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Problems faced by the mungbean cultivators in Nagaur district in Rajasthan

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Abstract

The present investigation was undertaken with a view to study the identify the problems faced by the mungbean cultivators. A random sample of 100 mungbean cultivators was selected for the study. Both primary and secondary data were used for the study. The primary data were collected from the selected mungbean cultivators, using personal interview method on pre-structured data schedule for the year 2015-16. The Garrett's ranking technique was used for analysis the problems faced by mungbean cultivators. The major problems faced by the farmers in production and marketing of mungbean were variability in amount of rainfall, shortage of labour during peak hours of harvesting, grazing by stray animals, insufficient crop insurance coverage, fluctuations in market price, low price of mungbean, difficulty in maintaining quality standards, high transportation cost and lack of good storage facilities.

Keywords: Production, marketing problem, mungbean, Garrett's ranking

Introduction

India is the largest producer (25%), consumer (27%) and importer (14%) of pulses in the world. Pulses are one of the cheapest sources of protein for human consumption in India. Mungbean [*Vigna radiata* L.) R. Wilczek is known with different common names viz., mungbean, green gram and Celera bean. Mungbean is a major edible legume crop in India. The grains contain approximately 25-28% protein, 1.0-1.5% oil, 3.5-4.5% fiber, 4.5-5.5% ash and 62-65% carbohydrates on dry weight basis. The important mungbean growing states in the country are Rajasthan, Madhya Pradesh, Uttar Pradesh, Orissa, Maharashtra, Karnataka and Bihar. In Rajasthan, total area under mungbean was 17.19 lakh hectares with the production of 7.42 lakh tonnes and productivity of 515 kg/ha during 2017-18 (Anonymous, 2017-18). It is mainly cultivated in arid and semi arid districts of the state namely; Nagaur, Pali, Jodhpur, Ajmer, Jaipur, Jalore, Barmer, Churu and Tonk.

In Nagaur, total area under mungbean was 2.56 lakh hectares with the production of 1.80 lakh tonnes and productivity of 509 kg/ha during the year 2017-18 (Anonymous, 2017-18). Mungbean is cultivated mainly under rainfed condition in Nagaur district. Similar to other crops, the mungbean cultivators too, are faced with many problems related to production and marketing of mungbean which needs area specific investigation.

Data base and methodology

Among pulses, mungbean crop occupies first place in term of area and production in the rajasthan. Nagaur district occupies first place in terms of area and production of mungbean therefore, it was selected purposively for the study. A list of all the tehsils growing mungbean were obtained from district Headquarter. From this list two tehsils; namely Nagaur and Jayal were selected randomly.

Separate lists of all the villages growing mungbean were obtained from the selected tehsil Headquarters; from these lists six villages namely Goa Khurd, Bhakrod and Sinod (from Nagaur tehsil) Igyar, Bodwa and Nradhana (from Jayal tehsil) were selected randomly for the study. Thus, a sample of 100 farmers out of 1004 farmers from all five size group from the six villages was selected on random basis.

These farmers were categorized into five groups viz., marginal (0.51-2.00 ha), small (2.01-3.00 ha), semi-medium (3.01-5.00 ha), medium (5.01-7.00 ha) and large farmers (7.01-11.00 ha) based on the cumulative square root frequency method of stratification. Both primary and secondary data were used for the study. The primary data were collected from the selected mungbean cultivators, using personal interview method on pre-structured data schedule for the year 2015-16.

The secondary data were collected from the various government publications, websites and agencies were used. For problems faced by mungbean cultivators Garrett's ranking technique was used.

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Analysis of data

After collection, the data were compiled, tabulation and analyzed according to the selection categories of sample farm and using various statistical tools were used. For problem faced by mungbean cultivator farmers Garrett's ranking technique was used. The analytical procedure followed was detailed below under the following head.

