

Research Article

Analysis of technological knowledge and its variables effect in adoption of recommended production technology of aonla

■ **B.C. BOCHALYA AND R.M. JAVIA**

ARTICLE CHRONICLE :

Received :

06.09.2013;

Revised :

23.09.2013;

Accepted :

03.10.2013

SUMMARY : Aonla is an important fruit crop because of its large-scale use in Ayurvedic and Homoeopathic medicines. The fruit is highly nutritive and richest source of vitamin C among fruits except Barbados cherry. Murabba, Chyavanprash, pickles, chutney, sauce, candy, dried chips are prepared from aonla fruit. Its tree is quite hardy, prolific bearer and highly remunerative even without much cares. Aonla is most suitable for cultivating under agro-climatic conditions of Rajasthan. It has higher productivity per unit area even in the wastelands so it has bright future for exporting to European countries. findings of present study, inferred that majority of the farmers had medium knowledge level about recommended aonla production technology. Knowledge level of the farmers was found to be positively significant with their occupation, education, social participation, size of holding, irrigation potentiality and sources of information utilized.

How to cite this article : Bochalya, B.C. and Javia, R. M. (2013). Analysis of technological knowledge and its variables effect in adoption of recommended production technology of aonla. *Agric. Update*, **8**(4): 577-579.

KEY WORDS :

Technological knowledge, Adoption, Aonla production technology, Variables

BACKGROUND AND OBJECTIVES

Aonla is one of the most ancient fruit, widely grown in India. Being a hardy fruit, it can be grown even on interior or marginal lands and gives good fruit returns. Climate of Rajasthan is ideal for the aonla cultivation. Aonla fruit is especially significant in view of its nutritive value, medicinal value and other uses. It has higher productivity per unit area even in the wastelands so it has bright future for exporting to European countries. The yield of aonla is very low in Jaipur district in comparison to other districts of Rajasthan. It might be due to the lack of technological knowledge of practices which are resultant of the factors that come in the way of adoption of recommended aonla production technology. These factor were most and will lead to improve technological knowledge which will ultimately lead to the higher production of aonla fruit crop.

Keeping in view the importance and crucial value of technological knowledge in recommended aonla production technology, the present study has been undertaken with the specific objectives :

- To assess the knowledge level about recommended aonla production technology.
- To assess the association between knowledge about recommended aonla production technology and selected independent variables.

RESOURCES AND METHODS

The study was conducted in purposively selected Jaipur district of Rajasthan. The five Panchayat Samities from the said district were selected on the basis of having the maximum area of aonla fruit crop as compared to other 13 Panchayat Samities of Jaipur district. A list of farmers, who planted aonla at least half an acre

Author for correspondence :

B. C. BOCHALYA

Krishi Vigyan Kendra
(J.A.U.), Nana-kandhasar
SURENDRANAGAR
(GUJARAT) INDIA
Email: jat_bcb@
yahoo.com

See end of the article for
authors' affiliations

in the reference year, was prepared from each selected Panchayat Samities. Then, farmers were selected by using simple random sampling technique in such a way that number of farmers selected were proportional to the total number of aonla grower in the said Panchayat Samiti making a total sample of 200. The data were collected by personal interview method and were analyzed by proper statistical methods.

OBSERVATIONS AND ANALYSIS

The results of the present study as well as relevant discussions have been presented under following sub heads:

Knowledge level of the farmers about aonla production technology :

An attempt has been made to measure the knowledge level of the farmers about recommended aonla production technology. In order to assess level of knowledge, the knowledge scores of individual farmers was measured. The farmers were categorized into three categories as follows:

- Farmers who obtained knowledge score upto 30.66 were grouped into low knowledge category.
- Farmers who obtained knowledge scores between 30.67 to 64.64 were categorized into medium knowledge.
- Farmers who scored knowledge scores more than 64.64 were placed into high knowledge categories.

It is clear from the Table 1 that the majority of the farmers (62 +18%) have low to medium knowledge level about recommended aonla production technology. The results revealed that the farmers in general had low knowledge (mean scores 47.65%) about aonla production technology. The possible reasons for having low to medium knowledge level among majority of farmers might be due to the fact that farmers might have low education, less contacts with the extension workers and little and medium exposure to various sources of information.

Table 1: Knowledge level of farmers about recommended aonla production technology (n=200)

Sr.No.	Knowledge level of farmers	Frequency	Percentage
1.	Low (Score up to 36.66)	36	18
2.	Medium (Scores from 30.67 to 64.64)	124	62
3.	High (Score above 64.64)	40	20
	Total	200	100
	Mean score 47.65		

The association between socio-personal, techno-economic and communication variables and their knowledge about recommended aonla production technology :

The association between socio-personal, techno-economic and communication variables of the farmers namely age, caste, occupation, education, social participation,

farm size, farm implements, irrigation potentiality, credit behaviour and source of information utilized and knowledge level of farmers about recommended aonla production technology was worked-out in terms of correlation co-efficient and it is depicted in Table 2.

