

Annual Progress Report (January, 2019- December, 2019)



Submitted by

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PROFORMA FOR PREPARATION OF ANNUAL REPORT (January-2019-December-2019)

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	54	1126	171	1297
Rural youths	4	50	2	52
Extension functionaries	7	149	2	151
Total	65	1325	175	1500
Sponsored Training	7	1407	182	1589
Vocational Training				
GT	72	2732	357	3089

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	150	60	-
Pulses	232	90	-
Cereals	299	36	-
Vegetables	20	1	-
Other crops	0	0	-
Hybrid crops	0	0	-
Total	701	187	
Livestock & Fisheries	0	0	
Other enterprises	5	-	-
Total	5	-	
Grand Total	706	187	

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Crops	14	66	66
Livestock	2	8	8
Various enterprises			
Total	16	74	74

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1288	15425
Other extension activities	232	-
Total	1520	15425

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Aware-ness	Other enterprise	
	Text only	510	34	18	52	421	29	1064
	Voice only	29	13	06	03	28	05	84
	Voice & Text both	00	00	00	00	00	00	00
	Total Messages	539	47	24	55	449	34	1148
Total farmers Benefitted=34829								

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.	Distributed to No. of farmers
Seed (q)	419	545500/-	Supply to UP Govt.
Planting material (No.)	14625	5500/-	39
Bio-Products (kg)	-	-	-
Livestock Production (No.)	-	-	-
Fishery production (No.)	45 Kg.	5951/-	-

7. Soil, water & plant Analysis

Type of Samples	No. of samples analysed	No. of Beneficiaries	Value Rs.
Soil	2063	2063	-
Water	-	-	-
Plant	350	350	-
Total			

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	01
2	Conferences	01
3	Meetings	
4	Trainings for KVK officials	02
5	Visits of KVK officials	-
6	Book published	-
7	Training Manual	1
8	Book chapters	-
9	Research papers	05
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	08
13	Proceedings	01
14	Award & recognition	02
15	On going research projects	-

DETAIL REPORT OF APR (Jan.2019 to Dec. 2019)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Mahayogi Gorakhnath Krishi Vigyan Kendra, Chauk Mafi (Peppeganj), Jangal Kaudia, Gorakhpur, (U.P.)	0551- 2255453 2255454	0551- 2255455	gorakhpurkvk2@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Guru Gorakshnath Sewa Santhan, Sri Gorakhnath Mandir, Gorakhpur	0551- 2255453, 54	0551- 2255455	gorakhpurkvk2@gmail.com

3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Rajendra Pratap Singh	-	9532460717 9648448405	gorakhpurkvk2@gmail.com

1.4. Year of sanction: 2016

1.5. Staff Position (as on 31th December, 2019)

[illegible]

			Grade-III									
13	Driver	Sanjay Kumar Yadav	Driver-cum-Mechanic	Driver	5200-20200	22400	14.08.2018	Temporary	OBC	9415853387		sanjayyadavmgkvk@gmail.com
14	Driver	Dinesh Rao	Driver-cum-Mechanic	Driver	5200-20200	22400	14.08.2018	Temporary	OBC	9695713464		dineshgkp1991@gmail.com
15	Supporting staff	Jai Prakash Singh	Supporting Staff Grade-I	Skilled Supporting Staff	5200-20200	18500	14.08.2018	Temporary	Others	8545003001		jaiprakashsingh1005@gmail.com
16	Supporting staff	Abhimanyu Kumar Verma	Supporting Staff Grade-I	Skilled Supporting Staff	5200-20200	18500	14.08.2018	Temporary	OBC	9918989802		abhimanyuverma0808@gmail.com

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1.	Under Buildings	0.80
2.	Under Demonstration Units	-
3.	Under Crops	12
4.	Orchard/Agro-forestry	-
5.	Others (specify)	-

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	2 March 2019	-	144.09 Lakh			
2.	Farmers Hostel	ICAR	Under Construction	-	66.41 Lakh			
3.	Staff Quarters (6)	ICAR	Completed	-	61.52 Lakh			
4.	Demonstration Units (2)							
5.	Fencing							
6.	Rain Water harvesting system							
7.	Threshing floor							
8.	Farm godown							

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor (UP 53 CL 5201)	2017	9.55	600	Good Condition
Bolero (UP 53 AG1220)	2019	6.50	120	Good Condition

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Groundnut Decorticator	2019	5389	Good Condition
UMMB machine	2019	11006	Good Condition

1.8. A). Details SAC meeting* conducted in the year

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.		1. Dr. V.M. Mayande, Vice-chancellor, Dr. P.D. K.V. Akola 2. Dr. N. Sudhakar, Director, ICAR-ATARI, Hyderabad 3. Dr. S.R. Khonde, Director of Extension, Dr. P.D. K.V. Akola 4. Dr. Vijaya Kumar, Director, AIR	1. 2. ... 3. 4. ... 5. ... 6. ... 7. ...	1. 2. ... 3. 4. ... 5. ... 6. ... 7. ...

		5. 6. 7. 8.	8. ... 9. ...	8.
2.				

Note : This yellow mark may be treated as an example

*** Attach a copy of SAC proceedings along with list of participants**

2. DETAILS OF DISTRICT (2019)

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1.	Crop Production + Livestock
2.	Crop Production + Poultry
3.	Crop Production + Fisheries
4.	Crop Production + Vegetable Production
1.	Crop Production + Vegetable Production+ Orchard

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1.	AES-1 (Sandy loam)	Poor water holding capacity
2.	AES-2 (Silty loam, Khadar Soil)	Medium water holding capacity
3.	AES-3 (Clay Loam)	Good water holding capacity

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	AES-1	Soil Type-Sandy loam	160952
2.	AES-2	Soil Type-Silty loam, Khadar Soil	121714
3.	AES-3	Soil Type-Clay Loam	52651

2.4. Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
A	FIELD CROPS INCLUDING OIL SEEDS AND PULSES			
1.	Paddy	152497	202895	15.26
2.	Maize	3299	4281	12.98
3.	Jowar	27	37	13.70
4.	Bajra	369	-617	16.72
5.	Arhar	8659	4978	5.75
6.	Urd	24	09	3.73
7.	Moong	02	01	2.77
8.	Ground Nut	2547	1508	5.92
9.	Til	75	12	1.62
10.	Wheat	190499	448884	23.89

11.	Barley	708	1388	19.60
12.	Gram	668	544	8.15
13.	Pea	2766	3587	12.97
14.	Lentil	2275	2067	9.08
15.	Mustard	3492	2373	6.80
16.	Linseed	47	02	4.20
17.	Sugarcane	3955	209034	528.53
B	FRUITS			
1.	Banana	6600	264000	40.00
2.	Mango	5500	38500	07.00
3.	Guava	1550	15500	10.00
4.	Litchi	200	13000	06.50
5.	Jamun	100	500	05.00
6.	Papaya	50	500	10.00
7.	Jackfruit	40	360	09.00
8.	Citrus	20	160	08.00
C	VEGETABLES			
1.	Potato	5000	125490	250.90

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>			
<i>Indigenous</i>			
Buffalo			
Sheep			
<i>Crossbred</i>			
<i>Indigenous</i>			
Goats			
Pigs			
<i>Crossbred</i>			
<i>Indigenous</i>			
Rabbits			
Poultry			
Hens			
<i>Desi</i>			
<i>Improved</i>			
Ducks			
Turkey and others			

Category	Area	Production	Productivity
Fish			
<i>Marine</i>			
<i>Inland</i>			
Prawn			
Scampi			
Shrimp			

2.7 Details of Operational area / Villages (2019)

Sl.No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Campier ganj	Jungle Kaudia	Chauk Mafi, Badhya chouk, Madaha , Rajabari, Ranana diha, Majhau na Sakhi,	Rice, Wheat, Arhar, Mustard, Gram, Potato, Tomato, Bitter Gourd, Cucumber, Pumpkin, Ridge Gourd & Cattle	Low Yield, Anestrus and malnutrition in animal, weed infestation, pod-borer in pea, chick pea, Pigeon pea, soil erosion, less use of organic manure, Lack of awareness on post-harvest technology, value addition and drudgery reduction, Lack of timely information and technical guidance, Lack of knowledge about identification of insect-pest and different symptoms of diseases and pest attack	To improve productivity per unit area through Introduction of HYV, Integrated Nutrient Management, Integrated Disease Management, Integrated Weed Management, Seed production technology Maintenance of Old Orchard, Integrated pest management, Resource Conservation Technology, Kitchen gardening for production of nutritional food by women farmers, Raising productivity of livestock by upgrading the genetic potential by artificial insemination and use of mineral mixture, proper feeding and management, Post-Harvest management of food grain seed, fruits, vegetables, milk and milk products, less use of organic manure
2.	Campier ganj	Campier ganj	Bhaghi bhari, Atkawa , Mithouri, Kalyan pur, Ramchaura, Bhagwanpu	Rice, Wheat, Arhar, Mustard, Gram, Potato, Tomato, Cucumber, Pumpkin, Banana, Mango	Incidence of insect-pest and diseases in cereals, pulses, oilseeds, fiber, sugarcane, forage, vegetable, fruit and ornamental crops, Lack of awareness about production and management of livestock's, vaccination and important disease problem in livestock	do

