



## Krishi Vigyan Kendra, Gopalganj

### A. Profile of KVK

Latitude	-	26° 57' 69"
Longitude	-	84° 37' 62"
Farm Area (ha)	-	20.00 ha
District	-	Gopalganj

### B. Staff Strength

SI. No.	Post	Group	Grade Pay	Sanctioned	Filled	Vacant
1.	Head	A	8000	1	1	0
2.	SMS	A	5400	6	4	2
3.	Farm Manager	B	4200	1	1	0
4.	Programme Asst. (Computer)	B	4200	1	0	1
5.	Programme Asst. (Lab Tech.)	B	4200	1	0	1
6.	Assistant	B	4200	1	1	0
7.	Stenographer	C	2400	1	1	0
8.	Supporting Staff -1	C	1800	1	1	0
9.	Supporting Staff -2	C	1800	1	0	1
10.	Jeep Driver	C	2000	1	1	0
11.	Tractor Driver	C	2000	1	1	0

### C. Soil Parameters of KVK Farm

SI. No.	Plot No.	Soil Type	pH	EC (m mhos/cm)	O.C. (%g <sup>-1</sup> kg <sup>-1</sup> )	Available Nutrients (kg/ha)		
						N	P	K
1.	P1	Sandy Loam	8.05	0.27	0.70	217	18.28	176
2.	P2	Sandy Loam	7.99	0.58	0.58	255	22.85	169
3.	P3	Sandy Loam	8.07	0.65	0.90	252	22.85	151
4.	P4	Sandy Loam	8.06	0.77	0.98	266	22.85	226
5.	P5	Sandy Loam	8.16	0.76	0.95	260	36.56	238
6.	P6	Sandy Loam	8.18	0.78	0.81	236	41.13	130
7.	P7	Sandy Loam	8.40	0.62	0.53	188	31.99	164
8.	P8	Sandy Loam	7.95	1.91	0.67	212	22.85	192
9.	C1	Sandy Loam	8.34	0.26	0.73	222	27.42	144
10.	C2	Sandy Loam	8.26	1.64	0.70	217	86.83	265
11.	C3	Sandy Loam	8.22	1.16	1.01	271	100.54	255
12.	C4	Sandy Loam	8.29	0.94	0.62	203	123.39	280
13.	C5	Sandy Loam	8.38	1.04	0.81	236	73.12	277



14.	C6	Sandy Loam	8.35	0.78	0.73	222	59.41	301
15.	C7	Sandy Loam	8.54	0.50	0.87	247	77.69	167
16.	M1	Sandy Loam	8.48	0.46	0.78	231	86.83	173
17.	M2	Sandy Loam	8.53	0.39	0.84	241	22.85	222
18.	M3	Sandy Loam	8.13	0.71	0.73	222	68.55	241
19.	M4	Sandy Loam	8.35	0.69	0.78	231	91.40	224
20.	M5	Sandy Loam	8.42	0.58	0.81	236	54.84	208
21.	M6	Sandy Loam	8.52	0.45	0.87	247	59.41	134
22.	M7	Sandy Loam	8.46	0.47	0.81	236	82.26	247
23.	Nursery Plot	Sandy Loam	8.48	0.43	0.76	227	22.85	153

#### D. Secondary Nutrient & Micronutrient Status:

Sl. No.	Plot No.	Secondary Nutrient		Micronutrient			
		Mg	S	Fe	Mn	Zn	Cu
1.	P1	-	15.63	15.64	10.044	0.74	1.75
2.	P2	-	9.38	14.71	7.716	0.49	2.16
3.	P3	-	12.50	11.89	7.86	0.27	1.78
4.	P4	-	40.63	14.26	4.764	0.48	1.98
5.	P5	-	50.0	17.03	8.05	0.52	2.26
6.	P6	-	12.50	16.18	6.074	0.58	2.42
7.	P7	-	9.38	18.05	3.326	0.21	1.62
8.	P8	-	9.38	17.54	4.806	0.31	2.05
9.	C1	-	18.75	15.26	4.494	0.32	2.05
10.	C2	-	9.38	11.96	9.704	0.86	1.33
11.	C3	-	12.05	9.33	10.124	0.86	2.30
12.	C4	-	6.25	9.60	9.832	0.53	2.37
13.	C5	-	6.25	9.39	6.702	0.59	2.176
14.	C6	-	9.38	12.24	7.222	0.42	1.077
15.	C7	-	25.0	17.40	5.318	0.39	2.612
16.	M1	-	21.88	19.14	5.436	0.74	2.216
17.	M2	-	28.13	22.27	4.68	0.44	1.176
18.	M3	-	65.50	20.60	6.724	0.60	1.79
19.	M4	-	6.25	11.54	7.144	1.47	1.602
20.	M5	-	46.88	15.26	9.758	0.64	1.298
21.	M6	-	37.50	15.26	3.542	0.36	1.912
22.	M7	-	46.88	17.57	4.392	0.51	2.002
23.	Nursery Plot	-	28.13	12.59	4.454	0.49	1.057



**E. Soil Samples Status:**

SI. No.	Village Name	No. of Soil Samples		No. Soil Health Card Distributed
		Collected	Analyzed	
1.	Amwan	1	1	
2.	Amwan Vijaypur	4	4	1
3.	Baliwan Sagar	11	11	5
4.	Balthari	4	4	
5.	Balu Tola	1	1	
6.	Banariya Gokhul	5	5	
7.	Bankat	1	1	
8.	Bantail	6	6	
9.	Banwa Tola	1	1	
10.	Baraipatti	14	14	2
11.	Barnaiya	6	6	
12.	Bhano tola	6	6	2
13.	Bhasahi	1	1	
14.	Bhathawa Rup	1	1	
15.	Bhawani Tola	1	1	
16.	Bhoj Chapar	5	5	
17.	Binod Matihiniya	2	2	1
18.	Bishambharpur	3	3	
19.	Bisunpura	15	15	7
20.	Chailwa	1	1	
21.	Chaube Chak	1	1	
22.	Dhampaker	1	1	
23.	Diar Vijaypur	3	3	
24.	Doman Banjariya	2	2	1
25.	Durg Matihiniya	7	7	5
26.	Gumaniya	1	1	
27.	Hasanpur	1	1	
28.	Kakarkund	1	1	
29.	Kala Matihiniya	35	35	16
30.	Karanpura	2	2	
31.	Karariya	2	2	
32.	Karmaini Mohabbat	3	3	
33.	Katghorwa	1	1	
34.	Khalgaon	1	1	
35.	Khem Matihiniya	52	52	11
36.	Khutwaniya	30	30	4
37.	Kotnarwa	1	1	
38.	Kuchaikote	2	2	2
39.	Narayanpur	37	37	18
40.	Nawada	1	1	
41.	Nechuwa Jalalpur	1	1	
42.	Nerui	1	1	1



