Report of the
Quinquennial Review Team (QRT)
2011-12 to 2018-19

KRISHI VIGYAN KENDRA MUZAFFARPUR (SARAIYA)

Dr. Rajendra Prasad Central Agricultural University, Pusa,

Samastipur – Bihar

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(Dr. Rajendra Prasad Central Agricultural University, Bihar Pusa, Samastipur)

1	Name and location of KVK	**Krishi Vigyan Kendra, Saraiya,**
2	Name of theHead of KVK with Postal address and Telephone No.	Dr. Anupma Kumari, **Krishi Vigyan Kendra, Saraiya,** PO – Saraiya Kothi, Dist. – Muzaffarpur, PIN – 843126
3	Name of District and State Head Qtrs.	**Muzaffarpur, Muzaffarpur**
4	Sanction order No. and date	1996 (ICAR No. 18-12/96 AE dt. 27-03-1996)
5	Date of Establishment	**27-03-1996**
6	Name and Address of the Host Instt.	**Dr. Rajendra Prasad Central Agricultural University, Pusa Samastipur, Bihar**
7	Mandate and Functions of KVKs	**Mandate of KVK** Training, technology assessment, refinement and demonstration of technologies / products. **Objectives** Krishi Vigyan Kendra performs its activities as per the mandate suggested by ICAR, New Delhi. Objectives of the KVK are as follows: **1.** To organize on and off campus **training programmes** for farmers, rural women, youth, and officers of the Department of Agriculture to make them aware about the latest technologies in agriculture. **2.** To organize **short and long term vocational training** courses on vegetable, floriculture, beekeeping, dairying, mushroom, organic farming and protective cultivation etc. for rural youth for self-employment. **3.** To arrange **front-line demonstrations and on-farm trials** at farmer's fields on improved technologies and **refinement** of existing technology so as to suit the need of the farmer. On-farm testing to identify the location specificity of agricultural technologies under various farming systems; **Functions of KVK:** • Front-line demonstrations to establish production potentials of technologies on the farmers' fields. • Training of farmers to update their knowledge

		and skills in modern agricultural technologies; • Training of extension personnel to orient them in the frontier areas of technology development; and • Work as resource and knowledge centre of agricultural technology for supporting initiatives of public, private and voluntary sector for improving the agricultural economy of the district.

8. Staff Position (based on Sanctioned Strength) and their mobility

Sl. No.	Designation	No. of Sanctioned Post	Name of person	Present Pay scale (Rs.)	Date of Joining	Date of Leaving
1	Programme coordinator /Sr. Scientist and Head	1	Dr.Shobha Rani	15600-39100	02/08/210	14/05/2012
			Ranjan Kumar	15600-39100	15/05/2012	08/08/2012
			Dr.K.K.Singh	15600-39100	09/08/2012	16.09/2012
			Dr.K.K.Jha	15600-39100	17/09/2012	22/06/2014
			Dr. A.K.Singh	15600-39100	23/06/2014	22/12/2014
			Dr. Anupma Kumari	15600-39100	23/12/2014	17/06/2015
			Dr.Jitendra Prasad	15600-39100	18.06.2015	05/07/2017
			Dr. Anupma Kumari	104100.00	23/05/2015	
2	SMS (Agronomy)	1	Smt. Sunita Kumari	24750.00	26/12/13	17/01/2015
3	SMS (Home Science)	1	Dr.Savita Kumari	101200.00	12/06/2015	
4	SMS (Soil Science)	1	Dr.Kamlesh Kumar Singh	82200.00	12/06/2009	
5	SMS (Horticultue)	1	Dr.A.K.Singh	15600-39100	23/12/2014	28/02/2019
6	SMS (Plant Pathology)	1	Sri Hem Chandra Chaudhary	73000.00	22/09/2012	
7	SMS (Animal Science & fisheries)	1	Ranjan Kumar	15600-39100	14/02/2008	06/02/2018
			Dr.C.B.Singh	15600-39100	01/10/2012	30/12/2014
			Shobha rawat	56100.00	28/09/2018	

8	SMS (Ag, Engg)	1	Er.Tarun kumar	56100.00	12/10/2018	
9	Programme assistant (Lab)	1	Mr. Indrajeet kumar Mandal	36500.00	27/02/2018	
10	Computer Programmer	1	Vacant			
11	Farm manager	1	Mr. Anupam Adarsh	36500.00	27/11/2017	
12	Assistant	1	Kumari Pratibha	36500.00	22/11/2017	
13	Stenographer	1	Mr. Rama Ranjan	26300.00	20/02/2018	
14	Jeep Driver	1	Mr. Ram Ekbal Singh	41000.00	13/03/2003	
15	Tractor Driver	1	Vacant			
16	Supporting staff	2	Mr.Ram Sakal Rai	36400.00	13/05/1998	
			Vacant			

9. Allocation under various Heads

Budget head	Preceding plan (Utilizations in lakh)																Current plan Utilization (Rs in lakh)	
	2011-12		*2012-13*		*2013-14*		*2014-15*		*2015-16*		*2016-17*		*2017-18*		*2018-19*		*2019-20*	
	RA	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**
Pay & All	49.1	46.305	35.7	39.61	36.0	52.14	76.9	59.52	66.81	62.63	76.85	84.91	90.49	89.44	99.0	99.91	108.9	30.5
TA	0.99	0.48	0.9	0.87	0.75	0.69	0.5	0.53	1.0	0.95	1.55	1.1	1.3	1.38	1.0	1.0	1.0	0.98
Rec. Contingency																		
HRD	00	00	00	00	0.5	0.5	0.15	0.00	0.00	0.00	0.00	0.00	0.70	0.72	0.30	0.30	0.25	0.25
Stationary,POL, O/E	4.32	4.13	3.29	3.28	4.0	4.27	1.70	3.63	5.0	4.12	4.88	3.99	5.6	5.16	4.0	7.8	3.0	1.31
Training & training material	1.72	0.69	2.4	2.4	3.0	2.98	1.27	1.27	3.75	3.36	3.48	2.19	4.2	3.53	2.5	2.47	2.7	0.37
FLD	0.78	0.33	0.95	0.95	1.5	1.29	0.85	0.79	2.50	0.98	2.0	0.711	1.12	0.93	0.5	0.54	0.7	0.25
OFT	1.41	0.33	0.95	0.25	1.0	0.3	0.41	0.37	1.25	0.66	1.58	0.35	0.98	0.82	0.75	0.44	0.95	-
Maintainence of building	00	00	0.50	0.19	0.5	0.5	0.37	0.37	0.50	0.50	18.5	0.50	0.70	0.67	0.50	-	0.25	0.048
Soil testing lab													0.28	0.27				
Kisan mela															0.45	0.45		
Central minister vist															2.50	2.33		
Non-Rec. Contingency																		

Budget head	Preceding plan (Utilizations in lakh)																Current plan Utilization (Rs in lakh)	
	2011-12		*2012-13*		*2013-14*		*2014-15*		*2015-16*		*2016-17*		*2017-18*		*2018-19*		*2019-20*	
	RA	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**
Hostel furnishing	4.0	1.91	2.09	0.36	1.62	1.53												
Threshing floor	3.88	00																
Vehicle																		
motorcycle	00	00							1.2	0.00	1.2	1.16	8.0	-				
Bolero	00	00					8.00	0.00										
PC saw mill	0.4	0.0																
Xerox machine	0.75	0.75																
Basic plant clinic	10.0	0.00																
Office furnishing	2.0	1.91			1.04	1.04												
Library	0.05	0.007	0.042	0.019	0.023	0.023												
Equipment	0.7	0.27																
TSP							2.55	0.00										
NRC															3.50	2.66		
ICAR-Others																		
KKA-NADEP															21.0	19.74		
Skill Development															3.30	3.26		
CFLD									9.4	7.98	4.8	6.47	3.37	4.99	2.25	4.68		

Budget head	Preceding plan (Utilizations in lakh)																Current plan Utilization (Rs in lakh)	
	2011-12		*2012-13*		*2013-14*		*2014-15*		*2015-16*		*2016-17*		*2017-18*		*2018-19*		*2019-20*	
	RA	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**	**RA**	**U**
CSISA													4.35	2.92	3.0	2.74		
PMKSY															1.7	0.98		
KKA Training															1.2	1.28		
Farmer fair									1.855	1.855								
Kharif Kisan sammelan									0.8	0.8								
Rabi sammelan									0.8	0.8	0.8	0.76			0.8	0.78		
Soil Testing Kit									1.25	0.75								
Soil testing											0.86	0.28						
Sankalp se sidhi													0.8	1.05	-	-		
DAMU															4.8	1.44		
SC/SP															2.0	0.99		
Organic farming																		
Others																		
jeevika							1.65	1.51	2.68	2.82	1.88	1.87						
World Vision	0.16	0.16									2.78	2.69	.010	.052	0.75	0.72		
NAIM, Jaipur	0.35	0.35																
DOEE,Pusa	0.55	0.37																
CAE,Pusa	1.19	0.96																
DSR							1.0	0.62										
ATMA							1.0	0.82					2.54	1.48	0.5	2.11		
Soil health management scheme															16.8	0.00		

NRC= Non- recurring contingency, RA: Release amount, U: Utilization.

10. Infrastructural facilities available at KVK

S. No.	Item	Area (ha)
1	Under Buildings A) Adminstrative building B) Kisan ghar	1.30
2.	Under Demonstration Units A) Azolla unit B) Vermicompost unit C) Mushroom unit D) Microirrigation unit E) Fish pond F) NADEP G) Zero energy cool chamber H) Polyhouse I) Green net house J) Waste decomposer unit K) Improved Low cost onion storage chamber	0.34
3.	Under Crops	7.164
4.	Orchard/Agro-forestry	0.32
5.	Road and channels	0.876
Total		**10.00**

11. Budget (Rs. In lakh)

a. ICAR

Head	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
Recurring	8.23	8.09	10.5	4.75	13.0	30.44	13.58	11.5	**100.09**
Non-Recurring	21.78	2.13	2.68	10.55	1.2	1.2	8.0	3.55	**51.09**
TA	0.99	0.9	0.75	0.5	1.0	1.55	1.3	1.0	**7.99**
Others	0.0	0.0	0.0	0.0	14.1	6.46	8.52	40.05	**69.13**

b. Other than ICAR:

Head	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
jeevika				1.65	2.68	1.88			**6.21**
World Vision	0.16					2.78	.010	0.75	**3.7**
NAIM, Jaipur	0.35								**0.35**
DOEE,Pusa	0.55								**0.55**
CAE,Pusa	1.19								**1.19**
DSR				1.0					**1.0**
ATMA				1.0			2.54	0.5	**4.04**
Soil health management scheme								16.8	**16.8**

12. Agro climatic zone and jurisdiction (District/State Boundaries):

a. Climate:-Muzaffarpur's climate is classified as warm and temperate. The summers here have a good deal of rainfall, while the winters have very little.The average annual temperature is 25.2 °C in Muzaffarpur. The rainfall here averages 1046 mm. Distric head quarter is located from the KVK at a distance of 35 Km.It is located at 26°07′N 85°24′E.

b. Traditional crops:

Crops	Varieties
Cereal crops	Rice,Wheat, Maize
Pulses crops	Lentil, Green gram, Pigeon pea,Chick pea, Black gram
Oilseed crops	Mustard,Rai, Toria, Sesamum
Fruits plant	Litchi and Mango
Vegetable	Potato, Cauliflower, Brinjal,Okra, Gourds etc.

Cropping system	Land situation
Paddy- Wheat-fallow	Medium & lowland
Paddy- Mustard- green gram	Medium & lowland
Paddy -Lentil-fallow	Medium
Early paddy-Vegatables- green gram	Upland& medium land
Early paddy-Maize- Green gram/fallow	Upland& medium land
Sugarcane- fallow/Ratoon	Lowland

13. Major Activities Undertaken

1.	INM in cereals, pulse , oilseed and horticulture crops
2.	IDM in cereals, pulse , oilseed and horticulture crops

3.	IPM in cereals, pulse , oilseed and horticulture crops
4.	Livestock Rearing
5.	Bee-keeping
6.	Mushroom cultivation and spawn production
7.	Zero-tillage wheat
8.	Direct seeded Rice
9.	Vermi-composting
10.	Species diversification through promotion of improved varieties
11.	Fish pond management
12.	Rearing of fry and fingerling
13.	Ornamental fish culture
14.	Women empowerment through Lac Bangle making, toy making & Food processing and preservation
15.	Promotion of microirrigation for Soil and water conservation
16.	Promotion Integrated farming system
17.	Drudgery reduction
18.	Seed production
19.	Soil testing

14. SWOT (Strengths, Weakness, Opportunities and threats) Analysis of KVKs

SWOT analysis (Studying the Strengths, Weakness, Opportunities and threats) associated with each enterprises was carries out to identify the problems,list out the critical issues and opportunites for setting up of the action plan for the Muzaffarpur district.

Strength:

1. Climate and soil are highly suitable for growing high quality fruits (Litchi, mango, guava, banana etc), vegatables and spices.
2. Rich fertile soil available with option to grow varieties of crops and plants.
3. Big and natural water areas (chaurs/mauns) with tremendous scope for commercial fish culture.
4. Local fishermen communites (mallah) are using their traditional skills, gears and craft available.
5. Enterpises such as mushroom and bee keeping are well accepted by rural youth in entrepneurship development.
6. NRC, Litchi established in the district and BRS in neighbouring district of Hajipur.
7. Presence of network of viable milk cooperative societies in the district facilitating the breed upgaradtion progarmme through AI, purchase of milk etc.

