Results of Front Line Demonstration on Oilseed and Pulse Crops

2009-10

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SOYBEAN

Variety	Season	Area (ha)	No. of Farmers	Village (s)
JS-93-05	Kharif	05	12	Judawan

Problems	Low Yield (55%) due to improper sowing method, imbalance use of fertilizer and indiscriminate use insecticides.
Farmer's practice	Broadcasting method, 9:23:0 NPK Kg/ha Indiscriminate use of insecticide
Intervention	Crop management practices.
Technology demonstrated	1. Line sowing 2. 20:60:20:30 NPKS kg/ha+ Rhizo+ PSB @ 20 g/Kg Seed 3. Summer deep ploughing+ Light Trap + Bird percher @ 50 per ha + Spray of Trizophos@ 1000ml/ha
Source of the technology & Year	JNKVV-2001

FARMING SITUATION

Farming Situation	Rain fed	Soil Type	Heavy Soil
Seasonal Rainfall (mm)	821 17.98% less than average	No. of Rainy Days	29

RESULTS OF SOIL TESTING ANALYSIS

N	P	K	EC	pH	OC
Low	Medium	Medium	Normal	Normal	Medium
186	23	260	0.38	7.20	0.54

DETAIL OF CRITICAL INPUT SUPPLIED

Critical Inputs provided by KVK	Seed JS – 93-05	75 Kg/ha
	DAP	125 Kg
	SSP	125 Kg
	MOP	20 Kg
	Rhizo / Azoto	2.5 Kg
	PSB	2.5 Kg
Critical Inputs used by Farmer	Sulphur	30 Kg
	Imezathypyr	1 Lit.
	Tryzophos	2 Lit.

RESULTS

Av. Yield (q/ha)						Increase in yield (%)	District Production (Kg/ha)*	State Production (Kg/ha)*
Demonstration			Local Check					
Max	Min	Avg	Max	Min	Avg			
16.00	12.00	14.04	08.00	05.00	06.77	107.38	1064	1106

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RESULTS ON OTHER PARAMETERS

Name of the parameter	Unit of measurement	Data on Parameter		Remark
		Under FLD	Under LC	
No of pods	Per plant	63	45	-
No of grain	Per plant	135	92	-
Test weight	gms	141	96	-

COST PARTICULARS

Cost of Critical Inputs (Rs/ha)		Total Cost of production (Rs/ha)		Net Return (Rs/ha)		BC Ratio*		Addl. Cost (Rs/ha)	Addl. Yield (kg/ha)
Demo	LC	Demo	LC	Demo	LC	Demo	LC		
7,927	**5,368**	**14,816**	**11,505**	**10,456**	**631**	**1.70**	**1.05**	**3,311**	**727**

FARMER'S REACTION

- **Farmer's convinced with technology because of higher yield and Net return.**
- **They wants extra early variety which is suited in present rainfall pattern.**

DETAILS OF EXTENSION ACTIVITIES

Name	Date (s)	No. of Activity	No. of Participants
Training of extension personnel	16.7.09	1	30
Training of farmers	17.06.09, 01.07.09, 31.08.09	3	46
Field Day	27.08.09	1	50
Farmers Meeting	-	-	-
TV Programme/ Radio talk	September 2009	1	Mass
Others	-	-	-

EXPENDITURE STATEMENT

Head	Sanctioned	Fund Utilization	Balance
Critical Input	17,500	17,500	-
Extension activities	2,500	2,500	-
POL/TA/DA etc.	3,700	2,500	-
Total	23,500	-	-


Farmers Practice

Bumper Podding

IMPACT OF PREVIOUS YEAR'S FLDS CONDUCTED BY THE KVK

Crop	Soybean
Season	Kharif
Year	2008-09
Intervention	1. Weed management 2. Integrated Nutrient management 3. Integrated pest management
Detail of technology demonstrated	1. Spray of imazethapyr @ 100ml/ha at 15 - 20 DAS + 1 HW at 40-45 DAS 2. 20:60:20:30 NPKS kg/ha+ Rhizo+ PSB @ 20 g/Kg Seed 3. Summer deep ploughing+2Spray of Trizophos@ 1000ml/ha+ Bird percher @ 50 per ha
Details of popularization methods suggested to the Extension system	Training, Field day, Field visit Publication of Folders

