

# **KRISHI VIGYAN KENDRA HARIHARPUR, VAISHALI**

***ANNUAL REPORT***  
**(January to December, 2020)**



**YEAR: 2020**

**DR. RAJENDRA PRASAD CENTRAL  
AGRICULTURAL UNIVERSITY, BIHAR  
PUSA, SAMASTIPUR – 848 125  
ATARI, Zone – IV**

## **ANNUAL REPORT 2020 (1<sup>st</sup> January-31<sup>st</sup> December 2020)**

### **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 9431417421	FAX	<a href="mailto:head.kvk.vaishali@rpcu.ac.in">head.kvk.vaishali@rpcu.ac.in</a> <a href="mailto:kvkatvaishali@gmail.com">kvkatvaishali@gmail.com</a> <a href="http://www.vaishalikvk.in">www.vaishalikvk.in</a>

#### 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	sunita 17kk@rediffmail.com

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

### 1.5. Staff Position (as on 31<sup>st</sup> December 2020)

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 131400	02.07.2019	Permanent	Other
2.	Subject Matter Specialist	Dr. Narendra Kumar	Subject- Matter Specialist	Animal Science	68900-205500 (104200)+20%NPA	22.02.2008	Permanent	Other
3.	Subject Matter Specialist	Mrs. Sunita Kumari	Subject- Matter Specialist	Agronomy	68900-205500 (82300)	03.07.2009	Permanent	Other
4.	Subject Matter Specialist	Miss. Varsha Kumari	Subject- Matter Specialist	Home Science	56100-177500 59500	12.12.2018	Permanent	Other
5.	Subject Matter Specialist	Miss. Swapnil Bharti	Subject- Matter Specialist	Horticulture	56100-177500 59500	17.12.2018	Permanent	Other
6.	Subject Matter Specialist	Mr. Prem Prakash Gautam	Subject- Matter Specialist	Plant Protection	56100-177500	07.03.2019	Permanent	SC
7.	Subject Matter Specialist	Vacant	-	-	-	-	-	-
8.	Programme Assistant	Mr. Sanjeev Kumar	Lab Technician	M. Sc.	35400-112400 (37600)	27.02.2018	Permanent	Other
9.	Computer Programmer	Vacant	-	-	-	-	-	-
10.	Farm Manager	Vacant	-	-	-	-	-	-
11.	Accountant / Superintendent	Miss. Richa Srivastava	Assistant	M.Sc.	35400-112400 (38700 )	22.11.2017	Permanent	Other
12.	Stenographer	Mr. Ravi Kumar	Stenographer – III	B.Sc. (Phy.Hon.)	25500-81100 (27100)	23.02.2018	Permanent	Other
13.	Driver	Vacant	-	-	-	-	-	-
14.	Driver	Vacant	-	-	-	-	-	-
15.	Supporting staff	Vacant	-	-	-	-	-	-
16.	Supporting staff	Vacant	-	-	-	-	-	-

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

S. No.	Item	Area (ha)	Hajipur(ha)	Goraul(ha)
1	Under Buildings	2.51	2.0	0.51
2.	Under Demonstration Units	0.50	0.5	Nil
3.	Under Crops	4.52	0.52	4.0
4.	Orchard / BRS/Poly House/Net House	3.50	3.5	4.0
5.	Others with details	1.0	Nil	1 (Pond)
	<b>Total</b>	<b>16.03</b>	<b>6.52</b>	<b>9.51</b>

*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		Under use	ICAR
2.	Farmers Hostel	-	-	-	-	Completed		Under use	ICAR
3.	Staff Quarters (6)	-	-	-	-	Not completed		not	ICAR
4.	Piggery unit	-	-	-	-	-	-	-	-
5	Fencing					<b>complete no hand over</b>			RPCA U, Pusa
6	Rain Water harvesting structure	-	-	-	-	-	-	-	-
7	Threshing floor					completed			
8	Farm godown	-	-	-	-	-	-	-	-
9.	Dairy unit	-	-	-	-	-	-	-	-
10.	Poultry unit	-	-	-	-	-	-	-	-
11.	Goatry unit	-	-	-	-	-	-	-	-
12.	Mushroom Lab	-	-	-	-	-	-	-	-
13.	Mushroom production unit	-	-	-	-	Completed	-	-	RF
14.	Shade house	-	-	-	-	-	-	-	-
15.	Soil test Lab	-	-	-	-	Completed	-	under use	ICAR
16	Others, Please Specify					Completed			
	1. Polyhouse								
	2. Quail Unit					Completed			ARYA
	3. Azolla Unit					Completed			ICAR
.	4. Vermicompost								GOB
	5. Zero energy cool chamber								ICAR

\* 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)	06.05.03	417598.77	369102 (09.09.19)	Process of condemnation started
Tractor (BR01GA 2896)	2009	4,05,000	5975 hrs. (31.12.20)	Working
Tractor John Deere (New) (BR31GB 2244)	2019	6,26,743.84	774 hrs. (31.12.20)	Working
Motorcycle 1 (BR31Q 7048)	09.09.16	59090	19757 (31.12.20)	Working
Motorcycle 2 (BR31Q 7049)	09.09.16	59090	21242 (31.12.20)	Working

## C) Equipment &amp; AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
<b>a. Lab equipment</b>				
Water distillation	2005	54240	working	
Physical Balance	2005	110740	Not working	
Chemical Balance	2005	8990		
Conductivity meter	2006	10170	Out of order	
Digital pH meter	2006	10170	Condemnable	
Spectrophoto meter	2006	61020	working	
Flame Photo meter	2006	47460	Need repair	
Hot Plate	2006	9040	working	
Hot Air oven	2006	15255	working	
Shaker	2006	25425	working	
Kjheladhl (digital & Distillation System)	2006	27000	Condemnable	
Willey mill Grinder	2006	25425	Condemnable	
Photo Phonies Phil Meteor cover head Projector (twin lamp.)	2003	11172	Condemnable	
Eutech PH miter	2018	24993	Working	
<b>b. Farm machinery</b>				
Zero tillage machine	2003		Condemnable	Received from ARI, Patna
Zero tillage machine	2007	49000	Condemnable	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	Good	Supply by R.A.U., Pusa
Trolley 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
Cono weeder	2010	1450	Condemnable	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		Condemnable	
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
<b>c. AV Aids</b>				
Godrej Prima 15" (38 cm) English type writer with dust cover	2001	11050	Condemnable	
Godrej Prima Hindi Type writer	2003	11530	Condemnable	
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	Condemnable	
UPS Elnova	2004	10160	Condemnable	
Xerox Machine with stabliser	2004	63492	Condemnable	
Refrigerator (Central Purchasing D.E.D., R.A.U., Pusa)	2005	-	Need major repairing	
Stabliser	2005	4400	Condemnable	
Laser Pointer	2003	1936	Out of oeder	
Banana fibre extractor machine	2004	19720	Condemnable	
Yasika MF2 No. 3514565	2006	1920	Condemnable	
Fax Machine Panasonic Model	2005	8990	Condemnable	
Fax Machine	2007	15600	Condemnable	
Dim Display System (Hakins)	2005	13065	Condemnable	
Storewell Grain	2006	10251	(-do-)	
Digital Camera	2005	18750	Condemnable	
HP Psc 1402 Serial No- MY58RCCOWY	2006	4500	Condemnable	
LCD Projector with Stand & display Stand	2007	7512332	Working	
Photocopier machine Canon (Model No. IR 2018N)	2008	53040	Condemnable	
Fax machine Canon-TKD-29711	2008	15600	Condemnable	
Digital Camera (Canon 5x110)	2009	29995	Condemnable	

## D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
Zero tillage machine	2003		Condemnable	Received from ARI, Patna
Zero tillage machine	2007	49000	Condemnable	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	Condemnable	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	Condemnable	Supply by R.A.U., Pusa
Potato Planter	2010	40000	Working	NHB, Patna
Potato Digger	2010	46500	Working	NHB, Patna
Cono weeder	2010	1450	Condemnable	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		Condemnable	
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

#### 1.8. Details SAC meeting\* conducted in the year: NA.

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

\* Salient recommendation of SAC in bullet form

Attach a copy of SAC proceedings along with list of participants

#### 2.a. District level data on agriculture, livestock and farming situation (2020)

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 4151kg/ha, Rice 1347kg/ha, Maize 5024kg/ha 2. Pulses-Lentil 635kg/ha pigeon pea 760kg/ha, Green gram406kg/ha 3. Oilseeds-1190kg/ha R/M Tisy-464 Sesame-394kg/ha
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 <b>five</b> lakh liter per day

Note: Please give recent data onl

## 2.b. Details of operational area / villages (2020)

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	1. Seed certification 2. Boron deficiency 3. Insect pest disease attack. 4. Off season problem	Quality Seed production. Girdling technology
2.	Hajipur	Hajipur	Gurmia	Cauliflower Bringal Paddy Maize Litchi	- do -	- do -
3.	Hajipur	Hajipur	Chakwara	Cauliflower Bringal Tomato	- do -	- do -
4.	Hajipur	Bhagwanpur	Bhagwanpur & Alawalpur	Paddy Maize Mustard Tomato Potato Wheat	Quality seed material	Seed production technique for quality crop production.
5.	Hajipur	Hajipur	Ghoshwar	-	1. Plant Material replacement in banana. 2. Pest Management in Mango. 3. Quality seed material required in time.	1. Training in Banana & Mango. Production technique. 2. 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	Patepur	Hasansarai	Wheat Paddy Rose	Quality seed material required	Seed production technique

8.	Hajipur	Lalganj	Jalalpur	Wheat	Quality seed material required	Seed production technique
9.	Hajipur	Lalganj	Lalganj&PaudaMadansingh	Mushroom	Quality spawn required	Mushroom production technique
10.	Mahua	Mahua	Garjoul & Mahua	Mushroom	Quality spawn required	Mushroom production technique
11.	Mahua	Raja pakar	Mukundpur Sarsai	Quail	Availability of Quail chick	Hatchery to be established
12.	Hajipur	Hajipur	Senduari	Paddy Maize Mustard Tomato Potato Wheat	Quality seed material, irrigation problem	Seed production technique for quality crop production.
13.	Rajapakar	Rajapakar	Bakhari Barai	Paddy Maize Mustard Tomato Potato Wheat	Quality seed material, irrigation problem	Seed production technique for quality crop production.
14.	Rajapakar	Rajapakar	Sarsai	Papaya Guava Litchi Cauliflower Potato	Problem in cultivation of Papaya Old orchard of Guava Alternate bearing in Litchi	Pruning in Guava Cultivation of Papaya Girdling in Litchi Quality seed production

## 2. c. Details of village adoption programme:

Name of the villages adopted by Sr. Scientist & Head and SMS (in year 2020) for its development and action plan

<b>Villages adopted by SMS (Plant protection)</b>		
<b>Name of village</b>	<b>Block</b>	<b>Action taken for development</b>
Faridpur	Raja Pakar	Phanomonetrap, Yellow sticky trap
Senduari	Hajipur	Mushroom, Tricoderma
Sarai	Hajipur	Mushroom
Naya Gaon	Shadai	Bee keeping
<b>Villages adopted by SMS (Animal Science )</b>		
<b>Name of village</b>	<b>Block</b>	<b>Action taken for development</b>
Faridpur	Rajapakar	Round the year fodder production and control of mastitis for clean milk production and Goatry production
SarsaiMukund	Rajapakar	Quail Farming/Goatry farming
Senduari	Hajipur	Enhancement of milk production by fodder production management Introduction of Gramm priya chick for back yard poultry and goatry
<b>Villages adopted by SMS (Home Science )</b>		
<b>Name of village</b>	<b>Block</b>	<b>Action taken for development</b>
Ghoswar & Gurmiya	Hajipur	Stitching and lac bangle
Hariharpur	Hajipur	Stitching and lac bangle
<b>Villages adopted by SMS (Horticulture)</b>		
<b>Name of village</b>	<b>Block</b>	<b>Action taken for development</b>
Gurmia	Hajipur	Seed production in Cauliflower
Sarsai	Rajapakar	Pruning in guava orchard, Cultivation of papaya
Dhabauli	Bidupur	Intercropping of Vgetables with Banana
<b>Villages adopted by SMS (Agronomy)</b>		
<b>Name of village</b>	<b>Block</b>	<b>Action taken for development</b>
Faridpur	Raja pakar	Seed/RCT/DSR
BhakhariBarai	Raja pakar	Seed/RCT/DSR
Dhobauli	Bidupur	Seed/RCT/DSR
Shital Bhakhurahr	Lalganj	Seed/RCT/DSR

## 2.1 Priority thrust areas

S. No	Thrust area
1.	IFS based modal
2.	Vegetable seed production
3.	Fodder production
4.	Poultry & Quail Production
5.	IPM integrated pest management in Crop, fruit, vegetable
6.	Dairy & Goatry for doubling income
7.	Fruit production (Mango & Guava)
8.	Vermi compost Production



## . TECHNICAL ACHIEVEMENTS

### 3 .A. Summary details of target and achievement of mandatory activities by KVK during the year 2020

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
13	09	100	15	5	0	0	37	15	52	20	72	12	10	455	22	15	0	0	152	58	174	73	247

Training												Extension activities											
Number of Courses		Number of Participants										Number of activities		Number of participants									
Target	Achievement	Target	Achievement									Tar get	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
161	147	2380	529	669	0	0	1727	787	2183	1509	3641	119	876	6540	2074	1295	0	0	5205	1020	7279	2315	9594

Impact of capacity building												Impact of Extension activities											
Number of Participants trained												Number of participants got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)											
Target	Achievement	SC		ST		Others		Total			Target	Achievement	SC		ST		Others		Total			Target	Achievement
		M	F	M	F	M	F	M	F	T			M	F	M	F	M	F	M	F	T		
832	699	7	1	0	0	13	04	20	05	25	115	115	20	2	0	0	25	05	45	07	52		

Seed production (q)						Planting material (in Lakh)					
Target			Achievement			Target			Achievement		
120			92			0			5000		

Livestock strains and fish fingerlings produced (in lakh)*						Soil, water, plant, manures samples tested (in lakh)					
Target			Achievement			Target			Achievement		
0			0			500			218		

\* 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							
Seminar/conference/ symposia papers	01	Mass					
Books							
Bulletins	05	450					
News letter							
Popular Articles	06	1000					
Book Chapter	03						
Extension Pamphlets/ literature							
Technical reports							
Electronic Publication (CD/DVD etc)							
<b>TOTAL</b>	<b>15</b>	<b>1450</b>					

## 3.1.1 Achievements on technologies assessed and refined

**a) Animal Science (OFT-1)**

1.	Title of On farm Trial	Effect of Shatavari ( <i>Asparagus Recemosus</i> ) on root power and mineral mixture feeding on milk production in dairy cow.
2.	Problem diagnosed	Low milk production after calving long inter calving period and mal nutrition.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Assessment
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	NDRI (Nutrition division, Karnal)
5.	Production system and thematic area	Feed management
6.	Performance of the Technology with performance indicators	Milk production and Symptom of estrus after feeding (Coming in heat).
7.	Final recommendation for micro level situation	It is recommended that Shatavari has lactogenic properties to improve milk production
8.	Constraints identified and feedback for research	Promotion of Shatavari cultivation for cheper availability to dairy farmer.
9.	Process of farmers participation and their reaction	Through field visit, interview and their feedback. Farmers told Shatavari root power has lactogenic property and increases milk yield.

### *Thematic area: Feed Management*

Problem definition: Low milk production after calving, long inter calving period, due to stress, mal nutrition and non availability of fodder.

Technology assessed: TOI: 50 gm Shatavari root power per day after calving up to 60 days along with farmers practice.

TOII: TOI + Mineral mixture@50g/head after calving along with farmers practice.

Table 1:

Technology option	No. of trials	Milk yield (Lit./day)		Increase in milk yield in technology option I	Increase in milk yield in technology option II	% increase	Cost of daily Shatavari feeding (300/kg)	Gross return per day per animal	Net return per day per animal	BC ratio
		Avg. milk yield in farmers practice	Avg. milk yield in with technology option I / II (Liter per day)							Gross return/cost
Farmers Practice	07	8.14 lit./day	0	0	0	0	0	0	0	0
TOI	07	0	8.82 lit./day	0.68	0	8.35	@15/50gm	27	12	1.35
TOII	07	0	9.01 lit./day	0	0.87	10.68	@20 along with mineral mixture	35	15	1.75

Results: The overall average net income were Rs. 15/day animal by Shatavari and mineral mixture feeding to dairy cow. Thus, it may be concluded that Shatavari root power has lactogenic properties to improve the milk production and economic for feeding dairy animals. Group of technology option I & II showed heat symptom after 50 days of feeding Shatavari root power and mineral mixture.

