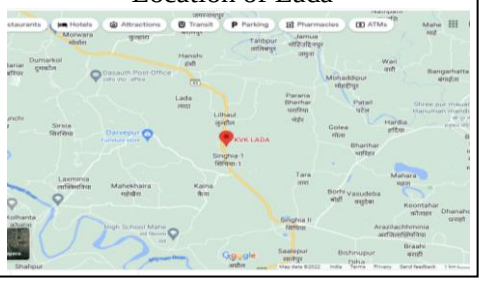
Krishi Vigyan Kendra, Lada, Samastipur-II
Dr. Rajendra Prasad Central Agricultural University, Pusa

VIII[th] Extension Education Council Report
(April, 2023 to March, 2024)

A. Profile of KVK

KVK, Name	-	LADA
Latitude	-	25.8692° N
Longitude	-	86.1387° E
Farm Area (ha)	-	10
District	-	SAMASTIPUR

Location of Lada



B. Staff Strength

SI. No.	Post	Group	Grade Pay	Sanctioned	Filled	Vacant
1.	Head	A	9000	01	0	1
2.	SMS-6	A	5400	06	4	2
3.	Farm Manager	B	4200	01	0	1
4.	Programme Asst. (Computer)	B	4200	01	0	1
5.	Programme Asst. (Lab Tech.)	B	4200	01	0	1
6.	Assistant	B	4200	01	0	1
7.	Stenographer	C	4200	01	0	1
8.	Supporting Staff -1&2	C	1800	02	1	1
9.	Jeep Driver	C	2000	01	1	0
10.	Tractor Driver	C	2000	01	0	1
				16	**6**	**10**

C. Soil Samples Analyzed: (From KVK, Birauli)

Number of Soil Samples Collected	Number of Soil Samples Analyzed	Soil Health Card Distributed
200	**200**	**200**

D. Status of revolving fund as on 31.03.2024

Opening balance (Rs.) on 01.04.2023	Total fund received (Rs.) up to 31.03.2024	Expenditure (Rs.) up to 31.03.2024	Balanced amount (Rs.) up to 01.04.2024	Cash kind to (Rs.)
78,864.00			**3,17,300.00**	**12,00,000.0**

E. Achievements of Training Programmes (Give only numbers):

(i) Practicing Farmers/Farm Women.

SI. No.	Discipline	Target	Achievement	No. of Beneficiaries				Total
				Male		Female		
				Others	SC/ST	Others	SC/ST	
1.	Crop production (Agro/ Plant Breeding/ Soil Sci./ Extn.)	24	25	465	92	98	36	683
2.	Plant Protection	24	24	506	112	88	28	734
3.	Home Science	24	25	147	9	379	31	566
4.	Agricultural Engineering	24	24	454	51	96	04	605
	Total	**96**	**98**	**1572**	**264**	**661**	**99**	**2588**

(ii) Rural Youth:

SI. No.	Discipline	Target	Achievement	No. of Beneficiaries				Total
				Male		Female		
				Others	SC/ST	Others	SC/ST	
1.	Crop production (Agro/ Plant Breeding/ Soil Sci./ Extn.)	4	4	59	10	25	11	105
2.	Plant Protection	4	5	107	19	22	7	155
3.	Home Science	4	4	1	0	102	8	111
4.	Agricultural Engineering	4	4	62	7	2	2	73
Total		**16**	**17**	**229**	**36**	**151**	**28**	**444**

(iii) Extension Functionaries:

SI. No.	Discipline	Target	Achievement	No. of Beneficiaries				Total
				Male		Female		
				Others	SC/ST	Others	SC/ST	
1.	Crop production (Agro/ Plant Breeding/Soil Sci./ Extn.)	4	4	69	17	16	6	108
2.	Plant Protection	4	5	88	37	31	9	165
3.	Home Science	4	4	0	0	67	21	88
4.	Agricultural Engineering	4	0	0	0	0	0	0
Total		**16**	**13**	**157**	**54**	**114**	**36**	**361**

(iv) Other Sponsored Training Programme:

SI. No.	Discipline	Achievement	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.	Plant protection	**01**	**12**	**6**	**7**	**0**	**25**

(v) Vocational Training:

SI. No.	Discipline	Achievement	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.	NA						

F. i) Seed Produced:

Sl. No.	Crop	Variety	Area (ha)	Type of Seed	Seed Production			
					Quantity Produced	Sold to		
						University	Farmers	Non Seed
1.	Rice	Rajshree	8	F/S & C/S	182.7	✓		
2.	Wheat	HD2967	5	C/S	62.5	✓		
3.	Ragi	BR-407	1	F/S	3.9	✓		
4.	Mustard	R. suflam	2	T/L	12.5	✓		
5.	Lentil	IPL 220	1	F/S	6.0	✓		
Total			**17**	**-**	**267.6**			

ii) Planting Material/Spawn/Varmicompost/Bio-Pesticide/Fingerlings/Chicks Production

