



## Research Article

# INFORMATION NEEDS OF GROUNDNUT GROWERS ABOUT GROUNDNUT PRODUCTION TECHNOLOGY

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**Abstract-** It seems worthwhile to determine the information needs of the groundnut growers. To conduct study, total 120 groundnut growers were selected by random sampling method with a condition that the farmers have cultivated groundnut at least last three years. The extent of information needs of groundnut growers was availed on a three-point continuum rating. Results of the study revealed that majority of the groundnut growers (68.33 per cent) were fall under medium group of information needs about groundnut production technology. While area specific information needs of groundnut growers were, information need about variety and seeds: Suitable high yielding variety for the area (ranked first), land preparation and sowing: soil treatment inputs (ranked first), fertilizer management : Price of fertilizer (ranked first), weed management and inter culturing: Chemical weed control (ranked first), water management : Method of irrigation (ranked first), Plant protection measure : Identification, nature of damage and control measures for insects/pests of groundnut (ranked first), post harvest technology: care after harvesting groundnut(ranked first), Marketing : Market price and in supportive facts: subsidies for groundnut cultivation (ranked first).

**Keywords-**Groundnut, Information needs, Groundnut growers.

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## Introduction

Groundnut is considered as the world's fourth largest source of edible oil and third most important source of vegetable protein. It is also a major oilseed legume crop in India and meets about 30% of the edible oil requirements in the country [1]. Groundnut is grown on 26.4 million ha worldwide with a total production of 37.1 million metric tonnes and an average productivity of 1.4 metric tonnes/ha. Over 100 countries worldwide grow groundnut [3]. Developing countries constitute 97 per cent of the global area and 94 per cent of the global production of this crop. The production of groundnut is concentrated in Asia and Africa (56% and 40% of the global area and 68% and 25% of the global production, respectively) [2]. South Saurashtra agro climatic zone of Gujarat is characterized by low and erratic rainfall habit, so the crop production potential is also low. There may be many reasons for such a low productivity of groundnut. These may include deficiencies at the level of technology generation i.e. research system; information & transfer of technology level i.e. extension system; and at production level i.e. farming system. Rain fed cultivation of groundnut over 81 per cent of the area is considered to be one of the major reasons for the low yield. Even where groundnut is cultivated as irrigated crop, the production level is not comparable with world average.

Information is considered as a critical input in decision-making. Agriculture sector would demand for quickly approaching quite a larger area with a variety of information right from inputs, production, grading and marketing. It is not feasible to reach in person regularly to every farmer to convey high-tech farm techniques. For preparing good content of information on groundnut farming, it should be based on the information needs of the farmers. The content based on actual need of the users will be of great interest and use by them. With a view to support larger group of groundnut growers with agricultural information in future, it seems

worthwhile to determine the information needs of the groundnut growers with following objectives.

1. To study the aspect wise information need of groundnut growers
2. To ascertain over all information needs of groundnut growers

## Materials and Methods

The study was conducted in south Saurashtra agro climatic zone is consisted of 26 talukas of 5 districts of the state having common agro-climatic conditions. Out of five districts, Rajkot and Junagadh was selected purposively. Two taluka from each selected districts were selected on basis of having highest area under groundnut crops grown. Thus, four talukas were selected. From each selected taluka two villages were selected randomly. Total 120 respondents, 15 respondents from each selected village were selected by using purposive random sampling technique with a condition that the farmers have cultivated groundnut at least last three years from the data of interview. The extent of information needs of groundnut growers was availed on a three-point continuum. In light of the objectives set forth, the interview schedule was prepared. A few modifications were made after of pre-testing. The data were collected by personal interview of the respondents. They were analyzed and interpreted in view of the objectives.

## Discussion

The attempt was made to ascertain information needs of the groundnut growers. Different areas of information needs of groundnut growers were identified keeping in view their influence on groundnut crop production and economy of the groundnut growers.

The data in [Table-1.1] revealed that majority of the farmers have expressed their

needs for information about suitable high yielding variety for the area and ranked first with mean score 2.26, sources of seeds and rate of seeds and ranked second with mean score 2.03. The reason might be that the farmers is convinced to sow

good variety but the availability of seed of suitable variety and its' rate are always a dilemma for him.

