

ICAR-Agricultural Technology Application Research Institute, Zone-II, Jodhpur

PROCEEDING

ZONAL WORKSHOP-CUM-TRAINING PROGRAMME ON PULSES UNDER NFSM

Organised by: ICAR-ATARI, Zone-II, Jodhpur & SKNAU, Jobner
Place : Directorate of Extension, SKNAU, Jobner
During : 14-15th December 2018

The Zonal workshop-cum-Training Programme on Pulses under NFSM was organized during 14-15 December 2018 at Directorate of Extension Education, SKNAU, Jobner, Jaipur Rajasthan by ATARI, Jodhpur and SKNAU, Jobner. The inaugural session of workshop was held on 14.12.2018 in which Prof. (Dr.) PS Rathore, Hon'ble VC, SKNAU, Jobner was Chief Guest. At the outset, welcome address was delivered by Dr. G.S Bangarwa, Director, DEE, SKNAU, Bikaner, followed by the introductory remark by Dr. S. K Singh, Director, ICAR-ATARI, Jodhpur, in which, he emphasized the importance of pulses in human diet, present status of production, significant achievements in production of various pulses in the country, present technology status, KVKs' role in increasing the pulses production and sustaining the increased production. It was followed by the release of publications from ICAR-ATARI, Jodhpur and various KVK's, prominent being *Annual Report (2017-18)-Cluster Frontline Demonstrations on Pulse under NFSM: Implementation & Performance* published by ICAR-ATARI, Jodhpur. The chief guest of the function Prof. (Dr.) Rathore in his key note address also emphasized the importance of pulses and need to increase the production and the role to be played by KVKs' through CFLDs', yield gaps to be analysed and to fulfil these gaps.

Day: 1 14th December 2018

The first technical session started in the afternoon of 14th December 2018 at Conference Hall in the Division of Agricultural Extension, SKNAU, Jobner.

Chairman : Dr. S. K. Singh, Director, ICAR-ATARI, Jodhpur

Co-chairman : Dr. G.S. Bangarwa, Director, DEE, SKNAU, Jobner

Dr. S K Sharma, Director, DEE, SKRAU, Bikaner.

Rapporteurs: Dr. BL Jangid, Principal Scientist (Agril. Extension)

Dr. HN Meena, Senior Scientist (Agronomy)

The following are the specific comments for execution of CFLDs in effective manner by the KVKs of Rajasthan, Haryana and Delhi.

1. All the KVKs who are engaged in the implementation of CFLDs of pulses/oilseeds will initiate impact assessment of NFSM at district level. In this regard, essential schedules will be provided by ATARI to each KVK shortly. After data collection, compiled data (excel sheet) will be shared with each KVK. In this work, nodal officer will be assisted by PTA and project staff from ATARI, Jodhpur.
2. Organization of at least one field day is essential at each village to show the performance of technological packages among different stakeholders.
3. One crop cutting for each crop is essential in the presence of the nodal officer/SMSs of KVK for building the confidence in the yield data reported.
4. Proper references are required for the productivity and production data.
5. For the conductance of CFLDs, necessary arrangement should be made well in advance. The preference need to be given on seed production at/by KVK. KVKs may flash the seed information at their respective website with a copy to ATARI.
6. For any updation, availability of seed etc., please frequently check the ATARI website (www.atarijodhpur.res.in).
7. The results of damaged CFLDs plots will not be included in the results of CFLDs or average of the CFLDs. However, it will be considered in total CFLDs. Proper justification is essential for the damaged CFLDs with the photographs and technical observation.
8. The varieties released within 10 years will be considered for CFLDs. The nodal officers must have all the technical details like potential yield, year of release, specific points and attributes etc.
9. Specific data will be taken in terms of total no. of pods/number of seeds per pod/siliqua/number of pegs/oil content etc. to justify the results.
10. Soil testing of the CFLD fields (4 year/3 year/2 year/one year of conductance) where CFLDs were conducted are required to see the fertility status of major as well as micro nutrients. In this regard, information will be shared shortly by the ATARI.
11. Those KVKs who have been allotted new CFLDs may submit detail action plan by 10th Jan., 2019 positively.
12. A separate budgetary provision has been made for installation of banner/board. Therefore, KVKs should install sign board at the vicinity of each village/cluster for wider publicity of CFLDs under NFSM.