**b) Home Science -OFT-2**

1.	Title of On farm Trial	Assessment of multigrain atta for reduction of anaemia among rural women
2.	Problem diagnosed	Prevalence of Anaemia
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmer's Practice - Wheat based Roti.  Technology Option 1- Wheat flour + Soya flour + Besan  (1: 0.25 : 0.5)  Technology Option 2- Wheat flour + Soya flour + Maize flour (1: 0.25 : 0.5)  Technology Option 3- Wheat flour + Maize flour + Besan  (1: 0.25 : 0.5)
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Punjab Agricultural University, Ludhiana
5.	Production system and thematic area	Design and development of high nutrient efficiency diet
6.	Performance of the Technology with performance indicators	- Pre and post blood hemoglobin tests  - Oedema, Koelenchia and body weight  Organoleptic Evaluation of the developed roti for its acceptability
7.	Final recommendation for micro level situation	<b>Technology Option 1-</b> Wheat flour + Soya flour + Besan  (1: 0.25 : 0.5)
8.	Constraints identified and feedback for research	Acceptability of multi grain flour is difficult because of unawareness.
9.	Process of farmers participation and their reaction	a) Short duration trainings in adopted village b) Demonstrations c) Lectures on importance of using greens in combating anaemia

*Thematic area:* Design and development of high nutrient efficiency diet

Problem definition: Prevalence of Anaemia

Technology assessed: Farmer's Practice - Wheat based Roti.  
 Technology 1- Wheat flour + Soya flour + Besan (1: 0.25 : 0.5)  
 Technology 2- Wheat flour + Soya flour + Maize flour (1: 0.25 : 0.5)  
 Technology 3- Wheat flour + Maize flour + Besan (1: 0.25 : 0.5)

Table 2:

Parameters	T1		T2		T3		FP	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
<b>Hemoglobin (g/dl)</b>	8.34	11.23 (34.65%)	8.7	10.82 (24.36%)	8.4	10.26 (22.14%)	8.26	8.92 (8%)
<b>Body weight (kg)</b>	52.32	54.84 (4.04 %)	52.61	54.66 (3.89%)	51.54	52.55 (1.95%)	49.52	50.01 (0.98%)
<b>Organoleptic acceptability*</b>	8.86		8.36		8.52		8.3	

\* Nine point Hedonic Scale

FP- Wheat flour

TO1- Wheat flour + Soya flour + Besan (1: 0.25 : 0.5)

TO2- Wheat flour + Soya flour + Maize flour (1: 0.25 : 0.5)

TO3- Wheat flour + Maize flour + Besan (1: 0.25 : 0.5)

**Results:** Technology I proves better due to increase in Hemoglobin level and reduction of Anaemia.



### C) Home Science -OFT- 3

1.	Title of On farm Trial	Effect of different treatment methods on preparation of oyster mushroom powder to enhance the shelf-life.
2.	Problem diagnosed	Mushrooms are rapidly perishable and deteriorates immediately after harvest
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<p><b>Farmer's Practice-</b> Drying &amp; powdering mushroom without any treatment.</p> <p><b>Technology 1-</b> Drying &amp; powdering mushroom by pre- treating with 0.5 % citric acid</p> <p><b>Technology 2-</b> Drying &amp; powdering mushroom by pre- treating with 0.5 % KMS</p> <p><b>Technology 3-</b> Drying &amp; powdering mushroom by pre- treating with 1 % KMS</p>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	<b>University of Agricultural Sciences, Bangalore</b>
5.	Production system and thematic area	Value Addition
6.	Performance of the Technology with performance indicators	Organoleptic Evaluation of the developed powder for its acceptability
7.	Final recommendation for micro level situation	On going.
8.	Constraints identified and feedback for research	Difficulty in drying of Mushroom
9.	Process of farmers participation and their reaction	<p>a) Short lectures</p> <p>b) Demonstrations</p>



Thematic area: Value Addition

Problem definition: Mushrooms are rapidly perishable and deteriorates immediately after harvest

Technology assessed:

**Farmer's Practice-** Drying & powdering mushroom without any treatment.

**Technology 1-** Drying & powdering mushroom by pre- treating with 0.5 % citric acid

**Technology 2-** Drying & powdering mushroom by pre- treating with 0.5 % KMS

**Technology 3-** Drying & powdering mushroom by pre- treating with 1 % KMS

Table3:

Sensory evaluation of pre- treated mushroom powder					
	Appearance	Texture	Odour	Colour	Overall acceptability
Farmers Practice	6.2	6.8	6.1	6.1	6.3
T1	7	6.8	6.2	6.7	6.67
T2	7.1	7	6.8	6.5	6.85
T3	7.4	7	7.8	6.9	7.27

### Results:

- Pre- treatment of Oyster mushroom with 1% KMS has highest acceptability followed by 0.5 % KMS and 0.5 % citric acid.
- Shelf- life is about more than six months for powder of mushroom with all treatments.



**d) Horticulture- OFT - 4**

1.	Title of On farm Trial	Utilization of Interspaces in Banana Field
2.	Problem diagnosed	<ul style="list-style-type: none"> <li>During the commercial cultivation of the crop the crop is grown alone and the interspaces remains unutilized .</li> <li>Therefore an attempt has been made to utilize these spaces by planting some partial shade loving, short duration vegetable crops.</li> </ul>
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<b>Technology 1-</b> Farmers practice (sole crop ) <b>Technology 2-</b> Banana + Radish (Kharif) <b>Technology 3-</b> Banana + Cole crops (Rabi) <b>Technology 4-</b> Banana + Leguminous crops (Rabi)
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	OUAT, Bhubhneswar, Orissa
5.	Production system and thematic area	Fruit, (Crop Intersification)
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> <li>✓ Yield of banana alone</li> <li>✓ Yield of intercropped banana crop</li> <li>✓ Net profit to the farmers with banana alone</li> <li>✓ Net profit to the farmers with intercropped banana crop</li> <li>✓ Land equivalent ratio</li> </ul>
7.	Final recommendation for micro level situation	Cultivation of banana inter cropped with potato gave highest return to the farmers since it has the highest B:C ratio (1.57) compared to Banana + Cauliflower (1.29) and Banana + Radish (1.28)
8.	Constraints identified and feedback for research	No constraints
9.	Process of farmers participation and their reaction	Trainings and TV Talks

### *Thematic area:* Crop Intensification

**Problem definition:** During the commercial cultivation of the crop the crop is grown alone and the interspaces remains unutilized.

Therefore an attempt has been made to utilize these spaces by planting some partial shade loving, short duration vegetable crops.

Technology assessed:

Farmers practice- (sole crop )

**TO 1-** Banana + Radish (Kharif)

**TO-2 -** Banana + Cole crops (Rabi)

**TO 3-** Banana + Leguminous crops (Rabi)

Table 4:

	Treatment	Yield (q/ha)	Increase in yield (q/ha)	Cost of cultivation (Rs)	Gross return (Rs/ha)	Net return (Rs/ha)	B:C Ratio
<b>Farmers Practice</b>	Banana	3.85	-	57725	288750	231025	1.25
<b>TO 1</b>	Banana+Potato	467	82	132725	371250	238525	1.57
<b>TO 2</b>	Banana+Cauliflower	478.5	93.5	84325	382250	297925	1.29
<b>TO 3</b>	Banana+Radish	445	60	75725	348750	273025	1.28

**Result:** Cultivation of banana intercropped with potato gave highest return to the farmer.



**Intercropping of Cauliflower with Potato**



**Intercropping of Potato with Banana**

### e) Horticulture- OFT 5

1.	Title of On farm Trial	Increasing the yield of marigold production through pinching technology	
2.	Problem diagnosed	<ul style="list-style-type: none"> <li>Marigold is a flower of common man and is easy to purchase and cultivate with lower cost.</li> <li>Is one of the most commonly grown flower for garden and is extensively used as loose flowers for making garlands, religious purpose and social functions.</li> <li>Is gaining popularity due to its easy culture, wide adaptability, habit of free flowering and short duration.</li> </ul>	
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice= (no pinching) <b>TO 1</b> - Pinching at 30 and 40 days after planting <b>TO 2</b> - 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"> <li>✓ Plant height at monthly intervals</li> <li>✓ No of leaves</li> <li>✓ Days taken to flowering</li> <li>✓ No of flowers per plant season wise</li> </ul>	<ul style="list-style-type: none"> <li>✓ Flower diameter</li> <li>✓ Flower weight</li> <li>✓ Seed yield</li> <li>✓ B: C ratio</li> </ul>
7.	Final recommendation for micro level situation	On going	
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 & training programmes	



**Pinching technology in marigold by SMS Horticulture**



**f) Horticulture - OFT 6**

1.	Title of On farm Trial	Bearing regulation in litchi through girdling of primary branches
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. This phenomenon happens in litchi due to failure to bloom, because of the continuous vegetative growth of the tree and climate change effect. To overcome this problem, a technique to suppress vegetative growth prior to flower induction in litchi has been developed to obtain regular flowering and fruiting in Shahi and China cultivars.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	<p>ICAR-NRC on Litchi scientists have developed a technique of getting regular flowering and fruiting in litchi through girdling of primary branches.</p> <p>Farmers practice= (no girdling)</p> <p><b>Technology option 1-</b> Circular girdling 2mm diameter on 50% primary branches during 1<sup>st</sup> week of September.</p> <p><b>Technology option 2-</b> Circular Girdling 3 mm diameter on 50% primary branches during 1<sup>st</sup> week of September.</p>
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR- NRC on litchi Muzzaffarpur, AICRP on fruits
5.	Production system and thematic area	Fruit (Regulate flowering and fruiting in litchi)
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> <li>➤ Number of vegetative flush</li> <li>➤ Percent of shoots flowered in both panicle</li> <li>➤ Number of fruits per bunch</li> <li>➤ Seed borer infestation</li> <li>➤ Fruit weight</li> <li>➤ Fruit size</li> <li>➤ TSS</li> </ul>
7.	Final recommendation for micro level situation	On going
8.	Constraints identified and feedback for research	The farmers were scared during girdling the branches thinking that it will damage the tree.
9.	Process of farmers participation and their reaction	Trainings and demonstration programme



**Girdling technology in litchi by SMS Horticulture**

**g) Agronomy-OFT 7**

1.	Title of On farm Trial	Integrated Nutrient Management in Direct Seeded Rice for higher productivity
2.	Problem diagnosed	Use of Imbalanced fertilizer
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmer practice= (Only NP) Technology Option I – RDF Technology Option II – RDF+2 ton/ha vermin compost Technology Option III - RDF+2 ton/ha vermin compost+Zinc (25 kg/ha)
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	DRPCA, Pusa
5.	Production system and thematic area	Integrated Nutrient Management
6.	Performance of the Technology with performance indicators	Yield, Yield attributes, B:C ratio
7.	Final recommendation for micro level situation	Use of Zinc (25 kg/ha) along with vermi compost & RDF
8.	Constraints identified and feedback for research	Lack of knowledge of INM in direct seeded rice
9.	Process of farmers participation and their reaction	Satisfactory

**Thematic area:** Integrated Nutrient Management

Problem definition: Use of Imbalanced fertilizer

Technology assessed:

Farmer practice (Only NP)

Technology Option I – RDF

Technology Option II – RDF+2 ton/ha vermin compost

Technology Option III - RDF+2 ton/ha vermin compost+Zinc (25 kg/ha)

**Table 5:**

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: (Only NP given)	07	09	68	22.6	18	24.1	24600	40970	16370	1.66
Technology Option I – RDF		14	84	23.1	13	27.4	26000	46580	20580	1.79
Technology Option II – RDF+2 ton/ha vermi compost		18	102	23.5	11	33.9	29100	57630	28530	1.98
Technology Option III - RDF+2 ton/ha vermi compost+Zinc (25 kg/ha)		23	110	23.8	09	38.2	29730	64940	35210	2.18

**Results:**

KVK conducted On Farm Trial at 7 locations to evaluate the effect of Integrated Nutrient Management in Direct Seeded Rice for higher productivity. It was observed that application of zinc (25 kg/ha) along with Vermi compost (2 tone/ha + RDF) in Direct Seeded Rice performed best result & yield was 38.2 q/h



### h) Agronomy OFT- 8

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 I – Sulfosulfuran 25 g/ha  Technology II – Sulfosulfuran 25 g/ha + Metasulfuran 4g/ha
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	RPCAU, Pusa
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	On going
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	-



**i) Plant Protection OFT- 9**

1.	Title of On farm Trial	Management of late blight ( <i>Phytophthora infestans</i> ) of Tomato
2.	Problem diagnosed	Tomatoes are the vegetable to be planted in almost all the villages of Vaishali district and there is a marked outbreak of late blight disease in the crop.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers practice: (Control ) TO <sub>1</sub> - Spray with Bordeaux mixture (1 %) at 7 days interval TO <sub>2</sub> - Spray <i>Trichoderma harzianum</i> (0.5 %) at 7 days interval TO <sub>3</sub> - Spray <i>Trichoderma harzianum</i> (0.5 %) + Bordeaux mixture at 7 days interval
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Indian Institute of Horticultural Research, Bangalore
5.	Production system and thematic area	Integrated disease management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> <li>✓ % of infested plant before spraying</li> <li>✓ % of infested plant after spraying</li> <li>✓ Fruit yield</li> <li>✓ % increase in yield over control</li> </ul>
7.	Final recommendation for micro level situation	On going
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	


**OFT on Tomato**

## 3.1.2 Technology Assessed by KVK (Discipline wise)

Sl. No.	Discipline	Thematic areas	No. of the technologies (Technology Interventions)	No. of trials	No. of Locations
1.	Crop Production				
2.	Livestock				
3.	Enterprises				
4.	Women Empowerment				

## 3.2 Achievements of Frontline Demonstrations

## A. Details of FLDs conducted during the year

## Cereals

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			
						M	F	M	F	M	F	M	F	T	
1.	Paddy	Improved variety demonstration	Sahbhagi Dhan	04	04	02	01	0	0	05	02	07	03	10	
2.	Paddy	Improved variety demonstration	Rajendra Neelam	04	04	02	01	0	0	07	0	09	01	10	
3.	Paddy	Nutrient management	Use of Zinc	08	08	07	02	0	0	09	02	16	04	20	
4.	Wheat	Nutrient management	Use of Boron	08	08	06	0	0	0	12	02	18	02	20	

## 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 <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O					
1.	Paddy	Kharif	RF	Sandy loam	175	22	152	Moong	Jun	November	993	50
2.	Wheat	Rabi	RF	Sandy loam	175	22	152	Paddy	Nov.	April	3 mm	02

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: NA**

## 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
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

**Pulses: NA**

## 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
	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







**FLD on Berseem**



**FLD on Kitchen garden**



**Demonstration of cocopeat and pottrays to the farmers by SMS Horticulture**



**Demonstration of Polytunnel to the trainees by SMS Horticulture**





**FLD (Distribution of Papaya var Red Lady)**



**FLD on Paddy**



**FLD on Pheromone trap**

### Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
<b>Dairy</b>	<b>Disease management</b>	<b>Fly string (To control fly)</b>	<b>100</b>	<b>10 meter each farmer</b>	<b>No. of fly capture</b>	<b>No fly capture</b>	<b>Around 40% reduced no. of fly population</b>	<b>0</b>	<b>0</b>	<b>@Rs.7/meter 7x10= 70.00</b>	<b>80.00 (Saving of Phynyl e cost &amp; labour)</b>	<b>10.00</b>	<b>1.1</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>
Cow																	
Buffalo																	
Poultry																	
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	
Others (Pl.specify)																	
<b>Total</b>			<b>100</b>	<b>10</b>				<b>0</b>	<b>0</b>	<b>70.00</b>	<b>80.00</b>	<b>10.00</b>	<b>1.1</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>

\* 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



**FLD on Fly string**



**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																
Button mushroom																
Vermicompost																
Sericulture																
Apiculture																
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

**Women empowerment**

Category	Name of technology	No. of demonstrations	Observations/ Area covered (m <sup>2</sup> per hour)		Remarks
			Demonstration	Check	
Farm Women	Drudgery reduction (Improved sickle)	40	112	109	Work efficiency is higher in improved sickle
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)			
					Demons ration	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

### Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of Farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
				Demo	Local check	% change	GrossCost	GrossReturn	NetReturn	BCR
<b>Cereals</b>										
Bajra										
Maize										
Paddy										
Sorghum										
Wheat										
Others (Pl.specify)										
<b>Total Cereals</b>										
<b>Oilseeds</b>										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower										
Groundnut										
Soybean										
Others (Pl.specify)										
<b>Total Oilseeds</b>										
<b>Pulses</b>										
Greengram										
Blackgram										
Bengalgram										
Redgram										
Others (Pl.specify)										
<b>Total Pulses</b>										
<b>Vegetable crops</b>										
Bottle gourd										
Capsicum										
Cucumber										
Tomato										
Brinjal										
Okra										
Onion										
Potato										
Field bean										
Others (Pl.specify)										
<b>Total Veg. Crops</b>										
<b>Commercial Crops</b>										
Cotton										
Coconut										
Others (Pl.specify)										
<b>Total Commercial Crops</b>										
<b>Fodder crops</b>										
Napier (Fodder)										
Maize (Fodder)										
Sorghum (Fodder)										
Others (Pl.specify)										
<b>Total Fodder Crops</b>										

Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back

#### Extension and Training activities under FLD

Sl. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days				
2.	Farmers Training				
3.	Media coverage				
4.	Training for extension functionaries				

### Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif and Rabi:

#### A. Technical Parameters:

Sl · N o.	Crop demonst rated	Existi ng (Farm er's) variety name	Exist ing yield (q/ha )	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Num ber of farm ers	Ar ea in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				Distr ict yield (D)	Sta te yie ld (S)	Poten tial yield (P)				Max ·	Mi n.	Av.	D	S	P
1.	Lentil	Local	8.7	110	330	930	HUL-57+INM+IPM	19	10	14.2	11.0	12.6	100	100	41.9
2.	Green gram	Local	6.7	150	520	1130	Samarat+INM+IPM	70	20	11.7	6.90	9.30	100	50	23
3.	Rai	Local	8.60	80	220	1140	Rajendra suflam+INM+IPM	75	20	13.94	9.64	11.79	100	100	27.9

#### B. Economic parameters

Sl. No.	Variety demonstrated & Technology	Farmer's Existing plot				Demonstration plot			
		Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio
1.	HUL-57+INM+IPM	24100	41690	17590	1.73	25400	61460	36060	2.42
2.	Samarat+INM+IPM	21500	34650	13150	1.61	22000	50600	28400	2.27
3.	Rajendra suflam+INM+IPM	17150	40000	22850	2.33	18500	53950	35450	3.08

#### C. Socio-economic impact parameters

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained (kg)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own	Produce distributed to other farmers	Purpose for which income gained	Employment Generated (Mandays/household)
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				)	sowing (Kg)	(Kg)	was utilized	
1.	HUL-57	12600	50% of produce	50	4000	1000	Educatio n to the children	38
2.	Samarat	18600	60% of produce	90	8000	11500	Educatio n to the children	40
3.	Rajendra Suflam	23580	80% of total	32	6500	9000	Educatio n to the children	31

#### D. Oilseed Farmers' perception of the intervention demonstrated

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 research for soil health

#### 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

#### F. Extension activities under FLD conducted:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmer attended
1.	Field day	23.10.20, Sarsai	10
2.	Training	06.11.20. Dhobauli	18
3.	Field visit	25.11.20, Faridpur	07

4.	Field day	06.01.20, Bakhari Barai	11
5.	Field day	13.01.20, Dhobauli	16
6.	Field day	18.01.20, Sheetal Bhakurahr	13

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



### H. Farmers' training photographs



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



## J. Details of budget utilization (01.04.2020 to 31.12.2020)

Crop (provide crop wise information )	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
	i) Critical input	231097.00	258490.00	(-) 38693.00
	ii) TA/DA/POL etc. for monitoring		5500.00	
	iii) Extension Activities (Field day)		0.00	
	iv) Publication of literature		5800.00	
	<b>Total</b>	<b>231097.00</b>	<b>269790.00</b>	<b>(-) 38693.00</b>

### A) Farmers and farm women (On campus)

[illegible]



[illegible]

[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
Production of Fish feed													
Others, if any													
<b>X. Capacity Building and Group Dynamics</b>													
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													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
<b>XII. Others (Pl. Specify)</b>													
<b>TOTAL</b>	<b>38</b>	<b>484</b>	<b>180</b>	<b>664</b>	<b>176</b>	<b>136</b>	<b>292</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>588</b>	<b>298</b>	<b>906</b>



**Training on planting of cuttings in polybags by SMS Horticulture**



**Training of Vegetable production by SMS Horticulture**



**Training on Vermicompost preparation by SMS Horticulture**



**Training on propagation technique in marigold**

**B) Rural Youth (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
Mushroom Production	02	55	15	70	10	12	22	0	0	0	65	27	92
Bee-keeping	02	34	11	45	06	08	14	0	0	0	40	90	59
Integrated Nutrient Management	01	06	04	10	05	03	08	0	0	0	11	07	18
Seed production	01	06	01	07	05	02	07	0	0	0	11	03	14
Production of organic inputs													
Integrated Farming													
Crop Residence Management	01	08	0	08	09	03	12	0	0	0	17	03	20
Planting material production													
Vermi-culture	01	04	04	08	06	03	09	0	0	0	10	07	17
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	02	29	16	45	16	12	28	0	0	0	45	28	73
Training and pruning of orchards													
Value addition	01	0	05	05	0	20	20	0	0	0	0	25	25
Production of quality animal products													
Dairying													
Sheep and goat rearing	01	34	23	57	18	05	23	0	0	0	52	28	80
Quail farming	07	126	11	137	15	33	48	0	0	0	141	44	185
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Enterprise development													
Para vets													
Para extension workers													
Composite fish culture													
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													
TOTAL	19	302	90	392	90	101	191	0	0	0	392	262	583





### C) Extension Personnel (On campus)

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

### **F) Extension Personnel (Off Campus)**

[illegible]

### **i. Farmers & Farm Women**

[illegible]

[illegible]

[illegible]

[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
Others, if any													
TOTAL													
<b>XI Agro-forestry</b>													
Production technologies													
Nursery management													
Integrated Farming Systems													
TOTAL													
<b>XII. Others (Pl. specify)</b>													
<b>TOTAL</b>	<b>101</b>	<b>109 4</b>	<b>380</b>	<b>147 4</b>	<b>331</b>	<b>43 3</b>	<b>744</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135 2</b>	<b>795</b>	<b>216 7</b>





[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
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													
Others if any (ICT application in agriculture)													
TOTAL	25	336	126	462	98	139	237	0	0	0	434	336	699



[illegible]

Low cost and nutrient efficient diet designing	01	0	05	05	0	20	20	0	0	0	0	25	25
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
Others if any													
<b>TOTAL</b>	<b>21</b>	<b>297</b>	<b>281</b>	<b>578</b>	<b>100</b>	<b>97</b>	<b>197</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>397</b>	<b>378</b>	<b>775</b>



Discipline/Date	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
I. ANIMAL SCIENCE										
03.01.20	RY	Quail farming	01	On campus	02	0	02	01	0	01
13.01.20	RY	Quail farming	01	On campus	23	0	23	0	06	06
15.01.20	RY	Quail farming	01	On campus	44	08	52	0	10	10
16.01.20 to 18.01.20	RY	Improved goatry	03	On campus	20	0	20	0	09	09
18.01.20	RY	Quail farming	01	On campus	30	02	30	12	08	20
20.02.20	RY	Qyail farming (ARYA)	01	On campus	04	01	05	01	0	01
15.02.20	RY	Quail farming	01	On campus	03	0	03	01	0	01
22.02.20 & 25.02.20	RY	Improved goatry	04	On campus	34	23	57	18	05	23
01.05.20	PF	Survey of CRA project work	01	Off campus	10	01	11	08	0	08
02.05.20	PF	Azolla distribution among farmer	01	On campus	05	0	05	01	0	01
16.05.20	PF	Quail egg production	01	On campus	05	0	05	01	0	01
08.06.20	PF	Feed management	01	Off campus	08	0	08	0	0	0
15.06.20	PF	Round the year	01	Off	14	0	14	04	0	04

		availability of green fodder and silage making		campus						
19.06.20	PF	Round the year availability of green fodder and silage making	01	Off campus	16	0	16	04	0	04
26.06.20	PF	Azolla as a cattle feed	01	On campus	05	0	05	01	0	01
06.07.20 to 08.07.20	Migrant labour	Improved goatry	03	On campus	32	03	35	16	0	16
04.08.20 to 06.08.20	Migrant labour	Improved goatry	03	On campus	32	03	35	20	02	22
07.09.20 to 09.09.20	Migrant labour	Backyard poultry farming	03	On campus	31	04	35	10	01	11
14.09.20 to 16.09.20	Migrant labour	Improved goatry	03	On campus	27	08	35	12	01	13
21.09.20 to 23.09.20	Migrant labour	Improved goatry	03	On campus	28	07	35	15	01	16
05.10.20 to 09.10.20	PF	Quail farming	05	On campus	12	0	12	01	0	01
06.10.20	EF	Biodiversity training	01	On campus						
23.12.20	PF	SCSP project preparation	01	Off campus	12	03	15	12	03	15
28.12.20 to 31.12.20	PF	Quail farming	04	On campus	16	04	20	03	0	03
<b>II. AGRONOMY</b>										
03.01.20	PF	Seed production of wheat	01	Off campus	10	06	16	01	02	03
04.01.20 to 07.01.20	RY	Seed production of green gram	04	On campus	11	03	14	05	02	07
16.01.20	PF	Irrigation management wheat	01	Off campus	24	03	27	06	0	06
20.01.20 to 22.01.20	RY	Crop residue management	03	On campus	17	03	20	09	03	12
23.01.20	EF	Importance of seed production of cereal crop	01	On campus	50	0	50	0	0	0
25.01.20	EF	Importance of fertilizer manure	01	On campus	34	04	38	04	0	04
10.02.20 to 12.02.20	RY	Integrated nutrient management	03	On campus	11	07	18	05	03	08
25.02.20 to 27.02.20	RY	Vermi compost production	03	On campus	10	07	17	06	03	09
24.05.20	PF	Importance of green manuring	01	Off campus	09	05	14	04	02	06
07.06.20	PF	Nursery management for seedling	01	Off campus	07	06	13	04	01	05

		raising of paddy and finger millet								
16.06.20	PF	Raising of different types of nursery beds	01	Off campus	08	04	12	03	01	04
08.07.20	PF	Seed production of paddy for doubling income	01	Off campus	09	04	13	02	04	06
05.08.20	PF	Weed management in kharif crops	01	Off campus	04	08	12	03	02	05
12.08.20 to 14.08.20	Migrant labour	IFS	03	On campus	30	05	35	03	03	06
24.08.20	PF	Weed management in pulse crop	01	Off campus	10	0	10	05	0	05
07.09.20	PF	Seed production of pigeon pea	01	Off campus	11	02	13	01	02	03
09.09.20 to 11.09.20	Migrant labour	Soil testing	03	On campus	18	17	35	09	07	16
16.09.20	PF	Crop Resilient Agriculture	01	Off campus	12	02	14	02	01	03
17.09.20	EF	Importance of soil health	01	On campus	0	28	28	0	07	07
21.09.20	EF	Importance of soil health	01	On campus	0	30	30	0	06	06
25.09.20	EF	Scientific cultivation of pulse crop	01	On campus	0	30	30	0	08	08
05.10.20	EF	Importance of Biodiversity	01	On campus	41	06	47	11	02	14
06.10.20	EF	Importance of Biodiversity	01	On campus	35	02	37	12	01	13
07.10.20	EF	Importance of Biodiversity	01	On campus	41	03	44	13	0	13
09.10.20	EF	Importance of Biodiversity	01	On campus	47	01	48	11	0	11
15.11.20	PF	INM in pulse crop	01	Off campus	08	03	11	02	01	03
09.12.20	PF	Vermi compost production	01	Off campus	07	05	12	05	04	09
13.12.20	PF	Crop Resilient Agriculture	01	Off campus	10	05	15	02	03	07
<b>III. HOME SCIENCE</b>										
06.01.20 to 10.01.20	PF	Training on food processing & preservation	05	On campus	02	18	20	0	05	05
14.01.20	PF	Development of kitchen garden	01	Off campus	0	18	18	0	15	15
14.01.20	PF	Distribution of seeds for the development of kitchen garden under FLD	01	Off campus	0	20	20	0	15	15



		programme								
16.01.20	PF	Banana fiber extraction	01	Off campus	24	03	27	06	0	06
27.01.20	RY	Banana fiber extraction & product development	01	On campus	0	25	25	0	20	20
01.02.20	PF	Importance of kitchen gardening in food security	01	Off campus	0	18	18	0	03	03
04.02.20	PF	Training on preparation of complementary food	01	Off campus	0	20	20	0	20	20
04.03.20	RY	Banana fiber extraction	01	Off campus	13	19	32	04	18	22
24.04.20	PF	Preparation and distribution of mask made	01	On campus	10	10	20	10	10	20
26.05.20	PF	Nutrition and immunity boosting foods to fight corona virus	01	Off campus	0	15	15	-	10	10
29.05.20	PF	Care and protection of young children during corona virus infection	01	Off campus	0	15	15	-	10	10
09.06.20	PF	Training on care of young child during covid infection	01	Off campus	0	20	20	0	18	18
11.06.20	PF	Training on kitchen garden	01	Off campus	06	15	21	0	15	15
22.06.20	RY	Training on Banana fiber	01	Off campus	08	0	08	02	04	06
24.06.20	PF	Training on care of mother and child	01	Off campus	08	0	08	0	18	18
04.08.20	PF	Awareness corona virus and care of young children	01	On campus	0	20	20	0	05	05
05.08.20	PF	Awareness programme on world breast feeding week	01	On campus	0	20	20	0	05	05
06.08.20	PF	Nutrition education on breast feeding at Haiharpur village	01	Off campus	0	20	20	0	05	05
07.08.20	PF	Breast feeding week awareness programme at KVK	01	On campus	0	20	20	0	07	07
13.08.20	PF	Waste bag method of	01	Off campus	0	20	20	0	20	20

		nutrition gardening at Balwa kuwari								
14.08.20	PF	Waste bag method of nutrition gardening at Hariharpur village	01	Off campus	0	20	20	0	18	18
17.08.20	PF	Waste bag method of nutrition gardening at Daulatpur Devariavillage	01	Off campus	0	20	20	0	18	18
20.08.20	PF	GKRY training on nutrition garden at KVK	01	On campus	18	17	35	09	13	22
24.08.20	PF	Waste bag method of nutrition gardening at Saidpur Rajauli	01	Off campus	0	20	20	0	15	15
25.08.20	RY	Banana fiber extraction and product development	01	Off campus	05	08	13	0	02	02
04.09.20 to 05.09.20	EF	Training for the preparation of weaning food	02	Off campus	0	25	25	0	20	20
03.09.20 to 05.09.20	EF	Banana fiber extraction and value addition	03	Off campus	01	34	35	01	30	31
08.09.20	EF	Banana fiber extraction and value addition	01	Off campus	0	30	30	0	05	05
17.09.20	EF	Poshan Abhiyan cum Kisan Gosthi	01	On campus	20	60	80	15	40	55
21.09.20	EF	Poshan Abhiyan cum Kisan Gosthi	01	On campus	0	45	45	0	40	40
25.09.20	EF	Poshan Abhiyan cum Kisan Gosthi	01	On campus	0	30	30	0	05	05
30.09.20 to 03.10.20	PF	Preparation of low cost weaning food	04	Off campus	0	25	25	0	22	22
05.10.20 to 09.10.20	PF	Preparation of low cost weaning food	05	Off campus	0	30	30	0	25	25
12.10.20 to 16.10.20	PF	Preparation of low cost weaning food	05	Off campus	0	25	25	0	20	20
15.10.20	PF	Mahila Kisan Diwas	01	On campus	0	30	30	0	20	20
09.11.20	PF	Banana fiber extraction	01	Off campus	0	12	12	0	12	12
11.11.20	PF	Banana fiber	01	Off	0	17	17	0	17	17



		extraction		campus						
21.12.20 to 26.12.20	PF	Preparation of low cost weaning food	06	Off campus	0	25	25	0	08	08
<b>IV. HORTICULTURE</b>										
09.01.20 & 10.01.20	RY	Establishment of vegetable nursery	02	On campus	11	09	20	08	05	13
13.01.20	PF	Nursery management	01	On campus	17	10	27	10	06	16
15.01.20	PF	Nursery establishment	01	On campus	34	18	52	24	10	34
18.01.20	PF	Vegetable nursery	01	On campus	20	10	30	12	08	20
23.01.20 to 25.01.20	EF	Nursery raising under protected structure & management	03	On campus	12	18	30	08	09	17
03.02.20 to 17.02.20	Vocational	Training on garden and nursery establishment and management	15	On campus	19	13	32	05	03	08
13.02.20	PF	Benefits of micro irrigation system in orchard	01	Off campus	13	15	28	03	08	11
25.02.20 & 26.02.20	EF	Off season cultivation of Vegetable crops	02	On campus	19	13	32	02	03	05
22.06.20	PF	Development of IFS model	01	Off campus	13	07	20	03	02	05
10.08.20 to 12.08.20	Migrant labour	GKRY training on Vegetable production	03	On campus	25	10	35	10	04	14
24.08.20 to 26.08.20	Migrant labour	GKRY training on Vegetable production	03	On campus	25	10	35	10	04	14
17.09.20 to 19.09.20	Migrant labour	GKRY training on Vermi compost	03	On campus	25	10	35	12	03	15
26.09.20	PF	Girdling in Litchi	01	Off campus	07	03	10	05	0	05
05.10.20 & 06.10.20	PF	Nursery management of aromatic plants	02	On campus	18	07	25	08	07	15
07.10.20	PF	Pinching in marigold	01	Off campus	07	03	10	05	0	05
12.10.20 to 13.10.20	PF	Production and management technology of medicinal and aromatic plants	02	On campus	15	10	25	09	06	15
23.10.20	PF	Canopy management in Guava	01	On campus	12	03	15	04	01	05
09.11.20 &	PF	Production and	02	On	18	07	25	08	07	15

