**RESEARCH ARTICLE :**

# Constraints causing serious concern to NFSM gram beneficiaries in southern Rajasthan

## ■ RAM LAL KHATIK AND F.L. SHARMA

**SUMMARY :** The present study was conducted in Banswara and Udaipur district of Southern Rajasthan. Total 80 gram beneficiary farmers were selected on the basis of random sampling method from the identified districts. The study revealed that lack of skill about application of chemicals, timely non-availability of seed minikits of gram at village level, inadequate knowledge about soil treatments were major constraints perceived by the beneficiary gram growers in the study area.

**How to cite this article :** Khatik, Ram Lal and Sharma, F.L. (2017). Constraints causing serious concern to NFSM gram beneficiaries in southern Rajasthan. *Agric. Update*, **12**(1): 142-145; **DOI : 10.15740/HAS/AU/12.1/142-145.**

**Author for correspondence :**

**RAM LAL KHATIK**
Department of
Extension Education,
Rajasthan College of
Agriculture, UDAIPUR
(RAJASTHAN) INDIA

See end of the article for
authors' affiliations

## BACKGROUND AND OBJECTIVES

National Food Security Mission is being run at present in all 13, 33 and 12 districts of Rajasthan under the component of wheat, pulses and course cereals, respectively. In Rajasthan, rice is not covered under this programme. The emphasis in component third on NFSM- pulse reflects that several million people in the country remain largely bypassed by the green revolution and modern agricultural practices. The component NFSM-pulse is being implemented in Udaipur, Dungarpur and Banswara districts of southern Rajasthan since 2010. These districts are comes under Tribal- Sub-Plan area and also represent the nearly 45 per cent tribal population of the state. The mission is in full swing and so far no impact study in the operational area of the mission has been conducted regarding the response of farmers about gram interventions introduced under NFSM. This is the right time to assess the impact of the mission with regards to interventions introduced in gram cultivation. With this background in view, the present study entitled "Constraints Causing Serious Concern to NFSM Gram Beneficiaries in Southern Rajasthan" was undertaken with the following specific objectives:

– To find out the level of constraints perceived by the NFSM beneficiaries in adoption of recommended gram interventions

– To find out the extent of constraints perceived by beneficiaries regarding adoption of recommended gram interventions

## RESOURCES AND METHODS

The present study was conducted in

Banswara and Udaipur district of Southern Rajasthan. Two panchayat samities from each identified district were selected on the basis of maximum number of farmers are benefited through pulse interventions introduced under NFSM. From each selected panchayat samiti four beneficiary villages where interventions related to gram are introduced were selected on the basis of maximum farmers were benefitted under NFSM. Thus, in all 16 villages were selected from all the identified panchayat samities for present investigation. For selection of beneficiary respondents, 5 gram growers were selected randomly from each identified village. Thus, a total of 80 gram beneficiary farmers were selected on the basis of random sampling method. Data were collected by personal interview technique. Thereafter, data were analyzed, tabulated and results were interpreted in light of the objectives of study.

## OBSERVATIONS AND ANALYSIS

In the present study, the term constraint means the barriers or obstacles which are perceived by the beneficiary respondents in the adoption of recommended gram interventions. Adoption of technology depends on various factors, which may either accelerate or retard its adoption. It is important on the part of extension functionaries to identify such factors so as to make the dissemination of technologies in line with the farmers' perception and need. It is needless to mention that pace of adoption can be augmented by overcoming the perceived constraints. So it was felt necessary to overcome the perceived constraints which prevented the respondents from adopting recommended gram interventions. In the present context, the constraints perceived by the respondents in the adoption of gram interventions were identified and the results are presented in subsequent tables.

**Distribution of respondents according to their level of constraints faced by them in adoption of recommended gram interventions :**

To get an overview of the level of constraints, the respondents were identified into three strata *i.e.* low (Upto 23.37), medium (23.38 to 28.36) and high (Above 28.36) level of constraints. These categories were formed on the basis of calculated mean and standard deviation of the scores given to the constraints by the respondents. The results of the same have been given in Table 1.

The data incorporated in Table 1 reveal that 47.50 per cent beneficiary farmers faced medium level of constraints in adoption of recommended gram interventions. Whereas, 36.25 per cent beneficiaries were observed to be in high constraints group and only 16.25 per cent beneficiary respondents perceived low level of constraints in recommended gram interventions.

From the above results, it can be concluded that majority of beneficiary farmers had either medium or high level of constraints in adoption of gram interventions, in the study area. The present findings are supported by the findings of Kumar (2008) who reported that 45.83 per cent farmers faced medium level of constraints in adoption of groundnut production technology. Whereas, 48.48 and 13.33 per cent farmers possessed high and low level of constraints, respectively.

**Extent of constraints perceived by beneficiaries regarding adoption of recommended gram interventions :**

An effort was made to find out the priority of constraints perceived by the respondents in adoption of recommended gram interventions introduced under National Food Security Mission. For this mean per cent score for each constraint was calculated and ranked accordingly. The results of the same have been presented in Table 2.

