13	0.71	0.86	-	-
CD (P=0.05)	0.24	0.81	0.16	0.55	0.35	0.91	0.21	0.65	1.70	2.73	1.22	1.12	1.74	-	-
CV (%)	1.95	3.68	0.89	1.87	1.90	3.14	0.77	1.75	5.81	8.62	2.54	1.83	1.96	-	-

OFT on borer and sucking pest management practices in Okra (*Abelmoschus esculentus*)

F) Plant Protection - OFT - 6

1.	Title of On farm Trial	Eco-friendly management of banana scarring beetle (<i>Basilepta subcostatum</i> Jacoby).
2.	Problem diagnosed	Infestation of scarring beetle on Banana fruit observed in banana orchard.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<p>Farmers practice- Chlorpyrifos 20 EC@1.0 ml/lit.</p> <p>Technology option 1- i) Soil application of Chlorpyrifos 20 EC @ 0.08% (4ml/lit)</p> <p>ii) Bunch spraying with Acephate (0.1125%) just after first hand opening followed by Bunch cover with polypropylene bag</p> <p>Technology option 2- i) Soil application <i>Beauveria bassiana</i> (1x10⁷cfu/ml @ 200ml/plant)</p> <p>ii) Bunch spraying with Acephate (0.1125%) just after first hand opening, followed by bunch cover with polypropylene bag</p>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OFT Finalization workshop of Plant Protection, ATARI, Patna
5.	Production system and thematic area	Integrated Pest Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • No. of scarring beetles/Plant • No. of scars/5 cm² leaf surface • Mean fruit infestation (%) • Bunch weight (Kg/plant) • B:C Ratio
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	No Constraints
9.	Process of farmers participation and their reaction	Awareness training, short lecture, group discussion demonstration and field visits.

G) Plant Protection - OFT - 7

1.	Title of On farm Trial	Eco-friendly management practices to control fruit fly in cucurbits
2.	Problem diagnosed	Sever infestation of fruit fly in cucurbits observed in this district and farmers are fully depend on conventional method of insecticide application.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<p>Farmers practice- Spray of any pesticides as per their knowledge</p> <p>Technology option 1- Mix Ethyl Alcohol-60 ml + Cue lure (P-Acetoxyl butanone-2)-40 ml + Malathion / DDVP-20 ml (<i>i.e.</i>, 6:4:2) @ 10 traps/ha</p> <p>Technology option 2- Bait Application Technique (BAT) spray liquid of 0.1% insecticide (Malathion) and 10% Jaggery or 10 % ripe banana or erect cue lure (Para Pheromone trap) @ 3 per acre to attract and trap male fruit files.</p>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OFT Finalization workshop of Plant Protection, ATARI, Patna
5.	Production system and thematic area	Integrated Pest Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Mean no. of ovipositional punctures/fruit • Mean no. of maggots/fruit • Mean % fruit infestation • Yield (t/ha) • B:C ratio
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	No Constraints
9.	Process of farmers participation and their reaction	Awareness training, short lecture, group discussion demonstration and field visits.

H) Horticulture - OFT- 8

1.	Title of On farm Trial	Increasing the yield of marigold production through pinching technology.	
2.	Problem diagnosed	Marigold is grown in Vaishali district as a commercial crop. Most of growers are not aware about pinching technique so that flower production is low. Without pinching there is lesser number of branches in the plant which decreases the yield.	
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- No pinching Technology option 1- Pinching at 30 and 40 days after planting Technology option 2- Pinching at 40 and 60 days after planting	
4.	Source of Technology (ICAR/AICRP/SAU/other, please specify)	IARI, New Delhi	
5.	Production system and thematic area	Floriculture	
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> ✓ Plant height at monthly intervals ✓ No. of leaves ✓ Days taken to flowering ✓ No. of flowers per plant season wise 	<ul style="list-style-type: none"> ✓ Flower diameter ✓ Flower weight ✓ Seed yield ✓ B:C ratio
7.	Final recommendation for micro level situation	It is resulted that pinching at 30 and 40 days after planting recorded average high flower yield (0.72kg). More number of branches, increase in flower duration and number of flowers per plant was more and plants were healthy, thus this technology recommended for the farmers.	
8.	Constraints identified and feedback for research	Farmers objection in removal of buds in the initial stage of crop.	
9.	Process of farmers participation and their reaction	Field visit and training programmes	

Thematic area: Floriculture

Problem definition: Marigold is grown in Vaishali district as a commercial crop. Most of growers are not aware about pinching technique so that flower production is low. Without pinching there is lesser number of branches in the plant which decreases the yield.

Technology assessed:

FP: No pinching

TO₁: Pinching at 30 and 40 days after planting

TO₂: Pinching at 40 and 60 days after planting

Table :

Treatment	Yield of marigold (t/acre)	Cost of cultivation	Gross return (lac/ha)	Net return (lac/ha)	B:C ratio
Farmers practice-No pinching	15	0.65	1.80	1.15	1.7
Technology option-01 Double pinching at 30 & 40 DAT	23	0.70	2.76	2.06	2.9
Technology option-02 Double pinching at 40 & 60 DAT	20	0.70	2.40	1.70	2.4

Results: It is resulted that pinching at 30 and 40 days after planting recorded average high flower yield (0.72kg). More number of branches, increase in flower duration and number of flowers per plant was more and plants were healthy, thus this technology recommended for the farmers.



OFT on marigold production through pinching technology

I) Horticulture OFT - 9

1.	Title of On farm Trial	Bearing regulation in litchi through girdling of primary branch.
2.	Problem diagnosed	Irregular bearing at young stage of the plant in all litchi cultivars is a phenomenon constraint in general and alternate bearing in cultivar of China group in particular.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- No girdling Technology option 1- Circular girdling 2 mm diameter on 50% primary branches during 1 st week of September. Technology option 2- Circular girdling 4 mm diameter on 50% primary branches during 1 st week of September.
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR-NRC on Litchi Muzaffarpur, AICRP on fruits
5.	Production system and thematic area	Fruit (Regulation of flowering and fruiting in litchi)
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Flowering induced percentage • Days to flowering after girdling • Wound healing • Fruits per panicle • Fruit retention percentage • Appearance of girdled portion • Yield • Fruit weight • Fruit length • TSS
7.	Final recommendation for micro level situation	On going
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Field visit, Interaction with farmers, Training and Demonstrations



OFT on girdling of primary branch in Litchi

J) Horticulture - OFT - 10

1.	Title of On farm Trial	Assessment of microbial consortia against wilting in Solanaceous crops (Brinjal)
2.	Problem diagnosed	Wilt problem in Brinjal is identified in Vaishali district of Bihar and therefore there is reduction in yield.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- Chemical Pesticides Technology option 1- IIHR consortia (Arka microbial consortia) Technology option 2- NRC Litchi consortia
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	IIHR, Bangalore, NRC, Litchi, Muzaffarpur
5.	Production system and thematic area	Integrated Disease Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Initial plant population • First wilt incidence (days after transplanting) • Wilting percentage at 15, 30, 45, 60 & 75 DAT • Yield (q/ha) • Economics (Rs./ha)
7.	Final recommendation for micro level situation	On going
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Field visit, Interaction with farmers, Training and Demonstrations

K) Horticulture - OFT - 11

1.	Title of On farm Trial	Assessment of fruit bagging in Guava for quality improvement
2.	Problem diagnosed	Guava is one of the major fruit crop in Vaishali district, but there is an incidence of fruit fly infestation especially during rainy season which result in significant economics losses. Bagging technique can protect fruit crop from pest and diseases thus improving the quality of fruits.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- No bagging Technology option 1- Cellophane bag cover Technology option 2- Paper bagging
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	CISH, Lucknow
5.	Production system and thematic area	Fruits, Integrated Disease Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Days to maturity • Fruit fly damage (%) • Diseases incidence (%) • Physical damage (%) • Fruit wt (gram) • Appearance pulp colour • Shelf life (days)
7.	Final recommendation for micro level situation	On going
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Field visit, Interaction with farmers, Training and Demonstrations

L) Agricultural Engineering - OFT - 12

1.	Title of On farm Trial	Effect of different packaging materials self life of <i>Oyser</i> mushroom.
2.	Problem diagnosed	Self life of <i>Oyster</i> mushroom is poor
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<p>Farmers practice- Farmer's practice</p> <p>Technology option 1- Suitable punnet (Washed in plain water, pre-treated with 0.05% KMS and dried in solar dryer)</p> <p>Technology option 2- Biodegradable 40-60 micron or 100-150 gauge (Washed in plain water, pre-treated with 0.1 % Citric acid and 0.05% KMS and dried in solar dryer)</p>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	CIPHET, Ludhiana
5.	Production system and thematic area	Food processing and preservation
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Colour • Rehydration • Sensory analysis • Weigh reduction
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Training

M) Agricultural Engineering - OFT - 13

1.	Title of On farm Trial	Effect of low-cost Mulching in vegetable crop production.
2.	Problem diagnosed	Due to weed the yield of Tomato decreases effecting the net return
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- No mulching use Technology option 1- Banana leaf mulch Technology option 2- Crop residue mulch
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	RPCAU, Pusa
5.	Production system and thematic area	Water management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Plant height • Weed population • Yield • Gross income • Net income • BC ratio
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Training

N) Home Science - OFT - 14

1.	Title of On farm Trial	Development of Poshtik Ladoo from locally available food grains for the reduction of malnutrition among children (age 1-3 year) mother of rural families.
2.	Problem diagnosed	The children are not being provided nutrient rich food. Not ready to eat food is being practiced by majority of the children
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice: Normal homemade ladoo Technology option 1- Multigrain ladoo (Wheat + Maize + Finger millet + Green gram) Technology option 2- Finger Millet Ladoo
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	RPCAU, Pusa, ICAR-IIMR
5.	Production system and thematic area	Design and development of high nutrient efficiency diet
6.	Performance of the Technology with performance indicators	1. Sensory evaluation of the developed. Posthik ladoo for its acceptability (5 point hedonic scale). 2. Clinical sign and symptoms
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Field visit, Interaction with farm women, Training and Demonstrations

O) Home Science - OFT - 15

1.	Title of On farm Trial	Assessment of preparation methods of Mushroom Biscuit for more shelf life, enhancement of nutrition & income
2.	Problem diagnosed	Mushroom is a highly perishable food item with low shelf life. Thus, people consume it mostly as fresh vegetable. Therefore, biscuit prepared from mushroom is way to increase it shelf life with high nutrient content.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- Local people consume fresh mushroom as such as vegetables Technology option 1- Preparation of mushroom biscuit Technology option 2- Preparation of mushroom biscuit with ragi
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR-Directorate of Mushroom Research Chambaghat, Solan
5.	Production system and thematic area	Value addition
6.	Performance of the Technology with performance indicators	1. Sensory evaluation (5 point hedonic scale) 2. Shelf life
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Field visit, Interaction with farm women, Training and Demonstrations

P) Animal Science - OFT - 16

1.	Title of On farm Trial	Effect of rubber mat for welfare and production performance of cows
2.	Problem diagnosed	Mastitis, Slippery floor, More standing time, Lower body condition score
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- Farmer's practice (earthen flooring) Technology option 1- Bricks flooring Technology option 2- Bricks flooring + Rubber mat flooring
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	National Dairy Research Institute, Karnal
5.	Production system and thematic area	Production management
6.	Performance of the Technology with performance indicators	1. Milk yield (litre) 2. Sitting time (minutes) 3. Somatic cell count (10^5 per ml) 4. Rumination (per hour)
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Field visit, Interaction with farmers, Training and Demonstrations

Q) Animal Science - OFT - 17

1.	Title of On farm Trial	Study on production and comparative nutritive value of hydroponics wheat and maize fodder
2.	Problem diagnosed	Demand of more green fodder production. Farmers having no idea a producing hydroponic fodder.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice- No idea of producing hydroponic fodder Technology option 1- Hydroponic maize production Technology option 2- Hydroponic wheat production
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	RPCAU, Pusa
5.	Production system and thematic area	Fodder production
6.	Performance of the Technology with performance indicators	1. Fodder/ft ² 2. Height of fodder (cm) 3. Moisture percentage (%) 4. Crude protein (%) 5. Crude fiber (%) 6. Ether extract (%) 7. Total Ash (%) 8. Nitrogen free extract (%)
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Field visit, Interaction with farmers, Training and Demonstrations

3.1.2 Technology Assessed by KVK (Discipline wise)

S. No.	Technologies assessed under various crops by KVKs (Crop Production)			
	Thematic areas	Number of the technologies (Technology Interventions)	No. of trials	No. of Locations
1	Integrated Nutrient Management	3	7	7
2	Varietal Evaluation			
3	Integrated Pest Management	3	7	7
4	Integrated Crop Management			
5	Integrated Disease Management	3	7	7
6	Small Scale Income Generation Enterprises			
7	Weed Management	3	7	7
8	Resource Conservation Technology			
9	Farm Machineries			
10	Integrated Farming System			
11	Seed / Plant production	3	7	7
12	Post Harvest Technology / Value addition	3	7	7
13	Drudgery Reduction			
14	Storage Technique			
15	Others (Pl. specify) Nutrient management	3	8	7
16	Cropping Systems			
17	Farm Mechanization			
18	Others (Water management)	3	7	7
	Total	24	57	56
	Technologies assessed under livestock by KVKs (Animal Science)			
	Thematic areas	No. of technologies (Technology Interventions)	No. of trials	No. of locations
1	Disease Management			
2	Evaluation of Breeds			
3	Feed and Fodder management	3	7	7
4	Nutrition Management			
5	Production and Management	3	7	7

6	Processing and value addition			
7	Others (Pl. specify)			
	Total	6	14	14
	Technologies assessed under various enterprises by KVKs			
	Thematic areas	No. of technologies (Technology Interventions)	No. of trials	No. of locations
1	Drudgery reduction			
2	Entrepreneurship Development			
3	Health and nutrition			
4	Processing and value addition			
5	Energy conservation			
6	Small-scale income generation			
7	Storage techniques			
8	Household food security			
9	Organic farming			
10	Agroforestry management			
11	Mechanization			
12	Resource conservation technology			
13	Value Addition			
14	Others			
	Total	0	0	0
	Technologies assessed under various enterprises for women empowerment			
	Thematic areas	No. of technologies (Technology Interventions)	No. of trials	No. of locations
1	Drudgery Reduction			

2	Entrepreneurship Development			
3	Health and Nutrition			
4	Value Addition	3	7	7
5	Others			
	Total	3	7	7

3.2 Achievements of Frontline Demonstrations during 2022

A. Details of FLDs conducted during the year 2022

Cereals

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration									Reasons for shortfall in achievement	
				Proposed	Actual	SC		ST		Others		Total				
1.	Rice	Nutrient Management	Use of Leaf Colour Chart (LCC) in Rice	05	05	03	00	00	00	14	03	17	03	20	-	
2.	Mustard	Nutrient Management	Secondary-nutrient (Sulphur) application in Mustard	15	15	05	02	0	0	09	04	14	06	20		
3.	Lentil	Nutrient Management	Bio-fertilizer (<i>Rhizobium sp.</i>) application in Lentil	15	15	0	10	0	0	10	0	10	10	20		-
4.	Cucurbitaceous	Integrated Pest Management	Fruit fly trap	10	10	05	0	0	0	17	03	22	03	25		-
5.	Tomato	Integrated Pest Management	Yellow sticky trap	12	12	05	0	0	0	17	03	22	03	25	-	
6.	Cucumber, Pumpkin, Okra, Brinjal, Bitter gourd, Amaranthus	Household food security	Improved variety seed	43 Nos.	43 Nos.	0	13	0	0	0	30	0	43	43	-	
7.	Brinjal	Integrated Pest Management	Pheromone trap	05 Nos.	05 Nos.	03	01	0	0	18	03	21	04	25	-	
8.	Cauliflower	Integrated Pest Management	Pheromone trap	05	05	04	01	0	0	16	04	20	05	25	-	
9.	Cattle		Use of Teat dip cup solution for prevention of mastitis in cattle	40 Nos.	40 Nos.	13	1	0	0	20	6	33	7	40	-	
10.	Pointed gourd	Yield in increment	Rajendra Parwal-1	200 Nos.	200 Nos.	02	0	0	0	08	0	10	0	10	-	
11.	Wheat	Post harvest technology	Hermatic bag	100 Nos.	100 Nos.	0	5	0	0	12	3	12	8	20	-	
12.	Barseem	Fodder production	Distribution of barseem	20 Nos	20	5	2	0	0	12	1	17	3	20	-	

			seeds inoculated with Rhizobium		Nos										
13.	Japanese quail	Poultry production	Distribution of quail chicks for both meat and egg purpose	10 Nos	10 Nos	2	2	0	0	4	2	6	4	10	Non availability of Vanraja chicks therefore Japanese quail was distributed



Use of Leaf Colour Chart (LCC) in Rice



Distribution of Rhizobium bio-fertilizers



Distribution of Leaf Colour Chart to farmers for timely application of fertilizer in Paddy crop



Distribution of Pheromone trap & yellow sticky trap to the farmers



Installation of Pheromone trap in Okra



Installation of Yellow sticky trap in Okra



**Installation of Pheromone trap in
Cauliflower to the farmers field**



**Distribution of vegetable seed to the farm
women for development of kitchen garden**



Distribution of Teat dip cup solution for prevention of mastitis in cattle



Distribution of Pointed gourd Var. Rajendra Parwal-1 planting material to the farmers



Distribution of Marigold seedlings to the farmers for popularization of pinching technology



Distribution of Hermetic bag to the farmers for prevention of spoilage of seed

Details of farming situation

Sl.No	Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)				Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
					N	P ₂ O ₅	K ₂ O	OC					
1.	Rice	Kharif	Irrigated/Rainfed	Sandy loam	191	47	195	0.12	Moong	22.07.22	26.10.22	-	-
2.	Mustard	Rabi	Irrigated	Sandy loam	176	45	185	0.15	Rice	18.10.22	-	-	-
3.	Lentil	Rabi	Rainfed	Sandy loam	155	30	155	0.13	Rice	19.11.22	-	-	-
4.	Pointed gourd	Rabi	Irrigated	Sandy loam	163	48	176	0.13	Brinjal	10.10.22	-	-	-
5.	Marigold	Rabi	Irrigated	Sandy loam	166	43	161	0.14	Tomato	30.08.22	20.10.22	0 mm	-
6.	Cucurbitaceous vegetable	Summer	Irrigated	Sandy loam	153	45	142	0.15	Mustard	16.03.22	27.05.22	0 mm	-
7.	Tomato	Rabi	Irrigated	Sandy loam	152	53	147	0.13	Okra	20.10.22	25.02.22	0 mm	-
8.	Cauliflower	Rabi	Irrigated	Sandy loam	149	46	133	0.13	Brinjal	17.10.22	10.02.22	0 mm	-
9.	Okra	Kharif	Irrigated	Sandy loam	146	51	129	0.16	Green gram	11.07.22	25.10.22	0 mm	-
10.	Improved variety of Cucumber, Pumpkin, Okra, Brinjal, Bitter gourd, Amaranthus	Kharif	Irrigated	Sandy loam	156	41	164	0.14	Tomato, Brinjal, Chilli, Bottle gourd	20.07.22	10.09.22		-
11.	Barseem	Rabi	Irrigated	Sandy loam	151	45	161	0.16	Fallow land	20.11.22	On going	-	-

In both the Tables, information of same crop should be provided. For example, if in Table 3.2A crops are mentioned as a,b,c,d etc., in the table for Details of farming situation, the same crop should be mentioned in the identical sequence.

B. Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Mustard (Rai)	Nutrient Management	Sulphur application in Oilseed crops	20	15	On going										
Total			20	15											

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

** BCR= GROSS RETURN/GROSS COST

Pulses

Frontline demonstration on pulse crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Lentil	Nutrient Management	Biofertiliser application in Pulse crops	20	15	On going										
Total			20	15											

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

** BCR= GROSS RETURN/GROSS COST

Horticultural crops (separately Fruit, Vegetables, Flower, Medicinal and aromatics, etc.)

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)/No.	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cucurbitaceous vegetable	Integrated pest Management	Fruit fly trap	25	10	125	94	32.97	21000	183000	162000	4.23	23000	165000	142000	3.12
Okra	Shoot and Fruit borer	Pheromone Trap	25	10	150	115	30.43	53000	332000	279000	4.32	55000	265000	210000	3.06
Tomato	Integrated pest Management	Yellow sticky trap	25	12	300	223	34.52	55000	306000	251000	4.65	60000	212000	152000	3.81
Cucumber, Pumpkin, Okra, Brinjal, Bitter gourd, Amaranthus	Household food security	Improved variety seed	43	43	198	159	18.23	22000	97000	75000	4.4	24500	78000	53500	3.18
Marigold	Yield Increment	Pinching technology in marigold	10	2.8	23	15	53.33	1.71	6.75	5.03	2.9	1.59	4.4	2.8	1.7
Brinjal	Integrated Pest Management	Pheromone trap	25	05	Ongoing.										
Cucurbitaceous	Integrated Pest Management	Fruit fly trap	25	05	Ongoing.										
Cauliflower	Integrated Pest Management	Pheromone trap	25	05	Ongoing.										
Pointed gourd	Yield in increment	Rajendra Parwal-1	10	200 Nos.	Ongoing.										
	Total		213	92.8 ha/200 Nos											

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

** BCR= GROSS RETURN/GROSS COST

Other crops

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR

[illegible]

Demonstration details on crop hybrid varieties

[illegible]

Duckery																	
Others (Pl.specify)																	
Total																	

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

** BCR= GROSS RETURN/GROSS COST

Fisheries : NA

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																	
Mussels																	
Ornamental fishes																	
Others (pl.specify)																	
Total																	

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

** BCR= GROSS RETURN/GROSS COST

Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit				*Economics of check (Rs.) or Rs./unit			
				Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Oyster mushroom	Enterprise development Oystrous sp.	25	25	620 kg	250 kg	148	-	-	22500	108350	85850	4.81	8500	48000	39500	5.64
Button mushroom																
Vermicompost																
Sericulture																
Apiculture	Super box & honey extractor	10	10	623 kg	315 kg	97.77	-	-	160000	355000	195000	2.21	175000	301000	126000	1.72

Others (pl.specify)																
Total		35	35													

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

** BCR= GROSS RETURN/GROSS COST

Women empowerment

Category	Name of technology	No. of demonstrations	Observations		Remarks
			Demonstration	Check	
Farm Women					
Pregnant women					
Adolescent Girl					
Other women					
Children					
Neonatal					
Infants					

Farm implements and machinery

Name of the implement	Crop	Name of the technology demonstrated	No. of Farmer	Area (ha)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit)			
					Demonstration	Check									

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

** BCR= GROSS RETURN/GROSS COST

Farm Machinery

Category	Name of the implement / Equipment / Tool	Crop (if applicable)	No. of Technologies	No. of Demos	Area (ha)
Sowing and planting tools and machineries					
Total					

Intercultural operation tools and machineries					
Total					
Irrigation management tools and machineries					
Total					
Plant protection tools and machineries					
Total	Knapsak sprayer	Vegetables, Cereals & other crops	1	5	
Harvesting tools and machineries					
Total					
Postharvest processing tools and machineries					
Total	Tray dryer	Banana	1	5	
Total mechanization tools and machineries					
Total					
Others					
Total	Hermatic bag	Wheat	1	20	
Grand Total					

Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back
1.	Fruit fly trap	It is very cost effective and eco-friendly management practice of fruit fly in Fruit as well as vegetable
2.	Pheromone trap	Cost effective and eco-friendly management practice of brinjal fruit and shoot borer and Tobacco caterpillar
3.	Kitchen garden	Availability of vegetables at low cost at household level
4.	Marigold	Double pinching at 30 & 40 days gives higher BC ratio in the Vaishali district of Bihar and therefore this is recommended to the farmers for higher returns
5.	Rice (Leaf Colour Chart)	Low cost and eco-friendly technology which helps in significant reduction in the amount of nitrogenous fertilizers used, thus increasing the B:C ratio.
6.	Teat cup dip with solution	This is low cost and significantly reduce the somatic cell count.
7.	Hermatic bag	It prevents the insects and reduces storage loss. It preserves the product without use of pesticides.

