

Rashtriya Krishi Vikas Yojna (RKVY)

Directorate of Agriculture, Govt. of U.P., Lucknow

Physical Progress Report of the
Project (2015-16)

*“Farmers empowerment for high harvest of pulses
in central plain zone of U.P. through
participatory approach”*



Submitted by

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**LEGUME SECTION
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Physical Progress Report of the R.K.V.Y. Project 2015-16
“Farmers empowerment for high harvest of pulses in central plain zone of U.P. through participatory approach”

Introduction / Justification

Mungbean/urdbean are the important short duration pulse crops of high food value. On account of their short duration, photo-insensitivity and dense canopy, they assume special significance in crop intensification and diversification, conservation agriculture and sustainable production system. **Introduction of short duration MYMV resistant varieties coupled with matching production technologies has made it possible to realize 12-15 q/ha yield in 55-60 days of mungbean and in 75-80 days of urdbean but yield realized at farmers fields is quite low i.e. only 410 kg/ha of mungbean and 504 kg/ha of urdbean.**

Large number of front line demonstrations conducted on farmer's fields clearly indicated yield advantage of 22% over local varieties, 13% over fertilizer management, 18% over weed management, 43% over insect-pest management and 37% over package technology. **Knowledge gap among the farmers about production technology and non-availability of quality seed of improved varieties in adequate quantity and in time are the major constraints of production.**

To abridge the knowledge gap about production technology and enhance the availability of quality seed of mungbean and urdbean, the present project has been taken over.

Objectives of the Project:

1. Enhancing the production/productivity of mungbean and urdbean during spring/summer and *kharif* seasons through participatory on farm demonstrations, skill trainings of the farmers, farmers-scientists interaction, field days, diagnostic and exposure visits.
2. Popularizing recently released improved varieties and package of technology of mungbean and urdbean among farmers.
3. Empowerment of farmers on quality seed production front.
4. To abridge the knowledge gap of farmers.
5. To meet the food and nutritional security of the state.
6. To improve the socio-economic status of the farmers.

Financial Progress (2015-16):

	Budget Allocated	Available budget (in Rs.)	Budget Utilized		Balance Available (in Rs.)
			Item	In Rs.	
1.	Budget allocated in first instalment (2015-16)	Rs. 28,62,000=00	Field demonstration during kharif 2015 and spring/summer 2016, Training, Field days & Exposure visits etc.	28,62,000=00	NIL

Mandate for the Year:

- To demonstrate the production technology of mungbean/urdbean through field demonstrations using recently released high yielding, early maturity and disease and insect-pest resistant varieties.
- To organize skill training of farmers to abridge knowledge gap on various aspects of production technology including production of quality seed.

Area of Operation:

Different Villages of different Blocks of Kanpur Dehat, Kanpur Nagar & Kannauj distt., selected on the basis of bench mark survey.

Execution Year and Season: Kharif season of 2015 and spring/summer of 2016.

Criteria for selection of operational villages:

(A) Cropping system Diagnosis and Dynamics:

Extensive survey was undertaken in different villages/ blocks of all the three districts and exhaustive interactions with the farmers on following points for characterization and identification of production constraints in different system/crop rotations prevalent in the blocks:

- Prevalent cropping system/crop rotation.
- Availability of quality seed of the improved varieties.
- Availability of other inputs.
- Irrigation facilities available.
- Knowledge of production and protection technologies of the crops.
- Cost-benefit ratio.
- Problem of marketing, if any.

Cultivation characterisation of potential villages:

(A) Cropping system:

About 10 years back the farmers of these villages use to take cultivation of Urdbean. The varieties used by them were local one which were indetermination in growth habit, long duration, poor yielder and susceptible to insect-pest and diseases. Hence yield levels were extremely poor. Some farmer use to sow the green seeded local varieties of Urdbean. The quality of the produce was also extremely poor, hence very low price in the market.

Owing to above reasons farmers gradually shifted to cultivation of cucurbits, chillies and tomato. Farmers had not been getting remunerative prices of cucurbits in the market, sometimes even the transportation cost was not meeting out, and hence cultivation was non-profitable. Chillies and tomato varieties under cultivation had been suffering from viral diseases, resulting in extremely poor yield, or sometimes no yield. Cost of inputs applied was also very high, hence again cultivation of these crops was not remunerative/profitable.