3.	Sadar	Bhathat	Sarhare, Tikariya, Jungle dumri Chakjalal Aurangabad	Gram, Potato, Tomato, Bottle Gourd, Cucumber, Pumpkin	Lesser adoption of Good Agronomical Practices (GAP) like summer ploughing and destruction of stubbles, line sowing and raised bed planting method, intercropping, crop rotation, green manuring and application of neem cake, ground nut cake for pest management, Lack of knowledge about HYV of horticultural crops and latest production technology	do
4.	Sahjanwala	Pali	Usri, Madar, Bharpahi, Bhaksa, Musthafabad,	Rice, Wheat, Arhar, Mustard, Gram, Potato, Tomato, Ridge Gourd, Banana, Mango, Cattle	Lesser adoption of seed treatment technique and use of higher doses of pesticides in vegetables and cereals. Low consumption and injudicious use of pesticides in rice, wheat, pulses, fiber and fruit plants. Higher doses and frequently usage of chemical pesticides in vegetable crops.	Do
5.	Sadar	Chargawan	Bisunpur, Jangal aurahi, Lakshmipur, Parmeshapur, Jungle Dhushan, Siktora, Maniram, Sonbarsha	Wheat, Arhar, Mustard, Gram, Potato, Tomato, Bottle Gourd, Cucumber, Pumpkin, Ridge Gourd, Banana, Mango	do	do

6.	Sadar	Pipraich	Mohanpur, Baraipur, Bela, Bhaisaha, Gaura, Gopalpur, Kushmi	Arhar, Mustard, Gram, Potato, Tomato, Bottle Gourd, Cucumber, Pumpkin, Ridge Gourd, Banana, Mango, Buffalo	do	do
7.	Chauri Chaura	Sadar Nagar	Bardi, Bhagwanpur,Ch aura, Devipur , Sariyaiya, Bhauapar	Rice, Wheat, Arhar, Mustard, Gram, Potato, Tomato, Bottle Gourd, Cucumber, Pumpkin, Ridge Gourd, Banana, Mango, Cow	do	do
8.	Sadar	Khorabar	Bhumihari, Amhiya , Bhaisaha	Rice, Wheat, Arhar, Mustard, Gram, Potato, Tomato, tree plantation, Mango, goat	do	do

9	Sahjanw a	Sahjanw a	Keshok urha, Bhimap ar, Keshav pur, Gahash ad, basia bhagaur a	Rice, Wheat, Arhar, Mustard, Gram, Potato, Tomato, Pumpkin, Ridge Gourd, Banana, Mango, Buffalo, cow	do	do
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2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Crop Production	Production Technology for kharif, rabi and zaid crop. Improved Production Technology through mechanization
RCT	Promotion of resource conservation technology
Entrepreneurship	Entrepreneurship development in rural youth
Drudgery reduction	Drudgery reduction technology and Drudgery reducing farm implements among farm women
Horticultural crops	Promotion of high value horticultural crop, Quality seed/planting material production
Live stock	Raising productivity of livestock, upgrading genetic potential through artificial insemination, use of mineral mixture, disease and parasitic control, proper feeding and management
Organic inputs production	NADEP and Vermi-composting
IPM	Promotion of Integrated Pest Management strategies for safe food production and environment protection
INM	Promotion of site specific nutrient management through INM for sustainable soil health
Kitchen Gardening	Nutritional security through kitchen gardening
Cucurbitaceous (bottle gourd, pumpkin, sponge gourd, bitter gourd etc.), groundnut, potato	Introduction of HYV, integrated disease/pest management, integrated nutrient management
Rice, Wheat, Pulses (Pigeon pea, chick pea, lentil, field pea, urd and moong)	Introduction of HYV, Integrated Nutrient Management, Integrated Disease Management, Resource Conservation Technology, Integrated Weed Management, Seed production technology
Cole crop(cauliflower, cabbage), Tomato, Okra, Chilli	Introduction of HYV, integrated pest and disease management, integrated nutrient management

* An example for guidance only

2.9 Intervention/ Programmes for the doubling the farmers income – during 2019

Demonstrations

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent Yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mono Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Relay Cropping System(Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Relay Cropping System(Kharif-Rabi-Zaid)-Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mixed Farming System(Kharif-Rabi-Zaid)-Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mixed Farming System(Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
IFS System(Kharif-Rabi-Zaid) - Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
IFS System(Kharif-Rabi-Zaid) - Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) *

Note- Same format may be used for OFT.

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2019

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Total no. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
16	16	74	74	187	187	706	706

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	54	54	1080	1297	1050	1288	12500	15425
Rural youth	4	4	50	52	115	232	Mass	Mass
Extn. Functionaries	7	7	105	151				

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200	419	Supply to UP Govt.	20000	14500	25

Soil/plant/water Analysis		
5		
Target	Achievement	No. of farmers covered
3000	2063	2063
250	350	350

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various **crops** by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Nutrient Management	Paddy	Assessment of zinc sulphate and biofertilizer with application of 20% less fertilizer in paddy for yield maximization. (2019-20)	3	
	Cauliflower	Assessment of efficient use of nutrient management in Cauliflower. (2019-20)	4	
	Tomato	Assessment of efficient use of Ferrous Ammonium Sulphate with HYV of tomato for yield maximization. (2019-20)	4	
	Chickpea	Assessment of bio-fertilizer in chickpea for yield enhancement (2019-20)	3	
	Chilli	Assessment of plant growth hormone in chilli	5	
Varietal evaluation	Pigeon Pea	Assessment of high yielding variety of Pigeon pea (2019-20)	3	
	Pigeon Pea	Assessment of high yielding variety of Pigeon pea (2018-19)	3	
	Mustard	Assessment of yield performance of Mustard through HYV (2018-19)	3	
	Mustard	Assessment of yield performance of Mustard through HYV (2019-20)	3	
	Wheat	Assessment of high yielding wheat variety DBW 187 under timely sown irrigated condition (2018-19)	3	
Integrated Pest Management	Chickpea	Assessment of IPM strategies for pod borer management in chick pea (2018-19)	4	
	Chickpea	Assessment of IPM strategies for pod borer management in chick pea (2019-20)	4	
Integrated Crop Management				
Integrated Disease Management	Paddy	False smut management in paddy. (2019-20)	4	
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Post Harvest Technology / Value addition				
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)		Testing audio-visual aids training module in Gorakhpur districts	20	
Total			66	

Summary of technologies assessed under various enterprises by KVKs

Note: Suppose **IPM in paddy** is the technology assessed by 50 KVKs in the Zone with 5 trials by each KVK, then IPM in paddy needs to be considered as a single technology, with $50 \times 5 = 250$ trials and No. of KVKs will be 50. In addition, please note that even if IPM in paddy is done with various combinations of Technology Options (treatments), it may be considered as a single technology only.

I.C. TECHNOLOGY ASSESSMENT IN DETAIL

PEST AND DISEASE MANAGEMENT (Chick Pea) OFT-1 [2018-19]

Problem definition: Low yield of Chickpea due to severe infestation of pod borer and it accounting for 75% pod damage in crop.

Technology Assessed: Assessment of IPM strategies for pod borer management in chick pea

Chick Pea is a major pulse crop of Rabi season. The low yield of chick pea was recorded due to severe infestation of pod borer (*Helicoverpa armigera* Hubner). The problem was identified with concerned village persons during survey and KVK conducted on farm trial to assess the control measures. The different IPM strategies i.e. proper tillage, line sowing and inter cropping with coriander/linseed, HYV GNG 1581, seed treatment with Carbendazim @ 2gm/kg of seed for management of collar rot and spray of Emamectin Benzoate 5% SG @ 0.4 gm/liter water at 50% flowering and at 50% pod filling stage were comprised under on farm trial. There was less infestation of plants/m² and pod/plant with application of IPM strategies. The average yield of 15.83 q/ha was obtained from the demonstration plot whereas 11.75 q/ha from farmers practice and yield was increased by 34.72 per cent.

Table:- Performance of management strategies of Pod borer in Chick Pea

<i>Technology Option</i>	<i>No. of Trials</i>	<i>% of Affected plants/m²</i>	<i>% of damaged pod/plant</i>	<i>Yield (q/ha)</i>	<i>%increase in yield over farmers practice</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>Indiscriminate use of pesticide</i>	04	18.00	14.50	11.75	-
<i>Use of IPM strategies</i>		10.00	8.00	15.83	34.72

<i>Gross Cost (Rs/ha)</i>	<i>Gross Return (Rs/ha)</i>	<i>Net Return (Rs/ha)</i>	<i>B:C Ratio</i>
<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
16895	47000	30105	2.78
20195	63320	43125	3.14

PEST AND DISEASE MANAGEMENT (Paddy) OFT-2 [2019-20]

Problem definition: False smuts have recently become an important disease in paddy and causes both quantitative and qualitative losses.

