

# **KRISHI VIGYAN KENDRA, MANJHI SARAN - 841313 (BIHAR)**

## **ACTION PLAN**

*(April 2018 to March 2019)*



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**DR. RAJENDRA PRASAD CENTRAL AGRICULTURAL  
UNIVERSITY, BIHAR PUSA (SAMASTIPUR)**

## Action Plan 2018-19

1. Name of the KVK : Krishi Vigyan Kend ra, Manjhi, Saran
2. Name of host organization : Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar
3. Training programme to be organized (April 2018 to March 2019)

### (a) Farmers and farm women

Month	Discipline	Thematic area	Course title	No.of courses	Duration/ days	Venue	Beneficiaries					
							SC		Others		Total	
							M	F	M	F	M	F
April-18	Soil Science	Soil properties	Soil properties and their management	2	2	On/Off	5	0	25	0	30	0
	Agronomy	Organic farming	Importance of green manuring	1	1	On/Off	5	0	25	0	30	0
		Integrated crop management	Scientific cultivation of sunflower	1	1	On/Off	5	0	25	0	30	0
			Scientific cultivation of sesame (Til)	1	1	On/Off	5	0	25	0	30	0
	Plant protection	IPM/IDM	Management of inset-pest and disease of summer vegetable crop	2	1	On/Off	6	2	28	4	34	6
May-18	Agronomy	Seed production	Techniques of rice seed production	1	1	On/Off	5	0	25	0	30	0
		Nursery management	Nursery preparation for transplanted paddy in traditional and SRI methods	1	1	On/Off	5	0	25	0	30	0
	Soil Science	Soil testing	Soil sampling technique and fertilizer recommendation	2	2	On/Off	5	0	25	0	30	0
	Plant protection	Integrated Insects and disease management	Disease management in Green gram.	2	1	On/Off	8	2	24	6	32	8

June-18	Agronomy	Crop production	Rice cultivation through SRI	1	1	On/Off	5	0	25	0	30	0
		RCTs	Techniques for direct sown paddy	1	1	On/Off	5	0	25	0	30	0
	Soil Science	Problematic soil	Management of saline/alkali, Calcareous and waterlogged soil	2	2	On/Off	5	0	25	0	30	0
	Plant protection	Integrated pest management	Management of insect pest and disease of mango fruit.	2	1	On/Off	6	4	24	6	30	10
July-18	Agronomy	Integrated crop management	Package and practices of kharif and pre rabi red gram	1	1	On/Off	5	0	25	0	30	0
		Seed production	Seed production techniques of pulse crop	1	1	On/Off	5	0	25	0	30	0
	Soil Science	Plant nutrients	Importance and role of plant nutrients	2	2	On/Off	5	0	25	0	30	0
	Plant protection	Integrated pest management	Management of insects and pests of Maize	1	1	On/Off	2	1	16	1	18	2
			Management of insects and pests of Paddy	1	1	On/Off	3	1	14	2	17	3
Aug.-18	Agronomy	Crop diversification	Cultivation of catch crop/contingent crop	1	1	On/Off	5	0	25	0	30	0
	Horticulture	Protected cultivation	Protected cultivation of winter season vegetable	1	1	On/Off	5	0	25	0	30	0
	Soil Science	Deficiency of nutrients	Diagnosis of nutrient deficiency and their management	2	1	On/Off	5	0	25	0	30	0
	Plant protection	Integrated pest management	Management of Khaira disease in paddy	2	1	On/Off	4	3	26	7	30	10
Sept-18	Soil Science	Production and use of organic sources	Production and use of manures, compost and vermicompost	1	1	On/Off	5	0	25	0	30	0