Extension and Training activities under FLD

Sl. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	18.08.2022 & 28.09.2022	02	30	Scientists visited farmers field

					and got feedback on lesser use of nitrogenous fertilizers due to the use of LCC.
		17.03.2022	01	35	Integrated Pest Management
		04.05.2022	02	30	Technology demonstration
		25.06.2022	01	32	Teat dip technology
		23.12.2022	01	30	Installation of Pheromone trap in Cauliflower and demonstrated to the farmers
		26.10.2022	02	32	Demonstration of Hermatic bag
		28.10.2022		35	
2.	Farmers Training	12.05.2022 & 13.06.2022	01	40	Farmers showed interest in this technology and LCC was distributed among the trainees
		25.05.2022	01	45	Scientist visited farmers field and demonstrated the Teat dip technology which was liked by the farmers.
		1.10.2022	01	35	Pointed gourd, variety Rajendra Parwal-1 was provided to the farmers after giving training to the farmers regarding its production technology
		5.8.2022	01	43	Cropping in kitchen garden
		29.06.2022	01	32	Integrated Pest Management in Kharif crop
		05.09.2022	01	33	Use and benefits of hermetic bag in storage and bag was distributed among farmers
		07.09.2022	01	35	Use and benefits of hermetic bag in storage and bag was distributed among farmers
3.	Media coverage	05.05.2022	-	-	-
4.	Training for extension functionaries	01.07.2022	01	115	Information on use and availability of LCC was given to ATMs, BTMs and ACs.

Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif, Rabi and summer 2021-22 & 2022-23

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha) 7 years	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1.	Mustard (Rai)	Local	10.24	82	225	1172	Boron 20% + Rajendra suflam + Sulphur	74	20	14.2	11.35	25.55	15	15	28
2.	Mustard (Rai)	Local variety	10.50	-	-	-	Rajendra suflam+ Application of pendimethalin, sulphur, boron and zinc.	58	20	Ongoing					
3.	Lentil	Local variety	15.5	-	-	-	IPL 316 + Seed treatment with Rhizobium, application of pendimethalin, sulphur, boron and zinc.	38	22	Ongoing					

D. Pulses/Oilseed Farmers' perception of the intervention demonstrated 2022

Sl. No.	Technologies demonstrated (with name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
1.	Improved variety	Very much appreciated due to less incidence of insect pest	Very much preferred	Little bit costlier but affordable	No	Yes	Needs further for soil health
2.	Application of pendimethalin, sulphur, boron and zinc in mustard (Rajendra sufalam)	Ongoing					
3.	Seed treatment with Rhizobium, application of pendimethalin, sulphur, boron and zinc in Lentil (IPL-316)	Ongoing					

E. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Yield	Bitter yield in field	Bitter yield due to bold seed	Customer preferred to buy bold seed
Application of pendimethalin, sulphur, boron and zinc in mustard (Rajendra sufalam)	Better performance of growth parameters with less infestation of diseases and pest	Better performance as compared to local check.	Final feedback is awaited
Seed treatment with Rhizobium, application of pendimethalin, sulphur, boron and zinc in Lentil (IPL-316)	Better performance of growth parameters with less infestation of diseases and pest	Better performance as compared to local check	Final feedback is awaited

F. Extension activities under FLD conducted:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1.	Field day	6.01.2022, Bakhari Barai	20
2.	Field day	23.11.2022 and Dhahrara	35
3.	Field day	29.12.2022 and Faridpur	30
4.	Training programme on Seed Treatment of Pulses	02.11.2022 and KVK Training Hall	25

G. Sequential good quality photographs (as per crop stages i.e. growth & development)



CFLD on Mustard

H. Farmers' training photographs



Training on CFLD in Oilseed

I. Quality Action Photographs of field visits/field days and technology demonstrated.



Distribution of Oilseeds in CFLD



Field visit in CFLD Pulse

J. Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Oilseeds	i) Critical input	-	80911	28738
	ii) TA/DA/POL etc. for monitoring	-	10351	-
	Total	-	91262	28738
Pulses	i) Critical input	52190	158812	183345
	ii) TA/DA/POL etc. for monitoring	-	17843	-
	Total	52190	176655	183345

A) Farmers and farm women Including the sponsored training programme (on campus)

[illegible]

[illegible]

[illegible]

B) Rural Youth Including the sponsored training programmes (on campus)

[illegible]

C) Extension Personnel Including the sponsored training programmes(on campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops													
Value addition													
Integrated Pest Management	1	16	7	23	5	2	7	0	0	0	21	9	30
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security	1	0	14	14	0	5	5	0	0	0	0	19	19
Women and Child care	2	0	9	9	0	26	26	0	0	0	0	35	35
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
TOTAL	4	16	30	46	5	33	38	0	0	0	21	63	84

D) Farmers and farm women Including the sponsored training programmes (off campus)

[illegible]

[illegible]

[illegible]

[illegible]

E)RURAL YOUTH Including the sponsored training programmes (Off Campus)

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post-Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any													
TOTAL	1	0	16	16	0	9	9	0	0	0	0	25	25

F) Extension Personnel Including the sponsored training programmes (Off Campus)

Thematic Area	No. of Course s	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	2	157	63	220	68	18	86	0	0	0	225	81	306
Integrated Pest Management	1	38	7	45	8	2	10	0	0	0	46	9	55
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements	1	21	2	23	2	1	3	0	0	0	23	3	26
WTO and IPR issues													
Management in farm animals	1	10	1	11	1	0	1	0	0	0	11	1	12
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
TOTAL	5	226	73	299	79	21	100	0	0	0	305	94	399

i. Farmers & Farm Women

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
TOTAL													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
f) Spices													
Production and Management technology	1	13	3	16	5	2	7	0	0	0	18	5	23
Processing and value addition													
Others, if any													
TOTAL	1	13	3	16	5	2	7	0	0	0	18	5	23
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
TOTAL													
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
TOTAL													
IV. Livestock Production and Management													
Dairy Management	4	39	0	39	21	18	39	0	0	0	60	18	78
Poultry Management													
Piggery Management													
Rabbit Management													
Disease Management	6	119	3	122	13	0	13	0	0	0	132	3	135
Feed management	1	14	0	14	1	0	1	0	0	0	15	0	15
Production of quality animal products	1	14	0	14	1	0	1	0	0	0	15	0	15
Others, if any (Goat farming)	2	15	5	20	33	2	35	0	0	0	48	7	55
TOTAL	14	201	8	209	69	20	89	0	0	0	270	28	298
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	2	0	21	21	0	38	38	0	0	0	0	59	59
Design and development of low/minimum cost diet													
Designing and development for high	1	0	13	13	0	17	17	0	0	0	0	30	30

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Fish processing and value addition													
Others, if any													
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													
Others, if any													
TOTAL													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any													
TOTAL													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
TOTAL													
XII. Others (Pl. specify)													
TOTAL	84	1150	381	1531	300	286	586	0	0	0	1475	642	2098



ON campus training (Animal Science)



OFF campus training (Plant Protection)



OFF campus training (Agri. Engeniring)



ON campus training (Home Science)



ON campus training (Animal Science)



OFF campus training (Animal Science)



ON campus training (Crop Production)



OFF campus training (Crop Production)

[illegible]

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post-Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Enterprise development													
Income generation activities for empowerment	2	0	21	21	0	46	46	0	0	0	0	67	67
Others if any (ICT application in agriculture)	1	2	12	14	0	8	8	0	0	0	2	20	22
TOTAL	11	98	66	164	34	93	127	0	0	0	129	159	291



Rural youth training on Mushroom production



Practical on Mushroom production



Practical on Banana fiber extraction



Rural youth training in Banana fiber extraction



Practical on Handi crafts making



Rural youth training on Banana fiber handicrafts making



Practical on Dying of fiber



Rural youth training on Goat rearing



Distribution of Certificate among farmers on Mushroom production

iii. Extension Personnel (On and Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	2	157	63	220	68	18	86	0	0	0	225	81	306
Integrated Pest Management	2	54	14	68	13	4	17	0	0	0	67	18	85
Integrated Nutrient management													
Rejuvenation of old orchards													
Value addition													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements	1	21	2	23	2	1	3	0	0	0	23	3	26
WTO and IPR issues													
Management in farm animals	1	10	1	11	1	0	1	0	0	0	11	1	12
Livestock feed and fodder production													
Household food security	1	0	14	14	0	5	5	0	0	0	0	19	19
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
Others if any	1	45	4	49	8	4	12	0	0	0	53	8	61
TOTAL	8	287	98	385	92	32	124	0	0	0	379	130	509



Extension functionaries training



**Extension functionaries training on
CRA**

Please furnish the details of training programmes as Annexure in the proforma given below

Discipline/Date	Clientele	Title of the training programme	Duration in days	Venue (On/ Off Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
I. CROP PRODUCTION										
03.01.22	PF	Integrated weed management	1	OFF campus	14	0	14	4	0	4
24.01.22	PF	Integrated nutrient management	1	OFF campus	29	0	29	8	0	8
31.01.22	PF	Organic farming	1	OFF campus	17	0	17	6	0	6
10.02.22	PF	Technologies to increase the productivity of Pulse crop	1	ON campus	0	33	33	0	12	12
24.02.22	PF	Cultivation of Summer moong	1	OFF campus	21	0	21	7	0	7
11.05.22 & 12.05.22	PF	Benefits and use of leaf colour chart (LCC) in cereal crop	2	ON campus	18	0	18	4	0	4
07.06.22 & 08.06.22	PF	Green manuring: Benefits & Concept	2	ON campus	21	8	29	7	0	7
09.06.22 & 10.06.20	PF	Nursery management options in Paddy	2	OFF campus	20	0	20	5	0	5
12.07.22 & 13.07.22	PF	Natural farming	2	ON campus	8	13	21	0	5	5
28.07.22	PF	Composting	1	OFF campus	22	0	22	5	0	5
20.08.22	PF	Awareness and control of Parthenium	1	ON campus	21	2	23	0	0	0
27.08.22	PF	Scientific	1	OFF	23	0	23	0	0	0

		procedure of soil sampling		campus						
29.08.22	PF	Cauliflower seed production	1	OFF campus	14	2	16	2	0	2
22.09.22 to 24.09.22	PF	Organic farming	1	ON campus	218	0	18	0	0	0
29.09.22	PF	Resource conservation technologies	1	ON campus	30	0	30	5	0	5
13.10.22	PF	Resource conservation technologies	1	ON campus	60	0	60	15	0	15
22.10.22	EF	Rabi workshop with training programme	1	OFF campus	150	50	200	50	10	60
02.11.22	PF	Seed treatment of Pulses	1	ON campus	25	0	25	0	0	0
17.11.22 to 19.11.22	RY	Organic farming	3	ON campus	21	4	25	0	0	0
22.11.22	PF	Weed management in Rabi crops	1	OFF campus	29	5	34	4	0	4
05.12.22	PF	Sustainable use of soil resources	1	ON campus	20	0	20	0	0	0
19.12.22	EF	Climate Resilient Agriculture	1	OFF campus	75	36	106	15	8	23

II. HORTICULTURE

31.08.22	PF	New technology for nursery established	1	OFF campus	05	30	35	2	10	12
30.09.22	PF	Bearing regulation in litchi through girdling of primary branches	1	OFF campus	20	2	22	15	2	17
01.10.22	PF	Production technology of Pointed gourd	1	OFF campus	22	3	25	17	1	18
12.11.22	PF	Cultivation of Spices crop	1	OFF campus	18	5	23	5	2	7

III. ANIMAL SCIENCE

26.03.22 & 27.03.22	PF	Improved goat farming	2	ON campus	26	4	30	24	2	26
28.03.22 & 29.03.22	PF	Improved goat farming	2	ON campus	22	3	25	9	0	9
24.05.22	PF	Prevention of mastitis by use teat did cup	1	OFF campus	13	1	14	2	0	2
25.06.22	PF	Importance of vaccination and deworming	1	OFF campus	20	1	21	10	0	10
06.08.22	PF	Control of endo & ectoparasite in livestock	1	OFF campus	17	0	17	0	0	0

17.08.22 to 19.08.22	RY	Goat farming	3	ON campus	24	2	26	10	0	1
23.08.25 to 25.08.22	RY	Goat farming	3	ON campus	17	5	22	13	4	17
30.08.22	PF	Eradication of ectoparasite in farm	1	ON campus	15	1	16	0	0	0
21.09.22	PF	Livestock waste collection & conservation	1	ON campus	34	0	34	1	0	1
18.10.22	PF	Livestock waste collection and conservation	1	OFF campus	33	0	33	0	0	0
21.10.22	PF	Conservation of green fodder (Hay & Silage)	1	OFF campus	15	0	15	1	0	1
03.11.22	EF	Importance of vaccination for cattle, goat and poultry	1	OFF campus	11	1	12	1	0	1
15.11.22 to 17.11.22	RY	Improved goat farming	3	ON campus	20	4	24	7	1	8
24.11.22 to 25.11.22	PF	Scaling of Natural farming	2	ON campus	18	0	18	3	0	3
26.11.22	PF	Management of new born calf	1	OFF campus	16	1	17	3	1	4
20.12.22	PF	Management of new born calf	1	OFF campus	14	11	25	10	11	21
22.12.22	PF	Integrated dairy farming	1	OFF campus	12	6	18	5	6	11
IV. HOME SCIENCE										
01.02.22	PF	Banana fiber extraction	1	OFF campus	3	14	17	0	3	3
22.02.22	PF	Role of multigrain atta in reduction of Anaemia	1	ON campus	0	30	30	0	17	17
25.03.22 to 28.03.22	PF	Nutri garden	3	ON campus	0	30	30	0	23	23
09.06.22	PF	Nutri garden	1	OFF campus	0	29	29	0	15	15
13.06.22 & 14.06.22	PF	Banana fiber	2	ON campus	0	27	27	0	18	18
04.07.22 & 08.07.22	RY	Handicraft making from banana fiber	5	ON campus	0	27	27	0	16	16
03.08.22 & 04.08.22	PF	Banana fiber handicrafts	2	ON campus	0	39	39	0	6	6
06.08.22	PF	Importance of Vitamin in diet	1	OFF campus	1	17	18	0	5	5
22.08.22 & 23.08.22	PF	Banana fiber handicraft	2	ON campus	15	1	16	10	1	11
08.09.22	PF	Celebration of Poshan Maah	1	OFF campus	0	26	26	0	26	26
14.10.22	PF	Importance of Vitamin in diet	1	OFF campus	20	5	25	8	2	10

15.10.22	PF	Importance of ORS & Prevention of Mal nutrition in children	1	ON campus	0	25	25	0	12	12
16.10.22	PF	Importance of Vitamin in diet	1	OFF campus	35	2	37	5	0	5
01.11.22 & 02.11.22	PF	Importance of health & hygiene and sanitation for women & child	2	OFF campus	0	34	34	0	34	34
16.11.22	EF	Poshan Vatika and its importance	1	ON campus	0	19	19	0	5	5
01.12.22 & 02.12.22	RY	Banana fiber extraction and preparation of fiber products	3`	ON campus	0	40	40	0	30	30
20.12.22	PF	Tie & Die	1	OFF campus	0	19	19	0	5	5
21.12.22 & 22.12.22	PF	Preservation of Aonla	2	ON campus	0	25	25	0	25	25
V. AGRICULTURE ENGINEERING										
13.05.22	PF	Micro irrigation	1	OFF campus	31	2	33	5	0	5
25.05.22 to 27.05.22	PF	Direct sowing of Paddy	3	ON campus	24	1	25	7	1	8
27.06.22 to 01.07.22	RY	Banana fibre extraction and maintenance	5	ON campus	2	20	22	0	8	8
29.07.22	PF	DSR technology	1	OFF campus	21	0	21	2	0	2
05.08.22	PF	Paddy processing	1	OFF campus	1	17	18	0	6	6
30.08.22	PF	Banana chips making	1	OFF campus	0	22	22	0	0	0
31.08.22	PF	Fruit processing preservation	1	ON campus	20	10	30	0	0	0
08.09.22	PF	Banana flower pickle making	1	OFF campus	20	5	25	0	0	0
30.09.22	PF	Development of small tools for harvesting	1	OFF campus	10	22	32	2	4	6
11.10.22 & 12.10.22	PF	Repair and maintenance of farm machinery	2	OFF campus	15	0	15	1	0	1
26.10.22	PF	Training on Micro irrigation	1	OFF campus	35	15	50	5	0	5
28.10.22	PF	Maintenance of Drip irrigation	1	OFF campus	28	23	51	0	4	4
17.11.22	PF	Grain storage structure	1	OFF campus	21	2	23	0	0	0
02.12.22 & 03.12.22	PF	Repair and maintenance of farm	2	OFF campus	11	3	14	2	0	2

		machinery								
19.12.22 to 21.12.22	RY	Repair and maintenance of farm machinery	3	ON campus	0	25	25	0	25	25
VI. PLANT PROTECTION										
15.01.2022	PF	Integrated Pest management in Rabi Crop	01	Virtual mode	31	4	35	1	0	1
24.01.2022	PF	Integrated Pest/disease management in Rabi Vegetable	01	OFF Campus	12	3	15	2	1	3
01.02.2022	PF	Integrated Pest/Disease management in Potato/Maize & Pulses	01	OFF Campus	16	02	18	3	0	3
24.02.2022	PF	Integrated Pest/Disease management in Pulses	01	OFF Campus	13	0	13	1	0	1
25.02.2022	PF	Integrated Pest/Disease management in Pulses	01	OFF Campus	24	0	24	4	0	4
16.03.2022	RY	Scientific Beekeeping	01	ON Campus	4	1	5	2	0	2
17.03.2022	PF	Integrated Pest Management in Green gram	01	OFF Campus	12	3	15	4	0	4
07.04.2022& 08.04.2022	RY	Oyster Mushroom Production	02	OFF Campus	0	25	25	0	9	9
12.04.2022	PF	Integrated Pest Management in Mango &Litchi	01	OFF Campus	13	3	16	3	0	3
28.04.2022	PF	Protected cultivation in Horticultural crops	01	OFF Campus	49	21	70	8	4	12
04.05.2022	PF	Crop residue management according to climate	01	OFF Campus	33	5	38	10	2	12
01.06.2022	PF	Integrated Pest Management in Summer vegetables	01	OFF Campus	28	2	30	4	0	4
13.06.2022	PF	Lecture delivered on Silkworm rearing and their management	01	OFF Campus	36	9	45	3	0	3
23.06.2022	PF	Insect and Disease Management of mango	01	OFF Campus	12	3	15	2	0	2

16.07.2022	PF	Integrated Pest Management in Paddy	01	OFF Campus	10	5	15	3	2	5
12.08.2022	PF	Integrated Pest/Disease Management in Kharif crop	01	OFF Campus	17	8	25	3	5	8
18.08.2022	PF	Banana cultivation and their IPM Techniques	01	ON Campus	21	4	25	4	0	4
21.09.2022	PF	Integrated Pest/Disease management of Kharif crop	01	Virtual mode	41	3	44	5	3	8
22.09.2022 & 24.09.2022	RY	Mushroom Production	03	ON Campus	24	6	30	1	0	1
25.09.2022	PF	Integrated Pest/Disease management of cucurbits crop	01	OFF Campus	12	3	15	3	0	3
11.10.2022	PF	Integrated Pest/Disease management of cucurbits crop	01	OFF Campus	12	1	13	3	0	3
10.11.2022	PF	Integrated Pest/Disease management of Rabi crop	01	OFF Campus	12	3	15	3	1	4
24.12.2022	PF	Integrated Pest/Disease management in cauliflower	01	OFF Campus	16	5	21	4	2	6

H) Vocational training programmes for Rural Youth

Details of training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self-employed after training			Number of persons employed elsewhere
				Male	Female	Total	Type of units	Number of units	Number of persons employed	
Banana	Banana fiber extraction	Banana fiber extraction	5	6	44	50	Small unit	2	20	5
Goatry	Lack of knowledge for goat rearing	Improved goat farming	3	61	11	72	Small unit	2	8	3

