

KRISHI VIGYAN KENDRA BARH, PATNA**26th Extension Council Report, 2024****October- 2023 to May- 2024****1. Staff Position (Only Senior Scientist & Head and S.M.S)**

S. N.	Name	Post	Specialization	Date of joining	Mobile No.
1.	Dr. Reeta Singh	Sr. Sci.& Head	Home Science	09.07.2019	9931312288
2.	Dr. Mrinal Verma	SMS	Agril. Engineering	25.07.2007	9431266300
3.	Sri Rajeev Kumar	SMS	Soil Science	12.04.2012	9122763207
4.	Dr. Pushpam Patel	SMS	Horticulture	06.11.2023	9123201061

2. (A). Achievement of training program for Farmer (ON/OFF)

S. No.	Discipline	Course no.	No. of Beneficiaries					
			Others		SC/ST		Total	
			M	F	M	F	M	F
i	Home Science	13	442	414	140	289	582	703
ii	Agril. Engineering	10	256	04	25	0	281	04
iii	Soil Science	25	899	398	231	458	1130	856
Iv	Horticulture	18	136	168	54	138	190	306
	Total	66	1733	984	450	885	2183	1869

(B). Training Program for Rural Youth (ON/OFF)

S. No.	Discipline	Course no.	No. of Beneficiaries					
			Others		SC/ST		Total	
			M	F	M	F	M	F
i	Home Science	05	96	04	27	02	123	06
ii	Agril. Engineering	02	46	08	06	04	52	12
iii	Soil Science	04	101	03	17	0	118	03
iv	Horticulture	02	29	01	17	03	46	04
	Total	13	272	16	67	09	339	25

(C). Training Program for Extension Functionaries (ON/OFF)

S. No.	Discipline	Course no.	No. of Beneficiaries					
			Others		SC/ST		Total	
			M	F	M	F	M	F
i	Home Science	01	24	06	04	0	28	10
ii	Agril. Engineering	02	78	17	19	11	97	28
iii	Soil Science	01	28	11	07	07	35	18
iv	Horticulture	01	0	0	12	11	12	11
	Total	05	130	34	42	29	172	67

(D). Sponsored training program (ON/OFF)

S. No.	Discipline	Course no.	No. of Beneficiaries					
			Others		SC/ST		Total	
			M	F	M	F	M	F
i	Home Science	02	29	13	05	03	34	16
ii	Agril. Engineering	03	307	67	23	02	330	69
iii	Soil Science	02	61	20	15	12	76	32
iv	Horticulture	05	141	54	36	12	177	66
	Total	12	538	154	79	29	617	183

(E) Skill Development Training Programme 2023-24

No of training	Name of QP/Job role	Title of the training	Duration (in hrs.)	No. of participants								
				SC		ST		Other		Total		
				M	F	M	F	M	F	M	F	T
01	Mushroom Grower (RPL)	Mushroom Grower	80	4	1	0	0	21	4	25	5	30
01	Vermicompost (RPL)	Vermicompost (RPL)	80	0	0	0	0	22	7	22	7	29
01	Garden Keeper (RKVY)	Garden Keeper (RKVY)	210	10	3	0	0	11	1	21	4	25

(F). Special Program (October 2023 to May 2024)**i. PM Live telecast**

S. No	Name of Program	Date of Program	Place of Program	No. of Participant	Visit of VIPs.
1.	PM Live telecast (Kisan Samman Sammelan)	15.11.2023	KVK, Barh, Patna	61	Sri Rajesh Singh Raju BJP, Barh
2.	PM Live telecast	28.02.2024		178	

ii. Sawal Jabab

S. No	Name of Program	Date of Program	Place of Program	No. of Participant	Visit of VIPs.
1.	Sawal Jabab (Pryogshala Se Khet Tak)	01.11.2023	KVK, Barh, Patna (Online)	10	-
2.	Sawal Jabab (Pryogshala Se Khet Tak)	03.02.2024		09	-

iii. Kisan Mela

S. No	Name of Program	Date of Program	Place of Program	No. of Participant	Visit of VIPs.
1.	Kisan Mela	17-19.02.2024	BAU Sabour	275	-
2.	Kisan Mela under SCSP Prog.	12-13.03.2024	KVK, Barh, Patna	1208	Dr. Amrendra Kumar, Pr. Sci. ATATI, Patna Dr M D Ojha, RD, ARI, Patna

iv. Special Day Celebration

S. No	Name of Program	Date of Program	Place of Program	No. of Participant	Visit of VIPs.
1.	World Soil Day	05.12.2023	KVK, Barh, Patna	42	-
2.	Kisan Diwas	23.12.2023	KVK, Barh, Patna	53	-
3.	National Science Day	28.02.2024	KVK, Barh, Patna	96	Sri Rajesh Singh Raju BJP, Barh
4.	World Pulses Day	10.02.2024	PRC, Mokama	67	-
5.	International Woman Day	08.03.2024	KVK, Barh, Patna	28	Smt. Pinki Devi, Sarpanch, Bedhna
6.	World Earth Day	22.04.2024	KVK, Barh, Patna	16	-