		Nutrient management	Importance of sulfur in oil seed and pulses crop	1	1	On/Off	5	0	25	0	30	0
	Agronomy	Crop production	Cultivation of <i>pre rabi</i> pigeon pea	1	1	On/Off	5	0	25	0	30	0
		Farm Mechanization	Popularizing farm mechanization for enhance productivity	1	1	On/Off	5	0	25	0	30	0
		Integrated nutrient management (INM)	INM in rape seed and mustard	1	1	On/Off	5	0	25	0	30	0
	Plant protection	IDM	Disease management of Paddy	3	1	On/Off	8	6	42	4	50	10
Oct-18	Soil Science	Organic sources of nutrients	Production, use and importance of Azolla in crop and milk production	2	1	On/Off	5	0	25	0	30	0
	Agronomy	Seed treatment	Seed treatment in pulse crops	1	1	On/Off	5	0	25	0	30	0
		Integrated crop management	Package and practices for cultivation of rape seed, mustard and late mustard	1	1	On/Off	5	0	25	0	30	0
	Horticulture	Management of young plants/ orchards	Periodical management of mango orchard	1	1	On/Off	5	0	25	0	30	0
	Plant protection	Integrated pest management	Integrated pest management in oilseed crop	2	3	On/Off	5	0	25	0	30	0
		Mushroom production	Mushroom production	1	3	On/Off	5	0	25	0	30	0
Nov.18	Agronomy	Crop Production	Water & weed Management in <i>rabi</i> crops	1	2	On/Off	5	0	25	0	30	0
		RCTs	Use of zero tillage machine in sowing of different <i>rabi</i> crop	1	1	On/Off	5	0	25	0	30	0
	Horticulture	Protective cultivation	Commercial cultivation of	1	1	On/Off	5	0	25	0	30	0

			summer vegetable									
	Soil Science	Biofertilizers	Use of biofertilizers in crops	1	1	On/Off	5	0	25	0	30	0
	Plant protection	IPM	Seed treatment in rabi pulse crop	1	3	On/Off	5	0	25	0	30	0
			Integrated pest management in potato.	1	3	On/Off	5	0	25	0	30	0
		Mushroom cultivation	Mushroom cultivation and marketing	1	3	On/Off	5	0	25	0	30	0
Dec-18	Soil Science	Synthetic fertilizers	Different types of synthetic fertilizers and their use in crop	1	1	On/Off	5	0	25	0	30	0
		Micro nutrients	Management of micro nutrients in vegetable crops	1	1	On/Off	5	0	25	0	30	0
	Agronomy	Weed management	Management of weeds in wheat and other <i>rabi</i> crops	1	1	On/Off	5	0	25	0	30	0
		Integrated crop management (ICM)	Package and practices of onion cultivation	1	1	On/Off	5	0	25	0	30	0
	Plant protection	Integrated pest and disease management	Integrated pest management in Vegetable crop.	1	3	On/Off	5	0	25	0	30	0
		Mushroom cultivation	Mushroom cultivation and marketing	1	1	On/Off	5	0	25	0	30	0
Jan.-19	Soil Science	Soil management	Soil management through conservation agriculture	2	1	On/Off	5	0	25	0	30	0
	Agronomy	Water management	Water use efficiency of <i>rabi</i> crop	1	1	On/Off	5	0	25	0	30	0
		Organic farming	Soil health management through organic farming	1	1	On/Off	5	0	25	0	30	0
	Plant	IPM	IPM in Red gram	1	3	On/Off	5	0	25	0	30	0

	protection					Off						
			Insect pests of gram	1	1	On/Off	5	0	25	0	30	0
Feb. -19	Agronomy	Crop Production	Use of farm machinery and its importance.	1	1	On/Off	5	0	25	0	30	0
		RCTs	Sowing of green gram with multi crop zero-till-ferti-seed-drill	1	1	On/Off	5	0	25	0	30	0
	Soil Science	Soil conditioner	Use of different types of soil conditioner in crops	1	1	On/Off	5	0	25	0	30	0
	Plant protection	Integrated pest and disease management	Integrated pest and disease management in wheat.	1	3	On/Off	5	0	25	0	30	0
March-19	Soil Science	INM	INM in vegetable crop	1	1	On/Off	5	0	25	0	30	0
	Agronomy	Integrated crop management	Cultivation of summer oil seed and pulse crop	1	1	On/Off	5	0	25	0	30	0
		Crop diversification	Making the nutrient demand in diversified cropping system	1	1	On/Off	5	0	25	0	30	0
	Plant Protection	IPM	Storage technique of different crops	1	1	On/Off	5	0	25	0	30	0
				74	81		30	19	14	30	18	49
							2		99		01	

