

CLUSTER FRONTLINE DEMONSTRATION OF RABI OILSEED (2018-19)

1. **Name of KVK:** Rathindra Krishi Vigyan Kendra
2. **Year of establishment:** 1994
3. **Host Institution:** Visva-Bharati University, Santiniketan, Dist. – Birbhum, Pin. – 731235, West Bengal.
4. **Address of KVK:** Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal. Phone: 03463-264771, email: rathindrakvk@gmail.com, rathindrakvk@rediffmail.com

Performance of the demonstration:

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1	Mustard	B-9	10.25	116	52	575	Var. NC-1 + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	91	20	13.25	10.80	11.90	142	317	28
2	Linseed	Local Improved	4.50	155	55	750	Var. Sekhar + Herbicides pendimethalin as pre-emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	98	15	10.75	4.90	8.50	258	727	53
Total								189	35						

B. Economic parameters

Sl. No.	Variety demonstrated & Technology demonstrated	Farmer's Existing plot				Demonstration plot				Farmers, feedback
		Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio	
1	NC-1 (Improved variety) + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	19983	51250	31267	2.56	20982	59500	38518	2.84	Additional net return Rs. 7251/ ha The new variety can assure yield even under rice fallow situation. It has good oil content. Farmers like yellow sarsoon more than mustard
2	Sekhar (Improved variety) + Herbicides pendimethalin as pre emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water in 25 and 45 DAS	14665	31500	16835	2.14	15851	59500	43649	3.75	Additional net return Rs. 26814/ha. New variety with appropriate management in linseed is more profitable than mustard in particularly their late sown condition

C. Socio-economic impact parameters

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained (kg)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own sowing (Kg)	Produce distributed to other farmers (Kg)	Purpose for which income gained was utilized	Employment Generated (Mondays/house hold)
1	Mustard Var. NC-1	23800	150	50.00	Rest is kept for extracting oil and sowing seeds in the next season.	-	Payment of labour bill, Fertilizer and pesticide cost	18
2	Linseed var. Sekhar	12750	100	70.00	Rest is kept for extracting oil and sowing seeds in the next season.	-	Payment of labour bill, Fertilizer and pesticide cost	14

D. Oilseed Farmer's perception of the intervention demonstrated

Sl. No.	Technologies demonstrated (with name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
1.	Var. NC-1 + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer white colored seeds of Mustards.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the	Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Low cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper

				are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.		improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour tc.	irrigation facilities should be created by the Governmental agencies.
2.	Var. Sekhar + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer the new improved variety of Linseed i.e. Deepika / Sekhar; as the existing variety of Local Improved gives a very poor yield.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients etc. The demand in local market of the crop is not satisfactory.	Shorter duration improved varieties should be popularized. Availability of seeds should be ensured in time. Low cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.

E) Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
Crop: Mustard, Var. NC-1			
1.Plant height (cm):	Height is less	New technology: 75 Local check:90	16 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 7251/ha than local check which is very much encouraging for mustard cultivation even in rice fallow situation
2. No. of branches/ plant:	Highly branched	New technology: 5 Local check: 4	
3.No. of pods /plant: 20-25	Higher	New technology: 27 Local check: 22	
Crop: Linseed, Var. Sekhar			
1. Plant height (cm):	Height is more	New technology:35 Local:25	89 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 26814/ha than local check which is very much encouraging for linseed cultivation even under rice fallow situation
2.No. of branches/ plant:	Highly branched	New technology:15 Local check: 7	
3.No. of pods /plant:	Higher	New technology: 31 Local check: 16	

F) Extension activities under FLD conducted till dates:

1.	Training Programme on sowing and fertilizer management of mustard	28.11.2018 Rathindra KVK	11
2.	Training Programme on sowing and fertilizer management of linseed	7.12.2018 Rathindra KVK	25
3.	Training Programme on intercultural operation in mustard	8.12.2018 Rathindra KVK	11
4.	Training Programme on micronutrient spray in rabi oilseeds	18.12.2018 Rathindra KVK	20
5.	Training programme on potentiality of oilseed production in rabi season	29.1.2019 Rathindra KVK	21

Sequential good quality photographs (as per crop stages i.e. growth & development).