Technology Assessed or Refined (as the case may be): False smut management in paddy.

The disease can occur in areas with high relative humidity (>90%) and temperature ranging from 25–35 °C. Rain and high humidity and soils with high nitrogen content also favor disease development. The pathogen also survives through alternate host viz., barnyard grass (*Echinochloa crusgalli*) and common rice

weed *Digitaria marginata*. Wind can spread the fungal spores from plant to plant. False smut symptoms produced are visible after flowering only. The integrated approaches i.e. recommended dose of nitrogen (120kg/ha), weed management with Bispyribac-sodium 10% EC @ 250 ml/ha at 20 days after transplanting and Tebuconazole 25.9% EC @ 1 ml/liter water at panicle initiation were comprised under on farm trial. The incidence of false smut in paddy was recorded 8.65% in demonstration plot while it was 21.11% in farmers practice. The average yield of 53.00 q/ha was obtained from the demonstration plot whereas 44.50 q/ha from farmer practices and yield was increased by 19.10 per cent. Percent disease reduction was recorded 59.02% with application of IDM strategies. Farmers accepted and appreciated the technology.

Table:- Performance of integrated approach

Technology Option	No. of Trials	Avg. infected panicle/hill	Avg. infected panicle/m ²	Yield (q/ha)	%increase in yield over farmers practice	Disease incidence (%)
1	2	3	4	5	6	
Farmers practice (No control measure adopted/improper use of fungicides) (FP)	04	4.75	6.25	44.50	-	21.11
Use of integrated approach		2.25	2.75	53.00	19.10	8.65

Technology Option	Gross Cost (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
	7	8	9	10
Farmers practice	27250	80100	52850	2.94
Use of integrated approach	28550	95400	66850	3.34

PEST AND DISEASE MANAGEMENT
(Chick Pea) *OFT-3*
[2019-20]

Problem definition: Low yield of Chickpea due to severe infestation of pod borer and it accounting for 75% pod damage in crop.

Technology Assessed: Assessment of IPM strategies for pod borer management in chick pea

Chick Pea is a major pulse crop of Rabi season. The low yield of chick pea was recorded due to severe infestation of pod borer (*Helicoverpa armigera* Hubner). The problem was identified with concerned village persons during survey and KVK conducted on farm trial to assess the control measures. The different IPM strategies i.e. proper tillage, line sowing of HYV RVG 202 have been sown on farmers field. The insecticide Methomyl 40% SP will be spray at 50% flowering and at 50% pod filling stage. The infestation of plants/m² and pod/plant, yield data, farmers' reaction and other parameters will be recorded in use of IPM strategies as well as farmers' practice.

Table:- Performance of management strategies of Pod borer in Chickpea

<i>Technology Option</i>	<i>No. of Trials</i>	<i>% of Affected plants/m²</i>	<i>% of damaged pod/plant</i>	<i>Yield (q/ha)</i>	<i>%increase in yield over farmers practice</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>Indiscriminate use of pesticide</i>	04	Results awaited			
<i>Use of IPM strategies</i>					

<i>Gross Cost (Rs/ha)</i>	<i>Gross Return (Rs/ha)</i>	<i>Net Return (Rs/ha)</i>	<i>B:C Ratio</i>
<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>

VARIETAL EVALUATION

(Pigeon pea) *OFT-4*
[2018-19]

Problem definition: Lower Productivity and profitability in Pigeon pea cultivation due to use of old and mixed varieties.

Technology Assessed: Assessment of high yielding variety of Pigeon pea

Pigeon pea is the most important Kharif pulse crop of Uttar Pradesh. The productivity of pigeon pea crop of Uttar Pradesh and in district Gorakhpur is quite low as compare to production potential. Among various constraints like lack of knowledge about suitable location specific variety, unavailability of quality seeds in time, use of old and mix variety, poor crop management and protection technologies assume primary position for considering the facts of low yield of pigeon pea. To replace this anomaly, the MGKVK, Gorakhpur conducted on farm trial on assessment of HYV of pigeon pea i.e. IPA 203 with recommended practices. The grain yield i.e. 14.66q/ha was recorded in demonstrated technology which was 57.63 % more over farmers practice (9.30 q/ha) and net return Rs. 52015/ha was recorded in IPA 203 as compared to the farmers practice (Rs. 27450/ha). Farmers accepted and appreciated the demonstrated technology.

Table:-Performance of HYV Pigeon pea Variety IPA 203 under Timely Sown Irrigated Condition

<i>Technology Option</i>	<i>No. of Trials</i>	<i>Plant height (cm)</i>	<i>No of Grain /pod</i>	<i>Grain Yield q/ha</i>	<i>% Increase in Yield</i>	<i>Gross Cost Rs/ha</i>	<i>Gross Returns Rs/ha</i>	<i>Net Returns Rs/ha</i>	<i>B:C Ratio</i>
<i>Pigeon pea old and mixed variety (Farmers Practice)</i>	03	315	03	9.30	-	19050	46500 @50.00/kg	27450	2.44
IPA 203		205	04	14.66	57.63	21255	73300 @50.00/kg	52015	3.44

VARIETAL EVALUATION

(Pigeon pea) *OFT-5*

[2019-20]

Problem definition: Lower Productivity and profitability in Pigeon pea cultivation due to use of old and mixed varieties.

Technology Assessed: Assessment of high yielding variety of Pigeon pea

Pigeon pea is the most important Kharif pulse crop of Uttar Pradesh. The productivity of pigeon pea crop of Uttar Pradesh and in district Gorakhpur is quite low as compare to production potential. Among various constraints like lack of knowledge about suitable location specific variety, unavailability of quality seeds in time, use of old and mix variety, poor crop management and protection technologies assume primary position for considering the facts of low yield of pigeon pea. To replace this anomaly, the MGKVK, Gorakhpur is conducting on farm trial on assessment of HYV of pigeon pea i.e. IPA 203 & NA-2 with recommended practices. Yield, plant height, no. of seed/pod, no. of pods/plant, no. of branches/plant and other parameters data will be recorded.

Table: -Performance of HYV Pigeon pea Varieties IPA 203 & NA-2 under Timely Sown Irrigated Condition

<i>Technology Option</i>	<i>No. of Trials</i>	<i>Plant height (cm)</i>	<i>No of Grain /spike</i>	<i>Grain Yield q/ha</i>	<i>% Increase in Yield</i>	<i>Gross Cost Rs/ha</i>	<i>Gross Returns Rs/ha</i>	<i>Net Returns Rs/ha</i>	<i>B:C Ratio</i>
<i>Pigeon pea old and mixed variety (Farmers Practice)</i>	03	Results awaited							
IPA 203									
NA-2									

VARIETAL EVALUATION

(Mustard) *OFT-6*

[2018-19]

Problem definition: Lower Productivity and profitability in Mustard cultivation due to use of old and mixed varieties.

Technology Assessed: Assessment of yield performance of Mustard through HYV

Mustard is one of the most important rabi oilseed crops, widely cultivated throughout the country. The yield of Mustard is being lowered down due to lack of knowledge about suitable location specific variety and unavailability of quality seed among farming community. Farmers are used old and mix variety so that they are not getting higher yield. The MGKVK, Gorakhpur conducted on farm trial on assessment of HYV of Mustard RH 749 with proper management practices. Higher grain yield 18.66q/ha and net return Rs. 61578/ha was recorded in demonstrated technology as compared to the farmers practice with average yield 12.5 q/ha and net return of Rs. 19845/ha. Farmers accepted and appreciated the demonstrated technology.

Table:-Performance of HYV mustard Varieties RH 749 under Timely Sown Irrigated Condition

<i>Technology Option</i>	<i>No. of Trials</i>	<i>No of siliquae /plant</i>	<i>Grain Yield q/ha</i>	<i>% Increase in Yield</i>	<i>Gross Cost Rs/ha</i>	<i>Gross Returns Rs/ha</i>	<i>Net Returns Rs/ha</i>	<i>B:C Ratio</i>
<i>old and mixed variety (Farmers Practice)</i>	03	180	12.5	-	21405	41250 @33.00/kg	19845	1.92
RH 749		310	18.66	49.28	23160	61578 @33.00/kg	38418	2.67

VARIETAL EVALUATION

(Mustard) OFT-7
[2019-20]

Problem definition: Lower Productivity and profitability in Mustard cultivation due to use of old and mixed varieties.

Technology Assessed: Assessment of yield performance of Mustard through HYV

Mustard is one of the most important rabi oilseed crops, widely cultivated throughout the country. The yield of Mustard is being lowered down due to lack of knowledge about suitable location specific variety and unavailability of quality seed among farming community. Farmers are used old and mix variety so that they are not getting higher yield. To replace this anomaly, the MGKVK, Gorakhpur is conducting on farm trial on assessment of HYV of Giriraj with recommended practices. Yield, no. of siliquae/plant, no. of branches/plant, no. of siliqua/plant, percent increase in yield and net returns will be recorded.