3. (A) Front Line Demonstration, 2023-24

Crop	Thematic Area	Technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Barley (DWRB-137)	Crop Production	Line sowing	07	02	43.47	35.56	22.47	32466.67	80413.67	47946.67	1.47	32483.33	65798.33	33315	1.02
Pearl millet (MPMH-21)	Crop Production	Line sowing	27	5.0	12.14	-	-	17048.2	43425.9	26377.8	2.55	-	-	-	-
Sorghum (CSV-41)	Crop Production	Line sowing	24	1.75	17.83	-	-	17160.87	39236.5	22075.65	2.29	-	-	-	-
Foxtail (SIA-3156)	Crop Production	Line sowing	28	1.4	9.38	-	-	17166.7	26268.2	9101.5	1.53	-	-	-	-
Kodo (JK-41)	Crop Production	Line sowing	08	1.3	9.80	-	-	17142.86	24500.0	7357.1	1.43	-	-	-	-
Finger millet (A-404)	Crop Production	Line sowing	05	2.0	17.28	-	-	21800.0	44915.0	23115.0	2.06	-	-	-	-
Barnyard millet (DHBM-93-2)	Crop Production	Line sowing	04	0.8	11.40	-	-	16600.0	29640.0	13040.0	1.78	-	-	-	-
Kutki (OLM-203)	Crop Production	Line sowing	07	3.5	9.65	-	-	17316.7	27020.0	9703.3	1.56	-	-	-	-

(B) Cluster Front Line Demonstration, 2023-24

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ ha)				*Economics of check (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Mustard (RH 725)	Crop Production	Line sowing	175	70	17.19	14.97	15.09	31106	97175	66069	2.12	30041	84599	54558	1.82
Lentil (IPL 316)	Crop Production	Line sowing	60	24	15.83	13.70	15.88	30545	106729	76184	2.49	28046	93054	65008	2.32

4. Climate Resilient Agriculture Programme

(A) CRA Result (Rabi 2023-24)

Crop	Variety	Technical Intervention	Grain yield (q/ha)		% Increase	Economics of demo				Economics of check			
			Demo	Check		Cost of cultivation	Gross return	Net Return	B:C ratio	Cost of cultivation	Gross return	Net Return	B:C ratio
Mustard	RH 725	Line sowing	17.59	15.67	10.91	29572.76	99362.65	69789.89	2.36	33880.95	88522.05	54641.10	1.61
Wheat	DBW 187	ZTD	49.29	40.13	18.58	33287.75	104735.91	71448.16	2.15	35794.82	85274.30	49479.48	1.38
Wheat	HD2967	ZTD	39.11	33.62	14.04	27882.08	83112.73	55230.65	1.98	29782.50	71447.81	41665.31	1.40
Lentil	IPL 316	ZTD	14.99	13.73	8.40	26300.00	89942.22	63642.22	2.42	27888.89	82386.67	54497.78	1.95
Chickpea	S. chana 1	ZTD	15.76	13.84	12.18	26575.71	84076.55	57500.84	2.16	26691.43	69198.57	42507.14	1.59
Lathyrus	Ratan	ZTD	8.83	7.29	17.46	16035.00	45926.40	29891.40	1.86	17020.00	36450.00	19430.00	1.14
Potato	Badi Aaloo	Raised Bed	258.24	218.68	15.32	81861.15	309890.77	228029.62	2.79	95876.92	262420.62	166543.69	1.74
Potato	Pukhraj	Raised Bed	244.47	211.28	13.58	81413.75	293360.00	211946.25	2.60	95386.67	253533.00	158146.33	1.66
Potato	UC map	Raised Bed	258.42	229.81	11.07	81607.14	310100.57	228493.43	2.80	95088.57	275773.71	180685.14	1.90

(B) Physical Target and Achievement (Summer, 2023-24)

Intervention	Target (acre)	Achievement (acre)
Green Gram (ZTD)	260	260
Total	260	260