43.	Paharpur Dyal	2	2	
44.	Purkhas	1	1	
45.	Rajokhar	2	2	
46.	Ramghadwa	1	1	1
47.	Rampur Madho	3	3	
48.	Rampur Mukund	1	1	
49.	Rampur Tengrahi	18	18	1
50.	Roopchap	23	23	8
51.	Salehpur	4	4	1
52.	Shobhanchak	5	5	
53.	Shyampur	6	6	
54.	Sipaya	42	42	11
55.	Siswa	4	4	1
56.	Sonahaula	1	1	1
57.	Sukulwa	1	1	
58.	Tiwari Matihiniya	11	11	4
<b>Total</b>		<b>400</b>	<b>400</b>	<b>104</b>

**F. Fund Utilization (Rs. In lakhs):**

Month	Sanction	Salary	General	Capital	Total	Revolving Fund	
						Expenditure	Income
April			-			93555	14732
May			12476			34965	19088
June			53912			126589.7	589708
July			19899			157598	-
Aug			55582			26604	28000
Sept			115999			95559.7	25366
Oct			74489			3031500	-
Nov			48739			174278	-
Dec			86600			75997.7	128575
Jan			127029			275579	212100
Feb			188339			56717	525068
Mar			375147			263967.7	26688
<b>Total</b>			<b>1158270</b>			<b>4412910.80</b>	<b>1569325</b>

**NOTE (if any):-**



**G. Achievements of Training Programmes:**

Target (No.)	Completed (No.)	No. of Beneficiaries						Total
		Male			Female			
		SC	ST	Others	SC	ST	Others	
<b>Practicing Farmers/Farm Women</b>								
108	49	62	0	878	173	0	196	1309
<b>Rural Youth</b>								
25	6	6	0	87	48	0	39	180
<b>Extension Functionaries</b>								
19	6	8	0	93	50	0	0	150
<b>GKRA</b>								
16	16	58	10	339	52	0	101	560
<b>Sponsored Training Programme</b>								
0	4	6	0	204	0	0	50	260
<b>In-service Training</b>								
0	10	155	0	1399	45	0	77	1676

**H. Seed & Planting Material Produced:**

No. of Planting Material Produced	Material Distributed/ Sold (No.)	No. of Beneficiaries					
		SC	ST	Others	Total		
					Male	Female	
<b>Fruits/ Agroforestry (No.)</b>							
Papaya (Red Lady)	76	76	3	0	17	20	0
<b>Vegetables seedlings (No.)</b>							
Cauliflower (Garima)	17100	17100	2	0	14	16	0
Tomato	1060	1060	0	0	6	6	0
Bottle Gourd	492	492	7	0	42	45	4
Sponge Gourd	494	494	7	0	37	40	4
Pumpkin	132	132	2	0	10	12	0
Bitter Gourd	182	182	4	0	32	34	2
<b>Seed (Cereal)</b>							
Wheat (HD 2967)	170.0 q						
Paddy (R. Sweta)	156.0 q						



Seed ( Pulses)							
Chickpea (BG 372)	6.00 q						
Pea (HFP 4)	5.37 q						
Green Gram (IPM 02 03)	3.78 q						
Seed (Oilseed)							
Seed (Others)							
<b>Total Income Generated : Rs 1098000.00/-</b>							

### I. CFLD

Area (ha)	Demonstrations (No.)	No. of Participatory Farmers		Field Days (No.)	No. of Participatory Farmers	
		Total			Total	
		Male	Female		Male	Female
CFLD Oilseeds						
100	250	242	8	3	69	2
CFLD Pulses						
30	75	72	3	2	10	0
Note (if any):						

### J. Front Line Demonstrations

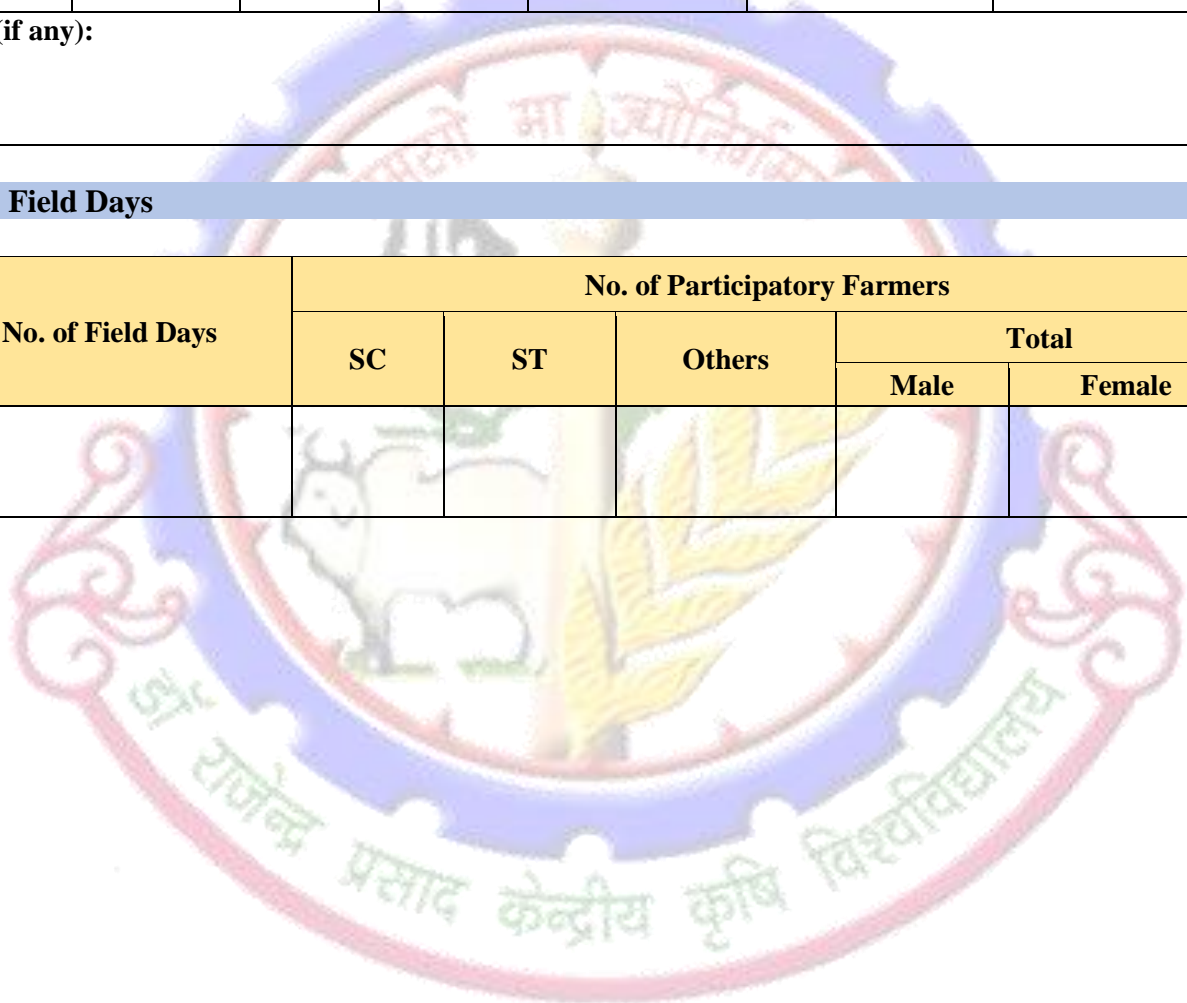
Area (ha)	Trainings (No.)	No. of Participatory Farmers		No. of Demonstrations	No. of Participatory Farmers	
		Total			Total	
		Male	Female		Male	Female
Front Line Demonstrations (Crops)						
Paddy (Neelam)	1	11	2	13	11	2
Wheat (HD 2967)	1	12	0	12	12	0
Front Line Demonstrations (Horticulture)						
Banana	1	20	0	20	20	0
Front Line Demonstrations (Ag. Engineering)						
ZT wheat	1	8	2	10	8	2
Front Line Demonstrations (Fodder)						
Barseem (JB I)	1	22	0	22	22	0
Oats (UPO 212)	1	15	0	15	15	0