Sl. No.	Crop	Variety/Species	Quantity Produced	Sold to	
				Govt.	Farmers
1.	Cauliflower	HYV	4001	-	150
2.	Cabbage	HYV	6682	-	230
3.	Tomato	HYV	1348	-	103
4.	Brinjal	HYV	2035	-	105
5.	Chilli	HYV	1423	-	105
6.	Others vegetables	HYV	10906	-	158
	Total	-	**26425**	-	**746**

G. FLD:

Crop	Variety/ Tech demo.	Season Kharif/ Rabi	Area (ha)	No. of Farmers	Production q/ha			Local check (q/ha)	Increase in yield%	BC ratio
					H	L	A			
Mango	Fruit fly trap in Mango Orchard	Kharif	4	25	160	145	152.5	130	10	3.45
Brinjal	Demonstration of Pheromone trap in brinjal field against fruit and shoot borer	Rabi	1	25	270	210	240	190	28	2.45
Mushroom	Oyster Mushroom	Rabi	0	25	10	4	7	6	16.7	2.88
Nutrition Garden	Bag Method	Rabi	0	25	6	4.5	5.25	4.5	16.7	4.90
Wheat	Ragendra Gehun-3	Rabi	2.5	7	46.2	36.1	39.8	31.7	25.6	2.21
Barley	DWRB 137	Rabi	2.5	7	35.0	27.1	29.0	23.3	31.1	1.86
Rice	R. Neelam	Kharif	2.5	7	46.9	38.4	41.2	35.9	18.1	2.16
Wheat	Rice wheat seeder	Rabi	2	25	45.4	35.7	37.9	30.4	24.6	1.9
Maize	Dibbler	Rabi	5	25	Ongoing					
		Total	19.5	171	619.5	500.8	552.65	451.8	170.8	21.81

H. CFLD on Pulses:

Crop	Variety/ Tech demo.	Season Kharif/ Rabi	Area (ha)	No. of Farmers	Production q/ha			Local check (q/ha)	Increase in yield %	BC ratio
					H	L	A			
Pigeon pea (2022-23)	R. arhar	kharif	20	87	16.7	12.6	14.7	10.2	44.1	3.11
Lentil (2022-23	IPL526	Rabi	20	50	11.4	9.3	10.4	7.8	33.3	2.03
Field Pea (2022-23)	IPFD-10-12	Rabi	10	54	18.4	14.6	16.5	11.1	48.6	2.86
Chick Pea (2022-23)	PUSA 3043+	Rabi	20	101	15.7	13.9	14.8	11.7	26.4	2.84
Black gram (2022-23	T9	Summer	10	33	10.4	8.7	9.8	7.6	25.6	3.08
Green gram (2022-23)	Virat	Summer	20	78	8.6	7.0	7.8	5.9	32.2	2.75
Lentil (2023-24)	IPL316, IPL526	Rabi	16	43	12.2	8.6	10.3	8.1	27.2	2.33
		Total	**116**	**446**	**93.4**	**74.7**	**84.3**	**62.4**	**237.4**	**19**

I. CFLD on Oilseed:

Crop	Variety/ Tech demo.	Season Kharif/ Rabi	Area (ha)	No. of Farmers	Production q/ha			Local check (q/ha)	Increase in yield %	BC ratio
					H	L	A			
Soybean (2023-24)	P1241, PS1225	Kharif	20	52	17.2	13.5	15.5	11.4	35.9	2.36
Rapeseed & Mustard (2023-24)	DRMR-150-35	Rabi	60	152	18.1	12.7	15.1	10.6	42.4	2.89
Total			**80**	**204**	**35.3**	**26.2**	**30.6**	**22**	**78.3**	**5.25**

J. Projects:

(i) CRA Project: NA

Crop	Variety/ Tech demo.	Season Kharif/ Rabi	Area (ha)	No. of Farmers	Production q/ha			Local check (q/ha)	Increase in yield %	BC ratio
					H	L	A			

(ii) ARYA Project: NA

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.	NA						

(iii) NARI Project/Poshan Vatika

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.	Training	6	8	6	114	4	132
2.	Field Day	2	3	1	36	4	46
3.	Other Extension Activity	6	6	0	29	7	50
Total		**14**	**17**	**07**	**179**	**15**	**228**

(iv) NICRA Project: NA

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.							

(v) SC-SP Programme:

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.	Training	04	0	145	0	35	180
2.	Field Day	02	0	44	0	34	78
3.	Other Extension Activity	04	0	19	0	31	50
Total		**10**	**0**	**208**	**0**	**100**	**308**

(vi) TSP Programme: NA

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.							

Note: Impact of programme and any one success story with photograph.

(vii) CSISA Programme: NA

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.							

(viii) DAMU Programme: NA

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.							