8. Technology for preparing low cost cattle feed with local resources available.
9. Network of agricultural marketing boards and functionaries.

Weakness:

1. The landholdings are small and scattered.
2. Non functional old canal system.
3. Short shelf life of litchi and insect infestation.
4. Lack of processing facilities for value addition in fruits and vegetables.
5. Non availbity of regulated market/policy for yielding renemurative price for different communities
6. Closure of sugarmill resulting in decrease in sugarcane cultivation**.**
7. Spurious and adulerted makerting of agriculture inputs like fetilizers, chemicals, pesticides and seeds.
8. Low milk productivity of local breed and cross breed cows due to poor management of feed including green fodder.
9. Unavailability of green fodder due to limited cultivation of fodder crops.
10. Low & scanty rainfall, limited water harvesting practices and intensive cropping has led to reduction in the ground water level.

Opportunities:

1. Promotion of value addition in fruits and vegetables for enhance the farmer's income.
2. Promotion of SHGs and FPO will help to provide better market opportunites to farmers.
3. Immense scope for commercial fisheries through strong farmer's interest groups.
4. Scope for growing very fine rice varieties and its milling, processing and packaging for value addition.
5. Revival of old functional sugarmill with efficient management.
6. Due to climate change there is immense scope for value addition and by product development from maize.
7. Scope for bee keeping in litchi orchard for production of high value honey.
8. Promotion of livestock such as cows, buffalo for milch and goat and poultry for meat and eggs respectively.
9. Promotion of organic farming for soil health and human health,
10. Crop diversification in changing climate scenario.

Threats:

1. Deterioration of soil health due to excesive use of fertilizers and minimal use of organic fertilizers
2. Indiscriminate use / excess use of pesticides in vegetables crops.
3. Non availibilty of labour force during critical period due to migration.
4. High cost of cultivation than the existing market price.
5. Unplanned A.I from private source has led to growth of non suitable progeny.

6. Lack of awareness about the export potential of litchi.
7. Loss of livelihood of farmersdue to menace created by Blue bull and wild pigs in the areas.
8. Outbreak of new diseases and pests such as fall army worms in maize.
9. Paddy cultivation became non-renemurative due to escalating cost of production in changing climate.
10. Migration of rural youth from agriculture

15. Brief account of progress made towards modernization of office, equipment's, staff amenities, Transport, O& M reforms etc

The list of infrastructure, equipment and staff amenities, Transport, O& M reforms that are playing a major role in towards modernization of office are elaborated as under:

1) Lab equipment's

Name of equipment	Quantity	Present status
Distillation set	1	Broken
Conductivity meter	1	Good
Flame photometer	1	Good
Spectrophotometer	1	Good
Digital pH meter	1	Broken
CVT	1	Good
Kjeldhal digestion	1	Broken
Hot air oven	1	Good
Horizontal Shaker	1	Good
Willy Mill griender	1	Good
Hot plate	1	Good

Name of equipment	Quantity	Present status
Physical balance	1	Good
Chemical electronic balance	1	Good
Beam scale with all weight	1	Good
BOD Incubator	1	Good
Autoclave	1	Good
Distillation set	1	Good
Honey Extractor	1	Good
Usha sewing machine(2)	1	Good
Table top wt. Balance	1	Good
Hot plate(Gas Chulha)	1	Good
LPG gas cylinder(double)	1	Good
Stabilizer 1KW	1	Good
Refrigerator	1	Good
Food processor	1	Good
Wt. Machine	1	Good
Usha Embroidery machine(1)	1	Good
0.5 HP motor	1	Good

2) Farm machinery

Name of equipment		Present status
Honda EXK 2000 Genset	1	Good
Self Propelled Reaper	1	Good
Hand rotary duster	1	Good
Aspee knapsack Sprayer	1	Good
Honda pumpset	1	Good
Guttor rocking machine	1	Good
Knap sac Sprayer	1	Good
VST Shaktiman power reaper	1	Good

3) AV Aids

Name of equipment	quantity	Present status
Computer	2	Satisfactory
Exhibition kit	1	Good
Exhibition board	1	Good

Name of equipment	quantity	Present status
Laptop	4	Good
Digital Camera	2	Good
Printer	3	Good
Projector	1	Good

4. Farm implements

Name of equipment	Present status
Disc Harrow	Good
M.B.Plaugh	Good
Tyne cultivator	Good
Moisture meter	Good
Bag closer	Good
Zero tillage machine	Good
Sprinkler system	Good
Disc Harrow	Good
Rotavator	Good
Weeder	Good

Name of equipment	Present status
Weeder with wheel	Good
Drum seeder	Good
Conoweeder	Good
Rotavator (Shaktiman)	Good
Digger	Good
Zero tillage	Non functional
Iron balance	Good
Polyseal	Good
Bulb planter	Good
Punning saw	Good
Secatear	Good
Major	Good
Cultivator	Good

16. Efforts and achievements made in the last eight years towards up gradation of knowledge and skills of staff of KVK i.e. Human Resource Development (Training of Staff in Trainers' Training Centers and other Institutes etc).

Year	Name of the staff	Up gradation of Knowledge	Duration	Trainers,training center and other institute

Year	Name of the staff	Up gradation of Knowledge	Duration	Trainers,training center and other institute
2011-12	Smt. Sunita Kumari	Training of Agropedia and V-KVK	**1**	RAU,Pusa
	Mr. Ranjan Kumar	Feed safety and Security	**12**	IVRI,Izatnagar
	Dr.Shobha Rani	Mushroom production	**2**	RAU,Pusa
2012-13	Dr. S.K Thakur	IPM on important crop	**2**	RAU,Pusa
	Dr. K.K Singh	Management of soil health	**2**	RAU, Pusa
	Smt. Sunita Kumari	Training on Agropedia&V_kvk	**1**	RAU, Pusa
	Smt. Sunita Kumari	Seed Production	**2**	RAU, Pusa
	Dr. K.K Singh	Managerial skill for KVK scientist	**3**	RAU, Pusa
	Smt. Sunita Kumari	Recent advances in pulse and oil seed crops	**3**	BAMETI
	Dr. K.K Singh	Bio fertilizer production	**2**	RAU, Pusa
	Dr.K.KSingh	Soil health assessment technique	**21**	Division of Soil Science and agricultural chemistry IARI, New Delhi
2013-14	Smt. Sunita Kumari	Recent advances in tuber and millet crop	**2**	RAU, Pusa, Samastipur,Bihar
	Dr.K.KSingh, Smt. Sunita Kumari, Mr Hem Chandra Chaudhary	Orientation course	**21**	RAU, Pusa, Samastipur,Bihar
	Hem Chandra Chaudhary	Mushroom Spawn Production	**6**	RAU, Pusa, Samastipur,Bihar
	Smt. Sunita Kumari	Mobile advisory innovative partnership programme	**2**	RAU, Pusa, Samastipur,Bihar
	Hem Chandra Chaudhary	Protective cultivation of major vegetables in Muzaffarpur district	**3**	KVK, Muzaffarpur

Year	Name of the staff	Up gradation of Knowledge	Duration	Trainers,training center and other institute
	Smt. Sunita Kumari	Advances in summer pulse crop	**2**	RAU, Pusa, Samastipur,Bihar
2014-15	Smt. Sunita Kumari	Recent innovation for improving nutrient use efficiency through integrated nutrient management in major field crop.	**21**	IARI,New Delhi
	Dr. Anupma Kumari, Dr. K.K Singh& Mr. H.C chaudhary	Workshop on vegetable seed production	**2**	Muzaffarpur
	Dr. K.K Singh	Rabi workshop	**1**	Muzaffarpur
	Dr. A.K Singh & Dr. Sunita kumari	Intercropping for sustainable production	**2**	RAU, Pusa
2015-16	Mr. Ranjan kumar	Recent advances in livestock and fishery farming	**10**	ICAR-RCER, Patna
	Dr. K.K Singh	National conference on soil health management	**2**	Department of soil science, BAU, Sabour
	Dr. Jitendra Prasad	Management development programme	**15**	NAARM, Hyderabad
	Mr. Ranjan kumar	Short term training programme	**10**	ICAR-RCER, Patna
	Dr. Savita kumari	ICT initiative in agriculture	**1**	RAU, Pusa
	Dr. K.K Singh	Cluster demonstration and PPV-FR	**3**	FTC Lake hall, nadia, kolkata
	Dr. K.K Singh	Soil health training programme	**5**	RAU, Pusa
	Dr. Jitendra Prasad	Seed production programme cum workshop	**1**	RAU, Pusa
	Dr. Jitendra Prasad & Dr. K.K Singh	Sustainable economic development and gender on maize	**1**	IARI, Pusa,

Year	Name of the staff	Up gradation of Knowledge	Duration	Trainers,training center and other institute
	Dr. Jitendra Prasad , Dr. Savita kumari, Dr. K.K Singh & Mr. Hem Chandra Chaudhary	National conference of KVK	**2**	Shri Krishna Memorial Hall, Patna
	Mr. Hem Chandra Chaudhary	Orientation course on IPM on major crop under Zone-II	**3**	FTC, Kalyani
	Dr. K.K Singh & Mr. Hem Chandra Chaudhary	Training progrmme on ICT	**2**	RAU, Pusa
2016-17	Dr. K.K Singh	Training programme on biofertilizer	**1**	RAU, Pusa
	Dr. K.K Singh	Zonal workshop on CFLD	**1**	ZPD, Zone –II, Kolkata
	Mr. Hem Chandra Chaudhary	PCRA Training	**1**	Kvk, Saraiya
	Dr. Jitendra Prasad	Workshop on pulse crop	**1**	Drpcau, Pusa
	Dr. Jitendra Prasad	Workshop on CSISA project	**1**	ICAR-RCER, Patna
	Dr. Jitendra Prasad	Rabi workshop	**1**	Muzaffarpur
	Dr. Jitendra Prasad	workshop	**1**	BAMETI, Patna
	Dr. Jitendra Prasad	CSISA Workshop	**3**	Gorakhpur
	Dr. K.K Singh	Recent advances in biofertilizer and vermicomposting technique for sustainable agriculture development	**21**	Drpcau, Pusa
	Dr. K.K Singh	National workshop on climate change	**3**	KVK, Mirzapur, BHU, Banaras
	Mr. Hem Chandra Chaudhary& Dr. Ranjan Kumar	Modern approaches for improved performance of extension system	**7**	DrPCAU, Pusa
	Dr. K.K Singh	19 th indian agriculture	**2**	BRIAT, Allahabad

Year	Name of the staff	Up gradation of Knowledge	Duration	Trainers,training center and other institute
		scientist and farmers congress		
	Dr. K.K Singh	Quality seed production	**5**	TCA, Dholi
	Dr. K.K Singh	Advances in global research in agriculture & technology	**2**	Agra, U.P
	Dr. K.K Singh	ToT on monitoring evaluation and learning	**2**	CSISA, CIYMMT, BAU, Sabour
2017-18	Dr. Jitendra Prasad	Kharif workshop under CSISA project	**1**	Kanpur
	Dr. K.K. Singh	Soil testing kit	**1**	ICAR-RCER Patna
	Dr. Jitendra Prasad and Hem Chandra Chaudhary	BSDM	**1**	BAMETI, Patna
	Dr. Jitendra Prasad	CFLD meeting	**1**	ICAR-RCER Patna
	Dr. Jitendra Prasad and Hem Chandra Chaudhary	ML & E work shop	**2**	Kanpur
	Hem Chandra Chaudhary	Women empowerment; challenges and strategies	**1**	BAU Sabour
	HemChandra Chaudhary	Empowering rural youth for agri entrepreneurship	**21**	BAU Sabour
	Dr. Jitendra Prasad	Workshop	**1**	WBUFS, Kolkata
	Dr. Jitendra Prasad, and Shree Hemchandra Chaudhary	Statistical tools on farm experimental research	**3**	Patna
	Dr. K.K.Singh	NPS	**1**	DrRPCAU, Pusa
	Dr. K.K.Singh	Soil testing	**8**	DrRPCAU, Pusa
	Dr. Jitendra Prasad, Dr. A.K.Singh and Dr. Ranjan Kumar	Livelihood and Food security	**2**	BVC, Patna
	Dr.K.K.Singh	Transforming of Ag. For	**2**	BBA, Univ. Lucknow,

Year	Name of the staff	Up gradation of Knowledge	Duration	Trainers,training center and other institute
		farmers doubling income		U.P.
	Dr. Jitendra Prasad	IFM, Model	**1**	ATARI, Patna
	Dr. Jitendra Prasad, and Shree Hemchandra Chaudhary	Sustainability of Agriculture in climate change scenario	**3**	CSAUAT, Kanpur
	Dr. Jitendra Prasad and Shree HemChandra Chaudhary	National conference of KVKs	**5**	IARI, New Delhi
	Shree Hem Chandra Chaudhary	Plant Disease detection	**1**	ICAR-RCER Patna
	Dr.K.K.Singh	Departmental kharif Research Council meeting	**1**	Deptt. Of Soil Sc. DRPCAU, Pusa
	Anupam AdarshandKumari Pratibha	Orientation training	**3**	Directorate of Extension Education,DRPCAU,Pusa
	,Anupam Adarsh	Farm Management	**5**	Indian Institute of Farming System Research,Meerut
	Indrajeet Mandal	Soil health	**5**	DRPCAU,Pusa
	Anupam Adarsh	Farm Management	**5**	Directorate of Extension Education,DRPCAU,Pusa
	Indrajeet Mandal	Soil health	**5**	DRPCAU. Pusa
2018-19	HC Chaudhary SMS, PP & Anupam Adarsh, Farm manager	Dhan ki kheti cum Krishi yantrkaran se samridhi	**1**	DoEE, DRPCAU
	Indrajeet mandal ,PA (LAB)	Marigold Cultivation	**1**	DRPCAU, Pusa
	Dr. Anupam Adarsh,	Marigold Cultivation	**1**	DRPCAU, Pusa

Year	Name of the staff	Up gradation of Knowledge	Duration	Trainers,training center and other institute
	Farm Manager			
	HC Chaudhary SMS, PP	ASCI-ToT training programme	**3**	ATARI, Patna
	Indrajeet Kumar Mandal ,PA (LAB)	Orchard management of Litchi and mango	**4**	DRPCAU, Pusa
	Dr. Anupam Adarsh, Farm Manager	Orchard management of Litchi and mango		DRPCAU, Pusa
	Tarun Kumar, SMS (Soil and Water Engineering)	Preparation and dissemination of weather based Agro met advisories is at block level Gramin Krishi Seva(GKMS)	**4**	BAMETI, Patna
	Dr. Anupma Kumari & Dr. K.K Singh	GeM Portal training	**5**	DRPCAU, Pusa
	Dr. Anupam Adarsh, Farm Manager	Advance technological intervention for resource poor farm management	**3**	ICAR-CER, Patna

17. Details of technology refined / generated during the period under review

a) Agriculture

Technology	Relevance	Status of transfer
Paddy variety :Rajendra Bhagwati	Paddy cultivation needs high investment and comparatively less return specially in case of using local variety. Rajendra Bhagwati at the same investment of local variety increases the yield upto 31.92 q/ ha.	More than 2000 ha of land covered with this variety. Approximately 5000 farmers adopted this variety for quality rice as well as suited in climatic change scenario.

