

CORRELATES OF KNOWLEDGE OF GROWERS ABOUT ONION PRODUCTION TECHNOLOGY

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ABSTRACT

The low yield of onion, the key vegetable, may be due to poor knowledge about recommended onion production technologies apprehended by the farmers. More than half of the onion growers had moderate knowledge about onion production technology. It was also found that almost all the independent variables had significantly and positive relationship with knowledge possessed by the growers. It is essential to increase level of knowledge to promote adoption of improved technology of onion production.

INTRODUCTION

Onion (*Allium cepa* L.) is one of the most important bulb crops grown as vegetable all over the country. India stands second largest producer and exporter of onion commodity in the world next to China. The important districts of Gujarat that cultivate onion are Bhavnagar, Junagadh, Rajkot, Amreli and Panchmahal. The average yield of onion is 10 tones/ha against the potential yield of 30 tones/ha received in demonstration plot on research farm. Almost 50 per cent of area under onion cultivation in Gujarat is in Bhavnagar district. In spite of high genetic potential of the crop and availability of recent technology, productivity of onion in Bhavnagar district is low. Some of the oblivious reason for low yield may be an inadequate knowledge about recommended onion production technologies.

Keeping this in view, the study was planned and carried out with the following specific objectives:

1. To study level of knowledge of onion growers with respect to recommended onion production technologies.
2. To study the relationship of selected characteristics of onion grower with their knowledge level.

METHODOLOGY

The study was under taken in Mahuva and Talaja talukas of Bhavnagar district where onion is grown on large area. Six villages were selected from both Taluka. On the basis of large area under the onion cultivation, inventory of onion growers from these selected villages were obtained. Out of them, total 120 farmers were selected by proportionate random sampling method. Thus, 120 onion growers constituted the sample respondents for this study.

To measure the onion growers' knowledge, the teacher made knowledge test was developed. The respondents were personally interviewed with the specially

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Table 1 **Distribution of respondents according their level of knowledge.** (N=120)

Sr. No.	Knowledge level	Respondents	
		Frequency	Per cent
1	Low	122	18.33
2	Medium	73	60.84
3	High	25	20.83
	Total	120	100.00

structured interview schedule. The data so collected were analyzed with the help of mean score, per cent and correlation coefficient.

FINDINGS

Extent of knowledge

A critical perusal of the Table 1 indicated that more than one half of the onion grower possess moderate knowledge about recommended onion production technology followed by 20.83 and 18.33 per cent of the respondents belonging to high and low categories of knowledge level. These findings were in line with the findings of Deshmukh et. al. (1998) and Patil et. al. (1999).

Practice wise level of knowledge

The practice-wise knowledge of recommended onion production technology

was ascertained which is presented in Table-2.

A critical perusal of the data presented in Table-1 revealed that more than 80 percent respondents possessed knowledge in respect to seed treatment, disease control, FYM application and sowing distance of onion cultivation practices. More than 60 per cent respondents possessed knowledge about use of improved variety, proper sowing time, transplanting, irrigation and insect/ pest.

The probable reason for high knowledge (above 80 per cent) of seed treatment might be that the seed treatment for protection of onion crop from seed born disease is effective and is the only alternate to protect the crop from such disease. The reason for having good knowledge for application of FYM may that it helps develop good size of the bulbs.

Table 2 **Level of knowledge of onion growers regarding recommended onion production technology** (N=120)

Sr. No.	Name of practices	Respondents	
		Frequency	Per cent
1	FYM application	98	81.66
2	Use of improved variety	95	79.16
3	Seed treatment	108	90.00
4	Proper sowing time	86	71.66
5	Seed rate	62	51.66
6	Preparation of seed bed	49	40.83
7	Sowing distance	97	80.83
8	Transplanting	81	67.50
9	Chemical fertilizer application	25	20.83
10	Irrigation	77	64.16
11	Weed control	59	49.16
12	Disease control	101	84.16
13	Insect /pest	74	61.66

Table 3 Co-efficient of correlation of characteristics of onion growers with knowledge of recommended onion production technology

Sr. No.	Variables	'r' value
1	Age	-0.1799 **
2	Education	0.6194 **
3	Size of family	-0.2679 **
4	Social participation	0.2013 **
5	Extension Participation	0.2313 *
6	Annual income	0.1604 **
7	Size of land holding	0.1409 ^{ns}
8	Irrigation potentiality	0.1594 *
9	Farm mechanization index	0.1932 **
10	Onion crop intensity	0.2613 **
11	Risk orientation	0.1549 **

So far as the knowledge regarding other aspects of onion cultivation namely weed control (49.16 per cent), preparation of seed bed (40.83 per cent) and chemical fertilizer application (20.83 per cent). The probable reason for the low knowledge of weed control and chemical fertilizer might be the high price of the weedicide and chemical fertilizers. The need for removal of weed may not be a severe problem in onion crop.

Relationship of selected characteristics with knowledge

It is evident from Table 3 that out 11 independent variables, almost all except size of land holding had significant and positive correlation with the knowledge of the respondents. It indicate there exist significant relationship between dependent variable knowledge and education, social participation, extension participation, annual income, irrigation potentiality, farm mechanization index, onion crop intensity, and risk orientation at 0.01 level of probability. Only size of land holding was found not associated with the knowledge of onion production technology. This might be due to the fact that, irrespective size of land holding; any onion growers need to acquire the technical know-how of recommended onion production technology equally.

CONCLUSION

It can be concluded from the results that more than half of the onion growers had moderate knowledge about onion production technology. It was also found that almost all the independent variables except size of land holding had significantly and positive relationship with knowledge possessed by the growers in respect to recommended onion production technology. With a view to promote adoption of improved technology of onion production, it is essential to increase level of knowledge. The independent variables which had significant relationship with knowledge should be considered during dissemination of onion production technology.

Reference:

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