

## Constraints in Rose Cultivation in Haryana

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### ABSTRACT

The study was carried out in two districts Sonipat and Hisar in Haryana state during 2021-22 with the objective to understand the constraints in rose cultivation. About 124 respondents were selected for the study and questions were asked from a well framed questionnaire. The results revealed that the farmers were least aware about the scientists working in their region, while they knew better the extension personnel's and district level officials from Departments of Agriculture and Horticulture. The study revealed that the rose cultivators knew ADO/BAO/ HDO (100%) in their respective districts followed by SDAO/SMS/DHO/DDA (95.97%). They knew about the scientists (0.81%) in their respective KVKs/Research stations. Most of the respondents met the extension officials like SDAO/SMS/DHO/DDA 'often' by 66.94% followed by ADO/BAO/HDO (55.65%) and lowest percentage of frequency was observed for scientists (12.90%). About 42.74% rose cultivators 'occasionally' met with ADO/BAO/HDO. In the present study, the pre-harvest problems faced by the respondents *i. e.*, the rose cultivators observed were as 'high cost of fertilizers' (Rank I) with the mean scores 76. The most prominent problem during post-harvest of rose cultivation was recognised as 'knowledge of sorting and grading of flower' (Rank I) with average score of 80.

**Key words:** Rose cultivation, constraints, extension contact, rank, frequency of contacts

### INTRODUCTION

Among flowers, rose (*Rosa indica*) is known as the "Queen of flowers". The total area under rose cultivation in India is 37.50 thousand ha having production of 142.08 thousand tonnes under loose flowers and about 330.78 thousand tonnes under cut flowers. Uttar Pradesh had the highest area under cultivation 14.43 thousand ha (38.48%), Karnataka 5.28 thousand ha (14.08%), Gujarat 4.12 thousand ha (10.99%). Rose cultivation in Haryana is a part of diversification for earning additional income at farmer level. The total area under rose cultivation in Haryana is 0.09 thousand ha (0.24%) having production of 0.96 thousand tonnes under loose flowers and about 0.40 thousand tonnes under cut flowers (Anonymous, 2021). In the present scenario, there were constraints related to package of practices recommended by State Agriculture University *i. e.*, CCSHAU, Hisar. There were other constraints also prevalent like prices of

inputs, fertilizers, weed management practices, training and pruning of the rose plants and availability of the market.

### MATERIALS AND METHODS

The present study was based on an analysis of primary data at the Sonipat and Hisar districts of Haryana. There were five selected blocks for the present study. The study covered 15 villages. About 300 respondents, who were involved in the rose cultivation were interviewed. Out the 300 respondents, about 124 respondents were selected.

Primary data were collected from selected rose growers through personal interview method keeping in mind the literacy gap in the farmers with the help of pre-tested schedules for getting the information on constraints in the production and marketing of rose related aspects was used. The collected data were compiled, tabulated and analyzed to accomplish the objectives of the present study.

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The ranks given by the farmers doing rose cultivation were converted into percentage position with the help of formula given by Garrett (Heera and Kumar, 2023):

$$\text{Per cent position} = \frac{100 (\text{Rij}-0.5)}{N}$$

Where, Rij is the rank given to ith item by the jth individual and N is the number of item ranked by the jth individual. The per cent position of each rank obtained was converted into score using Garrett's table. Then for each reason, the scores of individual respondents were added and divided by total number of respondents. Thus, the mean score of each constraint was ranked by arranging in a descending order.

## RESULTS AND DISCUSSION

Data pertaining to frequency of extension contacts showed that most of the respondents met the extension officials like SDAO/SMS/DHO/DDA 'often' by 66.94% followed by ADO/BAO/HDO (55.65%) and lowest percentage of frequency was observed for scientists (12.90%). About 42.74% rose cultivators 'occasionally' met with ADO/BAO/HDO (Table 1). Kumari *et al.* (2022) was of the view that training centers impart extension services where the farmers can get the practical information of a new crop with scientific information proved over time. Without proper extension services the crops like rose cultivation will not provide the profit as per their potential.