(ix) Seed Hub Programme: NA

SI. No.	Name of Crop	Variety of Crop	Area (ha.)	Number of Farmers	Total Seed procured (q.)	Total Seed Sale (q.)
1.						

(x) Skill Development Programme:

SI. No.	Name of Activities	Number of Activities	No. of Beneficiaries				Total
			Male		Female		
			Others	SC/ST	Others	SC/ST	
1.	Small Mushroom Grower (2022-23)	1	18	2	5	0	25
Total		**01**	**18**	**2**	**5**	**0**	**25**

K. On Farm Trial

On Farm Trial – 01

Discipline : Plant Protection
Title : Assessment of bio-intensive management practices for major pests in Tomato
Crop : **Tomato**
No. of Trials : **07**
Area : 0.2 ha

Treatment	Technology
Farmers Practice	Use of chemical pesticides
T_1	• Application of Bio consortia of IIHR (Soil application) • Seed treatment by P. fluorescens@10 g/kg • Nursery bed treatment by P. fluorescens@20 g/ m2 • Soil application P. fluorescens@5 kg/ha mixed with 500 kg vermi-compost/ha at 30 days after transplanting • Spray of HNPV @ 250 LE /ha
T_2	Soil application of Bio consortia of IARI • Seed treatment by Trichoderma viride @10 g/kg • Nursery bed treatment by Trichoderma viride @50 g/ m2 • Soil application Trichoderma viride @5 kg/ha mixed with 500 kg vermi-compost/ha at 30 days after transplanting • Spray of HNPV@ 250 LE /ha

Result

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos (in livestock)		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual					
Assessment of bio-intensive management practices for major pests in Tomato	FP	0.07	0.07	271.90	41845.12	163140.54	121295.42	2.89
	TO1	0.07	0.07	315.89	54952.23	252712.33	197760.11	3.59
	TO2	0.07	0.07	350.61	58982.76	280488.34	221505.58	3.75
*Rs8/Kg Sale rate *Rs 6/Kg Sale rate (FP)								

Seed treatment and soil treatment

Experimental plot

Conclusion:

- Fruit yield of tomato (L-37 a susceptible hybrid against most of the diseases) was found maximum in T2 (350.61 q/ha) and T1 (315.89 q/ha) as compared to Farmers' practice (271.90 q/ha).
- Disease incidence of Late blight and Early Blight was found minimum in T2 (1.76) and T1 (2.55) as compared to farmers' practice (7.51) and for early blight T2 (3.93) and T1 (6.09) and farmers' practice (11.86).
- Infestation of Fruit Borer (H. armigera) was also found minimum in T2 (5.95) and T1 (7.53) as compared to farmers' practice (8.03).
- Where as Disease incidence of (ToLCV) was found minimum in Farmers' practice (7.02) as compared to T1 (8.19) and T2(10.15).
- Similarly infestation of Sucking pest (Aphids and whiteflies) was found minimum in Farmers' practice (30.51) as compared to T1 (35.91) and T2 (41.65) as no specific control measures were used against this pest, while in the farmers practice spraying of imidacloprid was done which was found more effective.

On Farm Trial – 02

Discipline : Plant Protection
Title : Assessment of management practices for Red banded caterpillar in Mango
Crop : Mango
No. of Trials : 07
Area : 0.5 ha

Treatment	Technology
Farmers Practice	Spray of chlorpyriphos as and when symptoms appear
T_1	Collection and destruction of all fallen fruits • Spray deltamethrin 0.0028 % (deltamethrin 2.8 EC@ 1ml/lit) at marble size and repeat after two weeks
T_2	Two sprays of thiacloprid 21.7 SC 0.04 % (@ 2ml/lit) at 25-30 days interval.

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos (in livestock)		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual					
Assessment of management practices for Red banded caterpillar in Mango	FP	20	20	156.21	73245	489234	415989	5.67
	TO1	20	20	245.51	71262	601459	530197	7.44
	TO2	20	20	201.15	81349	573824	492475	6.05

Spraying in the farmers plot and experimental plot

Conclusion: The most destructive stage of this pest was larval stage. The red and white alternate bands on the body were the characteristic feature of this pest. This pest attacked the mango fruit from the pea sized till the maturity of the fruit causing boring of the fruits through several tunnels by the larvae. The matured instar larvae reached the seed yet to harden and tunneled them, excreted inside and exposed the fruits to the secondary infestation by micro pathogens. Pupation occurred in the soil inside a brownish cocoon or in the dry twigs of the branches. It has been found that (TO1) spraying of deltamethrin 0.0028 % (deltamethrin 2.8 EC@ 1ml/lit) at marble size at two weeks interval was found to be more effective in controlling the pest as compared to (TO2) thiacloprid 21.7 SC 0.04 % (@ 2ml/lit) at 25-30 days interval and FP i.e. spray of chlorpyriphos as and when symptoms appear. we found that TO1 resulted in the highest B:C ratio (7.44) as compared to TO2 and FP even the yield attributes was found to be best in TO1 as compared to TO2and FP.