13. At least germination percentage, nodulation, weed infestation, flowering stage, number of pods, pest & disease incidence, harvesting time must be recorded by SMSs as a technical observations.
14. Fact sheet must be maintained by each partner farmer under NFSM.
15. Fact sheets are to be collected after completion of season and all should be kept in proper manner for future record.
16. For utilization of budget as per budgetary provision under NFSM for conductance of CFLD, number of demonstration may be increased. This should strictly be followed.

The KVK wise observations are given below for effective laying out of CFLDs and the improvement in the future presentation.

1. KVKs of SKNAU, Jobner

KVK Ajmer

1. Source of secondary data about area, production and productivity of various crops has to be mentioned.
2. Farming situation for CFLD has to described in detail.
3. Farmers' participation to be described.
4. Critical gap in input use to be analysed and accordingly input to be used.
5. Weed management should be situation specific and not on the broad recommendation based.
6. At least 20 per cent produced under CFLD must be kept as a seed by each partner farmer. This should be followed strictly.

KVK Alwar-I

1. Technological gap in case of pigeon pea has to be farming situation specific and not general.
2. Only recommended varieties has to be used in CFLDs.
3. In chickpea, mention the weed infested the crop severely and then its management.
4. In seed hub results, variety has to be mentioned clearly.

KVK Bharatpur

1. Fact sheets to be checked with the farmers.
2. Farming situation detail to be given.
3. Technological gap assessment to be presented.
4. Previous crop, disease incidence to be described.

KVK Dausa

1. In gap based intervention, farming situations need to be described.
2. Delay in date of sowing was farming situation specific, reasons needs to specify.
3. Name of insecticides/weedicides/seed treatment chemicals needs to be mentioned properly.
4. Facts sheets with farmers needs to be maintained properly.

KVK Dholpur

1. Re-assessment of area under green gram, which is very less.
2. Update the insecticides in the technological package.
3. Seed rate should be 15 kg in place of 20 kg ha⁻¹ in green gram CFLD.
4. Weed management through chemicals should be based on the weed flora prevalent in the area.
5. 'How much grain is kept as seed', needs to record from the CFLD participant farmers.

KVK Sikar

1. Source of secondary data needs to be mentioned.
2. Typological errors in the presentation needs to be taken care.
3. Display should be proper in CFLD plots.

KVK Jaipur-II

1. Along with seasonal rainfall average rainfall has to be mentioned.
2. Source of secondary data needs to mentioned, without source data cannot be entertained.
3. Feedback of farmers has to be presented in all the components of CFLDs' and not only on the variety.

2. KVKs of SKRAU, Bikaner

KVK Bikaner-I

1. Latest recommended pesticides should only be used in CFLDs.

KVK Bikaner-II

1. Identify the weed flora and then recommend the weedicides.
2. Selling price range should be mentioned while calculating the cost and returns under CFLDs.

KVK Sriganganagar

1. Pesticide to be used should be specified for particular pest.
2. Feedback from the farmers has to be more scientific.
3. Technology gap need to be mentioned in percent.
4. CFLD plot Banner should be properly printed.

KVK Jhunjhunu

1. In training programs, skill inculcating activities must be included.
2. Pulses varieties are not high yielding they have to be mentioned as improved varieties.

KVK Churu-II

1. Fertilizers not applied by the participatory farmers, should not be mentioned in CFLD results.
2. Details of micro nutrients applied should be given.
3. Describe the weed flora managed, by application of Imezathapyr in green gram.
4. For training programs proper action photographs should be shown.
5. Budget utilization must be increased.
6. Seed rate used by farmers in chickpea is very less farmers should be convinced to use the optimum seed rate.

KVK Jaisalmer-I

1. Field day should be organized during proper crop growth stage.
2. In green gram short duration varieties should be promoted.

KVK Jaisalmer-II

1. Farming situation should be specified properly and accordingly result should be presented.
2. Training title should be proper.
3. Village to be selected under farming situations.