5. SCSP Programme**(A) Capacity Building Programme 2023-24**

Date	Place	Male	Female	Total
16.01.2024	Indranagar, Mokama	07	14	21
28.02.2024	Fulelpur, Athmalgola	12	24	36
30.03.2024	KVK	0	19	19
20.04.2024	KVK	12	12	24
24.04.2024	KVK	02	23	25
Total		33	92	125

(B) Performance of Demonstration

Crop	Variety	No./Area (acre)	Village & Block	Beneficiary SC	
				Male	Female
Chicks	Kadaknath,	840	Indiranagar, Mokama	08	13
	Sonali,	864	Kamrapar, Athmalgola	12	12
	Banraja	250	Agwanpur, Barh	02	23
Mushroom Spawn	Oyster	72 kg	Fulelpur, Athmalgola	11	25

6. Natural Farming

S.No.	Programme	Physical Achievement		Financial Target	Financial Achievement
		No. of Programme	Beneficiary		
1	Awareness Program	18	10623	164404.0	159728.0
2	Training cum Awareness	01	825	-	-
3	Training Programme	8	1366	400000.0	267231.0
4	Demonstration	12	12	48000.0	43840.0

7. Malnutrition Eradication**(A). Particulars about the Adopted Village**

Sr. No.	Particulars	Value/s
1	Name of the village	Agwanpur
2	Block name	Barh
3	Total Geographical Area	159 ha.
4	Total Population	3916
5	Literacy Rate (%)	55.03%
6	Number of Household	633
7	Number of SC population	821
8	Distance from KVK	1 km
9	Major Crops Grown	Wheat, Rice
10	Animal Husbandry i. Cattle population ii. Poultry population	45

(B) Interventions taken towards Malnutrition Eradication, 2023-24

Sr. No	Name of the activity	Number of Activities	Number of Participants
1.	Awareness program	02	69
2.	Training Program	06	152
3.	Demonstration (Nutri-kit, Mushroom production)	03, 01	107, 25
4.	Nutri-garden Unit developed	32	47
5.	Health Camp organized	03	68
6.	Value Added products/ Recipe Contest	01	15
7.	Nutrition related pamphlets	01	47

8. Community Radio Station (91.2 FM)

Name of CR:	Community Radio Station, Barh, Patna
Frequency:	91.2 Mhz
Establishment Date:	31 st May 2011
Total hours of transmission in a day:	07 hrs
Coverage Area:	20 km Ariel distance

Programme Broadcast

Programme	Broadcast Duration	Broadcast Time
Krishak Manch	60	Morning
Mahila Jagat	60	
Swasthya Charcha	45	
Bal Manch	15	
Lok Rang	30	
Krishak Manch	60	Afternoon
Santulit Urwark or Swasthy Mitti	30	Evening
Swasthya Charcha	60	
Mahila Jagat	30	
Lok Rang Swasthya Baan	30	

9. Resource Generation

S.No.	Name of the programme	Amount
1	Kisan Ghar/ Training Hall	1,06,000.00
2	Bank Interest	5,22,613.00
3	CRS Smart, New Delhi	29,400.00
4	CRS Vermmillion Communication Pvt. Ltd.	48,620.00
5	CRS Hindustan Urwark & Rasayan Ltd.	2,40,000.00
6	CRS Natural Farming	1,20,000.00
Total		10,66,633.00

10. Revenue Generation

S.No.	Name of Head	Income(Rs.)
1.	Sale of Straw	1,05,600.00
2.	Sale of Marua Seed	10,140.00
3.	Cock Sale	30,650.00
4.	Sale of Fish	2,625.00

S.No.	Name of Head	Income(Rs.)
5.	2 nd Edition of Poshan Vatika Book	87,500.00
6.	Sale of Paddy Seed	3,93,618.00
7.	Kisan Ghar/Training Hall	4,63,499.00
8.	Sale of Spawn	17,540.00
9.	Soil Testing	4,24,720.00
10.	Sale of News Paper	2,380.00
11.	Sale of Onion	6,624.00
12.	Sale of Potato	10,800.00
13.	Sale of Vegetable	1,290.00
14.	Sale of Mango Plant	15,600.00
15.	Sale of Guava plant	250.00
16.	Guava Auction	5,000.00
17.	Sale of Non-Seed	5,22,700.00
18.	Sale of Rai Seed	1,30,440.00
19.	Sale of Lentil Seed	2,05,000.00
20.	Bolero Auction	1,27,000.00
21.	Sale of Chick-pea Seed	90,200.00
22.	Sale of Wheat Seed	6,86,280.00
23.	Sale of Potato Seed	51,120.00
24.	Sale of Lathyrus Seed	8,400
25.	Sale of Field-pea Seed	800.00
26.	Sale of Mushroom Fruit	4,366.00
27.	Sale of Egg	1,890.00
28.	Sale of Vermicompost	156.00
29.	Sale of Linseed Seed	1,620.00
30.	Sale of Ragi Seed	810.00
31.	Milk	47,538.00
32.	Sale of Moong Seed	3,06,000.00
33.	Interest	2,36,167.00
34.	Mango Auction	3,31,000.00
Total		43,29,323.00