NPK - 90:40:40 +azobacter+PSB in wheat crop.	Farmers are using excessive chemical fertilizer leading to deteriotion of soil health. In order to improve the soil health and production, biofertilizer is useful in addition to chemical fertilizer. It decreases the chemical fertilizer ratio and increases the yield upto 11.33%.	After completion of 2 years OFT, the technology was disseminated through FLD programme. More than 500 farmers utilized the technique convering near about 300 ha area.
Use of sulpher in Rai crop at the ratio of 60:40:40:40(N:P:K:S) as basal dose.	Farmers are not aware about the importance of sulpher in oil crop and only use NPK. In comparison of cost of Sulpher the yield is too high, so very beneficial for farmers. Through this technology yield was increase @ 43.66%.	After completion of 2 years OFT, the technology was disseminated through FLD programme. More than 1500 farmers utilized the technique convering near about 1000 ha
Weeding with conoweeder	Conoweeder is very simple and cheap equipment for weeding. It works very efficiently by women farmers also. So local khurpi can replaced by conoweeder.It takes less time i.e. 9.8 hour per acre only. It saves from waist pain, palm injury and excessive tiredness.	Through training and demonstration this technology is transferred among 550 women farmers as it works in line sowed field only.
Weed control (Pretilachlor @ 0.75l/ha + one hand weeding)	Due to climate change scenario weed infestation is high in transplanted paddy, reducing the yield as well as problem arises at the time of harvesting.	In blocks of Saraiya, Kanti, Madwan, Paroo 5000-6000 small/marginal farmers adopted this technology
FIR technique (Carbendazim	Due to infestation of wilt disease in lentil	Through training cum demonstration programme

50%EC @2 g/ + Chloropyriphos 50EC @5ml/kg +*Rhizobium* culture @ 5 g/kg of seed)	crop, yield of the lentil drastically reduced but through this technonogy incidence of wilt diseases decreased in lentil crop as well as yield increased upto 36.6%.	along with ATMA and DOA, Muzaffarpur this technology was extended upto 350ha area covering 900-1000 farmers.
Green gram cultivars SML 668	Due to cultivation of local variety, yield of the green gram was very poor as the variety was severely affected by YMV disease. By this technology yield of the green gram increases upto 41.94 % because there is less incidence of YMV.	22% of the farmers of the district use SML-668. It Is also demonstrated under demonstration programmes by KVK and through subsides by Deptt. Of agriculture , Government of Bihar
Application of Pendimethalin as Pre emergence and Bispyribac sodium 25g ai/ha 25DAT. in paddy,	Less rainfall in the region has lead to heavy weed infestation in DSR paddy. By application of this technology the yield of the paddy obtained up to 45.54q/ha.	The technology was promoted every year under CSISA-KVK Network in 50-100 acre of cultivated land and demonstrated under FLD programme.
Green gram cultivars Hum-12	Due to cultivation of local variety, yield of the green gram was very poor as the variety was severely affected by YMV disease. This technology helps in increase in yield to 7.37q/ha ,while YMV severity was found 8.4 %	Through training cum demonstration programme along with ATMA and DOA, Muzaffarpur this technology was extended upto 250ha area covering 1250 farmers
Management of Litchi Fruit Borer through foliar spraying of Neem oil 300 ppm @ 3 ml after fruit setting and lambda cyholothrin @ 2 ml after 15 days of Neem oil spray	Due to infestation of fruit borer in litchi reduced the production as well as market value by 7.2%.	Through training cum demonstration programme along with ATMA and DHO, Muzaffarpur, this technology was extended upto 2500-2600 ha area covering 1200 farmers.

INM through biofertilizer in Rabi Maize(100:60:50+Azotobacter+PSB)	Farmers are using excessive chemical fertilizer and to improve the soil health and production, biofertilizer is useful in addition to chemical fertilizer as it decreases the chemical fertilizer ratio and increases the yield upto 11.33% . since it is easily available at low cost so farmers accepted it.	Through training cum demonstration programme along with ATMA and DAO, Muzaffarpur this technology was extended upto 2000 ha area covering 4500 farmers.
Management of stem rot disease in Rai caused by *Rhizoctonia solani* through soil treatment with *Trichoderma viridi* @ 5 kg/ha along with vermicompost 1.5 t//ha. ha.	Infestation of stem rot disease led to the reduction in yield of Rai. By application of this technology disease severity reduced by 4.47% and increased yield up to to 49.6%,	Under FLD the demonstration is conducted in 10 ha area covering 50 farmers each year.
Soil test based fertilizer along with 25 kg ZnSO4 in paddy.	Farmers are using excessive chemical fertilizer, which has deterioted the soil health. soil test based fertilizer application has resulted in increased yield upto 34.83% against the farmer's practice.	Through training cum demonstration programme along with ATMA and DAO, Muzaffarpur this technology was upto 2500 ha area covering 5000 farmers.
Bio fertilizer effect on yield of green gram(20 kg N -40 kg P2O5- seed treatment of Rhizobium and PSB)	Farmers are using only chemical fertilizers in green gram crop.The usage of biofertilizer has resulted in increased yield upto 9.5 q/ha.	After completion of 2 years OFT, the technology was disseminated through FLD programme, ATMA and DAO, Muzaffarpur. More than 1000 farmers utilized the technique convering near about 750 ha.
Yield Maximization of wheat based on soil test value. (Recommended dose N:P:K: 120:60: 40)	Irrational use of fertilizers in wheat crop has led to deterotion of soil health and declining production. Yield Maximization of wheat, based	Through training cum demonstration programme along with ATMA and DAO, Muzaffarpur this technology was extended upto 2000 ha area

	on soil test value has resulted in increased yield by 13.21% against the farmer's practice	covering 4500 farmers.
Nitrogen levels for production of rabi maize (Plant spacing for sowing 40*20 and 150:75:50 kg/ha NPK)	Farmers in the district are sowing maize through broadcasting or 60x20 spacing resulting in lower yield. The maintained plant spacing has recorded in higher yield with more net returns i.e. (Rs.41820.00/ha and B: C (2.76) against the farmers practice.	After completion of 2 years OFT, Through training cum demonstration programme along with ATMA and DAO, Muzaffarpur this technology was disseminated upto 750 ha area covering 1500 farmers..
FIR technique (Carbendazim 50%EC @2 g/ + Chloropyriphos 50EC @5ml/kg +*Rhizobium* culture @ 5 g/kg of seed)	Due to infestation of wilt disease in lentil crop, yield of the lentil was drastically reduced but through this technonogy incidence of wilt diseases decreases in lentil crop as well as increases yield upto 36.6%.	Through training cum demonstration programme along with ATMA and DOA, Muzaffarpur this technology was upto 350ha area covering 900-1000 farmers.
Green gram cultivars SML 668 increase yield upto 41.94%	Due to cultivation of local variety, yield of the green gram was very poor as the variety was severely affected by YMV disease. By this technology yield of the green gram increases upto 41.94 % because there is less incidence of YMV.	22% of the farmers of the district use SML-668. It is also demonstrated under demonstration programmes by KVK and through subsides by Deptt. Of Agriculture , Government of Bihar

b) Horticulture

Technology	Relevance	Status of transfer
Management of damping off complexes in nursery bed of vegetable (Cauliflower) *Through Trichoderma viridi* @ 10 g - Neem	Due to damping off complexes disease, 42-50% seedling dies in nursery bed. Through this technology the disease incidence was found only 1.73% & increased the production	Under FLD, the demonstration is Conducted in 1 ha area covering 50 farmers each year.

cake 100g/sq.m	upto 184%.	
Seed treatment with Azotobacter and PSB in potato (20% Reduced Recommended dose of fertilizer + Azotobactor and PSB)	Lower yield of potato in the district due to the lack of availibilty of nutrients to the tubers. The application of seed treatment with Azotobacter and PSB in potato has increased the yield to 2.25% against the farmer practice.	After completion of 2 years OFT, the technology was disseminated through training programme along with ATMA and DAO, Muzaffarpur. More than 1200 farmers utilized the technique convering near about 850 ha.
INM in potato (75 % Recommended dose of fertilizer + 25 % vermicompost).	Low yield due to irrational use of fertilizers and low organic carbon in soil. INM in potato led to increase in production by 16.6%	This technique has been adopted by 10-15farmers in 20 ha.
Integrated approaches for management of Die back disease of Mango. (Cultural practices like pruning and land preparation+ Drenching of Streptocyclin @ 1 g/10L of water + Blitox 50 @ 4 g/L of water and repeat the application at 30 days' interval (Oct-Nov). + soil application of ZnSo4 +Feso4+Cuso4 (305g+200g +526g per plant)	Production loss due to dieback in mango and it was a severe problem among farmers. By application of this technology disease severity was found only 22.28%.	This technology was started last year and recommendations have been advised to 70 farmers till date.
Management of Panama wilt in banana through non-chemical (disease free sucker+ vermicompost @ 250 g/pit + soil application of Trichoderma viride (107) @ 10 g + Psedumonas	Banana plantation is severly affected by Panama wilt causing heavy economic losses. This technogy was highly effective with more than 52% wilt reduction.	This technology was started last year only.

fluoroscens @ 50g /sucker at 0,2nd and 4th month after planting.		

c) Livestock

Technology	Relevance	Status of transfer
Feeding of concentrate mixture (150gm – 200gm/day) and two times deworming at one month interval provided better growth performance for goat kids	Farmers donot know importance to Feeding of concentrate mixture to goat kids. While the govt. veterinary hospital is supplying deworming drugs free of cost. Whenever concentrate mixture (150gm – 200gm/day) and two times deworming at one month interval showed better performance in terms of better growth performance for goat kids	About 55-60% farmers are using dewormer and 35-40% farmers are providing concentrate mixture to got kids..
Indication of Anthelmintics to cattle showed reduction of Egg per gram (gastrointestinal parasite) of faece in cattle and yielded better performance performance in terms of milk & estrus symptoms.	Farmers are using traditional esistant drugs for deworming which is not effective hence use of broad spectrum Anthelmintics are very useful.	60-65% of dairy farmers are using dewormers for their animal.

d) Poultry

Technology	Relevance	Status of transfer
Supplementation in balance concentrate with Ground Maize ration on performance of broiler.	Rising readymade feed cost price will increase the cost of production. For economizing the feeding cost of the broiler, farmers included 50-70% ground maize by using balance	70-80% farmers adopted and got good growth performance in broiler.

	concentrate with Ground Maize ration,	
Supplementation of Multienzyme @ 0.6 gm per kg feed with probiotics as feed supplements in poultry feed.	Most of the farmers using only probiotic or some are adding single or double enzymes in broiler ration but when cocktails of enzymes was used it showed better performance.	Nearly 90% poultry farmers are using probiotic with multienzyme.

f) Home science

Technology	Relevance	Status of transfer
wheat straw as best substrate for Oyester mushroom cultivation and produces 8 kg mushroom per kg of spawn used.	Wheat sraw as by product of wheat farming is locally available at low cost and produces 8 kg mushroom per kg of spawn used.	Through training, demonstration and FLD this technology is initiated among 200 farmers and 100% of them are using wheat straw for oyster mushroom cultivation
Button mushroom retains its whiteness at some extent if dried after blanching and soaked in 1% Potassium metabisulfite solution.	Button mushroom got blackish after sundried and farmers have no option except sell it fresh. Treated mushroom with KMS preferred by farmers. It got 8.5 point at sensory evaluation and Potassium metabisulfite is safe, cheap and approved by FPO so farmers use it.	Four year back this technology was provided under OFT and FLD and only 10-12 farmers are using it as button mushroom are preferred to sell fresh.
Storage of local vegetables in Zero Energy cool chamber extends its self life.	Oyster mushroom is highly perishable, local variety of tomato and other vegetables spoil in 3-4 days. Zero Energy cool chamber extends its self life. upto nine days with 5.1% Physiological weight loss for **tomato**, three days with only 18% spoilage and 20.5% weight loss for **oyster mushroom** and extends the self	2000 farmers knew the importance of Zero Energy Cool Chamber for vegetables storage through training, Exhibition, Field visit and OFT programme

	life for 5, 2, 6 and 2 days respectively for **Okra, spinach, radish, and cauliflower** respectively and Zero Energy cool chamber can be constructed with local material. As it works on the basis of evaporative cooling and does not need electricity so farmers easily construct it at their field.	

g) Agriculture Engineering

Weed control by Grubber and wheel weeder in Green gram crop.	The predominant weed were *Physalisminon* and *Salanumnigrum* grow more in green gram field in Muzaffarpur district. The farmer used local khurpi for weed control but that tool donot effectively removing the weed root and required more manpower, that why increase the cost of cultivation. Wheel weeder was found most effective in reducing population of weeds and producing maximum yield of green gram.	This technology is under trial and adopting percentage is very low. This technology will be extend by demonstration and training.