Rathindra KVK Scientists at the On-Campus Training Programme on the Cluster FLD Programme on Rabi Oilseeds



Photographs of Seed distribution



Rathindra KVK Staff at the Field of Cluster FLD Linseed at the Vegetative Stage



Rathindra KVK Scientist collecting Data at the Flowering Stage of Linseed.



Rathindra KVK Technology Agent collecting Data at the Fruiting Stage of Linseed



Rathindra KVK Technology Agent collecting Data at the Flowering Stage of Mustard



Rathindra KVK Technology Agent collecting Data at the Fruiting Stage of Mustard



H) Details of budget utilization

Crop (provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Rabi summer 2017- 18, Oilseed (Rapeseed Mustard, Linseed)	i) Critical input	Will be sent later		
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field day, training etc)			
	iv) Publication of literature etc.			
Total				

I). List of Farmer under FLD (Crop wise)

a) Crop1: - Mustard

Name of farmer	Father's name	Village	Block	Mobile No.	E m a i l I D	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendations based on soil test value	Brief technology intervention	Variety	Seed quantity used	Area sown (ha.)	Demo Yield (q/ha)			Yield of local check q/ha	% increase
						Latitude	Longitude							H	L	A		
											NC-1	6 Kg/ha		13.05	10.50	11.75	10.05	16.9%
SATYANARAYAN MANDAL	DHANAPATI MANDAL	DARANDA	ILLAMB AZAR										0.39					
MADAN MAHON LAHA	SHYAMAPADA LAHA	DARANDA	ILLAMB AZAR										0.26					
NABAKUMAR MAL	NITAI MAL	DARANDA	ILLAMB AZAR										0.26					
GANESH CHANDRA MAL	CHANDI CHARAN MAL	DARANDA	ILLAMB AZAR										0.26					
RABILAL BAGDI	ASTAL MAL	KAMARPARA	ILLAMB AZAR										0.39					
ANITA MAL	BHAKTIPADA MAL	DARANDA	ILLAMB AZAR										0.26					
BADAL BAGDI	HARU BAGDI	KAMARPARA	ILLAMB AZAR										0.26					
ADHIR BAGDI	BATUK BAGDI	KAMARPARA	ILLAMB AZAR										0.26					
CHANDU BAGDI	ANATH BAGDI	KAMARPARA	ILLAMB AZAR										0.26					
PATHIK MAL	GURUPADA MAL	DARANDA	ILLAMB AZAR										0.26					
BURI MARDI	RAM MARDI	MOHOLI	BOLPUR SRINIKETAN	6295927441									0.13					
RAM MARDI	CHHATO MARDI	MOHOLI	BOLPUR SRINIKETAN	6295927441									0.13					
BIREN MARDI	CHHATO MARDI	MOHOLI	BOLPUR SRINIKETAN	6295927441									0.13					

SARATHI ORANG	LT RUMAI ORANG	ALALCH AK	DUBRAJPUR	9083927 296									0.13			
ALAKA ORANG	LT DASHAR TH ORANG	ALALCH AK	DUBRAJPUR	7431911 685									0.13			
PURNIM A ORANG	LT RAMLAL ORANG	ALALCH AK	DUBRAJPUR	6294707 009									0.13			
CHANDM ANI ORANG	LT ANIL ORANG	ALALCH AK	DUBRAJPUR	8371981 577									0.13			
JAYANTI ORANG	LT KRISHAN ORANG	ALALCH AK	DUBRAJPUR	7787882 987									0.26			
SADARI ORANG	LT RAM ORANG	ALALCH AK	DUBRAJPUR	8436911 858									0.13			
MAYA ORANG	LT HARIPAD A ORANG	ALALCH AK	DUBRAJPUR	8926636 299									0.13			
CHUMKI ORANG	LT DEBNDR A ORANG	ALALCH AK	DUBRAJPUR	8514801 593									0.13			
SANTAS HI ORANG	LT SADHU ORANG	ALALCH AK	DUBRAJPUR	8926636 299									0.13			
PARISKA RI ORANG	LT BADHAN ORANG	ALALCH AK	DUBRAJPUR	7318608 441									0.13			
PABITA MANDAL	LT SANAKA R MANDAL	ALEMA	DUBRAJPUR													
TAPAN ROY	KUMARI SH ROY	BUREM A	DUBRAJPUR	6295859 951									0.13			
PABAN ROY	KALIPRA SAD ROY	BUREM A	DUBRAJPUR	7547914 580									0.13			
SUBRAT A MANDAL	HRIDOY MANDAL	GODAD HARPUR	DUBRAJPUR										0.13			