11. Revolving Fund

Opening balance as on 01.04.2023	Fund generated	Expenditure	Fund Available 31.03.2024	
			Cash	Kind
69,77,206.05	43,29,323.00	13,02,922.50	1,00,03,606.55	22,00,000.00

12. Award received by Farmers from the KVK district

Sl.	Name of the Award	Name of the Farmer	Address	Contact No.	Amount	Purpose	Conferring Authority
1.	Best Farmers Award	Sri Anand Murari Singh	Mokama	7004489682	Certificate	Best Farmer of Patna District	BAU, Sabour
2.	District Millionaire Farmer of India Award 2023	Sri Amarjit Kumar Sinha	Lodipur, Danapur	9934713788	Certificate	District Millionaire Farmer	Mahindra Tractors
3.	Best Farmer	Sri Ravi	Murtazapur,	8292928903	Certificate	Best Farmer	ATARI ,

	Award	Prakash	Belchi			award	Patna
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13. Seed Production (Rabi- 2023-24)

Crop	Variety	Area (ha)	Class	Production (q)
Gram	S. Chana-1	3.5	F/S	8.90
Rai	RH-725	1.7	T/L	17.20
Wheat	HD-2967	3.5	C/S	129.80
Lentil	IPL-316	4.51	C/S	17.02
Potato	UC Map	0.2	T/L	33.20
Potato	K. Neelkanth	0.07	T/L	12.0
Moong	Shikha	4.5	C/S	Crop Standing
Paddy	S. Sampann	3.7	C/S	170.40
Paddy	R. Sweta	1.7	C/S	66.60
Arhar	IPA-203	0.68	F/S	4.75

14. On Farm Trial 2023-24

A. OFT Result -I Agril. Engg. (2023-24)

1. Assessment of Happy Seeder for Wheat Sowing under Crop Residue Management.

Problem: In combine, harvested paddy plot sowing of wheat requires heavy amount in residue removal leading to increased cost of cultivation

Technology Assessed:

1. **FP-** Broadcasting (variety HD 2967)
2. **TO-I-** Sowing of wheat by Happy Seeder incorporating the crop residue (variety HD 2967)
3. **TO- II-** Removal of crop residue and sowing by Zero Till drill (variety HD 2967)

Different parameter observed in the trial is as follows

Table-1 Methodology

SI No	Treatment	Seed rate (kg/ha)	Plant population/m ²	No of irrigation
1	Broadcasting (in tilled condition)	120	229	3
2	Removal of crop residue and sowing by Zero Till drill	100	243	3
3	Sowing of wheat by Happy Seeder incorporating the crop residue	100	251	3

Table-2 Economic parameter

Treatment	Grain yield (q/ha)	Straw Yield (q/ha)	HI (%)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	B:C ratio
Farmer Practice (FP)	35.42	45.93	43.54	44,189	84,457	40,268	0.91
Sowing of Wheat by ZTD after removing crop residue manually	45.74	57.43	44.34	35,343	1,08,684	73,342	2.08
Sowing of Wheat by Happy seeder after incorporating crop residue	48.78	59.41	45.09	36,340	1,15,539	79,199	2.18
SEm±	1.14	1.35	0.55	-	2620	2620	0.19

CD (P=0.05)	3.45	4.01	1.65	-	7865	7865	0.56
CV (%)	9.90	10.20	6.76	-	13.70	12.80	10.21

The result revealed that the cost of cultivation is more in case of broadcasting (Rs 44189.00 per ha) followed by sowing by zero till drill (Rs 35343.00 per ha) due to additional labour required for the removal of crop residue. In case of wheat sown by happy seeder, the cost of cultivation (Rs 36340.00 per ha). The net return (Rs 79199.00/ha) and B:C ratio (2.18) in case of wheat sown by happy seeder incorporating crop residue is higher than other two methods

Conclusion:

From the above result, it is concluded that in the area where paddy is harvested by combine harvester happy seeder may be a good option for crop residue management and to avoid burning of crop residue.