Table:-Performance of HYV mustard Variety Giriraj under Timely Sown Irrigated Condition

<i>Technology Option</i>	<i>No. of Trials</i>	<i>No of siliquae /plant</i>	<i>Grain Yield q/ha</i>	<i>% Increase in Yield</i>	<i>Gross Cost Rs/ha</i>	<i>Gross Returns Rs/ha</i>	<i>Net Returns Rs/ha</i>	<i>B:C Ratio</i>
<i>old and mixed variety (Farmers Practice)</i>	03	Results awaited						
Giriraj								

VARIETAL EVALUATION

(OFT-Wheat) OFT-8
[2018-19]

Problem definition: Low yield of wheat as compared to newly released wheat variety DBW 187.

Technology Assessed: Assessment of high yielding wheat variety DBW 187 under timely sown irrigated condition.

Wheat (*Triticum aestivum* L.) is one of the most common cereals crops grown in rabi season under irrigated condition. Wheat variety HD 2967 is most popular among the farmers of district Gorakhpur but lower productivity has been identified due to continuous use of this variety and also as compared to newly released wheat variety DBW 187. The MGKVK Gorakhpur conducted on farm trial to assess the HYV of wheat DBW 187 to enhance the productivity and profitability of farmers. Higher grain yield 59.71 q/ha was recorded in demonstrated plots which was 25.70 per cent more over farmers practice (47.50 q/ha) and net return Rs.56065.50/ha received under assessed trial while under existing practices was Rs. 37750.00/ha.

Table:-Performance of high yielding wheat varieties DBW-187 under Timely Sown Irrigated Condition

Technology Option	No. of Trials	No of tillers/hill	Plant height (cm)	No of Grain /spike	Grain Yield q/ha	% Increase in Yield	Gross Cost Rs/ha	Gross Returns Rs/ha	Net Returns Rs/ha	B:C Ratio
Wheat Variety HD-2967 (Farmers Practice)	05	12	98.00	79	47.50	-	33500	71250 @15.00/kg	37750	2.12
DBW 187		21	100.00	88	59.71	25.70	33500	89565 @15.00/kg	56065	2.67

INTEGRATED NUTRIENT MANAGEMENT

(OFT-Paddy) OFT-9

[2019-20]

Problem Definition: Low yield in Paddy due to use of imbalanced dose of fertilizer and no use of biofertilizer.

Technology Assessed: Assessment of zinc sulphate and biofertilizer with application of 20% less fertilizer in paddy for yield maximization.

Paddy (*Oryza sativa*) is one of the most common cereals crops grown in *Kharif* season under irrigated condition. The yield of paddy is being lowered down due to use of imbalanced dose of chemical fertilizer and no use of zinc sulphate and *Azotobacter*. MGKVK Gorakhpur has designed On Farm Trial in paddy crop for yield maximization. The assessed technology of 20% less chemical fertilizer (100:40:40::N:P:K kg/ha) + zinc sulphate 33% @ 2% (three foliar application i.e. 15, 30 and 45 DAT) and *Azotobacter*-1x10⁸cfu @200 ml/acre (as soil application @200 mL/acre + 50 kg FYM before 24 hours of transplanting) were comprised in paddy variety Sambha Sab 1. The demonstrated technology yielded 51.83 q/ha yield which was 23.40% higher over farmer's practice (42.00 q/ha). The other traits like number of effective tillers/plant, number of grains/spike and plant height were recorded more i.e. 20, 268 and 97 respectively in demonstrated technology as compared to farmer's practices. Farmers accepted and appreciated the demonstrated technology.

Table: Effect of balanced dose of chemical fertilizer with *Azotobacter* in paddy

Technology Option	No. of trials	No of tillers/plants	No of grains/spike	Plant height(cm)	Yield (q/ha)	%increase in yield
T-1: Farmers Practice (170:40:0::N:P:K)kg/ha and no use of zinc sulphate & <i>Azotobacter</i>	03	15	208	83	42.00	-
T-2: Sambha sab 1 + 20% less dose of chemical Fertilizer(100:40:40::N:P:K)kg/ha+zinc sulphate33% @2% foliar spra, <i>Azotobacter</i> @200ml/acre.		20	268	97	51.83	23.40

Technology Option	Gross Cost (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
T-1: Farmers Practice	26550	75600	49050	2.84
T-2: Demonstration	28750	93294	64544	3.24

LIVE STOCK ENTERPRISES
(Cows) OFT-10
[2018-19]

Problem definition: High incidence of infertility in cows.

Technology Assessed or Refined (as the case may be): Assessment of urea molasses mineral bricks animal feed supplementation to control the infertility.

MGKVK Gorakhpur conducted PRA to identify high incidence of infertility in cow and on farm trial were formulated and conducted. However, the successful treatment and control of mineral deficiencies in effective and practical method of supplementation of UMMB for the effect of general health condition and reproductive performance of cows.

Table Effect of UMMB in the control of infertility in cows

Technology Option	No. of trials	Conception rate (%)	Growth increased (%)	Estrus cycle regularity (days)
Use of common salt (Farmers practice)	3	40	4.10	21
Use of UMMB @ 1 Bricks for 7 days/ animal (recommended practice)	3	100	7.07	21

LIVE STOCK ENTERPRISES
(Buffalo) OFT-11
[2018-19]

Problem definition: Low milk and income due to conventional ration feeding

Technology assessed: Assessment of conventional and Bye-Pass animal feed to enhancing milk yield.

Low milk production in buffaloes due to no use of balance ration found during PRA. MGKVK conducted OFT to find out suitable measure for enhance milk production in buffaloes. The technology recommended was fine tune by introducing Bye-Pass animal feed to enhance yield.

Table Effect of of Bye-Pass animal feed to enhance milk yield

Technology option	No of Trial	Average Milk Yield (ltr)	Increase milk yield %	Gross Cost	Gross Return	Net Return (Rs./ltr.)	BC Ratio
Use of choker and cakes (Farmers Practice)	5	5.65	-9.67	157	226	69	1.44
Use of Bye-Pass animal feed @ 4kg/day/animal	5	6.8	16.47	141.5	272	130.5	1.92

NUTRIENT MANAGEMENT
OFT-12
[2019-20]

Problem definition: Low yield of Cauliflower due to imbalance uses of nutrient.

Technology Assessed: Assessment of efficient use of nutrient management in Cauliflower.

Cauliflower is one of the most important cole crop in the Gorakhpur district but the productivity of cauliflower is low due to imbalance use of chemical fertilizer. Cauliflower is a heavy feeder of nutrients. Application of nitrogen increased the curd yield and quality. The major nutrients viz., N, P and K are supplied to the crop through soil application. The efficiency of fertilizers applied in soil is low due to various losses and fixation in soil. Foliar application of nutrients eliminates the problems like fixation and immobilization. Foliar application of nitrogen had affected on diameter and fresh weight of curd. Phosphorus is a constituent of nucleic acid, phytin and phosphorus. It is also an essential constituent of majority of enzymes which are of great important in the transformation of energy in carbohydrate and fat metabolism and also in respiration in plants. Potassium imparts increased vigour and disease resistance to plant. It also regulates water conduction within the plant cell and water loss from the plant by maintaining the balance between anabolism, respiration and transpiration. Keeping in view, the present OFT conduct at MGKVK, Gorakhpur took up on-farm trial on nutrient management in Cauliflower with spray of soluble fertilizer 18:18:18 NPK @ 0.5% at 20, 30 DAT. The study revealed that the yield 195.5 q/ha by the foliar spray of 18:18:18 NPK over without spray yielded 161.75 q/ha. The wholesale market rate of the cauliflower ranges @ 28/kg. The net return from the demo field is Rs.412400/ha with 4.45 B:C ratio in comparison to Rs. 342900/ha with B:C ratio of 4.11 of farmers practice. The results indicated that the use of spray of soluble fertilizer 18:18:18 NPK @ 0.5% at 20, 30 DAT gave 20.86 per cent increase in yield over without spray of NPK as foliar spray.

Table: Effect of Cauliflower HYV (Kashi Gobhi - 25) + spray of soluble fertilizer 18:18:18NPK @ 0.5% at 20, 30 DAT

<i>Technology Option</i>	<i>No.of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Gross cost</i>	<i>Gross return</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
T1:- Farmers practice (Without spray)	4	161.75		110000	452900	342900	4.11
T2:- HYV (Kashi Gobhi-25) + spray of soluble fertilizer 18:18:18NPK @ 0.5% at 20, 30 DAT		195.5	20.86	123000	547400	412400	4.45

NUTRIENT MANAGEMENT
OFT-13
[2019-20]

Problem definition: Low yield of tomato due imbalanced use of nutrient.

Technology Assessed: Assessment of efficient use of Ferrous Ammonium Sulphate with HYV of tomato for yield maximization.

