

Constraints experienced by onion growers of Nashik district of Maharashtra

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ABSTRACT

The present investigations were carried out in Nashik district of Maharashtra state. Two Taluks viz Niphad and Yeola and from them 7 and 6 villages respectively were purposively selected for the study in the year 2016-17. From each selected village 10 per cent respondents were selected randomly thus making a sample of 131 respondents. Opinion survey was conducted to elicit the opinions of farmers regarding the constraints faced by them in onion production and marketing. Garrett's ranking technique was applied for ranking these constraints. Garrett's mean scores for all the factors were arranged in descending order and constraints were ranked. The major constraints experienced by farmers in production and marketing were labour scarcity during peak time and frequent price fluctuation with Garrett's score of 79.83 and 81.06 respectively.

Keywords: Onion; production; marketing; constraints; Garrett's ranking technique

INTRODUCTION

Onion (*Allium cepa*) has an extensive culinary, dietary, therapeutic, trading, income and employment generation value. Onion is commodity of mass consumption and is grown almost all over the country mainly by small and marginal farmers as this is labour intensive crop. India ranks second after China having 1305.64 thousand ha area and 22427.43 thousand metric ton production. The three main seasons of kharif (monsoon), late kharif and rabi (winter) contribute 15, 20 and 65 per cent respectively to the total onion production (Shukla and Singh 2018).

Maharashtra is the top state in onion production with share of 30.03 per cent therefore it is called as 'onion basket of India' (www.apeda.com). In Maharashtra area, production and productivity of onion in year 20016-17 was 481.05 thousand ha, 6734.74 thousand metric ton and 14 ton/ha respectively (Shukla and Singh 2018). The district of Nashik in Maharashtra accounts for the largest share in the production of onions in India. Nashik onion is not only consumed in the farthest corners of India but also exported to many countries.

Onion is a major item of agricultural exports earning valuable foreign exchange to the country. It poses more problems as compared to other agricultural commodities due to its seasonal and semi-perishable nature; there are wide fluctuations in prices both month to month and year to year. It adversely affects the economy of the onion farmers. In this regard present study was conducted with an objective to know the constraints faced by farmers in production and marketing of onion in Nashik district of Maharashtra state.

METHODOLOGY

The study was conducted in Nashik district of Maharashtra state during the year 2016-17. Nashik district was selected purposively as it had remarkable onion production in the state. Out of 15 blocks of Nashik district, Niphad and Yeola blocks were selected for the study being leading onion producing blocks. In selected blocks seven villages were selected from Niphad and six from Yeola. From each village ten per cent farmers were selected randomly. Hence the study covered 13 villages from 2 blocks of Nashik district to form a sample of 131 respondents. A pre-tested

structured interview schedule was used to collect the data from the respondents by personal interview method. The collected data were analyzed using the Garrett's ranking technique. Using this technique the order of the merits given by the respondents was changed into ranks 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, N_j = Number of items ranked by j^{th} individual

The per cent position of each rank was converted to score by referring to tables given by Garrett and Woodworth (1969). For each factor the scores of individual respondents were summed up and divided by the total number of respondents for whom scores were gathered. These mean scores for all the factors were arranged in descending order and constraints were ranked.

RESULTS and DISCUSSION

Constraints faced by onion growers in onion production

The data (Table 1) show that labour scarcity during peak time with 79.83 score was the major problem of the growers followed by erratic electric supply and high labour cost with scores of 76.65 and 71.42 respectively. The scarcity of farmyard manure (18.49) was the least important constraint.

The labour scarcity during peak time was most severe constraint as reported by the farmers. This might be due to the fact that availability of labour was major issue as onion cultivation required lot of labour from planting to harvesting. Farmers showed concern about erratic and irregular supply of electricity which affected functioning of pump sets and other machineries. Volatility in the market price results in area instability (Immanuelraj et al 2014).