*training title should specify the major technology /skill transferred

I) Sponsored Training Programmes

Sl. No.	Title	Thematic area	Month	Duration (days)	Client PF/R/Y/EF	No. of courses	No. of Participants										Sponsoring Agency
							Male			Female			Total				
					Others		SC	ST	Others	SC	ST	Others	SC	ST	Total		
1.	Farmers-Scientist interaction programme		July, 2022	1	PF	1	30	15	0	4	2	0	34	17	0	51	ATMA, Vaishali
2.	Banana farming, fiber extraction and its product	Value addition	Aug., 2022	3	PF	1	18	2	0	1	0	0	19	2	0	21	ATMA, Buxar
3.	Kisan gosthi cum training programme		Sept., 2022	1	PF	1	25	10		3	0	0	28	10	0	38	National Co-operative
4.	Farmers-Scientist interaction programme		Dec., 2022	1	PF	1	32	5	0	2	1	0	34	6	0	40	ATMA, Vaishali
5.	Balance use of fertilizer, pesticides and management		Dec., 2022	1	PF	1	14	5	0	15	6	0	29	11	0	40	National Chemical Fertilizer
Total						5	119	37	0	25	9	0	144	46	0	190	5

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Mal e	Fem ale	Tot al	Mal e	Fema le	Tot al	Mal e	Fem ale	Tota l
Crop production and management										
Increasing production and productivity of crops	16	418	101	519	129	30	159	547	131	678
Commercial production of vegetables	1	22	3	25	17	1	18	39	40	79
Production and value addition										
Fruit Plants	1	20	2	22	15	2	17	35	4	39
Ornamental plants										
Spices crops	1	18	5	23	5	2	7	23	7	30
Soil health and fertility management	1	23	0	23	0	0	0	23	0	23
Production of Inputs at site	5	75	12	87	11	5	16	86	17	103
Methods of protective cultivation	1	5	30	35	2	10	12	7	40	47
Other										
Total	26	581	153	734	179	50	229	760	239	999
Post harvest technology and value addition										
Processing and value addition	4	41	54	95	0	6	0	41	60	101
Other	1	21	2	23	0	0	0	21	0	21
Total	5	62	56	118	0	6	0	62	60	122

Farm machinery										
Farm machinery, tools and implements	6	81	51	132	14	30	44	95	81	176
Other	7	135	80	215	39	18	57	174	98	272
Total	13	216	131	347	53	48	101	269	179	448
Livestock and fisheries										
Livestock production and management	10	95	12	107	85	25	110	180	37	217
Animal Nutrition Management	1	14	0	14	1	0	1	15	0	15
Animal Disease Management	6	119	3	122	13	0	13	132	3	135
Fisheries Nutrition										
Fisheries Management										
Other										
Total	17	228	15	243	99	25	124	327	40	367
Home Science										
Household nutritional security	3	0	35	35	0	43	43	0	78	78
Economic empowerment of women										
Drudgery reduction of women										
Other	14	51	117	168	23	195	218	74	312	386
Total	17	51	152	203	23	238	261	74	390	464
Grant Total	78	1138	507	1645	354	367	715	1492	908	2400



Farmer's-Scientist interaction



Sponsored training by ATMA, Buxar



National Co-operative programme



National Chemical Fertilizer programme

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

Nature of Extension Activity	No. of activities	Farmers				Extension Officials			Total		
		M	F	T	SC/ ST (% of total)	Male	Female	Total	Male	Female	Total
Field Day	10	32	14	46	25	25	07	32	57	21	78
Kisan Mela participated	03	1950	1050	3000	37	58	52	110	2008	1102	3110
Kisan Ghosthi	15	1420	455	1875	32	33	42	75	1453	497	1950
Exhibition	38	3070	1505	4575	39	95	85	180	3165	1590	4755
Film Show	62	588	277	865	27	30	52	82	618	329	947
Method Demonstrations	155	563	162	725	25	57	98	155	620	260	880
Farmers Seminar	05	398	107	505	15	16	19	35	414	126	540
Workshop	17	93	42	135	15	701	484	1185	794	526	1320
Group meetings	86	199	56	255	08	1219	854	2073	1418	910	2328
Lectures delivered as resource persons	18	1180	545	1725	22	13	32	45	1193	577	1770
Advisory Services	7055	4468	2587	7055	26	405	160	565	4873	2747	7620
Scientific visit to farmers field	85	479	207	686	15	23	82	105	502	289	791
Farmers visit to KVK	4520	3735	785	4520	22	00	00	00	3735	785	4520
Diagnostic visits	82	480	68	548	12	25	70	95	505	138	643
Exposure visits	08	305	97	402	12	08	04	12	313	101	414
Ex-trainees Sammelan											
Soil health Camp	00	00	00	00	00	00	00	00	00	00	00
Agri mobile clinic											
Soil test campaigns	00	00	00	00	00	00	00	00	00	00	00
Farm Science Club Conveners meet	00	00	00	00	00	00	00	00	00	00	00
Self Help Group Conveners meetings	00	00	00	00	00	00	00	00	00	00	00
Mahila Mandals Conveners meetings	00	00	00	00	00	00	00	00	00	00	00
Special Programmes (specify)	18	550	195	745	18	27	58	85	577	253	830
Sankalp Se Siddhi	00	00	00	00	00	00	00	00	00	00	00
Swatchta Hi Sewa	16	48	34	82	12	06	15	21	54	49	103
RAWE programme	03	04	29	33	07	0	0	0	04	29	33
Sponsored training	05	156	34	190	26.66	14	07	21	170	41	211
Scientist-Farmer interaction	02	82	09	91	25.27	12	05	17	94	14	108
Kharif Mahotsav	01	135	15	150	23	06	02	08	141	17	158
Rabi Mahotsav	01	150	50	200	30	08	02	10	158	52	210
Any Other (Specify)	01	25	02	27	22	09	06	15	34	08	42
SAC meeting											
TOTAL	12206	20110	8325	28435		2790	2136	4926	22900	10461	33361

B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	73
Radio talks	-
TV talks	21
Popular articles	07
Extension Literature	01
E-Kisan Choupal	02
Other, if any	

आजारी का जलवायु परिवर्तन

कृषि विज्ञान केंद्र, वैशाली

ई-किसान चौपाल

दिनांक - 21/08/2022 समय - 3:00 बजे से 5:00 बजे अपरान्ह तक

विषय - स्वरीफ फसलों में समेकित कीट प्रबंधन

मुख्य सत्राध्यक्ष
डॉ० कृष्ण कुमार मानवीय कुशाग्रि
डॉ० राजेंद्र प्रसाद कंदीय कृषि विज्ञान विद्यालय, पुरा समस्तीपुर।

ऑन-मॉडरेटिंग सेक्रेटरी
डॉ० सुनील कुमार
देशीय वैज्ञानिक एवं प्रशिक्षण कृषि विज्ञान केंद्र, वैशाली

को-ऑर्गनाइजिंग सेक्रेटरी
श्री प्रेम प्रकाश गौतम
विषय वस्तु विशेषज्ञ (कौशा सखाया) कृषि विज्ञान केंद्र, वैशाली

सत्राध्यक्ष
डॉ० एम० एस० कुमर
निदेशक प्रसार शिक्षा
डॉ० राजेंद्र प्रसाद कंदीय कृषि विज्ञान विद्यालय, पुरा समस्तीपुर।

सत्राध्यक्ष
डॉ० विजयेंद्र प्रसाद
उपनिदेशक प्रसार शिक्षा-1
डॉ० राजेंद्र प्रसाद कंदीय कृषि विज्ञान विद्यालय, पुरा समस्तीपुर।

सत्राध्यक्ष
डॉ० अनुपमा कुमारी
उपनिदेशक प्रसार शिक्षा-2
डॉ० राजेंद्र प्रसाद कंदीय कृषि विज्ञान विद्यालय, पुरा समस्तीपुर।

सत्राध्यक्ष
डॉ० लक्ष्मी कृष्ण
सहायक प्रशिक्षक-सह, कृषि वैज्ञानिक (कीट विज्ञान)
श्री कृष्ण सिंह कृषि विद्यालय, पुरा समस्तीपुर।

श्री विवेक कुमार
सहायक प्रशिक्षक-सह, कृषि वैज्ञानिक (कीट विज्ञान)
श्री कृष्ण सिंह कृषि विद्यालय, पुरा समस्तीपुर।

मीटिंग लिंक (गूगल मीट)
<https://meet.google.com/ybj-dvwoq-ddi>



Organization of E -Kisan Chaupal



Scientist visit to farmers field



Scientist visit to Dhaicha field for green manuring



Scientist visit to farmers field



Scientist visit in fodder crop at farmers field



Prescribed medicine for prevention of disease by the Scientist



Data collection in baby corn by RAWE students



Kisan samman Sammelan



Organization of 21th SAC meeting



Kishan gosthi organized on production of small tools for the farm women

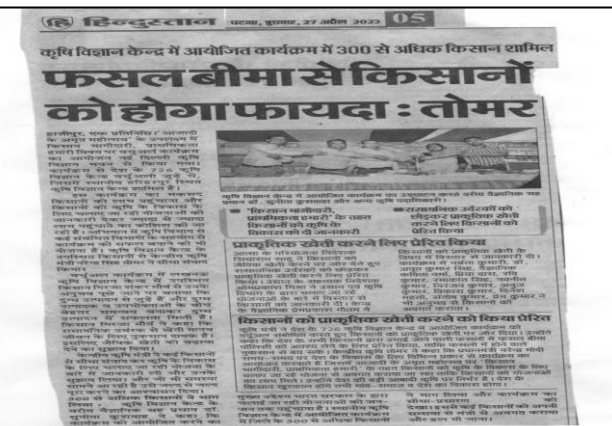


Diagnostic visit of Maize trial plot



Exhibition cum display of KVK activities at Sompur Mela 2022

Media coverage:





TV talk on Seasonal fruit & vegetable preparation & entrepreneurship



TV talk on Quail farming a profitable enterprise

C. Celebration of important days

Celebration of Important Days	No. of activities	Farmers				Extension Officials			Total		
		M	F	Total	SC/ ST (% of total)	M	F	Total	M	F	Total
Republic day (26 th Jan.)	1	18	8	26	15	4	2	6	19	16	35
International Women's Day (8 th Mar.)	1	0	40	40	21	2	4	6	2	44	46
Ambedkar Jayanti (14 th Apr.)	0	0	0	0	0	0	0	0	0	0	0
International Yoga Day (21 st Jun.)	1	42	8	50	26	5	6	11	47	14	61
Independence Day (15 th Aug.)	1	32	8	40	18	2	4	6	34	12	46
Parthenium Awareness Week (16 th to 22 nd Aug.)	7	51	21	72	26.35	14	28	42	65	49	114
Hindi Diwas (14 th Sep.)	0	0	0	0	0	0	0	0	0	0	0
Gandhi Jayanti (2 nd Oct.)	0	0	0	0	0	0	0	0	0	0	0
Swacchata Pakhwara (2 nd -31 st Oct.)	4	32	23	55	15	2	4	6	34	27	61
Mahila Kisan Diwas (15 th Oct.)	1	0	25	25	26	2	4	6	2	29	31
World Food Day (16 th Oct.)	1	31	5	36	15	1	2	3	32	7	39
Vigilance Awareness Week (27 th Oct. to 2 nd Nov.)	1	26	0	26	12	2	5	7	28	5	33
National Unity Day (31 st Oct.)	0	0	0	0	0	0	0	0	0	0	0
World Science Day (10 th Nov.)	0	0	0	0	0	0	0	0	0	0	0
National Education Day (11 th Nov.)	0	0	0	0	0	0	0	0	0	0	0
National Constitution Day (26 th Nov.)	1	2	21	23	5	1	0	1	3	21	24
World Soil Day (5 th Dec.)	1	20	21	41	12	2	4	6	22	25	47
Swacchata Pakhwara (16 th -31 st Dec.)	5	25	22	47	12	2	4	6	27	26	53
Kisan Diwas (23 rd Dec.)	1	7	29	36	15	2	5	7	9	34	43

D. Interaction/Live telecast programme of Hon'ble PM/Hon'ble AM

Sl.	Date of event	Name of Event/Programme	Interaction of Hon'ble PM/AM/CM	Participants			
				Farmers	Staffs	VIP/Others	Total
1.	26/04/2022	Kisan Bhagidari Prathimikta Hamari	Sri Narendra Modi/Sri Narendra Singh Tomar	340	11	01	352
2.	31/05/2022	Garib Kalyan Sammelan	Sri Narendra	90	6	2	98

			Modi				
3.	21/06/2022	Fertilizer Awareness Campaign	Sri Narendra Modi/Sri Narendra Singh Tomar	48	12	2	62
4.	16/07/2022	Agriculture Minister addressed farmer on the occasion of 94th ICAR Foundation day	Sri Narendra Singh Tomar	35	5	0	40
5.	17/09/2022	Poshan Abhiyan	Sri Narendra Modi/Sri Narendra Singh Tomar	195	12	1	208
6.	17/10/2022	PM Kissan Sammelan	Sri Narendra Modi	415	9	5	429



Organization of Kisan Bhagidari Prathmikta Hamari



Orientation programme for newly inducted SMSs



Live telecast of Garib Kalyan Sammelan



Organization of International Yoga Day



Land leveling campaign



Organization of Fertilizer Awareness Campaign



PM Kisan Sammellan



Celebration of Independence day



Organization of Awareness Campaign on Parthenium



Organization of National Poshan Maah



Celebration of National Poshan Abhiyan & Tree Plantation

3.5 a. Production and supply of Technological products

Village seed

Crop	Variety	Quantity of seed(q)	Value (Rs)	No. of farmers involved in village seed production	Number of farmers to whom seed provided			
					SC	ST	Other	Total
Lentil	IPL-316	11.17	125104	4	0	0	4	4
Green gram	Shikha	0.73	7154	11	1	0	10	11
Total		11.9	132258	15	1	0	14	15

KVK farm

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers to whom seed provided			
				SC	ST	Other	Total
Potato	Kufri Khayati, Kufri Sinduri, Kufri Jyoti	399.5	1054800	Sold to different KVKs and BISA.			
Rai	Rajendra Suflam	8	92000.00	Sent to DSF, Dholi under Seed Production Programme.			
Green gram	HUM-16	2.3	20470.00	Sent to DSF, Dholi under Seed Production Programme.			
Paddy	Rajendra Suhasani	68	-	Sent to DSF, Dholi under Seed Production Programme.			
Grand Total		477.8	1167270				

**Potato seed production****Paddy seed production****Packing and storage of Potato seed****Production of planting materials by the KVKs**

Crop	Variety	No. of planting materials	Value (Rs)	Number of farmers to whom planting material provided			
				SC	ST	Other	Total
Vegetable seedlings							
Cauliflower	Pusa Synthetic	6000	5000	14	0	35	49
Cucumber	Kashi Nutan	4000	12000	45	0	34	79
Tomato	HI TOM-2	6000	4000	17	0	32	49

Brinjal	Pusa Purple Long	6000	5500	22	0	45	67
Bottle gourd	Kashi Kanchan	6000	15000	26	0	37	63
Bitter gourd	Kashi Pratishta	4000	4000	34	0	21	55
Sponge gourd	Kashi Shiwani	6000	12000	38	0	54	92
Capsicum	NS 292	6000	5000	21	0	47	68
Others (Banana Fingers)	Alpan, Chiniya, Kotiya						
Fruits							
Mango	Mallika, Amrapali, Malda	6000	58590	110	0	275	385
Guava							
Lime							
Papaya							
Banana							
Aonla							
Others							
Ornamental plants	Croton	3200	48000	75	0	107	182
Medicinal and Aromatic	Lemongrass	200	500	5	0	29	34
Japani Mint							
Plantation							
Ajwain	Ajwain	300	500	11	0	32	43
Turmeric							
Tuber							
Elephant yams							
Fodder crop saplings							
Forest Species							
Others, pl.specify							
TOTAL		53700	170090	418	0	748	1166



Production of Mango plants



Production of Vegetable seedling



Production of ornamental plants

Production of Bio-Products

Name of product	Quantity	Value (Rs.)	No. of Farmers benefitted			
	Kg		SC	ST	Other	Total
Bio-fertilizers	1050	10500				
Bio-pesticide						
Bio-fungicide						
Bio-agents						
Others, please specify.						
Total	1050	10500				

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers benefitted			
				SC	ST	Other	Total
Dairy animals							
Cows							
Buffaloes							
Calves							
Others (Pl. specify)							
Small ruminants							
Sheep							
Goat							
Other, please specify							
Poultry							
Broilers							
Layers							
Duals (broiler and layer)							
Japanese Quail	CARI Brown	900	8393	4	0	16	20
Turkey							
Emu							
Ducks							
Others (Pl. specify)							
Piggery							
Piglet							

Hog							
Others (Pl. specify)							
Fisheries							
Indian carp							
Exotic carp							
Mixed carp							
Fish fingerlings							
Spawn							
Others (Pl. specify)							
Grand Total		900	8393	4	0	16	20

3.5. b. Seed Hub Programme-“Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India”

i) Name of Seed Hub Centre:

Name of Nodal Officer :	Senior Scientist & Head
Address :	Krishi Vigyan Kendra, Vaishali
e-mail :	head.kvk.vaishali@rpcau.ac.in
Phone No. :	
Mobile :	6287797172

ii) Quality Seed Production of Pulses

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed(F/S, C/S)
Kharif 2020	0	0	0	0	0	0
Rabi 2021-22	Lentil	IPL-316	600	30	350	CS-2
Summer/Spring 2022	Moong	Shikha	400	20	200	CS

iii) Financial Progress

Fund received 2017-18, 2019, 2020, 2021 & 2022)	Expenditure (Rs. In lakhs)		Unspent balance (Rs. In lakhs)	Remarks
	Infrastructure	Revolving fund		
2017-18 - 125.54	50.00	3.11	72.43	
2019 - 83.63	0.85	1.19	81.59	
2020 - 94.99	0	2.63	92.36	
2021 - 84.54	0	9.33	84.49	
2022 - 13.88 (Jan-March 2022)	0	64.56	33.86	50 Lakh in FD Account (Including Expenditure)

iv) Infrastructure Development

Item	Progress
Seed processing unit	Completed.
Seed storage structure	



**Checking of moisture content of Lentil seed
in Seed Hub programme**

3.6. (A) Literature Developed/Published (with full title, author & reference)

Item	Title	Author's name	ISBN No./ISSN Copy	Circulation
Research paper	Evaluation of Nano Zinc Effect on Performance of Lentil (<i>Lens culinaris</i>)	K.Saha, M. Mahato, M. Dey, V.V.S. Jayakrishna, S. Das, A. Paul, P. Chakraborty	1	Published
	Impact evaluation of Scientific Japanese quail rearing practices in Bihar under ARYA project	Sunita Kushwah, P.P. Gautam, Anup Kr. Singh, Narendra Kumar, M.S. Kundu	1	Published
	Adoption of Scientific Vegetable Cultivation Practices by Tribal Women Farmers of Banka District State Bihar"	Sunita Kushwah, Anjani Kumar Singh, R K Sohane, R. N. Singh. IJEE, IARI, Vol.58 (2).	1	Published
	Adaptation of water conservation technique mulching to mitigate water crisis due to river Sand mining in state Bihar, India. Prepared for International journal of climate strategic and management. Accepted for 7.79	Sunita Kushwah, M.S. Kundu, Sripriya Das, P. P. Gautam, Namrata and Kavita.	1	Accepted

	rated journal.			
Total			4	
Seminar/conference/ symposia papers	Best Paper Presentation Award (Oral): entitled “Value Addition of Banana Waste: Opportunity for Rural Youth to Agri-entrepreneurship: in One Day International Seminar on “Agripreneurship” Career and Start-up Opportunities	Sunita Kushwah (2022). Organized by The Faculty of Life Sciences and Agricultural Sciences, Rajiv Gandhi University, Arunachal Pradesh-791112 May 2, 2022	1	Oral Paper presented
	Award: Officially Incredible Scientist of India	Sunita Kushwah honored by record owner team, India, November, 2021, 12/11/2021/India/RWIN/21259. Information also available on website www. recordowner.com	1	Award
	Journal Editor: Associate Editor in International Journal of Agricultural Sciences since 2016 to till date, NAAS rating 4.2	Sunita Kushwah	1	-
	Journal Reviewer: Co-opted Reviewer in Indian Society of Extension Education, Division of Extension education, IARI, Pusa since 2015 to till today. NAAS rating 5.92.	Sunita Kushwah	1	Journal Reviewer
	Acknowledgement of the work as a Co-organizing Secretary in International Conference on Advances and Innovations in	Sunita Kushwah	1	Acknowledgement

	Agriculture and Allied Sciences, dated 31-01.02.2020, received from Society for Agriculture and Allied Research, U.P. India.			
	1st prize in Oral presentation entitled: Banana fiber enhancing income & sustaining livelihood under the technical session Mainstreaming climate change perspective into planning and policy making	Sunita Kushwah. (2022). National Seminar 13-14 Aug, 2022 held at Nalanda College of Horticulture, Noorsarai, Nalanda (Bihar) India.	1	Award
	Oral paper presentation entitled “Adoption of water conservation technique mulching to mitigate water crisis due to river sand minings in state Bihar, India”.	Dr Sunita Kushwah & Dr. M.S. Kundu in 3 rd International conference Global initiatives in Agricultural, Forestry and applied sciences which were held at Dehradun 17-18 October, 2021 in virtual mode.	1	Abstract
	Presentation in Workshop of CRA: Presented KVK, Vaishali Progress Report of CRA project	Sunita Kushwah BAMETI under chairmen ship of Secretary Agriculture, Bihar dated: 13.09.21-14.09.21 as a PI of Project in two days workshop of CRA.		
	One day Workshop organized by AKRSP at KVK. Lecture delivered on Climate change and its management strategies.	Sunita Kushwah	1	Farmers
	Best Paper Presentation Award (Oral): entitled “Value Addition of Banana Waste: Opportunity for	Sunita Kushwah (2022). Organized by The Faculty of Life Sciences and Agricultural Sciences, Rajiv Gandhi University, Arunachal Pradesh-791112 May 2, 2022	1	Oral Paper presented