Front Line Demonstrations (Plant Protection)						
Oyster Mushroom	1	20	5	25	20	5
Pheromone Trap (Mango)	1	20	0	20	20	0
Front Line Demonstrations (Home Science)						
Improved Sickle (Naveen)	1	1	19	20	1	19
Vegetable Kits	1	3	16	19	3	16
Note (if any):						

### K. Field Days

No. of Field Days	No. of Participatory Farmers				
	SC	ST	Others	Total	
				Male	Female



**L. ON FARM TRIAL-1**

**THEMATIC AREA: Crop Production**

**Topic -Effect of different kinds of planting methods on cane yield in spring planted sugarcane.**

**RESULTS:** Poly bag settlings gives higher tiller count (123700/ha), final stalk population (95940/ha), Lowest mortality rate (29%), Highest cane yield (7.3 t/ha) and B:C in comparison to farmers practice (Cane setts), Nursery raise settling and chip bud settlings. Hence, ploy bag settlings may be recommended to the farmers in the district to maximize income in sprong planted sugarcane.

**Table 1: Productivity and income in different planting method in spring sugarcane.**

Technological options	Tillers count (120 DAP) 000'/ha	Stalk popn.(at maturity) 000'/ha	Mortality in (%)	Single cane wt (g)	Cane Yield (t/ha)	Cost of cultivat ion(Rs/ha)	Gross Income (Rs ,lakhs/ha)	BC ratio
F.P. (Cane Setts)	121710	81536	49	0.81	6.6	54000	1.914	3.54
T.O. 1 (Poly Bag settlings)	123700	95940	29	0.76	7.3	36000	2.117	5.88
T.O 2: (Nursery raised settlings)	122600	85370	43	0.79	6.80	36000	1.972	5.47
T.O. 3 ( Chip bud settlings)	124410	87310	42	0.81	7.10	32800	2.059	6.27





ON FARM TRIAL-2

**THEMATIC AREA: IPM**

**Topic -Management of pod borer (*Helicoverpa armigera*) and pod fly (*Melinagromyza obtusa*) in Pigeon pea.**

**RESULTS:** Use of Spraying with Spinosad (45 Sc, 0.5 ml/lit. water) 1<sup>st</sup> application at 50% flowering followed by 2 application at 75% podding stage

**Table 1: Management of pod borer (*Helicoverpa armigera*) and pod fly (*Melinagromyza obtusa*) in Pigeon pea.**

Technological options	Plant affected with pod borer and pod fly (5 plants/10pods) in %		Yield (q/ha)	Cost of cultivation Rs./ha	Gross income (Rs./ha)	BC ratio
	Pod borer	Pod Fly				
F.P: No use of pesticide	3.06 (1.87)	1.83 (1.52)	8.33	19000	37485	1.02
T.O. 1: 1 <sup>st</sup> spray with NSKE (5%) followed by the application of Acephate (75 WP, 01g/lit. water)	2.93 (1.85)	1.43 (1.38)	11.86	24600	53370	1.16
T.O. 2: Spraying with Spinosad (45 Sc, 0.5 ml/lit. water) 1 <sup>st</sup> application at 50% flowering followed by 2 application at 75% podding stage	2.70 (1.79)	1.24 (1.32)	13.33	23300	59985	1.57
CD	N.S	0.22				
CV	11.43	6.36				
SEM±	0.91	0.056				

- Figures in parentheses are arc sine transformed values.
- The price of pigeonpea is Rs.4500/q



### ON FARM TRIAL-3

#### THEMATIC AREA: IPM

**Topic -Management of litchi mite (*Aceria litchi* Keifter).**

**RESULTS:** Pruning of effected twigs + Neem cake 4kg + Caster cake 1kg Soil application + Spiromesifen (240SC) @ 1ml /litter of water twice at 10 days interval during flush emergence was superior