**Table-1** Distribution of respondents according to their information needs (n = 120)

| Sr. No.        | Areas of information                                                                 | Mean score        | Rank        |
|----------------|--------------------------------------------------------------------------------------|-------------------|-------------|
| <b>1.1</b>     | <b>Variety and seeds</b>                                                             |                   |             |
| 1.             | Suitable high yielding variety for the area                                          | 2.26              | I           |
| 2.             | Source of seeds                                                                      | 2.03              | II          |
| 3.             | Rate of seeds                                                                        | 1.92              | III         |
| 4.             | Stock of seeds                                                                       | 1.78              | IV          |
| 5.             | Characteristics of high yielding variety                                             | 1.63              | V           |
| <b>1.2</b>     | <b>Land preparation and sowing</b>                                                   |                   |             |
| 1.             | Soil treatment Inputs                                                                | 2.14              | I           |
| 2.             | Price of soil treatment inputs                                                       | 1.97              | II          |
| 3.             | Place of availability of soil treatment inputs                                       | 1.88              | III         |
| 4.             | Stock of soil treatment inputs                                                       | 1.83              | IV          |
| 5.             | Seed treatment inputs                                                                | 1.82              | V           |
| 6.             | Price of seed treatment inputs                                                       | 1.78              | VI          |
| 7.             | Seed rate                                                                            | 1.72              | VII         |
| 8.             | Place of availability of seed treatment inputs                                       | 1.67              | VIII        |
| 9.             | Land preparation                                                                     | 1.63              | IX          |
| <b>1.3</b>     | <b>Fertilizer management</b>                                                         |                   |             |
| 1.             | Price of fertilizers                                                                 | 2.16              | I           |
| 2.             | Method and time of fertilizer application                                            | 2.06              | II          |
| 3.             | Nutrient requirements of plant                                                       | 1.94              | III         |
| 4.             | Calculating the doze of chemical fertilizer                                          | 1.83              | IV          |
| 5.             | Deficiency symptoms of major plant nutrients                                         | 1.72              | V           |
| 6.             | Bio-fertilizers                                                                      | 1.63              | VI          |
| 7.             | Making organic matter from farm waste                                                | 1.43              | VII         |
| 8.             | Organic manures                                                                      | 1.29              | VIII        |
| 9.             | Stock of fertilizers                                                                 | 1.26              | IX          |
| 10.            | Place of availability of fertilizers                                                 | 1.21              | X           |
| <b>1.4</b>     | <b>Weed management and inter culturing</b>                                           |                   |             |
| 1.             | Chemical weed control                                                                | 2.01              | I           |
| 2.             | Price of weedicides                                                                  | 1.91              | II          |
| 3.             | Place of availability of weedicides                                                  | 1.78              | III         |
| 4.             | Trade name of weedicides                                                             | 1.73              | IV          |
| 5.             | Stock of weedicides                                                                  | 1.59              | V           |
| 6.             | Inter-culturing                                                                      | 1.41              | VI          |
| 7.             | Hand weeding                                                                         | 1.33              | VII         |
| <b>1.5</b>     | <b>Water management</b>                                                              |                   |             |
| 1.             | Method of irrigation                                                                 | 2.11              | I           |
| 2.             | Schedule for irrigation                                                              | 1.98              | II          |
| 3.             | Irrigation equipment's                                                               | 1.79              | III         |
| 4.             | Price of equipment's                                                                 | 1.67              | IV          |
| 5.             | Place of availability of equipment's                                                 | 1.28              | V           |
| <b>1.6</b>     | <b>Plant protection measures</b>                                                     |                   |             |
| 1.             | Identification, nature of damage and control measures for insects/pests of groundnut | 2.17              | I           |
| 2.             | Identification, nature of damage and control measures for diseases of groundnut      | 2.11              | I           |
| 3.             | Price of insecticides and pesticides                                                 | 1.95              | III         |
| 4.             | Integrated pest management                                                           | 1.83              | IV          |
| 5.             | Method of preparing solution of insecticides/pesticides                              | 1.75              | V           |
| 6.             | Trade name of insecticides/pesticides                                                | 1.52              | VI          |
| 7.             | Place of availability of insecticides and pesticides                                 | 1.32              | VII         |
| 8.             | Stock of insecticides and pesticides                                                 | 1.24              | VIII        |
| <b>Sr. No.</b> | <b>Areas of information</b>                                                          | <b>Mean score</b> | <b>Rank</b> |
| <b>1.7</b>     | <b>Harvesting and post-harvest technology</b>                                        |                   |             |
| 1.             | Care after harvesting of groundnut                                                   | 1.77              | I           |
| 2.             | Care during harvesting of groundnut                                                  | 1.67              | II          |
| 3.             | Farm level processing of groundnut                                                   | 1.61              | III         |
| 4.             | Grading, packaging and forwarding of groundnut to market                             | 1.57              | IV          |
| 5.             | Time of harvest                                                                      | 1.28              | V           |
| 6.             | Method of harvesting                                                                 | 1.23              | VI          |
| <b>1.8</b>     | <b>Marketing</b>                                                                     |                   |             |
| 1.             | Market price                                                                         | 2.19              | I           |
| 2.             | Quality parameters that affects price                                                | 2.03              | II          |
| 3.             | Time of market inflow                                                                | 1.95              | III         |
| 4.             | Place of marketing                                                                   | 1.82              | IV          |
| 5.             | Marketing procedure                                                                  | 1.72              | V           |
| 6.             | Facilities available at market                                                       | 1.39              | VI          |
| <b>1.9</b>     | <b>Supportive facts</b>                                                              |                   |             |
| 1.             | Subsidies for groundnut cultivation                                                  | 2.02              | I           |
| 2.             | Insurance of groundnut crop                                                          | 1.94              | II          |
| 3.             | Groundnut related government policies                                                | 1.73              | III         |
| 4.             | Credit / loan facilities for groundnut cultivation                                   | 1.60              | IV          |
| 5.             | Weather forecast                                                                     | 1.25              | V           |

The data in [Table-1.1] revealed that majority of the farmers have expressed their needs for information about suitable high yielding variety for the area and ranked first with mean score 2.26, sources of seeds and rate of seeds and ranked second with mean score 2.03. The reason might be that the farmers is convinced to sow good variety but the availability of seed of suitable variety and its' rate are always a dilemma for him.