(B) Farmers interest:

During survey and discussions with farmers they were told/ convinced that if they follow the recommended package of technology for cultivation of Urdbean, certainly they can obtain high yield of the varieties under cultivation and thus high income. The farmers also expressed their interest in:

1. Production of quality seed by themselves for their own use and sharing with other farmers.
2. Farmers interest in participating in demonstration trails, skill trainings and field days etc.
3. Farmers interest in participating in exposure visits to other organizations, primarily engaged in resource and developmental activities of Urdbean.
4. Farmers interest in cultivation of Urdbean provided the yield levels are raised to 12-15 q/ha.

Execution of the programme :

(A) Organization of field demonstration :

Urdbean demonstration had been organized in 15 ha area in different villages of Malasa block of Kanpur dehat (Ramabai Nagar) district. The breeder seed/foundation seed of the following varieties was provided to the farmers.

1. **Azad Urd 1** : Early maturity, high yielding, resistant to MYMV and tolerant to other diseases. Seed medium bold. The variety has been developed by C.S.A. Uni. of Agri. & Tech., Kanpur.
2. **Azad Urd 2** : Short duration, high yielding, synchronous maturity, resistant to yellow mosaic virus and other important disease. Seed medium bold and the variety has been developed by C.S.A. Uni. of Agri. & Tech., Kanpur.
3. **Uttara** : Early maturity, high yielding, seed bold, resistant to important diseases including MYMV, synchronous maturity. The variety has been developed by Indian Institute of Pulse Research, Kanpur.
4. **Shekhar 1** : Early maturity, high yielding, resistant to MYMV and tolerant to other diseases. Seed medium bold in green colour. The variety has been developed by C.S.A. Uni. of Agri. & Tech., Kanpur.

There is a high demand of seed of the above said varieties and all the varieties are in seed production chain. The varieties are well suited to the agro-climatic conditions of the area of the demonstrations.

Supply of inputs : The farmers have been given *Rhizobium* culture for seed treatment, fertilizer as per need, weedicide and insecticides as per requirement.

Monitoring of the demonstrations : Frequent visits have been made to the site of demonstrations and timely technical advice has been given to the farmers, if required, in the cultivation of the crop. The farmers have also been advised to do rouging operations in the field, so that the produce can be used as source of seed for next sowing.

A Few relevant photographs of field demonstrations are annexed as Annexure I

Skill Training of the Farmers :

In order to abridge the knowledge gap, the technical trainings of the farmers were organized as detailed below:

Sr. No.	Place	Date	No. of participants (Approx.)
1.	Village- Thatiniwada	21-03-2015	120
2.	Village- Bhawanipur	22-03-2015	100
3.	Village- Mahipalpur	28-02-2016	100
4.	Village- Bairi	06-03-2016	100
5.	Village- Kama	09-04-2016	100
6.	Village- Rooma	10-04-2016	100

Topics Covered :

- Improved varieties of Urdbean/Mungbean and their salient features.
- Agronomic practices for cultivation of Urdbean/Mungbean.
- Seed treatment/inoculation and its impact on pulse productivity.
- Fertilizer management in Urdbean/Mungbean.
- Role of low cost/ no cost production technology in pulses.
- Plant protection management in Urdbean/Mungbean.
- Seed production technology.
- Harvesting, threshing and storage management of pulse crops.

Distribution of Literature:

During training programmes, the following literatures were distributed among farmers.

1. Dalhan Beez Utpadan Tachnique
2. Moong/ Urd Utpadan Tachnique
3. Leaflets of Sweta newly release variety
4. Leaflets of Phasal Chakra Ka Mahatva
5. Leaflets of moong/urd production technology

A few relevant photographs of training programme are annexed as Annexure I

Farmers Awareness through Field demonstrations: 60 field demonstration in 26.6 ha of land were organized in identified villages.

The farmers were provided with:

1. B/s, F/s of improved varieties of mungbean viz. PDM 139 and IPM 02-3 which are high yielding , early maturing (60-65 days), resistant to MYMV, green shining attractive bold seed and Azad 2 variety of urdbean possessing desired characteristics.
2. Required amount of fertilizers.
3. Rhizobium culture.
4. Weedicides
5. Insecticides.

Roguing operation was also done to remove off types, if any, so that harvested seed can be used in future for sowing in next season.

A few relevant photographs regarding demonstrations in different villages are annexed as Annexure II.

Yield (q/ha) obtained in Demonstration Plots:

The yield obtained by different farmers in different blocks is shown in following table.