10.11.20		Management technology of tuber crops		campus						
11.11.20	PF	Cultivation of Vegetable crops under Diara land of Ganges & Gandak river	01	Off campus	20	05	25	04	02	06
24.11.20 & 25.11.20	RY	Establishment of winter flower annual nursery	02	On campus	18	07	25	08	07	15
27.11.20	PF	Field preparation and planting of strawberry plants	02	On campus	18	07	25	08	07	15
14.12.20 & 15.12.20	PF	Post harvest technology and value addition of medicinal and aromatic plants	02	On campus	24	06	30	06	02	08

#### V. PLANT PROTECTION

03.01.20	PF	Training on integrate pest & disease management in Mango, Potato, Tori etc.	01	Off campus	10	06	16	01	02	03
16.01.20	PF	Training on integrated pest & disease management in Tori, Wheat, Potato etc.	02	Off campus	48	16	64	06	0	06
28.01.20	PF	Insect management in Wheat and Maize	01	Off Campus	12	0	12	02	0	02
19.02.20	PF	Training on integrated pest and disease management in Summer crop	01	Off campus	25	0	25	0	0	0
04.03.20	PF	Insect /Disease management in Wheat and Maize	01	Off Campus	21	0	21	07	0	07
13.03.20	PF	Integrated Pest/Disease management in Vegetable crops	01	On Campus	19	0	19	05	0	05
14.03.20	RY	Bee management	01	Of f Campus	10	3	13	02	0	02
20.05.20	PF	Insect /Disease management in Banana	01	Of f Campus	10	0	10	02	0	02
29.05.20	PF	Integrated	01	Off	11	0	11	04	0	04

		Insect management in Brinjal and Tomato		Campus						
02.06.20 to 06.06.20	RY	Bee keeping & its management training for unemployed rural youth under ARYA project	04	On campus	10	0	10	0	0	0
08.06.20	PF	Integrated pest/ Disease management in Mango and Guava	01	Off Campus	08	0	08	04	0	04
11.06.20	PF	Integrated pest management in Rice, Maize and vegetable crops	01	Off campus	20	0	20	02	0	02
05.08.20 to 07.08.20	Migrant labour	GKRY training on Mushroom cultivation	03	On campus	30	05	35	06	04	10
17.08.20 to 19.08.20	Migrant labour	GKRY training on Mushroom cultivation	03	On campus	30	05	35	06	04	10
23.08.20	RY	Oyster mushroom Production	01	Off Campus	19	14	33	02	08	10
25.08.20	Migrant labour	Integrated pest management in Vegetable	01	On campus	30	05	35	06	04	10
26.08.20	EF	Integrated Pest/Disease management in fruits and Vegetable crops	01	Off Campus	25	0	25	04	0	04
27.08.20 to 29.08.20	Migrant labour	GKRY training on Bee keeping	03	On campus	30	05	35	06	04	10
14.09.20	EF	Farmers-Scientist interaction programme on IPM	01	On campus	45	05	50	06	0	06
24.09.20 to 26.09.20	RY	Training conducted for RAWE students on <i>Oyster</i> mushroom production	03	On campus	05	0	05	0	0	0
14.10.20	PF	Integrated pest /Disease management in pulse /oilseed crop	01	Off campus	17	0	17	05	0	05
29.10.20	PF	Integrated	01	Off	14	01	15	03	0	03

		pest/Disease management in Vegetable crop		campus						
11.11.20	PF	Integrated pest management in rabi crop	01	Off campus	17	04	21	02	01	03
23.11.20	PF	Integrated pest/Disease management in Cauliflower & Tomato	01	Off campus	15	0	15	03	0	03
12.12.20	PF	Integrated pest disease management in pulse crop	01	On campus	13	0	13	02	0	02

## 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	
Goatry	Goatry management	Skill development of improved goatry	01	48	16	64	Small unit	12	05	0
Beekeeping	Beekeeping	Bee management	01	15	02	17	Small unit	50	10	0
Mushroom	Mushroom	Mushroom cultivation	05	57	18	75	Small unit	65	32	0
Nursery management	Nursery management	Training on garden and nursery establishment and management	15	19	13	32	Nursery	07	35	0

\*training title should specify the major technology /skill transferred

## I) Sponsored Training Programme

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.	Kisan mitra samooch training programme		Jan., 20	01	EF	01	43	07	0	0	0	0	0	07	0	50	IFFCO
2.	Integrated pest management in maize	IPM	Feb., 20	01	EF	01	35	15	0	0	0	0	0	15	0	50	Dr. Reddy Foundation
3.	Seed production and certification	Seed production	Feb., 20	01	EF	01	60	20	0	0	0	0	0	0	0	80	BSSOCA

## 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	17	450	231	681	19	05	02	07	455	233	688
Kisan Mela	01	500	100	600	33	33	21	54	533	121	654
Kisan Ghosthi	11	170	75	245	53	08	03	11	178	78	256
Exhibition	01	172	50	222	08	11	04	15	183	54	237
Film Show	0	0	0	0	0	0	0	0	0	0	0
Method Demonstrations	10	52	53	105	15	0	0	0	52	53	105
Farmers Seminar	0	0	0	0	0	0	0	0	0	0	0
Workshop	0	0	0	0	0	0	0	0	0	0	0
Group meetings	01	0	40	40	11	02	0	02	02	40	42
Lectures delivered as resource persons	05	100	25	125	02	0	0	0	100	25	125
Advisory Services	6454	5164	1290	6454	10	120	05	125	5284	1295	6579
Scientific visit to farmers field	261	201	60	261	10	0	0	0	0	0	0
Farmers visit to KVK	3415	3074	341	3415	12	0	0	0	0	0	0
Diagnostic visits	301	170	131	301	13	0	0	0	0	0	0
Exposure visits	250	201	49	250	12	0	0	0	0	0	0
Ex-trainees Sammelan	0	0	0	0	0	0	0	0	0	0	0
Soil health Camp											
Animal Health Camp	01	10	15	25	11	0	0	0	0	0	0
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0	0
Soil test campaigns	0	0	0	0	0	0	0	0	0	0	0
Farm Science Club Conveners meet	0	0	0	0	0	0	0	0	0	0	0
Self Help Group Conveners meetings	0	0	0	0	0	0	0	0	0	0	0
Mahila Mandals Conveners meetings	04	0	65	65	50	0	05	05	0	70	70
Special Programmes (specify)	12	200	205	405	20	15	07	22	215	212	427
Sankalp Se Siddhi	0	0	0	0	0	0	0	0	0	0	0
Swatchta Hi Sewa	01	250	125	375	17	27	09	36	277	134	411
Any Other (Specify)	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>10745</b>	<b>10714</b>	<b>2855</b>	<b>13569</b>	<b>296</b>	<b>221</b>	<b>56</b>	<b>277</b>	<b>7279</b>	<b>2315</b>	<b>9594</b>



**Field day in village Sarsai by SMS Horticulture in Papaya Var. Red Lady**



**Diagnostic field visit**





Scientist visit to Farmers field

## B. Other Extension activities

Nature of Extension Activity	No. of activities
Newspaper coverage	150
Radio talks	0
TV talks	12
Popular articles	15
Extension Literature	18
Other, if any	0





## कृषि विज्ञान केन्द्र हरिहरपुर वैशाली में अधिकारियों ने सरकार द्वारा चलाये जा रहे विभिन्न कार्यों का लिया जायजा

ए टू डेड समाचार

**संवाददाता वैकुण्ठराय**। कृषि विज्ञान केन्द्र हरिहरपुर वैशाली में बुधवार को अधिकारियों ने सरकार द्वारा चलाये जा रहे विभिन्न कार्यों का जायजा लिया। इस मौके पर पूर्व कुलपति डॉ अनिल कुमार सिंह, राजमाता विजयाराजे सिंधिया कृषि विश्वविद्यालय म्यांलिपूर ने कृषि वैज्ञानिकों एवं प्रतिश्रील किसानों के साथ आवश्यक पुछताछ की अधिकारियों ने कृषि विज्ञान केन्द्र हरिहरपुर वैशाली में चल रहे सभी प्रकार के कार्यों की सराहना की। साथ ही उन्होंने आर्वा योजना रोजगार सृजन के लिए महत्वपूर्ण बताया। इस मौके पर डॉ राजेन्द्र प्रसाद केन्द्रीय कृषि विश्वविद्यालय पूसा, समस्तीपुर के प्रसार शिक्षा निदेशालय के निदेशक डॉ एम एस कुंद ने प्रतिश्रील कृषकों



द्वारा किये जा रहे कार्यों से अवगत हुये। वहीं अटारी, पटना के निदेशक डॉ अंजनी कुमार एवं बिरसा कृषि विश्वविद्यालय के प्रसार शिक्षा निदेशक ने वैशाली जिले में केल्टा रेशा के क्षेत्र में वैज्ञानिकों को प्रशिक्षण आयोजित कर युवकों को प्रशिक्षित करने की बात कही। इस मौके पर वरीय

वैज्ञानिक सह प्रधान डॉ सुनीता कुशवाहा ने कृषि के क्षेत्र में वैशाली जिले में किये जा रहे कार्यों से वरीय अधिकारियों को अवगत कराया। डॉ ब्रजेश शाही, नोडल अधिकारी ने सभी प्रत्यक्ष इकाइयों से कुलपति महोदय का प्रमण कराया। केल्टा रेशा उद्यमी वैशाली ग्राम ने

अधिकारियों को केल्टा रेशा निष्कर्षण कार्य का प्रदर्शन कर दिखाया, जिसका कुलपति ने सराहना की। साथ ही मशरूम उद्यमी राजीव रंजन ने मशरूम उत्पादन से उच्च आय उत्सर्जन कर जीविकोपार्जन के लिये नवयुवकों को उचित माध्यम बताया। बटेर पालक राजदेव राय ने बटेर उत्पादन कर उचित आय उत्सर्जन कर रहे हैं। अटारी पटना के मुख्य वैज्ञानिक डॉ अमरेंद्र कुमार ने वैज्ञानिकों के द्वारा इस वर्ष के प्रगति से अवगत हुए इस मौके पर केन्द्र के अन्य वैज्ञानिक डॉ नरेंद्र कुमार, डॉ सुनीता कुमारी, वर्षा कुमारी, स्वप्निल भारती, प्रेम प्रकाश गीतम, कर्मी संजीव कुमार, ज्ञाना श्रीवास्तव, रवि कुमार, सविता कुमारी, प्रीति पांडेवी, विकास कुमार, दीपक कुमार, निरंजन कुमार, अनुज कुमार सहित अन्य मौजूद थे।



TV talk by Scientist of KVK, Vaishali

### 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 <sup>th</sup> Jan.)	01	200	25	225	50	16	04	20	216	292	245
International Women's Day (8 <sup>th</sup> Mar.)	01	10	140	150	36	04	02	06	14	142	156
Ambedkar Jayanti (14 <sup>th</sup> Apr.)	01	51	38	89	20	02	03	05	53	41	94
International Yoga Day (21 <sup>st</sup> Jun.)	01	16	05	21	10	0	0	0	16	05	21
Independence Day (15 <sup>th</sup> Aug.)	01	62	10	72	25	0	0	0	62	10	72
Parthenium Awareness Week (16 <sup>th</sup> to 22 <sup>nd</sup> Aug.)	01	32	04	36	11	0	0	0	32	04	36

National Nutrition Month (1-30 <sup>th</sup> Sept.)	09	25	100	125	35	05	70	75	30	170	200
Hindi Diwas (14 <sup>th</sup> Sep.)	01	20	04	24	12	0	0	0	20	04	24
Gandhi Jayanti (2 <sup>nd</sup> Oct.)	01	35	06	41	15	0	0	0	35	06	41
Mahila Kisan Diwas (15 <sup>th</sup> Oct.)	01	0	28	28	13	0	0	0	0	28	28
World Food Day (16 <sup>th</sup> Oct.)	01	36	05	41	11	0	0	0	36	05	41
Vigilance Awareness Week (27 <sup>th</sup> Oct. to 2 <sup>nd</sup> Nov.)	01	19	08	27	09	0	0	0	19	08	27
National Unity Day (31 <sup>st</sup> Oct.)	01	15	04	19	08	0	0	0	15	04	19
World Science Day (10 <sup>th</sup> Nov.)	01	20	05	25	10	0	0	0	20	05	25
National Education Day (11 <sup>th</sup> Nov.)	01	25	04	29	12	0	0	0	25	04	29
National Constitution Day (26 <sup>th</sup> Nov.)	01	20	03	23	11	0	0	0	20	03	23
World Soil Day (5 <sup>th</sup> Dec.)	01	23	12	35	22.85	0	0	0	23	12	35
Kisan Diwas (23 <sup>rd</sup> Dec.)	01	26	10	36	12	0	0	0	26	10	36



**Celebration of National Nutrition Month  
(1-30<sup>th</sup> Sept., 2020)**



**Celebration of 150<sup>th</sup> birth  
Anniversary of Mahatma Gandhi**



**Organization of World Women Farmers  
Day**





**Celebration of World Food Day**



**World Soil Day organized at KVK**



**International Women's Day at KVK campus**



**Kisan Diwas at KVK campus**

**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.	20.06.2020	Garib Kalyan Rojgar Yojna	Sri Narendra Modi	50	16	02	68
2.	14.12.2020	CRA programme	Sri Nitish Kumar	86	07	06	99
3.	25.12.2020	Pradhanmantri Kisan Samman Nidhi Yojna	Sri Narendra Modi	100	16	02	118



**GKRA training for Employment of migrant labour at KVK, Vaishali**







## हाजीपुर प्रभात

### जलवायु अनुकूल कृषि कार्यक्रम का हुआ प्रसारण



कृषि विज्ञान केंद्र, हरिहरपुर में कार्यक्रम में उपस्थित लोग.

#### संवददाता, हाजीपुर/राजाबाऊर

जलवायु अनुकूल कृषि प्रणाली कार्यक्रम के तहत सोमवार को कृषि विज्ञान केंद्र, हरिहरपुर वैशाली में एक दिवसीय कार्यक्रम का संजीव प्रसारण किया गया. कार्यक्रम का उद्घाटन मुख्यमंत्री नीतीश कुमार ने सभी जिलों के कृषि विज्ञान केंद्र में वीडियो कॉन्फ्रेंसिंग के जरिये किया था. इस मौके पर केंद्र के जरीय वैज्ञानिक एवं प्रधान डॉ. सुनीता कुशवाहा के द्वारा बताया गया कि इस योजना के तहत वैशाली जिले के पांच खनिजित ग्राम में 100 से अधिक किसानों ने भाग लिया. डॉ. राजेंद्र प्रसाद केंद्रीय कृषि विश्वविद्यालय, पुसा, समस्तीपुर के आंगनत प्रसार शिक्षा निदेशक के

निदेशक डॉ. एस एस कुंड के निदेश पर इस कार्यक्रम का लाइव प्रसारण किया गया. केंद्र के प्रधान डॉ. सुनीता कुशवाहा ने बताया कि डॉ. एस एस कुंड के दिशा निर्देश में कृषि विज्ञान केंद्र, वैशाली जिले में निरंतर किसानों के लिए कार्य कर रहा है और आगे भी करते रहेंगे. इस मौके पर डॉ. राजेंद्र प्रसाद केंद्रीय कृषि विश्वविद्यालय, पुसा, समस्तीपुर के भारतीय कुलपति डॉ. रमेश चंद्र श्रीवास्तव ने जलवायु अनुकूल कृषि कार्यक्रम के अंगनत उचित फैसल चक्र को जिले में कार्यान्वित करने हेतु केंद्र के वैज्ञानिकों को निर्देशित किया. इस मौके पर केंद्र के अन्य वैज्ञानिक डॉ. नरेंद्र कुमार, वर्षा कुमारी, स्वप्निल भारती, प्रेम प्रकाश गौतम, कार्यक्रम सहायक संजीव कुमार आदि ने भाग लिया.