Garrett's ranking technique

Garrett's ranking technique was used to analyze the problems faced by farmers in mungbean production and marketing. The

farmers were asked to rank the factors that they were facing. The rankings of the factors assigned by the farmers were converted into per cent terms by using the following formula:

$$\text{Per cent position} = \frac{100 (R_{ij} - 0.50)}{N_j}$$

Where

R_{ij} = Rank given for i^{th} item by j^{th} individual farmer

N_j = Number of items ranked by j^{th} individual farmer

Table 1: Percentage positions and their corresponding Garrett's Table values

Rank	Per cent Position*	Garrett's Table value
1.	7.14	79
2.	21.42	65
3.	35.71	57
4.	50	50
5.	64.28	43
6.	78.57	34
7.	92.85	22

The per cent position of each rank thus obtained was converted into scores by referring to the tables given by Garrett and Woodworth (1969) [3]. The prime advantage of this technique over simple frequency distribution is that the problems are arranged based on their severity from the point of view of respondents. Hence, the same number of respondents on two or more problems may have been given different rank. Then for each problem, the scores of individual farmer were added together and divided by the total number of farmers for whom scores were added. The mean scores for

all problems were ranked by arranging them in order.

Result and Discussion

Problems pertaining to mungbean production

Garrett ranking technique was used to analyze the problems faced by the respondent farmer in the production of mungbean. The overall scenario of problems faced by the cultivators in mungbean production revealed that variability in amount of rainfall was one of the major problems faced by the mungbean cultivators (Table 2).

Table 2: Ranking problems associated to mungbean production in Nagaur district of Rajasthan

S. No.	Problems reported by the farmers	Total no. of Respondent	Total Score	Total Mean	Rank
1.	Delayed supply of seeds and in required quality	100	5988	59.88	VI
2.	Grazing by stray animals	100	6429	64.29	III
3.	Shortage of labour during peak hours of cultivation	100	6649	66.49	II
4.	Irregular supply of inputs like fertilizers and plant protection chemical (Excluding seeds)	100	4609	46.09	VII
5.	Variability in amount of rainfall	100	7606	76.06	I
6.	Insufficient crop insurance coverage	100	6182	61.82	IV
7.	Inadequate research and extension support	100	6106	61.06	V

Source: Field survey 2015

Figures below ranks indicate the number of farmers representing that problem.

Farmers complained of shortage of rainfall during the sensitive cropping period of mungbean production. Alternative source for irrigation was not available in the study area. So this led to low productivity. Shortage of labour during peak hours of cultivation was the second major problem faced by the mungbean cultivator. Heavy demand of labour in the area resulted in increase in wages of the labour in the study area during harvesting time. Problems regarding grazing by stray animals of the crop ranked third.

Cattle grazing were reported to cause heavy damage to standing crop resulting in decrease in production and productivity of the crop in the study area. Insufficient crop insurance coverage was ranked as fourth. Inaccessibility to research and extension support facilities also militates against efficient mungbean cultivation in the study area.

Most of the farmers complained that none of the extension staff visited to them newly technical advice on many cultivations. It was ranked as fifth in the study area. It was

reported by the farmers that seeds were not supplied then on time and in required quantity. This was attributable to late supply of seeds to the firm by the Govt. agencies. This problem ranked sixth in the study area. Improper (more / less) use of fertilizers and plant protection chemicals ranked seventh on overall size groups. These results were in conformation with that reported by Thombre *et al.* (2009) [8], Wankhade *et al.* (2009) [9], Islam *et al.* (2013) [4], Shashikant *et al.* (2013) [7] and Narayan and Kumar (2015) [6].

Problems pertaining to mungbean marketing

The overall scenario of marketing problems faced by mungbean cultivators indicates that fluctuation in market price of the produce was a major marketing problem (Table 3). This might be attributed to the seasonal nature of crop production. This affected the supply and demand of the produce. Farmers also complained of low price of mungbean as compared to other crops as the second major problem in the study area. It resulted in to less profit as compared to other crops. This made the farmers to concentrate on other crops

with higher prices. The table indicates that the difficulty in maintaining quality standards was third major marketing problems in the study area. This might be attributed to biological nature of production of mungbean.