3. KVKs of AU, Jodhpur

KVK Jalore

1. Name of interventions should be proper.
2. Very casual presentation by Dr. Pankaj Lavania. In future such presentation will not be accepted.

KVK Nagaur-I

1. Secondary data on area, production and productivity of crops needs to be verified.
2. No. of demonstration need to be increased in green gram & moth bean.
3. For assessing the effect of bio-fertilizers observations need to be recorded.

KVK Sirohi

1. Technological packages used for CFLDs should be mentioned.

KVK Nagaur-II

1. Farming situation has to be described very specifically.
2. No. of farmers who have kept grain of CFLD as seed for next season may be recorded.

KVK Barmer-II

1. Senior Scientist & Heads of KVK informed that crop failed due to no rainfall.

KVK Jodhpur-II

1. Technological gap needs to be done properly.
2. Effect of application of Imezathapyr need to be assessed properly then to be included in package.
3. Pesticides under CFLDs have to be provided according to incidence of pests and not on general basis.

4.KVKs of AU, Kota**KVK Bundi**

1. Data about area of green gram crop may be rechecked.

KVK Karauli

1. Failure of green gram CFLD due to more no. of rainy days, CFLDs may be converted into black gram.
2. Needs to make scientifically correct presentation.

KVK Kota

1. Potential yield mentioned for crop should be avoided as it is mentioned with variety.
2. For chickpea CFLDs success stories to be developed and documented.

KVK Baran

1. Green gram CFLD to be converted into black gram.

KVK Jhalawar

1. Soil type in the region to be mentioned correctly in the presentation.
2. Demonstration yield not in synchronization with rainfall.

KVK Sawai Madhopur

1. Secondary data need to be checked.
2. The balance/unspent budget need to be utilized.

5. KVKs of MPUAT, Udaipur**KVK, Banswara**

1. According to the secondary data presented, the area of Pigeon pea is available in the district; therefore, in next Kharif season CFLDs on Pigeon pea should be organized.

KVK Bhilwara

1. Result may be presented according to farmers who have applied recommended dose of fertilizers and those who have not followed.

KVK Chittorgarh

1. Observations of disease/insect infestation in the fields of chickpea after chickpea in the same field year after year.
2. Technological gap analysis needs to be done properly.
3. No. of demonstrations may be increased.
4. JAKI-9218 variety of chickpea may be introduced.

KVK Dungarpur

1. Budget utilization is very less need to make presentation has to be repeated.
2. Very poor presentation and Director, ICAR-ATARI, Jodhpur repeated the presentation.

KVK Pratapgarh

1. Latest varieties have to be demonstrated in CFLDs.

KVK Rajsamand

1. Black gram has more area; CFLD may be conducted on black gram in place of green gram.
2. Describe weed flora and pest incidence before presenting pest and weed management.

3. Result may be presented according to farmers who has applied recommended dose of fertilizers and those who have not.

6. KVK of RAJUVAS, Bikaner

1. Old variety should not be demonstrated under CFLDs.
2. Technological gap analysis to be presented properly.

7. KVK of ICAR Institutes

KVK Alwar-II

1. Utilization of funds under green gram is very less, fund should be utilized as per the norms.

KVK Pali

1. For insect-pest management proper quantity of insecticide should be mentioned.
2. To bridge the 100 percent gap in some aspects of CFLD component, strategy to be adopted in future has to be described.
3. Re-synthesis of technological package under CFLDs after technological gap analysis

KVK Jodhpur-I

1. A sign board should be installed at CFLDs plot.

8. KVK of NGOs of Rajasthan

KVK Jaipur-I

1. Feedback has to be given on all the components of CFLDs.
2. Farming situation to described in detail.
3. In chick pea management of weed and pod borer has been done properly on the identified gap basis.

KVK Tonk

1. Source of statistical data to be mentioned.
2. Name of weeds and pests infested the crop of green gram under CFLDs has be mentioned.
3. Maximum and minimum yield of CFLD plots has to be mentioned.
4. Field day should be organized at proper crop growth and not at fully mature crop stage.
5. Pulse after pulse, crop sequence needs to be discouraged at farmer's level.