On Farm Trial – 03

Discipline : Crop production
Title : Improvement of Nitrogen use efficiency in wheat
Crop : Wheat
No. of Trials : 07
Area : 0.2 ha

Treatment	Technology
Farmers Practice	RDF (100:40:20) Kg/ha
T_1	50% of RDN & 100% PK + Nano urea @4ml/lt. water (Single spray at 35 DAS).
T_2	50% of RDN & 100% PK + 2 sprays of Nano Urea at (35 DAS) and (60-65DAS) @ 4 ml/lt water.

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos (in livestock)		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual					
Nutrient management	FP	0.07	0.07	38.8	37079	82450	45371	2.23
	TO1	0.07	0.07	37.5	37659	79688	42029	2.14
	TO2	0.07	0.07	39.03	38770	82936	44166	2.18

Spraying of nano urea

Matured stage

Conclusion: It has been found that 2 sprays of Nano urea (TO2) have resulted in statistically at par growth and yield of wheat crop in this region. After consideration of economics analysis, we found that farmers practice resulted in the highest B:C ratio (2.23) due the higher labour cost for foliar fertilization than broadcasting of MOP.Although yield and economic benefits were also not availed by using nano-urea, sporadic availability and subsequent hike in price of urea granules enhances the cost of cultivation in farmers practice. In addition, timely availability of nano-urea could help the farmers particularly during peak season of wheat, Moreover, subsidy on urea granule is hidden fact which is not taken into consideration during the economic analysis which surely could made the spraying of nano-urea economically viable.

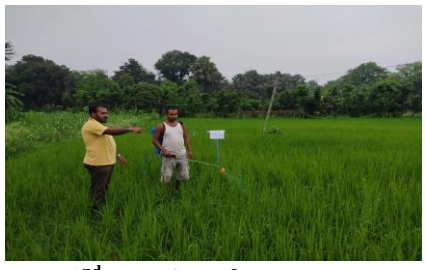
On Farm Trial – 04

Discipline : Crop Production
Title : Improvement of Nitrogen use efficiency in rice.
Crop : Rice
No. of Trials : 07
Area : 0.2 ha

Treatment	Technology
Farmers Practice	RDF (100:40:20) Kg/ha
T_1	50% of RDN & 100% PK + nano urea @4ml/lt. water (Single spray at pre flowering stage)
T_2	50% of RDN & 100% PK + 2 sprays of Nano Urea at (25 to 30 days) and (60-65 days) @ 4 ml/lt water

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos (in livestock)		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual					
Nutrient management	FP	0.07	0.07	42.8	39880	93432	53552	2.34
	TO1	0.07	0.07	39.2	40590	85574	44984	2.11
	TO2	0.07	0.07	40.9	41360	89285	47925	2.16

First spraying of nano urea



2[nd] spraying of nano urea

Matured stage of rice

Conclusion: It has been found that 2 sprays of Nano urea (TO2) have resulted in statistically at par growth and yield of rice crop in this region. After consideration of economics analysis, we found that farmers practice resulted in the highest B:C ratio (2.34) due the higher labour cost for foliar fertilization than broadcasting of MOP. Although yield and economic benefits were also not availed by using nano-urea, sporadic availability and subsequent hike in price of urea granules enhances the cost of cultivation in farmers practice. In addition, timely availability of nano-urea could help the farmers particularly during peak season of rice, Moreover, subsidy on urea granule is hidden fact which is not taken into consideration during the economic analysis which surely could made the spraying of nano-urea economically viable.

<u>On Farm Trial – 05</u>

Discipline : Agril. Engg.
Title : Assessment of low-cost Mulching in Vegetable Crop Production
Crop : Tomato
No. of Trials : 07
Area : 0.1 ha

Treatment	Technology
Farmers Practice	No mulch
T_1	Banana leaves
T_2	Paddy straw

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos (in livestock)		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual					
Crop residue management	FP	0.14	0.14	284.3	43150	112500	69350	2.61
	TO1	0.14	0.14	314.3	48250	152350	104100	3.15
	TO2	0.14	0.14	352.9	46150	153500	107350	3.32