Sl. No.	Farmer Name	Father Name	Area	Yield (q/ha) obtained in demonstration plot	Yield (q/ha) in previous years as reported by farmer	
1.	Shri Ganga Narayan	Shri Krishan Katiyar	2.5	1025	6.5	57.69
2.	Shri Rajendra Singh	Late Chhedi Lal	2.0	1070		64.61
3.	Shri Ved Prakash	Shri Prem Narayan	2.0	1000		53.84
4.	Shri Ram Chandra	Shri Sirste Lal	1.5	1150		76.92
5.	Shri Sandeep Katiyar	Shri Virendra Singh	2.0	1070		64.61
6.	Shri Daulat Ram	Shri Chhammi Lal Katiyar	3.1	1200		84.61
7.	Shri Vijay Kumar	Shri Ram Swarup	1.0	1170		80.00
8.	Shri Awadhesh Kumar	Shri Moti Lal Savita	2.0	1400	6.0	133.33
9.	Shri Kanhya Lal	Shri Chunni Lal Katiyar	1.5	1530		155.00
10.	Shri Om Prakash	Shri Ujagar Prasad Kushwaha	1.5	1275		112.00
11.	Shri Jasmant Singh	Late Ram Prasad	1.0	1080	6.0	80.00
12.	Shri Govind Prakash	Shri Ganga Charan	2.0	1450	5.5	163.13
13.	Shri Krishan Kant	Shri Raj Narayan	2.0	1165		111.11
14.	Shri Prem Chandra	Shri Ram Bharose Katiyar	2.5	1250		127.27
15.	Shrimati Krishana Devi	Shri Ram Dulare	2.5	1250		127.27
16.	Shri Putti Lal	Shri Mathura Prasad	2.2	1170	7.0	112.72
17.	Shri Chhote Lal	Shri Lallu Kamal vanshi	1.5	1135		62.14
18.	Shri Jagat Singh	Shri Manohar Singh	1.0	1200		71.42
19.	Shri Keshav Prasad	Shri Chhote Lal Pal	2.0	1080		54.28
20.	Shri Chhunnu Lal	Shri Devi Prasad	2.2	1120	7.0	60.00
21.	Shri Ram Bhajan	Shri Seetaram	-	1150	7.0	64.28
22.	Shri Surendra Singh	Late Chhedi Lal Katiyar	1.5	1225	7.0	75.00
23.	Shri Ram Chandra	Shri Sirste Lal	1.0	1175		67.85
24.	Shri Vijay Kumar	Shri Ram Swarup	2.0	1090		55.71
25.	Shri Rajesh Kumar	Shri Moti Lal	1.5	1230	6.5	89.23
26.	Shri Kanhaya Lal	Shri Chunni Lal Kureel	1.0	1260	6.5	93.89
27.	Shri Om Prakesh	Shri Ujagar Prasad	1.5	1320	7.0	88.57
28.	Shri Maugi Lal Pal	Shri Pushe Lal Pal	1.0	1025		46.42
29.	Shri Chhote Lal Pal	Shri Lallu	0.5	1270		81.42
30.	Shri Jagat Singh	Shri Manohar	1.0	1165		166.42
31.	Shri Keshav Prasad	Shri Chhote Lal Pal	0.5	1275		82.14
32.	Shri Channu Lal	Shri Devi Prasad	0.5	1035	6.0	72.50
33.	Shri Devraj	Shri Meawalal	2.0	1230	5.5	123.63
34.	Shri Ramraj	Shri Meawalal	2.0	1090	5.0	118.00
35.	Shri Vijay singh	Shri Umasanker	1.5	1310		162.00
36.	Shri Raghuraj	Shri Devdayal	2.0	1160		132.00
37.	Shri Vishnu Pal	Shri Vishwanath	2.0	1145		189.00
38.	Shri Ramesh	Late Ram Swarup	2.0	1120		124.00
39.	Shri Ram Sanker	Late Chitan	1.0	1330		166.00
40.	Shri Sudhar Lal	Late Money Ram	1.5	1165		133.00
41.	Shri Raghunandan	Shri Ram Prasad	1.5	1170		134.00
42.	Shri Babu Ram	Late Musee	1.0	1255	5.5	128.18
43.	Shri Chhote Lal	Late Raghunath	2.0	1280		132.72
44.	Shri Vijay Yadav	Late Devi Charan	1.0	1185		115.45
45.	Shri Rajpal	Shri Budhee	2.0	1335	6.0	122.50
46.	Shri Ram Sanehi	Late Rattu	1.5	1145		90.83
47.	Shri Balveer	Shri Ram sudhare	1.0	1050		75.00
48.	Shri Ram Prakesh	Shri Chandan	1.0	1220	5.5	121.81
49.	Shri Siv Prakesh	Late Chandan	1.0	1100		100.00
50.	Shri Braj Lal	Late Raghunath	1.5	1290		134.54
51.	Shri Surendra	Shri Aserphi Lal	1.0	1085		97.27
52.	Shri Ram Dulare	Late Mansingh	1.0	1165		123.00
53.	Shri Shrikant		1.0	1280	5.0	100.00
54.	Shri Dharm Singh	Shri Raghuvveer Singh	2.0	1155	6.0	92.50
55.	Shri Ahamud Hasan	Shri Anualhuk	1.0	1150		91.60
56.	Shri Dharm Pal Singh	Late Raghuvveer Singh	3.0	1120		86.66
57.	Shri Jugrup Singh	Late Raghuvveer Singh	3.0	1235		105.83
58.	Shri sury Pal Singh	Late Jhabbu	1.0	1100		83.34
59.	Shri Cheda Lal	Late Saty Narayan	1.0	1250		108.34
60.	Shri Ram Raj	Late MeawaLal	1.0	1200	6.5	84.61
61.	Shri Raghuraj	Late Devidayal	0.5	1060		63.07
62.	Shri Vishnu Pal	Shri Vishwanath	1.0	1158		78.15
63.	Shri Ramesh	Late Ram Swarup	1.0	1125		79.07
64.	Shri Ramsanker	Late Chittan	1.0	1170		80.00
65.	Shri Sudhar Lal	Late Money Ram	1.0	1225		88.46
66.	Shri raghunandan	Late Ram Prasad	0.5	1175	5.5	113.63
67.	Shri Chhote Lal	Late Raghunath	1.0	1060		92.72
68.	Shri Devi Charan	Shri Ramdeen	1.0	1025		86.36
69.	Shri Ram Sanehi	Shri Rattu	0.5	1140	6.0	90.00
70.	Shri Braj Lal	Late Raghunath	1.0	1050	6.0	75.00
71.	Shri Ramdularee	Late Mansingh		1100	6.0	83.34
72.	Shri Dharam Singh	Late Raghuvveer Singh		1070	6.0	78.34
73.	Shri Surendra Singh	Late Rajaram Katiyar	1.5	1125	7.0	60.71
74.	Shri Shyam Sunder	Late Sukhi Lal Katiyar	2.5	1100		57.14
75.	Shri Sateesh Chandra	Shri Lallu	1.0	1165		66.42
76.	Shri Ram Narayan	Late Jwala Prasad	2.0	1170		67.14
77.	Shri Rajesh	Late Jagat Narayan Katiyar	4.0	1130		61.42
78.	Shri Naresh Chandra	Late Ramratan Katiyar	2.5	1200		71.42
79.	Shri Umesh Chandra	Late Ram Singh Katiyar	1.0	1235		76.42
80.	Shri Parmanand	Late Abhilash Katiyar	1.5	1215		73.57