**Table 1: Management of litchi mite (*Aceria litchi* Keifter).**

Technological options	Mean (%) leaf infestation	Yield (kg/ plant)	Cost of cultivation Rs./plant	Gross income (Rs./plant)	BC ratio
F.P: Application of Sulphur 80WP@2gm /litre of water	26.30 (30.85)	73	640	3200	4.00
T.O. 1: Pruning of effected twigs + Neem cake 4kg + Caster cake 1kg Soil application + Spiromesifen(240SC) @ 1ml /litter of water twice at 10 days interval during flush emergence	14.33 (22.22)	113	700	4520	5.45
T.O. 2: Pruning of effected twigs + Neem cake 4kg + Caster cake 1kg Soil application + Fenazaquin10%EC @ 1.5ml /litter of water twice at 10 days interval during flush emergence	17.20 (24.50)	96	740	3840	4.18
CD		0.934			
CV		2.080			
SEM±		0.232			

- Figures in parentheses are arc sine transformed values.
- The price of litchi is Rs.40/kg



### ON FARM TRIAL-4

#### THEMATIC AREA: Design and Development of high nutrient efficiency diets.

*Topic –Effect of enriched wheat flour on health status of farm women.*

**RESULTS:** T.O 1 (65% Wheat flour + 15% Gram + 10% Jowar + 5% Soyabean + 5% Bajra) performed better in terms of Bodyweight gain, Body mass index and acceptability

**Table 1: Effect of enriched wheat flour on health status of farm women.**

Technological options	Body Weight Kg		BMI		Acceptability		Cost (Rs/kg)
	Before	After use of 6 months	Before	After 6 months	Before	After	
Farmers Practice	53.7	53.9	21.5	21.0	5	5	24
T.O. 1	54.0	56.8	21.4	23.5	5	7	27
T.O. 2	53.7	54.7	21.5	23.0	5	6	25

### ON FARM TRIAL-5

#### THEMATIC AREA: Drudgery Reduction

*Topic –Assessment of improved weeding implements for weeding in gram.*

#### Conclusion and Recommendation:

**Conclusion:** The weeding efficiency of khurpi was observed highest (94%) followed by 3-tyne wheel hand hoe (75%) and three tyne grubber (70%). In terms of work output, however, the 3-tyne wheel hand hoe is observed to be the best (0.007ha/h), followed by the 3-tyne hoe (0.003 ha/h), with the khurpi considerably worse (0.002 ha/h).

**Recommendation:** Weeding by 'khurpi' is by far the most labour intensive and this outweighs its other advantages. Therefore, from overall consideration a-twin wheel hoe or three tyne are preferable to the khurpi.

**Table: Performance of weeding implements for weeding in gram**

Monitoring Indicator	Technology options		
	Farmer Practices (Khurpi)	T.O.1 (3-tyne Grubber)	T.O.2 (3-tyne Wheel hand hoe)
Heart rate at work (beats/min)	112.8± 0.71 (6.4)	135.9± 0.8 (7.1)	121.6± 1.35 (12.1)
Weeding Efficiency (%)	93.6±0.23 (2.1)	70.2±1.02 (9.5)	74.6±1.08 (9.7)
Field capacity (ha/h)	0.002	0.003	0.007
Weeding cost	Rs14250(57man-days/ha @Rs250/-	Rs5500(22man-days/ha @Rs250/-	Rs4750(19man-days/ha @Rs250/-

\* Values are means ± standard errors with standard deviation shown in brackets

**Table: ANOVA Analysis for heart rate at work for different subjects with different weeding tools.**



Source of Variation	SS	df	MS	F	P-value	F table
Between Subjects	505.85	7	72.62	1.34	0.302	2.76
Between weeding tools	2134.29	2	1067.64	19.83	8.22E-05	3.74
Error	753.20	14	53.80			
Total	3393.34	23				

SS= Sum of Squares; df= degree of freedom; MS= Mean Square



## ON FARM TRIAL-6

### THEMATIC AREA: Drudgery Reduction

*Topic –Assessment of Sugarcane bud chipper/sugarcane single node bud cutter for drudgery reduction.*

RESULT: The effect of subjects on heartbeat was significant ( $P \leq 0.5$ ) also significant ( $P \leq 0.5$ ) was the effect of different chipping method on heartbeat per minute. Saving of sugarcane in sugarcane bud chipper was the highest (74.52 %) followed by single node sugarcane bud cutter (64.81 %) and manual bud chipping (0 %). Sugarcane bud chipper is economic in terms of savings in sugarcane.

**Table: Drudgery reduction using sugarcane bud chipper or sugarcane single node bud cutter.**

Monitoring Indicator	Farmer Practices (Sugarcane sett cutting)	T.O.1 (Sugarcane bud cutter)	T.O.2 (Sugarcane bud chipper)
Bud chipping capacity (bud/h)	-	445±33.15 (104.8)	387±21.52 (68)
Heart rate at work (beats/min)	127±2.83 (9)	111±1.59 (5)	114±2.00 (6.3)
Saving in sugarcane (%)	0	64.81	74.52
Sugarcane germination (%)	56	80	92



**Table:** ANOVA Analysis for heart rate at work for different subjects with Sugarcane sett cutting, Sugarcane bud cutter and sugarcane bud chipper

Source of variation	SS	DF	MS	F	P-value	F table
Between Subject	910.03	9	101.11	3.33	0.014	2.45
Between different bud chippers	1376.6	2	688.3	22.68	1.2E-05	3.55
Error	546.07	18	30.33			
Total	2832.7	29				

## ON FARM TRIAL-7

### THEMATIC AREA: Quality Fruit Production

*Topic –Effect of micronutrient (B) and plant growth regulator (2,4-D) on cracking in litchi.*

RESULT: It is clearly seen that technology Option<sub>1</sub> (TO<sub>1</sub>- Borax (0.4%) reduces cracking up to 6.50 percent and increases yield 5.6 t/ha and obtain highest B:C ratio as compared to technology option<sub>2</sub> and Farmers Practice (FP). Hence, Technology Option<sub>1</sub> (TO<sub>1</sub>0Borax (0.4%) is recommended to the farmers in the district Gopalganj.

