

KNOWLEDGE OF TRIBAL FARMERS OF WESTERN INDIA ABOUT IMPROVED AONLA CULTIVATION TECHNOLOGY

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Abstract

The present study was conducted to assess the knowledge of tribal farmers of western India about aonla cultivation technology. A structured interview schedule was administered to 30 aonla farmers in Panchmahals and Vadodara districts of Gujarat during January – March, 2001. The farmers had high knowledge in practices like season, intercropping, varieties, rainfed cultivation, spacing, flowering, harvest, fertilizer application and propagation. They had less knowledge in pest and disease management and self incompatibility of pollination. Role of women was positively and significantly associated with knowledge.

INTRODUCTION

Aonla (Indian gooseberry) is native of India. It grows well in all types of soil, tolerates salinity and dry land conditions. It is hardy crop and least affected by pests and diseases. The tribal farmers of western India are poor, practice subsistence farming during kharif under the mercy of southwest monsoon, which is short, erratic and often fails. After harvest of kharif crop they migrate to cities in search of employment for the rest of the year.

Central Horticultural Experiment Station, (CIAH) (ICAR), Vejalpur had developed improved aonla cultivation technology for the welfare of the tribal farm families of western India.

Knowledge is the first stage of the innovation–decision process. Knowledge of improved package of practices is important in making the decision to adopt this technology as well as to realize the maximum yield. Keeping this in view, a study was conducted to assess the knowledge of tribal farmers of western India about improved

aonla cultivation technology with the following specific objectives:

1. To assess the overall knowledge of tribal farmers of western India about improved aonla cultivation technology.
2. To measure the knowledge of individual practices of improved aonla cultivation technology by farmers of western India.
3. To ascertain the relationship between selected socio-economic-personal characteristics with knowledge of tribal farmers of western India about improved aonla cultivation technology.

METHODOLOGY

The study was conducted in Panchmahals and Vadodara districts of Gujarat. The list of aonla farmers was prepared and thirty farmers were randomly selected. A structured interview schedule was prepared. Data was collected during January – March, 2001, by interviewing the farmers at their farm. A schedule was prepared to assess the Knowledge of farmers about improved

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Table 1 Level of knowledge of farmers about *aonla* cultivation (N=30)

| Sr. No. | Category | Farmers | |
|---------|--------------|-----------|---------------|
| | | Number | Per cent |
| 1. | Low | 07 | 23.33 |
| 2. | Medium | 20 | 66.67 |
| 3. | High | 03 | 10.00 |
| | Total | 30 | 100.00 |

aonla cultivation technology. The *aonla* cultivation technology is split into individual practices. Each practice contained a set of questions. A score of one was given to correct answer and zero to incorrect one. If the practice has a provision for partial knowledge then scoring ranged from two to zero; 2 for full knowledge, 1 for partial knowledge and 0 for no knowledge. In case of varieties scoring ranged from 3 to 0; 3 for 3 varieties and 0 for no varieties. The knowledge score of entire *aonla* cultivation technology ranged from 0 -34. The statistical tools used were mean, standard deviation, per cent and correlation.

RESULTS AND DISCUSSION

Level of Knowledge

The data presented in Table 1 reveal that majority (67 per cent) of the respondents had medium level of knowledge regarding *aonla* cultivation technology followed by high level (23 per cent) and low level (10 per cent)

of knowledge respectively. The reason for medium level of knowledge might be due to complexity, skill oriented nature of some of the practices.

Knowledge of individual practices of *aonla* cultivation

It is evident from Table 2 that farmers had full knowledge of season. The farmers have very high level of knowledge in intercropping (91 per cent), variety (80 per cent) and rainfed cultivation (80 per cent). This might be due to the fact that these practices are simple and easy to comprehend and the need for such knowledge is felt by them.

The farmers have relatively high knowledge of spacing (68 per cent), flowering (67 per cent), harvest (63 per cent), fertilizer application (60 per cent) and propagation (60 per cent). This might be due to the fact that since *aonla* is newly introduced in this region the farmers may be curious to learn more about the crop.

Table 2 Knowledge of individual practices of *aonla* cultivation (N=30)

| Sr. No. | Practice | Knowledge | | |
|---------|-------------------------------------|---------------|---------------|--------------|
| | | Score secured | Maximum score | Per cent |
| 1. | Variety | 72 | 90 | 80.00 |
| 2 | Spacing | 82 | 120 | 68.33 |
| 3 | Fertilizer | 145 | 240 | 60.42 |
| 4 | Season | 60 | 60 | 100.00 |
| 5 | Propagation | 36 | 60 | 60.00 |
| 6 | Rainfed cultivation | 24 | 30 | 80.00 |
| 7 | Intercrops Cultivation | 136 | 150 | 90.67 |
| 8 | Pest Management | 30 | 60 | 50.00 |
| 9 | Disease Management | 9 | 60 | 15.00 |
| 10 | Flowering | 20 | 30 | 66.67 |
| 11 | Self incompatibility of pollination | 8 | 60 | 13.33 |
| 12 | Harvest | 38 | 60 | 63.33 |
| | Overall knowledge | 660 | 1020 | 64.71 |

Table 3 Correlation of socio-economic-personal characteristics with knowledge
N=30

| Sr. No. | Characteristics | Correlation |
|---------|---------------------------------------|-------------|
| 1 | Age | 0.16007 |
| 2 | Education | 0.15652 |
| 3 | Family size | -0.20967 |
| 4 | Training | 0.28970 |
| 5 | Social participation | -0.11987 |
| 6 | Land holding | -0.06650 |
| 7 | Annual income | -0.28395 |
| 8 | Indebtedness | 0.01843 |
| 9 | Irrigation potentiality | 0.10189 |
| 10 | Agricultural belief | 0.04416 |
| 11 | Innovativeness | 0.13327 |
| 12 | Perception about institutional credit | 0.15469 |
| 13 | Overall modernity | -0.06010 |
| 14 | Housing | -0.28142 |
| 15 | Access to media | 0.02324 |
| 16 | Information source | 0.19181 |
| 17 | Availability of critical inputs | -0.02481 |
| 18 | Role of women | 0.40616 * |
| 19 | Cosmopolitaness | -0.35613 |
| 20 | Infrastructure | -0.13829 |

*Significant at 5% level

The farmers have medium level of knowledge of pest management (50 per cent). This might be due to the fact that pest is not a serious problem in aonla being jungle crop. The farmers have less knowledge of disease management (15 per cent) and self incompatibility of pollination (13 per cent). This might be due to complexity of the practice and skill oriented.

The level of knowledge of aonla cultivation technology as a whole is relatively high at 65 per cent.

Association of socio-economic and personal characteristics with knowledge

Twenty selected socio-economic and personal characteristics were studied to know their correlation with knowledge of aonla cultivation technology. The data regarding influence of these characteristics on knowledge is presented in Table 3. Only role of women is positively and significantly associated with knowledge of aonla

cultivation technology. This might be due to the fact that women play major role in agriculture in India performing most of the activities individually and assisting in many other activities. Though they remain invisible, they influence in a big way in the innovation-decision process of aonla cultivation technology.

CONCLUSION

Majority of the farmers have medium level of knowledge of aonla cultivation technology. The farmers have high knowledge in practices like season, intercropping, varieties, rainfed cultivation, spacing, flowering, harvest, fertilizer application and propagation. They have less knowledge in pest management, disease management and self incompatibility of pollination. Role of women is positively and significantly associated with knowledge of aonla cultivation technology.