B. OFT Result -II Agril. Engg. (2023-24)

Assessment of Multi Crop Planter for sowing of pulses in different field condition

Technology Assessed:

- 1. Farmers Practice** – Broadcasting of lentil(IPL 316) in tilled condition
- 2. Technological option I** - Sowing by Multicrop Planter (No Tilled Condition)
- 3. Technological option II** - Sowing with Multicrop Planter (Tilled condition)

Table-1 Methodology

Sl No	Treatment	Seed rate (kg/ha)	Plant population/m ²
1	Broadcasting in tilled condition	40	74
2	Sowing by Multi Crop Planter (No Tilled Condition)	30	85
3	Sowing with Multi Crop Planter (Tilled condition)	30	85

Table-2 Economic parameter

Treatment	Grain yield (q/ha)	Straw Yield (q/ha)	HI (%)	Cost of cultivation (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	B:C ratio
Farmer Practice(FP)	13.49	34.76	27.96	34,298	89,656	55,358	1.61
Sowing with Multi Crop Planter (Tilled condition)	16.28	39.76	28.80	29,223	1,07,773	78,550	2.69
Sowing by Multi Crop Planter (No Tilled Condition)	16.48	40.27	29.30	29,030	1,08,811	79,781	2.75
SEm±	0.37	0.67	0.50	-	783	783	0.18
CD (P=0.05)	1.13	2.01	1.46	-	2348	2348	0.55
CV (%)	8.6	9.2	7.30	-	13.4	12.8	10.60

The result revealed that the cost of cultivation of lentil is more in case of broadcasting (Rs 34,298.00 per ha) and sowing by Multi Crop Planter in tilled condition (Rs 29223.00 per ha). In case of lentil sown by Multi Crop Planter in no tilled condition, the cost of cultivation (Rs 29030.00 per ha). The net return (Rs108811.00/ha) and B:C ratio (2.75) in case of lentil sown by Multi Crop Planter in no tilled condition is higher than other two methods

Conclusion:

From the above result, it is concluded that in the area where lentil is sown by the method of broadcasting in tilled condition use of machine may be a good option for sowing lentil in either tilled or no tilled condition.

C. OFT Result III 2023-24 (Soil Science)

Title: Improvement of Nitrogen use efficiency in Rice

Problem definition: Excessive use of chemical fertilizer and spiraling price of urea leads to increase in cost of cultivation

Technology assessed:

Farmers practice : RDF (N:P: K: 100:40:20 Kg/ha)

Technological option I : 50% RDN and 100%PK + Nano urea @4 ml/lit water (single spray at pre flowering stage)

Technological option II : 50% RDN and 100%PK +2 spray of Nano urea at (25-30 days) and (60-65 days) @4 ml/lit water

Paddy is an important crop of Patna district which is cultivated in around 135000.0 ha area and their productivity is around 31.72 q/ha which is low in comparison to Punjab and Haryana where the farmer harvesting higher yield. In Bihar there is a potential of attaining higher yield as there is good availability of quality irrigation water and soil. In order to address the excessive use of chemical fertilizer and to increase the farmers profitability KVK Patna conducted on farm trial in Kharif 2023 at seven farmers field and assessed two technology with existing farmers practice -

1. 50% RDN and 100%PK + Nano urea @4 ml/lit water (single spray at pre flowering stage)
2. 50% RDN and 100%PK +2 spray of Nano urea at (25-30 days) and (60-65 days) @4 ml/lit water

Result of the assessment shows that Application of nano urea either one or two spray does not increase the yield level up to application of recommended dose of fertilizer and the yield reduction is about 14.62 and 8.95 respectively in single and double application of nano-urea. It is therefore recommended that before large-scale recommendation it must be tested on the experimental stations.

Technological options	No. of trials	Grain yield (q/ha)	Straw yield (q/ha)	% decrease in Yield	Gross cost (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
Farmers practice (RDF i.e N:P:K::100:40:20 Kg/ha)	7	48.43	58.12	—	43600.0	107124.5	63524.5	2.46
50% RDN and 100%PK + Nano urea @4 ml/lit water(single spray at pre flowering stage)		42.25	50.7	14.62	42400.0	93837.5	51437.5	2.21
50% RDN and 100%PK +2 spray of Nano urea at (25-30 days) and (60-65 days) @4 ml/lit water		44.45	53.34	8.95	42700.0	98567.50	55867.5	2.31