The participants perceived that high cost of seed and high cost of fertilizers as their main problems because traders created artificial demand for the branded seeds and fertilizers in the market (Gopala et al 2012). It is evident from the survey that high cost of branded onion seeds forced the farmers to buy local poor quality seeds/seedlings from other farmers

(Nanagouda and Rajasab 2012). The credit problem and incidence of pests and diseases were found to be medium degree of constraints. Majority of the onion growers were possessing own funds (Mohapatra 1999). Therefore inadequate credit supply by financial institutions was ranked at ninth position. Incidence of pests and diseases was given tenth rank due to moderate severity. The excessive weather condition like high humidity and high temperature in the early stages of onion cultivation could favour disease incidence and lack of storage facilities increase the pest incidence (Grema et al 2015).

Constraints faced by onion growers in marketing

The information in the Table 2 indicates that the onion growers had been facing several constraints in marketing onion. The most important marketing problem faced by the onion growers was related to frequent price fluctuation with mean score of 81.06 followed by high transportation cost (75.48), lack of MSP/government procurement (NAFED) (70.20) and non-availability of storage facility (62.53). Lack of awareness of new technologies (18.38) was their least important marketing problem.

If the supply of produce increases the demand and price of the produce decreases and vice versa as a result of which high fluctuation in the prices prevails (Sharma and Singh 2006, Balasubramanian and Eswaran 2008). Hence the fluctuation in the market prices was most severe constraint as reported by the farmers. Transportation being a big problem in onion marketing was also reported by Chauhan and Chhabra (2005), Varadaraju et al (2009) and Illo et al (2016).

In case of onion there was no announcement of MSP or any government support which resulted in poor return to farmers at times of good harvest or higher volume of production (Sharma and Singh 2006, Shah 2015). It is necessity of farmers to get support price and procurement of onion by government and NAFED (Chandrashekhar 2007). During harvesting period of onion farmers faced glut in market which created non-availability of storage spaces in market (Varadaraju et al 2009, Grema et al 2015, Illo et al 2016). Lack of trading expertise, market knowledge and risk bearing capacity has also prevented most of the farmers to make any dent in onion trading (Chandrashekhar 2007, Varadaraju et al 2009, Chengappa et al 2012).

Table 1. Major constraints faced by onion growers in production

Component	Garrett's mean score	Rank
Labour scarcity during peak time	79.83	I
Erratic electric supply	76.65	II
High labour cost	71.42	III
Poor quality and inadequate underground water	62.65	IV
Unstable yield of onion	58.66	V
Lower productivity of onion	55.80	VI
High cost of onion seed	53.10	VII
High cost of fertilizer	50.27	VIII
Inadequate credit supply by financial institutions	42.61	IX
High incidence of pests and diseases	40.26	X
High cost of growth regulators	37.16	XI
Input supply centre located far away	32.68	XII
Non-availability of recommended pesticides	24.47	XIII
Scarcity of farmyard manure	18.49	XIV

Table 2. Major constraints faced by onion growers in marketing

Component	Garrett's mean score	Rank
Frequent price fluctuation	81.06	I
High transportation cost	75.48	II
Lack of MSP/government procurement (NAFED)	70.20	III
Non-availability of storage facilities	62.53	IV
Collusion among traders/trade malpractices	59.23	V
Lack of market infrastructure	55.82	VI
Distantly located market	52.46	VII
Lack of availability of market information	50.20	VIII
Labour problem for grading and packing	41.82	IX
Quality deterioration during storage	40.10	X
Poor road network for transportation	36.88	XI
Delay in sale and payment	30.60	XII
Lack of information about government schemes and subsidies	26.42	XIII
Lack of awareness of new technologies	18.38	XIV

CONCLUSION

Onion is an important business to many producers and this is an important crop which helps to increase the economic condition of the farmers. Due to urbanization and globalization there is rise in demand for onion in both domestic and international markets. However onion producers have been facing many problems right from the point of production to the final disposal. Constraint such as labour scarcity, price fluctuation, yield risk, lack of market infrastructure and efficient marketing system, lack of access to credit, post-harvest losses and distress sale etc result in low level of motivation to farmers to practice onion production and marketing.

One of the strategies to strengthen the onion growers is establishing farm-firm linkages in groups viz farmer-producer organizations (FPOs) or contract farming. Proper institutional arrangements must be there for minimizing the price uncertainty in order to avoid the higher price volatility. This can be supported by introducing the minimum support price for onion also as in the other agricultural commodities.

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