81.	Shri Hari Shanker	Shri Maiku Harijan	2.0	1110		58.57
82.	Shri Mohamad Yaseen	Shri Lallu Behna	1.5	1180		68.57
83.	Shri Girish Chandra	Shri Lallu Katiyar	1.0	1240		77.14
84.	Shri Babu Lal	Shri Ram Bharose Kori	2.0	1260		80.00
85.	Shri Rajendra Prasad	Late Lallu	3.0	1255		74.28
86.	Shri Ram Narayan	Late Moolchandra Katiyar	2.5	1154		64.85
87.	Shri Bijay Shanker	Late Gangaram Savita	1.5	1115		71.53
88.	Shri Subhash Chandra	Shri Baburam katiyar	1.5	1175	7.0	67.85
89.	Shri Raj Kumar Kanaujia	Shri Ram Bharose Kanujia	1.0	1150		64.28
90.	Shri Suresh Chandra Kanaujia	Shri Ramavtar Kanaujia	1.5	1200		71.42
91.	Shri Ram Lakhan	Shri Lallau Kanaujia	1.0	1260		80.00
92.	Shri Radhey Shyam	Shri Banwari Lal Kanaujia	1.5	1240		77.14
93.	Shri Balram Kanaujia	Shri Kanhiya Lal	1.0	1180		68.57
94.	Shri Arvind Kushwaha	Shri Umashanker Kushwaha	2.0	1150		64.28

Farmers Awareness through Field days

Nine field days as per details given below were organized in the month of Oct., 2015 & May, 2016 when the crop was in full blooming /podding stage.