D. OFT Soil Science 2023-24 (Rabi 2023-24)

1. **Title** : Integration of fertilizer in different form on yield of lentil
2. **Problem diagnose** : Injudicious use of chemical fertilizer
3. **Details of technology selected for assessment/refinement**

Farmers practice : Seed treatment + RDF (20:40:20::N:P₂O₅:K₂O Kg/ha)

Technological option I : 50% RDF + WS 19:19:19@ 5gm/lit water (Single spray at pre flowering stage))

Technological option II : Seed treatment with PSB + Rhizobium, 50% of RDF+ WS 19:19:19@ 5gm/lit water (single spray at pre flowering stage)

4. **Source of technology** : BAU, Sabour, Bhagalpur

5. **Production system and thematic area** : Rice –Wheat cropping system, soil fertility management

6. Performance of the technology with performance indicators

Farmers practice : Seed treatment + RDF (20:40:20: N:P₂O₅:K₂O Kg/ha)

Technological option I : 50% RDF + WS 19:19:19@ 5gm/lit water (Single spray at pre flowering stage))

Technological option II : Seed treatment with PSB + Rhizobium, 50% of RDF+ WS 19:19:19@ 5gm/lit water (single spray at pre flowering stage)

Tech. option	No of plants/ m ²	No of branch/ plant	No. of pod /branch	No of pod/plant	No of seed /pod	Test wt (gm)	Grain Yield (q/ha)	Straw Yield (q/ha)
Farmers Practice	30.24	7.60	6.28	73.13	1.43	29.22	11.67	17.50
Tech. Option 1	28.75	9.70	7.7	75.3	1.6	29.4	13.10	19.7
Tech. option 2	28.17	11.78	8.7	85.5	1.8	29.6	16.90	25.4
SEM ±	30.24	0.38	0.31	3.35	0.01	0.01	0.63	0.76
CD(0.05)	28.75	0.81	0.67	7.14	0.02	0.02	1.34	1.62
CV%	28.17	11.77	12.48	12.90	2.07	0.12	13.65	10.99

Economics of the trial

Tech. options	Gross cost (Rs/ha)	Gross Return (Rs/ha)	Net return (Rs/ha)	BC R
Farmers Practice	29600	76722.75	47122.75	1.59
Tech. Option 1	28400	85075.25	56675.25	1.99
Tech. option 2	28400	110582.5	82182.5	2.89

Farmers practice : Seed treatment + RDF(20:40:20::N:P₂O₅:K₂O Kg/ha)

Technological option I : 50% RDF + WS 19:19:19@ 5gm/lit water (Single spray at pre flowering stage))

Technological option II : Seed treatment with PSB + Rhizobium, 50% of RDF+ WS 19:19:19@ 5gm/lit water (single spray at pre flowering stage)

Initial soil nutrient status:

pH- 7.3, EC- 0.06, OC%- 0.58, Av N- 245.3, Av P₂O₅-12.6, Av K₂O- 148.2, DTPA extractable Fe- 10.4 ppm, Mn- 11.2 ppm, Zn-0.42 ppm, Cu- 0.29ppm

Post harvest soil nutrient status: pH – 7.4, E.C -0.06, Organic carbon% - 0.64, Available N- 325.6Kg/ha, Available P₂O₅ -14.7Kg/ha, Available K₂O- 158.6 Kg/ha, DTPA extractable Fe-10.04 ppm, Mn-12.5 ppm, Zn-0.38 ppm, Cu- 0.24 ppm

7. **Final recommendation for micro level situation:** Seed treatment with rhizobium and PSB and spray of water soluble NPK: 19:19:19 resulted in highest grain yield production i.e 16.9q/ha followed by application of single spray of water soluble NPK 19:19:19 at pre flowering stage which yielded 12.9q/ha. Highest benefit cost ratio of 2.89 was observed in Technology option 2 followed by benefit cost ratio of 1.99 in Tech. option 1.
8. **Constraints identified and feedback for research:** Vicia sativa weed infestation is a major constraint in lentil cultivation

Process of farmers participation and their reaction: Farmers actively participated in the programme and convinced with the crop performance under different treatments.