18. DETAILS OF TRAINING PROGRAMMES CONDUCTED

I. Training programmes conducted for farmers / farm women (last 8 years)

S. N	Discipline	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	TOTAL

		T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P
1.	Crop Production	24	15	654	10	23	862	14	16	650	19	19	647	0	0	0	0	8	189	0	0	0	1	4	201	68	85	3203
2.	Plant protection	00	0	0	15	19	1009	20	20	1523	20	22	806	12	20	402	12	26	496	14	12	269	18	44	2780	111	163	7285
3.	Soil science	24	17	1005	14	18	933	15	27	1405	15	25	995	23	28	521	14	28	908	14	26	626	13	96	3777	132	265	10170
4.	Horticulture	00	0	0	14	2	57	13	4	159	23	2	59	15	0	0	9	14	690	12	74	394	12	17	703	98	113	2062
5.	Livestock	24	16	771	6	0	0	8	3	153	8	2	49	10	10	316	12	25	723	16	15	330	0	0	0	84	71	2342
6.	Fisheries	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	75	0	4	75
7.	Home Science	24	19	559	0	0	0	0	0	0	0	0	0	10	10	251	12	9	190	12	14	302	12	32	1037	70	84	2339
8.	Agril Engg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	153	0	5	153
Total		**96**	**67**	**2989**	**59**	**62**	**2861**	**70**	**70**	**3890**	**85**	**70**	**2556**	**70**	**68**	**1490**	**59**	**110**	**3196**	**68**	**141**	**1921**	**56**	**202**	**8726**	**563**	**790**	**27629**

II. Training programme conducted vs targets fixed (discipline-wise) for extension functionaries (last 8 years)

S. N	**Discipline**	**I (2011-12)**			**II (2012-13)**			**III (2013-14)**			**IV (2014-15)**			**V (2015-16)**			**VI (2016-17)**			**VII (2017-18)**			**VIII (2018-19)**			**TOTAL**		
		T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P

1.	Crop Production	3	1	42	2	1	50	4	2	150	4	0	0	0	0	0	0	3	82	0	0	0	0	4	556	13	11	880
2.	Plant protection	0	0	0	2	1	50	4	2	31	4	1	51	4	3	347	4	5	132	4	5	90	4	4	475	26	21	1176
3.	Soil science	3	0	0	2	1	50	4	2	63	4	2	70	8	3	154	3	8	189	4	7	197	4	10	81	32	33	804
4	Horticulture	0	0	0	1	1	50	2	1	17	0	0	00	4	0	0	4	6	253	4	4	609	4	2	45	19	14	974
5.	Livestock	2	0	0	1	0	0	4	0	0	2	0	0	2	0	0	2	4	119	4	4	87	0	0	00	17	8	206
6.	Fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	23	0	1	23
7.	Home Science	3	1	89	0	0	0	0	0	0	0	0	0	4	2	139	8	2	62	7	5	116	6	6	54	28	16	460
8.	Agril Engg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	26	0	1	26
Total		**11**	**2**	**131**	**8**	**4**	**200**	**18**	**7**	**261**	**14**	**3**	**121**	**22**	**8**	**640**	**21**	**28**	**837**	**23**	**25**	**1099**	**18**	**28**	**1260**	**135**	**105**	**4549**

III. Training programmes conducted for rural youths (last 8 years)

S. N	Discipline	I (2011-12)			II (2012-13)			III (2013-14)			IV (2014-15)			V (2015-16)			VI (2016-17)			VII (2017-18)			VIII (2018-19)			TOTAL		
		T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P	T	C	P
1	Crop Production	5	4	66	3	2	40	5	5	112	5	4	97	**0**	0	0	0	00	0	0	0	0	0	0	0	18	15	315
2	Plant protection	0	0	0	5	4	86	4	6	146	3	10	175	4	7	154	4	6	78	4	6	126	4	8	230	28	47	995
3	Soil science	6	7	119	2	4	74	7	5	121	5	6	124	8	4	99	4	4	79	14	26	626	4	5	102	50	61	1344
4	Horticulture	0	0	0	1	2	29	4	1	15	4	0	0	4	0	0	7	3	36	7	7	190	3	1	30	30	14	300
5	Livestock	8	9	189	2	0	0	4	3	53	4	1	20	3	3	68	6	6	114	6	4	95	0	0	0	33	26	539
6	Fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	25	0	1	25
7	Home Science	7	8	145	0	0	0	0	0	0	0	0	0	8	10	192	12	9	162	9	10	238	8	5	112	44	42	849
Total		**26**	**28**	**519**	**13**	**12**	**229**	**24**	**20**	**447**	**21**	**21**	**416**	**27**	**24**	**513**	**33**	**28**	**469**	**40**	**53**	**1275**	**19**	**20**	**499**	**203**	**206**	**4367**

19. Frontline Demonstration Programme

a. Front-line demonstration in *rabi* season

Condition: Rainfed/Irrigated

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
I (2011-12)	Tori	30	11.00	10.00	8.5	19000	38000	Rauts -17	19725	46000	725	8000	Nil	7275
	Fodder crops	7	1.0	704	571	6826	28500	HYV	7806	42240	980	13740	Nil	12760
II (2012-13)	Toria	10	2.0	10.32	8.20	17100	28700	Pusa tarak	17600	36120	500	7420	Nil	6920
	Green gram	11	3.5	13.63	9.33	18000	21320	PusaVisal	18400	54520	400	33200	Nil	32800
	Wheat	3	1.5	33.6	30.2	12700	36240	HD-2824	13700	40320	1000	4080	Nil	3080
	Wheat	6	1.5	32.5	30.10	12500	36120	K-307	13500	39000	1000	2880	Nil	1880
III (2013-14)	Toria	26	3.04	8.5	7.5	17100	26250	RAUTS-17	17500	29750	400	3500	Nil	3100
	Green Gram	26	7.0	10.5	8.75	10700	28000	SML-668	11500	33600	800	5600	Nil	4800
	Lentil	10	3.0	8.5	7.20	13800	21600	HUL57	14250	25500	450	3900	Nil	3450
	Green Gram	26	7.0	8.5	7.25	11000	12500	*Rhizobium* & PSB	11500	27200	500	14700	Nil	14200
	Wheat	04	1.5	33.6	28.50	12000	34200	HD-2824	13500	40320	1500	6120	Nil	4620
	Wheat	36	8.0	30.5	26.00	12000	31200	K-307	13500	36600	1500	5400	Nil	3900
	Wheat	08	3.2	32.5	28.00	12200	33600	*Azotobactor* & PSB	13700	39000	1500	5400	Nil	3900

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
	Maize	10	4.0	54.5	50.75	28750	60900	Shaktiman-3	29630	65400	880	4500	Nil	3620
	Rai	26	3.0	12.5	8.70	12200	30450	R.suflam	12700	43750	500	13300	Nil	12800
IV (2014-15	Toria	70	22.0	10.50	7.75	9000	21700	Sulphur 80%	10000	29400	1000	7700	Nil	6700
	Toria	08	03.0	10.0	8.0	9115	22400	JE-28	9620	28000	505	5600	Nil	5095
	Green gram	14	5.0	9.75	7.5	12000	26250	SML-668	12500	34125	500	7875	Nil	7375
	Wheat	26	04.0	33.50	28.75	23300	37375	PBW-502	25000	43550	1700	6175	Nil	4475
	Wheat	17	07.0	33.75	28.0	23300	36400	HD-2824	25000	43875	1700	7475	Nil	5775
	Wheat	11	05.0	34.25	28.50	23300	37050	HD-2733	25000	44525	1700	7475	Nil	5775
	Wheat	20	04.0	34.25	28.50	23300	37050	Azotobactor + PSB	25000	44525	1700	7475	Nil	5775
	Wheat	09	04.0	28.25	25.23	23300	32799	DBW-14	25000	36725	1700	3926	Nil	2226
	Mustard	76	40.0	16.2	13.5	20950	60750	INM and IPM	22750	72000	1800	11250	Nil	9450
V 2015-16	Lentil	44	24.0	14.23	10.69	21550	42760	Seed Pesticides, M.nutrient	22575	56920	1025	14160	Nil	13135
	Field pea	112	30.0	11.22	9.39	21660	46950	Seed Pesticides, Micro .nutrients	22575	56100	915	9150	Nil	8235
	Chick	23	6	17.7	12.49	23700	20265	GNG-	24500	51625	800	31360	Nil	305600

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
	pea							1581+INM, IPM						
	Chick pea	23	06.0	14.75	12.49	23400	43715	Seed Pesticides, M.nutrient	24500	51625	1100	7910	Nil	6810
	mustard	76	40	17.7	13.5	20950	60750	R.suflam	22750	72000	1800	11250	Nil	9450
	Lentil	44	24	14.23	10.69	21550	42760	L-4594	22575	56920	1025	14160	Nil	13135
	Field pea	112	30	11.22	9.39	21670	46950	IPFDI-10	22575	56100	905	9150	Nil	8245
VI 2016-17	Sorghum green fodder	10	02	530	325	18000	22750	High yielding variety	19000	42400	1000	19650	Nil	18650
	Cauliflower	50	05	9306	7377	43010	59016	*Trichoderma viridi*	43060	74448	50	15432	Nil	15382
	Linseed	97	20	8.99	6.40	18950	32000	Azad alsi-1 INM & IPM	20750	43300	1800	11300	Nil	9500
	Lentil	97	40	14.50	6.00	18550	30000	HUL-57 +INM&IPM	23800	61250	5250	31250	Nil	26000
	Litchi	50	20	200	144			Pheromone Trap						
VII 2017-18	Cauliflower	50	10	350	222	60000	133200	*Trichoderma viridi*	62000	180000	2000	46800	Nil	44800
	Marigold	10	3	80	72	34000	108000	HYV	35000	12000	1000	12000	Nil	11000

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
										0				
	Potato	12	0.5	245	190	42000	95000	Improved variety-kufri Ashoka	48000	122500	6000	27500	Nil	21500
	Potato	5	1	182.01	185	50000	111000	*K. Sinduri*	48000	120000	-2000	9000	Nil	11000
	Lentil	25	10	15.57	10.86	24600	46155	HUL-57 +INM&IPM	26500	66173	1900	20018	Nil	18118
	Rapseed & mustard	126	50	16.38	12.5	21800	56475	R.Suflam	23500	73710	1700	17235	Nil	15535
	Marigold	10	3	80	72	34000	108000	African gold	35000	120000	1000	12000		11000
	Litchi	23	10	200	142	96000	242000	Pheromone trap	120000	320000	24000	78000		54000
VIII (2018-19)	Marigold	20	1	200	60	36500	90000	African gold	35000	123900	-1500	33900	Nil	35400
	Mushroom	20	4	85		1100	3428	Oyster mushroom	1100	3920	0	492	Nil	492
	Maize	10	10		17.3% infestation			Hermetic storage bags for maize			0	0	Nil	0
	Mustard	44	20	18.2	15.11	22500	52885	R. Sufalam INM	24500	63687.27	2000	10802.27	Nil	8802.27

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
	Lentil	20	10	15.59	9.93	22550	34755	KLS-218 & HUL-57INM & IPM	26490	54565.00	3940	19810	Nil	15870
	Chick pea	28	10	17.49	10.46	23000	31440	GNG-1581	24500	52468.93	1500	21028.93	Nil	19528.93
	Licthi	30	10.0	52.88	46.38	32000	231900	Neem Oil	75000	264400	43000	325000	Nil	282000

Front-line demonstration in *kharif* season
Condition: Rainfed/Irrigated

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
I 2011-12	Red gram	8	3.5	15.00	12	19200	68750	ND 1	15110	72000	-4090	3250		7340
	Red gram	9	3.5	16.50	13.5	19200	68750	Malvia 13	15110	82500	-4090	13750		17840
	Paddy	15	5.0	33.13	27.07	11650	27070	Swarna sub - 1	12200	33130	550	6060		5510
II 2012-13	Redgram	16	5	12.26	9.72	20200	37520	P-9	21200	73560	1000	36040	Nil	35040
	Black Gram	6	2.0	5.75	4.65	14700	17850	Gram-Pant 31	15200	40250	500	22400	Nil	21900
	Paddy	10	5.0	39.00	33.50	16900	36850	Bhagawati	17500	42900	600	6050	Nil	5450
III 2013-14	Paddy	50	20	38.5	34.5	23500	41400	R. Bhagawati	24700	46200	1200	4800	Nil	3600
	Paddy	14	04	42.0	35.0	23500	42000	Swarna sub-1	25500	50400	2000	8400	Nil	6400
	Paddy	3	0.9	40.5	32.50	26000	39000	Paddy	28400	48600	2400	9600	Nil	7200