**(b) Rural Youth**

Discipline	Thematic area	Course title	No. of courses	Duration/days	Venue	Beneficiaries					
						SC		Others		Total	
						M	F	M	F	M	F
Agronomy	Seed Production	Seed Production of cereal & pulses crops.	1	5	On/Off	5	0	25	0	30	0
Soil Science	Organic inputs	Production and use of Organics	1	5	On/Off	5	0	25	0	30	0

	Organic Farming	Organic farming of Vegetable crops	1	5	On /Of f	5	0	25	0	30	0
	Vermicomposting	Production of vermicompost and worms for self employment.	1	5	On /Of f	5	0	25	0	30	0
	Bio fertilizer production	Production & use of different bio fertilizer	1	5	On /Of f	5	0	25	0	30	0
Plant Protection	Bee keeping	Advances in honey production	1	5	On /Of f	5	0	25	0	30	0
	Storage Technique	Storage technique of different crops	1	5	On /Of f	5	0	25	0	30	0
	Mushroom production	Mushroom cultivation and value addition	2	5	On /Of f	5	0	25	0	30	0
Fisheries	Fish culture	Composite fish production	1	5	On /Of f	5	0	25	0	30	0
Animal Science	Goat Farming	Goat Farming	1	5	On /Of f	5	0	25	0	30	0
	Poultry Farming	Poultry Farming	1	5	On /Of f	5	0	25	0	30	0
			12	55		55	0	275	0	330	0

**(c) Extension Functionaries**

Discipline	Thematic area	Course title	No. of courses	Duration/days	Venue	Beneficiaries					
						SC		Others		Total	
						M	F	M	F	M	F
Agronomy	Productivity enhancement in field crop	Productivity enhancement in summer and <i>kharif</i> crop	1	1	On /Of f	5	0	25	0	30	0

		Integrated crop management for the <i>rabi</i> season crop	1	1	On /Of f	5	0	25	0	30	0
	Seed production	Advances in seed production techniques in cereals and pulses	1	1	On /Of f	5	0	25	0	30	0
Plant protection	Integrated pest management	Management of pest and disease in maize and moong	1	1	On /Of f	5	0	25	0	30	0
	Integrated pest management	Management of pest and disease Kharif crop.	1	1	On /Of f	5	0	25	0	30	0
	Integrated pest management	Management of pest and disease in Rabi crop.	1	1	On /Of f	5	0	25	0	30	0
Soil Science	Soil testing	Soil testing techniques and fertilizer recommendation	1	1	On /Of f	5	0	25	0	30	0
	Plant nutrients	Importance of plant nutrients for crops	1	1	On /Of f	5	0	25	0	30	0
	Problematic soil	Management of saline/alkali and water logged soil	1	1	On /Of f	5	0	25	0	30	0
	Organic fertilizers	Scientific production of organic fertilizers	1	1	On /Of f	5	0	25	0	30	0
			10	10		50	0	250	0	300	0

**(d) Vocational training**

Thematic area	Course Title	Duration /Days	Venue On/off	Beneficiaries					
				SC		Others		Total	
				M	F	M	F	M	F
Integrated farming system (IFS)	Integrated farming system	15	ON	5	0	25	0	30	0
Vermicomposting	Preparation of vermicompost and its importance	6	ON	5	0	25	0	30	0
Bee keeping	Commercial honey Production	6	ON	5	0	25	0	30	0
Income	Beautician	15	ON	0	5	0	20	25	0



generation	Cutting and Stitching of garments	10	ON	0	5	0	20	25	0
Value addition	Different products of mushroom	5	OFF	0	5	0	20	25	0
<b>TOTAL</b>				<b>15</b>	<b>15</b>	<b>75</b>	<b>60</b>	<b>165</b>	