HORIZONTAL SPREAD OF THE TECHNOLOGY

No. of farmers	200
No. of village	13
Area in ha	460

BLACKGRAM

Variety	Season	Area (ha)	No. of Farmers	Village (s)
Azad-1	Kharif	05	12	Judawan Simrakhurd Shivpuri

Problems	Low yield (62%)due to imbalance use of fertilizer and local variety, affected areas (30,000 ha)
farmer's practice	Local variety (T 9), 4:11:0 NPK kg/ha , No weed management
Intervention	Varietals replacement
Technology demonstrated	1. Azad-1 2. 20:60:20 + 25 NPKS kg./ha.+ Rhizo+ PSB@ 20g/kg seed 1 hand weeding at 20-25 DAS
Source of the technology & Year	IIPR- 2002
Characteristics of the variety	Yellow Vein Mosaic resistant
Source and Year of release	IIPR , 2002

Farming Situation

Farming Situation	Rainfed	Soil Type	Medium Soil
Seasonal Rainfall (mm)	821 (17.5 % less than Average)	No. of Rainy Days	29

RESULTS OF SOIL TESTING ANALYSIS

N	P	K	EC	pH	OC
Low	Medium	Medium	Normal	Normal	Low
158	23	187	0.34	7.00	0.46

DETAIL OF CRITICAL INPUT SUPPLIED

Critical Inputs provided by KVK	Seed Azad-1	25 kg
	SSP	250kg
	Urea	125kg
	Sulphur	5kg
	Imedachloroprid	600 ml
Critical Inputs used by Farmer	MOP	35kg

RESULTS

Av. Yield (q/ha)						Increase in yield (%)	District Production (Kg/ha)*	State Production (Kg/ha)*
Demonstration			Local Check					
Max	Min	Avg	Max	Min	Avg			
08.20	05.57	06.98	03.75	02.50	03.04	129.60	370	367

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RESULTS ON OTHER PARAMETERS

Name of the parameter	Unit of measurement	Data on Parameter		Remark
		Under FLD	Under LC	
No of pods	Per plant	60	31	-
No of grain	Per pod	09	07	-
Test weight	gms	46	37	-

ECONOMIC ANALYSIS

Cost of Critical Inputs (Rs/ha)		Total cost of production (Rs/ha)		Net Return (Rs/ha)		BC Ratio*		Additional Cost (Rs/ha)	Additional Yield (kg/ha)
Demo	LC	Demo	LC	Demo	LC	Demo	LC		
4,557	890	8,300	5,600	12,640	3,520	2.52	1.62	2,700	394

FARMER'S REACTION

- Farmer Convinced the yellow vein resistance Variety : Azad-1.

DETAILS OF EXTENSION ACTIVITIES

Name	Date (s)	No. of Activity	No. of Participants
Training of extension personnel	16.07.09	1	30
Training of farmers	26.10.09, 28.10.09	2	34
Field Day	10.09.09	1	36
Farmers Meeting	-	-	-
TV Programme / Radio talk	September 2009	1	Mass
Others	-	-	-

EXPENDITURE STATEMENT

Head	Sanctioned	Fund Utilization	Balance
Critical Input	17,500	17,500	-
Extension activities	2,500	2,500	-
POL/TA/DA etc.	3,700	2,500	-
TOTAL	23,500	-	-

YMV affected Crop

YMV free Crop (Azad-1)

Podding Stage

Maturity Stage

Field Day

Farmers Training

YMV free Crop (Azad-1)

YMV affected Crop

IMPACT OF PREVIOUS YEAR'S FLDS CONDUCTED BY THE KVK	
Crop	Blackgram
Season	Kharif
Year	2008-09
Intervention	Replacement of Variety
Detail of technology demonstrated	Yellow vein mosaic Resistance Variety IPU-94-1
Details of popularization methods suggested to the Extension system	Training, Demonstration, Seed supply, Folders, Field day, Crop Seminar.