	Rural Youth to Agri-entrepreneurship: in One Day International Seminar on “Agripreneurship” Career and Start-up Opportunities			
Books				
Bulletins				
News letter				
Popular Articles	□□□□□ □□ □□□□ □□□ □□□ □□□ □□ □□□□□	Kavita Verma and Sunita Kushwah. 29.10.22, Prabhat Khabar, page no.12	1	Published
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	केले का अपशिष्ट प्रबन्धन एवम केला रेशा के माध्यम से कृषि उद्यमिता की संभावनाएं	Sunita Kushwah, Versha Kumari, Prem Praksah Gautam, Madhusudan Kundu and Pushpa Singh. (2022) Samrika, published from DoEE, DRPCAUI, Pusa, page no 19-24.	1	Published
	□□□□□□ □□□□ □□□□ □□□□ □□□□ □□ □□□ □□ □□□□□ □□ □□□□ □□ □□□□ □□□ □□□□□,	Sunita Kushwah. 23.04.22, Prabhat Khabar, Kheti Bari, page no. 09.	Mass	Published
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	छह माह के बाद शिशु के लिए पूरक आहार.	Preeti pallavi, Varsha Kumari, Savita Kumari and Sunita Kushwah. 2021. Extension Bulletin no. V/Hs/IB/321/2021KVK	1000	Published
	□□□□□□□□□□ □□□ □□□□,	Varsha Kumari, Sunita Kushwah, Savita Kumari and Preeti Pallavi, KVK Vaishali, V/Hs/IB/318/2021.	1000	Published
	□□□□□□□□□□ □□ □□□□□ □□□ □□□□□□□	Varsha Kumari, Sunita Kushwah, Kavita Verma, Preeti Pallavi, Savita Kumari Extension bulletin no. V/Hs/IB/323/2021. (1-30).	50	Published

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Book Chapter				
Extension Pamphlets/ literature	Garbhabastha ke lie Paramarsh	Varsha Kumari, Dr Sunita Kushwah, Kavita Verma, Preeti Pallavi, Savita Kumari	V/Hs/IB/323/2021	Among farmer
	Postik Aahar	Varsha Kumari, Dr Sunita Kushwah, Kavita Verma, Savita Kumari, Preeti Pallavi	V/Hs/IB/319/2021	
Technical reports	Annual report, 2021-22	Dr Sunita Kushwah, Varsha Kumari, P. P. Gautam	1	Official
	Action Plan, 2022-23	Dr Sunita Kushwah, P.P Gautam, Kumari Namrata, Kavita Verma, Dr Anup Kr Singh, Sripriya Das	1	Official
	6 th and 7 th Extension Education council report,	Dr Sunita Kushwah, Kumari Namrata	For DOEE, Pusa	Official
	ARYA Annual Report, 21	Sunita Kushwah	1	
	Pulse Seed Hub, Progress Report, 22	P. P. Gautam & Sunita Kushwah	Submitted to IIPR Kanpur	Official
	ICDS Report, 2022	Sunita Kushwah, Varsha Kumari, Savita Kumari, Preeti Pallavi	ICDS Patna	Official
	Gender & Nutrition Report	Sunita Kushwah, Kavita Verma		Official
	SAC Report, September 2022	Sunita Kushwah, Kumari Namrata	35	Official
	CRA Progress report, 2022 (Quarterly)	Sunita Kushwah, P P Gautam, Kumari Namrata and Sri Priya Das	BISA Pusa	Official
	Zonal Workshop report and ppt, KVK Vaishali	Sunita Kushwah, Kumari Namrata		Official
	Monthly Progress Report	Sunita Kushwah, Kumari Namrata	ATARI, DOEE, VC Cell	Official
	University Best KVK Award	Sunita Kushwah, Kumari Namrata	DOEE Office	Official
Technical Bulletin/Extension Aids	मधुमक्खी पालन से आर्थिक लाभ	Prem Prakash Gautam & Sunita Kushwah	1	Display at KVK
	सालो भर मशरूम की खेती से आय दुगुना करें	Prem Prakash Gautam & Sunita Kushwah	1	Display at KVK
	Mushroom	Prem Prakash Gautam &	1	Display at

	Cultivation in a View	Sunita Kushwah		Exhibition room
	धान की सीधी बुआई	Sripriya Das & Sunita Kushwah	1	Display at KVK
	विभिन्न फसलों में शुन्य जुताई का प्रत्यक्षण	Sripriya Das & Sunita Kushwah	1	Display at KVK
	केला से मूल्य संवर्धन उत्पाद	Kavita Verma and Sunita Kushwah	1	Display at KVK
	पोषण वाटिका-संतुलित आहार का आधार	Kavita Verma and Sunita Kushwah	1	Display at KVK
	फ्रूट पिकिंग एवं प्रुत्रिग मशीन का प्रत्यक्षण	Kumari Namrata and Sunita Kushwah	1	Display at KVK
	लेजर लैण्ड लेवेलर का प्रत्यक्षण	Kumari Namrata and Sunita Kushwah	1	Display at KVK
	पिचिंग तकनीक से गेंदे के फूलों की उपज को बढ़ावा देना	Swapnil Bharti and Sunita Kushwah	1	Display at KVK
	कोकोपीट का उपयोग करके प्रोट्रे में नुर्सरी तैयार करना	Swapnil Bharti and Sunita Kushwah	1	Display at KVK
	प्राकृतिक खेती के पोषक तत्व पूरक	Anup Kr. Singh and Sunita Kushwah	1	Display at KVK
	मधुमक्खी पालन से आर्थिक लाभ	Prem Prakash Gautam & Sunita Kushwah	1	Display at KVK
	सालो भर मशरूम की खेती से आय दुगुना करें	Prem Prakash Gautam & Sunita Kushwah	1	Display at KVK
	Custom hiring centre	Kumari Namrata & Sunita Kushwah	1	Display at KVK
	Awards and Recognition	Kavita Verma and Sunita Kushwah	1	Display at KVK
	Quail unit Demo in KVK Vaishali	Anup Kr. Singh and Sunita Kushwah	1	Display at KVK
Electronic Publication (CD/DVD etc)	RAWE Programme 2022-23	Sunita Kushwah & P.P Gautam	1	Among Farmers
	KVK at a Glance	Sunita Kushwah & P.P Gautam	1	Among farmers
	Banana Fiber Extraction	Sunita Kushwah, Kavita Verma	1	Among Farmers
Total			4	
TOTAL			6389	

N.B.: Please enclose a copy of each. In case of literature prepared in local language please indicate the title in English

(B) Details of HRD programmes undergone by KVK personnel:


Sl. No.	Name of programme	Name of course	Name of KVK personnel and designation	Date and Duration	Organized by
1.	Faculty	Competency	Mr. Prem Prakash	26-30.03.2022	Department of

	Development Programme	Enhancement in Agricultural Research and Education	Gautam SMS (Plant Protection)		Agricultural Extension Education (PGCA)
2.	7 days Online training	Seed quality parameters and production technology of pulse crops	Mr. Prem Prakash Gautam SMS (Plant Protection)	03-09.02.2022	ICAR- IIPR, Kanpur
3.	International conference	Harnessing Indian Agriculture for Indigenous and Global Prosperity	Mr. Prem Prakash Gautam SMS (Plant Protection)	22-23.07.2022	ICAR & Bhartiya Kisan Sangh
4.	Human Resources Development	All India Fodder production Officers: Kharf	Dr. Anup Kr. Singh SMS, Animal Science	28-30 June, 2022 & 3 days	ICAR-IGFRI, Jhansi
5.	Orientation Programme	Orientation course for newly inducted SMSs in KVK under RPCAU	Mrs. Kumari Namrata, Miss. Kavita Verma, Dr. Anup Kr. Singh and Miss. Sripriya Das	27.04.2022-30.04.2022 & 4 days	DoEE, RPCAU, PUSA
6.	Workshop	Content management(Website update)	Kumari Namrata	20.07.2022	DoEE, RPCAU, PUSA
6.	Training Programme	Enhancing crop production through Climate Smart Technologies	Miss. Sripriya Das	11.04.2022-17.04.2022 & 7 days	CASCC, RPCAU
7.	Workshop	OFT Finalization workshop on Agronomy/Soil Science	Miss. Sripriya Das	01.09.2022-03.09.2022 & 3 days	DoEE, BAU, Sabour
8.	Workshop	OFT Finalization workshop on Plant Protection	Mr. Prem Prakash Gautam	29.08.2022 and 30.08.2022 & 2 days	ATARI Zone-IV Patna
9.	Training Programme	Enhancing crop production through Climate Smart Technologies	Kumari Namrata	04.04.2022-10.0.2022(7 days)	CASCC, RPCAU
10.	OFT finalization	OFT finalization workshop on Ag engineering	Kumari Namrata	13.09.2022	DoEE, RPCAU, PUSA

3.7. Success stories/Case studies, if any (two- or three-pages write-up on 1-2best case(s) with suitable action photographs)

Success Story 1: Banana Fiber Extraction

Name of farmer	
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	Sri Jagat Kalyan
Address	Village- Rampur Nausahan, Block- Hajipur, Dist- Vaishali
Contact details (Phone, mobile, email Id)	7026771073
Landholding (in ha.)	04 ha
Name and description of the farm/ enterprise	Tarwar Agro Industry Pvt Ltd
Economic impact	5:1(B:C ratio)
Social impact	Famous
Environmental impact	Wealth from waste
Horizontal/ Vertical spread	More farmers are adopting

1. Introduction:

Sri Jagat Kalyan aged 28 years old. Village- Rampur Nausahan, Block- Hajipur, Dist- Vaishali. He had completed B.tech in ECE from Acharya Institute of Technology, Bangalore and also completed PGDM (MBA) in Marketing and Operation. He had worked as a sustainable advisor in an organization named Ecohoy and also as Marketing associate at MGS Electronics. He also received job offer from Tanzania and Dubai, But he belongs to a farmer family background and always wanted to do something in this field.

2. **Source of motivation:** He decided not to go to foreign country and start something new in this field at his place of birth Bihar only and started doing research with friend. After a long time of research he came in contact with the Krishi Vigyan Kendra Hariharpur, Vaishali and knew about the Banana fiber extraction technologies and their uses in different aspect for the upliftment of unemployed rural youth and he started collecting information from the banana growers and KVK before startup. KVK supported to Mr. Jagat Kalyan by the help of giving Banana fiber extraction machine under ARYA project.

3. Technology and innovation adopted:

He continued to banana fiber extraction process and he also purchased two other machines like Banana stem cutting and Fiber combing machine. At present he remunerated 6 peoples for the fiber extraction and whole process of fiber refinement prior to export in market. They are not only making products out of waste but also providing additional source of income to the farmers and generating employment for the local people. They use farm waste and produce product i.e. Banana Fiber. they have different grades of fiber and also in different colours. Now a days he use to sell fibers to locals, within Bihar and also outside India like in Japan and European countries. His

products ranges from 250 to 1150. The expected monthly income is Rs. 30000.00 as a Net profit and he completed eight month of his startup.

4. Achievement/results:

He use to sell fibers to locals, within Bihar and also outside India like in Japan and European countries. His products ranges from 250 to 1150. The expected monthly income is Rs. 30000.00 as a Net profit and he completed eight month of his startup.

5. Training and motivational support:

Banana fiber extraction technique has enormous scope for employment and resource generation for unemployed rural youth. It can give lot of employment for farm women for making handicraft items like Ganash Jee, hand purse, tea caster etc. The product made from banana fiber economical, environmentally safe and bio degradable. So there is no harm on eco system of the nature.

6. Awards & recognitions:

7. Importance of other farmers:

Mr. Jagat Kalyan is a complete example for the educated unemployed youth those are seeking job after achieving higher education. Introduction of Mr. Kalyan in this rural small scale industry may enlighten the banana growers and unemployed rural youth those are leaving their home town for the livelihood and retained in their village and getting money.

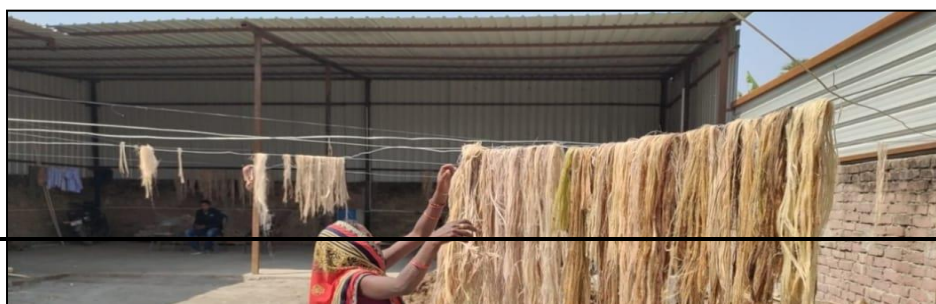
8. Brief highlights of success:

Banana fibre extraction technique can give a boost for rural economy. From the waste farmer can make money and variable product in the form of fibre, paper, clothes etc can be made. This technique can provide social as well as economical security to lesser privileged people of society.

9. Action photographs:




Fig. Cutting and Fiber extraction of Banana Pseudo stem



Success Story

Fig. Drying of extracted raw banana fiber

Name	
	Smt. Neelam Devi
Address	Village- Rajapakar, Block- Rajapakar, Dist- Vaishali
Contact details (Phone, mobile, email Id)	7654662166
Landholding (in ha.)	1 acre
Name and description of the farm/ enterprise	Shelf help group
Economic impact	5:1(B:C ratio)
Social impact	Famous
Environmental impact	Wealth from waste(Value addition in banana fiber)
Horizontal/ Vertical spread	More farmers are adopting


1. Introduction:

Smt. Neelam Devi belongs to a poor family and lives with two children in a small house. She was running her house as a helpless woman surrounded by financial problems but she had some desire to do something and gave higher education to her children. Then she started looking for a way to solve her problems and in this connection she came in contact with the Krishi Vigyan Kendra Vaishali and shared her situations with the scientist, then she was told about banana fiber handicraft and artisans, only then she told that I can make many types of handicrafts from this banana fiber. In view of her interest in handicraft making, Some banana fiber was given to her by the Krishi Vigyan Kendra Vaishali to make handicrafts, due to which she made quite a beautiful handicrafts of different types and displayed in Krishi Vigyan Kendra. In view of their hard work and dedication, many orders were also given to make handicrafts by the KVK, which she made available within a period of time. After this, she got a Rs 25000.00 against the work of 15 days only and after getting this amount in a short period of time she is very excited and is adding many women with her to generate a good source of income.



Fig. Banana fiber handicraft item shown by Neelam Devi to Senior Scientist & Head KVK, Vaishali

Success Story 3: Bee Keeping

Name of farmer	 Sri Rahul Kumar
Address	Village- Nayagaon, Block- Sahdai, Dist- Vaishali
Contact details (Phone, mobile, email Id)	
Landholding (in ha.)	1 acre
Name and description of the farm/ enterprise	Honey production
Economic impact	4:1(B:C) ratio
Social impact	Famous
Environmental impact	Eco friendly
Horizontal/ Vertical spread	More farmers are adopting

1. Introduction:

Sri Rahul Kumar aged 32 years in one of the poor resource farmer. He was living with his 4 number of family. Previously he was working on mandays labour. He could not able to manage his basic requirements and essential home commodities for his family. He lived in thatch house.

Sri Rahul Kumar came in contact with SMS (Plant Protection) during need Based survey of the village for the purpose of conducting training programmer for the unemployed rural youth Under ARYA Project in year 2019. It was found that the village covered by Oilseed and vegetable crops. Due to small size of land holding, resource poor and ecological situation, Sri Kumar was advised for adopting Bee Keeping to utilize very precious agricultural area and Horticultural crops. Initially he refused to start Bee keeping due to fear with rearing of honey bee. After continuous persuasion and training given to him under ARYA Project 5 (Five) boxes of Honey bee provided to the Mr. Kumar from the KVK. He taken 50 boxes on finance and multiplied 55 boxes into 150 boxes. He earned Net Rs. 120000.00 from this now he has able given good education to his children in spite of manages house hold commodities to his family. At present he has own Pukka house.

After getting good return from bee keeping he added in farming system. These enterprises are not only the good source of good income but also generating the employment to the farmers.

2. Motivation to Farmers:


Sri Rahul is an example for other resource poor unemployed rural youth in village. Many unemployed youth are visited his bee keeping unit and start the bee keeping. Inspired from his venture all the villagers of his village engaged in bee keeping and always contacted to KVK's Scientist about the beekeeping.







Fig. Honey Bee rearing


3.8. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

Sl. No .	Name/ Title of the technology	Name/ Details of the Innovator(s)	Brief details of the Innovative Technology
1.	Group dynamic approach		<p>Formation of two farmer's producer organizations in two blocks of Vaishali district namely Diwan Farmer Producer Organization Pvt. Ltd. in Vaishali block for Honey production and Integrated farming system and Samriddhi Farmer Producer Organisation pvt. Ltd. in Bidupur block for vegetable production. To strengthen the farming community by assure food chain supply and market linkage.</p> 

2.	Waste Bag Technology of vegetable cultivation in Rice Field		<p>Waste fertilizer or cement bags can be used for the cultivation of cruciferous vegetables in rice field. The waste bag is filled with a mixture of soil and vermicompost in the ratio of 1:1 and kept in rows in between rice field which is under waterlogged condition. Bamboo stakes are fixed in each waste bag and all the stakes are connected to each other using cotton thread or plastic thread. Seeds or seedlings of cruciferous vegetables are sown in the waste bag which germinates, grows and spreads in the threads tied. The water already present in rice field keeps the soil in the waste bag moist which helps in maintaining the moisture level for planted seedlings. In this way, farmers can produce rice as well as vegetables from a single piece of land. This technology can be used in those areas where there is excessive rainfall in <i>kharif</i> season and farmers cannot cultivate vegetables due to waterlogged condition.</p> 
3.	Zero Tillage Potato		<p>Potatoes were sown on farmers' fields without tillage. In this technique, potatoes are spread along the line and after adding vermicompost, they are covered with paddy straw, after which sprinkling of water is required. In this method, the moisture already present in the soil is used and as we all know, a large amount of fertilizer is used to grow the potato crop, but a very small amount of fertilizer is used for sowing with this method. By sowing potatoes with this method, farmers save a lot of time, the cost is also very less and the production is 1.5 has been found to exceed.</p> 

4.	Vertical Gardening		<p>Krishi Vigyan Kendra made vertical gardening very popular among the farmers. This technology proved to be a boon for the landless labourers and farmers. Through this technique, vegetables become sufficient in a very small space for domestic use or to meet the needs of a small family. In this technique, all types of vegetables can be planted at low cost.</p> <div data-bbox="676 871 1066 1218" data-label="Image"> </div> <div data-bbox="1098 871 1492 1218" data-label="Image"> </div>
5.	Quail egg pickle		<p>Quail eggs can not stored for long time normally so preparation of quail egg pickle can extend self life and it is good appetizer for people. Quail egg pickle can be prepared in <i>kharif</i> season where less demand for quail egg however, quail egg pickle can be prepared throughout year.</p> <div data-bbox="671 1516 1013 1823" data-label="Image"> </div> <div data-bbox="1018 1516 1481 1823" data-label="Image"> </div>

6.	Banana Flour	<p>The Vaishali district area around the Ganga basin is known for banana production. The major varieties are Alpan, Chinia, Malbhog, muthia and kothia in Bihar. The Farmers have less knowledge of banana Flour production technology. Utilization of banana for production of Banana flour is a possible resource to make healthy functional food with high resistant starch and low glycemic index. Banana flour is produced with green Banana that are peeled, Chips cutting , dried and then ground. It can be used as a grounded banana flour for value added products like baby food and as an ingredient in smoothies (Bnana shake).It can also be used as an calf feed of milk replacer.</p> <div data-bbox="671 860 1066 1272">  </div> <div data-bbox="1074 860 1485 1272">  </div>
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7.	Pinching technology in Marigold		<p>Farmers are growing marigold in large scale in vaishali district of Bihar using indigenous methodology. They plant the seedlings and within a period of one and a half month the plants start to bear buds which further becomes flower. In these methods the plants does not bear more branches that is there is less secondary growth in the plants thereby resulting in less number of flowers ultimately causing reduction in yield.ore, KVK Scientist made the marigold flower growers acquainted with the technology of pinching. Pinching help out the plant to prevent the plant to grow upright and helps in secondary growth. Pinching is done using the thumb and forefinger to pinch out the top growth of the plants. Pinching the tip of plants at 30 and 40 days after planting of seedlings encourages the plant growth with more number of branches which ultimately increases the number of buds thereby enhances the flower yield percentage by 11 percent . Ultimately the farmers were profited.</p> 
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- 3.9. a. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs):

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	Wheat	Broadcasting of seed and fertilizer	Lack of awareness, small land holding and less availability of machine
2.	Paddy	Transplanting	Lack of awareness, small land holding and less availability of machine
3.	Cucurbitaceous	Broadcasting of ash	Insect pest management
4.	Potato	Sowing of Potato seed	Lack of awareness, small land holding and less availability of machine

- b. Give details of organic farming practiced by the farmer

Sl. No.	Crop / Enterprise	Area (ha)/ No. covered	Production	No. of farmers involved	Market available (Y/N)
1.	Vegetable production (Cauliflower, Pumpkin & Okra)	50 (Approx)	Cauliflower – 250 q/ha Pumpkin – 100 q/ha Okra – 100 q/ha	110	Yes

2.	Brinjal	30	300 q/ha	80	Yes
3.	Tomato	20	250 q/ha	50	Yes
4.	Cucurbitaceae	15	150 q/ha	40	Yes
5.	Banana	50 (Approx)	100 tone per ha	110	Yes

3.10. Indicate the specific training need analysis tools/methodology followed by KVKs

Sl. No.	Brief details of the tool/ methodology followed	Purpose for which the tool was followed
1.	PRA	To assess situation based need.
2.	Farm & Home visit	To gather information.
3.	Interaction/Group discussion	To assess needs of farmers.
4.	Survey for Gender and Nutrition	To asses needs and food security
5.	Online farmer interaction	To gather information and know the present senerio

3.11. a. Details of equipment available in Soil and Water Testing Laboratory

Sl. No	Name of the Equipment	Qty.
1.	PH meter	01
2.	EC meter	01
3.	Spectrophotometer	01
4.	Flame photometer	01
5.	Atomic Absorption Spectrophoto meter	01
6.	Pelican Nitrogen Distillation unit	01
7.	Distillation unit	01
8.	Hot Air Oven	01
9.	Hot Air oven	01
10.	Hot plate	01
11.	Electronic balance	01
12.	Physical balance	01
13.	Digital balance	01