Tomato cultivation comprises a major area in Gorakhpur district. During the field survey the most recognizable symptom of Iron deficiency in tomato is characterized by an intense yellowing at the base of young leaves, with the midrib and leaf veins remaining green. At later stages, the chlorosis extends to the whole leaf and leaves gradually take bleached aspects. Iron deficiency can be a serious problem in Gorakhpur district because the floody area found in the district. In soil the iron has a low mobility so the

deficiency system appears first in lower leaves. The application of foliar fertilizer containing iron can still rescue the leaves and the plants. The re-greening of the veins after the application of iron is Intense chlorosis at the base of young leaves, with the leaf veins remaining green. The most common and inexpensive strategy is to control the iron deficiency by use of FAS as foliar spray. MGKVK, Gorakhpur took up on-farm trial on nutrient management in Tomato with spray of FAS (Ferrous Ammonium Sulphate) @ 200ppm at 30, 45 & 75 DAT to maintain the crop health. The third spray of Ferrous Ammonium Sulphate awaited. The yield/plant, yield(q/ha) data, farmers' reaction and other parameters will be recorded in use of FAS (Ferrous Ammonium Sulphate) as well as farmers' practice.

Table: Effect of Tomato HYV (Kashi Aman) + spray of FAS (Ferrous Ammonium Sulphate) @ 200ppm

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (qt./ha)</i>	<i>Increase in yield (%)</i>	<i>Gross cost</i>	<i>Gross return</i>	<i>Net Return (Rs./ha)</i>	<i>B:C Ratio</i>
T1:- Farmers practice (Without spray)	4	<i>Result awaited</i>					
T2:- HYV (Kashi Aman) + spray of FAS (Ferrous Ammonium Sulphate) @ 200ppm at 30, 45 & 75 DAT							

NUTRIENT MANAGEMENT OFT-14

[2019-20]-Results Awaited

Particulars	Contents
Title	Assessment of bio-fertilizer on productivity of chick pea
Problem diagnosed	Low yield in chickpea due to use of imbalance dose of fertilizer
Micro farming situation	Sandy loam, imbalance use of fertilizer, low productivity, irrigated
Details of technology identified for solution	T1-Farmers practice (imbalanced fertilizer and no use of bio-fertilizer) T2-15:40:20:20::N:P:K:S kg/ha (Farmers share) + PSB and <i>Rhizobium</i> @ 500 mL/ha
No. of farmers	03
Replications	03
Area	6000 sqm
Critical inputs	Bio Fertilizer
Production system	Rice-wheat
Source of technology	AICRP on major nutrients
Total Cost	Rs. 4000/- (Approx.)
Observation to be recorded	Plant height, Nodule number, nodule weight, Yield (q/ha.), % increase in yield, BC Ratio
Reaction of the farmers	Acceptability of technology among farmers Compatibility in the existing cropping system

OFT-15 (Agri. Ext.)-Results Awaited

Particulars	Contents
Title	Testing of Audio-visual aids training module in Gorakhpur district
Problem diagnosed	Lack of knowledge and interest
Details of technology identified for solution	T ₁ - Training without using visual aids (Lecture mode only) T ₂ .Training using audio-visual aids
No. of farmers	20
Replications	5
Critical inputs	Training
Production system and thematic area	Knowledge and adoption of technological know-how
Source of technology	GBPUA&T, Pantnagar
Total Cost	Rs 8000.00/-
Observation to be recorded	<ul style="list-style-type: none"> • Knowledge • Adoption • Attitude
Reaction of the farmers	Acceptability & compatibility

OFT-16 (Hort)-Results Awaited

Particulars	Contents
Title	Assessment of plant growth hormone in chilli.
Problem diagnosed	Low yield of chili due to flower drop.
Micro farming situation	Sandy loam, low water holding capacity, imbalance use of fertilizer, tube well, low productivity
Details of technology identified for solution	T1:- Farmers practice T2:- HYV (Kashi Anmol/ Azad Mirch-1) with Naphthene Acetic Acid (NAA) @ 10 ppm during flowering, 2 nd spray 20-30 days
No. of farmers	05
Replications	05
Area	5000 sqm
Critical inputs	Seed & Naphthene Acetic Acid (NAA) / Chlormequat Chloride (Lehoshin)
Production system	Cucurbits – Chilli
Source of technology	IIVR, Varanasi
Total Cost	Rs. 5000.00 (Approx)
Observation to be recorded	Date of 1 st Flowering, Date of 50% Flowering, Yield (q/ha), No. of fruits/plant, % increase in yield, BCR
Reaction of the farmers	Acceptability of technology to farmers

II. FRONTLINE DEMONSTRATION

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2018 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1.	Mustard (CFLD) 2018-19	ICM	Seed (RG-749) + imidacloprid 17.5 + sulphur 80 % WDG@2gm/lit of water	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	10	100	40
2.	Mustard (CFLD) 2019-20	ICM	Seed (RG-749) + imidacloprid 17.5 + sulphur 80 % WDG@2gm/lit of water	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	8	50	20
3.	Pigeon pea (C-FLD) 2018-19	ICM	Seed-6 kg/acre+seed treatment Trichoderma 5 gram/kg+Imazathyper 10%SL @1 lt /ha+Enamectin Benzoate 5% SG @220g/ha for pod borer management	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	10	125	50
4.	Pigeon pea (C-FLD) 2019-20	ICM	Seed-6 kg/acre+seed treatment Trichoderma 5 gram/kg+Imazathyper 10%SL @1 lt /ha+Enamectin Benzoate 5% SG @220g/ha for pod borer management	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	8	37	15
5.	Chickpea 2018-19	INM	Boron application	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	3	10	2.5
6.	Chickpea 2018-19	ICM	Seed + imamactin benzoate 5% SG	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	5	25	10
7.	Chickpea 2019-20	INM	Boron @ 10kg/ha	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	3	10	2.5
8.	Chickpea 2019-20 C-FLD	ICM	Seed var. RVG 202+ Pesticide for pod borer management	Demonstration, Trainings, Field Day, Literature Distributed, Advisory Services	6	25	10
9.	Paddy 2019-20	INM	Seed + Balanced dose of fertilizer with use of ZnSO4 33% @2% foliar spray	Demonstration, Trainings, Field Day, Advisory Services, News Paper Coverage	4	20	2
10.	Paddy 2019-20	Varietal Evaluation	Seed Sambha Sab 1	Demonstration, Trainings, Field	14	160	20

				Day, Advisory Services, News Paper Coverage			
11.	Wheat Timely sown 2018-19	INM	Seed+120:60:40 kg NPK+ VAM @10kg+500Kg FYM/ha	Demonstration, Trainings, Field Day, Advisory Services	2	10	1
12.	Wheat Timely sown 2019-20	INM	Seed+120:60:40 kg NPK+ VAM @10kg+500Kg FYM/ha	Demonstration, Trainings, Field Day, Advisory Services	4	10	1
13.	Bitter gourd 2019-20	INM	HYV VRBTG-10 with machan system	Demonstration, Trainings, Advisory Services	6	10	0.50
14.	Cauliflower 2019-20	ICM	Intercropping of cauliflower (var. kashi gobhi 25) with banana crop (var. G-9)	Demonstration, Trainings, Advisory Services	7	10	0.50
15.	Sorghum 2019-20	VE	Seed Green Gold SSG	Demonstration, Trainings, Advisory Services	15	37	4
16.	Berseem 2018-19	VE	Seed (BB2)	Demonstration, Trainings, Advisory Services	7	30	4
17.	Berseem 2019-20	VE	Seed (Green Gold)	Demonstration, Trainings, Advisory Services	11	32	4
18.	Vermi Compost	Eisenia fetida	Worms (Eisenia fetida)	Demonstration, Trainings, Advisory Services	3	5	-

* Thematic areas as given in Table 3.1 (A1 and A2)

b. Details of FLDs implemented during **2019** (Information is to be furnished in the following **three tables** for each category i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.**)

Sl. No.	Crop	The matic area	Tech nology Dem onstr ated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievem ent
					Proposed	Actual	SC/ST	Others	Total	
1.	Mustar d (CFLD) 2018-19	ICM	Seed (RG-749) + imidacloprid 17.5 + sulphur 80 % WDG @2gm /lt of water	Rabi 2018 -19	40	40		100	100	
2.	Mustar d (CFLD) 2019-20	ICM	Seed (RG-749) + imidacloprid 17.5 + sulphur 80 % WDG @2gm /lt of water	Rabi 2019 -20	20	20		50	50	
3.	Pigeon pea (C-	ICM	Seed-6 kg/acre +seed	Khari f	50	50		125	125	