The data accessible in [Table-1.2] indicate that main areas of information needs experienced by the groundnut growers in case of land preparation and sowing were soil treatment inputs which rank first with mean score 2.14, followed by price of soil treatment inputs which ranked second with mean score 1.97. The probable reason for high need for soil treatment related information might be due to the fact that the area encompasses high potentiality of irrigation mainly with tube wells. This resulted in accumulation of salts on the surface of soil, which forces the farmers to learn more about soil reclamation.

The data available in [Table-1.3] indicate that main areas of information needs experienced by the groundnut growers in case of fertilizer management were price of fertilizers which rank first with mean score 2.16, followed by method and time of fertilizer application which ranked second with mean score 2.06. This means that the respondents know the importance of this input. The information regarding foresaid aspects may help them reducing the total cost of cultivation.

A perusal of data presented in [Table-1.4] reflect that most important features of information needs identified by the groundnut growers in case of weed management and inter culturing were chemical weed control which rank first with mean score 2.01. This might be due to as the area is mainly irrigated, the problem of weeds may be high, that force the farmers to acquire needed information that help them to get rid of these problems.

The data presented in the [Table-1.5] revealed that majority of the groundnut growers have expressed their information needs about proper method of irrigation with ranked first. This might be due to the fact that the ground water table is declining and also that the farmers are to struggle with the problem of non-availability of electricity for irrigation. That's why the groundnut growers were interested in getting information related to irrigation.

A searching look into the [Table-1.6] revealed that major aspects of information needs documented by the groundnut growers in case of plant protection measures were identification, nature of damage and control measures for insects/pests of groundnut which rank first with mean score 2.17, followed by identification, nature of damage and control measures for diseases of groundnut which rank second with mean score 2.11. This might be that the crop faces major problems in this regard and if plant protection is not done correctly, that may increase the cost of cultivation without controlling the harmful enemies.

It is evident from the data presented in [Table-1.7] that respondents expressed the need for care after ranked first and during harvesting of groundnut ranked second and farm level processing and grading. The reason might be due to that the respondents might not know the impact of quality parameters on the price of groundnut.

A perusal of data presented in [Table-1.8] reflected that most essential areas of information needs recognized by the groundnut growers in case of marketing were market price which rank first with mean score 2.19, followed by quality parameters that affects price which rank second with mean score 2.03. This might be due to that the fluctuation in price of groundnut is very common mainly due to time of inflow, quality of groundnut and its' demand.

From the above result in [Table-1.9] observed that most important areas of information needs recognized by the groundnut growers in case of supportive facts about groundnut were subsidies for groundnut cultivation which rank first with mean score 2.02, followed by insurance of groundnut crop which rank second with mean score 1.94. The market price of groundnut depends greatly on government policies, which lead the farmers to know more about government policies including support price related to groundnut crop, declared from time to time.

#### Overall information needs

It is clear from [Table-2] that majority of the groundnut growers (68.33 per cent) were fall under medium group, while 16.67 and 15.00 per cent of the groundnut

growers were categorized under high and low groups of information needs respectively.

Table-2 Distribution of the groundnut growers according to their overall information needs (n=120)

| Sr. No.    | Information Needs       | Respondents |          |
|------------|-------------------------|-------------|----------|
|            |                         | Frequency   | Per cent |
| 1.         | Low (Below 35.02)       | 18          | 15.00    |
| 2.         | Medium (35.02 to 51.56) | 82          | 68.33    |
| 3.         | High (Above 51.56)      | 20          | 16.67    |
| Total      |                         | 120         | 100.00   |
| Mean=43.29 |                         | S.D. = 8.27 |          |

#### Conclusion

On the basis of the study findings, it can be safely concluded that groundnut growers had moderate to high need of information about groundnut production technology. The facts that nine areas viz., suitable high yielding variety for the area, sources of seeds, soil treatment inputs, price of fertilizers, method and time of fertilizer application, chemical weed control, method and schedule for irrigation, nature of damage and control measures for insects/pests and diseases, care after harvesting of groundnut, and market price and subsidies for groundnut cultivation were given top rank by large majority of groundnut growers.

Findings of the study would be useful for the extension personnel for conducting need based and well focused training programmes and generate mass awareness using accessible media to groundnut growers. The study may also serve as reference point to implement various extension strategies particular to groundnut growers to bridge the information gap between research stations and stack holder, and may be upscale the knowledge of groundnut growers leading improved groundnut productivity.

#### Conflict of Interest: None declared

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