

**The Director** 

**ICAR-Agricultural Technology Application Research Institute, Patna** 

**Central Potato Research Station** 

PO- Sahaynagar, Patna- 801506

Bihar

# Action Plan 2019-20

- 1. Name of the KVK : KRISHI VIGYAN KENDRA, SITAMARHI
- 2. Name of host organization : SAMTA SEVA KENDRA, CHAINPURA, SITAMARHI
- 3. Training programme to be organized (April 2019 to March 2020)

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

	Thematic Area Title Duration		No. of Participants				
Thematic Area			SC	ST	other	Total	
(A) FARMERS & FARM WOMEN							
I Crop Production	Improved agronomic technique of sugarcane and Ratoon crops	03	02		23	25	
	Scientific technique for seedling production of paddy	02	04		16	20	
	Weed management of paddy crop	03	05		25	30	
	Production technique of Rabi pulses and oil seeds crop	02	05		25	30	
	Weed management	02	02		28	30	
	SRI method	01	05		20	25	
	SWI method	01			20	25	
	Zero tillage method	01	05		20	25	
II Horticulture							
a) Vegetable Crops	Vegetable Crops         Integrated Nutrient Management         02		05		25	30	
	Off season cultivation of Tomato & Okra	01	05		20	25	
b)Fruits	Nutrient Management in Mango and Litchi orchard	02	04		16	20	
	Plant propagation of Mango, Guava & Litchi	01	04		16	20	
	Rejuvenation of old orchard	01	04		16	20	
III Soil Health and Fertility Management	Integrated Nutrient Management	05	05		35	40	
IV Livestock							
Production and Management	roduction and IanagementDisease Management02Fodder production02		05		25	30	
			05		25	30	
	Feed management	01	03		27	30	
V Fisheries	Physical and chemical property of water	ical property 02			25	30	

	Performance of micro benthos in fish pond	03	05		25	30
	Measurement of plankton in fish pond	03	10		30	40
	Technology of feed preparation	03	10		20	30
VI Plant Protection	Integrated Pest Management	03	10		30	40
	Integrated Disease Management	03	05		25	30
VII Crop				1		1
Improvement	Seed production	03	10		30	40
	Integrated crop management	02	4		16	20
	Processing and storage	02	4		16	20
TOTAL		56	136		599	735
(B) RURAL YOUTH	Techniques of potato cultivation	02	05		20	25
	Seed production	02	05		25	30
	Production of organic inputs	01	4		16	20
	Planting material production	01	4		16	20
Integrated Farming		03	05		25	30
	Integrated nutrient management	02	05		25	30
	Mushroom production technique	02	08		22	30
	Integrated Nutrient in vegetables	01	04		16	20
	Poultry production	05	04		16	20
	Scientific goatry production	05	04		16	20
	Care and management of milch cattle	02	04		16	20
	Nutrient Management in fruits	02	04		16	20
	Removal of water insect from fish pond	02	10		20	30
	Measurement of turbidity in fish pond	03	10		20	30
TOTAL		33	76		269	345
(C) FXTENSION	Productivity enhancement in field crops	02	05		25	30
PERSONNEL	Integrated Pest Management	02	05		20	25
	Mushroom production	01	04		16	20
	Seed production	02	05		20	25
	Integrated Nutrient management	02	10		20	30

TOTAL		23	69		266	335
	Location and topography for new fish pond construction	03	05		20	25
	Production and use of organic inputs	02	05		20	25
	Livestock feed and fodder production	02	05		25	30
	Management in farm animal	02	05		20	25
	Nutrient Management in different vegetables	01	04		16	20
	Application of manure and fertilizer in mango orchard	01	04	-	16	20
	Production of vegetable seedling	01	04		16	20
	Care and management of cucurbits crops	01	04		16	20
	Plant propagation techniques	01	04		16	20

## (B) OFF Campus

		No. of Participants				
Thematic Area	Duration	SC	ST	Other	Total	
(A) FARMERS & FARM WOMEN	L		I	ł		
I Crop Production						
Improved agronomic technique of sugarcane and Ratoon production	02	08		32	40	
Integrated Crop Management	01	05		25	30	
Weed control of sugarcane	01	04		16	20	
Scientific method and seed treatment of paddy	01	04		16	20	
Scientific technique of paddy crop	01	04		16	20	
Foliar application of zinc in paddy crop	01	04		16	20	
Crop production technique of rabi pulses and oil seed crop	01	10		20	30	
Agronomical practices of late sown paddy crop	01	04		16	20	
Crop production technique of wheat	01	04		16	20	
II Horticulture					•	
a) Vegetable Crops						
Nursery raising	02	04		16	20	
Utilization of micronutrients in mango	02	04		16	20	
Management of cucurbits cultivation	02	04		16	20	
Razing of off season vegetable seedlings	02	04		16	20	
Role of waste decomposer in vegetables	02	04		16	20	
Establishment of new orchard	01	04		16	20	
b) Fruits						