Table 2: Relationship between socio-personal, techno-economic and communication variables and the knowledge level of the farmers about recommended aonla production technology (n=200)

Sr. No.	Independent variables	Correlation co-efficient
1.	Age	-0.2401**
2.	Caste	0.1021
3.	Occupation	0.5361**
4.	Education	0.7002**
5.	Social participation	0.6244**
6.	Size of holding	0.2739**
7.	Farm implements	0.1129
8.	Irrigation potentiality	0.8062**
9.	Credit behaviour	0.0945
10.	Source of information utilized	0.9678**

** Indicate significance of value at P=0.01

It may be noted from Table 2 that occupation, education, social participation, size of holding, irrigation potentiality and sources of information utilized by farmers were found positively and significantly related with knowledge of the farmers at 1 per cent level of probability while, the age was negatively and significantly associated with the knowledge level of farmers at 1 per cent level of significance.

Knowledge and age :

As against the assumption, age was negatively and significantly related with the knowledge level of farmers about recommended aonla production technology. This may be due to the facts that young persons retained high education level, more prone to change and desire to acquire new technological information and they try to react on it, on the contrary, old farmers because of being orthodox and stubborn in nature.

Knowledge and caste :

As per the assumption, caste was not significantly related with the knowledge of farmers about aonla production technology *i.e.* caste was not an important factor as far as knowledge about aonla production technology of farmers concerned. This may be due to the fact that farmers of different caste were having equal chance and opportunities to gain, understand and utilize new technological information about aonla production technology.

Knowledge and occupation :

The occupation was found positively and significantly related with knowledge of farmers about aonla production technology. This may be true because occupation gives the

framework to acquire the knowledge to a particular technology, which is as per need.

Knowledge and education :

The education was found positively and significantly related with knowledge level of farmers about improved aonla production technology. This may be true because education gives shapes and direction to the thinking process of an individual, hence, significant and positive influence of education on the knowledge level of farmers may be justified.

Knowledge and social participation :

Social participation was found positively and significantly related with knowledge level of farmers. It leads to conclude that social participation is one of the factors which inspire the farmers for more gaining knowledge about aonla production technology. This might be due to the fact that people's participation gave an opportunity to seek more information about new production technology existed in the area to the farmers.

Knowledge and size of land holding :

The results showed that the association between knowledge level of farmers about recommended aonla production technology and their size of land holding was positive and significant. It may be stated that size of land holding might have effect in influencing the knowledge level of farmers about recommended aonla production technology. This might be due the fact that big farmers (owned large farm size) were capable to take more risk of new technology and there were economically sound and more cosmopolite in nature hence, they were more prone to change their farming pattern and more knowledge regarding recommended aonla production technology.

Knowledge and farm implements :

As per assumption, farm implements was not found significantly related with knowledge of farmer about recommended aonla production technology. It means that more possession of farm implements may not necessarily be an indication of higher knowledge of farmers but their judicious use by the farmers may definitely affect their knowledge.

Knowledge and irrigation potentiality :

As against the assumption, irrigation potentiality was found positively and significantly related with the knowledge of farmers about recommended aonla production technology. It means that irrigation potentiality was an important factor as far as the knowledge of aonla production technology was concerned. This may be due to the fact that farmers having assured irrigation must have confidence in accepting the recommendation and thus, they exposed to different sources of information to get more knowledge about various packages of practice of aonla production.

Knowledge and credit behaviour :

Credit behaviour was found to have positive but non-significant relation with knowledge level about recommended aonla production technology. It indicates that credit behaviour not influenced the farmers for seeking the knowledge about package of practices of aonla. It might be due the fact that extension agencies provide technical guidance at free of cost to the farmers and the farmers getting credit from their relatives and from banks.

Knowledge and sources of information utilized :

As against the assumption, the sources of information utilized were positively and significantly related to the knowledge of farmers about recommended aonla production technology. With the result, it can be inferred that utilization of sources of information was an important factor to the knowledge of farmers. This is naturally true that different sources of information *viz.*, formal personal sources, informal personal sources and mass media, were easily significantly increase the knowledge about aonla cultivation. Similar to present investigation Nainawat (1990) also studied factors affecting adoption of improved technologies of ber plantation in Jaipur district of Rajasthan.

Conclusion :

In view of the findings of present study, it may be inferred that majority of the farmers had medium knowledge level about recommended aonla production technology.

Knowledge level of the farmers was found to be positively significant with their occupation, education, social participation, size of holding, irrigation potentiality and sources of information utilized, while age had negative significant correlation with the knowledge level of the farmers.

Authors' affiliations :

R.M. JAVIA, Krishi Vigyan Kendra, (J.A.U.), Nan-kandhasar SURENDRANAGAR (GUJARAT) INDIA, Email: rmjavia@gmail.com

REFERENCES

- Devi, Nirmala and Manoharam, M.** (1999). Strategies for enhanced Guava production. *Agric. Extn. Rev.*, 2 (2) : 11-13.
- Halkatti, S.V. and Sunderswamy, B.** (1994). Knowledge adoption and constraints in the improved cultivation of potato. *Rural India*, 11 & 12 (1 & 2) : 14-17.
- Nainawat, R.K.** (1990). Factors affecting adoption of improved technologies of ber plantation in Jaipur district of Rajasthan. M.Sc. Thesis, Rajasthan Agricultural University, Bikaner, campus Jobner, RAJASTHAN (INDIA).
- Sutar, A.M., Deotale, A.B., Ingle, L.A., Awn, A.H. and Joshi, P.A.** (1997). Constraints in adoption selected scientific grape technologies. *J. Soil & Crops*, 7 (1) : 59-62.