15. Other Extension Activities

Nature of Extension Activity	No. of activities	Total		
		Male	Female	Total
Field Day	13	212	19	231
Field Visit	03	18	07	25
Viksit Bharat Sankalp Yatra	160	48132	51303	99435
Kisan Mela	01	546	660	1208
Kisan Ghosthi	02	42	12	54
Awareness Programme on Natural Farming	01	267	569	836
Lectures delivered as resource persons	21	1025	77	1102
Advisory Services	56	680	0	680
Scientific visit to farmers field	27	157	37	194
Diagnostic visits	07	45	06	51
Exposure visits	03	649	89	738
Health Camp	01	02	30	32
Farmers visit to KVK	08	1464	1318	2782
Workshop	01	26	09	35

16. Special Initiatives/Innovation

- ✓ Potato cultivation through Zero-Tillage method (Best way of crop residue management)
- ✓ Introduction of Soybean production as a diversification in kharif.
- ✓ Promotion of Nutri-Cereals (Millets) through Awareness, Training & Demonstrations.
- ✓ Promotion of Moringa in daily diet and popularization of among Angawadi Women's

17. Training program to be organized (June 2024 to September 2024)

Home Science

Thematic Area	Title of Training	Qr. No.	Durat ion	Venue OFF/ On	Participants/Trainees								
					SC		ST		Other		Total		
					M	F	M	F	M	F	M	F	T
Practicing Farmer													
Income generation	Milky Mushroom production	June-Sept.	01	ON/OFF	0	5	0	0	0	15	0	20	20
Value addition	Different value added products of green and	June-Sept.	01	ON/OFF	0	5	0	0	0	15	0	20	20
Rural Youth													
PHT	Millets Production and its different recipes preparation	June-Sept.	01	ON/OFF	5	0	0	0	15	0	20	0	20
Income Generation activities for woman	Different income and employment generation activities for women employment	Do	01	ON/OFF	0	5	0	0	0	15	0	20	20
Extension Functionaries													
Capacity building	Capacity building of Aanganwari workers related to Nutri-Garden and nutria cereals (Millets)	June-Sept.	01	ON/OFF	5	0	0	0	15	0	20	0	20
Crop Residue Management	Crop Residue Management through Mushroom Production	June-Sept.	01	ON/OFF	5	0	0	0	15	0	20	0	20

Agricultural Engineering

Thematic Area	Title of Training	Period	Duration	Venue OFF/ On	Participants/Trainees								
					SC		ST		Other		Total		
					M	F	M	F	M	F	M	F	T
Practicing Farmer													
Farm Machinery	Advantages of summer ploughing	June-Sept.	2	ON/OFF	3	0	0	0	17	0	20	0	20
Other	Land preparation for summer crops	-Do-	2	ON/OFF	3	0	0	0	17	0	20	0	20
Other	Transplanting of Ragi.	Do	1	ON/OFF	3	0	0	0	17	0	20	0	20
Farm Machinery	Direct seeding of rice by DSR	Do-	1	ON/OFF	5	0	0	0	15	0	20	0	20

	planter												
Resource conservation Technique	Use and advantages of Self Propelled rice transplanter	Do-	2	ON/OFF	5	0	0	0	15	0	20	0	20
Farm Machinery	Use & advantages of super seeder in combine harvested paddy field.	-Do-	1	ON/OFF	3	0	0	0	17	0	20	0	20
Rural Youth													
Repair and maintenance of farm implements	Repair and maintenance of different farm machinery	June-Sept.	5	ON/OFF	3	0	0	0	17	0	20	0	20
Protected cultivation	Resource conservation techniques for vegetable crop.	-Do-	2	ON/OFF	2	0	0	0	18	0	20	0	20
Repair & maintenance of farm implements	Custom hiring of agricultural machinery	-Do-	2	ON/OFF	5	0	0	0	15	0	20	0	20
Extension Functionaries													
Repair & maintenance of farm implements	Zero tillage technology and use of different machineries	June-Sept.	1	ON/OFF	0	0	0	0	15	0	15	0	15

Soil Science

Thematic area	Title of Training	Period	Duration	Venue	Participants									
					SC		ST		Other		Total			
					M	F	M	F	M	F	M	F	T	
Practicing Farmer														
Soil fertility management	Nutrient management in maize	June-Sept.	2	OFF	5	0	0	0	18	2	23	2	25	
Soil and water conservation	Importance of BGA application in water conservation in paddy	-Do-	2	OFF	5	0	0	0	18	2	23	2	25	
Integrated nutrient management	Integrated nutrient management in paddy	-Do-	2	OFF	5	0	0	0	18	2	23	2	25	