Training and Pruning	01	04		16	20
Layout and Management of Orchards	02	08		32	40
Care and management of orchard at the time of flowering and fruiting	01	04		16	20
Management of young plant/Orchard	02	08		32	40
c) Ornamental Plants					
Production and Management technology	02	05		25	30
d) Tuber crops					
Production and Management technology	01	04		16	20
e) Spices					
Production and Management technology	01	04		16	20
III Soil Health and Fertility Management	I				
Integrated Nutrient Management	01	05		20	25
Production and use of organic inputs	01	04		16	20
Micronutrient deficiency in crops	01	04		16	20
IV Livestock Production and Management	I		1	1	1
Poultry Management	02	04		16	20
Disease Management	02	05		25	30
Feed management	02	05		20	25
Scientific goatery production	02	04		16	20
Fodder production	02	05		25	30
Feed management	01	03		27	30
V Fisheries	ľ			1	
Use of organic and inorganic manure in fish pond	02	05		25	30
Technique of fish harvesting	01	10		20	30
VI Plant Protection	1		I	1	
Integrated Pest Management	01	05		25	30
Integrated Disease Management	02	05		25	30
Bio-control of pests and diseases	01	04		16	20
VII Crop Improvement	VII Crop Improvement				
Seed production	02	10		30	40
Integrated Crop Management	02	05		20	25
TOTAL	56	191		764	955

Thomastic Area	Dunation	No. of Participants					
Thematic Area	Duration		ST	Other	Total		
(B) RURAL YOUTH							
Mushroom Production	03	05	-	25	30		
Seed production	03	05		35	40		
Production of organic inputs	03	04		16	20		
Planting material production	03	04		16	20		
Repair & maintenance of farm machinery & implement	03	04		16	20		
Integrated Farming	03	05		20	25		
Integrated nutrient management	01	05		25	30		
Protected cultivation of vegetable crops	02	05		20	25		
Techniques of potato cultivation	01	05		20	25		
Scientific cultivation of papaya	01	10		20	30		

Role of micro nutrient in vegetables	02	04	 16	20
Vegetable cultivation by bio-process	01	04	 16	20
Value addition	01	04	 16	20
Sampling of soil for new fish pond construction	01	05	 25	30
Clean milk production	02	05	 20	25
TOTAL	30	74	 306	380
(C) EXTENSION PERSONNEL				
Productivity enhancement in field crops	01	05	 25	30
Integrated Pest Management	01	05	 25	30
Mushroom production	01	04	 16	20
Seed production	01	05	 35	40
Methods and importance of vermin-compost	01	05	 25	30
Nursery technique of paddy crop	01	04	 26	30
Production technique of oil seed crop	01	05	 35	40
Role of waste de composer in vegetable cultivation	01	04	 16	20
Care and management of cucurbits crops	01	04	 16	20
Production of vegetable seedling	01	04	 16	20
Nutrient management in fruit plants	01	04	 16	20
Management in farm animal	01	05	 25	30
Livestock feed and fodder production	02	08	 32	40
Production and use of organic inputs	02	05	 25	30
Type of fish diseases and their control	01	05	 20	25
Eradication of aquatic weed	02	05	 25	30
TOTAL	19	77	 378	455

# D) Sponsored training

Thematic	hematic Title		Thematic Title Duration				No. of participants					
Alta			SC	ST	Others	Total						
Training	Farmers Scientist interaction	02	10	-	50	60						
	Mushroom production	06	05	-	55	60						
	Training on Animal health care	02	10	-	60	70						
	Integrated Nutrient Management	02	20	-	40	60						
	Integrated Pest Management	02	10	-	30	40						
	Rejuvenation		10	-	40	50						
	SRI Method	01	10	-	30	40						
	Zero tillage	01	10	-	40	50						
	Skill development training on Mushroom Grower	02	06	-	54	60						
	Skill development training on Vermicompost Producer	02	08	-	52	60						
	Skill development training on Organic Grower	01	02	-	28	30						
	Skill development training on Poly house and shed net technician	01	03	-	27	30						