HORIZONTAL SPREAD OF THE TECHNOLOGY	
No. of farmers	73
No. of village	11
Area in ha	298

MUSTARD

Variety	Season	Area (ha)	No. of Farmers	Village (s)
Pusa Agrani	Rabi	05	12	Judawan Patha

Problem	Low Yield (50%) due to imbalance dose of fertilizer and indiscriminate use of insecticide (affected areas 20,000 ha).
Farmer's practice	Imbalance and low fertilizer dose 40:20:0:0 NPKS kg/ha. Indiscriminate use of insecticide to control of Aphid .
Intervention	Crop management Practices.
Technology demonstrated	Seed (Pusa Agrani) 80:40:20:30 NPKS kg/ha + Azoto + PSB @ 20g/ kg seed Imidachloroprid @ 5 ml/15 lit of water.
Source of the technology & Year	JNKVV - 2000

FARMING SITUATION

Farming Situation	Irrigated	Soil Type	Medium Soil
Seasonal Rainfall (mm)	821 (17.5% less than Average)	No. of Rainy Days	29

RESULTS OF SOIL TESTING ANALYSIS

N	P	K	EC	pH	OC
Low	Low	Medium	Normal	Normal	Low
196	8	242	0.41	7.30	0.57

DETAIL OF CRITICAL INPUT SUPPLIED

Critical Inputs provided by KVK	Seed PUSA AGRANI	5 kg
	SSP	250 kg
	Urea	125 kg
	Sulphur	5 Kg
	Azoto	2.5 Kg
	PSB	2.5 Kg
	Imedachloroprid	600 ml.
Critical Inputs used by Farmer	MOP	35 kg

RESULTS

Av. Yield (q/ha)						Increase in yield (%)	District Production (Kg/ha)*	State Production (Kg/ha)*
Demonstration			Local Check					
Max	Min	Avg	Max	Min	Avg			
18.50	15.25	17.16	12.00	10.25	11.21	53.07	869	10.83

M.P. Agri statistics 2008-09, Directorate of agriculture, M.P., Bhopal

RESULTS ON OTHER PARAMETERS

Name of the parameter	Unit of measurement	Data on Parameter		Remark
		Under FLD	Under LC	
No of siliquae	Per plant	150	114	-
No of grain	Per siliquae	18	13	-
Test weight	gms	5	4	-

Economic Analysis

Cost of Critical Inputs (Rs/ha)		Total Cost of production (Rs/ha)		Net Return (Rs/ha)		BC Ratio*		Additional Cost (Rs/ha)	Additional Yield (kg/ha)
Demo	LC	Demo	LC	Demo	LC	Demo	LC		
3,284	**1,672**	**12,350**	**9,200**	**21,970**	**13,220**	**2.77**	**2.43**	**3,150**	**595**

FARMER'S REACTION

- **Farmer Convinced with the technology demonstrated but need suitable sowing implement due to small size of seed.**

DETAILS OF EXTENSION ACTIVITIES

Name	Date (s)	No. of Activity	No. of Participants
Training of extension personnel	**02.09.09**	**1**	**22**
Training of farmers	**25.12.09, 02.01.10**	**2**	**37**
Field Day	**17.02.10**	**1**	**44**
Farmers Meeting	**-**	**-**	**-**
TV Programme/ Radio talk	**October 2009**	**1**	**Mass**

EXPENDITURE STATEMENT

Head	Sanctioned	Fund Utilization	Balance
Critical Input	**17,500**	**17,500**	**-**
Extension activities	**2,500**	**2,500**	**-**
POL/TA/DA etc.	**3,700**	**2,500**	**-**
Total-	**23,500**	**-**	**-**

Flowering Stage

Podding Stage

Pusa - Agrani

Maturity Stage

Field Day

Farmers Training

Vegetative Stage

Flowering Stage

IMPACT OF PREVIOUS YEAR'S FLDS CONDUCTED BY THE KVK	
Crop	**Mustard**
Season	**Rabi**
Year	**2008-09**
Intervention	**Integrated crop management**
Detail of technology demonstrated	**80:40:20:30 NPKS kg/ha + Azoto + PSB @ 20g/ kg seed. 2 spray of Imidachloroprid @ 5 ml./15 lit of water.**
Details of popularization methods suggested to the Extension system	**Training, Demonstration, Field day, *Kisan Gosthi*, Publication of folder**
HORIZONTAL SPREAD OF THE TECHNOLOGY	
No. of farmers	**85**
No. of village	**07**
Area in ha	**325**