**Table 1.** Extension contacts frequency

Extension functionaries	Frequently	Occasionally	Often
ADO/BAO/HDO	2 (1.61)	53 (42.74)	69 (55.65)
SDAO/SMS/DHO/DDA	-	41 (33.06)	83 (66.94)
HAU Scientists	-	1 (0.81)	16 (12.90)
Any other	-	-	-

Rose cultivation is thought to be a profession of farmers having higher knowledge and having the risk to bear the losses if incurred. But presently, the farmers having the land near the NCR regions of Indian capital New Delhi or the 'Silicon Valley of India - The Gurugram', had ample of opportunities and it could be one of the important professions to enhance the livelihood and income status of the farmers. In the present study, the pre-harvest problems faced by the respondents *i. e.*, the rose

cultivators observed were as 'high cost of fertilizers' with the mean score 76 followed by 'high cost of plant protection chemicals' (Rank II) with mean scores 61 and 'limited or irregular power supply' (Rank III) with mean score 50, and 'knowledge of stage of harvesting' (Rank IV) with mean score 40 and lowest mean score 25 for 'effect of rain on flower quality and production'. Dashora and Henry (2022) reported erratic power supply results in non performance during the peak hour of works and led to deterioration of quality of work both in terms of extension services as well in the application part of technology at ground level. The higher cost of fertilizer was due to the fact that due to rise in crude oils, the prices had increased globally which in turn, affected the fertilizer costs and hence the burdon on the farmers. In contrast to this, Singh *et al.* (2015) in marigold cultivation found the 'Non-availability of credit' as the major constraint with average scores 51.40 (Table 2).

**Table 2.** Problems faced by the rose cultivating farmers during pre-harvest of rose cultivation

S. No.	Description	Total score	Mean score	Rank
1.	High cost of fertilizers	9424	76	I
2.	High cost of plant protection chemicals	7564	61	II
3.	Limited or irregular power supply	6200	50	III
4.	Knowledge of stage of harvesting	4960	40	IV
5.	Effect of rain on flower quality and production	3100	25	V

There were eight major problems observed in the rose cultivation against which the responses for ranks were asked from the respondents. The most prominent problem was recognized as 'knowledge of sorting and grading of flower' (Rank I) with average score of 80 followed by 'knowledge of proper packaging methods' (Rank II) with average score of 68 and the third major problem was 'poor transportation facility' (Rank III) with average score of 60 (Table 3). Vidhya *et al.* (2021) reported that flowers need some special care during handling and storage being fragile in nature. The packaging materials provide protection and minimize bruising injury during transportation. Hence proper training is required in this direction.

The other major post-harvest constraints were 'proper method of loading and unloading' (Rank

**Table 3.** Problems faced by the rose cultivating farmers during post-harvest of rose cultivation

S. No.	Description	Total	Mean score	Rank
1.	Knowledge of sorting and grading of flowers	9920	80	I
2.	Knowledge of proper packaging methods	8432	68	II
3.	Poor transportation facilities	7440	60	III
4.	Proper method of loading and unloading	6696	54	IV
5.	Wide fluctuations in prices of flowers	5828	47	V
6.	Exclusive market of flowers	5084	41	VI
7.	Minimum support price by the government	4092	33	VII
8.	Lack of storage facilities in villages	2604	21	VIII

IV) with average score of 54 (Table 8), 'wide fluctuations in price of flowers' (Rank V) with average score of 47, 'exclusive market of flowers' (Rank VI) with average score of 41, 'minimum support price by the government' (Rank VII) and 'lack of storage facilities in villages' (Rank VIII) with an average score of 21 (Table 5). Tiwari *et al.* (2019) reported that third major constraint in rose cut flowers is fluctuations in the prices of roses which can result in lesser income over its cost of cultivation. There must be some criteria to control the prices over the period of production so that forced sale by the farmers can be reduced and maximum prices can be fetched by the farmers. Chaudhary *et al.* (2022) reported that lack of minimum support price was the major constraint in marketing of vegetable under polyhouse and normal field condition and reasoned that due to fluctuation in the prices of vegetables without minimum support price led to losses to the farmers. Kumar *et al.* (2020) reported that in India the post harvest loss is in the horticultural crops is in the range of 20-30%. The major constraints are lack of proper storage facilities which result in the loss due lesser shelf life.

### CONCLUSION

The extension contacts among the rose cultivators must be given more attention by the concerned KVKs in the districts and the problems like high cost of fertilizers during pre-harvest and knowledge of sorting and grading during post-harvest of rose must be seen as hurdles for which the government must relook while framing policy give subsidy in terms of diversification as special package.

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