## E) Vocational

Crop /	op / Identified Training title Du		Duration	Participants				
Enterprise	Thrust Area		(days)	SC	ST	Other	Total	
	-	Horticulture						
Vegetable nursery	Lack of improved variety	Growing vegetable nursery in low cost poly house	5	4	-	20	24	
Off season vegetables	- do -	Off season cultivation of vegetables	5	4	-	20	24	
Fruit trees	- do -	Rejuvenation of old orchard	5	4	-	20	24	
Ornamentals	- do -	Role of different nutrient in vegetables	5	4	-	20	24	
		Plant Protection						
Mushroom	Employment Generation	Mushroom production technology	5	4	-	20	24	
Mushroom	- do -	Mushroom production technology	5	4	-	20	24	
Mushroom	- do -	Mushroom production technology	5	4	-	20	24	
Crop Improvement								
Wheat	Poor seed replacement	Seed production technology of wheat	5	4	-	20	24	
Wheat	Seed production	Seed production technology of sugarcane	2	4	-	20	22	
Pulses	- do -	Seed production techniques of pulses	5	4	-	20	24	
Paddy	- do -	Seed production techniques of paddy	5	4	-	20	24	
Oilseed	- do -	Seed production techniques of oilseed	5	4	-	20	24	
		Crop Production						
Potato	Seed replacement	Seed production technology of potato	6	4	-	20	24	
Organic manure	Low use of organic manure	NADEP and Vermi-composting	6	4	-	20	24	
Equipment	Lack of knowledge	Repair and maintenance of irrigation equipment	6	4	-	20	24	
Crop diversification	- do -	Diversification in agriculture	6	4	-	20	24	
Livestock Production and Management								
Dairy	Inappropriate management	Dairy farming management	6	4	-	20	24	
Dairy	- do -	Balance ration formulation for milch animal	6	4	-	20	24	
Poultry	- do -	Poultry farming management	6	4	-	20	24	
Dairy	- do -	Integrated live stock management	6	4	-	20	24	

#### 4.) Front Line Demonstration

#### **FLD** – 1

Title	:	Popularization for application of Zinc, Boron & Planofix for better production in Litchi
Problem diagnose	:	Fruit dropping and fruit cracking
Objects	:	i) To increase good production
		ii) To minimize fruit dropping
Year of commencement	:	2019-20
Observation to be taken	:	i) Yield
	:	ii) Percentage of fruit dropping
	:	iii) Net return
	:	iv) B:C ratio
No. of Farmers	:	10
Area	:	5.0 ha.
Critical input demonstration	:	Zinc, Boron & Planofix Zinc sulphate : 2 gram/lt. (30 days before flowering) Boric acid : 4gram/lt. (15 days after fruit setting) Planofix : 1 ml/4.5 lt. (7 days after fruit setting)

## FLD – 2

Title	:	Application of NAA/planofix to control fruit dropping
Problem diagnose	:	Heavy fruit dropping
Objects	:	i) To increase productivity
		ii) To minimize fruit dropping
Year of commencement	:	2019-20
Observation to be taken	:	i) Percentage of fruit dropping
	:	ii) Fruit quality
	:	iii) Yield
	:	iv) B:C ratio
No. of Farmers	:	10
Area (in ha)	:	5.0
Critical input of demonstration	:	Planofix (@ 1ml/4.5 lit of water, one spray)

Title	:	Popularization of improved varieties of Tomato
Problem diagnose	:	Lower production
Objects	:	i) To increase good production
	:	ii) To minimize cost of cultivation
Year of commencement	:	2019-20
Observation to be taken	:	i) Yield
	:	ii) Net return
	:	iii) B:C ratio
No. of Farmers	:	20
Area	:	3.0 ha.
Critical input demonstration	:	Seed of variety Avinash-3, 250 gm/ha.

#### FLD - 4

Title	:	Popularization of Oyster Mushroom		
Problem diagnose	:	Lack of awareness about mushroom cultivation		
Objects	:	i) To insure the nutritional security		
	:	ii) To increase the income of farming community		
Year of commencement	:	2019-20		
Observation to be taken	:	i) Yield		
	:	ii) Net return		
	:	iii) B:C ratio		
No. of Farmers	:	50		
Area	:	50 unit		
Critical input demonstration	:	Spawn @ 1 kg/ 10 kg straw		

## FLD - 3

		FLD - 5
Title	:	Popularization of HD-3118
Problem diagnose	:	Lower productivity of wheat in late sown condition
Objects	:	i) To increase the production of wheat variety
Year of commencement	:	2019-20
Observation to be taken	:	i) Cost of cultivation
	:	ii) Yield
	:	iii) B:C ratio
No. of Farmers	:	20
Area	:	2.0 ha.
Critical input demonstration	:	Seed (125 kg/ha)