**Table:** Effect of micronutrient (B) and plant growth regulator (2,4-D) on cracking in litchi.

Technology options	Fruit set (%)	Fruit retention (%)	Fruit cracking (%)	Fruit length (cm)	Fruit breadth (cm)	Fruit wt (g)	Fruit Yield (t/ha)	Pulp weight (g)	Stone weight (g)	Peel weight (g)	Pulp / stone ratio	B:C ratio
FP	59.8 <sup>a</sup>	43.5 <sup>a</sup>	12.50 <sup>b</sup>	3.98 <sup>a</sup>	3.10 <sup>a</sup>	23.50 <sup>a</sup>	4.8 <sup>a</sup>	18.09 <sup>a</sup>	3.56 <sup>b</sup>	1.85	5.08 <sup>a</sup>	2.01 <sup>a</sup>
To <sub>1</sub> (Borax (0.4%))	71.2 <sup>c</sup>	58.5 <sup>c</sup>	6.50 <sup>a</sup>	4.22 <sup>c</sup>	3.51 <sup>b</sup>	24.90 <sup>c</sup>	5.6 <sup>c</sup>	20.15 <sup>c</sup>	3.25 <sup>a</sup>	1.50	6.20 <sup>a</sup>	2.87 <sup>c</sup>
TO <sub>2</sub> (2, 4-D (20ppm))	65.5 <sup>b</sup>	51.0 <sup>b</sup>	7.10 <sup>a</sup>	4.13 <sup>b</sup>	3.40 <sup>b</sup>	24.15 <sup>b</sup>	5.2 <sup>b</sup>	19.08 <sup>b</sup>	3.45 <sup>b</sup>	1.62	5.53 <sup>a</sup>	2.56 <sup>b</sup>
CD at 5%	4.69	3.41	1.32	0.06	0.21	0.54	0.22	0.33	0.15	NS	0.60	0.24



SEm±	1.58	1.14	0.45	0.03	0.07	0.19	0.07	0.11	0.05	0.14	0.20	0.08
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### M. Kisan gosthis/Kisan Mela /Workshops

Events (No.)	No. of Participatory Farmers				
	SC	ST	Others	Total	
				Male	Female
<b>Kisan Gosthis</b>					
1	2	0	23	25	0
<b>Kisan Mela</b>					
6	47	0	401	375	73
<b>Workshops</b>					
State Level workshop cum training for Anganwadi (Poshan Maah)	26	0	74	0	100
Jal Jiwan Haryali Inauguration of CRA programme by Hon'ble CM	30	0	74	84	20
<b>Others (Please specify)</b>					
Gandhi Jayanti	34	0	14	3	39
Mahila Kisan Diwas	30	0	23	3	50
International Women Day	8	0	42	0	50
Consumer Day	7	0	18	21	4
World Soil Day	3	0	47	47	3
World Water Day	2	0	51	38	15
Kisano ki Baat Krishi Mantri ke Sath	12	0	0	12	0
Launch of E-Gopal App and Dr. RPCAU new building (Live Telecast)	3	0	38	38	3



Live telecast PM Samman Nidhi Yojanya	16	0	94	92	18
IIHR, Bengaluru National Fair Live Telecast	0	0	50	50	0
Krishak Vaigyanik Vartalap	17	0	183	190	10
Lecture as resource person (3)	0	0	54	43	12
Farmers Exposure visit	14	0	69	69	14

#### N. Scientists visit to Farmers field

No. of Visits	No. of Participatory Farmers				
	SC	ST	Others	Total	
				Male	Female
40	20	0	344	364	10

#### O. Farmers visit to KVK farm (No)

No. of Participatory Farmers				
SC	ST	Others	Total	
			Male	Female
75	0	756	706	125

#### P. Mobile Agro Advisory Provided

No. Mobile Agro Advisory Provided	No. of farmers benefited
1074	1074



**Q. Projects:**

CRA	Demonstrations	Crop Name		Potato, Maize, Maize+Potato, Wheat, Mustard, Lentil
		Area (ha)		237.20
		No. of Demonstrations		7
		No. of Beneficiaries	M	603
	F		56	
	Total		659	
	Capacity Building	No. of Training		11
		No. of Beneficiaries	M	404
			F	65
	Extension Activities	No. of Training		469
		No. of Exposure visits		4
		No. of Beneficiaries	M	223
			F	47
			Total	270
Field Day (No.)		3		
No. of Beneficiaries	M	120		
	F	6		
	Total	126		
ARYA	Name of Activity			
	No. of Activity			
	No. of Beneficiaries	M		
		F		
Total				
NICRA	Name of Activity			
	No. of Activity			
	No. of Beneficiaries	M		
		F		
Total				
Seed Hub	Crop (Variety)			
	Area (ha)			
	Seed Produced (q)			
	Seed Sold (q)			
CSISA	No. of Trials			
	No. of Beneficiaries	M		
		F		
		Total		
	No. of Demonstrations			
	No. of Beneficiaries	M		
		F		
		Total		
No. of Extension Activities				



	No. of Beneficiaries	M	
		F	
		Total	
DAMU (Agromet)	No. of Advisory		50
	No. of Beneficiaries		75
Skill Developme nt (ASCI)	Name of Training	Yes/No	
	No. of trainings	Yes/No	
	No. of Beneficiaries	M	
		F	
		Total	
Pramparaga t Krishi Vikas Yojna	Name of Project		
	Name of Activity		
	No. of Activities		
	No. of Beneficiaries	M	
		F	
		Total	
Any Other	Name of Project		
	Name of Activity		
	No. of Activities		
	No. of Beneficiaries	M	
		F	
		Total	

**R. Sale of Publications:**

Sl. No.	Particulars	Name of author/KVK	Total income (Rs.)
<b>Total</b>			

**S. TV Talk/Radio Talk:**

Sl. No.	Topic of the talk	Name of Scientist	TV/Radio talk station	Date of Recording
1.	Cultivation of cool season vegetable	Dr. Amit Visen	DD Patna	12.10.2020
2.	Reproductive diseases in live stock	Dr. Ramakrishna Roy	DD Patna	15.10.2020

**T. Other Special programme/ salient achievement/activities conducted at KVK:**



Sl. No.	Particulars	Name of Scientists	Date	No. of Participants
1.	Biodiversity Programme	Dr. Amit Visen	30 <sup>th</sup> Sep to 6 <sup>th</sup> Oct, 2020	236
2.	SAC	Dr. Ramakrishna Roy	24 <sup>th</sup> March, 2021	18
3.	PCRA Training cum Workshop	Er. Naveen Kumar	26 <sup>th</sup> to 27 <sup>th</sup> March, 2021	60
4	RAWE	Dr. Ramakrishna Roy, Shri Sanjay Kumar Er. Naveen Kumar, Dr. Amit Visen,		5