3.11.b. Details of samples analyzed so far:

Number of soil samples analyzed		
Through mini soil testing kit/labs	Through soil testing laboratory	Total
0	1522	1522

3.11.c Detail of Soil, Water and Plant analysis at KVK

Sl.	Analysis	No. of Samples analyzed	No. of Villages	No. of Farmers	Amount realized (Rs.)
1.	Soil	1522	85	1522	55000.00
2.	Water				
3.	Plant				
4.	Fertilizers				
5.	Manures				
6.	Food				
7.	Others (if any)				

3.11.d. Details on World Soil Day

Sl. No.	Activity	No. of Participants	No. of VIPs	Name (s) of VIP(s)	Number of Soil Health Cards distributed	No. of farmers benefitted
1.	One day Training Programme	25	-	-	25	25

3.12. Activities of Rain Water Harvesting structure and micro irrigation system

No of training programme	No. of demonstrations	No. of plant material produced	Visit by the farmers (No.)	Visit by the officials (No.)
4	1	20000	1200	55

3.13. Technology week celebration

Type of activities	No. of activities	Number of participants	Related crop/livestock technology
NA	-	-	-

3.14. RAWF/ FETprogramme - is KVK involved? (Y/N)

No of student trained	No of days stayed
33	45

ARS trainees trained	No of days stayed
No	No



Theory class taken by SMS, Crop Production



Practical on Musroom production taken by SMS, Plant Protection



Theory class on Quail farming taken by SMS, Animal Science



Practical class on Nursery raising taken by SMS, Horticulture



**Practical class on Seed processing taken
by SMS. Agriculture Engineering**



PRA conducted by RAWE students



Scientist visit to farmers field

3.15. List of VIP visitors (Minister/ MP/MLA/DM/VC/ZilaParishad/Other Head of Organization/Foreigners)

Date	Name of the person	Purpose of visit
27.01.22	Sri Devesh Kumar MLC cum General Secretary Bihar (BJP)	Visit of KVK work
6.05.22	Dr. Ankur Sexana	Visit of KVK work
	Dr. R.K. Singh SAB & RM, RPCAU, Pusa	
21.05.22	Dr. Kaithiration NIRDPR, Hyderabad	Visit of KVK work
31.05.22	Sri Vivek Kumar MLC (Raj Sabha)	Visit of KVK work
29.07.22	Sri Pran Kumar Das National Vice President, BJP	Visit of KVK work
2.08.22	Dr. P. S. Brahmanand Director Research RPCAU, Pusa	Visit of KVK work
4.08.22	Sri Yashpal Meena DM, Vaishali	Visit of KVK work
12.08.22	Sri Prabhu Pingel Principle, Karnel University	Visit of KVK work
12.08.22	Sri Ram Gopal Verma International Maize & Wheat	Visit of KVK work

	improvement Centre	
19.08.22	Sri Vijay Mani Tiwari	Visit of KVK work
02.02.22	Sri Nisha Grival Assistant Magistrate	Visit of KVK work
15.09.22	Dr. M. S. Kundu DEE, RPCAU, Pusa	Participated in SAC meeting
	Dr. Vijay Singh Meena Principal Scientist, BISA RPCAU, Pusa	
	Dr. Shambhu Kumar Chief Scientist, CPRI, Patna	
	Sri Jay Krishna Jha Member Extension Council, Pusa	
	Dr. Mukesh Kumar Sinha Principle Scientist ATARI, Patna	
	Dr. S.K. Singh Dy. Director Research RPCAU, Pusa	
	Dr. P.P. Singh Director Seed & Farm TCA, Dholi	
	Miss. Rinki Kumari Assistant Director, Agronomy Vaishali	
24.09.22	Sri Saroj Ranjan Patel State President, BJP Kisan Morcha	Visit of KVK work
07.11.22	Sri Awadesh Singh MLA, Hajipur	Visit of KVK work
15.12.22	Dr. P.S. Pandey Hon'ble Vice-chancellor	Inauguration of Staff quarters
	Dr. Anjani Kumar Director, ATARI, Patna	
	Dr. M. S. Kundu DEE, RPCAU, Pusa	
	Dr. P.S. Brahamanan Director Research, RPCAU, Pusa	
	Dr. A.K. Singh Dean, TCA, Dholi	
	Dr. S.K. Singh ADR, RPCAU, Pusa	
	Dr. A.K. Singh SRI, RPCAU, Pusa	
	Dr. Amrish Kumar Dean, College of Community Science RPCAU, Pusa	
	Dr. Ved Narayan Singh DAO, Vaishali	

23.12.22	Sri Sidharth New Delhi	Visit of KVK work
30.12.22	Sri Satrudhan Rai Fertilizer & Seed Seller, Union President Sarai, Bhagwanpur	Visit of KVK work
30.12.22	Sri Maheshwar Kumar Harivanshpur vanthu, PACS Chairman	Visit of KVK work



**Inauguration of Garib Kalyan Sammelan
by
Sri Vivek Kumar, MLC (Raj Sabha)**



**Sri Pran Kr. Das, National Vice
President, BJP visited KVK**



**Sri Prabhu Pingel, Principal, Carnell
University with team visited KVK**



**Sri Ravi Gopal Singh, IMWIC visited
KVK**



**Sri Yashpal Meena, DM, Vaishali visited
KVK campus**



Dr. P.S. Pandey, Hon'ble Vice-chancellor, RPCAU, Pusa visited to KVK, Vaishali



Inauguration of Mushroom Spawn Lab by Hon'ble Vice-chancellor



Hon'ble Vice-chancellor with Scientists visited to Polyhouse



Inauguration of Staff Quarter by Hon'ble Vice-chancellor

4. IMPACT

4.1. Impact of KVK activities (Not to be restricted for reporting period).

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Leaf Colour Chart (LCC)	52	25	28575/-	33865.00
Fruit fly trap	15	5%	22,000/person	29,000/person
Pinching technology of marigold	25	7%	36000/-	50000.00
Mushroom Production	90	60%	30000/-	90,000.00
Nursery raising	90	10 %	15000 /-	30000.00
Hermatic bag	20	70%		

Impact of KVK in Terms of Agricultural and Animal Productivity, Socio-economic Conditions and Employment Generation during the period in the Adopted villages

Item	Unit	Prior to KVK	Post KVK activities
Change in cropping intensity		125	137
Change in productivity of	(kg/ha)		

1. Cereal crops			
Wheat			
Paddy		25 q/ha	32 q/ha
Maize		18 q/ha	22 q/ha
2. Pulses		45 q/ha	55 q/ha
Lentil		700	900
Pigeon Pea		400	1600
Green Gram			550
3. Oilseeds		800	1100
Tori		17 q/ha	19 q/ha
Potato		50 q/ha	100 q/ha
Cauliflower		150 q/ha	320 q/ha
Use of fertilizers (Nutrient)			
Paddy		(kg/ha)	(kg/ha)
Wheat		140:70:40	121:62:42 (N:P:K)
Mustard		100:50:20	120:60:40 (N:P:K)
Lentil		90:40:42	80:40:40 (N:S:P)
Use of HYV (High yielding varieties)		25:45:20:20	20:45:20:20 (N:F:P:S)
Paddy			
Maize		10%	15%
Tomato		12%	30%
Cauliflower		8%	20%
		4%	20%
Mushroom Cultivation		1 q/q Substrate	2.5 q/q Substrate

4.2. Cases of large scale adoption

(Please furnish detailed information for each case)

Horizontal spread of technologies	
Technology	Horizontal spread
RCT (Zero tillage)	40% farmers of Raja pakar block adopted zero tillage technology because of more return, saving on fertilizer, seed, irrigation, labour charges etc.
Laser Land Levelling	A total of 100 acres of land (farmer's field) is levelled using laser land leveller machine under CRA Project resulting in uniform water application and other resource saving. Many more farmers have adopted this technology in their crop field after seeing the effect of this technology in demonstrated plots.
Rajendra Subhasani, Rajendra Bhagwati and R. Mashoori	Paddy seed (var. Rajendra Subhasani, Rajendra Bhagwati and R. Mashoori) has increased from 5.5 ton to 80 ton and the produce has been sold to the neighboring farmers.
Banana fiber production and product development	05 unit established in the year, 2020
improved variety of Pigeon pea Malvai – 13 and Bahar	Pigeon pea Malvai – 13 and Bahar has increased from 215 ha to 713 ha
Bee- Keeping	700 beekeeper with honey production 42 tone to 318 tonns.

Oyster and Button mushroom production	25 % trained rural youth adopted mushroom production technology round the year
Vermicompost	Production of 85360 qt to 140670 qt.
Quail Farming	Small scale quail farming in rural landless women with 200 birds capacity

Give information in the same format as in case studies

4.3.Details of impact analysis of KVK activities carried out during the reporting period

Sl. No.	Brief details of technology	Impact of the technology in subjective terms	Impact of the technology in objective terms
Sl. No.	Brief details of technology	Impact of the technology in subjective terms	Impact of the technology in objective terms
1.	RCT (Zero tillage)	Conservation of time, water, seed and deasel	Transfer technology has enhanced the income of farmer by 25%
2.	Pinching in marigold	Due to this practice the number of branches increases as a result more number of buds therefore more yield to farmers	Increase in income to approx twice.
3.	Raising nursery in potrays and polybags in vermicompost and cocopeat	No water logging No incidence of soil borne disease Ease in handling The media has good water absorbing capacity	More survival of the plants (25%) in Potrays and Polybags as compare to beds.
4.	Integrated Pest Management	Bio intensive management of insect, cost effective and time saving approach	Eco- friendly management practices for borer complex in Okra, Brinjal, Tomato etc.
5.	Raised bed maize	Improves yield, Saving of seed fertilizer and irrigation	ImprovesYield (5-10%), Saves Seed and fertilizer(25-30%), Saves Irrigation(30-35%)
6.	Levelling of land by laser land leveller	Saving of irrigation, increase farming area, productivity, saves fuel used in irrigation, saving of labour Cost.	Saving of irrigation,(35%) increase farming area(3.5%) productivity(50%), saves fuel used in irrigation,Reduced operating time (10%)
7.	Fruit Picking and pruning machine	Saving of labour, time and cost effective	Saving of labour, time and cost effective
8.	Potato planter	Saving of labour, seed and fertilizer and time and increase in yield	Saving of labour(60-70%) and increased yield(10-15%)

4.4. Details of innovations recorded by the KVK

Thematic area	IPM
Name of the Innovation	Home made yellow sticky trap
Details of Innovator	Mr. Prabhu Dayal Singh, Vill.- Faridpur, Block- Rajapakar
Back ground of innovation	There is an inavailability of yellow sticky trap in local market. However the fundamental mechanization of making yellow sticky traps is simple.
Technology details	Home made yellow sticky trap used for monitoring as well as management of Aphid & whitefly population in Okra, Tomato etc. It is prepared from an yellow plastic card board & glue.
Practical utility of innovation	To reduce the Aphid & whitefly pest population resulting minimization of leaf curl disease.

Thematic area	Value addition
Name of the Innovation	Preparation of enriched Sap and scutching based vermi compost
Details of Innovator	Mr. Jagat Kalyan
Back ground of innovation	Management of scutch waste is challenging.
Technology details	70% scutching waste and 30% cowdung was mixed to ideal for vermi compost.
Practical utility of innovation	It improves yield quality of produce and maintain soil fertility.

Thematic area	Goat farming
Name of the Innovation	Use of boil banana fruit, for gastric upset.
Details of Innovator	Sri Satrudhan Mahto, Vill.- Mansinghpur Rajauli, Hajipur 7352957452
Back ground of innovation	Diarrhoea was the recurrent problem among the goat of his farm, so he used the locally available banana to check the Diarrhoea among the goat for gastric upset
Technology details	One Raw cooked banana finger used for one kid
Practical utility of innovation	It can help to reduce the gastric upset.

Thematic area	Nursery Management
Name of the Innovation	Establishment of Nursery
Details of Innovator	Sri Rajesh Kr. Singh
Back ground of innovation	Nursery grower
Technology details	Establishment of fruit nursery
Practical utility of innovation	Good quality planting material is being made available

Thematic area	Pest Management
Name of the Innovation	Acoustic Animal Repeller
Details of Innovator	Bipin Kr. Pandey
Back ground of innovation	Destruction of Pulse crop by bluebuck (Nilgai)
Technology details	The instrument makes sound that irritates bluebuck (Nilgai) and repel them away from crop field
Practical utility of innovation	Repelling away of bluebuck (Nilgai)

4.5. Details of entrepreneurship development

Entrepreneurship development	
Name of the enterprise	Goat farming
Name & complete address of the entrepreneur	Sri Satrudhan Mahto, Vill.- Mansinghpur Rajauli, Hajipur Distt.- Vaishali Mob. No. 7352957452
Role of KVK with quantitative data support:	Training and technical support.
Timeline of the entrepreneurship development	One year from January, 2022
Technical Components of the Enterprise	Selling goat kits round the year specially Bakrid, Dushara & Holi festival. Having total strength 60 goat.
Status of entrepreneur before and after the enterprise	Income enhanced many folds and become popular among rural youth
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Due to heavy demand of goat kid and meat (Chevon) unable to supply the demand of market.
Horizontal spread of enterprise	Yes

Entrepreneurship development	
Name of the enterprise	Banana fiber product development
Name & complete address of the entrepreneur	Mrs. Vaishali Priya, Vill.- Mile Pakri, Block- Bidupur, Distt.- Vaishali
Role of KVK with quantitative data support:	KVK provided training on Banana fiber extraction and product development to a group of women for income generation alongwith input distribution.
Timeline of the entrepreneurship development	One year from April, 2020
Technical Components of the Enterprise	Banana fiber product development has a good market demand inside and outside India. The fiber can also used for fabric making.
Status of entrepreneur before and after the enterprise	Income enhanced many folds and become popular among rural youth
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Many innovative products are being developed with a good market demand.
Horizontal spread of enterprise	Yes

Entrepreneurship development	
Name of the enterprise	Nursery
Name & complete address of the entrepreneur	Sanjeev Kumar, PanapurLanga
Role of KVK with quantitative data support:	Training, providing planting material, and guidance
Timeline of the entrepreneurship development	Five month from February, 2020
Technical Components of the Enterprise	FYM, Vermicompost, Plants, Pots
Status of entrepreneur before and after the enterprise	Previously Sri Sanjeev Kumar used to work in his own field but now he can earn a good profit by establishment of this enterprise
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Healthy planting material and seasonal flowering plants are being made available to the customer
Horizontal spread of enterprise	Yes.

Entrepreneurship development	
Name of the enterprise	Flower Nursery
Name & complete address of the entrepreneur	Rambir Kumar Chaudhary
Role of KVK with quantitative data support:	Training, providing planting material, and guidance
Timeline of the entrepreneurship development	5 years
Technical Components of the Enterprise	FYM, Vermicompost, Plants, Pots
Status of entrepreneur before and after the enterprise	Previously Sri Rambir used to work in his own field but now he can earn a good profit by establishment of this enterprise
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	Healthy planting material and seasonal flowering plants are being made available to the customer
Horizontal spread of enterprise	74 Flower nurseries technically supported by him Yes.

Entrepreneurship development	
Name of the enterprise	Button Mushroom
Name & complete address of the entrepreneur	Mina Kushwaha
Role of KVK with quantitative data support:	Training, providing planting material, and guidance
Timeline of the entrepreneurship development	3 years
Technical Components of the Enterprise	FYM, Vermicompost, Plants, Pots
Status of entrepreneur before and after the enterprise	Previously Rajeev Ranjan was doing job. He left the job and started mushroom production unit.
Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	To provide fresh mushroom. 3 q/day
Horizontal spread of enterprise	80 farmers established unit under his guidelines with the technical support of KVK.

4.6. Any other initiative taken by the KVK

A. NATURAL FARMING PROJECT:

Discipline/Date	Clientele	Title of the training programme	Duration in days	Venue (On / Off Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
24.11.22	PF	Training programme on Natural farming	2	ON campus	39	1	40	6	0	6
13.12.22	PF	Awareness programme on Natural farming	1	OFF campus	18	2	20	6	2	8
14.12.22	PF	Awareness programme on Natural farming	1	OFF campus	15	0	15	11	0	11
17.12.22	PF	Awareness programme on Natural farming	1	OFF campus	25	5	30	10	3	13



Training programme of Natural Farming



Preparation of beejamrit, jeevamrit and neemstra used in Natural Farming

B. Seed Hub Project:

- 350 quintal Seeds of Lentil (IPL-316) and 200 quintal Seeds of Green gram (Shikha) has been produced through farmers and sold to different agencies.
(>5Lakh revenue generated)



Pulse crop production in Seed Hub programme

C. CRA Programme: Popularization of Climate based cropping system

The project “Climate Resilient Agriculture” is sanctioned by the Government of Bihar to promote the use of climate resilient technologies such as mechanised sowing, laser land levelling, cultivation of nutri-cereals and climate resilient varieties of different crops etc. in agriculture. Five villages namely Neerpur, Bardiha, Bajitpur, Rasalpur and Repura of Patepur block are selected for demonstrations under this project. A total of 595 acres area in kharif season and 623 acres area in rabi season is demonstrated under different crops with different climate resilient agriculture technologies in the above mentioned five CRA villages. The performance of the demonstrated technologies under this project is compared with conventional farmer’s practice by regular and timely data collection through crop cutting experiments in each cropping season. Different training programmes, seminars, exposure visits, workshops and Kisan mela are organised time to time to spread the technologies to a greater number of farmers and multiply the benefits.

Crop	Technology demonstrated	Season Kharif/ Rabi/ Summer	No of Beneficiaries	Area (Acres)	Yield (q/ha)		Increase in yield (%)
					Demo	Local check	
Paddy	DSR	Kharif	399	399	47.85	42.90	11.53
Paddy	AWD	Kharif	56	56	43.55	42.90	1.51
Paddy	Drum Seeding	Kharif	80	80	45.65	42.90	6.41
Maize	Raised Bed	Kharif	15	15	52.25	45.50	14.83
Soyabean	Raised Bed	Kharif	3	3.5	17.32	12.00	44.33
Groundnut	Raised Bed	Kharif	2	2	18.42	12.00	53.5
Pigeon Pea	Raised Bed	Kharif	10	10	12.65	10.55	19.90
Pearl millet	Raised Bed	Kharif	3	3	22.00	18.50	18.91
Sorghum	Raised Bed	Kharif	8	8	12.26	10.00	22.6
Finger millet	Line sowing	Kharif	11	11	13.35	8.50	57.05
Foxtail millet	Line sowing	Kharif	7	7.5	9.60	8.50	12.94
Total			594	595	-	-	-

A. Exposure visits conducted under CRA Programme

S. No.	Destination	Total Number of Participants
1.	Katihar	50
2.	Purnea	50
3.	Nalanda	50

B. Exposure visits to KVK Vaishali

S. No.	From	Total Number of Participants
1.	Nalanda	30
2.	Jahanabad	60

C. Programmes organized under CRA

S. No.	Particulars	Number of events	Total Number of Participants
1.	Trainings	05	105
2.	Kisan Mela	01	305
3.	Kisan Gosthi	02	605



Paddy sowing in DSR technology



Field visit by BISA Scientists



Tillering stage of DSR Paddy



DSR Paddy



Introduction of new crops like Bajra and Sunflower in cropping system



Line sowing in Soyabean

Innovation1: Soil health management for cauliflower seed production

(I) DESCRIPTION OF INNOVATION:

The farmer was producing cauliflower seed but was not fetching good price from the market. He came in contact of Krishi Vigyan Kendra, Vaishali and was suggested organic farming due to which the yield increased 2.5 times by increase in seed boldness and increase in yield besides increase in brightness which helped him better return from the market. Latter he himself observed that the previous quality increased in later years did not continue until he was not increasing the dose of Vermi-compost. In one year he shows that around a spilled lump from Chaur land the plant vigor and yield was better from the adjoining plants with same dose of vermi-compost. From last year he is in practice of applying Chaur soil around 3-6cm thick on the soil surface during summer and before cultivation of cauliflower seed production. This practice reduced the oxidation of organic matter besides increasing the nutrient and water holding capacity of soil as seed production is always practiced on upland soils which are normally light in texture.

(II) PROBLEM STATEMENT:

- a. Nature and intensity of the problem addressed:** Light soil having low nutrient and water holding capacity with reference to the particular crop requirement. District is cultivating cauliflower in 4600 ha out of which around 100 ha goes for seed production of early cauliflower.
- b. Genesis of idea:** In very light texture soils on natural levies of rivers after flood many enterprising farmers in North Bihar go for this practice along with F.Y.M. to start cultivation. This practice is also followed in tobacco in the district.
- c. Sources of information relevant to the innovation:** Many literatures available on compaction of light textured soils.
- d. Original innovation or modification of any existing technology:** Application of existing technology to a new crop.

(III) PROCESS OF TECHNOLOGY DEVELOPMENT:

- a. Conceptualization of idea:** Around a spilled lump from Chaur land the plant vigor and yield was better from the adjoining plants with same dose of vermi-compost.
- b. Scientific rationale about the innovation:** Compaction to a light soil increases soil health and production capacity.
- c. Relative advantages of innovation:** Adaptable, eco-friendly, sustainable, economical viability, Benefit - Cost ratio etc.

(IV) RECOGNITION:

- a. Institutional acceptance of the innovation:** Krishi Vigyan Kendra, Vaishali.
- b. Recognition in the form of Honours/certificates/awards etc.:**

1. Farmer has been awarded PVFRA registration for caulifpower variety.
2. IARI award to Farmer Sanjeev Kumar 2019.
3. Jagjeevan Ram Krishi abhinav Purskar, ICAR, Sri Jitendra Kumar Singh, 2018.

Innovation 2: Popularization of DSR, SRI, ZT technology

High infiltration rate lesser soil compaction and less soil erosion due to crop residue mulch is other added advantage. In this system mechanical tillage is replaced by biological tillage there for it is eco friendly economy. This technology is a boon for farmers of Vaishali district where timely plating of wheat is not possible due to long duration variety of paddy. Demonstration on DSR was started during Kharif season of 2015-16. The first demonstration was planted in village Faridpur with a participatory farmer **Mr. Prabhu Dayal Singh** similar demonstration was laid at KVK farm in compression with conventional tillage Paddy. The initial results were increasing and since then KVK had been trying to disseminate technology in nearby Faridpur village and other blocks of Vaishali around 1000 ha.