## FLD – 6

Title	:	Prevention of PPR ( Pests Des Petits Ruminants) in Goats			
Problem diagnose	:	To prevent mortality in Goats			
Objects	:	To decrease the chances of PPR prevalence in Goats			
Year of commencement	:	2019-20			
Observation to be taken	:	i) Health management			
	:	ii) Body weight gain			
	:	iii) B:C ratio			
No. of Farmers	:	400			
Area (ha)	:	1200			
Critical input demonstration	:	PPR vaccine @ 1 ml/sc			

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		FLD – 7
Title	:	Use of utrine tonic after parturition in Buffalo
Problem diagnose	:	To prevent uterine infection in Buffalo after parturition
Objective	:	i) To increase milk production and reproductive performance
Year of commencement	:	2019-20
Observation to be taken	:	i) Reproduction performance
	:	ii) Milk production
	:	iii) B:C ratio
No. of Farmers	:	100
No. of Buffalo	:	200
Critical input demonstration	:	Uterine tonic (Himrop) @ 100 ml B.D. for 10 days

#### FLD – 8

Title	:	Management of pH in carp culture pond		
Problem diagnose	:	Fluctuation of pH in culture pond		
Objective	:	<ul><li>i) Improve water pH</li><li>ii) Improve fish health</li><li>iii) Enhance productivity</li></ul>		
Year of commencement	:	2019-20		
Observation to be taken	:	i) Fish health		
	:	ii) Yield		
	:	iii) B:C ratio		
No. of Farmers	:	10		
No. of area	:	5 ha.		
Critical input demonstration	:	Lime and Alum		

#### FLD – 9

Title	:	Popularization of Swarna Sub-1
Problem diagnose	:	Lower production
Objects	:	i) To increase the production of low land rice variety
Year of commencement	:	2019-20
Observation to be taken		i) Cost of cultivation
	:	ii) Yield
	:	iii) B:C ratio
No. of Farmers	:	20
Area	:	2.0 ha.
Critical input demonstration	:	Seed (30 kg/ha)

## 5) Seed and planting material production

	Seed	Planting material		
Сгор	Area	Сгор	No.	
Paddy	2.0 ha	Vegetables	10000	
Wheat	2.0 ha	Fruits	5000	

#### 6) Extension Activities

Nature of Extension Activity	No. of	Farmers			Extension Officials			Total		
Nature of Extension Activity	activities	Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	10	300	100	400	10	05	15	310	105	415
Kisan Mela	01									800
Kisan Ghosthi	10	300	50	350	45	05	50	345	55	400
Exhibition	05	100	50	150	25	10	35	125	60	185
Film Show	02	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass
Method Demonstrations	05	300	10	310	20	05	25	320	15	335
Farmers Seminar	04	350	20	370	20	05	25	370	25	395
Workshop	05	400	50	450	80	20	100	480	70	550
Group meetings	05	350	50	400	40	05	45	390	55	445
Lectures delivered as resource persons	20	800	40	840	60	20	80	860	60	920
Newspaper coverage	25	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass
Radio talks	06	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass
TV talks	06	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass
Popular articles	09	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass
Extension literature	06	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass
Scientific visit to farmers field	700	4200	350	4550				4200	350	4550
Farmers visit to KVK										4000
Diagnostic visits	10	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass	Mass
Exposure visits	10	350	75	425	60	15	75	410	90	500
Ex-trainees Sammelan	05	70	10	80	10	10	20	80	20	100
Animal Health Camp	05	800	250	1050	200	50	250	1000	300	1300
Soil test campaigns	10	450	150	600	80	20	100	530	170	700
Farm Science Club Conveners meet	05	80	20	100				80	20	100
Self Help Group Conveners meetings	05	120	30	150				120	30	150
Mahila Mandals Conveners meetings	05		50	50				00	50	50
Celebration of important days	04	480	60	540	50	10	60	530	70	600
Kisan Ghosthi organized by other department & participated by KVK	10	220	35	255	150	20	170	370	55	425
Technological week	10	400	200	600	100	20	120	500	220	720