Sl. No.	Date	Place of field day
1.	10-10-2015	Mahipalpur
2.	11-10-2015	Lalpur
3.	14-05-2016	Dinkarpur
4.	15-05-2016	Rooma
5.	16-05-2016	Kapoorpur
6.	16-05-2016	Kakupur
7.	18-05-2016	Bairi
8.	28-05-2016	Kama
9.	29-05-2016	Bhaunatpur

At the site of demonstration the farmers of the village/location were invited and shown round the potentiality of the technology in the field. The discussion on the following points was made among the farmers on spot:

- The impact of quality seed of the improved variety over the local variety and K 851.
- The impact of production technology over the technology the farmers adopt.
- Important diseases, more specifically Yellow Mosaic Virus, their identification and control measures.
- Important insect-pests, their identification and control measures.
- Marketing of quality seed.

Farmers-scientist Interface during Field Days:

At the site of field days, farmers-scientist interface was also organized involving scientists from Indian Institute of Pulses Research and C.S.A. university.

The discussion focussed on the importance of Pulses, their per capita/day availability and necessity for enhancing production/productivity in order to meet food and nutritional requirement of the nation.

A few relevant photographs regarding field days are annexed as Annexure III.

Farmers-scientist interaction and feed back :

In both the training a separate session of farmers-scientist interaction was organized. Questions raised by farmers were satisfactory replied by expert team. Feed back was also taken from farmers for future research and improvement in the programme activities.

Distribution of scientific literature :

Following two technical bulletins were distributed among the farmers for their use in enhancing pulse production and as a guide in problem solving :

1. *Grishmkalin moong urd utpadan technique evam beez utpadan*
2. *Kam lagat technique ka dalhan utpadan me yogdan*

Demand from farmers for Continuation of the programme in future as well:

Being extremely benefitted from the programme the farmer raised the demand for continuation of the programme in future as well. They appeared to be highly satisfied with the monetary gain which they obtained from high yields of Urdbean. Continuation of the programme will result in fast spread of the technology and enhancement of average under the crops. The views of the farmers along with their photographs are depicted in bulletin, “*Grishmkalin moong urd utpadan technique evam beez utpadan*”.

Some of the relevant photographs concerning to trainings are annexed as Annexure II.

Results of the Field Demonstrations

(A) Yield obtained :

The yield obtained by different farmers is shown in following table:

S. No.	Farmer name	Father's name	Area Sown (ha)	Yield obtained (kg/ha)	Average yield (q/ha) of village	% increase in yield over existing variety
1	Shri Prag Singh	Shri Ujagar Singh	1.0	1070	5.5	94.54
2	Shri Rajendra Singh	Shri Parag	1.0	1125		104.54
3	Shri Ram Prasad	Shri Rajaram	0.5	975	5.0	95.00
4	Shri Gya Prasad	Shri Rajaram	1.0	1060		112.00
5	Shri Jagdish Singh	Shri Rajaram	1.0	1025	4.5	127.71
6	Shri Cchota	Late Narottam Singh	0.5	1040		131.11
7	Shri Hajari	Shri Sohan	1.0	1050		133.33
8	Shri Chandrapal	Shri Lal Singh	3.5	950		111.11
9	Shri Rakesh Kumar	Shri Kalika Prasad	2.5	970		115.55
10	Shrimati Dooja	Shri Vishwabhar Singh	1.5	1025		127.71
11	Shrimati Sukhrani	Shri Shyam Babu	2.5	1000		122.22
12	Shri Akhilesh Kumar	Shri Chandra Pal	1.0	1060		135.55
13	Shri Durga Prasad	Shri Heera Lal	2.0	970		115.55
14	Shri Prakash Chauhan	Shri Vijay Singh	4.0	1120		151.11
15	Shri Rambabu	Shri Kalika Prasad	2.5	1025		122.22
16	Shri Rajendra Pal Singh	Shri Prayag Singh	1.0	1035	3.5	127.71
17	Shri Shambhu Singh	Late Chhote Lal	1.5	915		103.33
18	Shri Naurang	Late Tara Chandra	2.0	1100		144.44
19	Shri Kirat Singh	Shri Kunwar Lal Yadav	1.5	1080		140.00
20	Shri Rambali Singh	Shri Laxmi Narayan	1.0	1040		131.11
21	Shri Sumer Singh Chauhan	Late Vishwanath Singh	2.0	960	4.5	113.33
22	Shri Narottam Singh	Shri Mahesh Chauhan	3.0	950		114.00
23	Shri Rajbahadur	Shri Gokul Kushwaha	2.5	1050		133.33
24	Shri Gyan Singh	Shri Chhote Lal	1.5	1115		147.77
25	Shri Kant	Shri Chandra Pal	1.5	1130		151.11
26	Shri Bhura Singh	Shri Chhote Lal	1.0	1080		140.00
27	Shri Ashok Kumar	Shri Vodhi Lal	1.5	950		111.11
28	Shri Ram Singh	Shri Chhote Lal	1.0	1060		135.55
29	Shri Lala Ram	Shri Gore Lal	1.5	1030		128.88