Table 21 District Scenario under DSR for the Paddy & Wheat (2021-22)

Sl. No.	Name of crop	Area covered (ha)
1.	Paddy	5000

Source of data: DAO, Vaishali

Practical



utility of innovation

Higher yield, less labour, time saving and lower seed requirement which ensures higher profitability. KVK, Vaishali is organizing regular training in collaboration with District Agriculture department and area under SRI is increasing day by day

DSR in paddy is one of the major cropping system of Vaishali. It is a major system for food security and provides livelihood and income to farmers and labours. There is urgent need is being felt to explore the possibility of saving to critical input by adopting RCT such as zero tillage and DSR. For this KVK, Vaishali adopted two villages one is Faridpur and second only Senduari. Now in both villages more than 80% of farmers use RCT like DSR and Zero tillage. They also grow Paddy var. Rajendra Neelam and promoted Black rice variety also.

Innovation 3: Value Addition of Oyster mushroom

Farmers of Vaishali district are growing oyster mushroom in abundant amount after getting training from KVK. Then important things about the oyster mushroom is it can be used freshly as well as after drying. In this process KVK initiated preparation of mushroom cookies by using dried powder of oyster mushroom. These cookies are very easy in preparation and nutritious to our health that's why KVK initiated to work on it. This product can be stored at a longer period of time or for future uses.

Nutrient composition in Mushroom Cookies:-

SL.No.	Components	Amount per 100 g
1	Calories	806.39 KCal
2	Protein	10.59 gm
3	Fat	37.46 gm
4	Carbohydrate	106.79 gm
5	Dietary Fiber	2.88 gm
6	Calcium	15.24 mg
7	Iron	4.74 mg
8	Potassium	141.2mg



Innovation 4: Vegetable Cultivation through Waste Bag Technology in Rice Field

Waste fertilizer or cement bags can be used for the cultivation of cruciferous vegetables in rice field. The waste bag is filled with a mixture of soil and vermicompost in the ratio of 1:1 and kept in rows in between rice field which is under waterlogged condition. Bamboo stakes are fixed in each waste bag and all the stakes are connected to each other using cotton thread or plastic thread. Seeds or seedlings of cruciferous vegetables are sown in the waste bag which germinates, grows and spreads in the threads tied. The water already present in rice field keeps the soil in the waste bag moist which helps in maintaining the moisture level for planted seedlings. In this way, farmers can produce rice as well as vegetables from a single piece of land. This technology can be used in those areas where there is excessive rainfall in *kharif* season and farmers cannot cultivate vegetables due to waterlogged condition.



Vegetable cultivation through Waste Bag Technology in Rice Field

Innovation 5: Creche development in KVK

KVK used to conduct training programme frequently and other special programme also. During these training programme there is a involvement of women farmer and they were not taking part completely due to their children. A creche is a facility which enables parent to leave their children while they are in traing where children are stimulating environment for their holistic development.





Innovation 6: Quail eggs pickle

Quail eggs can not stored for long time normally so preparation of quail egg pickle can extend self life and it is good appetizer for people. Quail egg pickle can be prepared in *kharif* season where less demand for quail egg however, quail egg pickle can be prepared throughout year. For preparing Pickle quail egg with roasted mustard flavor recipe following ingredient must be incorporated.

1. 20 piece quail eggs
2. Mustard raw (powder)
3. Hing (optional)
4. Saunf powder (optional)
5. Fenugreek yellow power (optional)
6. Kashmiri red chilli power/normal red chilli
7. Salt
8. Oil mustard
9. Turmeric and coriander power

How to make Pickle (step By Step)

1. Check the egg one by one it they are not crake.
2. Carefully wash them.
3. Put the egg in a pot and boil them for 10 minute.
4. Let cool down and peel.
5. In peeled egg add turmeric and salt, mixed properly. Keep it in sunlight for 1 to 2 hr.
6. All spice powder must be roasted and kept it separate.
7. Boil oil high temperature then cool down mix the spice with oil (only oil not water
8. Now, oil has reached its smoking point.
9. Oil has cooled down a little bit add the 1 tbsp Hing to it .
10. Hing start to crake in the oil.

11. Oil has cooled down, add the pickle. Keep it cool and dark place.



Innovation 7: Banana flour

The Vaishali district area around the Ganga basin is known for banana production. The major varieties are Alpan, Chinia, Malbhog, muthia and kothia in Bihar. The Farmers have less knowledge of banana Flour production technology. Utilization of banana for production of Banana flour is a possible resource to make healthy functional food with high resistant starch and low glycemic index. Banana flour is produced with green Banana that are peeled, Chips cutting , dried and then ground. It can be used as a grounded banana flour for value added products like baby food and as an ingredient in smoothies (Bnana shake).It can also be used as an calf feed of milk replacer.



5. LINKAGES

Extension agencies like KVK face the twin challenge of limited finance and manpower. So KVK Vaishali manage these challenges and achieve larger impacts by converging KVK efforts with ATMA, DAO, DHO, NHM, RUDSET, JEEVIKA, AGA KHAN & other Govt. agency.

Approach – For convergence by KVK, Vaishali

With the idea to expand its activities for better reach, the KVK made an action plan and named it, as Farmer's development. The approach was launched in 2015 in collaboration with various agencies to improve delivery of technical and extension services in a convergence mode. Since then KVK, Vaishali has been working with more than 10 agencies/partners such as ATMA, Vaishali, District Agriculture Officer, District Animal Husbandry Officer, District Fishery Officer, DRDA, IFFCO, Reliance Foundation, RUDSET, National Institute for Agriculture Marketing Agency, NHM, RCM, World Vision, Narayani Seva Sansthan, NIAM and others.

5.1. Functional linkage with different organizations

1.	DRPCA, Pusa, Samastipur	This is the host organization provided financial support, research and teaching programme implementation. RAWP executed by the KVK for the students and KVK has many projects for multiplication trials like varietal evaluation of pointed gourd, biofortified wheat, state varietal trial of maize etc. Administrative control also.
2.	ICAR –RCR- Patna	Scientists interface Research and technical information. One acre trial of Faba bean conducted in CRA village
3.	ATARI, Zone IV, Patna	Financial assistance and project implementations.
4.	DWMR, WALMI, Patna	Participation in trainings
5.	Central Potato Research Institute Phulwari Sharif, Patna	Linkage for technology transfer through FLD, OFT and multiplication of potato varieties among farmers. KVK Vaishali popularized Kufri Lalit, Kufri Lalima and Kufri Khyati in this area. In the year 50 q breeder seed provided by CPRS and KVK produced 250 Foundation seed.
6.	IARI, New Pusa farm, Samastipur	Joint Implementation of technology through demonstrations. Papaya variety Pusa Nahna popularized.
7.	Indian Institute of Pulses Research, Kalyanpur, Kanpur	Joint Implementation for Seed Hub Programme and seed production. KVK, Vaishali granted Rs.1.5 cr. For execution of project.
8.	Coconut Development Board, Patna (regional Office)	Joint Implementation of extension programmes like trainings and Kisan Gosthi.
9.	District Level officials, such as District Magistrate, DDC	Task force meeting, advisory board meetings and technical support to the department.
10.	District Agril. Department , Vaishali	Joint field visits, inspections, participation in meeting and technical support by KVK.

11.	District Hort. Department, Vaishali	<p>Horticulture entrepreneur development they provided subsidy and other govt. grants to farmers on the recommendation of KVK. Horticulture Exhibition and Horticulture shows organized and KVK farmers awarded by the department. 15 Awards received by KVK, also grant subsidy to establish hort. Units.</p> <ol style="list-style-type: none"> 1. Mr Rajeev Ranjan, KVK Trained farmer got Rs.20 lakh subsidy to start button mushroom unit 2. Smt Manorama Singh received Rs.30 Lakh in subsidy for mushroom production unit. 3. Mushroom growers 150 farmers received subsidy for oyster mushroom production on the recommendation of KVK.
12.	District Fishery Department, Vaishali	Trainings and farmers mobilization.
13.	District Forest Department, Vaishali	Association for auction of farm trees, trainings and joint plantation programmes. 3000 plants distributed among farmers.
14.	ATMA, Vaishali	Joint Implementation of field visits, trainings, Kisan mela and demonstrations. Fund received for technology refinement Rs. 3.75 Lakh.
15.	Plant Protection Officer and Block level Agril. Officer	Kisan Goshthi, Training Programmes, Kisan Melas and demonstrations and technical help of the farmers, joint visits.
16.	DAHO, Vaishali	District Animal Husbandry Officer conducted joint programmes with KVK. Animal Health Camp 15 conducted and technical support by KVK. Trained farmer's received subsidy for establishment of Dairy.
17.	RLBCU, Jhansi	For seed input in Seed hub programme and technical support. 15 q Lentil Seed provided in 2020.
18.	BISA, Pusa	For technical and financial support.
19.	CSISA, CIMMYT	For technology intervention Rs. 2 lakh granted
20.	IARI, Deptt. Of Plant breeding & Genetics	Multiplication trial for screening of 300 germplasms in Bihar location. Technical support.
21.	NRC, Litchi, Muzaffarpur, Bihar	Technology dissemination. 1 technology Girdling in litchi is on going since to years and technical support.
22.	CFTRI, Mysore	Banan processing technical support to the banana growers in the operational area of KVK. Ready to conduct one project with KVK on processing.
23.	ICDS, Patna	Project implementation with rural women farmers of the district.

24.	JEEVIKA, Bihar	For SHG capacity building training programmes
25.	BAMETI, Patna	For trainings and capacity building programmes
26.	Doordarshan, Patna	For live seminars and TV talk for the farmers.
27.	Radio Station, Patna	Radio talk and programme recordings
Fertilizer & Pesticide Companies		
28.	Indogulf Cooperation	Kisan Mela sponsorship and mobilization of farmer. Linkage for seed, fertilizer & pesticide inputs, trainings programmes, farmers mobilization, exhibitions and demonstrations.
29.	Rastriya Chemical Fertilizers.	
30.	Indofil chemical Limited	
31.	Hindustan Chemicals.	
32.	Chambal fertilizer	
Private Seed Companies		
33.	Godrej Agrovet Pvt. Ltd.	Seed Input & farmers mobilization Kisan mela sponsorship.
34.	Bayer Crop Science Ltd.	Pescide& Seed Input linkage
35.	UPL, Ltd.	Seed input linkage. Maize trials provided to the Farmers.
36.	Kaveri Seeds Pvt. Ltd.	Seed input linkage
37.	Crystal Crop Science Ltd.	Seed & pesticide input
38.	Kanchan Seeds Ltd.	Seed input Linkage & Kisan Mela
39.	Nuziveedu Pvt. Ltd.	
40.	Excel India Ltd.	Pesticide linkage & Exhibitions
41.	Dhanuka	
42.	Aga khan Rural Support Programme	For trainings and extension work. Farmers mobilization. Travelling seminars in CRA village 500 farmers mobilize by them. Capacity building training programmes like training for goat farming, Mushroom cultivation, Quail Farming etc. for the rural women farmers.
43.	BASIX	For trainings and farmers mobilization in FPO formation and its support at Vidupur.
44.	Mahindra Samruddhi, Vaishali	Association for mechanization in operational area of KVK.
Public Institutions		
45.	Khadi Gramodyog Sangh.	Women farmer mobilization to the KVK activities and training programmes
46.	Nehru Yuva Kendra, Patna	For training of rural youth
47.	RUDSET, Vaishali	For the training support & to build up entrepreneurship.
48.	IFFCO, Hajipur	Demonstrations for NANO fertilizers in the interest of farmers and environment.
49	COMFED	Participation in meeting, conducting training & Demonstration and regular announcement of the activities of the KVK through the wall Magazine PRATIBADH. Associated dairy farmers.
50.	KRIBHICO	Fertilizer input and extension activities
Financial Organization		
51	Bank of Baroda, Hajipur.	Financial Linkage and participation in training.
52	Regional Rural Bank, Hajipur.	

53	Central IPM, Punaichak, Patna.	IPM Demonstration. 3 ha demonstration conducted in the adopted village of KVK
54	NHM (National Horticulture Mission), MMM (Micro- Mode Management) & NHB	For training demonstration & seed production & popularization of vegetable/ horticultural crop. Protected cultivation developed through NHM &NHB. Training pruning machine provided by NHB approx.30 ha orchard pruned by this machine. 300 farmers seen demonstration of this machine.
NGO's		
55	World Vision, Vaishali	Trainings and Farmers mobilization. Provided sanitation kit to 100 farmers during COVID,2020 at KVK. Travelling seminars conducted with the help of them. 200 farmers they mobilize for the KVK.
56	MamtaMahila Kisan Club	Mobilization of women farmers and trainings for rural youth.
57.	Kishore Mitra, Vaishali	Trainings for animal husbandry and farmers mobilization
58.	Bihar Enterprenurship Association	Training for entrepreneurship development
Private News Channels		
59	Zee. TV, Vaishali Bihar	
60	Vaishali News Channel	
Print Media		
61	Hindustan News paper	Publication of extension activities of KVK and help in technology dissemination among the mass
	Dainik Jagran News paper	
	Dainik Bhaskar News Paper	
	PrbhatKhabar News paper	
Others		
62	Dr. C. V. Raman University, Vaishali	RAWE programme association. 2 students conducted RAWE at KVK, Vaishali.
63	Linkage with FPO's Turki Rasalpur Farmers producer Organization.	Technical support by KVK. 12 FPO's for farmer's mobilization. Technical support by KVK
64	Lovely ProfeffsionalUniversity, Lucknow	RAWE programme association.
65	NIAM, Jaipur	Trainings support
66	NCDC	For FPO formation

KVK, Vaishali has good convergence with the all line departments. District Govt. departments, Private agencies, NGO's, FPO's, FIG and JEEVIKA played an important role in KVK functioning.

5.2. List of special programme undertaken during 2021by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NABARD/NHM/NFDB/Other Agencies **(information of previous years should not be provided)**

a) Programmes for infrastructure development

Name of the programme/scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)

(b) Programme for other activities (training, FLD,OFT, Mela, Exhibition etc.)

Name of the programme/scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Kishan Bhagidari Prathmikta hamari campaign	Mela	26.04.2022	ATARI	99318.00

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1.Performance of demonstration units (other than instructional farm)

Sl. No.	Name of demo Unit	Year of estt.	Area (Sq.mt)	Details of production			Amount (Rs.)		Remarks
				Variety /breed	Produce	Qty.	Cost of inputs	Gross income	
1.	Vermi-compost	2018	55.8	Vermi-compost	Vermi-compost	70 q (Approx.)	10000	Produce in stock . Sold as per demand.	Finely prepared vermico mpost preferred by farmer and entrepreneurs.
2.	Quail unit	2019	1.08	Quail	Eggs & Quail	631 Nos	2500	9393	Demonstration purpose
3.	Azolla	2009	1.5	Azolla	Azolla	1.2 q	250	1200	Distribution and used in quail feed
4.	Mushroom unit	2018	25.62	Oyster & Button	Oyster & Button	15 kg	1200	1800	Demonstration & sale
	Total					71.15 kg/900 Nos	13950		



Vermi compost unit at KVK campus



Mushroom unit at KVK campus



Quail unit at KVK campus



Azolla unit at KVK campus

6.2.Performance of Instructional Farm (Crops)

Name Of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.(q)	Cost of inputs	Gross income	
Potato	25.11.21	11.03.22	2.5	K.Khyati K..Sinduri K..Jyoti	FS II and unregistered	399.5	55000	10548000	
Mustard	26.11.21	05.03.22	0.75	Rajendra Sufalam	T/L	8	14800	55000	
Moong	15.03.22	14.06.22	0.75	HUM-16	T/L	2.3			
Paddy	22.07.22	15.11.22	2	Rajendra Suwasini	B/S F/S	68	55000	95000	
Potato	23.11.22	-	1.75	K.Khyati K.Sinduri Chipsona	FS	-	Standing crop		
Mustard	29.11.22	-	0.4	RH-749	T/L	-			
Potato	25.11.21	11.03.22	2.5	K.Khyati K..Sinduri K..Jyoti	FS II and unregistered	399.5	55000	10548000	
Mustard	26.11.21	05.03.22	0.75	Rajendra Sufalam	T/L	8	14800	55000	
Moong	15.03.22	14.06.22	0.75	HUM-16	T/L	2.3			

6.3.Performance of Production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)

Sl. No.	Name of the Product	Qty. (Kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	Azolla	100 kg	-	1000.00	
2.	Vermi compost	70 q	10000.00	Produce in stock. Sold as per demand.	

6.4. Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.	Quail	Japanies quail	Adult bird	150 pc	6600.00	7500.00	Profitable enterprise

6.5. Utilization of hostel facilities

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
June 2022	1	6	No short fall
June 2022	2	13	
July 2022	1	5	
August 2022	21	3	
August 2022	1	1	
September 2022	5	1	
Nov. to Dec., 2022	21	60	
Total :	52	89	

(For whole of the year)

6.6. Utilization of staff quarters

Whether staff quarters has been completed:

No. of staffquarters:

Date of completion:

Occupancy details:

Months	Q I	QII	Q III	QIV	Q V	QVI

7. FINANCIAL PERFORMANCE

7.1. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Main Account	Bank of Baroda	Hajipur	25930200000005
Revolving Account	Bank of Baroda	Hajipur	25930100002376
Seed Hub	Bank of Baroda	Hajipur	25930100012752

7.2. Utilization of funds under CFLD on Oilseed (*Rs. In Lakhs*)

Item	Released by ICAR		Expenditure		Unspent balance as on - 31.12.2022
	Kharif	Rabi	Kharif	Rabi	
Mustard				51262.00	28738.00

7.3. Utilization of funds under CFLD on Pulses (*Rs. In Lakhs*)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2022
	Kharif	Rabi	Kharif	Rabi	
Lentil		52190.00		176655.00	183345.00

7.4. Utilization of KVK funds during the year 2022(Not audited)

Sl. No	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances		7.90	
2	Traveling allowances	0.75		0.72
3	Contingencies			
A	HRD	0.15		0.14
B	Office Expense	2.50		2.05
C	Training	4.50		3.24
D	FLD			
E	OFT			
F	Maintenance of Building			
G	Extension Activities/Kisan Mela			
TOTAL (A)		7.90	7.90	6.47
B. Non-Recurring Contingencies				
1	Works	0	0	0
2	Vehicle	0	0	0
3	Library	0	0	0
4	Equipment & Furniture	0	0	0
TOTAL (B)		0	0	0
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		7.90	7.90	6.47

7.5. Status of **Revolving fund** (Rs. in lakh) for last three years

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year (Kind + cash)
2020	42.84	18.90	43.47	18.28
2021	18.28	16.29	12.49	22.08 (31.12.2021)
2022	26.10	31.43	17.87	39.66

- 7.6. (i) Number of SHGs formed by KVKs
(ii) Association of KVKs with SHGs formed by other organizations indicating the area of SHG activities
(iii) Details of marketing channels created for the SHGs

7.7. Joint activity carried out with line departments and ATMA

Name of activity	Number of activity	Season	With line department	With ATMA	With both
Rabi Abhiyan	01	Rabi	ATMA & DAO	Yes	Yes
Kharif Abhiyan	01	Kharif	ATMA & DAO	Yes	Yes

8. Other information

8.1. Prevalent diseases in Crops - No.

Name of the disease	Crop	Date of outbreak	Area affected (in ha)	% Commodity loss	Preventive measures taken for area (in ha)

8.2. Prevalent diseases in Livestock/Fishery - No.

Name of the disease	Species affected	Date of outbreak	Number of death/ Morbidity rate (%)	Number of animals vaccinated	Preventive measures taken in pond (in ha)

9.1. Nehru YuvaKendra(NYK) Training

Title of the training programme	Period		No. of the participant		Amount of Fund Received (Rs)
	From	To	Male	Female	
Advance technology used in Agriculture	21.09.2022	21.09.2022	32	6	2500.00



9.2. PPV & FR Sensitization training Programme - Nil.

Date of vaccination programme	Resource Person	No. of participants	Registration (crop wise)	
			Name of crop	No. of registration

9.3. **mKisan**Portal (National Farmers' Portal/ SMSPortal)

Type of message	No. of messages	No. of farmers covered
Crop		
Livestock		
Fishery		
Weather		
Marketing		
Awareness		
Training information		
Other		
Total		

9.4. KVK Portal and Mobile App

Sl. No.	Particulars	Description
1.	No. of visitors visited the portal	
2.	No. of farmers registered in the portal	
3.	Mobile Apps developed by KVK	<i>No</i>
4.	Name of the App	
5.	Language of the App	
6.	Meant for crop/ livestock/ fishery/ others	
7.	No. of times downloaded	

9.5 Kisan Mobile Advisory Services (KMAS)

Sl. No.	Discipline	No. of Advisories	No. of Messages (text+ videos)	Total messages	No. of Farmers
1.	Crop	152	205	357	332
2.	Horticulture	70	85	155	122
3.	Plant Protection	1095	300	1395	445
4.	Home Science	125	140	265	225
5.	Agricultural Engineering	122	135	257	223
6.	Livestock	130	145	275	225
7.	Weather	80	92	172	225
8.	Marketing	65	70	135	245
9.	Awareness	125	140	265	256
10.	Enterprises	55	65	120	250
11.	Others				
	Total	2019	1377	3396	2548

9.6. a. Observation of Swachha Bharat Programme/Pakhwara

Date/ Duration of Observation	Activities undertaken	No. of Participants			
		Staffs	Farmers	Others	Total
16-31st Dec., 2022	Swachhta Pakhwada	12	65	28	95

b. Details of Swachhta activities with expenditure

Activities	Number	Expenditure (in Rs.)
1. Digitization of office records/ e-office	45	
2. Basic maintenance	35	
3. Sanitation and SBM	48	
4. Cleaning and beautification of surrounding areas	25	
5. Vermicomposting/ Composting of biodegradable waste management & other activities on generate of wealth for waste	05	
6. Used water for agriculture/ horticulture application	0	
7. Swachhta Awareness at local level	35	
8. Swachhta Workshops	0	
9. Swachhta Pledge	17	
10. Display and Banner	0	
11. Foster healthy competition	01	
12. Involvement of print and electronic media	00	
13. Involving the farmers, farm women and village youth in the adopted villages (no of adopted village)	05	
14.No. of Staff members involved in the activities	25	
15. No of VIP/VVIPs involved in the activities	00	
16. Any other specific activity (in details)		
Total	241	