# 7) Revolving Fund

Year	Opening	Expen	Income	Total
	Balance	diture		Balance
				Amount
2013-14	2,68,176.00	2,74,250.00	1,74,802.00	1,68,728.00
2014-15	1,68,728.00	3,33,000.00	4,78,061.00	3,13,789.00
2015-16	3,13.789.00	3,12,060.00	3,32,803.00	3,34,532.00
2016-17	3,34,532.00	2,64,539.00	2,21,274.00	2,91,267.00
2017-18	2,91,267.00	5,30,143.66	5,40,663.00	3,01,786.34
2018-19	3,01,786.34	9,75,731.60	1,038,977.00	3,65,031.74
April, 2019	3,65,031.74			

## 8) Expected fund utilization

Project	Source	Amount to be received (Rs. in lakh)
Training	ATMA, Sitamarhi	50,000.00
Exposure	ATMA, Sitamarhi	1,00,000.00
Demonstration	ATMA, Sitamarhi	50,000.00
Short term research	ATMA, Sitamarhi	50,000.00
Farmers Scientist	ATMA, Sitamarhi	50,000.00
Interaction		
Skill development	BAMETI, Patna	24,00,000.00
programme		

## 9) On-farm trials to be conducted

Crop/Enterprises	:	Kisan Mobile Advisory Services			
Title	:	Assessment of "Kisan Mobile Advisory Services" for dissemination of agricultural technology			
Problem diagnose		Non availability of technical knowledge at critical time			
Farming situation	:	-			
Production system and thematic area		Information and Communication Technology (ICT)			
Year of commencement	:	2019-20			
Experimental details	:	<b>T.O-1:</b> Farmer practices – Existing System for transfer of technology			
	: <b>T.O-2 :</b> Kisan Mobile Advisory sent to 100 farmers messages per week				
	:	T.O-3-: Message delivered by private firms as NGOs			
Source of technology	:	KVK, Harda (M.P)			
Observation to be taken	:	<ul><li>i) Need &amp; time based information</li><li>ii) Understanding of the message</li><li>iii) Applicability of the message</li></ul>			
No. of Farmers	:	100			
Area (in ha)	:	-			

**OFT - 1** 

OFT	_	2
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Crop/Enterprises	:	Farmers Interest Group (FIG)
Title	:	Demonstration farmers work efficiency through "Farmers Interest Group (FIG)"
Problem diagnose		Farmers are not united for their common interest
Farming situation	:	-
Production system and thematic area		-
Year of commencement	:	2019-20
Experimental details	:	<b>T.O-1:</b> Farmer practices – Individual approach (Non selected village)
	:	T.O-2 : Group approach (Selected village)
Source of technology	:	MYRADA, Banglore, TNAU
Observation to be taken	:	i) No. of technology adopted
	:	ii) Net increase in annual income
No. of Farmers	:	No. of Group : 04 No. of Technology : 02
Area (in ha)	:	-

Crop/Enterprises	:	Onion
Title	:	Assessment of different weedicides in Onion for control weeds in Rabi season
Problem diagnose		Heavy infestation of weed in Rabi season
Farming situation	:	Irrigated
Production system and thematic area		Rice- Onion, weed control
Year of commencement	:	2019-20
Experimental details	:	<b>Farmers practices :</b> Hand weeding (18-20 days & 35-40 days)
	:	TO-1 : Pendimethalin 3ml/lit. (3 DAT)
	:	TO-2 : Oxygold (Oxyfluorfen 1ml/lit.) 3 DAT
Source of technology	:	BAU, Sabour, Bhagalpur
Observation to be taken	:	i) Weed infestation percentage
	:	ii) Plant growth
	:	iii) B:C ratio
No. of Farmers	:	05
Area (in ha)	:	1.0

**OFT - 3** 

**OFT – 4** 

Crop/Enterprises	:	Tomato
Title	:	Assessment of leaf curl resistant varieties of Tomato
Problem diagnose	:	Heavy infestation of leaf curl in Tomato
Farming situation	••	Irrigated
Production system and thematic area	:	Paddy – Tomato
Year of commencement	:	2019-20
Experimental details	:	Farmers practices : Avinash- 3
	:	TO-1 : Arka Anaya
	:	TO-2 : Arka Rakshak
Source of technology	:	IIHR, Banglore
Observation to be taken	:	i) Percentage in leaf curl infestation
	••	ii) Plant height
	:	iii) B.C ratio
No. of Farmers	:	08
Area (ha)	:	1.0