KVK Hanumangarh-I

1. No. of villages in CFLDs under green gram has to be less.
2. If area under chickpea is less CFLD under Chickpea should be removed.

KVK, Barmer-I

1. Failure of crop due to drought need to be mentioned properly.

KVK Udaipur-I

1. In black gram proper technological gap analysis need to be done.
2. Under "Seed hub" only 21 ha. area is sown to achieve target of 600 quintals, the target is not achieved under area sown.
3. The shortfall has to be communicated to the KVK Senior Scientist & Head and Vidya Bhawan Society president in written.

KVK Churu-I

1. Tehsil wise rainfall data should be recorded.

Day-2: 15th December 2018

On the second day, technical session continued and started with presentations from KVKs' of Haryana state in the jurisdiction of HAU, Hisar and ICAR institutes; and finally, KVK of Delhi state presented the progress. The following are the observations on the results presented by the various KVKs and action points for further needful-

9. KVKs of CCSHAU, Hisar (Haryana)

KVK Mahendargarh

1. Fund utilization in green gram very less. It should be rationalized.
2. Overall presentation is very good.

KVK Bhiwani

1. Technological gap analysis needs to be done properly.
2. Presentation was incomplete need to be prepared again and complete presentation must be sent to ICAR-ATARI, Jodhpur by 10th Jan., 2019.

KVK Kaithal

1. Summer moong CFLDs information were not presented carefully, specific situation has to be described in detail.

KVK Sonipat

1. Feedback has to be provided for all the stakeholders should be provided.

KVK Panipat

1. Results of summer mung CFLDs taken after potato crop without application of any fertilizer, were appreciated as it was bonus crop for farmers without any input on account of fertilizers. This needs to be promoted among the farmers.

KVK Hisar

1. Technological gap analysis not presented.
2. Results of summer mung CFLDs needs to be sent to ICAR-ATARI, Jodhpur by 10th Jan., 2019.

KVK, Fatehabad

1. First time allocation of summer mung bean.
2. Details gap analysis is to be done.

KVK Yamunanagar

1. May utilize balance budget in summer CFLDs of mung.
2. Intercropping of mung bean in interspaces of poplar plantation present a potential area to tap for popularizing summer mung cultivation in the region.

KVK Sirsa

1. A fix banner should be installed at CFLDs plot.

KVK Rohatak

1. A fix banner should be installed at CFLDs plot.

KVK Kurkshetra

1. Moong sown before 15th March may be termed as spring mung and sown after 15th march may be called as summer mung.

KVK Jind

1. No participation from KVK.

10. KVKs of ICAR Institute

KVK Gurugram

1. Irrigation data on summer mung CFLDs may be presented in relation to various previous crops cultivated and irrigation schedule may be planned accordingly.
2. In pigeon pea effect of Spinosad may be recorded in terms of no. of pods.

KVK Karnal

1. Gap analysis between recommended and farmer's practices should be presented in future.

11. KVKs of NGOs of Haryana

KVK Rewari

1. A fix banner should be installed at CFLDs plot.

KVK Ambala

1. Very casual presentation and complete presentation again need to be submitted to ICAR-ATARI, Jodhpur by 10th Jan., 2019.

KVK Delhi

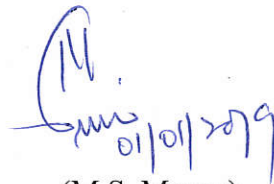
1. Kharif demonstration conducted in summer, which is not desirable & has to be taken care in future.
2. Results presented were also not according to the target.
3. Target were not achieved reason mentioned was non availability of seed, which is not acceptable as it has to be managed in advance.

Technical session was followed by training session in which lectures was delivered by senior faculties of SKNAU, Jobner.