9.7. Observation of National Science Day

Date of Observation	Activities undertaken

9.8. Programme with SeemaSurakshaBal/ BSF

Title of Programme	Date	No. of participants

9.9. Agriculture Knowledge in rural school

Name and address of school	Date of visit to school	Areas covered	Teaching aids used
Primary School, Gurmia	16.10.2022	Gurmia, Hariharpur, Daulatpur	Banner, Phone, Board & Chalk

Give good quality 1-2 photograph(s)



Awariness programme for School children

9.10. Details of 'Pre-Rabi Campaign' Programme

Date of programme	No. of Union Ministers attended the programme	No. of Hon'ble MPs (Loksabha/Rajyasabha) participated	No. of State Govt. Ministers	Participants (No.)							Coverage by Door Darshan (Yes/No)	Coverage by other channels (Number)
				MLAs Attended the programme	Chairman ZilaPanchayat	Distt. Collector/ DM	Bank Officials	Farmers	Govt. Officials, PRI members etc.	Total		

9.11. Details of Swachhta Hi Sewaprogramme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1.	06	05	85	0	

9.12. Details of MahilaKisan Divas programme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1.	1	3	25	0	Ward Member

9.13. No. of Progressive/Innovative/Lead farmer identified (category wise)

Sl. No.	Name of Farmer	Address of the farmer with contact no.	Innovation/ Leading in enterprise
1.	Sri Satrudhan Mahto	Mansinghpur Rajauli, Hajipur 7352957452	Goat farming
2.	Sri Rajesh Singh	Hariharpur, Hajipur 8051972177	Dairy farming
3.	Sri Vijay Kumar	Daulatpur, Hajipur 8709125002	Quail farming

4.	Sri Pankaj Kr. Choudhary	SakrauliBuchauli, Jandaha 9955408248	Fishery production
5.	Sri Sanjeev Kumar	Chakwara, Hajipur 9852109928	Cauliflower seed production
6.	Sri Rahul Singh	Nameedha, Lalganj 9431441369	Utilization Neem Karna for Vegetable production & orchard management)
7.	Sri. Rajdev Rai	MukundpurSarsai, Rajapakar 728200681	Quail production
8.	Sri Prabhu Dayal Singh	Faridpur, Rajapakar 9801236047	Vegetable production
9.	Md. Nadir Ali	Faridpur, Rajapakar 9771995522	IFS, Vegetable, Poultry production
10.	Md. Tahir Imam	Kutubpur, Rajapakar 9708800227	Poultry farming
11.	Mrs. Vaishali Priya	Mile Pakri, Bidupur	Banana fiber
12.	Sri Rajesh Kr. Singh	Sarasai, Rajapakar 9470752280	Fruit & Vegetable cultivation
13.	Sri Ramveer Kr. Chaurasia	Paswan Chowk, Hajipur 9939711742	Nursery
14.	Sri Alok Kumar	Mangan Pur 7322050232	IFS, Goatry, RCT, Litchi production, Farm mechanization
15.	Sri Jagat Kalyan	Rampur Nausahan, Hajipur 7026771073	Banana fiber Extraction
16.	Sri Bipin Kr. Pandey	Dharrara, Lalganj 9955008232	Horticulture crops (Mango)
17.	Mrs. Sangeeta Kumari	Rampur Bakhara, Lalganj, Vaishali 7992313062	Value addition in Mushroom products & Mushroom production
18.	Mrs. Meena Kushwaha	Lodipur, Ward No. 31, Hajipur, Vaishali 7272941323	Mushroom production
19.	Mrs. Madhavi Kumari	Madarpur Hilalapur, Hajipur, Vaishali 9117138865	Mushroom production & Poultry farming
20.	Mrs. Neelam Devi	Rajapakar, Vaishali 7654662166	Banana fiber extraction & Handi craft
21.	Sri Rajeev Kr. Ranjan	Bhagwatpur Patedha, Sarai, Hajipur 9123161948	Mushroom production & Compost supplier
22.	Sri Sudhir Kumar	Naya Gaon, Sadhai Bujurg, Vaishali 7061744344	Bee keeping & Honey production
23.	Sri Rahul Kumar	Naya Gaon, Sadhai	Bee keeping & Honey production

		Bujurg, Vaishali 6205438092	
24.	Sri Vijay Kumar	Naya Gaon, Sadhai Bujurg, Vaishali 9955684773	Bee keeping & Honey production

9.14. Revenue generation

Sl.No.	Name of Head	Income(Rs.)	Sponsoring agency
1.	Quail Demo unit	8393.00	KVK, Vaishali
2.	Custom hiring	63905.00	KVK, Vaishali

9.15. Resource Generation:

Sl.No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. lakhs)	Infrastructure created
1.	Tuition fee (RAWEP)	Practical exposure to the field	Private Colleges	120000.00	
2.	Training	Training of banana farming and value addition	ATMA, Buxar	27401.00	
3.	Training hall	For getting the knowledge and awarness programme	Govt. Organization	7000.00	
4.	Kisan ghar	For staying during programme	KVK, Vaishali	9840.00	

9.16. Performance of Automatic Weather Station in KVK

Date of establishment	Source of funding i.e. IMD/ICAR/Others (pl. specify)	Present status of functioning
2010	IMD	Data transmitted to IMD Pune

9.17. Contingent crop planning

Name of the state	Name of district/KVK	Thematic area	Number of programmes organized	Number of Farmers contacted	A brief about contingent plan executed by the KVK

10. Report on Cereal Systems Initiative for South Asia (CSISA)

a) Year:

b) Introduction / General Information:

Experiment	Title	Objective	Treatment details	Date of sowing	Replication	Result with photographs
Experiment 1						
Experiment 2						
Experiment 3						
...						
..						
Others (If any)						

11. Details of TSP

a. Achievements of physical output under TSP during 2022

Sl.	Activities	Physical Achievement	
		No. of Trainings/Demos	No. of beneficiaries
1)	Trainings		
a.	Farmer		
b.	Women		
c.	Rural Youths		
d.	Extension Personnel		
2)	OFT	No. of OFTs	No. of beneficiaries
3)	FLD	No. of FLDs	No. of beneficiaries
4)	Mobile agro- advisory to farmers	No. of advisory	No. of beneficiaries
5)	Other activities		
a.	Participants in extension activities (No.)		
b.	Production of seed (q)		
c.	Production of Planting material (No. in lakh)		
d.	Production of Livestock strains (No. in lakh)		
e.	Production of fingerlings (No. in lakh)		
f.	Testing of Soil, water, plant, manures samples (Nos.)		
g.	Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)		
h.	No. of other programmes (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)		

b. Fund received under TSP in 2022-23 (Rs. In lakh):

c. Achievements of physical outcome under TSP during 2022

Sl. No.	Description	Unit	Achievements
1	Change in family income	%	
2	Change in family consumption level	%	
3	Change in availability of agricultural implements/ tools etc.	No. per household	

d. Location and Beneficiary Details during 2022

District	Sub-district	No. of Village covered	Name of village(s) covered	ST population benefitted (No.)		
				M	F	T

12.Details of SCSP

Sl.	Activities	Physical Achievement	
		No. of Trainings/Demos	No. of beneficiaries
1)	Trainings		
a.	Farmer	4	105
b.	Women	2	50
c.	Rural Youths	0	0
d.	Extension Personnel	0	0
2)	OFT	No. of OFTs	No. of beneficiaries
		0	0
3)	FLD	No. of FLDs	No. of beneficiaries
		1	5
4)	Mobile agro- advisory to farmers	No. of advisory	No. of beneficiaries
		56	670
5)	Other activities		
a.	Participants in extension activities (No.)	5	
b.	Production of seed (q)		
c.	Production of Planting material (No. in lakh)		
d.	Production of Livestock strains (No. in lakh)		
e.	Production of fingerlings (No. in lakh)		
f.	Testing of Soil, water, plant, manures samples (Nos.)		

13. Progress report of NICRA KVK (Technology Demonstration component) during the period
(Applicable for KVKs identified under NICRA)

Natural Resource Management

Name of intervention undertaken	Numbers under taken	No of units	Area (ha)	No of farmers covered / benefitted										Remarks
				SC		ST		Other		Total				
				M	F	M	F	M	F	M	F	T		

Crop Management / Production

Name of intervention undertaken	Area (ha)	No of farmers covered / benefitted									Remarks
		SC		ST		Other		Total			
		M	F	M	F	M	F	M	F	T	

Livestock and fisheries

Name of intervention undertaken	Number of animals	No of units	Area (ha)	No of farmers covered / benefitted	Remarks

	covered												
					SC	ST	Other	Total					
					M	F	M	F	M	F	M	F	T

Institutional interventions

Name of intervention undertaken	No of units	Area (ha)	No of farmers covered / benefitted									Remarks	
			SC	ST	Other	Total							
			M	F	M	F	M	F	M	F	T		

Capacity building

Thematic area	No of Courses	No of beneficiaries										
		SC	ST	Other	Total							
		M	F	M	F	M	F	M	F	T		

Extension activities

Thematic area	No of activities	No of beneficiaries										
		SC	ST	Other	Total							
		M	F	M	F	M	F	M	F	T		

Detailed report should be provided in the circulated Performa

14.a) Awards/Recognition received by the KVK in year 2022

Sl. No.	Name of the Award	Conferring Authority	Amount	Purpose

b) Award received by Farmers in year 2022

Sl.	Name of the Award	Name of the Farmer	Address	Contact No.	Aadhar No.	Amount	Purpose	Conferring Authority
1.	Innovative Kisan Puruskar 2021	Mr. Rajeev Kr. Ranjan	Bhagwatpur Patedha, Sarai, Hajipur, Bihar	9123161948	871299475588	5000.00	Mushroom production	RPCAU, Pusa
2.	3rd Prize in Mushroom production at Bihar Diwas 2022	Mrs. Meena Kushwaha	Lodipur, Ward No. 31, Hajipur, Vaishali	7272941323	240201809745	-	Mushroom production	Govt. of Bihar, Deptt. of Agriculture
3.	Women Empowerment	Mrs. Sangeeta	Rampur Bakhara,	7992313062	439515415844	-	Women empowerment	Kala Kunj

	Award Satish Kumar Mishra Samman Samaroh 2022	Kumari	Lalganj, Vaishali				(Value addition in Mushroom)	
4.	Spirit of women	Mrs. Sangeeta Kumari	Rampur Bakhara, Lalganj, Vaishali	7992313062	439515415844		Horticulture	Bihar Mahila Udog Sangh, Patna



Innovative Kisan Puruskar given to Mr. Rajeev Kr. Ranjan by the Hon'ble Vice-chancellor



3rd Prize in Mushroom production at Bihar Diwas 2022



Women Empowerment Award receiving in Satish Kumar Mishra Samman Samaroh 2022



Spirit of women award receiving in Bihar Mahila Udog Sangh, Patna

15. Any significant achievement of the KVK with facts and figures as well as quality photograph

16. Number of commodity based organizations/ farmers' cooperative society/ FPO formed/ associated with during last one year (Details of the group/society may be indicated)

Sl. No.	Name of the organization/ Society	Trust Deed No.& date	Date of Trust Registration Address	Proposed Activity	Commodity Identified	No. of Members	Financial position (Rupees in lakh)	Success indicator
1	NCDC	FPO Vaishali	BR/07/03/01/OT H-06/2022 VIII+Post-Chakram das,Block-Vaishali	Honey processing, IFS	Litchi,Honey	305	3.5 lakh	Registration under Society Act 1996 completed
2	NCDC	FPO Bidupur	BR/07/03/01/OT H-02/2022	Fruits and vegetable processing	Fruits and Vegetables	300	3.0 lakh	

17. Integrated Farming System (IFS)

A) Details of KVK Demo. Unit

Sl. No.	Module details (Component-wise)	Area under IFS (ha)	Production (Commodity-wise)	Cost of production in Rs. (Component-wise)	Value realized in Rs. (Commodity-wise)	No. of farmer adopted practicing IFS	% Change in adoption during the year
1	Pond based	0.4	-	-	-	2	8%
2	Crop based	0.4	23 kg	1500	2800	4	16%
	Mushroom						
	Quail egg & Quail Bird		600 & 120	4400	6100		
	Fruit		Mango fruit auction	60000	800000		
	Beekeeping		Honey	250	600		
	Planting material		1000 seedlings	1200	5000		
	Azolla		50 kg	30	300		
	Vermi compost		2000 kg	6000	12000		

B) Activities under IFS

Sl. No.	Component Name	No. of KVKs under the Component	No. of Components established	Area (ha)	No. of Activities		No. of farmers benefited	
					Demo	Training	Demo	Training
1.	A pond size for fish production							
2.	Crop production (Cereals + Vegetables+Fodder)							
3.	Horticultural components (Fruits							

	& Vegetables)							
4.	Poultry unit for @150 chicks (Desi Banraja)							
5.	Duckery unit@40 ducks (Khaki Campbell)							
6.	Rearing of Fingerling fish							
7.	Dairy unit 2 cows							
8.	Vermicompost, Decomposers & Azolla units							
9.	Banana fiber extraction unit							

18. Technologies for Doubling Farmers' Income

Sl. No.	Name of the Technology	Brief Details of Technology (3- 5 bullet points)	Net Return to the farmer (Rs.) per ha per year due to adoption of the technology	No. of farmers adopted the technology in the district	One high resolution 'Photo' in 'jpg' format for each technology
1	RCT (Zero tillage)	<ul style="list-style-type: none"> • Saving of seed • Time • Diseal • Labour • Water 	Rs. 45000/ha from wheat	In one block- Rajapakar – 120 farmers adopted this technology. Approx 1000 farmers in Vaishali district.	1
2.	Azolla as a cattle feed	<ul style="list-style-type: none"> • Reduce feed cost • Good source of protein & vitamin 	Rs. 10 saving on feed cost after feeding azolla 1.5 kg per day per animal	Around 1000 azolla pits are available in Vaishali district.	
3.	Goatry	<ul style="list-style-type: none"> • Less investment more profit 	1500 per goat per year	100 goat farmers has been established	

19. Report on Digital Farming Initiatives in Agriculture/ Digital Ag. Extension Service

Phase	Database prepared/ covered for		KVK level Committee		Various activity conducted for farmers
	Total no. of villages	Total no. of farmers	Date of formation	Name of members	
I					
II					
Total					

20. Information on Visit of Ministers to KVKs, if any

Date of Visit	Name of Hon'ble Minister	Name of Ministry	Salient points in his/ her observation (2-3 bulleted points)
27.01.22	Sri Devesh Kumar	MLC cum General Secretary Bihar (BJP)	<ul style="list-style-type: none"> KVK doing a great job in Banana fiber extraction and value addition All demonstration unit are maintained
31.05.22	Sri Vivek Kumar	MLC (Rasabha)	<ul style="list-style-type: none"> Very good work in their field All demonstration unit are maintained
24.09.22	Sri Saroj Ranjan Patel	State President, BJP Kisan Morcha	<ul style="list-style-type: none"> Scientists are very passionate They are doing for farmers
07.11.22	Sri Awadesh Singh	MLA, Hajipur	<ul style="list-style-type: none"> Very appreciable work in the field of Banana fiber

21. a) Information on **ASCI** Skill Development Training Programme, undertaken during 2022

Year	Name of the Job role	Name of the certified Trainer of KVK for the Job role	Date of start of training	Date of completion of training	No. of participants	Whether uploaded to SDMS Portal (Y/N)	Fund utilized for the training (Rs.)
2022							

b) Information on Skill Development Training Programme (**Other than ASCI or less than 200 hrs.**, if any) if undertaken during 2022

Thematic area of training	Title of the training	Duration (in hrs.)	No. of participants									Fund utilized for the training (Rs.)
			SC		ST		Other		Total			
			M	F	M	F	M	F	M	F	T	

22. Information of NARI Project(if applicable)

Name of Nodal Officer	No. of OFT on specified aspects	Title(s) of OFT	No. of FLD on specified aspects	No. of capacity development programme on specified aspects	Total no. of farm women/ girls involved in the project	Details of Issues related to gender mainstreaming addressed through the project

Progress Information of NARI Project

a. Details of established Nutrition Garden in Nutri-Smart village

Sl.	Name of Nutri-Smart Village	Type of Nutrition Garden	Number	Area (sqm)	No. of beneficiaries
1.		Backyard/Kitchen garden			
2.		Community level			
3.		Terrace Garden			
4.		Vertical Garden			
TOTAL					

C. Livestock and Fishery related activities

Name of programm e	No. of Programm e	Activities performed				No. of farmers benefited								No. of other officials (except KVK) attended the programm e	
		No. of animals vaccinate d	No. of animals deworme d	Feed/ nutrient supplement s provided (kg)	Any other (Distributio n of animals/ birds/ fingerlings) [No.]	SC		ST		Other s		Total			
						M	F	M	F	M	F	M	F		T
KKA-I															
KKA-II															

D. Other activities

Name of programme	Activities	No. of farmers benefited										No. of other officials (except KVK) attended the programme
		SC		ST		Others		Total				
		M	F	M	F	M	F	M	F	T		
KKA-I	Soil Health Card Distributed											
	NADEP Pit established											
	Farm implements distributed											
	Others, if any											
KKA-II	Soil Health Card Distributed											
	NADEP Pit established											
	Farm implements distributed											
	Others, if any											

Krishi Kalyan Abhiyan- III

No. of villages covered	No. of animal inseminated	No. of farmers benefitted									Any other, if any (pl. specify)
		SC		ST		Others		Total			
		M	F	M	F	M	F	M	F	T	

25. ARYA

KVK, Vaishali	No. of entrepreneurial units established	No. of Training programs organized	No. of rural youth trained		No. of youth established units	
			Male	Female	Male	Female
Horticulture Nursery	05	02	08	0	05	0
Mushroom Production Unit	35	02	40	10	25	10
Bee keeping and Honey Production Units	10	01	10	0	10	0
Quail Unit	05	03	06	04	03	02
Banana Fiber Extraction Units	03	03	10	55	02	01



Training on Mushroom production



Distribution of Mushroom



Distribution Bee box for bee keeping



Distribution of chicks



Distribution of Banana fiber extraction machine for development of fiber extraction unit



Practical class of Banana fiber extraction



Distribution of Planting material to the beneficiaries under Nursery component of ARYA Project



Distribution of Quail chicks and Quail feed among farmers in ARYA

26. Any other programme organized by KVK, not covered above

Sl. No.	Name of the programme	Date of the programme	Venue	Purpose	No. of participants
1.	Kisan Bhagidari Prathamikta Humari	26.04.2022	KVK campus	Priority of Farmers participation	352

27. Good quality action photographs of overall achievements of KVK during the year (best 10)



वैज्ञानिक सलाहकार समिति की 20वीं बैठक की कार्यवाही

21

कृषि विज्ञान केन्द्र, वैशाली की 20वीं वैज्ञानिक सलाहकार समिति की बैठक दिनांक 09.12.2021 को कृषि विज्ञान केन्द्र, वैशाली के सभागार में आयोजित की गई। इसकी अध्यक्षता डॉ० एम० एस० कुण्डू निदेशक प्रसार शिक्षा, डॉ० रा० प्र० के० कृ० विश्वविद्यालय, पूसा ने की।

बैठक में निम्नलिखित सदस्य उपस्थित थे।

क्र० सं०	नाम	पदनाम
1.	डॉ० एम० एस० कुण्डू (अध्यक्ष)	निदेशक प्रसार शिक्षा, डॉ० रा० प्र० के० कृ० विश्वविद्यालय, पूसा, समस्तीपुर
2.	डॉ० एस० डी० पाण्डेय (सदस्य)	निदेशक, एन० आर० सी० लीची अनुसंधान केन्द्र, मुजफ्फरपुर
3.	डॉ० शम्भु कुमार (सदस्य)	मुख्य वैज्ञानिक एवं प्रधान, आलू अनुसंधान केन्द्र, पटना
4.	डॉ० पुष्पा सिंह (सदस्य)	उप निदेशक प्रशिक्षण, डॉ० रा० प्र० के० कृ० विश्वविद्यालय, पूसा, समस्तीपुर
5.	डॉ० सुनीता कुशवाह (सदस्य सचिव)	वरीय वैज्ञानिक एवं प्रधान
6.	डॉ० राज कुमार जाट (सदस्य)	वैज्ञानिक एवं प्रधान, BISA
7.	श्री अरविन्द कुमार झा (सदस्य)	जिला कृषि पदाधिकारी, वैशाली
8.	श्री संजीत कुमार (सदस्य)	निदेशक, रूडसेट, वैशाली
9.	श्री ओमप्रकाश मिश्रा (सदस्य)	सहायक निदेशक, उद्यान, वैशाली
10.	श्री विजय कुमार (सदस्य)	जिला मत्स्य पदाधिकारी, वैशाली
11.	श्री सियाराम साहू (सदस्य)	उप परियोजना निदेशक, आत्मा
12.	श्री राजेश कुमार (सदस्य)	जिला परियोजना, प्रबंधक, जीविका, वैशाली
13.	श्री कौशलेश कुशवाह	रिजनल मैनेजर (मार्केटिंग) UPL (ADVANTA)
14.	श्री अशोक कुमार	प्रतिनिधि, उप निदेशक, मिट्टी जॉच, हाजीपुर, वैशाली
15.	श्री प्रवीण कुमार मिश्रा	प्रक्षेत्र पदाधिकारी, इफ्फो, वैशाली
16.	श्री जॉन डेग	प्रोग्राम मैनेजर (World Vision) वैशाली
17.	डॉ० बंसत कुमार	(A.K.R.S.P)
18.	श्री संजीव कुमार (सदस्य)	सब्जी बीज उत्पादक, चकवारा, हाजीपुर, वैशाली
19.	श्री राजीव कुमार रंजन (सदस्य)	प्रगतिशील किसान, निर्मला मशरूम फार्म
20.	श्रीमती पिकी देवी (सदस्य)	प्रगतिशील किसान, गुड़मिया
21.	श्रीमती वैशाली प्रिया (सदस्य)	समूह नेता, सुरमयी केला रेशा निष्कर्षण, बिदुपुर
22.	डॉ० सुनीता कुमारी	विषय वस्तु विशेषज्ञ, सस्य विज्ञान
23.	सुश्री वर्षा कुमारी	विषय वस्तु विशेषज्ञ, गृह विज्ञान
24.	श्री प्रेम प्रकाश गौतम	विषय वस्तु विशेषज्ञ, पौधा संरक्षण
25.	सुश्री ऋचा श्रीवास्तव	सहायक
26.	श्री संजीव कुमार	कार्यक्रम सहायक (लैब टेक)
27.	श्री जय प्रकाश	ब्यूरो चीफ हिन्दुस्तान, दैनिक समाचार पत्र, वैशाली
28.	श्री अमर कुमार	ब्यूरो चीफ, दैनिक जागरण समाचार पत्र, वैशाली
29.	श्री रत्न कु० सिंह	दूरदर्शन, पटना
30.	श्री दीपक मिश्रा	बैंक ऑफ बडोदा, हाजीपुर, वैशाली
31.	प्रिय रंजन सिंह	LDM सेंट्रल बैंक ऑफ इण्डिया
32.	श्री विकास आनन्द	Zee News
33.	श्री धर्मेन्द्र कुमार	हिन्दुस्तान फोटोग्राफी