Crop/Enterprise	:	Sugarcane
Title	:	Assessment of different formulation of herbicides for broad spectrum control of weeds specially motha in Sugarcane
Problem diagnose	:	Low productivity of Sugarcane due to weed infestation
Farming situation	:	Irrigated
Production system & thematic area	:	Rice – Sugarcane
Year of commencement	:	2019-20
Experimental details		Farmers practice : Atrazine 50% @ 1.5kg a.i/ha. Pre emergence
	:	<b>TO-1 : <u>Atrazin 50%@1.5kg</u> a.i/ha</b> +Halosulfuran 75% @ 90gm a.i/ha at 60DAS
	:	<b>TO-2 : </b> <u>Atrazin 50%@1.5kg</u> a.i/ha + Halosulfuran 75% @ 90gm/ha+ Metribuzine @ 1lit./ha at 60 DAS
		<b>TO-3 : <u>Atrazin 50%@1.5kg</u> a.i/ha</b> + Metribuzine @ 1lit./ha + 2-4D @ 1 lit./ha. at 60 DAS
Source of technology	:	Dr. RPCAU, Pusa, Samastipur
Critical inputs	:	Atrazin 50%, Halosulfuran 75%, Metribuzine 70% and 2- 4D amine salt 58%
Observation to be taken	:	i) Technical : Panicles/hill, plant height, no of grains/panicle
	:	ii) Economics : B:C Ratio & Yield
	:	iii) Harvest index
No. of Farmers	:	10
Area (in ha)	:	1.0

**OFT – 5** 

**OFT – 6** 

Crop/Enterprise	:	Wheat	
Title	:	Assessment of bio-fertilizer and their mode of application for sustaining Wheat productivity	
Problem diagnose	:	Low productivity of Wheat due to imbalance used of fertilizer	
Farming situation	:	Irrigated	
Production system & thematic area	:	Rice – wheat	
Year of commencement	:	2019-20	
Experimental details	:	Farmers practice : Use of NPK @ 100:30:20:	
	:	<b>TO-1 :</b> RDF (120:60:40)	
	:	<b>TO-2:</b> RDF (120:60:40)+ Seed treatment with liquid bio fertilizer (Azotobactor and PSB)	
	:	<b>TO-3:</b> RDF (120:60:40)+Soil application of carrier based bio fertilizer Azotobactor and PSB @ 5kg/ha each	
Source of technology	:	Dr. RPCAU, Pusa, Samastipur	
Critical inputs	:	Azotobactor and PSB	
Observation to be taken	:	<ul> <li>i) No. of plants/m<sup>2</sup></li> <li>ii) Plant height</li> <li>iii) Yield</li> </ul>	
No. of Farmers	:	10	
Area (in ha)	:	2.0	

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Crop/Enterprise	:	Buffalo
Title	:	Effect of mineral and vitamin supplementation on Buffalo milk production in summers (Heat stress)
Problem diagnose	:	Low milk production in summer due to heat stress
Farming situation	:	Integrated crop livestock farming system
Production system & thematic area	:	Live stock production and Management
Year of commencement	:	2019-20
Experimental details	:	<b>T.O-1:</b> Farmer practices – Grazing + stall feeding
	:	<b>T.O-2 :</b> Use of Liver tonic (@ 50ml/day for 20 days) + vitamin AD3 @20ml/days 60 days)
	:	<b>T.O-3 :</b> Herbal antistress drug @ 50 ml for 30 days+ mineral mixture @ 35 gm/day for 60 days)
Source of technology	:	WBUAFS, Kolkata
Critical inputs	:	Liver tonic, Vitamin AD3, Antistress drug and Mineral Mixture
Observation to be taken	:	i) Technical : Feed intake
	:	ii) Economics : Milk production
No. of Buffalo	:	10

OFT	_	8
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Crop/Enterprise	:	Cattle
Title	:	Assessment the efficacy of different drug combination against Mastitis in cattle
Problem diagnose	:	Low milk production due to infection of teat
Farming situation	:	Integrated crop livestock farming system
Production system & thematic area	:	Live stock production and Management
Year of commencement	:	2019-20
Experimental details	:	Farmer practices : Topical herbal gel used
	:	<b>T.O-1 :</b> Intramammary infusion (Mammitel 10 gm for 3 days) +topical herbal gel
	:	<b>T.O-2-:</b> Parentral antibiotic (Amoxycillin+Sulbactum @ of 3gm. I/M for 3 days + Intramammary infusion (Memmitel 10 gm for 3 days)+Mastilep
Source of technology	:	WBUAFS, Kolkata
Critical inputs	:	Topical herbal gel, Mammitel & Antibiotic
Observation to be taken	:	i) Technical : Udder health
	:	ii) Economics : Milk production
No. of Buffalo	:	10