#### 4. FRONT LINE DEMONSTRATION

Season	Crop	Variety/Technology	No. of demonstration	No. of area (ha)
<i>Kharif -2018</i>	Paddy	Propiconazole 25EC	25	10
	paddy	Prabhat, Rajendra Bhagwati, Sahbhagi	25	10
	Paddy	Pheromone trap	20	1.0
	Paddy	Neem Coated Urea	10	5.0
	Moong	Whitefly Trap	50	05
	Brinjal	Shoot & fruit borer	20	02
<i>Rabi-2018-19</i>	Wheat	HD-2967/DBW 14	25	10
	Potato	K-Ashoka/ K. Sinduri	25	2.0
	Maize	Shaktiman	10	5.0
	Papaya	Pusa- Dwarf	10	1.0
	Mango	Pheromone trap (Mango)	25	10
	Worms	Udrillus ugenae/Icenia foetida	10	20kg
	Lentil	Rhizobium culture & HUL-57	25	10
	Wheat	Azotobactor, PSB	25	10
	Wheat	Borax	10	2.0
<i>Summer -2019</i>	Mushroom	Oyster	50	0
	Vegetable (Okra)	Dicofol 18.5EC	15	2.0
	Green gram	PDM-139/ HUM-16	20	5.0
<b>Total</b>			<b>400</b>	<b>90</b>

#### 5. Seed and planting material production

Seed		Planting material	
Crop	Area (ha.)	Crop	No. of plant
Paddy	6.0	Papaya	2000
Pigeon Pea	2.0	Cauliflower/Cabbage	10000
Pea	2.0	Tomato	10000
Lentil	2.0	Brinjal	10000
Rapeseed and Mustard	2.0	Chilli	10000
Wheat	6.0	Cucurbitaceae crop	10000
IFS	0.5	Medicinal and Aromatic plants	500
<b>Total</b>	<b>20.5</b>		<b>52500</b>

## 6. Extension Activities

Activities	No.	Participants
Field day	20	75
Kisan Mela	02	1000
Kisan Gosthi	10	500
Exhibition	4	1000
Lecture deliver as resource person	12	500
News paper coverage	20	0
Radio talk	5	0
TV Talk	5	0
Extension literature	10	5000
Scientist visit to farmers field	300	500
Farmers visit to kvk	2000	2000
Advisory service	1200	1200
Diagnostics visit	25	50
Animal health camp	2	400
SSG convenor meeting	5	100
<b>Total</b>	<b>3620</b>	<b>12425</b>

## 7. Revolving Fund

Open balance (2018-2019)	Amount to be invested	Expected Return
1,99,794.00	4,74,019.00	6,73,813.00

## 8. Expected fund utilization

Project	Source	Amount to be received (Rs. in lakh)
KVK	Zone IV, ICAR, Patna	125.00
National Initiative on Climate Resilient Agriculture	CRIDA, Hyderabad	16.85
Technology Assessment and Refinement	ATMA, Saran	2.00
See Hub	IIPR, Kanpur	24.00
Soil Testing laboratory	Govt. of Bihar	45.00
<b>Total</b>		<b>212.85</b>

## 9. On-farm trials to be conducted

Thematic area	Title	Treatments		No. of farmers/ Trials
1. Climate resilient cropping in north Bihar	Diversification of rice-wheat system through climate resilient cropping in Saran district	Farmers practice	Transplanted rice (TPR)-Wheat	7
		Technology option-I	Transplanted early rice- wheat (ZT) -Moong beans	
		Technology	DSR-Mustard-Moong beans	