	FLD) 2018- 19		treatme nt Tricho derma 5 gram/k g+Imaz athyper 10%SL @1 lt /ha+E mamec tin Benzoa te 5% SG @220g /ha for pod borer manage ment	2019 -19						
4.	Pigeon pea (C- FLD) 2019- 20	ICM	Seed-6 kg/acre +seed treatme nt Tricho derma 5 gram/k g+Imaz athyper 10%SL @1 lt /ha+E mamec tin Benzoa te 5% SG @220g /ha for pod borer manage ment	Khari f 2019 -20	15	15		37	37	
5.	Chickp ea 2018- 19	INM	Boron applica tion	Rabi 2018 -19	2.5	2.5		10	10	
6.	Chickp ea 2018- 19	ICM	Seed + imama ctin benzoat e 5% SG	Rabi 2018 -19	10	10		25	25	
7.	Chickp ea 2019- 20	INM	Boron @ 10kg/h a	Rabi 2019 -20	2.5	2.5		10	10	
8.	Chickp ea 2019- 20 C-FLD	ICM	Seed var. RVG 202+ Pestici de for pod borer manage ment	Rabi 2019 -20	10	10		25	25	
9.	Paddy 2019- 20	INM	Seed + Balanc ed dose of fertiliz er with	Khari f 2019 -20	2	2		20	20	

			use of ZnSO ₄ 33% @ 2% foliar spray							
10	Paddy 2019- 20	Varietal Evaluation	Seed Sambha Sab 1	Khari f 2019 -20	20	20		160	160	
11	Wheat Timely sown 2018- 19	INM	Seed+ 120:60 :40 kg NPK+ VAM @10kg g+500 Kg FYM/ha	Rabi 2018 -19	1	1		10	10	
12	Wheat Timely sown 2019- 20	INM	Seed+ 120:60 :40 kg NPK+ VAM @10kg g+500 Kg FYM/ha	Rabi 2019 -20	1	1		10	10	
13	Bitter gourd 2019- 20	INM	HYV VRBT G-10 with macha n system	Khari f 2019 -20	0.50	0.50		10	10	
14	Cauliflower 2019- 20	ICM	Intercropping of cauliflower (var. kashi gobhi 25) with banana crop (var. G-9)	Khari f 2019 -20	0.50	0.50		10	10	
15	Sorghum 2019- 20	VE	Seed Green Gold SSG	Khari f 2019 -20	4	4		37	37	
16	Berseem 2018- 19	VE	Seed (BB2)	Rabi 2018 -19	4	4		30	30	
17	Berseem 2019- 20	VE	Seed (Green Gold)	Rabi 2019 -20	4	4		32	32	
18	Vermi Compost	Eisenia fetida	Worms (Eisenia fetida)	-	0	0		5	5	
19					187	187		706	706	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Mustard (CFLD) 2018-19	Rabi 2018-19	irrigated	Sandy loam	L	L	M	Paddy	25 Oct – 8 Nov 2018	12-28 March 2019		
Mustard (CFLD) 2019-20	Rabi 2019-20	irrigated	Sandy loam	L	L	M	Paddy	25 Oct – 10 Nov 2019	-		
Pigeon pea (C-FLD) 2018-19	Kharif 2019-19	RF	Sandy loam	L	L	M	Wheat	25 June – 15 July 2018	8-17 April 2019		
Pigeon pea (C-FLD) 2019-20	Kharif 2019-20	RF	Sandy loam	L	L	M	Wheat	25 June – 15 July 2019	-		
Chickpea 2018-19	Rabi 2018-19	RF	Sandy loam	L	L	M	Paddy	12-20 Nov 2018	8-15 April 2019		
Chickpea 2018-19	Rabi 2018-19	RF	Sandy loam	L	L	M	Paddy	12-20 Nov 2018	8-15 April 2019		
Chickpea 2019-20	Rabi 2019-20	RF	Sandy loam	L	L	M	Paddy	12-20 Nov 2019	-		
Chickpea 2019-20 C-FLD	Rabi 2019-20	RF	Sandy loam	L	L	M	Paddy	12-20 Nov 2019	-		
Paddy 2019-20	Kharif 2019-20	Irrigator	Sandy loam	L	L	M	Wheat	2-15 July 2019	15-25 Nov 2019		
Paddy 2019-20	Kharif 2019-20	Irrigator	Sandy loam	L	L	M	Wheat	2-15 July 2019	15-25 Nov 2019		
Wheat Timely sown 2018-19	Rabi 2018-19	irrigated	Sandy loam	L	L	M	Paddy	20-30 Nov 2018	8-15 March 2019		

Wheat Timely sown 2019-20	Rabi 201 9- 20	irrigat ed	Sandy loam	L	L	M	Paddy	20- 30 Nov 2019	-		
Bitter gourd 2019-20	Kharif 201 9- 20	irrigat ed	Sandy loam	L	L	M	Wheat	25 June -10 July 2019	25- 30 Nov 2019		
Cauliflo wer 2019-20	Kharif 201 9- 20	irrigat ed	Sandy loam	L	L	M	Wheat	25 June - 5 July 2019	20- 25 Oct 2019		
Sorghu m 2019-20	Kharif 201 9- 20	irrigat ed	Sandy loam	L	L	M	Wheat	25 June -10 July 2019	20- 26 Oct 2019		
Berseem 2018-19	Rabi 201 8- 19	irrigat ed	Sandy loam	L	L	M	Paddy	25- 30 Nov 2018	10- 20 April 2019		
Berseem 2019-20	Rabi 201 9- 20	irrigat ed	Sandy loam	L	L	M	Paddy	25- 30 Nov 2019	-		
Vermi Compo st	-	-	Sandy loam	-	-	-	-				

Technical Feedback on the demonstrated technologies

S. No	Feed Back
Mustard	
1	It is suitable for timely sowing, 2.5-3.5 kg/ha seed is sufficient
2	It is suitable for irrigated conditions
3	It is of long maturity (140-150 days)
Pigeon pea	
1	Variety NA-2 has been found better than non-identified local variety
2	Variety NA-2 with fertilizer response appreciated by the farmers
Chickpea	
1	Chick Pea Variety GNG 1581 is resistant to water logging condition and tolerant against wilt, Ascochyta blight, stunt and root rot, medium height and semi erect plant
2	Use of carbendazim as a seed treatment resulted to control collar rot/wilt
3	Application of balanced dose of fertilizer found effective in higher production
4	There is a need to develop a method to know the effectiveness and activeness of microbes in bio-agents at local level
5	No use of balanced dose of fertilizer is a major constraint for production of chick pea
6	Lack of awareness about IPM strategies
Paddy	
1	Use of balanced dose of fertilizer (120:60:40kg/ha N:P:K::+ZnSO ₄ 25kg/ha) found an important role in higher sustainable production
2	Application of ZnSO ₄ is useful to control of Khaira disease and also it enhances the photosynthetic rate of plant resultantly enhance the production of paddy
Berseem	

1	Variety BB-2 is highly productive and multi-cut variety
2	Dark green leaves and tolerant to acidic condition
3	This variety flowers in 150-160 days and matures in 180-190 days.
Bitterguard	Bitter guard var. VRBTG-10 is HYV, Length of Fruit av.-25-30cm, av. Yield 350Q/ha
Sorghum	
Cauliflower	
1.	HYV var. kashi gobhi – 25 could weight 800- 1000 gm white in color compact

Note:- Yield affected due to attack of blue bulls at different growth stages of crop

Farmers' reactions on specific technologies

S. No	Feed Back
Mustard	
1.	Farmers were happy with HYV RH 749
2.	RH 749 may be sown with in 15 th October that reduces the aphid infestation and resultantly increase the production
3.	Farmers appreciated the demonstration
Pigeon Pea	
1.	NA-2 seed is not available in market but this variety is better than others
2.	No of pods are higher in comparison to other varieties
3.	Yield received less due to attack of blue bulls at different growth stages of crop
Chickpea	
1	Variety GNG 1581 appreciated by farmers because seed size is slightly bold
2	Farmers accepted fertilizer dose as recommended by scientists
3	Attack of Neelgai during the maturity of crops is a constraint for chick pea production
Paddy	
1.	Farmers are not aware about improved production technology of paddy
2.	Recommended dose of fertilizer along with Zinc Sulphate is appreciated by the farmers
3.	Imbalanced use of fertilizer is a major constraint for production of paddy
Berseem	
1	Farmers were happy to grow this variety, they received higher quantity of forage
2	Farmers' appreciated the demonstration due to more cutting of this variety (5-6 cuts)
Bitter guard	
	Farmers appreciated Bitter guard var. VRBTG-10 due to their fruit size; less prone to insect/pest.,
	Yield received less due to attack of blue bulls at different growth stages of crop
Sorghum	
Cauliflower	
1.	HYV var. kashi gobhi – 25 could weight 800- 1000 gm white in color compact less prone to diseases and suitable for intercropping with banana crop.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	3	12.3.2019;1.4.2019,12.11.2019	368	
2	Farmers Training	3	15/05/2019,7/6/2019,2/11/2019	67	
3	Media coverage	20	5/6/19,-8/6/19,3/12/19,17/6/19	-	
4	Training for extension functionaries				

[illegible]