## **OFT – 9**

Crop/Enterprises	:	Fish culture	
Title	:	Assessment of water probiotics in fish farming pond	
Problem diagnose		Low productivity of the fish pond due to poor water quality	
Farming situation	:	Composite fish culture	
Production system and thematic area		Fish production	
Year of commencement	:	2019-20	
Experimental details	:	Farmer Practices : No use of water probiotics	
	: <b>TO-1 :</b> F. P. + water probiotics @ 1kg/ha (split dose gm/month)		
	:	<b>TO-2 :</b> F. P. + water probiotics @ 2 kg/ha (in split dose of 500 gm/ha/month)	
Source of technology	:	CIFA, Bhubaneswar	
Observation to be taken	:	i) Fish Production	
	:	ii) Production performance	
	:	iii) B:C ratio	
No. of Farmers	:	10	
Area (in ha)	:	1.0	

## 10) List of Projects to be implemented

Project	Source	Amount to be received (Rs. in lakh)
Training	ATMA, Sitamarhi	50,000.00
Exposure	District Horticulture Office, Sitamarhi	2,00,000.00
Demonstration	ATMA, Sitamarhi	50,000.00
Short term research	ATMA, Sitamarhi	50,000.00
Farmers Scientist	ATMA, Sitamarhi	50,000.00
Interaction		
Skill development	BAMETI, Patna	24,00,000.00
programme		

## 11) No. of success stories to be developed : 01

#### 12) Scientific Advisory Committee

Date of SAC meeting held during 2018-19	Proposed date
26.07.2018	25.07.2019

#### 13) Soil and water testing

	No. of samples to be analyzed				
Soil	1250				
Plant	-				
Manure	-				

#### 14) Staff position

Sanctioned	In position	If vacant, since when	
Senior Scientist and Head	Vacant	12.5.2012	
SMS	Dr. Ram Eshwar Prasad (Ag. Extension)		
SMS	Vacant (Plant Protection)	10.08.2015	
SMS	Dr. Kinkar Kumar (Vet. Science)		
SMS	Mr. Manohar Panjikar (Horticulture)		
SMS	Mr. Sachchidanand Prasad (Agronomy)		
SMS	Vacant		
Prog. Asstt. (Computer)	Mr. Rakesh Kumar		
Farm Manager	Mr. Gunjesh Kumar Navin		
Programme Asstt. (Fisheries)	Mr. Prakash Chandra		
Office Suptd-cum-Acctt.	Mr. Brij Bhushan Mishra		
Jr. Stenographer	Mr. Sikandar Roy		
Driver	Mr. Raju Kumar		
Driver	Mr. Ajay Kumar		
Supporting Staff	Contractual		
Supporting Staff	Contractual		

#### **15) Status of infrastructure**

Infrastructure	Complete	Under construction	Not started	Reasons, if not started
Administrative building	Complete	-	-	-
Trainees' hostel	Complete	-	-	-
Staff quarter	Complete	-	-	-
Demonstrations: i) Goatry ii)Hatchery	Complete	-	-	-

16) Every KVK should bring a brief write-up supported by quality photographs about the technology having wide acceptability among the farming community of the district with factual data.

Sl. No.	Name of the Technology	Brief Details of Technology (3-5 bullet points)	Net Return to the farmer (Rs.) per annum due to the technology	No. of farmers adopted the technology in the district	One high resolution 'Photo' in 'jpg' format for each technology
1.	Application of Acctamipid to control leaf curl in Tomato	<ul> <li>i) Infestation of leaf curl in Tomato was found only 5-10%</li> <li>ii) Production was observed ave. 425q/ha</li> <li>iii) B.C ratio 3.05</li> </ul>	Rs. 1,25,500/ha/annum	Approx 6,000 farmers	
2.	Application of Boron in Cauliflower	<ul><li>i) Pod column was found attractive</li><li>ii) Price of Cauliflower 2 times more</li><li>iii) B.C ratio-1.62</li></ul>	Rs. 75,000/ha/annum	Approx 3,000 farmers	
3.	Application of staking system in Tomato	<ul> <li>i) No. of fruits was found two times more than traditional method</li> <li>ii) Quality of fruit was found better</li> <li>iii) Market rate of Tomato was found 2 times</li> </ul>	Rs. 1,32,300/ha/annum	Approx 2000 farmers	
4.	Popularization of Oyster Mushroom cultivation	<ul> <li>i) Additional source of income</li> <li>ii) Improvement of Health</li> <li>Status</li> <li>iii) Good employment</li> <li>opportunities among women</li> </ul>	Rs. 60,000/ha/annum	Approx 2000 farmers	