The data presented in Table 2 reveals that "lack of skill about application of chemicals" was expressed as most important constraint by the beneficiary gram growers with MPS 86.67 and it was ranked first in the priority of the constraints. The next important constraint perceived by the beneficiary respondents was "timely non-availability of seed minikits of gram at local level"

| Table 1 : Distribution of beneficiary respondents according to the level of constraints faced by them in adoption of recommended gram interventions (n=80) | | |
|---|---|---|
| Sr. No.    Level of constraints | Frequency | Per cent |
| 1.    Low (Upto 23.37 ) | 13 | 16.25 |
| 2.    Medium (23.38 to 28.36) | 38 | 47.50 |
| 3.    High (Above 28.36) | 29 | 36.25 |
|      Total | 80 | 100.00 |

with the extent of MPS 83.75. Likewise, the constraint related to "inadequate knowledge about soil treatment" was also expressed as major constraint by the beneficiary gram growers. The mean per cent score of this constraint was 79.58 and ranked third in the problems hierarchy.

Further analysis of table shows that "fragment and undulating land for gram cultivation," "non-availability of plant protection equipments", "non-availability of bio-fertilizers of gram at local level", "lack of skill about plant protection measures", "lack of technology guidance at proper time," "improper knowledge about application of micro-nutrients," "lack of competence of AAOs/ Agriculture Supervisor in conducting demonstrations", "high cost of improved seeds, micro-nutrients and fungicides" "high cost of farm implements", were also important constraints faced by the beneficiary farmers in adoption of recommended gram interventions. The mean per cent score of these constraints was 75.83, 75.00, 72.92, 72.50, 71.67, 71.50, 70.83, 70.00 and 69.58, respectively.

It was also found that "inadequate amount of micronutrients and chemicals", "biased agriculture supervisor", lack of irrigation water for cultivation of gram", were also perceived as average constraints by the respondents with 69.17, 67.92 and 65.83 MPS, respectively. The least important constraints expressed by the gram growers were "lack of knowledge about

seed treatment and "lack of knowledge about application of gypsum" with 62.08 and 61.25 MPS. These constraints were ranked sixteenth and seventeenth in the ranking hierarchy of constraints perceived by the beneficiary farmers. From the above discussion it could be concluded that lack of skill about application of chemicals, timely non- availability of seed minikits of gram at local level, lack of knowledge about soil treatment, fragment and undulating land and non- availability of plant protection equipments were major constraints expressed by the gram growers in complete adoption of recommended gram interventions.

The present findings are supported with the findings of Singh *et al.* (2007) who reported that lack of technical guidance, lack of knowledge, high cost of inputs and non-availability of inputs at proper time were the major constraints which influenced the adoption of rice production practices by the farmers. Samota (2011) also reported that shattering with over maturity, susceptible to diseases, unavailability of high yielding varieties seed at local level, lack of knowledge, poor quality of high yielding varieties seed and higher requirement of manure and fertilizers were the major constraints which influenced the adoption of recommended high yielding varieties of wheat by the farmers of Banswara district of Rajasthan.

| Table 2 : Constraints perceived by beneficiaries in adoption of recommended gram interventions | | | (n=80) |
|---|---|---|---|
| Sr. No. | Constraints | MPS | Rank |
| 1. | Timely  non-availability of  seed minikits of gram at local level | 83.75 | 2 |
| 2. | Inadequate knowledge about soil treatment | 79.58 | 3 |
| 3. | Lack of knowledge about seed treatment | 62.08 | 16 |
| 4. | Improper knowledge about application of micro-nutrients | 71.50 | 9 |
| 5. | Biased Agriculture supervisor | 67.92 | 14 |
| 6. | Lack of technological guidance at proper time | 71.67 | 8 |
| 7. | Lack of knowledge about application of gypsum | 61.25 | 17 |
| 8. | High cost of farm implements | 69.58 | 12 |
| 9. | High cost of improved seeds, micro-nutrients and  fungicides | 70.00 | 11 |
| 10. | Lack of skill about plant protection measures | 72.50 | 7 |
| 11. | Non-availability of plant protection equipments | 75.00 | 5 |
| 12. | Lack of skill about application of chemicals | 86.67 | 1 |
| 13. | Inadequate amount of micronutrients and chemicals | 69.17 | 13 |
| 14. | Lack of competence of AAOs / Agriculture Supervisors in conducting gram demonstrations | 70.83 | 10 |
| 15. | Fragment and undulating land for gram cultivation | 75.83 | 4 |
| 16. | Lack of irrigation water for cultivation of gram | 65.83 | 15 |
| 17. | Non –availability of bio-fertilizers at village level | 72.92 | 6 |

MPS=Mean per cent score

## Conclusion :

From the above results it can be concluded that lack of skill about application of chemicals, timely non-availability of seed minikits at local level, inadequate knowledge about soil treatment, fragmented and undulating land for gram cultivation, non-availability of plant protection equipments, non-availability of bio-fertilizers at village level, lack of skill about plant protection measures, lack of technology guidance at proper time, improper knowledge of micro-nutrient application, biased Agriculture supervisors and high cost of improved seeds, micro-nutrients, fungicides were important constraints expressed by the beneficiary farmers in the adoption of recommended gram interventions in the study area.

Authors' affiliations :

**F.L. SHARMA,** Department of Extension Education, Rajasthan College of Agriculture, UDAIPUR (RAJASTHAN) INDIA

## REFERENCES

**Bhatia, M.S.** (1991). Economic constraints in increasing pulses production, *Agric. Situ. India,* **46** (4): 279-264.

**Rajan, P.,** Khare, N.K., Singh, S.R.K. and Khan, M.A. (2014). Constraints perceived by tribal farmers in adoption of recommended practices. *Indian J. Extn. Edu.,* **50**(3and 4): 65-68.

12<sup>th</sup> Year
★★★★★ of Excellence ★★★★★

*Agric. Update,* **12**(1) Feb., 2017 : 142-145
Hind Agricultural Research and Training Institute

**145**