Inauguration of CRA programme by Hon'ble of CM of Bihar



Live telecast of Pradhanmantri Kisan Samman Nidhi Yojna

### 3.4 a. Production and supply of Technological products

*Village seed: NA*

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
Total								

*KVK farm*

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers to whom seed provided			
				SC	ST	Other	Total
Paddy	Rajendra Bhagwati	20	35 and 40 Rs/ kg	425	0	350	775
Pigeon pea	Rajendra Arhar 01 IPA 203	.40	105 Rs/kg	30	0	25	55
Tori	Rajendra Suflam	1	110 Rs/kg	60	0	80	140
<b>Grand Total</b>		<b>61</b>		<b>515</b>	<b>0</b>	<b>455</b>	<b>970</b>

### 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
<b>Vegetable seedlings</b>							
Cauliflower	Early Kunwari	1000	1Rs/seedling	25	-	25	50
Cabbage	-	-	-				-
Tomato	Pusa Ruby	1000	1Rs/seedling	31		19	50
Brinjal	Pusa Purple Long	1000	1Rs/seedling	37		23	60
Capsicum	California Wonder	2000	2 Rs/seedling	70		30	100
Onion	-	-	-				
Others							
<b>Fruits</b>							
Mango	Safed Malda, Mallika, Amarpali, Sukul,	1600	90 Rs per plant	110	-	265	375
Guava	Allahabad Safeda	2000	50 Rs per plant	75	-	150	225
Lime	Kagzi lime	500	45 Rs per plant	99	15	250	364
Papaya	Pusa Surya	500	15 Rs per plant	55	07	42	104
Banana	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-
<b>Ornamental plants</b>							
Medicinal and Aromatic Plantation	Medicinal Coleus, Japani Pudina, Lemon grass, Sarpchandha, Alovera, Tulsi	100/plant	0	0	0	0	0
Spices							

Turmeric							
Tuber							
Elephant yams							
Fodder crop saplings							
Forest Species							
Others, pl.specify							
<b>Total</b>		<b>9600</b>		<b>502</b>	<b>22</b>	<b>804</b>	<b>1328</b>

### Production of Bio-Products

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

### Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers benefitted			
				SC	ST	Other	Total
<b>Dairy animals</b>							
Cows							
Buffaloes							
Calves							
Others (Pl. specify)							
<b>Small ruminants</b>							
Sheep							
Goat							
Other, please specify							
<b>Poultry</b>							
Broilers							
Layers							
Duals (broiler and layer)							
Japanese Quail	Japanese quail (Coturnix coturix japonica)	75	4000	80	0	500	581
Turkey							
Emu							
Ducks							
Others (Pl. specify)							
<b>Piggery</b>							
Piglet							
Hog							
Others (Pl. specify)							
<b>Fisheries</b>							
Indian carp							



Exotic carp							
Mixed carp							
Fish fingerlings							
Spawn							
Others (Pl. specify)							
<b>Grand Total</b>		<b>75</b>	<b>4000</b>	<b>80</b>	<b>0</b>	<b>500</b>	<b>581</b>

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

i) Name of Seed Hub Centre: **Krishi Vigyan Kendra, Vaishali**

Name of Nodal Officer :	Senior Scientist & Head
Address :	Krishi Vigyan Kendra, Vaishali
e-mail :	head.kvk.vaishali@rpcu.ac.in
Phone No. :	
Mobile :	9431417421

ii) Quality Seed Production Reports

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed(F/S, C/S)
Kharif 2020	Pigeon Pea	NDA-1	Nil	Nil	Nil	Nil
Rabi 2020	Lentil	HUL-57			Nil	CS
		KLS-218			Nil	CS
Summer/Spring 2020	Green gram	SML-668			Nil	CS

iii) Financial Progress

Fund received (2016-17, 2017-18 and 2019, 2020)	Expenditure (Rs. in lakhs)		Unspent balance (Rs. in lakhs)	Remarks
	Infrastructure	Revolving fund		
2016-17 - 90.00	0.00	1.34	88.66	
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	

iv) Infrastructure Development

Item	Progress
Seed processing unit/plant	Purchased.
Seed storage structure	Completed.

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

Item	Title	Author's name	Number	Circulation
Research paper	-	-	-	-
Seminar/conference/ symposia papers	-	-	-	-
Books	-	-	-	-
<b>Bulletins</b>	1.Mushroom ki Unnat Kheti	P.P. Gautam, Narendra Kumar, Sunita Kumari,	500	500

		Varsha Kumari & Sanjeev Kumar		
2. Vaganik Tarike se Phaldar Paudho ki Taiyari		Swapnil Bahrti & Sanjeev Kumar	500	500
3. Rabi Mausam me Chara Phaslo ki Kheti		Narendra Kumar, Sunita Kumari, P.P. Gautam * Swapnil Bharti	500	500
4. Azolla Kheto ki Khad aum Pashuo ke liye Paushtik Aahar		Narendra Kumar, Sunita Kumari, P.P. Gautam * Swapnil Bharti	500	500
5. Papita ki Vaganik Kheti		Swapnil Bharti	500	500
6. Sabji Utpadan ki Unnat Takniq		Swapnil Bharti & Sanjeev Kumar	500	500
7. Javik Vidhi Dwara Paudha Sarakshan		P. Gautam, Narendra Kumar, Sunita Kumari, Varsha Kumari & Sanjeev Kumar	500	500
8. Bater Palan se Aarthik Unnati aum Rojgar Srijan		Narendra Kumar	500	500
9. Bhumigat Keeto se aise Bachai Phasal		P.P. Gautam & Sunita Kumari	500	500
10. Phoolgobhi ki Unnat Kheti Kaise Kare Janiye Kiseme Dekhbhal aur Paidawar		Swapnil Bharti, Narendra Kumar & Sanjeev Kumar	500	500
11. Marua ki Vaganik Kheti		Sunita Kumari	500	500
12. Dalhani Phasalo ki Vaganik Kheti		Sunita Kumari, Narendra Kumar, P.P. Gautam, Swapnil Bharti & Sanjeev Kumar	500	500
13. Surakshit Ann Bhandaran Kar Duguna Faida Pai		Sunita Kumari & P.P. Gautam	500	500
14. Masala Phasalo ki Vaganik Kheti		Sunita Kumari, Narendra Kumar, P.P. Gautam, Swapnil Bharti & Sanjeev Kumar	500	500
15. Mirda Parikshan aum Mirda Swasthya card ak Parichay		Sanjeev Kumar, Sunita Kumari & P.P. Gautam	500	500
16. Vermi Compost Mahatav aum Banane ki Vidhi		Sanjeev Kumar, Sunita Kumari & P.P. Gautam	500	500
17. Javik Khad ak		Sanjeev Kumar & P.P.	500	500

	Parichay	Gautam		
	18. Dhaincha ki Hari Khad – Dhan ki Kheti ke liye Vardan	Sanjeev Kumar & Swapnil Bharti	500	500
News letter	-	-	-	-
<b>Popular Articles</b>	1. Organic farming -Overview	Geeta Kumari, Navneet Kumar, Sunita Kumari & Khusboo Priya	0	0
	2. Liquid Microbial Consortium for Sustainable Farming	Geeta Kumari, Navneet Kumar, Sunita Kumari & Khusboo Priya	0	0
	3. Bio-fertilizers as an Important Component of INM for Sustainable Crop Production	Geeta Kumari, Sunita Kumari	0	0
	4. Phaldar lagane ka shai samay, Vaganik tarke se kare tayari	Swapnil Bharti & Vikash Kumar	0	0
	Dhan ki Vaganik Kheti ke liye honi chayia behatar nursery	Swapnil Bharti	0	0
	Ol ki Vaganik Kheti se Labh	Swapnil Bharti	0	0
	Feburary-March me kare Ropai, Badega Munafa	Swapnil Bharti	0	0
	Kare Haldi ki Kheti, Achi aamdani ke sath Ausidhi w Saundrya Prasadhan me bhi aata hai kaam	Swapnil Bharti	0	0
	Phoolgobhi ki Vaganik Kheti ker Kamai Adhik Labh	Swapnil Bharti	0	0
	1. Recent Advances for Enhancing Nutrient use Efficiency in crop production	Sunita Kumari, Geeta Kumari, Ragani Kumari, K.K. Singh, Prem Prakash Gautam	0	0
<b>Book Chapter</b>	2. Organic farming- Problems and Perspectives	Geeta Kumari, Navneet Kumar, Sunita Kumari & Khusboo Priya	0	0
Extension Pamphlets/ literature	-	-	-	-
Technical reports	-	-	-	-
Electronic Publication (CD/DVD etc)	-	-	-	-
<b>TOTAL</b>			<b>9000</b>	<b>9000</b>


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	Online one day workshop on locust management	Identification, Management and Predication of locust attack in prospect in Bihar	Mr. Prem Prakash Gautam SMS (Plant Protection)	01.06.2020	RPCAU, Pusa
2	21 days National training course	Technology interventions towards transformation Agricultural, Sericulture, Animal Husbandry and Allied Sector into sustainable enterprise for Atmanirbhar Bharat	Dr. Sunita Kushwah Sr. Scientist & Head & Miss. Swapnil Bharti SMS (Horticulture)	11.10.2020 to 31.10.2020 21 days	Agro Environmental Development Society

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

**Success Story 1:**

Name of farmer	 <b>Mr Rajeev Ranjan</b>
Address	Lalganj, Hajipur, Vaishali
Contact details (Phone, mobile, email Id)	9386720889
Land holding (in ha.)	1
Name and description of the farm/enterprise	Nirmala Mushroom Farm
Economic impact	4.4 (BC ratio)
Social impact	Famous
Environmental impact	Good for environment/Eco friendly
Horizontal/ Vertical spread	500 farmers benefitted

**Introduction-**

Sri Rajeev Kumar Ranjan, S/o- Sri Yogendra Prasad Singh, Village- Chhotimarai, Post- Hajipur, District- Vaishali, a owner of Nirmla Mushroom Farm was born on 25<sup>th</sup> February, 1986. Graduated in B.Tech. (Electronics & Instrumentation) in 2007 and joined in Tetra Pak as a Service Engineer in 2007 and served up to 2013. He was married on 17<sup>th</sup> June 2011 in Patna city. During Tetra Pak job travelling more than 25 days in a month in many Dairy, Beverage and Ice-Cream plant in different country for service/training. But turning point was my mother's death on 24<sup>th</sup> October, 2011. After

death my father live in village in Hajipur alone and me and my wife live in Pune. After 2 years, I decided to establish an income oriented avenue in home town.

Then I visited KVK, Vaishali and exposed to mushroom production & processing. Further, I attended the 15 days training in Pune and 7 days training in DMR, Solan during 2014. After training programme more than 10 mushroom farms / institutes visited some of them are Vikas Mushroom Farm, Solan, Thakur Mushroom Farm, Solan, Radhika Agro, Patiala, Bajwa Mushroom Farm, Kurushetra, Balaji Agro, Baramati, Maharashtra and Rajendra Agricultural Univesity, Pusa (Now Dr. Rajendra Prasad Central Agricultural University, Pusa). Then I applied for bank loan with consultation of KVK, Vaishali and submitted project proposal in NHM, Bihar, Patna in 2015. First I started oyster mushroom production with 250 bags during 2014. The marketing of oyster mushroom was limiting factor for its production. However, Pusa scientist was instrumental for processing and value addition in oyster mushroom (drying & pickling). It was again a turning point and local market was established. In market demand of button mushroom was high. Then I started button mushroom by **long method** of compost and **pipe method** (2015) as seasonal grower. At same time milky was started during summer. But looking the demand of button I contacted Pusa and control unit established. Since then I am producing 240 kg./day button & 60-80 kg. other mushrooms seasonally.

I adopted and popularized ZEPT technology of Solan modified by RPCAU among farmers of Bihar. I am main supplier of button mushroom compost in Bihar & Jharkhand. Technical support to other grower was also provided by me in dissemination of technology. More than 500 mushroom growers were supported in mushroom production technology per year. I have developed different value added products i.e. Mushroom Pickle, Bari, Pickle, Powder, Mushroom Sattu, Pakora and popularized in local market of Bihar. The growers are earning Rs. 10000-15000/- per month with the help or support of Nirmla Mushroom Farm.

**I have been recognized as master trainer of RPCAU, Pusa, Samastipur.**

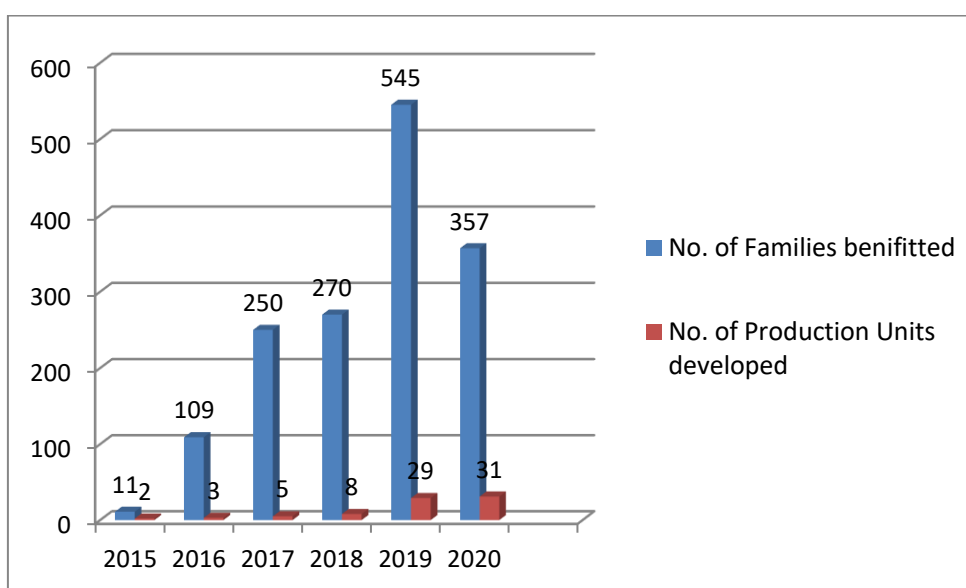
#### **Technology Introduced-**

To enhance self life of mushroom & sustainable marketing of mushroom's different product i.e. mushroom pickle, mushroom namkin, mushroom biscuit, mushroom powder, mushroom bari, mushroom sukhauta etc. were developed & introduced in nearby district of Vaishali like Samastipur, Motihari, Siwan, chhapra, Begusarai, Darbhanga, Sitamadhi, Muzaffarpur, district, Jharkhand, West Bangal, U.P, Bhutan , Nepal .

- **Less Power consumption**
- **Less Manual work(saving labour costing)**
- **Higher Quality**
- **Higher Quantity**
- **Automatic function**

## Adoption, Spread, Up Scaling of Technology and Future Projection

Since adopting of Mushroom production Technologies (2014) a total 416 landless and poor farmers belonging to different communities, more than 300 people from different districts of Bihar, Jharkhand and other parts of India (Face book & Whats app friends also) were trained. They are producing oyster and button Mushroom. They are earning 5000 to 20,000 per month. Further these trained farmers and farm women had demonstrated the production technologies among thousands of families. The families have now accepted the mushroom and added it in their diet. More than 500 families have started Oyster Mushroom cultivation with 5-10 bags besides their own consumption. The training module developed by D.M.R. Solan was totally followed. I am always participated as a resource person in the training organized by ATMA Vaishali & RUDSET Hajipur. I was made button mushroom composed for farmer on normal rate, regular visit of grower's site, demonstration and regular training to needy person is being continued.



**A graphical representation of dissemination of technology among farmers**


### AWARD

1. 2016- 3<sup>rd</sup> prize from KISAN MELA at Hajipur , Vaishali.
2. 2016- 1<sup>st</sup> prize from KISAN MELA at Dr. Rajendra Prasad Agriculture University, Pusa , Bihar.
3. 2017- 2<sup>nd</sup> prize from KISAN MELA at Dr. Rajendra Prasad Agriculture University, Pusa, Bihar.
4. 2019 - Progressive Farmer Award at DMR , Solan, Himachal Pradesh.

### **Relevant, action photographs**



## Success Story 2

Name of farmer	 <b>Sri Sanjeev Kumar</b>
Address	Vill. – Chakwara, P.O.- Hajipur, Distt.- Vaishali – 844101 (Bihar)
Contact details (Phone, mobile, email Id)	sanjeevpf@gmail.com 09835271511
Land holding (in ha.)	1 ha
Name and description of the farm/ enterprise	<b>The Green Seed House</b>
Economic impact	3.0 (BC ratio)
Social impact	Famous
Environmental impact	Good for environment/Eco friendly
Horizontal/ Vertical spread	More farmers are adopting

### Introduction

I had started Cauliflower seed production in 1998. My income level increased in a few years. As a result my enterprise come into light as an income generating venture. My neighbours and other farmers of my village approached me for guidance in adopting Seed production of Cauliflower and other vegetables. I inspired and encouraged them to undertake this enterprises. I could procure seed from many of them. This helped me in expanding my market. After 3-4 years I again contacted them to form an association of vegetable seed producers and raise fund for establishing common infrastructure facility for processing storing and packaging of vegetable seeds produced by us. As a result an NGO named Annadata Krishak Club was formed. The membership has been on rise since then. At that time it was 100 now it has risen to 500. The club is running successfully with a positive balance sheet. Use of space isolation for ensuring genetic purity of seeds.