OFT at farmers' field

Mulching done by KVK, Lada

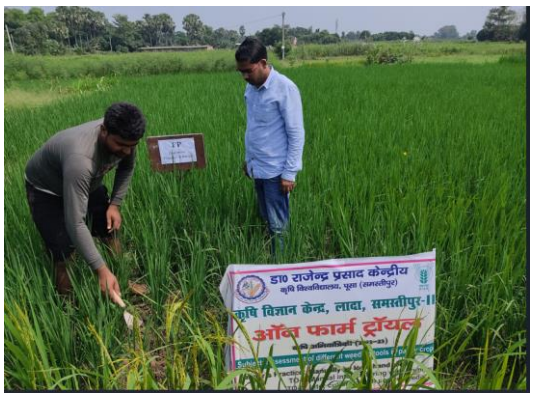
Conclusion: Low cost mulching techniques for crop residue management were experimented on farmers' field and the treatments were compared. The three treatments were farmers' practice (no mulch), mulching with banana leaves and paddy straw mulch. Fruit yield dependent parameter for all the independent parameters was found to be statistically significantly different from each other, where null hypothesis was rejected and alternate hypothesis was accepted and further Duncan post-hoc tests were carried out to find out the independent parameters, among which the dependent values were found to be significantly different at 5% level of significance or 95% confidence interval ($p<0.05$). Highest BC ratio was found for TO2 (paddy straw mulch), which can be adopted easily due to its abundant presence and would also address the paddy straw burning issues.

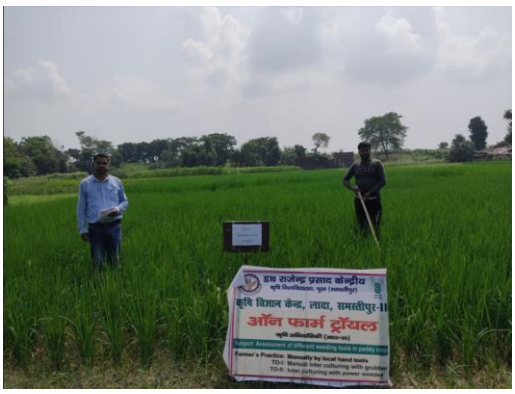
<u>On Farm Trial – 06</u>

Discipline : Agril. Engg.
Title : Assessment of different weeding tools in paddy crop
Crop : Paddy
No. of Trials : 07
Area : 0.1 ha

Treatment	Technology
Farmers Practice	Khurpi
T_1	Grubber
T_2	Brush cutter operated power weeder

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos (in livestock)		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual					
Drugry reduction	TO1	0.14	0.14	44	53050	74800	21750	1.41
	TO2	0.14	0.14	45.5	48955	77350	28395	1.58





OFT at farmers' field

Conclusion: Different weeding techniques for paddy crop were experimented on farmers' field and the treatments were compared. The three treatments were farmers' practice (khurpi), weeding using grubber and weeding using brush cutter with weeding attachment. The field capacity for the brush cutter operated weeder was highest (0.5 ha/h), whereas plant damage was negligible. The labours involved for farmers practice was highest and for the brush cutter operated weeder was lowest. The cost economics was also evaluated and it was found that there was a reduction in cost of cultivation for both the technological options. The brush cutter operated weeder was recommended for practice for its highest field capacity, higher yield, low labour cost, low cost of operation and therefore resulting in higher benefit cost ratio.

On Farm Trial – 07

Discipline : Home Science
Title : Assessment of the effectiveness of Mittens for soybean harvesting
Crop : Soybean
No. of Trials : 07
Area : 0.2 ha

Treatment	Technology
Farmers Practice	Soybean harvesting is performed manually with the help of sickle
T_1	Using locally available gloves for cutting, collecting and bundling plants manually.
T_2	Using protective mittens developed by AICRP FRM, College of Home Science, VNMKV Parbhanifor soybean harvesting

Table: 1 Work output of Soybean harvesting with traditional and improved method (n=10)

Name of Activity	Parameters for Observation	Farmer Practice	TO1	TO2	Percentage change between Farmer Practice &TO2	Percentage change between TO1&TO2
Cutting soybean plants with Sickle	Work done/ unit time (sq.mt./30 min.)	146.95±8.96	154.25±2.34	177.4±8.09	20.97	15.01
Collecting	Work	62.2±6.25	72.7±8.16	100.3±13.03	72.03	31.87

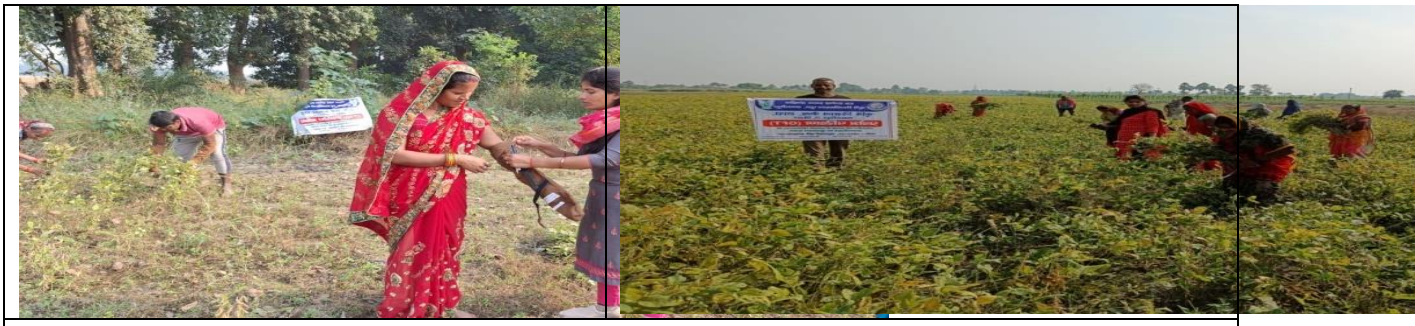
and Bundling of soybean plants	done/unit time (Kg/30 min.)					
	Drudgery Score	4.3±3.02	3.1±0.67	1.2±0.73	70.37	59.16
Overall Discomfort rate	VAD Scale*	8.5±1.08	6.1±1.31	1.0±0.81	88.26	83.06