5.	Cultivation of bacterial wilt resistant varieties of Brinjal- Var. Swarn Shakti	i) Oly 15% wilt infestation was found in Swarn Shakti ii) 65q/ha yield increased average farmers production iii) B.C ratio- 2.95	Rs. 65,500/ha/annum	Approx 5,000 farmers	
6.	Uses of concentrate mineral mixture & Vitamin supplement for increasing the body weight in goat.	<ul> <li>i)4 kg body weight increased by using of selected technologies in compare with farmers practices.</li> <li>ii)B.C ratio 2.81 found in selected technologies.</li> <li>iii)Healthy progeny produced by using this technologies.</li> </ul>	Rs. 16,000/annum @ 10 goat	1100 (approx.)	
7.	Application of Amoxycillin + sulbactum @ of 3 gm I/M for 3 days + use of Mastilep gel for controlling mastitis in milch Cow	<ul> <li>i) By using this technology 100% control of mastitis observed in farmers practices only 30% result observed.</li> <li>ii) 630 liter milk production increased over farmer practice during lactation period each Cow.</li> </ul>	Rs. 20,160/annum/ Milch Cow	2200 (approx.)	
8.	Application of of Iron bolus (Feritas) in milch Buffalo	i)Enhance the nutrient level in body of milch Cattle. ii)16.75% milk production increased over farmers practices iii)280 liter milk production increased in each Buffalo	Rs. 8,960/cattle/annum	4300 (approx.)	
9.	Use of 35 gm Mineral mixture and vitamin supplement in Buffalo for enhancing milk production.	i)By using this technology 3.5 lit./day milk production increased and reproductive performance enhanced. ii)30% concepitation rate increased in selected technology over the farmers practices	Rs. 25,725/cattle/ lactation	5000 (approx.)	Image: And the second and th
11.	Application of Anti stress @ 10 ml/100 bird.	<ul> <li>i)12% body weight gain in boiler poultry with compare to local check.</li> <li>ii)Mortality and morbidity rate decreased.</li> <li>iii)7830 Rs. Income increased over farmer practices with capacity of 5000 boiler poultry.</li> </ul>	Rs. 46,980/farmer/ annum with 5000 bird capacity	300 (approx.)	

12.	Application of lime@ 200kg / ha. in fish pond for enhancing fish productivity.	<ul> <li>i)Application of lime in fish pond @ 200kg/ha if water pH is 7.</li> <li>ii)It improve water pH &amp; increase alkalinity.</li> <li>iii)Control fish parasites &amp; diseases.</li> <li>iv)It reduces turbidity in this reason increase fish production.</li> <li>v)Production were 19 qt./ha in demonstration pond and 11.55 qt/ha in check</li> </ul>	Rs. 82,960/ha/annum	150 (approx.)	Lucr titha cycla qiliga dag, chart marganeta cara
13.	Cultivation of variety HD- 2967 in timely sown condition	i)No. of tillers/m2 at harvesting stage was obtained in HD- 2967 variety (285) compare to farmers practices UP-262 variety (208) ii)8 q/ha increasing over the farmers practise iii)B.C ratio was 2.40 of HD- 2967 variety	Rs. 40,000/ha	50,000 (approx.)	eftitere a, elanat
14.	Cultivation of wheat variety HI- 1563 by Zero tillage method.	i)Under line sowing method of establishment we get more productivity per ha. Of Wheat while farm zero tillage technique we get more profitability due to low cost of cultivation in comparison to line sowing method. ii)B.C ratio was 2.44 in zero tillage and B.C ratio was highest in Hi- 1563 (2.48)	Rs. 33,700/ha	20000 (approx.)	The formular control of the fo
15.	Cultivation of variety Swarna Sub -1 of paddy under sub merge condition.	i)No. of tillers/m2 at harvest was manimum in Swarna Sub- 1 (550) compare to farmers practice Katma variety (250) ii)Rs. 31200/ha net return increasing over the farmer practices iii)B.C ratio was 2.33 of Swarna Sub-1	Rs. 32,670/ha/annum	30000 (approx.)	The man date at the second secon
16.	Application of Pendimethalin + Imazathapyr herbicide for weed management in lentil	i)No. of weed at maturity was found 10 in pendimethalin 1 lit/ha + Imazathapyr 40 gm/ha compare to farmer practices no weed (42) ii)Rs. 11770/ha net return increasing over the farmer practices iii)B.C ratio was 2.11 of Pendimethalin + Imazathpyr	Rs. 26,5 20/ha/annum	2000 (approx.)	