GRAM

Variety	Season	Area (ha)	No. of Farmers	Village (s)
JG- 130	Rabi	05	12	Judawan, Surajpur, Bigha, Patha

Problems	**Low Yield (49%) due to old variety and indiscriminate use of insecticide (30,000 ha).**
Farmer's practice	Local Varieties (Type 1) Indiscriminate use of insecticide.
Intervention	Variety + IPM
Technology demonstrated	Seed (JG -130) **Seed treatment by Tricoderma viride @ 5g/kg seed + Deep ploughing + Feromone trap + Bird percher @ 50 / ha + Spray of quanalphos @ 2ml/ lit of water.**
Source of the technology & Year	**JNKVV - 2000**
Characteristics of the variety	**High Yielding Variety**
Source and Year of release	**JNKVV - 2000**

FARMING SITUATION

Farming Situation	Irrigated	Soil Type	Heavy
Seasonal Rainfall (mm)	821 (17.5 % less than Average)	No. of Rainy Days	29

RESULTS OF SOIL TESTING ANALYSIS

N	P	K	EC	pH	OC
Medium	Low	Medium	Normal	Normal	Medium
262	8	260	0.24	7.00	0.76

DETAIL OF CRITICAL INPUT SUPPLIED

Critical Inputs provided by KVK	Seed JG- 130	75 kg
	Sulphur	5 Kg
	Rhizo / Azoto	2.5 Kg
	PSB	2.5 Kg
	Quinolphos	2 Lit.
Critical Inputs used by Farmer	DAP	100 Kg
	SSP	100 Kg
	MOP	30 Kg

RESULTS

Av. Yield (q/ha)						Increase in yield (%)	District Production (Kg/ha)*	State Production (Kg/ha)*
Demonstration			Local Check					
Max	Min	Avg	Max	Min	Avg			
25.00	18.20	21.08	13.75	10.25	12.14	73.64	1143	927

M.P. Agri statistics 2008-09, Directorate of agriculture, M.P., Bhopal

RESULTS ON OTHER PARAMETERS

Name of the parameter	Unit of measurement	Data on Parameter		Remark
		Under FLD	Under LC	
No of Pods	Per plant	52	38	-
No of seeds	Per plant	92	53	-
Test weight	gms	163	151	-

COST PARTICULARS

Cost of Critical Inputs (Rs/ha)		Total Cost of production (Rs/ha)		Net Return (Rs/ha)		BC Ratio*		Additional Cost (Rs/ha)	Additional Yield (kg/ha)
Demo	LC	Demo	LC	Demo	LC	Demo	LC		
4,404	2,910	14,900	10,600	29,368	15,834	2.97	2.40	4,300	894

FARMER'S REACTION

- Farmer Convince with variety and control measures of catter piller.

DETAILS OF EXTENSION ACTIVITIES

Name	Date (s)	No. of Activity	No. of Participants
Training of extension personnel	07.09.09	1	19
Training of farmers	28.10.09, 25.12.09	2	36
Field Day	18.02.10	1	49
Farmers Meeting	-	-	-
TV Programme/ Radio talk	November 2009	1	Mass
Others	-	-	-

EXPENDITURE STATEMENT

Head	Sanctioned	Fund Utilization	Balance
Critical Input	17,500	17,500	-
Extension activities	2,500	2,500	-
POL/TA/DA etc.	3,700	2,500	-
Total-	23,500	-	-

Line Sowing

JG-130

Field Day

Farmers Training

Harvested Crop

Threshing

IMPACT OF PREVIOUS YEAR'S FLDS CONDUCTED BY THE KVK	
Crop	Gram
Season	Rabi
Year	2008-09
Intervention	Variety + IPM
Detail of technology demonstrated	Seed (JG – 130) Foramen trap+ Bird Percher @ 50/ha + one spray of quanalphos @ 2 ml/lit. of water
Details of popularization methods suggested to the Extension system	Training, Demonstration, Field days, Folders, Kisan Mela.