#### U. List of visitor at KVK:

Date	Name & Designation	Purpose of visit
14.08.20	Shri Bijendra Chaudhary, Joint Director Agriculture, Saran	Joint visit
19.08.20	Shri Amardeep Kumar , Chief Field Manager, IFFCO	IFFCO Nano fertilizer trial
17.09.20	Shri Pushp Raj Himanshu, CDPO, Gopalganj Block	Poshan Maah training
17.09.20	Shri Surendra Gilani, CDPO, Gopalganj Block	Poshan Maah training
17.09.20	Shri Raghubansh Kumar, CDPO,	Poshan Maah training
21.09.20	Smt. Shobha Rani, CDPO, Gopalganj Block	Poshan Maah training
14.12.20	Shri Arshad Aziz, District Magistrate	Jal Jeewan Hariyali/ CRA Programme
19.01.21	Dr. Brajesh Shahi, Nodal Officer KVKs	Visit
20.01.21	Dr. Vikash Kumar, PD, ATMA	Kisan Mela
15.03.21	Dr. Devashish Kundu, DMI, Patna Prof. Amrita Dhiman, DMI, Patna Prof. S. Rajeshwaran, DMI, Patna	Impact of KVK and ATMA
22.03.21	Shri Aditya Narayan Pandey, MLC	World Water Day
24.03.21	Dr. Anupam Lal Kusumakar, DDM, NABARD	SAC
24.03.21	Om Prakash Prasad, Dairy Field Officer	SAC

#### V. Participation in National Conference, Sumer/Winter School, Workshop, Training Programme etc.



Name of Scientists	Nature of Programme (please specify)	Title	Venue	Date
Er. Naveen Kumar,	Webinar/Virtual training	Environment in 2020: Vision and Mission		12.07.20
Dr. Ramakrishna Roy		Farmer Producer organization for better future		22.07.20
Dr. Ramakrishna Roy		Marketing of medicinal and aromatic		24.07.20
Dr. Ramakrishna Roy		Precision Farming in Banana		25.07.20
Dr. Ramakrishna Roy		Ensuring food safety, security and sustainability through crop protection		5 <sup>th</sup> to 6 <sup>th</sup> August, 2020
Shri Md. Sajid Hussain		Agriplanning for disaster management time: flood and covid-		6 <sup>th</sup> to 8 <sup>th</sup> August, 2020
Dr. Anita Gautam		Agrinutrition cum training programme of Anaganwadi workers		17 <sup>th</sup> to 19 <sup>th</sup> August, 2020
Shri Sanjay kumar		Mushroom production: An emerging avenue for rural youth self		26 <sup>th</sup> to 27 <sup>th</sup> Auust, 2020
Dr. Ramakrishna Roy		Role of blance nutrition in mitigating malnutrition		26.09.20
Dr. Amit Visen		Boosting Immunity through horticulture		1 <sup>st</sup> to 9 <sup>th</sup> septemebr, 2020
Er. Naveen kumar		Agriculture Farm machinery modernizing agriculture: A subtheme for transforming Agriculture		03.10.20
Er. Naveen Kumar		Hydroinformatics for smart water management in agriculture		20.10.20
Dr. Ramakrishna Roy		Technical Assistance and Research for Indian Agriculture and Nutrition		12.12.20
Dr. Ramakrishna Roy		Training	Training on Fisheries cum Convergence meeting	
Dr. Ramakrishna Roy	India International Science Festival			23.12.20
Dr. Amit Visen	National Conference	National Web conference on Augmenting vegetable productivity through recent techniques		9 <sup>th</sup> to 10 <sup>th</sup> September, 2020
Dr. Ramakrishan Roy		National level consultation on "Principles and practices of BPKP-Natural Farming"		29 <sup>th</sup> -30 <sup>th</sup> September, 2020
Dr. Ramakrishna Roy	Workshop	Third Annual Zonal Review workshop of KVKs of ICAR,		20 <sup>th</sup> to 21 <sup>st</sup> July, 2020
Dr. Ramakrishna Roy		Annual Action Plan (20-21)		20 <sup>th</sup> to 21 <sup>st</sup> July, 2020
Dr. Ramakrishna Roy		One day Workshop cum Training Programme on Climate Resilient		28.10.20



Dr. Ramakrishna Roy		Sensitization workshop on transforming Animal husbandry		28.11.20
Dr. Ramakrishna Roy	Meeting	Meeting on “Poshan”		11.09.20
Dr Ramakrishhna		“One Nation One Market”		03.10.20
Dr. Ramakrishna Roy		Outreach Programme for KVK farmers on Farm Act		07.10.20
Dr. Ramakrishna Roy		Popularization of Farm Mobile Apps through KVKs		09.10.20

## W. PUBLICATION:

### a. Research papers published (01.04.19 to 31.03.20)

Name of the author (s)	Year	Title	Name of the Journal & NAAS rating	Vol. No. & Page No.
R.K. Roy and K. Kusum	2020	Effect of Hormonal and Herbal treatments on Oestrus in Cattle	International Journal of Current Microbiology and Applied Sciences.	9(8):3316-3319
Naveen Kumar, Sanjeev Kumar, Ritesh Kumar & K.P. Pandey	2020	Dynamic behaviour of high powered agricultural tractor for haulage	Pantnagar journal of research	18:1:69-75

### b. Book Chapters (01.04.19 to 31.03.20)

Name of the author (s)	Year	Chapter	Name of Book	Pages	Name of Publisher
Dr. R.K. Roy	2020-21	Layer Palan: Ek labhkari Vyavsay Broiler Palan: Ek labhkari vyavsay	Technology Basket 2020-21. Pravasi Mazdooron ke liye krishi Taknik	38-41 56-66,	Dr. RPCAU, Pusa

### c. Technical bulletins published (01.04.19 to 31.03.20)

Name of the author(s)	Year	Title	Name of Publisher	No. of pages	No. of copies printed	Price

### d. Popular articles published (01.04.19 to 31.03.20)

Name of the author (s)	Year	Title	Name of the Magazine	Vol. No. & Page Numbers



Naveen Kumar and R.K. Roy	2020	Best Farm Machinery Packages to avoid burning of straw	Agriculture and Food : e-newsletter	Vol2. Issue 10
Dr. Amit Visen	2020	Vaigyanik Vidhi se Karein Kele kikhethi, Milega adhik labh (kehtibari)	Prabhat Khabar (patna)	pp12 18.07.20