***VAD- Visual Analogue Discomfort Scale, 0- No Discomfort, 10- Extreme Discomfort**

Table: 2 Musculoskeletal problems of hand in Soybean harvesting

dy rts / Type of MSD	Upper arm			Lower arm			Wrist			Palm			Fingers		
	FP	TO 1	TO 2	FP	TO 1	TO 2	FP	TO 1	TO 2	FP	TO 1	TO 2	FP	TO 1	TO 2
Pain *	3.77 ±0.97	3.1 ±0.73	1.2 ±0.42	4.0± 0	3.6 ±0.51	1.3 ±0.48	4.44 ±0.52	3.1 ±0.73	1.1 ±0.31	4.66 ±0.5	2.9 ±0.73	1.1 ±0.31	4.44 ±0.52	3.7 ±0.67	1.4 ±0.51
Numbness *	1.0± 0	1.4 ±0.69	1.3 ±0.48	3.44 ±0.52	1.5 ±0.52	1.2 ±0.42	2.77 ±0.66	2.6 ±0.51	1.1 ±0.31	3.88 ±0.60	2±0 .66	1.3 ±0.48	3.66 ±0.70	3.2 ±0.91	1.1 ±0.31
Stiffness*	1.55 ±0.72	2.3 ±0.82	1.1 ±0.31	3.66 ±0.5	2.4 ±0.69	1.2 ±0.42	3.22 ±0.66	1.9 ±0.73	1.1 ±0.31	3.44 ±0.52	2.6 ±0.84	1±0	4.11 ±0.78	3.6 ±0.84	1.1 ±0.31
Tingling* Sensation	2.22 ±0.97	2.6 ±0.69	1.2 ±0.42	3.0± 1.22	2.5 ±1.08	1.1 ±0.31	2.55 ±0.52	2.2 ±0.78	1.1 ±0.31	3.11 ±0.78	2.9 ±0.56	1±0	4.22 ±0.66	2.8 ±0.78	1±0
Weakness *	3.0± 0.70	3.8 ±0.78	1.2 ±0.42	3.33 ±0.70	2.5 ±0.84	1.3 ±0.48	3.66 ±0.5	1.8 ±0.63	1.4 ±0.51	2.88 ±1.05	2.9 ±0.56	1.2 ±0.42	4.22 ±0.66	3.1 ±0.99	1±0
Redness*	1.22 ±0.44	2.2 ±0.91	1.2 ±0.42	4.11 ±0.78	2.8 ±0.78	1.5 ±0.52	2.77 ±0.44	1.8 ±0.78	1.2 ±0.42	4.33 ±0.70	2.8 ±0.78	1.2 ±0.42	4.77 ±3.89	3±0	1±0

***All the parameters are estimated by Five Point Scale, 5- Very Severe,4- severe, 3- Moderate, 2- Mild & 1- Very Mild (n=10)**



Soybean harvesting with Mittens

Conclusion: An On-farm trial for Assessment of the effectiveness of Mittens for soybean harvesting was conducted in 10 different locations in Samastipur district of Bihar. The Result showed that TO1(Using locally available gloves for cutting, collecting and bundling plants manually) reduced the discomfort by 59.16 percent whereas TO2(Using protective mittens developed by AICRP FRM, College of Home Science, VNMKV Parbhanifor soybean harvesting) reduced the discomfort by 70.37

percent. Overall Discomfort also reduced with the use TO1 (83.06%) and further reduced with the use of TO2 (88.26%). Farmers faced various types of musculoskeletal problems like Pain, Numbness, tingling sensation, Weakness & Redness while performing the activity without any technological assistance. TO1 were helpful in reducing the discomfort. ButTO2 were highly effective in reducing their musculoskeletal problems. Technologies also helped in increasing the efficiency of soybean harvesting. It was observed that there was remarkable increase in the soybean harvesting efficiency by using TO2 (20.97%) followed by locally available TO1 (15.01%).