- Scoping of curd for inducing early seed setting.
- Use of selfing bags for maintenance of nukes stocks.
- Establishment of a vegetable seed processing units.
- Establishment of an air & conditioned chamber for storage of vegetable seeds.
- Organized training programmes for the members of our club and other progressive farmers in improved technology of vegetable (particulary Cauliflower) seed production.



- Use of organize Cauliflower day for creating awareness among our farmer in this Cauliflower day.

## Impact

### Management's strategies:

1. Selected such villages for seed production where Traditionally Cauliflower seed Production in not done by farmers. This is how I maintain Isolation in order to ensure high genetic purity of the seed. We have established marketing of our seeds linkage with seed dealers in Cauliflower growing area in 11 states like (Bihar, Jharkhand, Orissa, M.P etc.).
2. **Saving of resources / inputs:**  
We adopted water conservation practices and latest method of nursery raising. We have adopted IPM, IDM techniques for reducing synthetic insecticides & fungicides.
3. **Breaking technology transfer barriers:**  
We carried out demonstration of Cauliflower seed production in different locations of Vaishali, Muzaffarpur, Samastipur (Bihar) with the help of KVK, Hajipur, IARI, Pusa, RAU, Pusa & BAU, Sabour, Bhagalpur.
4. **Prevention of outbreak of diseases and pests:**  
We have adopted IPM & IDM practices. We have selected stocks of resistant lines in local & superior varieties.
5. **Bringing about radical change in management packages/in contributing record production from land, water or animals:**  
I adopted scooping of Cauliflower curds ensuring early seeds setting, Isolation distance for pure seed production. I started use of honeybees for supplementary pollination.

### New Technologies Developed by the farmer with the help of KVK:

1. Purified different local, superior and popular varieties of Early Cauliflower
2. Developed Cauliflower – “Sabour Agrim” Variety by ‘BAU’ Sabour with the help of my cauliflower Germ Plasm
3. Developed Cauliflower Sanjeev selection Variety

### Socio economic impact

I have been providing training to local youth of Vaishali district on the latest technology of production of Cauliflower seeds and other horticulture crops for last five years. Uptill now 1000 participants were trained. IARI, Pusa, Regional station utilized me as resource person for training purposes from time to time. I am running a farmer's club named Annadata Krishak Club sponsored by NABARD and ATMA, Vaishali in which 250 participants were being trained. Besides Cauliflower seeds production, I also produce Vermi compost which I use for my purposes not only but also supply to other local farmers farming. I have adopted IPM technology for cultivation of crops and encouraged other farmers to do so. In the current scenario of gender mainstreaming, specially in the area of women empowerment through economic upliftment, I have formed. One SHG for women engaging themselves in the production of Baddi, Papad, Pickles, Jams and other handicrafts materials and involve them to participate in various state level & district level fairs organized by NABARD.

Agriculture department and other relevant agencies from time to time. I have also done value addition of Cauliflower by marketing “Kheer and Halwa” from it at first we presented it to the Hon’ble Chief Minister of Bihar Mr. Nitish Kumar during his exposure visit to our Cauliflower seed production plot in village Chakwara in 2010. We displayed a stall of Cauliflower Kheer and Halwa at trade fair in Gandhi Maidan, Patna in November, 2011. BAMETI (Patna) Bihar Agriculture Education Management Training Institute Patna. Also developed a documentary film (Success story) of my Cauliflower seed production.



*He has been providing training to local youth of Vaishali district on the latest technology of production of Cauliflower seeds and other horticulture crops for last five years. Uptill now 1000 participants were trained. IARI, Pusa, Regional station utilized me as resource person for training purposes from time to time.*

### Success Story - 3

**Sri Ramveer Pd. Chaudhary** started horticultural nurseries by the technical support of KVK, Vaishali. Now he is producing flowers ornamental plants, seedlings of flowers and vegetables. He started fruit plant propagation and owned 1 ha of land on lease basis. He is supplying plants to the agriculture department and commercial sale. He prepared plants through budding, grafting and layering.

Year Wise	2014-15	2018-19
Input	105000.00	460000.00
Out Put	18000.00	850000.00
Profit	75000.00	390000.00



At present approximate 52 nurseries technically supported by KVK, Vaishali.

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.	RCT (Zero Tillage)	Zero Tillage	Farmers are opting DSR (Direct Seed & Rice)
2.	Paddy-Wheat Seeder	Paddy-Wheat Seeder	Paddy-Wheat-Seeder saves labour energy

### Popularization of SRI:

One of the progressive farmers **Sri Jeetendra Singh** of Lalganj block shares his views & experience on the benefit of SRI which has been grown under the supervision of scientists of KVK, Vaishali. First he does selection of seed followed by seed treatment and then put seed in jute bag for sprouting for 24-36 hours. After that he has sown the sprouted seeds in prepared nursery bed taking care that seed should not touch each other. He transplanted 10 to 12 days old rice seedlings in the field at spacing of 25X25 cm. with the help of markers. Weed management become easier with conoveeder / locally developed weeder. He gets more no of tillers about 60-70 from the single seedling rather than traditionally 15-20 tillers from 4-5 seedlings. He is using the vermi compost and green manure fertilizers. On an average he is getting yield 80-90 q/ha. Which is three times higher than traditional method of cultivation and all the farmers who once cultivated this technique are get ready for ever. In this way the cultivated area of Paddy and wheat increases day by day. Now, this KVK is also awaring the labour about this technique through different training programme.

### District Scenario under SRI for the Paddy & Wheat (2020)

Sl. No.	Name of crop	Area covered (ha)
1.	Paddy	5000
2.	Wheat	3045

### 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.





**Black Rice-Wheat** is one of the major cropping system of Vaishali. It is a major system for food security and provide livelihood and income to farmers and labours. There is urgent need is being felt to exploure the possibility of saving to critcal 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 of uses RCT like DSR and Zero tillage. He also grown Paddy var. Rajendra Neelam and promoted Black rice variety.

**Zero tillage Wheat** – Zero tillage an extreme farm of reduce tillage were wheat is planted in prepared soil after Rice harvest in a narrow slit wide enough to cover the seed without any tillage. It ensures timely planting improve soil condition due to slow decomposition of crop residues and high biological activities. 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 zero tillage wheat was started during



rabi season of 2009-10. 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 wheat. 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.



**DSR & Zero tillage in Wheat**

- 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) - **NA**

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

- 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.	Mango	50 (Approx)	15 tone per ha	90	Yes
3.	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.

- 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 Spectrophotometer	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
-	218	218

## 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	218	218	218	0.00
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.	Organized one day training programme for celebration of World soil day- 2020	35	-	-	10	35

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

No of training programme	No. of demonstrations	No. of plant material produced	Visit by the farmers (No.)	Visit by the officials (No.)

3.13. Technology week celebration: **NA**

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

## 3.14. RAWF/ FET programme - is KVK involved? (Y/N)

No of student trained	No of days stayed
04	91

ARS trainees trained	No of days stayed
No	N0

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

Date	Name of the person	Purpose of visit
17.09.2020	Awadesh Singh, MLA, Hajipur	Visit of KVK work.
28.11.2020	Dr.N.Saravana Kumar, IAS Secretary, Agriculture cum Animal & Fisheries Resources Department	Visit of KVK work.
28.11.2020	Dr. M.S. Kundu DEE, DRPCA, Pusa	
28.11.2020	Dr. Ashok Kr. Singh District Dairy Development Officer Vaishali	
28.11.2020	Dr. Ashok Kumar District Agriculture Officer Vaishali	
28.11.2020	Sri Ram Prakash Sahani Joint Director, Agriculture Tirhut Division, Muzaffarpur	
28.11.2020	Dr. R.S. Vidyarthi Travelling Veterinary Officer Hajipur, Vaishali	
28.11.2020	Sri Om Prakash Mishra Dy. Director, Horticulture	
05.12.2020	Sri Jaynath Chauhan State Chairman, BJP	Participated in Soil Health Day
05.12.2020	Sri Baidhnath Rai Pacs Chairman	Participated in Soil Health Day
14.12.2020	Md. Naim Ashraf Joint Director Saran, Darbhanga	Launching of CRA programme by Hon'ble PM of India
14.12.2020	Yadunandan Prasad Yadav Joint Director Saran, Sharsa	
14.12.2020	Sri Ram Prakash Sahani Joint Director, Agriculture Tirhut Division, Muzaffarpur	
14.12.2020	Sri Vishwanath Gupta Static Assistant Saran Division, Chapra	
14.12.2020	Sri Siyaram Sahu Dy. Project Director ATMA, Vaishali	
16.12.2020	Dr. Amit Kumar Singh, Former VC, RVSKVY	Inspired by KVK worked.





**Dignitaries visit at KVK, Vaishali**

#### 4. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Fruit fly trap	15	5%	22,000/person	29,000/person
Pinching technology of marigold	25	7%	36000/	50000/

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	
Tori		17 q/ha	1100

			19 q/ha
Use of fertilizers (Nutrient)		(kg/ha)	(kg/ha)
Paddy		140:70:40	121:62:42 (N:P:K)
Wheat		100:50:20	120:60:40 (N:P:K)
Mustard		90:40:42	80:40:40 (N:S:P)
Lentil		25:45:20:20	20:45:20:20 (N:F:P:S)
Use of HYV (High yielding varieties)			
Paddy			
Maize		10%	15%
Tomato		12%	30%
Cauliflower		8%	20%
		4%	20%
Mushroom Cultivation	23	2 q/day	1 tonns/day

#### 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 Faridpur village adopted zero tillage technology because of more return, saving on fertilizer, seed, irrigation, labour charges etc.
Rajendra Subhasani, Prabhat and Rajendra Bhagwati	Paddy seed (var. Rajendra Subhasani, Prabhat and Rajendra Bhagwati 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	02 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.
Vermocompost	Production of 85360 qt to 140670 qt.
Quail Farming	Small scale commercial goat farming in rural landless women with 50 units.

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
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	No water logging No incidence of soil borne	More survival of the plants (25%) in Potrays and Polybags

	vermicompost and cocopeat	disease Ease in handling The media has good water absorbing capacity	as compare to beds.
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#### 4.3.1 Impact on profitability/productivity/ sustainability –

##### Area coverage under Vermi compost production in the district.

Year	Area (ha)/units	Production (qt.)
2019-20	1203	40000

##### Impact of newly introduced variety of oilseed & pulses in the district

##### Area in ha.

Year	Mustard (ha) (var. Rajendra suflam)	Pigeon pea (ha) (M-13/Bahar)
2019-20	3000	713

#### 4.3.2 Impact on Livelihood Security:

Topics	No. of trainees	Impact (%)
Poultry farming	35	5
Goatry	255	23
Quail farming	226	15

#### 4.3.3 Impact on creation of Job Opportunity:

- For creation of job opportunities and self employment opportunities among rural youth KVK scientists are organizing regular training programme for rural youth and rural women. For self employment, rural youth are selected and motivated through regular training in the field of Goatry, Poultry, Quail farming, Mushroom production technology, Bee keeping, Horticulture crops and Tailoring etc.

##### Impact on Entrepreneurship Development:

Topics	Units/Trainees
Vermi compost production	155
Bee keeping	70
Banana fiber extraction & handi craft making	2
Cauliflower seed production	8
Azolla production	16
Nursery establishment	125

#### 4.4. Details of innovations recorded by the KVK

Thematic area	IPM
Name of the Innovation	Use of Neem seed karnel oil for the management of fruit and shoot and borer of Bhindi
Details of Innovator	Sri Jitendra Singh, Namidha, Lalganj, Vaishali
Back ground of innovation	Innovative farmers winner of ICAR and several Award
Technology details	Neem seed karnel oil is extracted and spraying for the management of fruit and shoot borer in Ladies finger
Practical utility of innovation	It acts as deterant

Thematic area	<b>Value addition</b>
Name of the Innovation	Product development from Banana Fiber Extraction
Details of Innovator	Mrs. Vaishali PriyaVaishali
Back ground of innovation	Fashion Designer
Technology details	Promotion and development of products by Banana fiber and fabric after processing of fiber
Practical utility of innovation	Dumping and waste of Banana pseudostem used for product development with high cost in the market

Thematic area	<b>Quail farming</b>
Name of the Innovation	Introduction of quail farming for rural employment and food security
Details of Innovator	Mr. Rajdev Rai, Mukundpur Sarsai, Vaishali
Back ground of innovation	Establishment of hatchery
Technology details	Establishment of mother unit for supply of eggs to hatchery
Practical utility of innovation	Good source of quality protein and employment generation in less capital, resource and space

Thematic area	<b>Azolla cultivation as a feed</b>
Name of the Innovation	Introduction of azolla cultivation
Details of Innovator	Mr. Rakesh Kumar, Patepur
Back ground of innovation	Azolla unit for goat feed
Technology details	Establishment of azolla unit for supply of feed to goatry/poultry unit
Practical utility of innovation	Good source of quality protein for goat and chicks

Thematic area	<b>Nursery Management</b>
Name of the Innovation	Establishment of Nursery
Details of Innovator	Mrs Guddi Sah
Back ground of innovation	House wife
Technology details	Establishment of fruit nursery
Practical utility of innovation	Good quality planting material is being made available

#### 4.5. Details of entrepreneurship development

Entrepreneurship development	
Name of the enterprise	<b>Goat farming</b>
Name & complete address of the entrepreneur	Sri Rakesh Kumar, Vill.- Harpurhari, Patepur, Dedhua, Ward No. 03, Block- Patepur, Distt.- Vaishali
Role of KVK with quantitative data support:	Training and technical support.
Timeline of the entrepreneurship development	One year from April, 2020
Technical Components of the Enterprise	Selling goat kits round the year specially Bakrid, Dushara&Holi festival. Having total strength 75 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	<b>Banana fiber product development</b>
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	<b>Nursery</b>
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.

4.6. Any other initiative taken by the KVK:

## Leading project in KVK, Vaishali for livelihood enhancement of Farmers

### A. ARYA PROJECT-

The project entitled Attracting and Retaining Rural Youth in Agriculture started in 2019 -20 with the aim of retaining youth in agriculture. It has the following components.

- Bee- Keeping
- Mushroom Cultivation
- Banana Fibre Extraction
- Quail Farming
- Nursery Management



Under ARYA project many rural youth have been trained for components under ARYA

Indicators	Quail	Bee keeping	Mushroom	Nursey Managem ent	Banana fiber
Year of establishment:	2020	-	-	-	
Training Programs Conducted (No.)	10	01	04	04	02
Rural youth trained (No.)	100	25	100	100	50
Groups formed (No.)	10	1	1	04	2
Number of youths associated with each group	50	10	20	08	10

### BEE KEEPING



### MUSHROOM PRODUCTION



### NURSERY MANAGEMENT







Under Arya project 20 trainings given to the 500 farmers for the nursery management. In this project technical support and financial help provided to the farmers.

### **Establishment of demonstration unit at KVK under ARYA project:**

- Capsicum (*Capsicum annum*) also known as Bell Pepper and Shimla Mirch in hindi can be well grown in Polyhouse and Shade net in the agro climatic conditions of Vaishali dist of Bihar.



- If cultivation of capsicum is done in an area of 1 acre polyhouse then around 18000 – 20000 seedlings is required with total cost of cultivation Rs 35,000 (seeds, bed preparation, manures and fertilizers, insecticides) and ( 500 Rs/ sq metre for wooden/bamboo, 750 Rs /sq m for metal structure and 250 Rs/sq m for shednets) which gives a return of 10-12 tons / acre which has a market price of about 60 to 100 Rs/ kg which gives a net income of approx 6 lac to 7 lac per crop.



### **Flower nursery entrepreneurs under ARYA:**



## Sanjeev Kumar, Village: Panapur Langa

He started the work on leased land in the last yeay 2019- 20.

He is growing all kinds of seasonal flowers and propogated plants. His monthly income Rs10000/- month.



Figure 1 Vegetable Seedlings under ARYA at Farmers unit



## QUAIL FARMING





## ESTABLISHMENT OF BANANA FIBER EXTRACTION UNIT:



**Training provided to rural youth and Farm Women for banana extraction fiber**

## NEW INITIATIVE UNDER ARYA PROJECT

Under arya PROJECT A RURAL YOUTH NAMED 'surmayi' created and developed by the KVK. The group comprises of 30 rural youth lead by Miss. Vaishali Priya who is an emerging entrepreneur in the banana fiber extraction. The group is extracting fiber, refined and making products out of it. They are also selling the banana fiber as raw material to the textile industry.





## Work published



### Fashion entrepreneur helps womenfolk in Bihar make livelihood from banana fiber

This 25-year-old has carved a niche for herself in European export market for garments and accessories by employing women from rural areas.