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सर्वप्रथम डॉ० सुनीता कुशवाह, वरीय वैज्ञानिक एवं प्रधान, कृषि विज्ञान केन्द्र, वैशाली ने इस कार्यक्रम के माननीय अध्यक्ष डॉ० एम० एस० कुण्डू, निदेशक प्रसार शिक्षा, डॉ० एस० डी० पाण्डेय, निदेशक राष्ट्रीय लीची अनुसंधान केन्द्र, मुजफ्फपुर, डॉ० शम्भु कुमार, मुख्य वैज्ञानिक एवं प्रधान, आलू अनुसंधान केन्द्र, पटना एवं डॉ० राज कुमार जाट, वैज्ञानिक एवं प्रधान, BISA के सदस्यगण, सम्मानीय किसानों एवं कृषक महिलाओं और अन्य सम्मानीय सदस्यों को शॉल एवं पुष्पगुच्छ से स्वागत किया गया।

भारतीय कृषि अनुसंधान परिषद का गीत बजाया गया।

वरीय वैज्ञानिक एवं प्रधान, द्वारा स्वागत भाषण।

वरीय वैज्ञानिक एवं प्रधान, द्वारा पिछले सत्र का अनुपालन प्रतिवेदन प्रस्तुत किया गया तत्पश्चात विगत वर्ष 2021-2022 का प्रगति प्रतिवेदन प्रस्तुत किया गया, जिस पर समिति के माननीय सदस्यों द्वारा गहन विचार विमर्श कर निम्नलिखित सुझाव दिये गये।

- डॉ० एम० एस० कुण्डू, निदेशक, प्रसार शिक्षा ने भारतीय कृषि अनुसंधान परिषद एवं कृषि विज्ञान केन्द्र के बारे में सभी कृषि एवं संबद्ध विभाग एवं वैज्ञानिक सलाहकार समिति के सदस्य को अवगत कराया। उन्होंने बताया कि कैसे कृषि एवं संबद्ध विभाग एवं अन्य विभाग कृषकों के उन्नति के लिए कार्य कर सकता है।
- डॉ० एम० एस० कुण्डू, निदेशक, प्रसार शिक्षा ने निर्देश दिया कि बैठक की कार्यवाही को सभी संबंधित विभागों के पास संबंधित सुझाव के लिये परिचालित किया जाना चाहिए। उन्होंने यह भी बताया कि मधुमक्खी पालन में सुपर बॉक्स किस तरह से किसानों के लिए उपयोगी है।
- डॉ० शम्भु कुमार, मुख्य वैज्ञानिक एवं प्रधान, आलू अनुसंधान केन्द्र, पटना ने सुझाव दिया कि वरीय वैज्ञानिक एवं प्रधान द्वारा प्रस्तुत किया गया प्रगति प्रतिवेदन अच्छा था तथा उसे और भी अधिक संख्यात्मक ढंग से प्रस्तुत किया जाय। साथ ही यह भी कहा कि कृषि विज्ञान केन्द्र द्वारा सभी अनिवार्य कार्य पूरा किया गया है।
- श्रीमति वैशाली प्रिया, केला रेशा उद्यमी समूह की अध्यक्ष ने कृषि विज्ञान केन्द्र द्वारा केला रेशा पर प्रशिक्षण ग्रहण करने से उन्हें फायदा हुआ साथ ही साथ वह रेशा से निष्कर्षित पानी एवं रेशा के अपशिष्ट को उपयोग में लाने का कार्य कर रही है एवं उन्होंने महिलाओं को भी इसमें जोड़ा है। वह इस कार्य में गृह सज्जा सामाग्री भी विकसित कर रही है। उन्होंने कृषि विज्ञान केन्द्र द्वारा रेशा से बुनाई पर प्रशिक्षण हेतु अनुरोध किया।
- श्रीमति पिकी देवी, प्रगतिशील किसान, गुड़मिया ने अनुरोध किया कि सिलवाये गये कपड़ों के विपणन के लिए थोक विक्रेता के कार्य हेतु कृषि विज्ञान केन्द्र द्वारा तकनीकी सहायता प्रदान किया जाये।
- डॉ० राज कुमार जाट, वैज्ञानिक एवं प्रधान, BISA ने सुझाव दिया कि महिला उद्यमियों को विपणन हेतु केन्द्र द्वारा सहायता प्राप्त कराया जाये।
- डॉ० एम० एस० कुण्डू, निदेशक, प्रसार शिक्षा ने सुझाव दिया कि महिलाओं को सिलाई पर प्रशिक्षण दिया जाये साथ ही विद्यालय के शिक्षकों को बुलाया जाये ताकि महिलाओं को विद्यार्थियों के लिए पोशाक बनाने में सहयोग मिले।
- श्री राजीव कुमार रंजन, प्रगतिशील किसान, निर्मला मशरूम फार्म ने बताया कि उन्होंने 400 विवेंटल मशरूम प्रतिदिन उत्पादन क्षमता बढ़ायी है एवं चार वर्षों से उन्होंने बिग बासकेट के साथ अनुबंध कराया हुआ है।
- वह नर्सरी एवं गृह वाटिकाओं में कम्पोस्ट की आपूर्ति करते हैं एवं उनके द्वारा 40 टन से भी ज्यादा कृषि विज्ञान केन्द्र के गोरोल प्रक्षेत्र में उपलब्ध कराया जा चुका है।

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- डॉ० एम० एस० कुण्डू, निदेशक, प्रसार शिक्षा ने सुझाव दिया कि प्रशिक्षण हेतु प्रशिक्षणार्थी को सर्म्पक सूत्र प्रदान करे एवं प्रशिक्षण पश्चात उनकी प्रतिक्रिया को दर्ज करे, उन्हाने बताया कि किसानों की आय दोगुनी करने के लिए कच्चे माल एवं निवेश में कमी लाया जाये। चावल की फसल में मशरूम उत्पादन के अपशिष्ट को पुनः उपयोग करने के लिए BISA एवं डॉ० रा० प्र० के० कृ० वि०, पूसा के वैज्ञानिक डॉ० दया राम के साथ सर्म्पक किया जाये।
- श्री संजीव कुमार, सब्जी बीज उत्पादक, चकवारा, हाजीपुर, वैशाली ने संजीव सलेक्शन बंदगोभी बीज का प्रभेद विकसित किया जिसमें उन्हें संकर और ब्रीडर बीज उत्पादन के अन्तर्गत काफी परेशानी का सामना करना पड़ा। अतः उनहोने अनुरोध किया कि कृषि विज्ञान केन्द्र एवं विश्वविद्यालय द्वारा इस विषय पर क्षमता विकास प्रदान किया जाये।
- डॉ० एम० एस० कुण्डू, निदेशक, प्रसार शिक्षा ने सुझाव दिया कि बीज उत्पादन विषय पर विशेषज्ञों द्वारा प्रशिक्षण कराया जाये।
- डॉ० बंसत कुमार, आगों खों ने सुझाव दिया कि कृषि विज्ञान केन्द्र एवं संबंधित विभाग एक साथ मिलकर गाँवों एवं अन्य किसानों के बीच नई तकनीक पहुँचाई जाये। साथ ही उन्होने बताया कि जैविक कोरिडोर के माध्यम से जलवायु अनुकूल कृषि कार्यक्रम को उन्होने अपने 80 प्रतिशत प्रक्षेत्र तक पहुँचाया है।
- श्री प्रवीण कुमार मिश्रा, इफकों के क्षेत्रीय अधिकारी ने उर्वरकों के अलावा अन्य वैकल्पिक पोषक तत्वों के उपयोग करने का सुझाव दिया।
- डॉ० राज कुमार जाट, वैज्ञानिक एवं प्रधान, BISA ने सुझाव दिया कि उर्वरकों से संबंधित नयी तकनीकों को किसानों तक पहुँचाया जाये साथ ही इससे संबंधित कठिनाइयों का पता लगाना चाहिए और समाधान दिया जाना चाहिए।
- श्री कौशलेश कुशवाह, रिजनल मैनेजर (मार्केटिंग) UPL (ADVANTA) के क्षेत्रीय प्रबंधक ने निदेशक, प्रसार शिक्षा के नेतृत्व में होने वाले कार्य से संबंधित सुझाव दिए। साथ ही उन्होने बताया कि कृषि विज्ञान केन्द्र में वैज्ञानिक पौधा रोग की उचित खुराक की सिफारिश करते हैं।
- श्री राजेश कुमार, जिलापरियोजना, प्रबंधक, जीविका, वैशाली के प्रखंड अधिकारी ने बताया कि उन्होने 12 किसानों की PG ग्रुप बनाया है एवं आय उत्सर्जन गतिविधि के लिए उन समूहों का कृषि विज्ञान केन्द्र द्वारा प्रशिक्षण की माँग करते हैं। उन्होने समूह की महिलाओं द्वारा दो नर्सरी बनवाया एवं 40,000 पौधों को वन विभाग को उपलब्ध करवाया। अतः उन्हें महिलाओं के लिए नर्सरी की तकनीक के लिए कृषि विज्ञान केन्द्र से प्रशिक्षण चाहिए।
- World Vision, वैशाली से आये जॉन डैग ने सुझाव दिया कि जलमग्न क्षेत्रों में भी कृषि विज्ञान केन्द्र द्वारा फसल उत्पादन कराया जाये।
- कृषक उत्पादन संगठन से आये श्री भारतेन्दु ऋतुराज ने बताया कि कृषि विज्ञान केन्द्र से FPO बनाने में सहायता प्राप्त हो रही है।
- मत्स्य विभाग से आये श्री विजय कुमार ने बताया कि कृषकों को पाँच लाख/एकड़ तालाब बनाने एवं मत्स्य पालन को विकसित करने हेतु प्रयास किया जा रहा है।
- मृदा विभाग के अधिकारी ने बताया कि मृदा परिक्षण करके कृषि विज्ञान केन्द्र जिला मृदा विभाग को सहायता प्रदान कर सकता है।
- श्री संजीत कुमार, निदेशक, रूडसेट, वैशाली के कृषि विज्ञान केन्द्र उद्यमियों की सराहना की एवं उद्यमिता विकास पर प्रशिक्षण देने पर प्रकाश डाला एवं इस प्रशिक्षण का प्रशिक्षणार्थियों पर प्रभाव भी देखने को कहा गया।

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- श्री अरविन्द कुमार झा, जिला कृषि पदाधिकारी, वैशाली ने आग्रह किया की नई तकनीकों का प्रत्यक्षण प्राकृतिक संपदा को बिना नुकसान पहुँचाएँ किया जाना चाहिए। उन्होंने अंतर्वर्गीय फसल उत्पादन का सुझाव दिया।
- डॉ० शम्भु कुमार, मुख्य वैज्ञानिक एवं प्रधान, आलू अनुसंधान केन्द्र, पटना ने शून्य जुताई द्वारा आलू उत्पादन करने की सलाह दी। उन्होंने बैट्री चालित यंत्र को उपयोग करने हेतु सलाह दी। कीटनाशक एवं अन्य पौधा रोगों के दवाई छिड़काव हेतु ड्रोन पद्धति से छिड़काव करने का सुझाव दिया।
- श्री ओमप्रकाश मिश्रा, जिला उद्यान पदाधिकारी, वैशाली ने सूक्ष्म सिंचाई तकनीक को कृषि विज्ञान केन्द्र एवं विश्वविद्यालय द्वारा बढ़ावा देने हेतु आग्रह किया। उन्होंने बताया की प्रधानमंत्री सूक्ष्म खाद्य प्रसंस्करण उद्यम योजना के तहत खाद्य प्रसंस्करण में उद्यमता हेतु किसान 10,000.00 का कर्ज ले सकते हैं। उन्होंने आग्रह किया कि 0.5 एकड़ क्षेत्र में सेव की खेती एवं सूक्ष्म सिंचाई प्रत्यक्षण के रूप में कृषि विज्ञान केन्द्र में लगाने का सुझाव दिया।
- डॉ० शम्भु कुमार, मुख्य वैज्ञानिक एवं प्रधान, आलू अनुसंधान केन्द्र, पटना ने जिला उद्यान पदाधिकारी, वैशाली से आग्रह किया की एक आलू चिप्स प्रसंस्करण मशीन कृषि विज्ञान केन्द्र को उपलब्ध कराया जाए।
- श्री सियाराम साहू, उप परियोजना निदेशक, आत्मा ने सुझाव दिया की कृषि विज्ञान केन्द्र पर जैविक उत्पाद बिक्री केन्द्र बनाया जाए।
- श्री संजीत कुमार, निदेशक, रूडसेट, वैशाली ने आग्रह किया की कार्यवाही के साथ-साथ नयी तकनीकों के बारे में भी उन्हें उपलब्ध कराया जाए।
- डॉ० एस० डी० पाण्डेय, निदेशक, एन आर. सी. लीची अनुसंधान केन्द्र, मुजफ्फरपुर ने सुझाव दिया की बैठक की कार्यवाही में सभी सुझाव को संलग्नित किया जाए। केला के चिप्स बनाने में नारियल तेल का उपयोग एवं उसकी गुणवत्ता बढ़ाने पर कार्य किया जाए। केला के फूल से आचार बनाया जाए। OFT एवं FLD में और सुधार की जरूरत है। केला रेशा निष्कर्षण के अपशिष्ट पदार्थ को केचुआ खाद बनाने में उपयोग किया जाए। गाय के गोबर के दक्षता बढ़ाने के लिए 10 प्रतिशत केला रेशा अपशिष्ट का उपयोग किया जाए।
- डॉ० शम्भु कुमार, मुख्य वैज्ञानिक एवं प्रधान, आलू अनुसंधान केन्द्र, पटना ने सुझाव दिया की कृषि संबंधित विभाग अपने प्रक्षेत्र में कृषि विज्ञान केन्द्र द्वारा विकसित तकनीकों को प्रशिक्षण के माध्यम से किसानों तक पहुँचाएँ, साथ ही जलवायु पर केन्द्रित कृषि कार्य करें। कृषि विज्ञान केन्द्र में मधु उत्पादन को बढ़ावा दिया जाए। कृषि विज्ञान केन्द्र एवं अन्य सभी संबंधित विभाग के साथ संपर्क बनाया जाए। केला के पोटाश का उपयोग एवं इसे फसल में लोकप्रिय बनाया जाए। केले के रेशे से पारंपरिक कपड़ों का विकास किया जाना चाहिए। उद्यमियों को बाजार से संपर्क स्थापित करवाना। कृषि विज्ञान केन्द्र के संसाधनों का सृजन में बढ़ोतरी करना। कृषि यंत्रों का कस्टम हायरिंग सेन्टर विकसित करना।
- डॉ० पुष्पा सिंह, उप निदेशक प्रशिक्षण, डॉ०रा०प्र०के०कृ०विश्वविद्यालय, पूसा ने सुझाव दिया कि वैज्ञानिक सलाहाकार समिति की बैठक में सदैव वार्षिक लेखा अप्रैल से मार्च का प्रगति प्रतिवेदन प्रस्तुत किया जाना चाहिए। अनुपालन प्रतिवेदन, संख्यात्मक रूप में होना चाहिए। आय उत्सर्जन के सभी स्त्रोतों को प्रतिवेदन में जोड़ा जाना चाहिए। OFT के तकनीकों को FLD में उपयोग करना चाहिए। उन्होंने यह भी सुझाव दिया की फसलों में कीट को पकड़ने के लिए फेरोमोन ट्रैप एवं फूट पलाई ट्रैप का इस्तेमाल करना चाहिए। Online माध्यम से दिये गये प्रशिक्षण को प्रतिवेदन में संलग्न करें। उन्होंने यह भी बताया की ICDS परियोजना के अंतर्गत विकसित लड्डू को किसान मेला 2022 में विमोचन कराया जाएगा। उन्होंने कहा की कृषि

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विज्ञान केन्द्र के विभिन्न परियोजनाओं की सफलता की कहानियों से लघु फिल्म बनाया जाना चाहिए। सभी संबंधित विभाग कृषि विज्ञान केन्द्र के उद्यमियों को विकसित करने में सहायता प्रदान करें।

- सहायक निदेशक ने निर्देश दिया की सभी प्रशिक्षण एवं OFT के कमियों को पूरा कर लिया जाए। मत्स्य विभाग से मिलकर जल श्रवण क्षेत्रों में मछली पालन की दिशा में कार्य करें। गुणवत्ता पौधों एवं पौध का कृषि विज्ञान केन्द्र द्वारा उत्पादन किया जाना चाहिए। BISA एवं KVK द्वारा मिलकर मृदा परिक्षण करना साथ ही इस कार्य में BISA कृषि विज्ञान केन्द्र को सहायता प्रदान करें।
- RAWE के छात्रों के माध्यम से कृषि विज्ञान केन्द्र के प्रशिक्षुओं का प्रभाव विश्लेषण करवाया जाये।

वैज्ञानिक सलाहकार समिति के सम्मानीय सदस्यों द्वारा उपर्युक्त दिये गये सुझाव एवं विचार विमर्शों के आधार पर कार्यवाही करने के लिए निम्नलिखित दिये गये बिन्दुओं पर कार्य करने का संकल्प लिया गया।

1. ग्रामीण महिलाओं एवं युवकतियों को फल प्ररिक्खण एवं प्रसंस्करण हेतु प्रशिक्षण
विषय वस्तु विशेषज्ञ, गृह विज्ञान के द्वारा की जानेवाली कार्यवाही
2. प्रशिक्षण पश्चात प्रशिक्षणार्थियों की प्रतिक्रिया को दर्ज करना।
सभी विषय वस्तु विशेषज्ञ के द्वारा की जानेवाली कार्यवाही
3. कृषि विज्ञान केन्द्र द्वारा बीज उत्पादन विषय पर क्षमता विकास प्रदान करना।
विषय वस्तु विशेषज्ञ, सस्य विज्ञान के द्वारा की जानेवाली कार्यवाही
4. नयी तकनीकों को किसानों तक पहुँचाया जाना साथ ही इससे संबंधित कठिनाईयों का पता लगाना चाहिए और समाधान दिया जाना।
सभी विषय वस्तु विशेषज्ञ के द्वारा की जानेवाली कार्यवाही
5. कृषि विज्ञान केन्द्र द्वारा जीविका समूह का नर्सरी की तकनीक पर प्रशिक्षण।
विषय वस्तु विशेषज्ञ, उद्यान के द्वारा की जानेवाली कार्यवाही
6. कृषि विज्ञान केन्द्र द्वारा जलमग्न क्षेत्रों में फसल उत्पादन कार्य।
विषय वस्तु विशेषज्ञ, सस्य विज्ञान के द्वारा की जानेवाली कार्यवाही
7. उद्यमिता विकास पर प्रशिक्षण एवं प्रशिक्षणार्थियों पर इसके प्रभाव का दर्ज करना।
सभी विषय वस्तु विशेषज्ञ के द्वारा की जानेवाली कार्यवाही
8. नई तकनीकों का प्रत्यक्षण एवं अर्तवर्गीय फसल उत्पादन।
विषय वस्तु विशेषज्ञ, सस्य विज्ञान के द्वारा की जानेवाली कार्यवाही
9. शून्य जुताई द्वारा आलू उत्पादन, कीटनाशक एवं अन्य पौधा रोगों के दवाई को ड्रोन पद्धति से छिड़काव करना।

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विषय वस्तु विशेषज्ञ, सस्य विज्ञान एवं पौधा संरक्षण के द्वारा की जानेवाली कार्यवाही
10. केला चिप्स बनाने में नारियल तेल का उपयोग, केला के फूल के आचार बनाना।

विषय वस्तु विशेषज्ञ, गृह विज्ञान के द्वारा की जानेवाली कार्यवाही
11. कृषि विज्ञान केन्द्र द्वारा विकसित तकनीकों को प्रशिक्षण के माध्यम से किसानों तक पहुँचाना एवं मधु उत्पादन को बढ़ावा देना।

सभी विषय वस्तु विशेषज्ञ के द्वारा की जानेवाली कार्यवाही

12. OFT के तकनीकों का FLD में उपयोग करना।

सभी विषय वस्तु विशेषज्ञ के द्वारा की जानेवाली कार्यवाही

13. फसलों में कीट को पकड़ने के लिए फेरोमोन ट्रैप एवं फ्लूट फ्लाई ट्रैप का इस्तेमाल करना।

सभी विषय वस्तु विशेषज्ञ, पौधा संरक्षण के द्वारा की जानेवाली कार्यवाही

14. कृषि विज्ञान केन्द्र के विभिन्न परियोजनाओं की सहायता की कहानियों से लघु फिल्म विकसित करना।

सभी विषय वस्तु विशेषज्ञ के द्वारा की जानेवाली कार्यवाही

22/05/22
वरीय वैज्ञानिक एवं प्रधान
कृषि विज्ञान केन्द्र, वैशाली

5.9.22
निदेशक प्रसार शिक्षा
डॉ० रा० प्र० के० कृ० वि०, पूसा