1. **Dr A.K. Gupta on important varieties of major pulse crops in reference to Rajasthan, Haryana and Delhi**
2. **Dr. LR Yadav on major improved package of practices of pulse crops.**
3. **Dr. KC. Kumawat on insect pest of pulses and their management.**

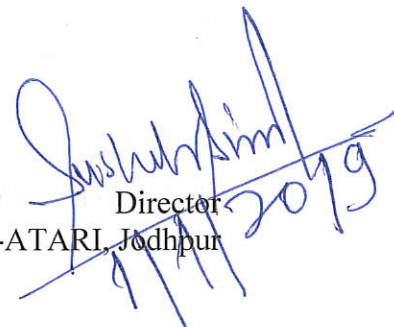
It was followed by address of administrative and technical issues raised by various KVKs by administration of ATARI, Jodhpur. The last session was closing session, chaired by Prof. (Dr.) P S Rathore, VC, SKNAU, Jobner, the other dignitaries on dais were Dr. S K Singh, Director, ICAR-ATARI, Jodhpur, Dr. Bangarwa, Dr. S K Sharma, Dr. Gautam, respective Directors of DEE, SKNAU, Jobner, SKRAU, Bikaner and AU, Kota.

The concluding remarks were given by the Dr. S K Singh, Director, ICAR-ATARI, Jodhpur. The workshop ended with visit of farmers' fields, who have adopted protected agriculture on commercial scale in nearby village 'Basedi', which was appreciated by all as one of the viable enterprises for doubling farmer's income.



(M.S. Meena)
Nodal officer NFSM

Submitted for kind approval of the Director.



Director
ICAR-ATARI, Jodhpur

Copy to: All KVKs/DEEs/NGO heads/host institutes for necessary action.

Encl: List of participants

List of KVKs participated in Zonal workshop-cum-training programme on pulses under NFSM

Sl. No.	KVKs	Name	E-mail Address	Contact no.
SKRAU, Bikaner				
1	Bikaner	Dr. B.S. Mitharwal	kvkbikaner@gmail.com,	9414982881
2	Jhunjhunu	Dr. R.S. Rathor	kvkabusar@gmail.com,	9414630109
3	Jaisalmer-I	Dr. Ranveer K.Yadav	kvk.jaisalmer@gmail.com,	9785390930
4	Sriganganagar	Dr. Rupesh Meena	kvksgr@gmail.com,	9521645954
5	Bikaner- II	Mr. Bhagwat Singh	kvklunkaransar@gmail.com,	7014493473
6	Jaisalmer-II	Dr. Krishan Gopal Vyas	kvk.jaisalmer@gmail.com,	9510081869
7	Churu-II	Dr. Shaukat Ali	balbirdr@gmail.com,	8000510078
SKNAU, Jobner				
8	Sikar	Dr. Lala Ram Dr. R.K. Dular	bkvkfr@gmail.com,	9784053101 9877201228
9	Bharatpur	Mr. Krishan Avatar Meena	kvkkumher@gmail.com,	8432305236
10	Ajmer	Dr. D.S. Bhati Dr. Hans Ram Mali	kvkajmer@gmail.com,	9414536224 9509972587
11	Alwar-I	Dr. Dinesh Arora	kvknavgaon@gmail.com,	9460089702
12	Dholpur	Dr. Navab Singh	pc.kvk.dholpur@sknau.ac.in	9414544054
13	Dausa	Dr. B. L. Jat	kvkdausa@gmail.com,	9602749131
14	Jaipur-II	Dr. Ram Pratap	kvkkotputli@gmail.com,	8504920051
AU, Jodhpur				
15	Jalore	Pankaj lavania	kvkjl@gmail.com,	9828667030
16	Naguar-I	Dr. Hariram Choudhary	nagaurkvk@gmail.com,	8459508435
17	Naguar-II	Dr. Gopichand	kvkmaulasar@gmail.com,	9758213377
18	Barmer- II	Dr. Pradeep Pagaria	kvkgudamalani@gmail.com	9829155490
19	Jodhpur-II	Dr. M.S. Chandawat	kvkpalodi@gmail.com,	9427508708
20	Sirohi	Dr. Abha Prashar	pckvksirohi@yahoo.com,	8619232653
AU, Kota				
21	Swai Madhopur	Napur Sharma	kvk.swm@gmail.com,	7597061433
22	Karauli	Dr. S.L. Khaswom	kvk.hnd.karauli@gmail.com	9785109571
23	Kota	Dr. K.M. Sharma	kvkborkherakota@gmail.com	9829088726
24	Bundi	Dr. R.K. Bairwa	kvkbundimpuat@gmail.com	9413093805
25	Jhalawar	Dr. Mohmmad Yunus	pckvk_jhalawar@yahoo.com,	9024136642
26	Baran	Dr. D.K. Singh	kvkanta@gmail.com,	9414662038
MPUAT, Udaipur				
27	Banswara	Dr. B.S. Bhati	kvkbanswara@gmail.com,	9829422993
28	Bhilwara	Dr. K.C. Nagar	kvkbhilwara@rediffmail.com,	9413149173
29	Dungarpur	Dr. B.L. Roat	pcdungarpur@gmail.com,	9414723019
30	Chittorgarh	Dr. S.K. Agarwal	pckvkchittorgarh@gmail.com	9414325298
31	Rajsamand	Dr. Mani Ram	kvkrjsd@yahoo.co.in,	9414508746
32	Pratapgarh	Dr. Yogesh Kanojia	kvkpratapgarh@yahoo.com,	9001310151
RAJUVAS, Bikaner				
33	Hanumangarh-II	Bheem Singh	kvknohar@gmail.com,	9106797487
NGO Raj.				
34	Barmer-I	Shayam Das	kvkbarmer@yahoo.com,	8947891976
35	Udaipur	Dr. Deepak Jain	vbkvk@yahoo.com,	9414489997
36	Churu-I	Harish Kumar	pckvkchuru@rediffmail.com,	9636442846
37	Jaipur-I	Dr. B.L. Yadav	kvkchomu@gmail.com,	9461822095
38	Tonk	Dr. P.V. Singh	kvktonk@gmail.com,	9410000339
39	Hanumangarh-I	Dr. C.S. Sharma	kvksangariahmh@gmail.com,	8432557123
DRMR, Bharatpur				
40	Alwar-II	Bajrang Lal ola	kvkbansur@gmail.com,	9602757361