Nutrient use efficiency	Importance of PSB application in enhancing P use efficiency	-Do-	2	OFF	4	1	0	0	18	2	22	3	25
Management of problematic soil	Reclamation of usar land	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Micronutrient deficiency in crop	Role and deficiency symptoms of zinc in paddy	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Soil fertility management	Importance of balanced fertilizer application in vegetable crop	June-Sept.	2	OFF	5	0	0	0	18	2	23	2	25
Soil and water testing	Importance of soil testing for better crop production	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Integrated nutrient management	Integrated nutrient management in pulses	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Management of problematic soil	Reclamation of usar land	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Micronutrient deficiency in crop	Importance of boron nutrition in managing hollow heart and browning of cauliflower	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Nutrient use efficiency	Importance of PSB culture in improving P use efficiency	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Nutrient use efficiency	Importance of using neem and sulphur coated urea in improving N use efficiency	-Do-	2	OFF	5	0	0	0	18	2	23	2	25
Soil and water testing	Scientific cultivation of millets (Ragi, Bajara & China)	June-Sept.	2	OFF	5	0	0	0	18	2	23	2	25

Rural Youth														
Production and use of organic inputs	Vermicompost production and their marketing	June-Sept.	3	ON	5	0	0	0	16	4	21	4	25	
Production and use of organic inputs	Blue green algae production technique	-Do-	3	ON	5	0	0	0	16	4	21	4	25	
Production and use of organic inputs	Practical hand on soil testing using soil testing kit	-Do-	3	ON	5	0	0	0	16	4	21	4	25	
Production and use of organic inputs	Vermicompost production and their marketing	-Do-	3	ON	5	0	0	0	16	4	21	4	25	
Extension functionaries														
Micronutrient deficiency in crops	Fertilizer recommendation for rice through crop manager (webapp)	June-Sept.	1	ON	2	0	0	0	16	2	18	2	20	
Integrated nutrient management	Role of green manuring in soil fertility management	-Do-	1	OFF	2	0	0	0	16	2	18	2	20	
Integrated nutrient management	Integrated nutrient management in pulses	-Do-	1	OFF	2	0	0	0	16	2	18	2	20	
Micronutrient deficiency in crops	Fertilizer recommendation for wheat through crop manager (webapp)	-Do-	1	OFF	2	0	0	0	16	2	18	2	20	

Horticulture

Thematic area	Title of Training	Period	Duration (Days)	Venue On/ Off	No. of Participants									
					SC		ST		Other		Total			
					M	F	M	F	M	F	M	F	T	
Practicing Farmers														
Yield increment	Scientific cultivation of elephant foot yam	June-Sept.	2	Off/ On	4	1	0	0	18	2	22	3	25	
Cultivation of	Scientific	Do	2	Off/	4	1	0	0	18	2	22	3	25	

fruits	cultivation of Banana			On									
Cultivation of fruits	Production management of guava orchards	Do	2	Off/On	4	1	0	0	18	2	22	3	25
Plant propagation technique	Methods of plant propagation techniques of fruits	Do	2	Off/On	4	1	0	0	18	2	22	3	25
Rural Youth													
Commercial fruit production	Management of Mango orchard	June-Sept.	2	Off/On	5	0	0	0	16	4	21	4	25
Commercial fruit production	Management of litchi	Do	3	Off/On	5	0	0	0	16	4	21	4	25
Layout and management methods	High density planting system for fruit crops	Do	3	Off/On	5	0	0	0	16	4	21	4	25
Extension Functionaries													
Protected cultivation	Production technology for growing off season vegetables and flowers.	June-Sept.	2	Off/On	2	0	0	0	16	2	18	2	20
Rejuvenation of old orchards	Management of old orchard	Do	2	Off/On	2	0	0	0	16	2	18	2	20

18. (A) Frontline demonstration to be conducted 2024 (Kharif)

Sl. No	Season	Crop	Variety	Area (ha)	No. of Demo
1	Kharif	Fodder Crop	Napier	02	10
2	Kharif	Mushroom	Oyster	20	40
3	Kharif	Mushroom	Milky	20	40
4	Kharif	Paddy	Zine Sulphate	10	10
5	Kharif	Vegetable Seed	Nutri-kit	100 pkt	100
6	Kharif	Early Cauliflower	S. Agrim	01 acre	08
7	Kharif	Bitter Gourd	Pusa do Mausami	1.0	40

(C) Cluster Frontline demonstration to be conducted 2024 (Rabi)

Crop	Variety	Session	Area (ha)	No. of Farmer
Mustard	RH-725	Rabi	350	875

19. Seed to be produced at KVK, farm 2023 (Kharif)

S. No.	Crop	Variety	Class	Area (ha)
1.	Paddy	R. Sweta	C/S	3.5
2.	Soyabean	P1241	C/S	0.68
3.	Urd	IP13-1	C/S	2.0