HORIZONTAL SPREAD OF THE TECHNOLOGY	
No. of farmers	360
No. of village	24
Area in ha	450

A holly place KUNDESHWAR situated on the bank of the Jamdar river at 5 Km from Tikamgarh district head quarter. This place is famous for kundadev Mahadev temple. It is believed that Shiv Linga has emerged from Kunda

ORCHHA is famous religious centre of Hindus. It is known for its religious and cultural heritage. It is situated on the Betwa river. It is 15 Km. from Jhansi(U.P.). It was founded by Maharaja Rudra Pratap Singh in 1531 A.D.. The name Orchha or Ondchha is traditionally derived from scoffing remark of a Rajput Chief who on visiting the site selected for capital town.

JAWAHARLAL NEHRU KRISHI VISHWA VIDYALAYA

KRISHI VIGYAN KENDRA, TIKAMGARH (M.P.)

ACTION PLAN

for

FRONT LINE DEMONSTRATION

on

OILSEED AND PULSE CROPS

2010-11

20 to 21 April 2010

Jawaharlal Nehru Krishi Vishva Vidyalaya

KRISHI VIGYAN KENDRA

TIKAMGARH (M.P.)

SOYBEAN

Village	**Bigha, Birora Pahad, Kanti**	**Season & Year**	**Kharif 2010-11**
Irrigation availability	**Rain fed**	**Soil Type**	**Heavy Soil**
Problem Identified	**Low Yield (55%) due to improper sowing method, imbalance use of fertilizer and indiscriminate use insecticides.**		
Area affected (ha or %)	**75%**		
Farmers Practice	**Broadcasting method, JS-335, 9:23:0 NPK Kg/ha** **Indiscriminate use of insecticide**		
Technology selected	**INM + IPM**		
Detail of the technology	**1. JS-93-05** **2. Line sowing** **3. 20:60:20:30 NPKS kg/ha+ Rhizo+ PSB @ 20 g/Kg Seed** **4. Deep Summer ploughing + 1 Spray of Trizophos at 40-45 DAS @ 1000ml/ha+ Light trap + Bird percher @ 50/ha.**		
Source & Year of Techno.	**JNKVV- 2000**		
Variety Proposed	**JS-93-05**		
Characteristics of the variety	**Early maturing variety**		
Source & Year of release of the variety	**JNKVV-2001**		

Area Proposed (ha)	**05**	
No. of Demos	**12**	
Critical Inputs by the Farmers	**Fertilizer – DAP** **MOP** **Insecticide**	
Critical Inputs by the KVK	**Seed** **Bio fertilizer (Rhizo + PSB) + Sulphur**	
Cost of These Inputs (Rs/ha)	**17,500**	
Proposed Extension Activities under FLD	**Farmer Training**	**2**
	Extension worker training	**1**
	Field day	**1**
Fund required head wise	**Critical inputs**	**17,500**
	Extension activities	**2,500**
	TA/DA/POL/etc.	**3,750**

BLACKGRAM

Village	**Simrakhurd, Kanti**	**Season & Year**	**Kharif 2010-11**
Irrigation availability	**Rain fed**	**Soil Type**	**Medium soil**
Problem Identified	**Low yield (62%)due to imbalance use of fertilizer and local variety, affected no weeding areas (30,000 ha).**		
Area affected (ha or %)	**80%**		
Farmers Practice	**Local variety (T 9), 4:11:0 NPK kg/ha , No weed management**		
Technology selected	**Variety, Integrated Nutrient Management, Weed control practice**		
Detail of the technology	**1. Azad-1** **2. 20:60:20:25 NPKS kg./ha.+ Rhizo+ PSB@ 10g/kg seed 1 hand weeding at 20-25 DAS**		
Source & Year of Techno.	**IIPR, 2002**		
Variety Proposed	**Azad-1**		
Characteristics of the variety	**Yellow vein mosaic resistant**		
Source & Year of release of the variety	**IIPR, 2002**		