Soybean Harvesting is a Drudgery prone Activity when performed without any technological intervention. Technologies like TO1 and TO2 were provided to the farmers for reducing their discomfort. Among both the technologies, TO2were better in every aspect as it was helpful in reducing the drudgery, overall discomfort and musculoskeletal problem of the farmers. It also increased the efficiency of soybean harvesting.

On Farm Trial – 08

Discipline : Home Science
Title : Development and quality evaluation of honey based carrot candy
Crop : Carrot candy
No. of Trials : 07
Area : -

Treatment	Technology
Farmers Practice	Children consume fresh carrot as such as vegetables or juice.
T_1	Preparation of Carrot candy Honey- 750g + carrot-1000g
T_2	Honey-1000g + carrot-1000g

Table: 1 Effect of honey composition on Sensory quality of honey -based carrot candy

Treatments	Colour*	Flavour*	Taste*	Texture*	Overall acceptability
Farmers Practice	7.2 ± 0.42	7.2 ± 0.42	7.3 ± 0.48	7.2 ±0.63	7.22 ± 0.05
T1	8.9 ± 0.31	8.7 ± 0.48	8.7 ± 0.48	8.8 ± 0.42	8.7 ± 0.09
T2	7.4 ± 0.69	7.8 ± 0.63	7.7 ± 0.67	7.8 ± 0.78	7.6 ± 0.18

*All the parameters are estimated by Nine Point Hedonic Scale

Preparation and Intervention of Carrot Candy at KVK

L. TV Talk/Radio Talk:

SI. No.	Topic of the talk	Name of Scientist	TV/Radio talk station	Date of Recoding
1.	Mushroom Production in Kharif Season	Dr.Kumari Amrita Sinha	TV Doordarshan Kendra, Patna	29/05/2023
2.	Vegetable Gardening in the Off Season	Dr. Abhishek pratap Singh	TV Doordarshan Kendra, Patna	29/05/2023

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

SI. No.	Particulars	Date	No. of Participants
1.	Live broadcasting programme of PM Kisaan Samman Nidhi	27-07-2023	105
2.	Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)	15-11-2023	30
3.	PM Live on VBSY	16-12-2023	23
4.	PM Live on VBSY	28-12-2023	26
5.	Farmers-scientists interface meeting	21-03-2024	100
6.	Swachhata Abhiyan	03-10-2023	49
7.	Swachhata Abhiyan (School)	03-10-2023	58
8.	Mission on Lifestyle on Environment	27-05-2023	55
9.	Climate resilient agriculture	30-05-2023	31
10.	Climate resilient agriculture on Mission on Lifestyle on Environment	04-06-2023	76
11.	Awareness Programme	31-05-2023	29
12.	95[th] ICAR Foundation Day	16-07-2023	70
13.	Technology Day	18-07-2023	71
14.	Farmers-scientists interaction (ATMA)	25-08-2023 to 26-08-2023	46
15.	World Soil Day	05-12-2023	26
16.	Awareness programme on millet cultivation and value added products	12-09-2023	28
17.	International Women's Day	08-03-2024	78
18.	Poshan Pakhwada	01-04-2023	42

N. SAC conducted at KVK:

SI. No.	Particulars	Date	No. of Participants
1.	4[th] SAC Meeting	08/08/2023	62

O. List of visitor at KVK:

Date	Name & Designation	Purpose of visit
22/06/2023	Honorable Ari Birendra Prasad, MLA, Rosera, Samastipur	Visit to KVK office, farm and interacted with staffs

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

Name of Programme	Nature of Programme Attended	Date
National Conference		
Summer/Winter School		
Workshop		
Training Programme	Collaborative Online Training Programme on "Value Chain Extension"	13 /06/2023 to15/06/ 2023
Seminar/Symposium		
Others		

Q. Other Extension activities

Sl. No.	Name of Ext. Activities	No. of Activities	Beneficiaries		
			Male	Female	Total
1.	Kisan Mela	3	4321	2727	7048
2.	Kisan Gosthi	19	1480	490	1970
3.	Field Day	17	134	180	314
4.	Farmers Visit to KVK	28	1033	679	1712
5.	Scientist Visit of farmers field	49	1055	704	1759
6.	Animal Health Camp	0	0	0	0
7.	Exposure Visit	1	23	2	25
8.	Lecture Delivered as Resource Person	64	2503	279	2779
9.	Number of Agro Advisories (By Phone)	600	2500	485	2985
10.	Number of SMS Advisories sent	0	0	0	0
11.	Number of Agro Metrological Advisories	0	0	0	0
12.	Any other (Pl. specify)	-	-	-	-
	Total	**781**	**13049**	**5546**	**18595**

R. PUBLICATION:

(i) Research papers published (01.04.2023 to 31.03.2024)

Name of the author (s)	Year	Title	Name of the Journal & NAAS Rating	Vol. No. & Page No.
Kundu, A., Saha, S., Murmu, J., Dey Sarkar, J. and Bandyopadhyay, P. K.	2023	Conservation agriculture practices influenced soil water retention parameters of Inceptisol of lower Gangetic plains.	J. Crop and Weed, 5.95	19(2): 126-132.
Dey Sarkar, J., Kundu, A. and Bandyopadhyay, P. K.	2023	The disparity in soil organic carbon concentration under short-term conservation agriculture with rice-based cropping systems in a very fine textured soil of lower Indo-Gangetic plain	West Bengal. J. Crop and Weed, 5.95	19(2): 78-83.