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
								(Vaidehi)						
	Paddy	2	0.6	39.2	33.4	24400	40080	Paddy (Rajshree)	26500	47040	2100	6960	Nil	4860
IV 2014-15	Red gram	18	4.2	15.00	8.0	18000	28000	P-9	20500	52500	2500	24500	Nil	22000
V 2015-16	Red gram	8	2.1.	11.00	7.0	32000	56000	ICM	40000	88000	8000	32000	Nil	24000
	paddy	15	4.0	10.0	8.00	21400	11200	ICM	22000	14000	600	2800	Nil	2200
	Barseem	6	2	667	552	13000	27600	Mascavi	14250	53360	1250.00	25760	Nil	24510
	Green gram	35	20	8.5	5.99	22450	41950	SML-668 INM& IPM	24050	50050	1600	8100	Nil	6500
VI 2016-17	Arhar	5	1.0	10.2	7.3	42000	58400	Malvia-13	42000	58400	0	0	Nil	0
	Berseem green fodder	06	1.5	670	525	20750	31500	High yielding variety (Mascavi)	21600	56950	850	25450	Nil	24600
	Cow pea	14	04	45	35	22000	35000	High yielding variety (Kashi kanchan)	27000	45000	5000	10000	**Nil**	5000
	Green gram	15	1	12.5	8.2	28000	41000	NP-1	32000	62500	4000	21500	Nil	17500

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
	Green gram	35	20	7.15	5.99	22450.00	41950	Local/HUM-16/Sona/pusa vishal	24050	50050	1600	8100	Nil	6500
	Sesamum	51	20	8.23	4.6	8500.00	19320	Local & kalika	11550	34566	3050	15246	Nil	12196
VII (2017-18)	Soya bean	35	10	21.88		-	-	PS-1042	26500	109250	26500	109250		82750
	Cow Pea	10	3	85	71	35000	78100	HYV	36000	93500	1000	15400	Nil	14400
	Berseem green fodder	06	1.5	670	525	20750	31500	High yielding variety (Mascavi)	21600	56950	850	25450	Nil	24600
	Sorghum green fodder	10	02	530	325	18000	22750	High yielding variety	19000	42400	1000	19650	Nil	18650
	Green gram	57	20	10.50	7.90	19850	39500	IPM-02-03, SOIL TEST ,INM,IPM	21500	52500	1650	13000	Nil	11350
	Sesamum	21	10	5.9	5.9	16500	29375	Krishna	20500	42463	4000	13088	Nil	9088
	Red gram	27	10	18.2	12.55	24500	62750	LRG-41	28550	91000	4050	28250	Nil	24200
	Oyster mushroom	20	4 unit	-	-	4600	11000	Oyster mushroom	4200	12000	-400	1000	Nil	1400
VIII 2018-19	Paddy	109	20	29.8	26.03	32000	39050	DSR through zero till seed drill cum fertilizer machine	31000	44700	-1000	5650	Nil	5750

Front-line demonstration *year round*

Year wise	Crops	No. of farmer	Area (ha)	Avg. yield (q/ha)	Local check			Improved Variety			Increase		Net loss (Rs.)	Effective gain (Rs.)
					Av. Yield	C (Rs.)	R (Rs.)	Variety	C (Rs.)	R (Rs.)	C (Rs.)	R (Rs.)		
VII (2017-18)	mushroom	20	10 bag/ farmer	1kg/ bag	0.7 kg/bag	300	700	Oyster mushroom	300	1000	0	300	nil	300/ 10bag
	maize	20	20 unit	32 kg/hr	13 kg/hr	-	-	Hand maize sheller	-	-	-	-	-	-
VIII (2018-19)	Mushroom	20	10 bag/ farmer	1kg/ bag	0.7 kg/bag	300	700	Oyster mushroom	300	1000	0	300	nil	300/ 10 bag
	Maize	10	10		17.3% infestation			Hermetic storage bags for maize			0	0	Nil	0

Front-line demonstration on Enterprise in *year round*

Year wise	Animal/ bird	Breed	No. of Raisers	Total no of animals / birds	Avg. Prodn.	Local check			Improved breed / tech.		Increase		Net loss (Rs.)	Effct. Gain (Rs)
						Av. Prod.	C	R	C	R	C	R		
IV (2014-15	Chicks	Banraja	10	100	180000 egg									
VIII (2018-19)	Rohu	Jayanti rohu	9	5000		11.65	50000	140125	50000	175125	0	35000		35000

20. Critical input supplied during the period under review:

a) Agri-inputs

Inputs	I (2011-12)		II (2012-13)		III (2013-14)		IV (2014-15)		V (2015-16)		VI (2016-17)		VII (2017-18)		VIII (2018-19)		Total	
	No. of farmer	Area (ha)	No. of farmer	Area (ha)	No. of farmer	Area (ha)	No. of farmer	Area (ha)	No. of farmer	Area (ha)	No. of farmer	Area (ha)	No. of farmer	Area (ha)	No. of farmer	Area (ha)	No. of farmer	Area (ha)
Toria																		
Rauts -17	30	11.00															30	11
Pusa tarak			10	2.0													10	2
Sulphur 80%					26	3.04	7.0	22.0									33	23.04
INM& IPM																	76	40
R.Suflam									76	40.0	28	5.0	126	50	44	20	198	28
JE-28							08	03.0									8	3
Lentil																		
HUL-57					10	3.0			44	24.0	97	40	25	10	20	10	196	87
Field pea									112	30.0							112	30
Bengal gram									23	06.0					28	10	51	16
Green gram																		
PusaVisal	11	3.5			11	3.5											22	7
SML-668					26	7.0	14	5.0									40	12
HUM16									35	20							35	20
IPM,INM													57	20			57	20
NP-1											15	1					15	1
Wheat																		
HD-2824	3	1.5			04	1.5	17	07.0									24	12.5
K-307	6	1.5			36	8.0											42	9.5
PBW-502							26	04.0									26	4
HD-2733							11	05.0									11	5

DBW-14							09	04.0									9	4
Marigold																		
HYV													10	3	20	1	30	4
African															10	3	10	3
Fodder crops																		
Barseem	7	1							6	02	6	1.5	6	1.5			25	6
Sorghum													10	2			10	2
Maize																		
Shaktiman-3					10	4.0											10	4
Potato																		
kufri sindhuri													12	0.5			12	0.5
Cow Pea																		
Kashi kanchan											14	04	10	3			24	7
Arhar																		
ND 1	8	3.5															8	3.5
Malvia 13	9	3.5									5	1.0					14	4.5
p-9			16	5			18	4.2									34	5
ICM									08	2.1							8	0
LRG-41													27	10			27	10
Paddy																		
Swarna sub -1	15	5.0															15	5
Rajendra Bhagwati			10	5.0	50	20	50	20									110	45
Vaidehi					3	0.9											3	0.9
Rajshree					2	0.6											2	0.6
Swarna sub-1					14	04	6	10									20	14

DSR															109	20	109	20
ICM									15	4.0							15	4
Chick Pea																		
Gram-Pant 31	6	2.0	6	2.0													12	4
Sesamum																		
Krishna									49	20.0	51	20	21	10			121	50
Soyabean																		
PS-1042													35	10			35	10
Others																		
Azotobactor+ PSB					08	3.2	20	4									28	7.5
Trichoderma viridi									25	25	50	5	50	10			135	40.01
Neem Oil															30	100	30	100
Hermetic sealed bags															10	10	10	10
Feromone trap													23	10			23	10
Rhizobium & PSB					26	7.0											26	7
Oyster Mushroom									50	40			20	4	20	4	90	48
Pheromone Trap											50	20					50	20

b) Horti-inputs

Inputs	I (2011-12)		II (2012-13)		III (2013-14)		IV (2014-15)		V (2015-16)		VI (2016-17)		VII (2017-18)		VIII (2018-19)		Total	
i) Seed																		
ii) Saplings																		
Cauliflower													**12**	**6000**			**12**	**6000**
Cabbage													**11**	**5500**			**11**	**5500**
Tomato													**40**	**4000**			**40**	**4000**
chilli													**60**	**6000**	**6**	**750**	**66**	**6750**
Brinjal															**7**	**1100**	**7**	**1100**
marigold													**600**	**325000**	**25**	**2500**	**625**	**327500**

c) Livestock/ Poultry/ Fishery -inputs

Inputs	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
Type-wise									
Jayanti Rohu								5000	
Chicks					10				

21. Soil Testing and Soil Health Cards Issued

Inputs	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
Soil Samples tested		2400	100	184	685	1022	414	341	5146
Soil Health Card issued		2400	100	184	685	1022	414	341	5146
No of Farmers benefitted		2400	100	184	685	1022	414	313	5118

22. Entrepreneur development during the period of QRT:

Area/Field	Target group	Impact
Food Processing	SHGs	20 SHGs formed for making differnet kinds of pickle under Kisan chachi achhar by Smt Rajkumari devi
Tissue culture Banana	Banana farmers	1 lakh plants were produced annually by Mr. Avinash Kumar under MBRI, Bhatoulia. It was sold throughout the district and neighboring districts too.
Seed production	Farmers	1. Sri Satish Dwivedi is a progressive farmer of Sakari Chandpura in Bandra Block of Muzaffarpur district. He produce seed 25 t of seed annually and the income generated is 4-5 lakh/ annum by supplying seed in all over the state. 2. Mehta Beej Nigam, Dholi, muzaffarpur produces 20 t of seed annually and the income generated is 5 lakh/ annum by supplying seed in all over the state.
Bee Keeping	Farmers	Abikshek Kumar adopted beekeeping in small unit starting with 10 boxes and getting 200 to 300 liter honey per year. He is earning Rs 45000-55000.00 annually.
Vermicomposting	Farmers	1. Kheti enterprises produce vemicompost of 3000MT/annum. The income raised from Rs. 150000.00 to Rs.1000000/annum by selling the produce under several Govt. schemes. It is also sold at nearby districts to organic producer. 2. 50 tonnes/ Annual produced by Shri Maheshwar Rai. The produce was sold all round the district via under different government schemes and was also sold in tea gardens (Thakurganj)
Organic vegetable production	Farmers	1. Sri Dinesh Kumar is actively involved in vegetable (30 acres), fruits (Banana -10 acres, Litchi- 4 acres), Sugarcane (20 acres), Paddy/ wheat seed (9 acres) production. 2. Rajesh Kumar Ranjan is producing organic vegetables in 1 ha. the income generated is 2 lakh/ annum.
Lac bangle making	Farmers	Sulekha kumari is trained on Soft toys making at Sadikpur Saraiya village and started by investing Rs 2500.00 at initial cost. Now she is getting Rs 8000.00 per month
Soft toys Making	Farmers	Mr. Shambhu Ram produces chicks in Ragunathpur village, saraiya block. He developed the poultry house of 360 sq. metre area and income raised from Rs. 75000to Rs.100000/annum by selling the produce.
Poultry farm	Farmers	1. Maharaja Paltry farm established by Mr. Vijay Shankar Kumar Raman produce chicks in Bakhara village. The income raised from Rs. 700000.00 to Rs.1000000/annum by selling the produce 2. Mr. Shambhu Ram produces chicks in Ragunathpur village, Saraiya block. He developed the poultry house of 360 sq. metre area and income raised from Rs. 75000to Rs.100000/annum by selling the produce.