		option-II		
2. Use of secondary nutrient.	Performance of different sources of sulphur on growth & Yield of mustard.	Farmers practice	RDF (80:40:40: NPK)	10
		Technology option-I	RDF + 30 Kg Sulphur (Phosphogypsum- 14% S)	
		Technology option-II	NPK + 30 Kg Sulphur(Bentonite- 90% S)	
3. Integrated crop management (ICM)	Performance of different varieties of wheat in timely sown condition <i>i.e.</i> , before 30 <sup>th</sup> October affected with very low temperature during flowering	Farmers practice	PBW-343+ foliar spray of Boron at the time of flowering	10
		Technology option-I	HD-2967+ foliar spray of Boron at the time of flowering	
		Technology option-II	HD-2733+ foliar spray of Boron at the time of flowering	
		Technology option-III	K-307+ foliar spray of Boron at the time of flowering	
4. INM	Assessment of biofertilizer and their mode of application for sustaining wheat productivity.	Farmers practice	Use of NPK @ 150:60:40	10
		Technology option -I	RDF+ Seed treatment with carrier based bio-fertilizer Azotobacter & PSB (200g/10Kg seeds)	
		Technology option -II	RDF+Soil application of liquid bio-fertilizer Azotobacter & PSB along with vermicompost (200 ml in500 kg vermicompost)	
		Technology option -III	RDF+Seed treatment with liquid bio-fertilizer (azotobacter & PSB )	
5. Integrated crop management	Assessment of different combinations of micro and secondary nutrients for sustainable yield of Mustard	Farmers practice	Recommended dose of S and Zn	10
		Treatment- I	Recommended dose of S and B	
		Treatment- II	Recommended dose of Zn, S and B	
6. Pest Management	Assessment of inset-pest management of major pests of Kharif okra in Saran (Bihar)	Farmers practice :	i) Spraying of Fenvalerate 1.5 ml/l water once at 30 days after sowing. ii) Application of quinalphos @ 2 ml/l water 2 times at 7-10 days interval started 50-60 days after sowing.	10
		Technology option I	i) Application of imidacloprid 0.5ml/l water 30-40 days after sowing ii) Spraying of Indoxacarb @ 0.4 ml/l water 50-60 days after transplanting. iii) Spraying of abamectin @ 1 ml/l water	

			between 60 and 70 days after sowing.	
		Technology option II	Spraying of Thiomethoxam 1g/l water 30-40 days after sowing + spinosad @ 0.5 ml/l water 50-60 days after sowing + Hexythiazox (acaricides) @ 0.5 ml/l water between 60 - 70 days after sowing	
7. IPM	Assessment of pod borer management of chickpea in Saran District (Bihar)	Farmers practice	Spray of quinalphos @ 2 ml/l water at time of pod formation	10
		Technology- I	formation Application of profonophose @ 1.5 ml/liter of water + indoxacarb @ 0.5 ml/liter of water at time of pod	
		Technology - II	Use of HaNPV @ 300 LE/ha + Pheromone trap @ 20/ha + spinosad 0.5 ml/liter at time of 50% pod formation	

#### 10. List of Projects to be implemented

Name of the project	Agency	Fund expected (lakh.)
National Initiative on Climate Resilient Agriculture	ICAR	8.00
Soil and Water testing laboratory	ICAR	20.00
Micro Nutrient Laboratory	RKVY	40.00
Cluster Demonstration	ICAR	10.00

#### 11. No. of success stories to be developed

- Vermicomposting
- Integrated farming System
- Mushroom production
- Banana Cultivation
- Fish Farming
- Poultry Production

#### 12. Scientific Advisory Committee

Date of SAC meeting held during 2017-2018	Proposed date
14.06.2017	19.06.2018

#### 13. Soil and water testing

	No. of samples to be analyzed
Soil	1000

#### 14. Staff position

Sanctioned	In position	If vacant, since when
Programme Coordinator	Dr. Anupma Kumari	
SMS (Agronomy)	Vacant	01.05.2015
SMS(Animal Science)	Dr. P. C. Himanshu	19.01.2015