(ii) Book Chapters (01.04.2023 to 31.03.2024)

Name of the author (s)	Year	Chapter	Name of Books & its ISBN No.	Pages	Name of Publisher

(iii) Technical bulletins published (01.04.2023 to 31.03.2024)

Name of the Author (s)	Year	Title	Name of Publisher	No. of Pages	No. of Copies Printed	Price
-	--	-	-	--	-	-

(iv) Popular articles published (01.04.2023 to 31.03.2024)

Name of the Author (s)	Year	Title	Name of the Magazine	Vol. No. & Page Numbers
Sinha, KA, Singh, AP, Tiwari, DK &Yadav, RD	2024	ICth ikS/k mRiknu }kjk vkRe fuHkZjrk ,oa iks'k.k lqj{kk	Souvenir Kisan Mela 2024	Page no.- 48
Sinha, KA, Gill, JK, & Patel, SS	2024	Stress Among College Students and Its Management.	Agri. Tech Today Agriculture and allied Science E-Magazine.	Volume-1, ISSUE - 10

Note: Brief write up and photographs should be inserted wherever necessary. Text for OFT and FLD should be clear and brief and may be given at appropriate place. Separate table for each OFT should be given.

ACTION PLAN
(April, 2024 to March, 2025)

A. Training Programme

(i) Practicing Farmers/Farm Women.

SI. No.	Discipline	Target	No. of Beneficiaries		Total
			Male	Female	
1.	Crop production (Agro/ Plant Breeding/ Soil Sci/ Extn.)	16	232	168	400
3.	Plant Protection	16	232	168	400
4.	Home Science	16	168	232	400
6.	Agricultural Engineering	16	232	168	400
Total		**64**	**864**	**736**	**1600**

(ii) Rural Youth:

SI. No.	Discipline	Target	No. of Beneficiaries		Total
			Male	Female	
1.	Crop production (Agro/ Plant Breeding/ Soil Sci./ Extn.)	4	75	25	100
3.	Plant Protection	4	75	25	100
4.	Home Science	4	25	75	100
6.	Agricultural Engineering	4	75	25	100
Total		**16**	**250**	**150**	**400**

(iii) Extension Functionaries:

SI. No.	Discipline	Target	No. of Beneficiaries		Total
			Male	Female	
1.	Crop production (Agro/ Plant Breeding/ Soil Sci/ Extn.)	4	75	25	100
3.	Plant Protection	4	75	25	100
4.	Home Science	4	25	75	100
6.	Agricultural Engineering	4	75	25	100
Total		**16**	**250**	**150**	**400**

(iv) Vocational Training:

SI. No.	Discipline	Target	No. of Beneficiaries		Total
			Male	Female	
1.	-	-	-	-	-

B. Seed Produced/Planting Material/Spawn/Varmicompost/Bio-Pesticide/ Fingerlings/ Chicks Production.

Sl. No.	Crop	Variety/Species	Area (ha)	Expected Yield/Number
1.	Paddy	R. Neelam	8	240
2.	Wheat	DBW 187/222	8	240
		Total	**16**	**480**

C. FLD:

Season	Variety/ Tech demo.	Area (ha)/No.	No. of Demonstration
Fruit fly trap	4	25	Fruit fly trap
Oyster Mushroom	-	25	Oyster Mushroom
Nutri-garden kit (Bag Method)	-	25	Bag Method
Rajendra Gehu 2	2.5	7	Rajendra gehu 2
Rajendra Neelam	2.5	7	Rajendra neelam
Pheromone trap	4	25	Pheromone trap
Grubber for weeding	1.0	25	Grubber for weeding
Hermetic bag	-	25	Hermetic bag

(D) Other Extension activities

Sl. No.	Name of Ext. Activities	No. of Activities	Participants
1.	Kisan Mela	3	600
2.	Kisan Gosthi	6	600
3.	Field Day	20	800
4.	Farmers Visit to KVK	35	7000
5.	Scientist Visit of Farmers Field	35	3000
6.	Mobile Services	35	5000
7.	Animal Health Camp	5	500
8.	Exposure Visit	5	600
9.	Lecture Delivered as Resource Person	30	700
10.	Any other (Pl. specify)	3	600
Total		**177**	**19400**

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