Area/Field	Target group	Impact
Fish Culture	Farmers	1. Mr. Shivchandra from Jakra Sheik, Madwan, has developed a 0.32 ha fish Pond and produces 5q /annum. With the operating cost of 35000.00 he is generating a net income of 70000.00/annum 2. Mr. Vishwanath Kumar, has developed a 2 acre fish Pond and produces 50 q/annum. With the operating cost of 96000.00 he is generating a net income of 210000.00/annum. 3. Mr. Rakesh Kumar developed a Pond (1 acre) and produce Fish of 5q/annum. The income raised from Rs. 45000.00 to Rs. 85,000/annum by selling the produce. 4. Mr. Binod Kumar has developed 1 ha fish Pond and produces 2 0q /annum. With the operating cost of 60000.00 he is generating a net income of 200000.00/annum.
Mushroom cultivation	Rural youth	1. Mr.Sudhanshu Kumar has started oyster mushroom cultivation. He is producing 9 kg oyster mushroom from one kg spawn. He also started milky mushroom production. He has developed and innovative method of straw sterlization. 2. Manju Devi started oyster mushroom cultivation and Produces 5 kg oyster mushroom from one kg spawn. She has also started milky mushroom production. 3. Vikash kumar started mushroom spawn production and cultivation of mushroom .This activity has given him the economic boost up from Rs. 48000.00 to Rs. 200000.00 per annum. 4. Rural youth are trained on lac bangle making process at Manikpur village are started by investing Rs 4000.00 at initial cost. They are getting Rs 10000.00 per month

23. Capacity building of KVK Staff / Trainers:

Year	Number of staff trained	Area of training	Utilization of updated knowledge	Number of Workshops / Seminars attended:
2011-12	4	ICT, Food safety & security, Mushroom production, accountancy, Annual workshop and Zonal workshop of KVKs	By organizing Training, OFT,FLD,Kisan ghoshthi and also official work	6
2012-13	6	IPM on important crop, Management of soil health, Training on Agropedia &kvk, Seed Production, Managerial skill for KVK scientist, Recent advances in pulse and oil seed crops, biofertilizer production, Annual workshop and Zonal workshop of KVKs	-Do-	9

2013-14	7	Soil health assessment technique, Recent advances in tuber and millet crop, Orientation course, Mushroom Spawn Production, Mobile advisory innovative partnership programme, Protective cultivation of major vegetables in Muzaffarpur district, Advances in summer pulse crop, Annual workshop and Zonal workshop of KVKs	-Do-	9
2014-15	5	Recent innovation for improving nutrient use efficiency through integrated nutrient management in major field crop, Recent advancement in livestock and poultry , Commissionery level work shop on Rabi crop , State level work shop on establishment of I.Sc. school ,Zonal workshop of KVKs	-Do-	5
2015-16	4	Commisonary level workshop , District level work shop, Rabi mahotsava , Krishi yantrikaran mela ,Zonal workshop of KVKs, National workshop of KVKKs	-Do-	6
2016-17	10	Commissionary level rabi and kharif workshop , District level Kharif and rabi work shop , Block level kharif and rabi work shop, Scientist farmer interaction meet , Horti sangam , Worksop cum Seminar on organic farming , Draught campaign seminar on Resilient in agriculture,Zonal workshop of KVKs	-Do-	8
2017-18	15	Soil testing kit, Empowering rural youth for agri entrepreneurship, Statistical tools, NPS, Soil testing, Livelihood and Food security, Transforming of Ag. For farmers doubling, IFM, Model, Plant Disease detection, farm management, Soil health, Zonal workshop of KVKs, National workshop and video conferencing , Block level kharif and rabi work, District level Kharif and rabi work shop	-Do-	15
2018-19	9	Dhan ki kheti cum Krishi yantrikaran se samridhi, ASCI-ToT training programme, Marigold Cultivation, Orchard management, Preparation and dissemination of weather based Agro met advisories at block level Gramin Krishi Seva (GKMS), GeM Portal training, Advance technological intervention for resource poor farm management, Zonal workshop of KVKs, Block level kharif and rabi work, District level Kharif and rabi work shop, video conferencing	-Do-	12

24. Linkage establishment with other Govt. Department / NGOs

Establishment	Area of collaboration / interaction
Department of Agriculture Govt. of Bihar	• Identification of training needs. • Joint implementation of training programme, Diagnostic Team visits. • Identification of target groups.
Agricultural Technology Management Agency (ATMA) Muzaffarpur	• Sponsored Training Programme & Joint Implementation of Developmental Programme. • Preparation of SREP, Programme implementation.
Department of Horticulture govt. of Bihar	• Joint participation in meetings for NHM. • Joint implementation of training programme.
Word vision, Muzaffarpur (NGO)	Technical backstopping
IDF,Muzaffarpur(NGO)	Technical backstopping
NRC,litchi	Technical backstopping
CSRI,Motipur	Technical backstopping
JEEViKA	Technical backstopping
Sahgal Foundation	Technical backstopping
NHRDF,Patna	Technical backstopping
NABARD	Technical backstopping
VASFA, Vaishali	Technical backstopping
District Fishery Officer,Muzaffarpur	Technical backstopping
Director seed & farm, DRPCAU, Pusa	Seed purchase and sale

Department of soil science,College of agriculture, DRPCAU, Pusa	Technical backstopping
Department of plant pathology, College of agriculture, DRPCAU, Pusa	Technical backstopping
Department of food and nutrition, college of community science, DRPCAU, Pusa	Technical backstopping, Resource Person For Training
Department of post harvest technology , college of agriculture engineering	Technical backstopping
NHRDF, Patna	backstopping
College of fisheries, DRPCAU, Pusa	Fish seed supply

25. Revolving Fund Status (Rs. in lakh):

Activity	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
I	3.9	3.01	3.36	10.9	8.06	8.21	7.1	9.23	**53.8**

26. Resource generation (Rs. in lakh):

Activity	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
Training	2.25			2.65	2.68	4.66	2.55	0.8	16.04
Demonstration				1.0					**1**
Soil health management						1.25	0.86	16.8	**18.91**

27. Number of new crop varieties evaluated by the KVK scientists and identification of most suited one or two:

Crop/variety	Year of testing	Best suited varieties
Paddy a. Rajendra Bhagwati b. Rajendra sweta	2011-12	Rajendra Bhagwati
a. Madhudamini b. prateek	2018-19	Madhudamini
Green gram a. SML- 668 b. PUSA VISHAL c. Local Variety	2013-14	SML-668
Green gram a. SML- 668 b. HUM-16 c. P-1	2015-16	HUM-16

28. HD Supply of seed of new varieties (crop-wise) as sample pack, if any (Provide variety-wise list and name of beneficiaries)

new varieties	name of beneficiaries
Pusa vristi(Carrot) **Pusa chetaki(raddish)** **P.S (Brinjal)** **All Green (Spinach)** **P.E.B (Fenugreek)**	Ajay kumar
	Satish kumar
	Mahesh patel
	Shaliesh ojha
	Ashok singh
	Dinesh kumar
	Ramashankar singh
Pusa sugandha-16 (Paddy)	Satish Kr. Dwivedi
	Prabhat Kumar Dwivedi
	Ashok Kumar Dwivedi
Naveen (Bottle gourd)	Satish Kr. Dwivedi
	Prabhat Kumar Dwivedi
	Ashok Kumar Dwivedi
	Ramniranjan Prasad Dwivedi
	Rajmohan Dwivedi
	Vijay kr. Dwivedi
	Prayas Kr. Dwivedi
	Vinod Kr. Dwivedi
	Pramod Kr. Dwivedi
	Bikhari Rai
	Baidyanath Rai
	Bhajju Mahto
	Sanjeev Kumar
	Rajiv Kumar
	Nanadkishor Dwivedi
	Rajesh Kumar
	Vijay prakash

	Naval Kishor Thakur
	Saroj Kr.Thakur
	Rajendra sahni
	Mahesh sahni
	Anil Sahni
HD2967(Wheat)	Satish Kr. Drivedi
	Prabhat Kumar Drivedi
	Ashok Kumar Drivedi

29. Name 3 / 4 technologies (or more) that have created impact in sizable areas & made KVK credible

1. **Bee keeping**

KVK Saraiya, regularly organize sponsored training programmes of 5days duration mainly by JEEViKA, Muzaffarpur and Motihari to SHGs women. In each batch there were at least 30 participants and after completion of each training honey bee box was distributed among each participant so that they start honey bee production at their own farm in the supervision of KVK, Scientist. During QRT (2011-2019)period , KVK, Muzaffarpur has trained 249 women of SHGs of Saraiya block through training cum demonstration programme and 150 trainees adopted beekeeping in small unit starting with 10 boxes and getting 200 to 300 liter honey per year.They are earning Rs 45000-55000.00 annualy.

2. **Farm mechanization :**

i. Direct seeded Rice:

KVK, Muzaffarpur demonstrated paddy variety R. Bhagawati in area of 10 ha through Zero Tillage machine under direct seeded rice programme at adopted village Ramauli (Gaighat) and Mutlupur (Bandra),Bhatouna and Chainpur

(Madwan) Hariharpur (Saraiya) with production of 35-38 q/ha and minimize cost of cultivation up to Rs 4200/ha. Higher yield has been recorded in this programme by adoption of existing improved technology in draught situation. Ex-Vice Chancellor, RAU, Pusa and DAO, Pd.ATMA, Muzaffarpur etc. visited at demonstrate site and being pleased. By seeing the increasing of production and minimizing of cost of cultivation through this technology Dept. of

Agriculture and Govt. of Bihar implimented these programme in his action plan. . During year 2018-19 in muzaffarur disrict 1100 ha of land covered by this technology.

ii. Wheat sown within 1-10 Nov (Before the schedule time for early sowing) through Zero tillage machine.

During the year 2013-14 KVK, Muzaffarpur demonstrated wheat before the schedule time of sowing within 1-10 Nov in area of 25 ha through Zero Tillage machine in Saraiya, Katara, Paru, Machahi, Madwan block in collabrotion with CSISA project. And production was in cresses up to 15 to 20%. And minimize cost of cultivation up to Rs 3800/ha. Higher yield has been recorded in this programme (42-45q/ha) by adoption of existing improved technology. During the year 2018-19, 700 ha of land covered by this tehnology. Crop lodging problem found to be minimum than Rotavator seeding.

iii. Zero tillage wheat

During the year 2013-14 KVK, Muzaffarpur demonstrated wheat through Zero Till seed drill cum fertilizer machine at 10 ha of land Saraiya, Katara, Paru, Machahi, Madwan block. The production and cost of cultivation assesed 42 to 48 q/ha and Rs 3800/ha respectively. Higher yield has been recorded in this programme by adoption of existing improved technology. During the year 2018-19 aproximately 2500ha of land covered by this techonolgy.

2. Mushroom cultivation

Mushroom as landless cultivation is getting very popularlity among small and marginal farmers. During the QRT period KVK, Muzaffarpur trained 2044 Farmers & farm women,rural youth of surrounding blocks (Saraiya, Paru, Madwan, Motipur,etc) through training cum demonstration programme .Out of these beneficiaries 104 adopted Oyster mushroom cultivation. They are getting Rs 4000.00 - 5000.00 each month as additionalreturn from 10 sq ft. of land.Approximetaly 15 farmers are also engaged in making value added product from mushroom like: Bhujia, Papad, Pickles Sukhauta, Soup powder etc in Kothia Village. A enterprises **Dhanvarsha sabji utpadan hitarth group**, Village Kothia, Block: Kanti, Muzaffarpur &**Kisan Chachi,** Anandpur, Saraiya,Vikash Kumar,Bhagwatpur,Saraiya, Jaisheela Devi,Basochak,Saraiya Muzaffarpur are successfully producing value added product of mushroom like Bhujia, Papad, Pickles Sukhauta, Soup powder etc and and selling it in local as well as out of the state market. These groups were

earning Rs 10,000-15000.00 per month.During the year 2016-17 KVK, Saraiya developed 3 entrerprenure, and one for mushroom spawn production **(Mr. Vikash Kumar famous as Mushroom boys)**.Mr. Mritunjay Kumar and Mr. Anil Kumar associated for mushroom cultivation. And also developed retail marketing by developing seven small entrepreneurs at local rural market through which selling 50 kgs fresh oyster mushroom per day.Now Button mushroom cultivation started by 3 entreprenure.

3. Vericomposting

KVK, Muzaffarpur organizes regular training and trained rural youth and farmers & farm women, and also in collbroation with several NGOs likeWorld Vision. Farmers and farm women adopted Vermicompost production by developing pucca vermi bed having capacity of 10q/bed and getting/saving Rs. 60000.00-70000.00 annually. They are using vermicompost in their own farm &saving 25-35 percent chemical fertilizer they are also improving the fertility status of the soil. Organically produced vegetable are giving 20-25 percent additional price as compare to traditionally one. The technique has been promoted under KKA-I and KKA-II through the construction of pits in 50 aspirational villages.

4. Soil testing

KVK, Muzaffarpur orgainised regular trainings and trained rural youth and farmers and farm wonen well trained for soil testing of soil. From 2011-2019, through soil testing laboratory at KVK, Saraiya 5146 soil samples were analyzed and soil health card was distribuited among the 5118 farmers villages were benefitted.

5. Income generating activity for rural women through Lac bangle making –

Rural youth are trained on lac bangle making process and out of 51 trainees 2 of them of Manikpur village are started by investing Rs 4000.00 at initial cost. They are getting Rs 10000.00 each month in addition to doing their household work. By investing Rs. 2000.00 at each week they are getting approximately 4000.00 per week as gross income.

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6. Improved varieties

a) **Rajendra bhagwati:** This is a short duration variety popularized among the farmers through OFT and FLD. Presently it is covering the area of 2000ha among approximately 5200-5500 farmers.

b) **R. Neelum:** This is a short duration aerobic paddy variety popularized among the farmers through FLD and CSISA. Presently it is covering the area of 250ha among approximately 300 farmers.

c) **R. suflam:** It is a high yielding truthful seed popurised among the farmers through OFT and FLD programmes.62% of the farmers are cultivating this technology in the district.

d) **HD 2967: due to its good yield and quality of straw farmers of the district adopted this technology** covering the area of 5000ha among approximately 7000 farmers.

30. Impact assessment made so far by any dependable agency:

(Submit brief report with remarks under quote)

1) ARS: In 2015-16, 7 ARS scientists have been trained under Field experience training (FET) of NAARM, Hyderabad.According to them, KVK has fully supported in PRA progamme in Mutlupur village and coordinated in report writing, organizing kisan ghosti. Finally we have analyzed the gap in production &productivity of crops, migration of labour etc.

2) RAWE: During QRT period,a total of 69 students(6 batches) of 8th semester B.Sc Ag. students of TCA, Dholi were guided by KVK, Saraiya .During this programme all the SMS& head cordially supported and guided in village survey, report writing etc.

3) World Vision: According to World Vision, different scientists are supporting their working among the farmer in their target village in areas of zero tillage, vermicomposting, mushroom cultivation, soil testing technology, plant disease treatment ande selection of improved variety for farmers.