	R MANDAL															
ARCHAN A MANDAL	BISWAN ATH MANDAL	ALEMA	DUBRAJPUR	9733389 791									0.26			
BANDAN A MANDAL	PARESH MANDAL	ALEMA	DUBRAJPUR	8768622 070									0.26			
CHAMPA MANDAL	MIHIR MANDAL	ALEMA	DUBRAJPUR	9564628 210									0.26			
SONALI MANDAL	RADHAS HYAM MANDAL	ALEMA	DUBRAJPUR	8145475 432									0.26			
SARAMA MANDAL	AJIT MANDAL	ALEMA	DUBRAJPUR	9564673 677									0.26			
CHANDA NA GHOSH	KUSHDH WAJA GHOSH	ALEMA	DUBRAJPUR	7407573 702									0.26			
RUPALI KARMAK AR	BANGKI M KARMAK AR	ALEMA	DUBRAJPUR	8159967 579									0.26			
PARISKA R BISWAS	NILPADA BISWAS	ALEMA	DUBRAJPUR	7074861 552									0.26			
GITARAN I BISWAS	PRAMAT H BISWAS	ALEMA	DUBRAJPUR	8327413 908									0.26			
CHANDA NA BISWAS	SUDIP DUTTA	ALEMA	DUBRAJPUR	8036407 614									0.26			
SANTAN A TEWARY	NILPADA BISWAS	ALEMA	DUBRAJPUR	8145026 400									0.26			
PATAMA NI MARDI	HOPNA MURMU	JETKEP ARA	MD.BAZAR	9547725 362									0.26			
CHURKI HANSDA	LUBIN HANSDA	JETKEP ARA	MD.BAZAR	9091931 648									0.13			
SURADH ANI HANSDA	BABURA JI HEMBRA M	JETKEP ARA	MD.BAZAR	7047526 413									0.26			

RUBI MARDI	RAMAN MARDI	JETKEP ARA	MD.BAZAR	6296662 723														0.13
THAKRUN MARDI	GUNGRA MARDI	JETKEP ARA	MD.BAZAR	7431970 625														0.13
MUNI MARDI	CHATYNA TUDU	JETKEP ARA	MD.BAZAR	7074984 264														0.13
RASMAN I SAREN	LALMHON HEMBRA M	JETKEP ARA	MD.BAZAR	9933413 159														0.13
LAKSHMI MARDI	BAGAL MURMU	JETKEP ARA	MD.BAZAR	7319586 270														0.26
SANADI MARDI	GORA MURMU	JETKEP ARA	MD.BAZAR	9733308 367														0.13
ABANTI KISKU	PARGANA SOREN	JETKEP ARA	MD.BAZAR	9609621 046														0.13
HUPANI HANSDA	NARAN MURMU	JETKEP ARA	MD.BAZAR	7063315 257														0.13
BITI HEMBRA M	GUNGRA HANSDA	JETKEP ARA	MD.BAZAR	7477855 431														0.13
SHIBANI MARDI	LT GOPAL BESRA	JETKEP ARA	MD.BAZAR	7063561 535														0.13
DUMANI KISKU	BUDEN SOREN	JETKEP ARA	MD.BAZAR	7872130 150														0.13
MAKU MARDI	LT RAMESWAR TUDU	JETKEP ARA	MD.BAZAR	9733308 367														0.13
PRATIMA HEMBRA M	SHIBLAL HEMBRA M	JETKEP ARA	MD.BAZAR	7872130 150														0.13
SURYA KISKU	KARSAN KISKU	TULSIB ON	MD.BAZAR															0.36
BUDHAN HANSDA	SUKUL HANSDA	TULSIB ON	MD.BAZAR	7797106 328														0.13
SUMI MURMU	MAHADEB MURMU	TULSIB ON	MD.BAZAR	7718465 988														0.13
NIYATI HEMBRA M	LKHINDAR	TULSIB ON	MD.BAZAR	7076964 019														0.13