CAZRI, Jodhpur				
41	Jodhpur-I	Dr. S.K. Sharma	kvkcazrijodhpur1@gmail.com,	9887030798
42	Pali	Dr. M.L. Meena	cazri_kvkpali@yahoo.co.in,	9414856397
CCSHAU, HISAR				
43	Yamunanagar	Dr. Anil Kumar	sckvkynagar@hau.ernet.in	9466206011
44	Kurukshetra	Dr. J.N. Bhatia	sckvkkurukshetra@gmail.com, homrrs@gmail.com	9416654847
45	Panipat	Dr. Devraj	sckvkpanipat@gmail.com	9466007604
46	Jind	No one attended		
47	Kaithal	Dr. Narendra Kumar	sckvkkaitthal@gmail.com	8278060610
48	Sonipat	Dr. J.S. Bamul	sckvksonipat@gmail.com	9868925810
49	Faridabad	Dr. Rajendra Kumar	kvkfaridabad@gmail.com	9416560129
50	Hisar	Dr. M.K. Singh	kvkhisar@gmail.com	9991829945
51	Rohtak	Dr. B.P. Rana	kvkrohtaksc@gmail.com	9868947891
52	Sirsa	Dr. B.L. Sharma	sckvksirsa@gmail.com	9913424178
53	Mahendergarh	Dr. Ramesh Kumar	sckvkmgarh@gmail.com	9416381974
54	Jhajjar	Dr. Satayjeet	sckvkjhajjar@gmail.com	9416333778
55	Bhiwani	Dr. Gulab Singh	sckvkbhiwani@gmail.com	9466010291
56	Fatehabad	Dr. Sardul Singh Mannu	kvkfatehabadsc@gmail.com	9416695874
IARI, New Delhi				
57	Gurgaon	Dr. Ramsewak Dr. Pargat Singh	head_kvkggn@iari.res.in	9873093881 9868947891
NDRI, Karnal				
58	Karnal	Mohar Singh	kvkkarnal@gmail.com	9416172347
NGOs of Haryana				
59	Rewari	Vishavas Singh	bbakvkrr@gmail.com, kapurrewari@gmail.com	9416214811
60	Ambala	R.K. Singh	kvkambala@gmail.com, upanasingshrathee@gmail.com	7696942830
61	Ujwa (Delhi)	Dr. S.P. Singh	kvkujwa@yahoo.com	8650399054