Area Proposed (ha)	**05**	
No. of Demos	**12**	
Critical Inputs by the Farmers	**Fertilizer – DAP** **MOP**	
Critical Inputs by the KVK	**Seed** **Bio fertilizer (Rhizo + PSB) + Sulphur**	
Cost of These Inputs (Rs/ha)	**17,500**	
Proposed Extension Activities under FLD	**Farmer Training**	**2**
	Extension worker training	**1**
	Field day	**1**
Fund required head wise	**Crop inputs**	**17,500**
	Extension activities	**2,500**
	TA/DA/POL/etc.	**3,750**

MUSTARD

Village	**Kanti, Nadiya**	**Season & Year**	**Rabi 2010-11**
Irrigation availability	**Canal**	**Soil Type**	**Medium Soil**
Problem Identified	**Low Yield (50%) due to imbalance dose of fertilizer and indiscriminate use of insecticide (affected areas 20,000 ha).**		
Area affected (ha or %)	**50%**		
Farmers Practice	**Imbalance and low fertilizer dose 40:20:0:0 NPKS kg/ha.** **Indiscriminate use of insecticide to control of Aphid**		
Technology selected	**Integrated Nutrient Management** **Plant Protection measures**		
Detail of the technology	**80:40:20:30 NPKS kg/ha + Azoto + PSB @ 20g/ kg seed** **1 spray Imidachloroprid @ 5 ml/15 lit of water**		
Source & Year of Techno.	**JNKVV- 2000**		
Variety Proposed	**Pusa Agrani**		
Characteristics of the variety	**High yield**		
Source & Year of release of the variety	**IARI - 2002**		

Area Proposed (ha)	**05**			
No. of Demos	**12**			
Critical Inputs by the Farmers	**Fertilizer – Urea**		**PSB**	
	MOP		**Azoto**	
Critical Inputs by the KVK	**Seed (Pusa Agrani)**		**Urea**	
	SSP	**Sulphur**	**Imedachloroprid**	
Cost of These Inputs (Rs/ha)	**17,500**			
Proposed Extension Activities under FLD	**Farmer Training**			**2**
	Extension worker training			**1**
	Field day			**1**
Fund required head wise	**Crop inputs**			**17,500**
	Extension activities			**2,500**
	TA/DA/POL/etc.			**3,750**

GRAM

Village	**Bigha, Kanti**	**Season & Year**	**Kharif 2010-11**
Irrigation availability	**Canal, Tube well**	**Soil Type**	**Heavy soil**
Problem Identified	**Low Yield (49%) due to old variety and indiscriminate use of insecticide (30000 ha).**		
Area affected (ha or %)	**80%**		
Farmers Practice	**Local Variety + indiscriminate use of insecticide**		
Technology selected	**Varietal replacement +IPM**		
Detail of the technology	**1. JG-130** **2. Seed treatment by Tricoderma viride @ 5g/kg seed + Deep ploughing, Early planting + Quinolphos 25 EC, 2-3 ml/lit of water + Bird percher 50/ha.**		
Source & Year of Techno.	**JNKVV- 2000**		
Variety Proposed	**JG- 130**		
Characteristics of the variety	**High yielding**		
Source & Year of release of the variety	**JNKVV 2000**		

Area Proposed (ha)	**05**		
No. of Demos	**12**		
Critical Inputs by the Farmers	**DAP**	**MOP**	
	Quinolphas		
Critical Inputs by the KVK	**Seed (JG-130)**	**Sulphur, Rhizo + PSB**	
Cost of These Inputs (Rs/ha)	**17,500**		
Proposed Extension Activities under FLD	**Farmer Training**		**2**
	Extension worker training		**1**
	Field day		**1**
Fund required head wise	**Crop inputs**		**17,500**
	Extension activities		**2,500**
	TA/DA/POL/etc.		**3,750**

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ORCHHA is famous religious centre of Hindus. It is known for its religious and cultural heritage. It is situated on the Betwa river. It is 15 Km. from Jhansi(U.P.). It was founded by Maharaja Rudra Pratap Singh in 1531 A.D.. The name Orchha or Ondchha is traditionally derived from scoffing remark of a Rajput Chief who on visiting the site selected for capital town.

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