	HEMBRAM															
LAKHI MARAND I	SHIBBAR DHAAN MARAND I	TULSION	MD.BAZAR	9564272 921									0.13			
RUPBARAN SOREN	BABAN SOREN	TULSION	MD.BAZAR	9635781 744									0.26			
BABALI HANSDA	BABULA L HANSDA	TULSION	MD.BAZAR	7384347 607									0.26			
KHURDATUDU	SAIBATUDU	TULSION	MD.BAZAR	7679223 470									0.26			
MALAY ROY	LT RAMCHANDRA ROY	MAJHIRAM	SURI-II	9775368 275									0.26			
CHANDAN ROY	LT RABINDRA ROY	MAJHIRAM	SURI-II	9002682 203									0.13			
BHUBAN BAGDI	LT MANARANJAN BAGDI	MAJHIRAM	SURI-II	9543092 818									0.13			
SHIBU BAGDI	LT TARAPADA BAGDI	MAJHIRAM	SURI-II	9775368 275									0.13			
SHARMILA MARDI	SUKUL MARDI	ACHHAI PARA	ILLAMBAZAR	9734781 401									0.06			
BURI MARDI	BUDAN MARDI	ACHHAI PARA	ILLAMBAZAR	9800744 499									0.06			
MUNGLI SOREN	HOPAN SOREN	ACHHAI PARA	ILLAMBAZAR	8768741 004									0.13			
LAKSHMI MARDI	DAMAN MARDI	ACHHAI PARA	ILLAMBAZAR	8159995 935									0.07			
SUMI MARDI	MANDAL MARDI	ACHHAI PARA	ILLAMBAZAR	8116444 846									0.26			
BASANTI SOREN	LAKHIRAM SOREN	ACHHAI PARA	ILLAMBAZAR	8768741 004									0.26			
HIRABATI MARDI	MANGAL MARDI	ACHHAI PARA	ILLAMBAZAR	8597433 906									0.13			

KANNA DAS	BANAMA LI DAS	KANDP UR	ILLAMBAZAR										0.26			
USHA DAS	MANIK DAS	KANDP UR	ILLAMBAZAR										0.26			
MANIK DAS	KISTUPA DA DAS	KANDP UR	ILLAMBAZAR										0.26			
SHANTI DAS	KALIPAD A DAS	KANDP UR	ILLAMBAZAR										0.26			
MAYANT I DAS	SHARAT DAS	KANDP UR	ILLAMBAZAR										0.26			
KHIRMA NI DAS	PARESH DAS	KANDP UR	ILLAMBAZAR										0.26			
KARUNA SIKDAR	ABATAR BISWAS	ALEMA	DUBRAJPUR	7407573 702									0.26			
JOYA ORANG	LT NIMAI ORANG	ALEMA	DUBRAJPUR	7872582 963									0.26			
CHAMPA ORANG	CHAITYA NA ORANG	ALEMA	DUBRAJPUR	7407442 554									0.17			
BHAIRAB I ORANG	LT PATILL ORANG	ALEMA	DUBRAJPUR	9775213 914									0.26			
MAYA ORANG	MATRA ORANG	ALEMA	DUBRAJPUR	7478948 317									0.26			

Signature of Programme Co-coordinator