## X. New Initiatives

S.No	New Initiatives	Details
1.	CRA Project	Climate Resilient Technologies, Cropping system and Rice wheat under assured irrigation
2.	Bee keeping	Five boxes of bee hives
3.	Mini Irrigation	4.8 ha. of farm field under mini irrigation
4.	Rural backyard poultry house	10 units prepared for rural backyard poultry
5.	Pumpkin cultivation	

**Add quality action photographs in each section**









OF EXTENSION EDUCATION



## ACTION PLAN 2021-22

### 1. Proposed training programmes

#### A. Practicing farmers/Farm women.

Sl. No	Discipline	Thematic area	Target	No. of Training conducted	No. of Beneficiaries		Total
					Male	Female	



1.	Crop production (Agro/ Plant Breeding/ Soil Sci)						
2.	Plant Protection	IPM	17		370	55	425
		IDM	7		145	30	175
3.	Horticulture	Skill development	1		23	2	25
		INM	2		44	6	50
		Nursery Raising	1		21	4	25
		Exotic vegetables like broccoli	1		23	2	25
		Off season vegetables	1		23	2	25
		Protective cultivation	2		41	9	50
		Cultivation of vegetables Yield increment	3		63	12	75
		Layout and management of orchard	1		24	1	25
		Cultivation of fruits	2		45	5	50
		Micro-irrigation systems of orchards	1		23	2	25
		Management of young orchard	1		23	2	25
		Training and Pruning	1		23	2	25
		Plant propagation techniques	1		23	2	25
		Nursery management	1		22	3	25
		Propagation techniques of ornamental plant	1		23	2	25
		4.	Agriculture Engineering	Production and management Technology	3		67
Processing and value addition	1				23	2	25
Repair and maintenance of farm machinery and implements	6				116	34	150
		Micro irrigation	3		62	13	75



		system					
		Drudgery Reduction	3		42	33	75
		Post Harvest Technology	5		100	25	125
		Farm mechanization	7		144	31	175
5.	Home Science	Value addition	4		0	100	100
		Income generation activities for empowerment of rural women	16		0	400	400
		Household security by kitchen gardening and nutritional gardening	3		0	75	75
		Enterprise development	1		0	25	25
6.	Fisheries						
7.	Vet. & AH	Dairy management	1		20	5	25
		Disease management	6		118	32	150
		Feed management	4		86	14	100
		Production of quality animal product	1		23	2	25
8.	Any other (pl. specify)						
	<b>Total:</b>		<b>108</b>		<b>1760</b>	<b>940</b>	<b>2700</b>

**B. Rural youth.**

Sl. No	Discipline	Thematic area	Target	No. of Training conducted	No. of Beneficiaries		Total
					Male	Female	
1.	Crop production (Agro/ Plant Breeding/Soil Sci.)						
2.	Plant Protection	Post-Harvest	1		20	5	25



		Technology					
		Mushroom Production	3		66	9	75
		Bee keeping	2		41	10	51
3.	Horticulture	Nursery management of vegetables	1		22	3	25
		Training and pruning of orchard	1		20	5	25
		Nursery management of horticulture crops	1		23	2	25
		Vegetables seed production	1		25	0	25
		Protected cultivation of vegetable crops	1		25	0	25
		Planting Material Production	1		25	0	25
4.	Agriculture Engineering	Seed production	2		40	10	50
		Integrated Farming	2		40	10	50
		Nursery management	1		20	5	25
		Production of organic inputs	1		20	5	25
5.	Home Science	Value addition	2		0	50	50
		Enterprise development	4		0	100	100
6.	Fisheries						
7.	Vet. & AH	Dairying	1		25	0	25
		Goat Rearing	1		25	0	25



		Poultry Prod	1		25	0	25
8.	Any other (pl. specify)						
	<b>Total:</b>	<b>27</b>	<b>27</b>		<b>462</b>	<b>214</b>	<b>676</b>

**C. Extension functionaries**

Sl. No	Discipline	Thematic area	Target	No. of Training conducted	No. of Beneficiaries		Total
					Male	Female	
1.	Crop production (Agro/ Plant Breeding/Soil Sci.)						
2.	Plant Protection	IPM	4		103	11	114
3.	Horticulture	Rejuvenation of old orchard	1		20	5	25
		Protected cultivation technology	1		20	5	25
		Production and use of organic inputs	1		20	5	25
		INM	1		20	5	25
4.	Agriculture Engineering	Farm Mechanization	3		64	11	75
		RCT	1		22	3	25
5.	Home Science	Low cost nutrient efficient diet designing	2		0	25	25
		Women and child care	3		0	75	75
		Gender mainstreaming through SHGs	1		0	25	25
6.	Fisheries						
7.	Vet. & AH	Disease management	1		25	0	25



8.	Any other (pl. specify)						
	<b>Total:</b>		<b>19</b>		<b>294</b>	<b>170</b>	<b>464</b>

**D. Other Sponsored training programme**

Sl. No	Title & Sponsoring Agency	Target	No. of Training	Duration	No. of Beneficiaries		Total
					Male	Female	
1.							
2.							
3.							
4.							
	<b>Total:</b>						

**2. Front Line Demonstration (Give out the gist of FLD)**

Crop	Variety/ Technology demonstrated	Season Kharif/ Rabi	Area (ha)	No. of Beneficiaries	Demo yield qt/ha			Yield of local check	In crease in yield (%)	BC ratio
					H	L	A			
Mush room	oyster	Khari f 2021	-	20						
Veget ble garde n kits	-	Khari f 2021	-	50						
Okra	Kashi Pragati	Sum mer	1.0	50						
Mush room	Button	Rabi 2021	-	10						
Mang o	Pheromone trap	Rabi 2021	2.0	10						
Veget able garde n kits		Rabi 2021	-	50						
Berse em	Mescavi	Rabi 2021	2.0	30						
Oats	UPO 212	Rabi 2021	2.0	22						
Whea t	Reaper cum binder	Rabi 2021	4.0	10						
Impr oved sickle	Naveen	Rabi 2021	-	20						
<b>CFLD</b>										
Oilsee	RH-749	Rabi	30	75						



d		2021							
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### 3. On Farm Trial

**Discipline** :Plant Protection  
**Title** :Management of pod borer (*Helicoverpa armigera*) and pod fly (*Melinagromyza obtuse*) in pigeonpea  
**Crop** :Pigeon Pea  
**No. of Trials** :10  
**Area** :2 ha