4) ATMA, Muzaffarpur: According to the impact assessment made by ATMA , Muzaffarpur, many farmers have started their entrepneurship in different fields such as organic farming, vegetable production, mushroom cultivation., value addition etc after taking training from KVK, Muzaffarpur.Master trainer developed by the KVK are being used by Jeevika, ATMA and other agencies as a resource person.KVK, Saraiya assistd in different activites in our cooloboration like DEASI Programme, Farmer field school, Making SHGs , FIGs and FPOs.KVK, also helop as a resource person in organizing and District and block level Kharif and Rabi workshop. It also acts as supporting system in programme planning like SREP Prepartaion.

5) Jeevika, Muzaffarpur: According to the impact assessment made by Jeevika, Muzaffarpur, many poor rural SHGs women have started their entrepneurship through beekeeping after taking the by residential training . It has also provided support in demonstration, block level training extension functionaries and Training on new technologies like organic farming, vegetable production, and mushroom cultivation. value addition, zero tillage etc among poor people of the village.

6) DHO, Muzaffarpur: According to the impact assessment made by DHO, Muzaffarpur, from last 2 years, we have provided musgroom kits to those farmers/farm women, who hav taken training on mushroom cultivation from KVK, Saraiya . Under KKA I,II Phase , kvk gave technical knowledge on plantation of fruit crops and their distribution.

7) PPO, Muzaffarpur: According to the impact assessment made by JDA,Plant protection, Tirhut Parmandal, Muzaffarpur KVK Helped in trining to master trainer for operation of FFS, Diagonstic visit and field survey. In 2014, outbreak of Army worm in maize crop was being controlled with help of advisories given by KVK scientist on the basis of field visit.In 2018, outbreak of Red banded cattlepillar in mango was being controlled with help of KVK scientist. One of the plant protection scientist of KVK is the committee member on Insect pest and disease management in the district.

31. New Initiative, if any

With the vision of doubling farmers' income by 2022 Government of India launched the Krishi kalyan Abhiyaan(KKA) in two phases KKA-I (1st June, 2018 till 31st July, 2018) and KKA-II(2 October, 2018 till 25 december, 2018) so as to aid, assist and advice farmers on how to improve their farming techniques and raise their incomes. The Krishi kalyan Abhiyaan will be undertaken in 50 Villages with more than 1000 population each in Aspirational Districts identified in consultation with Ministry of Rural Development as per directions of NITI Ayog. The following initiatives were taken by KVK under the two phases:

A. KKA –Phase I

Programmes	**No**	**Beneficiaries**
Training	123	4842
Planting material	12500	3876
No. of animal vaccinated	9567	3362
Distribution of seeds	203	3876
NADEP/ Vermi compost unit	94	94
Soil Health card distributed	4981	4981
Farm implement distributed	00	00

B. KKA- Phase-II:

Programmes	**No.**	**Beneficiaries/animal**
Training	89	3038
Planting material	00	00
No. of animal vaccinated	9308	5485
Distribution of seeds	48	1204
NADEP/ Vermi compost unit	420	420
Soil health card	5647	5647
Farm implement	490	490

C. Cereal Systems Initiative for South Asia (CSISA)

The Cereal Systems Initiative for South Asia (CSISA) demonstrated and refined the internationally accepted technologies in the local level through OFT programmes in the farmer's field. In this regard, KVK, Saraiya demonstrated through trials in Muzaffarpur district since 2016-17 and the following technologies has been popularized among farmers.

Kharif		
Experiment	**Replications**	**Area covered (Acre)**
Improving rice- Wheat cropping system (RWCS) productivity using different crop establishment methods.	16	5
Combative performance of rice establishment methods in different ecologies of Bihar (Muzaffarpur).	6	2
Effects of delayed transplanting on the growth and the yield of rice.	8	2
Impact of age of rice nursery on the growth and yield of transplanted rice rationale	5	2
Developing entrepreneurship on rice nursery marketing.	10	5
Effect of critical irrigation on the yield of rice.	10	5
Performance of conventional till DSR with and without pre-sowing irrigation.	6	2
Weed Management in direct seeded rice dominated *Cyperusrotundus*based mixed weed flora.	10	2
Rabi		
Performance of short duration (SDVs) and long duration varieties (LDVs) under different sowing schedules across ecologies.	10	5
Assessing the role of additional irrigation during terminal heat stress period during grain filling stage to beat the heat stress and its effect on wheat productivity.	10	5
Response of wheat to Phosphorus applied in both rice & wheat and only in wheat in rice-wheat rotation	10	5
Impact of herbicide application technology on the performance of herbicide in wheat HD2967.	10	5

Boron deficiency induced sterility in wheat and its effect on the yield and yield attributes of wheat.	10	5
Quantifying the grain in wheat productivity throughzero- tillage mediated advance sowing of wheat.	10	5
Residue management in rice –wheat system.	10	5

Open Data Kit (ODK) Survey programmes:During the year 2018-19, paddy and wheat **cultiavtaion practices and soil analysis was conducted among 210 farmers of 30 villages .**

Cluster front Line Demonstration (CFLD)

The CFLD programme was initiated to boost the production of pulses and oilseed in the country by demonstrating the technologies among farmers in clusters (10 ha). KVK, Saraiya initiated the programme from 2015-16 covering 901 farmers and 345 ha area of the district.

Variety demonstrated	Technology demonstrated	Number of farmers	Area (ha)
Green gram	SML-668INM&IPM	35	20
mustard	R.suflam	76	40
Lentil	L-4594	44	24
Field pea	IPFDI-10	112	30
Lentil	Azad Alsi-1INM&IPM	97	20
lentil	HUL-57+INM andIPM	97	40
Green gram	NP-1	15	1
Green gram	Local/HUM-16/Sona/pusa vishal	35	20
Sesamum	Local & kalika	51	20
Green gram	IPM-02-03, SOIL TEST ,INM,IPM	57	20
Soybean	Krishna	35	10
Sesamum	Krishna	21	10
Lentil	HUL-57 +INM&IPM	25	10
Rapeseed & Mustard	R.Suflam	126	50
Red gram	LRG-41	27	10
Lentil	KLS-218 & HUL-57INM & IPM	20	10
Chick pea	GNG-1581	28	10

IV. MSTL VAN KVK, Muzaffarpur received the MSTL van in 2017-18 in order to provide mobile soil testing services to farmers of the district. The mobile lab has facilities of micronutrient testing providing wider knowledge in soil nutrient status thus, benefitting the farmers.

Inputs	**2018-19**
Soil Samples tested	341
Soil Health Card issued	341
No of Farmers benefitted	341

I. **ASCI :** The 200 hr skill development training was initiated at KVK, Muzaffarpur in 2018-19 for mango and mushroom growers. After the successful completion of the programme maximum no. of the trainees took up the activity as successful entrepneurs.

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**
2018-19	Job role for mushroom grower	Mr. Hemchandra Choudhary	7.01 2019	19.02.2019	19
2018-19	Job role for mango grower	Dr. A.K.Singh	17.01.2019	21.02.2019	20

VI. DAMU: In order to provide panchayati level agrometrological advisory, the project is allotted to KVK, Saraiya**.**The work is under progress**.**

VII. GeM Portal: From 2018-19, the purchasing of all permanent articles is done through GeM portal.

VIII. Promotion of vermicomposting: KVK, Saraiya trained 150 farmers of Madwan block under vermicomposting. Under the supervision **of** KVK scientist, 150 vermicompost units were established in collaboration with World vision, ADP Muzaffarpur.

IX. **Value addition of button mushroom** in form of mushroom sauce, candy and murabba . mushroom was also preserved by drying after blanching and presoaking in solution of potassium meta bisulphate. The product was demonstrated at ASCI mushroom grower programme and displayed in Pre-Rabi sammelan exhibition.

32. Other Programmes (not covered in the format) conducted:

1. **Mass multiplication of *Trichoderma viridi*,** Trichoderma is not easily available in Muzaffarpur districtand and expire soon. In such condition it is multiplied by farmers with the technical support provided by KVK scientist at Bhagwatpur village of Madwan Block.

2. **KVK, Saraiya initiating awareness training programme in the field of agriculture among school going children**, At Middle and High school of Turkey, Saraiya, Aropur village students are tought about importance of agriculture and their scope in Govt. and Pvt.job.

3. **Centre also organized Pre Kharif and pre Rabi Kisan Sammelan**.

4. **Transfer of technology in sansad adarsh gram**, FLD, training, Kisan ghosthi, Field visit etc are regularly conducted in the sansad adopted village Ghosaut (Minapur) and Yajuar(Katra).




5. postal village programme

Trasfer of Agriculture technology in postal village, Sakari chandpura and Ghosaut identified as Postal village and in these village Paddy, Bottlegourd, Wheat, mustard seed is distributed among the farmer. Seeds are provided by ICAR, New Delhi.





6. Swachchta Pakhwara:

KVK Saraiya organizes Swacchata Pakhwara from 2015 till date from 17 September to 2nd October every year at different villages, school, tourist places, public places in the vicinity of

Participation of KVK Scientist and staff for cleaning the *main road* linked to KVK campus on 24th Sept. 2017

On the eve of Mahatma Gandhi Jayanti Swachhta Pakhwada celebrated at Mahdalit Tola, Village Karihar, Saraiya. Training and other cleaning activities were conducted.

KVK, Saraiya to create awareness about the importance of cleanliness through cleaning programmes, debates in schools and painting competition.

7. Mahila Kisan Diwas

KVK Saraiya organizes **Mahila Kisan Diwas** at KVK Saraiya on Every yer of 15 Oct. in which. During this programme KVK Saraiya awarded to the Progressive farmer and farm women for their contribution in agriculture, and also debate, painting

3. World Soil Day:

World soil day celebrated every year on 5th Dec at KVK campus in which 100 to 200 Soil health card was also distributed among the farmers and farm women.

Hon'ble MLA Sri Ashok Kumar Singh Distributing Soil Health Card to the farmers

8. Different trial organized at KVK Saraiya.

i. KVK saraiya State level varietal trail on Lentil and Chick pea at KVK farm

ii. NOPT Trial (2014)

NOPT trial at KVK,Saraiya

iii.Promotion of sweet corm in Muzaffarpur disrict:

iv. Biofortified trial of Paddy

v. Varietal trial of paddy (Direct seeded Rice)

vi. Biofortified trial of Wheat

6. **KVK saraiya, Muzaffarpur participated in Jhanki programme at RAU, Pusa on occasion of 26 January 2014**

7. KVK saraiya, Muzaffarpur participated in Kisan Mela every year organized by DRPCAU, Pusa, Samastipur

8.KVK SaraiyaJay organized every year Jay Kisan Jay Vigyan Diwas

9. **Guided 8th semester RAWE Student (4 Month) ech and every year.**


10. **Guided FET trainees of ARS Student of NARM Hyderabad (21 days/2015)**


11. **Organized PPV and FRA training**

12. **KVK saraiya organized world environmental day each and every year.**


13. Organized group D employee training in collaboration with DRPCAU,Pusa,Samastipur

14. Organized Crop Seminar in collaboration with CSISA project and DD, Muzaffarpur.

15. Organized Neera Awariness programme in collaboration with JEEViKA,Muzaffarpur.

16. KVK Saraiya Muzaffarpur organized Kisan Pathshal sponsored by ATMA, Muzaffarpur on Paddy Crop.

17. **LIVE telecast of Hon'ble PMs Speech**: The KVK has organized to live telecast of Honb'le Prime minister on the eve of foundation day of ICAR and national conference of KVKs on 17.03.2018 at KVK Saraiya. For the above purpose about 1000 farmers were assembled at KVK Muzaffarpur to hear and see the all ongoing new technologies in the field of agriclture and allied sector.


18. KVK Saraiya organized World Yoga Diwas at KVK Saraiya from 2016 onwards.

19. **KVK saraiya Exihibit the models related to Agriculture and allied sector in Kisan mela of different places.**


20. KVK has also facilitated in conducting exposure visit of the progressive farmers in different reputed institute/field/programme under different scheme.

21. KVK Saraiya participated in Bihar Kisan Sashaktikaran Maha Abhiyan at Amrapali auditorium, Muzafafrpur on 16.11.2017 and set up stall on organic farming cum mushroom cultivation organized by Bhramakumari's along with 68 farmers and all KVK Staff. Also organized awareness programme on Yougik Kheti at KVK, Saraiya in collaboration with Brahmakumri's at KVK Saraiya, Muzaffarpur on 22.11.2017 Among them 68 participants were participated.

22. Sankalp Se Siddhi Programme KVK saraiya muzaffarpur organized Sankalp Se Siddhi Programme on 10.09.2018 at CSRI, Motipur. In collaboration with Regional sugarcane research centre Motipur, ATMA Muzaffarpur, CIFE Mumbai. Hon'ble Agriculture and farmers welfare minister, Govt. of India acting as chief guest in this programme. In this programme State minister Gov. of Bihar, local MPs, MLAs, DEE and Nodal Officer, Dr, R.P.C.A.U,Pusa , Officers of allied sector also helping in facilitating this programme. Among them more than 1500 participants were participated.

23. KVK Saraiya organized Pradhanmantri Fasal Beema yojana

24. KVK Saraiya organized 200hrs of Mango grower and Mushroom grower training programme during 2018-19

33. Details of awards / prize received by the KVK, if any

1) BEST KVK AWARD, 2017

KVK Saraiya receivedBest KVK award 2017 on the occasion on 70th Republic day by Hon'ble Vice Chancellor, and Director of Extension Education Dr.R.P.C.A.U. Pusa, Samastipur at Dr.R.P.C.A.U. Pusa, Samastipur

Best KVK award 2017 received by PC, KVK, Saraiya by Hon'ble Vice chancellor, Dr. RPCAU,

BROAD BASING OF FRONT LINE EXTENSION (2011-12 to 2018-19)

(Nos.)