30	Shri Shashikant	Shri Chandra Pal	1.0	1180		163.22
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(B) Incidence of the diseases, insect-pests :

- No incidence of yellow mosaic virus has been observed in any of the demonstration plot.
- In some of the demonstrations a few plants suffering from leaf crinkle were observed and were rouged out immediately.
- In some of the demonstration plots, incidence of hairy caterpillar of very low level was observed which was immediately controlled by spraying insecticide.

(C) Procurement of quality seed :

Farmers have been advised to save a part of their harvest for sowing in next season. Utmost care has been taken that the crop is free from off types and sufficient isolation distance has been provided. MYMV affected plants had also been rouged out.

(D) Storage of quality seed :

During technical trainings, farmers have been trained on scientific seed storage methods. They have been asked to fumigate the seed godown as well as seed during storage.

Impact of the Programme (2015-16):

- The programme has brought a impact in the minds of the farmers for accelerating the cultivation of the Urdbean during *kharif* season.
- The farmers are highly convinced with the production technology including varieties and expressed desire for continuance of the programme in future as well.
- The farmers have been motivated to produce quality seed by themselves of recently released location specific varieties. This will help in meeting out the shortage of quality seed of pulses.
- The farmers have been given quality seed of the improved varieties, the harvest of which has been saved by them for future use distribution/sale among the other farmers. This will help in fast spread of quality seed and thus enhancing the production of these crops.
- The project is likely to enhance the production and productivity of Urdbean in the state, thus meeting the food and nutritional requirement of the state and the nations as well.

(Manoj Katiyar)

P. I.

Legume Section

A Field View of Demonstrations at different Villages



A field view of Demonstration at Village-Juravarpur



A field view of Demonstration sites in different villages



A field view of Demonstration at village-Anantrampur



A field view of Demonstration at village-Singhrasipur



A field view of Demonstration sites in different villages



A field view of Demonstration at village- Anantrampur



A field view of Demonstration sites in different villages

Photographs of the Training organized at Village Bhawanipur



Dr. D.D. Yadav resource person delivering lecture to farmers



Group of Farmers in Training programme



Dr. A. Mishra resource person delivering lecture to farmers



Joint Director Research addressing the farmers in training



A view of Training

Photographs of the Training organized at Village Thatiniwada



P.I. addressing the farmers in training



A group of famers in training programme



A view of training



Dr. H. C. Singh resource person delivering lecture to farmers



A view of literature to the farmers hand during training programme

A Field View of growth stage of Demonstrations at different Villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages

A Field View of Demonstrations at different Villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages



A field view of Demonstration sites in different villages

Weeding operation at Demonstrations sites in different Villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages



Weeding operations at Demonstration sites in different villages

Spraying of Insecticide with sprayer at Demonstrations sites in different Villages



Spraying of insecticides at Demonstration sites in different villages



Spraying of insecticides at Demonstration sites in different villages



Spraying of insecticides at Demonstration sites in different villages

A Field View of Demonstrations at different Villages in Kannauj dist.



A Field View of Demonstrations at Villages-Bhawanipur



A Field View of Demonstrations at Villages-Bhawanipur



A Field View of Demonstrations at Villages-Jakhainpur

Spraying of Insecticide with sprayer at Demonstrations sites in different Villages



A Field View of Demonstrations at Villages-Jakhainpur



A Field View of Demonstrations at Villages-Jakhainpur



A Field View of Demonstrations at Villages-Raghunatpur