	(Lien leave from 19.01.2015)	
SMS (H. Sc.)	Vacant	12.06.2015
SMS (Entomology)	Dr. Surendra Prasad	
SMS (Soil Sc.)	Vacant	October, 2010
SMS (Hort.)	Vacant	January, 2011
Programme Assistant	Mr. Vijay Kumar	
Programme Assistant (Computer)	Mrs. Ishita Singh (deputed to VC Cell, Dr. RPCAU Pusa)	
Farm Manager	Mr. Rajesh Kumar	
Assistant	Mr. Amit Anand	
Jr. Stenographer	Mr. Mirtunjay Kumar (transferred to VC Cell, Dr. RPCAU Pusa)	
Driver	Vacant	26.03.2011
Driver	Mr. Lal Babu Prasad (contractual)	
Supporting Staff	Mr. Manish Kumar Azad	
Supporting Staff	Vacant	

#### 15. Status of infrastructure

Infrastructure	Complete	Under construction	Not started	Reasons, if not started
Administrative building	Complete	-	-	-
Trainees' hostel	Complete	-	-	-
Staff quarter	Complete	-	-	-
Mushroom Demonstration Unit	Complete	-	-	-
Fruit and Vegetable Preservation Unit	Complete	-	-	-
Farm Road	Complete	-	-	-
Irrigation Channel	Complete	-	-	-
Tube Well	Complete	-	-	-

#### 16. Fund requirement and expenditure (Rs.)

Heads	Expenditure (2017-2018) (Rs. In lakhs)	Expected requirement (Rs.in lakhs) as per EFC submitted
<b>Recurring</b>		
Pay & allowance	40.12	64
Contingency	10.98	25
TA	0.98	1.5
<b>Total</b>	<b>52.08</b>	<b>90.5</b>
<b>Non-recurring</b>		
Fencing –cum- Boundary Wall	0	100
Land Leveling	0	2
Road construction	0	10
Farm Ponds	0	5
Implement Shed	0	10
Water Harvesting System	0	10
ATIC Building	0	4
Soil Testing Laboratory Building	0	10

Sale counter	0	4
Small building for Security Guard	0	4
Generator room	0	4
External Energisation	0	6
Generator	0	5
Air conditioner for e-connectivity room	0	1.5
Air conditioner For Office, VIP Guest Room, Soil testing laboratory and Community Radio Station	0	1.5
EPABX System	0	1
Solar UPS	0	2
Water Filter with refrigeration	0	0.25
Refrigerator	0	0.25
Filing Cabinet	0	1
Epidiascope	0	0.25
Slide Projector	0	0.25
OHP	0	0.25
Community Radio Station	0	20
Video Conferencing facility	0	10
Television with Cable facility	0	0.5
Micro Irrigation	0	4
Mini Combine Harvester	0	8
Baler	0	1
Net House	0	3
Laser Leveler	0	5
FIRB Planter	0	1
Paddy Transplanter	0	4
Soil Testing Laboratory	0	20
Micro-nutrient Laboratory with residue analysis facility	0	20
Animal Health Check up laboratory	0	20
Plant Health Clinic	0	5
Sofa for guests	0	0.25
Shelf	0	0.4
Table for scientist and staff/Assistants	0	0.5
Chair for Scientists and visiting farmers	0	0.5
Round table	0	2
Chair	0	0.6
Almirah	0	0.5
File keeping Shelf	0	0.5
Furnishing for soil and water testing laboratory	0	1
Beds including all accessories	0	2
Working table and chair	0	1
Dining Table	0	0.4
Table	0	0.2
Chair	0	0.4
Utensils for mess	0	0.25
Table	0	0.25
Chair	0	0.4
Book Shelf	0	0.5
Table/ Chair	0	0.5

Tractor with accessories and sensors for Variable Rate Application	0	5.0
Motor cycle	0	0
Mobile soil testing Laboratory	0	25
Mini bus for collecting Farmers	0	10
<b>Total</b>	52.08	<b>498.9</b>

**Anupama Kumari**  
*Programme Coordinator*