Published: 22nd September 2020 02:18 PM | Last Updated: 22nd September 2020 05:00 PM



This 25-year-old fashion entrepreneur Vaishali Priya has carved a niche for herself in European export market for garments and accessories. (Photo: IANS)

By Raghav Kumar Thakur

Express News Service

**PATNA:** Women in Bihar's Hajipur, known for the cultivation of the best quality of banana nationwide, have started extracting fiber from the abandoned stems of banana under the mentorship of Vaishali Priya, a fashion entrepreneur.

This 25-year-old has carved a niche for herself in European export market for garments and accessories by employing women from rural areas and providing them fashion-based skills development classes. She launched the 'Surya's Banana Extraction Project' to promote their skills in extracting organic and natural fiber products.

With the support of the local Krishi Vigyan Kendra, Priya started with 30 women at Haripur, a village famous for banana cultivation. "Seeing its economical benefits, we got more people joining us each passing day," said Vaishali Priya.

They are given training in the whole extraction process - stripping, soaking, combing, and spinning before the process starts.

"These women and other members are also being trained to make products out of the final raw materials extracted from the banana plants. In fact, Banana fiber can be used to make a number of different textiles with varying weights and thicknesses, based on what part of the banana stem the fiber is extracted from," she said, adding that about 5-6 kg of Banana fiber are extracted daily by these women.

"With more manpower being involved, we generate huge quantity of fiber from banana pulps and plants," she said, adding that the Krishi Vigyan Kendra at Haripur has helped them by providing a machine, and two days of training under Dr. Narendra Kumar, a senior agro scientist.

She said, "Since childhood I knew about how my small town Hajipur is one of the biggest producers of bananas and that large amounts of waste is also produced after the banana is harvested."

Therefore she chalked out a way to convert the waste to wealth in the form of textile designing.

"The biodegradable and natural fiber is made from the stem of the banana tree and is incredibly durable.

In fact, it is one of the strongest natural fibers that can be used to make ropes, mats, woven fabrics as well as hand-made paper items and even clothes," she added.

<https://www.newindianexpress.com/good-news/2020/sep/22/fashion-entrepreneur-helps-womenfolk-in-bihar-make-livelihood-from-banana-fiber-220924.html>

## निरीक्षण • हरिहरपुर कृषि विज्ञान केंद्र का विजयाराजे सिंधिया कृषि विश्वविद्यालय के वैज्ञानिकों ने लिया जायजा आर्या योजना रोजगार सृजन के लिए है बेहतर मार्ग

सिटी रिपोर्टर | हाजीपुर

स्थानीय हरिहरपुर स्थित कृषि विज्ञान केंद्र द्वारा किसानों के लिए चलाए जा रहे कार्यों का विजयाराजे सिंधिया कृषि विश्वविद्यालय ग्वालियर पूर्व कुलपति ने निरीक्षण किया। पूर्व कुलपति डॉ. अनिल कुमार सिंह कृषि वैज्ञानिक एवं प्रगतिशील कृषकों के साथ कई अहम मुद्दों पर चर्चा किया। उन्होंने कृषि विज्ञान केंद्र में चल रहे सभी प्रकार के कार्यों की सराहना की। केंद्र के वैज्ञानिक और किसानों को डॉ. अनिल कुमार सिंह ने बताया कि आर्या योजना से जुड़कर यहां के भी किसान स्वयं रोजगार सृजन कर सकते हैं। वहीं डॉ. राजेन्द्र प्रसाद केन्द्रीय कृषि विश्वविद्यालय



कार्यों से रूबरू होते विजयाराजे सिंधिया कृषि विश्वविद्यालय के पूर्व कुलपति।

पूसा समस्तीपुर के प्रसार शिक्षा निदेशालय के निदेशक डॉ. एमएस कुंडू ने प्रगतिशील कृषकों द्वारा किये जा रहे कार्यों से अवगत हुए। अटारी, पटना के निदेशक डॉ. अंजनी कुमार एवं बिरसा

कृषि विश्वविद्यालय के प्रसार शिक्षा निदेशक ने वैशाली जिले में केला रेशा के क्षेत्र में युवाओं को प्रशिक्षित कर रोजगार मुखी कार्यक्रम से जोड़ने पर बल दिया।

### केंद्र से चलाई जा रही इन कार्यों से हुए रूबरू

केन्द्रीय कृषि विज्ञान केंद्र की ओर से रोजगार मुखी विभिन्न कार्यों से वरीय वैज्ञानिक सह प्रधान डॉ. सुनीता कुशवाहा ने वरीय अधिकारियों को अवगत कराया। केला रेशा उद्यमी वैशाली प्रिया ने अधिकारियों को केला रेशा निष्कर्षण कार्य का प्रदर्शन कर दिखाया। मशरूम उद्यमी राजीव रंजन ने मशरूम उत्पादन से उच्च आय उत्सर्जन कर जीविकोपार्जन हेतु नवयुवकों के लिए उचित माध्यम बताया। बटेर पालन राजदेव राय ने कहा कि इससे युवा इस रोजगार से जुड़कर उचित आय उत्सर्जन कर सकते। अटारी पटना के मुख्य वैज्ञानिक डॉ. अमरेंद्र कुमार ने केंद्र के वैज्ञानिकों के द्वारा इस वर्ष के प्रगति से अवगत हुए। केंद्र पर पहुंचे अतिथियों को नोडल अधिकारी डॉ. बनेश शाही ने सभी प्रत्यक्षण इकाइयों से का भ्रमण करा कर विस्तार से जानकारी दी।

काशिरा म हा

चुनाव क महनजर खत्र म शाति पत हुए बागालबल चमनपर उताप

## सुविधा • कृषि विज्ञान केंद्र में शुरू हुआ पांच दिवसीय बटेर पालन प्रशिक्षण, बेरोजगारों को दिखाई गई समृद्धि की राह बटेर पालन की ओर तेजी से कदम बढ़ा रहे युवा

सिटी रिपोर्टर | हाजीपुर

बटेर पालन आज के युवाओं के बीच उभरता हुआ व्यवसाय साबित हो रहा है। बटेर के मांस को संरक्षित कर विभिन्न प्रकार के उत्पाद बनाये जा सकते हैं। जिसकी मांग दिनोदिन बढ़ती जा रही है। इससे व्यवसाय को शुरू कर युवा अच्छी के साथ एक बेहतर रोजगार शुरू कर सकते हैं। कृषि विज्ञान केंद्र का यह प्रयास है कि जल्द ही इस व्यवसाय से युवा वर्ग जुड़कर वैशाली जिले वासियों को बटेर के भिन्न भिन्न व्यंजन कम कीमत पर उपलब्ध हो सके। ये बातें प्रशिक्षक वैज्ञानिक डॉ. नरेंद्र कुमार ने बटेर पालन प्रशिक्षण कार्यक्रम को संबोधित करते हुए कहा। सोमवार को स्थानीय हरिहरपुर स्थित कृषि विज्ञान केंद्र परिसर में आयोजित जा के अंतर्गत पांच दिवसीय बटेर पालन विषय पर शुरू किया गया। कार्यक्रम का उद्घाटन केंद्र के वरीय वैज्ञानिक सह प्रधान डॉ. सुनीता कुशवाहा ने की। इस प्रशिक्षण के माध्यम से कुल 12 ग्रामीण युवकों को बटेर पालन के क्षेत्र में अपना व्यवसाय शुरू करने लिए प्रशिक्षण दिया जा रहा है।



कृषि विज्ञान केंद्र में बटेर पालन के लिए आयोजित कैप में मौजूद प्रवासी।

### बटेर पालन अच्छी आय के लिए उत्सर्जन

प्रशिक्षण को संबोधित करते हुए केंद्र के वरीय वैज्ञानिक सह प्रधान डॉ. सुनीता कुशवाहा ने कहा कि युवा वर्ग बटेर पालन के माध्यम से कम खर्च और कम जगह में अच्छी आय उत्सर्जन कर सकते हैं। उन्होंने प्रशिक्षणों के बीच अपने विचार साझा करते हुए युवाओं को बटेर पालन कर अच्छी आमदनी बढ़ा के लिए कई टिप्स दिए।

**कार्यक्रम में इनकी रही उपस्थिति** | केंद्र के वैज्ञानिक डॉ. सुनीता कुमारी, वर्षा कुमारी, स्वप्निल भारती, प्रेम प्रकाश गौतम, कार्यक्रम सहायक संजीव कुमार, ऋचा श्रीवास्तव, सविता कुमारी, प्रीति पल्लवी, रवि कुमार, दीपक कुमार, अनुज कुमार समेत प्रशिक्षक शामिल थे।



## B. ICDS PROJECT

The project is running at KVK Vaishali with an total outlay of 27.85 lakh. It is, aimed to develop less costly but equally nutritious complementary foods from locally available foods that may be within the reach of masses.

### OBJEVCTIVE

Development of high nutrient dense complementary mixes from locally available foods

For the reduction in malnutrition

S.No.	Activities	Beneficiary/household
1.	Training of Mothers	255
2.	Training of stake holders	180
3.	Development of Kitchen garden	100
4.	Product development	25
5.	Literature development	6



Training under ICDS



### C. Seed Hub Project:

This project started in KVK in the year 2016-17. 1.5 crores of funds granted for the establishment of Seed Production Programme. Seed processing plant purchased and seed godown work completed.



**Seed storage**



**Seed Processing Plant**

Under this programme seed production programme is continue with the farmers in PP mode. 30 ha area covered.



### D. Waste Bag method of Kitchen Gardening

Kitchen garden has been developed in different villages of KVK Vaishali that includes Gurmiyan, Hariharpur, Balwan Kuwari, Subhai, Daulatpur and Saidpur Rajauli. Waste bag method of kitchen gardening with minimal cost and for landless farmer. The main components are a waste plastic bag, soil, vermicompost and a 1.5 feet of bamboo and some seeds of seasonal vegetables especially climbers and creepers. A woman Anjali Bharti of Hariharpur village has successfully planted and growing vegetables as per family needs. The family comprises of five members and growing vegetables like Bottle gourd, lady finger, bitter gourd.



Item	Quantity (weekly)kg	Estimated cost (Rs.)	Carbohydrates (g)	Energy(Kcal)	Fiber (g)	Minerals (g)
Bottle gourd	2.00	80.00	50.0	240.00	12.00	10.00
Bitter gourd	1.00	60.00	420.0	250.00	8.00	8.00
Lady finger	1.00	100.00	64.00	350.00	120.00	7.00
Tomato	0.50	30.	18.00	115.00	3.50	3.00
Ridge gourd	5.00	200	170.00	850.00	25.00	15.00
<b>Total</b>	<b>9.50</b>	<b>470.00</b>	<b>722.00</b>	<b>1805.00</b>	<b>168.50</b>	<b>43.00</b>



<p><b>Innovative approaches</b></p> <ol style="list-style-type: none"> <li>I. Organic Village Concept</li> <li>II. Sustainable Production Consumption System</li> <li>III. Farm Implement Bank (Custom Hiring Centre)</li> <li>IV. Self-sustaining Mushroom Resource Centre</li> <li>V. Innovative Approaches for Enhancing Seed Replacement rate             <ul style="list-style-type: none"> <li>• Seed Village Concept</li> <li>• Seed Replacement Through Farmer To Farmer Basis</li> </ul> </li> <li>VI. Multi-tier Vegetable production</li> <li>VII. Integrated Farming System</li> <li>VIII. High Density Orchard</li> <li>IX. Intercropping in Orchards</li> <li>X. Popularization of SRI/SWI</li> <li>XI. Popularization of Hi-tech Horticulture</li> <li>XII. Sustainable Livelihood Security</li> </ol>	<p><b>Entrepreneurship development</b></p> <ul style="list-style-type: none"> <li>➤ Mushroom Production</li> <li>➤ Vermi composting</li> <li>➤ Beekeeping</li> <li>➤ Quail farming</li> <li>➤ Poultry Production</li> <li>➤ Tailoring &amp; Stitching</li> <li>➤ Medicinal &amp; Aromatic Plants Production</li> <li>➤ Gardening</li> <li>➤ Post Harvest Management &amp; Value Addition</li> <li>➤ Protected Cultivation</li> <li>➤ Flower Production</li> <li>➤ Vegetable Production</li> <li>➤ Banana fiber extraction and Handicrafts</li> </ul>
<p><b>Technology dissemination mechanism</b></p> <ul style="list-style-type: none"> <li>➤ Community Radio Station</li> <li>➤ Krishak Samachar</li> <li>➤ Master Trainer</li> <li>➤ Scientist– Farmers Interface Meet</li> <li>➤ Farm Visits</li> <li>➤ Cluster Development</li> <li>➤ Model Agricultural Villages : Sansad gram (Mushroom, Organic, Seed, Multi-Tier Vegetable Production)</li> <li>➤ Production- Consumption Chain</li> <li>➤ Farmers participatory programmes</li> <li>➤ Extension Worker</li> <li>➤ Instruction cum demonstration Unit</li> <li>➤ Leaflet –pumplet</li> <li>➤ Awareness Camps, Health camp.</li> </ul>	<p><b>Technological interventions</b></p> <ul style="list-style-type: none"> <li>➤ Inter Cropping in cereals</li> <li>➤ Inter Cropping In Orchards</li> <li>➤ High Density Orchards</li> <li>➤ Integrated Farming</li> <li>➤ Multi-tier Vegetable production</li> <li>➤ Inter Cropping In Banana</li> <li>➤ Low Cost Vermicomposting</li> <li>➤ Protected Cultivation</li> <li>➤ IPM</li> <li>➤ INM</li> <li>➤ Organic Farming</li> <li>➤ Natural Resource Management</li> <li>➤ Micro Irrigation</li> <li>➤ Quail farming</li> </ul>
<p><b>Diversification of agriculture</b></p> <ul style="list-style-type: none"> <li>➤ Mushroom Production</li> <li>➤ Floriculture</li> <li>➤ Quail farming</li> <li>➤ Horticulture</li> <li>➤ Medicinal and Aromatic plants</li> <li>➤ Poultry</li> <li>➤ Goatry</li> <li>➤ Dairy</li> <li>➤ Beekeeping</li> </ul>	<p><b>Women empowerment programmes</b></p> <ul style="list-style-type: none"> <li>➤ Mushroom Production</li> <li>➤ Vermicomposting</li> <li>➤ Jewellery making</li> <li>➤ Textile Designing</li> <li>➤ Food Processing</li> <li>➤ Soft toys making</li> <li>➤ Mithila &amp; Fabric painting</li> <li>➤ Beauty Parlour</li> <li>➤ Banana fiber handy craft making</li> </ul>



## OBJEVTIVE

Development of high nutrient dense complementary mixes from locally available foods

For the reduction in malnutrition

S.No	Activities	Beneficiary/household
1.	Training of Mothers	255
2.	Training of stake holders	180
3.	Development of Kitchen garden	100
4.	Product development	25
5.	Literature development	6



### E. CRA Programme - Popularization of Climate based cropping system

The project on “**Climate Resilient Agriculture Programme**” sanctioned by the Government of Bihar to popularize Climate based cropping system. Five villages (Neerpur, Bajitpur, Rasalpur, Bardiha & Repura) of Patepur block are selected under this project. Total 623 acre demonstration under different interventions like zero tillage wheat/Lentil/Chichpea/Mustard, use of happy seeder, crop residue management, raised based planting maize/wheat nutrient expert green seeker based nutrient etc.





Kumar Bajitpur - Patepur Rd, Nirpur, Bihar 843110, India

Latitude  
25.8508933°

Longitude  
85.5557744°

Local 05:10:20 PM  
GMT 11:40:20 AM

Altitude -31 meters  
Friday, 11-13-2020





**F. Community Irrigation/Sub surface irrigation system - To escape wheat from terminal heat and to achieve 100 q grain from rice- wheat cropping system**





## 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

S.No.	Name of organization	Nature of linkage
1.	SAU's, RAU, Pusa, Samastipur	Participation in meeting and farmers
2.	ICAR Institute	Scientists interface Research and technical information.
3.	ATARI, Zone II, Kolkata	Seed & sapling of new varieties Infrastructure development
4.	DWMR, WALMI, Patna	Participation in training
5.	Central Potato Research Institute Phulwari Sharif, Patna	Potato Seeds for F.L.D.
6.	IARI, New Pusa farm, Samastipur	Joint Implementation.
7.	Indian Institute of Pulses Research, Kalyanpur, Kanpur	Joint Implementation.
8.	Coconut Development Board, Patna (regional Office)	Joint Implementation.
9.	District Level officials, such as	Participation in meeting, Kisan Goshthi and

	District Magistrate, District Agril. Officer, District Hort. Officer, Plant Protection Officer and Block level Agril. Officer	conducting Training Programmes.
10.	COMFED	Participation in meeting, conducting training & Demonstration and regular announcement of the activities of the KVK through the wall Magazine PRATIBADH.
11.	ATMA	Joint Implementation.
12.	Fertilizer Companies & N.G.O. 1. Indo Gulf Corporation. 2. Rastriya Chemical Fertilizers 3. Indofil chemical Limited 4. Deepak Fertilizers. 5. Hindustan Chemicals (Hindustan Lever Lts.) 6. CGC, vaishali. 7. KhadiGramodyog Sangh. 8. Mahila Maha Vidyalaya, Hajipur. 9. Vijay Khad Agency, Daulatpur. 10. Kushwaha Krishi Kendra, Sarai. 11. Vaishali Seeds, Hajipur. 12. IFFCO, Hajipur 13. Nehru Yuva Kendra 14. NFL, Hajipur	Participation in conducting training and demonstration.
13.	Financial Organization, 1. Bank of Baroda, Hajipur. 2. Regional Rural bank, Hajipur.	Financial Linkage and participation in training.
14.	Central IPM, Punaichak, Patna.	IPM Demonstration.
15.	NHM (National Horticulture Mission) & MMM (Micro- Mode Management)	For training demonstration & seed production & popularization of vegetable/ horticultural crop.
16.	World Vision, Vaishali	Training assistance for
17.	NIAM, Hyderabad	Technical support.