** BCR= GROSS RETURN/GROSS COST

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)			% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)				
						Demo				Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeonpea																		
Pigeon pea (C-FLD) 2018-19	ICM	Seed-6 kg/acre+seed treatment Trichoderma 5 gram/kg+Imazathyper 10%SL @1 lt /ha+Emamectin Benzoate 5% SG @220g/ha for pod borer management	NA 2	125	50	18.4	13.1	14.04	10.27	36.70	21255	70200	48945	3.30	19050	51350	32300	2.78
Pigeon pea (C-FLD) 2019-20	ICM	Seed-6 kg/acre+seed treatment Trichoderma 5 gram/kg+Imazathyper 10%SL @1 lt /ha+Emamectin Benzoate 5% SG @220g/ha for pod borer management	NA-2	37	15	Result awaited												
Blackgram																		
Greengram																		
Chickpea																		
Chickpea 2018-19	INM	Boron application	GNG-1581	10	2.5	16.50	14.50	15.41	11.51	33.88	21470.00	61620.00	40150.00	2.87	17393.00	46040.00	28647.00	2.65
Chickpea 2018-19	ICM	Seed + imamactin benzoate 5% SG	GNG-1581	25	10	20.6	16.8	18.16	11.5	57.91	24060.00	72640.00	48580.00	3.02	22100.00	46000.00	23900.00	2.08
Chickpea 2019-20	INM	Boron @ 10kg/ha	GNG-1581	10	2.5	Result awaited												

** BCR= GROSS RETURN/GROSS COST

[illegible]

[illegible]

Papaya																			
Muskmelon																			
Watermelon																			
Spices & condiments Ginger																			
Garlic																			
Turmeric																			
Commercial Crops Sugarcane																			
Potato																			
Medicinal & aromatic plants Mentholment																			
Kalmegh																			
Ashwagandha																			
Fodder Crops Sorghum 2019-20	VE	Seed Green Gold SSG	37	4	825	790	807.50	605	33.47	Multicut var. 4 cut	3 cutting	6130	40375	34245	6.58	6450	30250	23800	4.68

** BCR= GROSS RETURN/GROSS COST

[illegible]

Poultry																	
Sheep & Goat																	
Vaccination																	

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

** BCR= GROSS RETURN/GROSS COST

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Common Carps																	
Composite fish culture																	
Feed Management																	

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

** BCR= GROSS RETURN/GROSS COST

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Oyster Mushroom																
Button Mushroom																
Apiculture																
Maize Sheller																
Value Addition																
Vermi Compost	Worms (Eisenia fetida)	05	05	Result awaited												

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check

FLD on Farm Implements and Machinery

[illegible]

FLD on Other Enterprise: Kitchen Gardening

[illegible]

FLD on Demonstration details on crop hybrids *(Details of Hybrid FLDs implemented during 2019)*

[illegible]

Fruit crop													
Other (specify)													

Note : Remove the Enterprises/crops which have not been shown

g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	4	69	6	75	7	3	10	76	9	85
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management	2	39	0	39	2	0	2	39	2	41
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency	1	32	0	32	1	0	1	33	0	33
Balance use of fertilizers										
Soil and Water Testing	1	22	0	22	1	0	1	23	0	23
Others (pl specify)										
Total	4	93	0	93	4	0	4	97	0	97
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	18	2	20	1	0	1	19	2	21
Disease Management										
Feed & fodder technology	1	26	0	26	0	0	0	26	0	26
Production of quality animal products										
Others (pl specify)										
Total	2	44	2	46	1	0	1	45	2	47
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	2	42	0	42	2	0	2	44	0	44
Integrated Disease Management	1	24	1	25	1	0	1	25	1	26
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	3	66	1	67	3	0	3	69	1	70

[illegible]

[illegible]

[illegible]

Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	3	59	3	62	2	0	2	61	3	64
Integrated Disease Management	2	44	9	53	1	0	1	45	9	54
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	5	103	12	115	3	0	3	106	12	118
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development	1	26	0	26	1	0	1	27	0	27
Group dynamics										
Formation and Management of SHGs	2	37	7	44	0	3	3	37	10	47
Mobilization of social capital	3	62	08	70	07	2	9	69	10	79
Entrepreneurial development of farmers/youths										
WTO and IPR issues	4	75	6	81	7	2	9	82	8	90
Others (pl specify)										
Total	10	200	21	221	15	7	22	215	28	243

XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	54	1062	139	1201	64	32	96	1126	171	1297

Training for Rural Youths including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	1	5	0	5	1	0	1	6	0	6
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production	1	14	1	15	0	0	0	14	1	15
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production	1	15	1	16	0	0	0	15	1	16
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying	1	13	0	13	2	0	2	13	2	15
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL	4	47	2	49	3	0	3	50	2	52

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus)[illegible]

Area of training	No. of Course s	No. of Participants								
		General			SC/ST			Grand Total		
		Mal e	Femal e	Tota l	Mal e	Femal e	Tota l	Mal e	Femal e	Tota l
Productivity enhancement in field & Horticulture crops	2	39	0	39	15	0	15	54	0	54
Integrated Pest Management										
Integrated Nutrient management	1	14	1	15	0	0	0	14	1	15
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals	1	7	0	7	6	0	6	13	0	13
Livestock feed and fodder production	2	39	0	39	15	0	15	54	0	54
Household food security										
Any other (pl.specify)	1	14	1	15	0	0	0	14	1	15
TOTAL	7	113	2	115	36	0	36	149	2	151

[illegible]

Area of training	No. of Course s	No. of Participants								
		General			SC/ST			Grand Total		
		Mal e	Femal e	Tota l	Mal e	Femal e	Tota l	Mal e	Femal e	Tota l
Productivity enhancement in field & Horticulture crops	2	39	0	39	15	0	15	54	0	54
Integrated Pest Management										
Integrated Nutrient management	1	14	1	15	0	0	0	14	1	15
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals	1	7	0	7	6	0	6	13	0	13
Livestock feed and fodder production	2	39	0	39	15	0	15	54	0	54
Household food security										
Any other (pl.specify)	1	14	1	15	0	0	0	14	1	15
TOTAL	7	113	2	115	36	0	36	149	2	151

[illegible]

Details of vocational training programmes carried out by KVKs for rural youth

[illegible]

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	612	675	45	720
Diagnostic visits	135	240	0	240
Field Day	8	72	10	82
Group discussions	3	47	15	62
Kisan Ghosthi	50	1986	250	2236
Film Show	6	144	25	169
Self -help groups	1	14	0	14
Kisan Mela	7	7225	325	7550
Exhibition	1	550	150	700
Scientists' visit to farmers field	388	1358	00	1358
Plant/animal health camps	2	350	00	350
Farm Science Club	00	00	00	00
Ex-trainees Sammelan	00	00	00	00
Farmers' seminar/workshop	2	650	00	650
Method Demonstrations	18	272	00	272
Celebration of important days	6	176	00	176
Special day celebration	5	150	00	150
Exposure visits	7	41	00	41
Others (pl. specify)	37	526	92	655
Total	1288	14476	912	15425

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	00
Extension Literature	12
News paper coverage	153
Popular articles	8
Radio Talks	4
TV Talks	53
Animal health camps (Number of animals treated)	2
Others (pl. specify)	00
Total	232

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Mahayogi Gorakhnath Krishi Vigyan Kendra	Text only	510	34	18	52	421	29	1064
	Voice only	29	13	06	03	28	05	84
	Voice & Text both	00	00	00	00	00	00	00
	Total Messages	539	47	24	55	449	34	1148
	Total farmers Benefitted	400861	201105	84643	40009	395207	81402	400905

V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organised Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
	Gosthies			
	Lectures organized			
	Exhibition			
	Film show			
	Fair			
	Farm Visit			
	Diagnostic Practicals			
	Distribution of Literature (No.)			
	Distribution of Seed (q)			
	Distribution of Planting materials (No.)			
	Bio Product distribution (Kg)			
	Bio Fertilizers (q)			
	Distribution of fingerlings			
	Distribution of Livestock specimen (No.)			
	Total number of farmers visited the technology week			

VI. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals						
	Wheat	HD2967, DBW 187,107		209	344000	
	Paddy	NDR2065, Sambha Sub1,BPT5204		210		
Oilseeds						
Pulses						
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
Total				419	344000	

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings						
	Brinjal	Kashi Taru	-	3200	2560	11
	Chilli	Kashi Anupam	-	1400	1120	6
	Tomato	Kashi Aman	-	1225	980	9
	Onion	Agrifound Light Red	-	8000	200	7
	Cauliflower	Kashi Gobhi-25	-	800	640	6
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
Total				14625	5500	39

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
Total				

Table: Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp	Rohu, Silver, Mrigal	45	5915	
Exotic carp				
Others (Pl. specify)				
Total		45	5915	

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	2063	2063	27	
Water				
Plant	350	350	14	
Manure				
Others (pl.specify)				
Total				

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
Gorakhnath Krishi Darpan	Online Publication

X. PUBLICATIONS

Category	Number
Research Paper	5
Technical bulletins	10
Technical reports	15
Others (Abstract)	14
Folder/Pumplet /Leaflet	28

XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM

Activities conducted				
No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)

XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/HAILSTORM/COLD WAVES ETC

Introduction of alternate crops/varieties

Crops/cultivars	Area (ha)	Extent of damage	Recovery of damage through KVK initiatives if any
Total			

Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No.of participants
Total		

Animal health camps organised

Number of camps	No.of animals	No.of farmers
Total		

Seed distribution in drought hit states

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Total			

Large scale adoption of resource conservation technologies

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Total		

Awareness campaign

	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
Total												

XIII. DETAILS ON HRD ACTIVITIES**A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension**

Name of the SAU	Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Total				

B. HRD activities organized in identified areas for KVK staff by Zonal Project Directorate

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Total			

XIV. CASE STUDIES (CASE STUDIES MAY BE GIVEN IN DETAIL AS PER THE FOLLOWING FORMAT)

Each Zone should propose a minimum of three case studies with good action photographs (with captions on the backside of the hard copy of the photos) on the following topics

- Effective popularization on a larger scale of any one FLD technology and its role in transformation of district agriculture with respect to that particular crop or enterprise*
 - Performance of the end results of any one technology assessed, its refinement if any and its impact in district agriculture with respect to that crop or enterprise*
 - Effect of production and supply of seeds and planting material / animal breed / or bio-product and its impact on district agriculture with respect to that crop/ enterprise/ bio-product*
- The general format for preparing the above case studies are furnished below*

Name of the KVK

TITLE

Introduction

KVK intervention

Output

Outcome Impact

Case Study

Name of the KVK: Mahayogi Gorakhnath Krishi Vigyan Kendra (MGKVK), Chaukmafi, Peppeganj, Gorakhpur, UP

Title: Enhancing chickpea production for livelihood security through varietal replacement of HYV GNG 1581

Situation analysis/ Problem statements:- Gorakhpur district is a part of the North Eastern Plain Zone of Uttar Pradesh. The soils of district are alluvial, calcareous and salt affected. The district has a large number of streams, ponds and rivers, which brings tremendous flood during the rainy season and miseries to the human and animal population. The average annual rainfall is about 132.09 mm but it varies in various part of the district. The maximum and minimum temperature varies from 48 to 04 °C. This makes agriculture the most important profession of people. One day a progressive farmer Shri Baburam Yadav S/O shri Ramdhani Yadav, village Baijnathpur, Post: Netwalbazar block: campierganj, came in contact with the scientists of the KVK. He said that “we grow 1 to 1.15 acre of Chickpea crop but getting yield of chickpea approximately 10-12 q/ha”. Thereafter KVK’s Scientists have analyzed the main cause of low production of chickpea viz. use of non-descriptive old mixed variety and undescriptive variety, continuously use imbalanced use of fertilizer, improper weed management technique, late sowing, broadcasting method, no seed treatment, higher seed rate, indiscriminate use of insecticide. To combat the causes of yield erosion in chickpea, MGKVK Gorakhpur selected to Mr. Baburam Yadav for Cluster frontline demonstration (FLD) programmes under technology demonstration for harnessing pulse productivity of chickpea through varietal replacement of HYV GNG 1581 with other crop management practices i.e. fertilizer (N:P:K:S::20:40:20:20 kg/ha) + boron @ 10 kg/ha + pod borer management by application of Emamectin Benzoate 5% SG @ 0.4 g/liter of water at 50% flowering and at 50% pod filling stage under real farming conditions.

Plan, Implement and Support:- MGKVK Gorakhpur tries to make them aware regarding scientific cultivation of Chickpea. That starts from land preparation to harvesting. This KVK has encouraged the farmer for soil testing and on the basis of that farmer was advised for balanced dose of chemical fertilizer with high yielding varieties GNG 1581. That was sown on 03-11-2018 with seed cum ferti-drill and fertilizer application was done with basal application as recommended. Regular field visits were also made by the Subject Matter Specialists-Agronomy under the leadership of Senior Scientist and Head of KVK. Field days and Kisan gosthi were also organized at his field.

Output:- Mr. Baburam Yadav adopted the balanced dose of fertilizer (N:P:K:S:B::20:40:20:20:10) kg/ha in Chickpea crop as per suggestion of scientist for his one acre land. His local yield was 4.5 qt per acre with recommended technology. His yield increased by 102.66% with yield 9.12 qt per acre. The economic gain in terms of per unit expenditure gross income, net return and BCR are recorded. Rs 9624, Rs. 36480, Rs. 26856 and 3.79 correspondingly.

Outcome:- Chickpea crop is the major pulse crop of the district. This variety has been disseminated in 20 villages of the district in area of approximately 80 ha. The outcome of this demonstration motivated the farming communities to replace their old & mixed variety varieties, non-descriptive varieties. Mr. Baburam Ram is very happy on improvement in their income, livelihood and set forth example for others.

Impact:- Mr. Baburam Ram is becoming one of the progressive and learned farmers for others with regards to popularization of GNG 1581. This technology helps him for livelihood, empowerment and make him enthusiastic regards pulse production. He is one of the progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development. Mr. Baburam is very happy with this improved production and management technology and set forth example for other farmers of the district.



A farmers with KVK's scientist



Field Day of Chickpea GNG 1581



Chickpea Crop GNG 1581

XIV. AGRICULTURAL TECHNOLOGY INFORMATION CENTRE (2019)

A. Details on ATICs

S. No	Name of the ATIC	Name of the Host Institute	Name of the ATIC Manager

B. Details on Farmer's visit (Jan 2019 to Dec 2019)

S. No	Purpose of visit	Number of farmer's visited
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01	Technology Information	
02	Technology Products	
03	Others if any pl. specify	

C. Facilities in the ATIC which are in operation

S. No	Particulars	Availability (Please ✓ mark)	Number of ATICs
01	Reception counter		
02	Exhibition / technology museum		
03	Touch screen Kiosk		
04	Cafeteria		
05	Sales counter		
06	Farmer's feedback register		
07	Others if any (please specify)		

D. Technology information provided

D.1. Details on technology information (Jan 2019 to Dec 2019)

S. No	Information category	Number of ATICs	Total number of farmers benefitted	Category of information						
				Varieties / hybrids	Pest management	Disease management	Agro-techniques	Soil and water conservation	Post Harvest technology and Value addition	Animal Husbandry and fisheries
01	Kisan Call Centre / other Phone calls from farmers									
02	Video shows									
03	Letters received									
04	Letters replied									
05	Training to farmers / technocrats / students									
06	Others pl. specify									

D.2 . Publications (Print & Electronic media) (Jan 2019 to Dec 2019)

S. No	Particulars	Number sold	Revenue generated in Rs.	Number of farmers benefited
01	Books			
02	Technical bulletins			
03	Technology Inventory			
04	CDs			
05	DVDs			
06	Video films			
07	Audio CDs			
08	Others if any (please			

	specify)			
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E. Technology Products provided (Jan 2019 to Dec 2019)

S. No	Particulars	Quantity	Unit of quantity	Value in Rs.	Number of farmers benefited
01	Seeds		Quintal		
02	Planting materials		Numbers		
03	Livestock		Numbers		
04	Poultry birds		Numbers		
05	Bio-products		Quintals		
06	Others pl. specify				

F. Technology services provided (Jan 2019 to Dec 2019)

S. No	Particulars	Number of farmers benefited
01	Soil and water testing	
02	Plant diagnostics	
03	Details about the services to line Departments	
04	Others if any (please specify)	

XV. TECHNOLOGICAL BACKSTOPPING BY DIRECTORATES OF EXTENSION (Jan 2019 to Dec 2019)**States covered:****Number of Directorates of Extension:****A. Details on Directors of Extension**

S. No	Name of the SAU	Name of the Director of Extension	Number of KVKs for which technological backstopping is provided					
			SAU/CAU	DU	ICAR	NGO	SDA	Others (pl. specify)

B. Workshops / meetings organized during Jan 2019 to Dec 2019

S. No.	Details of workshop/meeting conducted	No. of KVKs participated

C. Visits made by DE / Officials in the Directorate to KVKs during Jan 2019 to Dec 2019

S. No.	Particulars	Number of visits
01	SAC meetings	
02	Field days	
03	Workshops / seminars	
04	Technology week	
05	Training programmes	
06	Others pl. specify	

D. Overseeing of KVKs activities during Jan 2019 to Dec 2019

S. No.	Particulars	Number of fields visited	Major observations / remarks	Major suggestions given
01	On Farm Trials			
02	Front Line Demonstration			
03	Others pl. specify			

E. Publication on Technology inventory during Jan 2019 to Dec 2019

S. No.	Particulars	Number
01	Directorates published the technological inventory	
02	Directorates constantly updating the technological inventory	

F. Technological Products provided to KVKs during Jan 2019 to Dec 2019

S. No.	Major technologies provided	Number of KVKs
01	Seeds	
02	Planting materials	
03	Bio-products	
04	Livestock breed	
05	Livestock products	
06	Poultry breed	
07	Poultry products	
08	Others pl. specify	

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