Sl.	Item	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
1	A.I. cases								18875	18875
2	Animal health care provided						18	15		33
3	Poultries introduction	15				21				36
4	Piggery/ rabbitory introduction									0
5	Planting material /seedlings produced and distributed						259	180	394	833
6	Fodder and grass introduction, ha									0
7	Trees introduction(no.)			25	25	100	50	12500		12700
8	Wasteland development plan prepared									0
9	Watershed development									0
10	Consultancy on soil analysis and topographic survey	30		719	516	158	914	704	1503	4544
11	Consultancy on land use planning and cropping pattern	20	118	248	280	207	20	54	176	1123
12	Improved hand tools and implements introduced								10	10
13	Fishery demonstrations								50	50

34 . Extension Activities Undertaken
(Last 8 years) (Numbers)

S.N.	Activity	I (2011-12)	II (2012-13)	III (2013-14)	IV (2014-15)	V (2015-16)	VI (2016-17)	VII (2017-18)	VIII (2018-19)	Total
1.	Field Days	02	02	04	05	08	10	10	10	51
2.	Agril. Exhibition	06			01				04	11
3.	Farmers' Fairs	05	03	01	02	01	01	03	03	19
4.	Radio Talk						1		01	2
5.	TV show	12	12	11	09	07	13	12	07	83
6.	Film show	00					1	1	6	8
7.	Training materials produced (a) Pamphlets (b) Video-cassette/ CD (c) Slides		03	03	06	10	03	02	04	31
8.	Farm Science Club organized			01						1
9.	*Mahila Mandals* Organized	15								15
10	Extension Training meetings organized			02						2
11	i.Kisan Ghosthi	14	02	02	10	02	03	01	32	66
	ii.Farmers Seminar	1	01	04	04					10
	iii.Lectures delivered as resource persons	43	40	50	45			21	55	254
	iv.Newspaper coverage	71	80	69	74	59	47	40	38	478
	v.Popular articles	03							3	6
	vi.Advisory Services	586	479	612	687	665	1057	1050		5136
	vii.Scientific visit to farmers field	89	107	150	141	311	521	1179	556	3054
	viii.Farmers visit to KVK	1061	875	559	592	665	745	1050	784	6331
	ix.Diagnostic visits	184	101	219	255	99	183	82	150	1273
	x.Exposure visits	06						04	06	16

	xi.Animal Health Camp			01			01	01		3
	xii.Soil test campaigns	01		02			01	01	01	6
	xiii.Self Help Group Conveners meetings	00								0
	xiv.Celebration of important days (specify)			01			02	01	04	8
	xv.Farmers'-Scientists' Interaction	1	1	1	1	1	1	1	1	8
	xvi.Technology week									0
	Xvii. Method demonstration			03			03	07	07	20
	xviii.Exposure visit				05		05			10
	xiv. Swacchata pakhwara						06	15	15	36
	xv. Crop seminar						01			1
	xx. Awareness programme	6	5	8	12	9	16	16	15	87
	xxi.Video conferencing						01	1	2	4
	xxii.Sankalp se siddhi						01			1
	xxiii. Mobile advisory services								1170	1170
	xxiv. Pesticides dealer meet								1	1

35. Publications made during the QRT period:

Type of Publication	Title and publishers/Journal/Magazine
Research article :	1. Soil Fertility Status in Kurhani Block of Muzaffarpur district of Bihar 2. Chemical Characteristics and micro nutrients status of soil in Minapur block, Muzaffarpur district of north Bihar 3. Study of Food Pattern (Previous and Current Practices) During Pregnancy and Lactation in Kumaon Region of Uttarakhand. Volume 12(4): 434-438,2017 4. Study of Breast Feeding Practices Prelacteal Feeds and Introduction of Weaning Foods to the Infants in Kumaon Region of Uttarakhand. Volume 12(4): 502-504,2017 5. Study the Consumption Pattern of Milk and Milk Products along with Animal Foods in Kumaon Region of aUttarakhand. 6. Productivity and Profitability of wheat (*Triticum aestivum*) as influenced by weed

	management practices under irrigated condition(2018) 7. Effect of sulpher levels on mustard (*Brassica juncea* L.) yield in Muzaffarpur district of Bihar. (2017) 8. Effect of brown manuring on growth and yield of rice (Oryza sativa L.) in rice-wheat cropping system in east Champaran-Bihar (2017). 9. Effect of Fe and Zn along with various sources and rate of NPK on performance of paddy cultivation under aerobic conditions (2018) 10. Productivity and Profitability of Wheat (*Triticum aestivum*) as influenced by Weed Management Practices under Irrigated Condition. 11. Study the consumption pattern of milk & Milk production alon with Animal food in kumaon resion of uttarakhand India 12. Assessment of genetic fidelity of bottle gourd using RAPD marker. 13. Hetrosis study in bitter gourd for soilness & qualitative traits 14. Genetic competition of lentil genotypes in different environmental condition. 15. Comparative Study Of Different Models For Soil Erosion And Sediment Yield In Pairi Watershed, Chhattisgarh, India 16. Correlation matrix study in bitter gourd for qualitative and quantitative trails. 17. Study on storage loss of oyster mushroom during the summer season 18. Evaluation of soil fertility status in Kanti block under Muzaffarpur district of north Bihar. 19. Nutrient management in Maize (Zea Mays L.) through varying NP and biofertilizer
Popular article	Vysvsaik bakri palan, Usar bhoomi me baagbani, Green manuring , Aam ka gamosis rog Ek ubharti samasya, Innovative and successful farmers on RCT Techniques, Jaivik kheti Ki abdharnayen awan Uddeshya
Electronic media	IPM in Mustard, IPM in Paddy,Cultivation of Babby corm and its marketing, Soil testing and nutrient management, climate change and its effect in agriculture, Mushroom cultivation,Ragi cultivation its management, Scientific cultivation of summer green gram, Scientific cultivation of Arhar, Cultivation of wheat through SWI method, Plant propagation of Mango, Litchi and Citrus,irrigation fertilization and weed managemenrt in wheat, Oilseeds cultivation, Papaya ki unnat kheti etc.
Extension Literature :	Kisan Samachar, Sabjiyon ki sanrakshit Kheti, Phoolon ki sanrakhit Kheti, Vermi compost and vermiwash production, Gehun ki beej utpadan taknik, Dhan Mein sam,ekit kit awan rog prabandhan, Dhan phasal ko jibanu janit uktha rog se bachjayen, Mitti janch kab kyon aur kaise, Jiro tillage machine se Karen gehun ki buai, Moong ka Samekit prabandhan, Pradhanmantri fasal beema yojana, Pashuon mein poshak tatwon ka mahatwa, Sankalp se siddhi , Mushroom ke paushtik awan aushadhiye gun
Reports published in ICAR Reporters	Annual zonal reports (2011-19). Success stories (2011-19)
Book chapter	Jaivik Kheti, Kal Ki Asha, Success story, A role model farmer for adoption of IFS by KVK, Rashtriya Krishi Vol:12(2), Dec 2017-181, 186
Electronic publication	Effect on climate change on Livestock and its amelioration.extncon 2017

Final considered views: In your perceived opinion, Please enlist 5 points in order of merit that your KVK have performance far better if (within 250 words)

1) **Bugdet provision should be increased.**
2) **Two permanent labour is essential for development of farm and beutification of campus.**
3) **Lack of infrastructure facility such as staff quarters, renovation of Kisan ghar, administrative building and processing unit for fruit and vegetables.**
4) **A lot of activites other than mandated work by KVK but never acknowledged.**
5) **Each and every SMS should be given exposure visit in foreign countries for capacity building in recent advances in technology.**

Annexure I

STATUS OF RESEARCH – EXTENSION LINKAGES AT THE DISTRICT LEVEL

i. What kind of mechanism exists for local coordination of the front line extension demonstration between the KVKs and the State Govt.

The local coordination of the front line extension demonstration between the KVKs and the State Govt exist through several set of linkages that includes Agricultural extension officers that wotk at block and panchayat levels. They are trained as extensional personnel in on and off campus trainings at various occasions on the several new technologies, methods so that they can be extended to the grassroot level. The Agricultural extension officer's presence in off campus trainings, diagnosis, demonstrations, meetings, important days celebration and field day plays an important role in ushering the benefites to the farmers.

Participation as resource persons in several programmes of State government such as rabi sammelan, kharif sammelan , crop seminar at block and district level further strengthen the local coordination. Digonstic visits and field visit with line departments helps in local coordination of the front line extension demonstration

ii. What is the frequency of Scientific Advisory Committee Meeting for KVK during last 8 years?

One Scientific Advisory Committee Meeting for KVK had been conducted every year in the duration of last 8 years**.**

iii. No. of monthly workshops organized

The monthly meeting /workshops held on 1st Friday of every month at DRPCAU,Pusa is participated by the senior scientist & head. While the monthly meeting at KVK campus is organized on 2nd Monday of every month to brief the discussions in the meeting and directions for future actions to be taken.

iv. Frequency and no. of staff participated in seminars at Zonal, State and National level.

Particulars	Frequency	no. of staff
Zonal level workshop/seminar attended	9	11
National level workshop/seminar :	18	22
State level workshop/seminar	52	65

- **Whether the local NGO's are involved in KVKsprogrammes**

Sl. No.	Name of organization	Nature of linkage
1.	Center Direct (NGO)	Demonstration Trial and other Extension activities, Training
2.	Consultancy guidance center Bania (NGO)	Demonstration Trials and other Extension activities, Training.
3.	JEEVIKA,	Transfer of technology, Training

	Muzaffarpur,Motihari,Saran	
4.	World Vision	Transfer of technology, Training
5.	IDF, Muzaffarpur	Transfer of technology on climate resilient agriculture
6.	Sehegal foundation	Transfer of technology, Training

v. Whether the FPO are promoted and become visible in their activities

Yes, FPO are promoted and are visible in their activities such as vermicomposting, mushroom production, technical backstopping, scienific advisories, crop production .

i. Climate resilient agriculture farmers producers company: Karja Anant, Madwan.
ii. Jyoti Farmers Producers Company Ltd.,Fanda, Madwan.
iii. Sarvoday Sabji utpadak producer Company Ltd., Anjanakot, Motipur.

vi. Whether the local Mahila Mandal or Farm Science clubs are promoted and become visible in their activities

Yes, local Mahila Mandal or Farm Science clubs are promoted and are visible in their activities such as vermicomposting, mushroom production.

vii. A brief about the extent of contribution of the officials of various line departments and joint programmes undertaken.

Sl. No.	Name of organization	Nature of linkage
1	Department of Agriculture Govt. of Bihar	Identification of training needs Joint implementation of training programme Diagnostic Team visits Identification of target groups
2	Agricultural Technology Management Agency (ATMA) Muzaffarpur	Sponsored Training Programme & Joint Implementation of Developmental Programme Preparation of SREP, Programme implementation
3	Department of Horticulture govt. of Bihar	Joint participation in meetings for NHM Joint implementation of training programme
4	Center Direct (NGO)	Demonstration Trails and other Extension activities, Training
5	Consultancy guidance center Bania (NGO)	Demonstration Trials and other Extension activities, Training.
6	All departments of R.A.U., Pusa	Technical Guidance on Training and other Extension activities.
7	National Research centre on Litchi	For training & demonstration.
8	IFFCO, Muzaffarpur	For training & Transfer of Technology
9	NFL, Muzaffarpur	Demonstration, trial and training
10	BAMETI, Patna	Transfer of technology
11	NABARD	Transfer of technology for farmers club and SHG

12	JIVEEKA and World Vision	Transfer of technology
13	Worl Vision	Transfer of technology, Training

Annexure II

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

Sl. No	Item	Unit	Prior to KVK	Post KVK activities
1.	Change in cropping intensity Pl Add more if required	(%)	125	135
2.	Change in productivity of 1.Paddy 2. Rabi Maize 3. Wheat 4.Lentil 5. Green gram 6. Mustard Pl Add more if required	(kg/ha)	 1800.00 1890.00 2099.00 719.00 750.00 750.00	 2300.0 3011.00 3340.00 824.00 894.00 1867.00
3.	Use of HYV (high-yielding varieties) 1.Paddy 2.Wheat 3.Maize 4. Lentil 5.Green gram 6.Mustard Pl Add more if required	(%)	 12 32 7 11 08 10	 42 62 18 22 20 52
4.	Use of fertilizers (NPK) (nutrient) 1.Paddy 2.Wheat 3.Maize 4. Lentil 5.Green gram 6.Mustard etc Pl Add more if required	(kg/ha)	 110:40:20 100:40:20 150:75:50 0:20:00:0 0:0:0 40:40:20	 130:50:30 120:50:40 150:75:50 20:40:0:20 20:40:0:20 80:60:40
5.	Use of FYM and other biofertilizers 1. Paddy 2.Wheat 3.Maize 4. Lentil 5.Green gram 6.Mustard	(kg/ha)	 500 000 000 000 000 000	 1000 000 000 000 000 000

6.	Tractor/machinery	(No)	7	22
7.	Change in economic indicators (in adopted villages) (a) Net return/ha/yr (by crop/enterprise) 1. Paddy 2.Wheat 3. Maize 4. Lentil 5.Green gram 6. Mustard	(No 5) Rs.	 6000.00 8000.00 12000.00 12000.00 14000.00 12000.00	 10000.00 14000.00 18000.00 14000.00 16000.00 18000.00

Anupma kumari

Signature of Head of the KVK
KVK, Saraiya Muzaffarpur