5.2. List of special programmes undertaken during 2020 by 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.)



## 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.	Quail unit	2019	1.08	Quail	Egg	2261	16,200	6,783	Demonstration purpose only
2.	Azolla unit	2009	1.5	Azolla	Azolla	1q	0	0	Distribution and used in Vermi compost
3.	Mushroom unit	2018	18.58	Oyster & Button	Oyster	10 kg	3,500	600	
4.	Poly house	2019	600	Capsicum	Fruits	2.5 tone	16,000	80,000	
<b>Total</b>			<b>621.16</b>				<b>35,700</b>	<b>87,383</b>	

### 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	
Wheat	02.12.19	18.04.20	02	HD-2733	C/S	49	45000	88200	Non seed due to heavy rainfall during harvesting stage
Paddy	14.07.20	04.11.20	02	R.Suhasini	C/S	42	60000	0	-
Wheat	16.11.19	11.04.20	.05	HD 2985 HD 2967	T/L	16.85 1.95	16790	58975	Sent to Dholi
Tori	26.10.19	02.03.20	01	Rajendra Suflam	T/L	6.35	13600	20000	Sold as seed and Non seed
Moong	20.03.20	29.05.20 1 <sup>st</sup> picking	0.18	Samrat	T/L	1.04	1000	2288	Non seed
Seasonal Vegetable	20.02.20	Started from 10 <sup>th</sup> April onwards	0.5	Okra, Tomato, Bottle gourd, Sponge gourd, Beans	-	50kg	3000	7000	Sold
Capsicum in	26.11.19	From 22.03.20	600m	California Wonder	-	4.5-5	6000	1500	Due to Covid 19 the

Polyhouse		onwards	2					0	rate was less
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**Capsicum at KVK Vaishali Polyhouse**

### 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	200 kg	-	-	Used in Paddy field distributed & Vermi compost

### 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	Quail (Japanica)	Egg	2200	5500	6600	Eggs & Birds sold
		Japanica	Birds	32	0	1600	

### 6.5. Utilization of hostel facilities : Nil

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
-	-	-	<b>COVID - 19</b>
Total :			

(For whole of the year)

### 6.3. Utilization of staff quarters: **Not Completed.**

Whether staff quarters has been completed: No

No. of staff quarters:

Date of completion:

Occupancy details:

Months	Q I	QII	Q III	QIV	Q V	QVI

## 6. 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) (01.04.2020 to 31.12.2020)

Item	Released by ICAR		Expenditure		Unspent balance as on -
	Kharif	Rabi	Kharif	Rabi	
	0	0	12300.00	0	(-) 74703.00

### 7.3.Utilization of funds under CFLD on Pulses (Rs. In Lakhs) (01.04.2020 to 31.12.2020)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2013
	Kharif	Rabi	Kharif	Rabi	
	0	0	157490.00	0	36010.00

### 7.4. Utilization of KVK funds during the year 2020(Not audited) (01.04.2020 to 31.12.2020) in lakh

Sl. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	84.00	46.20	58.48
2	Contingencies			
A	Traveling allowances	1.50	6.893	1.348
B	HRD	0.25		0.00
C	Office Expense	3.00		1.745
D	Training	2.70		1.128
E	FLD	0.95		0.852
F	OFT	0.70		0.382
G	Soil & Water	0.00		0.00
H	Maintenance of Building	0.25		0.18
I	Extension Activities/Kisan Mela	0.25		0.06
<b>TOTAL (A)</b>		<b>93.35</b>	<b>53.093</b>	<b>64.173</b>
<b>B. Non-Recurring Contingencies</b>				
1	Works	0.00	0.00	0.00
2	Vehicle	0.00	0.00	0.00
3	Library	0.00	0.00	0.00
4	Equipment & Furniture	0.00	0.00	0.00
<b>TOTAL (B)</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>93.35</b>	<b>53.093</b>	<b>64.173</b>

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year (Kind + cash)
2015-16	52,33,468.03	9,60,977.00	10,88,241.00	51,06,204.03
2016-17	51,06,204.03	8,04,333.00	9,63,229.00	49,47,308.03
2017-18	49,47,307.03	15,70,973.00	14,14,067.00	51,04,213.03
2019	51,04,213.03	36,13,227.05	46,00,638.00	41,16,802.08
2020	42,84,248.26*	13,10,943.80	38,28,933.33	17,66,258.73

\*(Note: OB of 01.04.2020 is Rs. 4284248.26 after reconciliation)

## 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

Name of the disease	Crop	Date of outbreak	Area affected (in ha)	% Commodity loss	Preventive measures taken for area (in ha)
Early blight	Potato	24.12.20	225	27	Mancozeb 75% WP
Leaf curl	Tomato, Brinjal, Okra	29.05.20	215	18	Imidachlopid 17.85 L/Thiamethoxam

## 8.2. Prevalent diseases in Livestock/Fishery

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)
FMD in Bovine	Cattle	22.11.2020	0	Vaccination by state Govt.	Moment of animal restricted and change of feed and symptomatic

					treatment given for control.
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9.1. Nehru YuvaKendra(NYK) Training: **NA**

Title of the training programme	Period		No. of the participant		Amount of Fund Received (Rs)
	From	To	Male	Female	

9.2. PPV & FR Sensitization training Programme: **NA**

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

9.3. **mKisan**Portal (National Farmers' Portal/ SMS Portal): **NA**

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

## 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 (SMSs)	No. of Farmers
1.	Animal Science	40	40	200
2.	Agronomy	37	37	301
3.	Horticulture	66	110	700
4.	Plant Protection	750	325	950
5.	Home Science	26	47	61



## 9.6. a. Observation of Swachha Bharat Programme/Pakhwara

Date/ Duration of Observation	Activities undertaken	No. of Participants			
		Staffs	Farmers	Others	Total
16 <sup>th</sup> Dec. to 31 <sup>st</sup> Dec., 2020	Swachhta Pakhwada	18	197	3	218

## b. Details of Swachhta activities with expenditure

Activities	Number	Expenditure (in Rs.)
1. Digitization of office records/ e-office	01	0.00
2. Basic maintenance	01	0.00
3. Sanitation and SBM	01	0.00
4. Cleaning and beautification of surrounding areas	01	0.00
5. Vermicomposting/ Composting of biodegradable waste management & other activities on generate of wealth for waste	01	0.00
6. Used water for agriculture/ horticulture application	01	0.00
7. Swachhta Awareness at local level	03	0.00
8. Swachhta Workshops	0	0.00
9. Swachhta Pledge	01	0.00
10. Display and Banner	03	864.00
11. Foster healthy competition	0	0.00
12. Involvement of print and electronic media	03	0.00
13. Involving the farmers, farm women and village youth in the adopted villages (no of adopted village)	03	0.00
14. No. of Staff members involved in the activities	18	0.00
15. No of VIP/VVIPs involved in the activities	0	0.00
16. Any other specific activity (in details)	-	-
<b>Total</b>	<b>37</b>	<b>864.00</b>

## 9.7. Observation of National Science day: NA

Date of Observation	Activities undertaken

## 9.8. Programme with SeemaSurakshaBal/ BSF: NA

Title of Programme	Date	No. of participants

## 9.9. Agriculture Knowledge in rural school: NA

Name and address of school	Date of visit to school	Areas covered	Teaching aids used

Give good quality 1-2 photograph(s)

## 9.10. Details of 'Pre-Rabi Campaign' Programme: NA

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 Sewa programme organized

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)
1.	16	03	218	0	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.	15.10.2020	05	35	01	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 Rajesh Singh	Hariharpur, Hajipur	Dairy farming
2.	Sri Rakesh Kumar	Patepur	Goat farming
3.	Sri Pankaj Kr. Choudhary	SakrauliBuchauli, Jandaha 9955408248	Fishery production
4.	Sri Harivansh Narayan Singh	Dhobouli, Bidupur 8002176620	Pea seed production Banana cultivation by tissue culture
5.	Sri Sanjeev Kumar	Chakwara, Hajipur 9852109928	Cauliflower seed production

6.	Sri Shyam Kishore Thakur	Alwalpur, Bhagwanpur 9835089216	Tomato seed production
7.	Sri Rahul Singh	Nameedha, Lalganj 9431441369	Utilization NeemKarnel for Vegetable production & orchard management)
8.	Sri. Rajdev Rai	MukundpurSarsai, Rajapakar 728200681	Quail production
9.	Sri PrabhuDayal Singh	Faridpur, Rajapakar 9801236047	Vegetable production
10.	Md. Nadir Ali	Faridpur, Rajapakar 9771995522	IFS, Vegetable, Poultry production
11.	Md. Tahir Imam	Kutubpur, Rajapakar 9708800227	Poultry farming
12.	Mrs. Vaishali Priya	Mile Pakri, Bidupur	Banana fiber
13.	Sri Rajesh Kr. Singh	Sarasai, Rajapakar 9470752280	Fruit & Vegetable cultivation
14.	Sri Ramveer Kr. Chaurasia	Paswan Chowk, Hajipur 9939711742	Nursery
15.	Sri Jittendra Kr. Singh	Namidihi, Lalganj 7991166409	Vegetable production

9.14. Revenue generation : **Nil**

Sl.No.	Name of Head	Income(Rs.)	Sponsoring agency

9.15. Resource Generation: **Nil**

Sl.No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. lakhs)	Infrastructure created

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: **NA**

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): **NA**

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: **NA**

## a. Achievements of physical output under TSP during 2020

Sl.	Activities	Physical Achievement	
1)	Trainings	No. of Trainings/Demos	No. of beneficiaries
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 2017-18 (Rs. In lakh): **NA**

**d. Location and Beneficiary Details during 2017-18 : NA**

## 12. Details of SCSP

13. Progress report of NICRA KVK (Technology Demonstration component) during the period (Applicable for KVKs identified under NICRA): **NA**  
Natural Resource Management

[illegible]



## Crop Management

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 covered	No of units	Area (ha)	No of farmers covered / benefitted									Remarks
				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 2020: NA

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

## b) Award received by Farmers in year 2020

Sl.	Name of the Award	Name of the Farmer	Address	Contact No.	Aadhar No.	Amount	Purpose	Conferring Authority
1.	Abhinav Kisan Puraskar	Sri Harivansh Narayan Singh	Dhobauli, Bidupur	800216620	870317729983	5,000.00	Innovative work of Agriculture	DRPCA, Pusa
2.	Kisan Gaurav Puruskar	Sri Jeetendra Kr. Singh	Namidihi, Lalganj	7991166409	274760020690	25,000.00	High production of wheat	ATMA, Vaishali

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): **NA**

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

17. Integrated Farming System (IFS): **NA**

## 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

## B) Activities under IFS

Sl. No.	Component Name	No. of Components established	Area (ha)	No. of Activities		No. of farmers benefited	
				Demo	Training	Demo	Training

## 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"> <li>Saving of seed</li> <li>Time</li> <li>Diesel</li> <li>Labour</li> <li>Water</li> </ul>	Rs. 45000/ha from wheat	In one block-Rajapakar – 120 farmers adopted this technology. Approx 1000 farmers in Vaishali district.	
2	By Pass Fat	<ul style="list-style-type: none"> <li>Reduce</li> </ul>	Rs.	Approx 2000	

	Feeding in cross breed cow (HF)	negative energy balance. <ul style="list-style-type: none"> <li>• One calf in one year</li> <li>• Improved breeding efficiency</li> </ul>	4000/month per cow.	dairy farmer adopted in Vaishali district.	
3.	Azolla as a cattle feed	<ul style="list-style-type: none"> <li>• Reduce feed cost</li> <li>• Good source of protein &amp; vitamin</li> </ul>	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.	
4.	Goatry	<ul style="list-style-type: none"> <li>• Less investment more profit</li> </ul>	1500 per goat per year	100 goat farmers has been established	

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

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 (up-to 15.03.2018)					
II (up-to 24.04.2018)					
Total					

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

Date of Visit	Name of Hon'ble Minister	Name of Ministry	Salient points in his/ her observation (2-3 bulleted points)

21. a) Information on **ASCI** Skill Development Training Programme, if undertaken during 2017-18, 2019 and 2020: **NA**

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.)
2016-17							
2017-18							
2019							
2020							

b) Information on Skill Development Training Programme (**Other than ASCI or less than 200 hrs.**, if any) if undertaken during 2020

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
Sr. Scientist & Head	0	-	01	12	100	Women empowerment

### 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.	Gurmia, Hariharpur,	Backyard/Kitchen garden	01		25
2.	Daulatpur, Balwa	Community level	01	10x5	05
3.	Kuwari	Terrace Garden	-	-	-
4.		Vertical Garden	-	-	-
<b>TOTAL</b>			<b>02</b>	<b>-</b>	<b>30</b>

#### b. Details of Bio-fortified crops in Nutri-Smart village

Name of Nutri-Smart Village	Season	Activity (OFT/FLD)	Category of crop (cereal/ pulses/oilseed/ fruits & veg./ others)	Name of Crop	Variety	Area (ha)	No. of beneficiaries
Hariharpur	Kharif	FLD	Vegetables	Potato, Papaya, Guava	Nil Kaunth Pusa, Surya, Lalit	10x10	05

#### c. Value addition in Nutri-Smart village

Name of Nutri Smart Village	Name of Crop/veg./fruits/other	Name of Value added product	Activity (OFT/FLD)	No. of farmers/ beneficiaries
Hariharpur	Fruit, Vegetables, Cereals	Multigain flour	OFT	30

#### d. Training programmes in Nutri-Smart village

Name of Nutri Smart Village	Area of Training	No of courses	No. of beneficiaries
Hariharpur	Development of Nutri garden	12	155

#### e. Extension activities under NARI Project

Name of Nutri-Smart Village	Title of Activity	No. of activities	No. of beneficiaries
Hariharpur	Development of Nutri garden	12	155

## 23. Activities under KSHAMTA: NA

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

## 24. Activities under MGMG: NA

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

## 25. Activity information of Farmer FIRST Programme (FFP): NA

Sl.	Modules	Activity Information		
		Demo (No.)	No. of Farm Families	
1.	NRM Module			
2.	Crop Module			
3.	Horticulture Module			
4.	IFS Model			
		Demo (No.)	No. of Farm Families	No. of Animals
5.	Livestock & Poultry			
		No. of Program	No. of farmers	
6.	Extension Activities			

## 26. Information on Krishi Kalyan Abhiyan Phase- I/ Phase-II/ Phase-III, if applicable

*Krishi Kalyan Abhiyan- I/II***A. Training**

Name of programme	No. of programmes	No. of farmers benefitted									No. of officials attended the programme
		SC		ST		Others		Total			
		M	F	M	F	M	F	M	F	T	
KKA-I											
KKA-II											

**B. Distribution of seed/ planting materials/ input/ others**

Name of programme	No. of Programme	Total quantity distributed				No. of farmers benefited								No. of other officials (except KVK) attended the programme	
		Seed (q)	Planting material (lakh)	Input (kg)	Other (kg/ No.)	SC		ST		Others		Total			
						M	F	M	F	M	F	M	F		T
KKA-I															
KKA-II															

**C. Livestock and Fishery related activities**

Name of programme	No. of Programme	Activities performed				No. of farmers benefited				No. of other officials
		No. of animals	No. of animals	Feed/ nutrient	Any other (Distributio	SC	ST	Other s	Total	



		vaccinate d	deworme d	supplement s provided (kg)	n of animals/ birds/ fingerlings) [No.]	M	F	M	F	M	F	M	F	T	(except KVK) attended the programm e
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		

27. Any other programme organized by KVK, not covered above: **NA**

Sl. No.	Name of the programme	Date of the programme	Venue	Purpose	No. of participants

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

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