Problem of high transportation cost faced by the farmers was ranked fourth. It was due to the fact that farmers had to sell their produce in the Mandi and the transportation charges were borne by the farmers themselves. Problem of lack of good storage facility in the Mandi as faced by the farmer was ranked fifth. As the farmers could not afford to take back the

produce to their village they had to sell the produce at whatever price existing at that time. The sixth problem reported by the farmers was imposition of cut in the weight of the produce by the buying firm due to shrinkages of moisture in grains, cut or damaged shape grains. Even after buying the produce, some traders delay in making payment to the farmers for weeks or months. It was ranked as seventh problem. Similar results were reported by Yadav (2012)^[10], Shashikant *et al.* (2013)^[7] and Kumar (2016)^[5].

Table 3: Ranking problems associated to mungbean marketing in Nagaur district of Rajasthan

S. No.	Problems reported by the farmers	Total no. of Respondent	Total Score	Total Mean	Rank
1.	Low price of mungbean	100	6579	65.79	II
2.	Fluctuations in market price	100	7335	73.35	I
3.	High transportation cost	100	5716	57.16	IV
4.	Difficulty in maintaining quality standards	100	5871	58.71	III
5.	Cut in weight of the produce due to poor quality standard	100	5029	50.29	VI
6.	Lack of good storage Facilities	100	5463	54.63	V
7.	Delaying on payment by traders	100	4927	49.27	VII

Source: Field survey 2015

Figures below ranks indicate the number of farmers representing that problem.

Conclusions

- Variability in amount of rainfall, shortage of labour during peak hours of harvesting, grazing by stray animals, insufficient crop insurance coverage, inadequate research and extension support, delayed supply of seeds and in required quality and irregular supply of inputs like fertilizer and plant protection chemical (excluding seeds) were the main problems faced by the cultivators during mungbean production.
- The main marketing problems reported by the mungbean cultivators were: fluctuations in market price, low price of mungbean, difficulty in maintaining quality standards, high transportation cost, lack of good storage facilities, cut in weight of the produce due to poor quality standard and delaying on payment by traders.

References

- Anonymous, 2017-18. <http://www.krishi.rajasthan.gov.in>.
- Anonymous, 2017-18. Rajasthan Economic Review, Commissionerate of Agriculture, Rajasthan, Jaipur.
- Garrett HE, Woodworth RS. Statistics in psychology and education. Vakils, Feffer and Simons Pvt. Ltd. Bombay, 1969, 329.
- Islam QMS, Miah MAM, Rahman MS, Hossain MS. Adoption of bari mung varieties and its constraints to higher production in southern region of Bangladesh. Bangladesh Journal of Agricultural Research. 2013; 38(1):85-96.
- Kumar P. An analysis of market arrivals and prices of chickpea in Sehore regulated market of Madhya Pradesh. Published M.Sc. (Ag.) economic thesis, RVSKVV, Gwalior (M.P.), 2016, 58.
- Narayan P, Kumar, S. Constraints of growth in area production and productivity of pulses in India: An analytical approach to major pulses. Indian Journal of Agriculture Research, 2015; 49(2):114-124.
- Shashikant VG, Dubey LR, Kumar D. Marketing of red gram in Gulbarga district of India. Indian Journal of Agricultural Research. 2013; 47(5):461-464.
- Thombre AP, Ghulghule JN, More SS. Constraints faced by pulse growers in production and marketing and

suggestions made by them in Marathwada region of Maharashtra. 2009; 4(1/2):73-75.

- Wankhade RN, Malthane GB, Nemade DV. Constraints in pigeonpea production in Maharashtra. Journal of Community Mobilization and Sustainable Development. 2009; 4(2):72-75.
- Yadav Y. Economic performance of different marketing channels of gram in Sahore district of Madhya Pradesh. Published M.Sc. thesis, RVSKVV, Gwalior (M.P.), 2012, 39.