Treatment	Technology					
FP	No use of pesticide					
T <sub>1</sub>	1 <sup>st</sup> spray with NSKE (5%) before flowering and 2 <sup>nd</sup> spray with NSKE (5%) at 50 % flowering stage					
T <sub>2</sub>	NPV @ 300 LE/ha + pheromone trap 15/ha					
<b>Result</b>						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

**Discipline** :Plant Protection  
**Title** :Management of litchi mite (*Aceria litchi Keigter*)  
**Crop** :Litchi  
**No. of Trials** :10  
**Area** :1 ha

Treatment	Technology					
FP	No use of pesticide					
T <sub>1</sub>	Pruning and removal of infested twigs/shoots after harvest of fruit+spray of chlorfenapyr 10 ED (3 ml/L) at 15 days interval in July-August					
T <sub>2</sub>	Pruning and removal of infested twigs/shoots after harvest of fruit+spray of Propargite 57 E (3 ml/L) at 15 days interval in July to August					
<b>Result</b>						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

**Discipline** :Ag. Engineering .  
**Title** :Assessment of sugarcane bud chipper/sugarcane single node bud cutter for drudgery reduction  
**Crop** : Sugarcane  
**No. of Trials** :10



Area :-

Treatment	Technology					
FP	Sugarcane sett cutting by axe					
T <sub>1</sub>	Sugarcane but chipper					
T <sub>2</sub>	Sugarcane bud cutter					
Result						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

Discipline :Ag. Engineering .

Title :Assessment of improved weeding implements for weeding in gram

Crop :Gram

No. of Trials :8

Area :

Treatment	Technology					
FP	Khurpi					
T <sub>1</sub>	Three tyne grubber.					
T <sub>2</sub>	Three tyne wheel hand hoe					
Result						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

Discipline :Home Science

Title :Assessment of preparation methods of carrot Paste for mor shelf life, enhancement of nutrition & income

Crop :-

No. of Trials :10

Area :

Treatment	Technology					
FP	Local people consume fresh carrot as such as vegetables of juice.					
T <sub>1</sub>	Preparation of Carrot Paste					
T <sub>2</sub>	Preparation of Carrot Paste with spices.					
T <sub>3</sub>	Preparation of carrot paste blended with tomatoes.					
Result						



Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

**Discipline** :Home Science

**Title** :Assessment of preparation methods of potato flakes for more shelf life & enhancement of income

**Crop** :-

**No. of Trials** :10

**Area** :

Treatment	Technology					
FP	Local people consume fresh potatoes as such as vegetables.					
T <sub>1</sub>	Preparation of Potato flakes.					
T <sub>2</sub>	Preparation of Potato Flakes with sour taste.					
<b>Result</b>						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

**Discipline** :Horticulture

**Title** :Assesment of integrated nutrient management for higher yield of banana

**Crop** : **Banana**

**No. of Trials** :8

**Area** :

Treatment	Technology					
FP	100% RDF(200:100:300 g, NPK)					
T <sub>1</sub>	75% RDF + FYM 10 kg + PSB 20 g + Azospirillum 20 g/plant.					
T <sub>2</sub>	75% RDF + Vermicompost (5 kg) + PSB 20 g + Azospirillum 20 g/plant.					
<b>Result</b>						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

**Discipline** :Horticulture



**Title** : Control of fruit cracking in litchi by bagging of fruit branches (non-oven polypropylene bags)  
**Crop** :-  
**No. of Trials** :8  
**Area** :16 plants(0.2 ha)

Treatment	Technology					
FP	FP (No preventive measures)					
T <sub>1</sub>	covering fruit bunches by pink colour non oven polypropylene bags clove stage.					
T <sub>2</sub>	covering fruit bunches by pink colour non oven polypropylene bags clove stage					
<b>Result</b>						
Treatments	Yield q/ha	Increase in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

**Discipline** :Horticulture  
**Title** :Foliar application of B to control fruit cracking in litchi  
**Crop** :Litchi  
**No. of Trials** :8  
**Area** :40 plants(0.4 ha)

Treatment	Technology					
FP	FP (no spraying)					
T <sub>1</sub>	02 spray of Boron (0.1%) 15 and 30 days after fruit set					
T <sub>2</sub>	3 Spraying of Borax (0.1%) 15, 30 and 45 days after fruit set					
<b>Result</b>						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

### 3. On Farm Trial

**Discipline** :Animal Science  
**Title** :Low cost feeding of back yard poultry  
**Crop** :Poultry  
**No. of Trials** :10  
**Area** :



Treatment	Technology					
FP	Scavenging condition.					
T <sub>1</sub>	Scavenging condition supplement (30 g maize + 10 g mustard oil cake)					
T <sub>2</sub>	Scavenging condition + supplement (30 g dried drumstick leaves + 10 g earth worm)					
<b>Result</b>						
Treatments	Yield q/ha	In crease in yield	Result: Cost of cultivation	Gross return (Rs/ha)	Net Return (Rs/ha)	BC Ratio

#### 4. Seed Production at KVK Farm

Sl. No.	Crop	Variety	Area (ha)	Expected seed produced (q)	Type of Seed
1.	Paddy	R. Bhagwati	6.0		
2.	Sugarcane	R. Ganna-1	1.0		
3.	Wheat	HD 2967	6.0		
4.	Rapeseed and Mustard	R. Suflam	2.0		
5.	Green Gram	IPM-02-03	1.0		
6.	Pea	HFP-4	0.5		

#### 5 (A) Production of planting materials at KVK

Sl. No.	Plant/Crop	Varieties	No./Weight
1.	Chillis		5000 Saplings
2.	Tomato		20000 Saplings
3.	Cauliflower		30000 Saplings
4.	Litchi/Mango/Guava		1000 Saplings
5.	Cabbage		30000 Saplings
6.	Papaya		5000 Saplings

#### 6. Vermiculture and other products at KVK level.

Sl. No.	Particulars	No./Amount
1.		
2.		
3.		

#### 7. (A) Other Extension activities

Sl. No.	Name of Ext. Activities	No. of activities	Beneficiaries		
			Male	Female	Total



1.	Kisan Mela	10			200
2.	Kisan Gosthi	10			200
3.	Field Day	10			500
4.	Farmers visit to KVK	1000			1000
5.	Scientist visit of farmers field	50			200
6.	Mobile services	1200			1200
7.	Animal health camp	3			200
8.	Exposure visit				
9.	Lecture Delivered as resource person				
10.	Publication	4			0
11.	News Paper Coverage	5			0
10.	Any other (Celebration of important days)	10			1000

