

PERCEPTION ABOUT CRISIS MANAGEMENT AND ITS KNOWLEDGE BY GROUNDNUT GROWERS OF SOUTH SAURASHTRA AGRO-CLIMATIC ZONE

M.K. Jadeja¹; P.R. Kanani² and K.M. Jadeja³

1 Assistant Professor, Department of Extension Education, JAU, Junagadh - 362001

2 Associate Director of Extension Education, JAU, Junagadh - 362001

3 M.Sc. Student, Department of Extension Education, JAU, Junagadh - 362001

Email : mkjadeja@yahoo.co.in

ABSTRACT

The principal groundnut growing states in India, Gujarat is the leading groundnut producer. The state alone accounted for 32 per cent of area and 38 per cent of groundnut production of the entire country. With various crises involved in the cultivation of groundnut crop, there are chances to face miserable situations which can be managed effectively. To know perception of groundnut growers about crisis management in groundnut cultivation and the extent of its knowledge by groundnut growers this study was conducted in south Saurashtra agro-climatic zone of Gujarat. A total of 200 groundnut growers were interviewed with the help of developed crisis management index for various recommended crisis management practices. The data obtained through interview schedule were processed, tabulated, classified and analyzed. The result showed that in crisis management practices importance as perceived by ground nut growers was observed in the practices viz., soil testing, sowing, harvesting and storage, fertilizer, interculturing with the rank first, second, third, fourth and fifth, respectively, but comparatively less adoption was observed with plant protection aspects. This can be done by effective linkages among research, extension and farmers involved in technology development and dissemination and provision of facilitating factors are essential..

Keywords : crisis management, groundnut growers, preception

INTRODUCTION

The principal groundnut growing states in India are Gujarat, Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra, which account for more than 85 per cent of the Indian production as well as an area. Gujarat is the leading groundnut producer, the state alone accounted for 32 per cent of area and 38 per cent of groundnut production of the entire country during 2011-12. Groundnut is a major crop grown since 1910 in the Saurashtra region of the Gujarat State. It is grown on 1.63 million ha of land with annual production 1.69 million tons in year. It is experienced that if proper care is not taken to manage various crises involved in the cultivation of groundnut crop in terms of natural problems of insects-pests, diseases, climate change and other input related problems, there are chances to face miserable situations. The adoption of crisis management practices is understood as one of the prerequisites in the cultivation of groundnut crop for higher yield of good quality. The crisis is a situation or an event that confronts decision makers with an opportunity for

response, either action or inaction, (Bernard, 1938). Crisis management is the systematic attempt to avoid personal or organization crisis or to manage those crisis events that do occur. It is to draw out certain inferences about knowledge of crisis management practices in groundnut by groundnut growers. With this task in view a study was conducted with the objectives to know perception of groundnut growers about crisis management in groundnut cultivation and the extent of its knowledge by groundnut growers in the Junagadh and Rajkot districts of South Saurashtra region

OBJECTIVE

To know the perception about crisis management and its knowledge by groundnut growers of south saurashtra agro-climatic zone

METHODOLOGY

A random sampling procedure was followed for the selection of the respondents and accordingly 20 groundnut

growers from each of the selected villages were selected as respondents. Ultimately, a total of 200 groundnut growers were selected for the study. The head of the family i.e. major decision maker was considered as respondent for the study. The developed crisis management index with different parameters of crisis management practices was distributed among the groundnut growers, the responses on three point rating scale was distributed among the groundnut growers, the responses on three point rating scale was quantified. The data obtained through interview schedule were processed, tabulated, classified and analyzed in light of objectives.

RESULTS AND DISCUSSION

The comparison was made between the weightage given to different practices by the experts in crisis management index and importance as perceived by the groundnut growers. The weightage given by the experts to the crisis management practices were compared with the means of weightage given by the groundnut growers. The percentage of difference was calculated to assign the rank. The higher percentage of difference in any practices showed higher difference in the opinion of experts and perception of groundnut growers and vice versa. The difference between these two was ascertained for all eleven practices as mentioned in Table 1.

Table 1: Importance of crisis management practices perceived by the experts and respondents n=200

Sr. No.	Practices	Weightage given by experts	Importance as perceived by the respondents	Difference in perception of farmers and expert	Per cent	Rank
1	Seed	07.84	07.15	0.69	08.80	X
2	Soil testing	02.64	01.37	1.27	48.11	I
3	Soil preparation	09.92	12.98	-3.06	30.85	VI
4	Sowing	07.44	10.37	-2.93	39.38	II
5	Fertilizer	08.39	11.45	-3.06	36.47	IV
6	Water Management	29.57	25.10	4.47	15.11	IX
7	Interculturing	05.42	07.26	-1.84	33.95	V
8	Plant Protection	11.04	09.16	1.88	17.03	VIII
9	Weeding	06.82	07.23	-0.41	06.01	XI
10	Labour scarcity management	08.02	06.42	1.6	19.95	VII
11	Harvesting and storage	02.90	01.78	1.12	38.62	III

The data in Table 1 revealed that the higher difference between the weightage given by experts in crisis management practices and importance as perceived by the groundnut growers was observed in the practices viz., soil testing (48.11 per cent), sowing (39.38 per cent), harvesting and storage (38.62 per cent), fertilizer (36.47 per cent), interculturing (33.95 per cent) with rank first, second, third, fourth and fifth, respectively.

The probable reason for perceived importance of soil testing by the respondents might be that the soil health card campaign by the government in the state might have motivated them to use the fertilizers as per the recommendations by the scientists. Regarding timely sowing of groundnut, this area is known as drought prone area so the respondents might be well aware of importance of soil moisture and if the sowing is not done in time it definitely will hamper the germination and growth of crop resulting in low yield. Regarding harvesting and storage, it is indeed most risky to delay harvest as area

is often hit by irregular rain at harvesting time, storage may also affect the price received as if it is deteriorated by storage pests the price remuneration will be always low.

The knowledge is a prerequisite for adoption. In order to measure the knowledge of groundnut growers pertaining to the crisis management practices a teacher made knowledge test was used. Knowledge score for all the respondents were calculated as sum of the correct response and categorized into their categories based on mean and standard deviation. The data in this regard, are presented in Table 2.

The persuasion of the data given in Table 2 showed that majority (74.50 per cent) of the respondents had medium knowledge level of crisis management practices; whereas 17.00 and 8.50 per cent of respondents had low and high level of knowledge about crisis management practices, respectively.

Table 2: Distribution of respondents according to their knowledge about crisis management practices
n=200

Sr. No.	Category	Frequency	Per cent
1	Low knowledge (up to 71.12)	34	17.00
2	Medium knowledge (71.13 to 91.78)	149	74.50
3	High knowledge (above 91.78)	17	8.50
$\bar{X} = 81.45$		S.D. = 10.33	

The data in Table 3 showed that the groundnut growers had knowledge about the crisis management practices related to seed parameters were; to be safe from mixed seeds (90.95 per cent), to be safe from less productive varieties (90.12 per cent), to be safe from duplicate seeds (89.81 per cent), to avail sufficient and low cost seeds (87.04 per cent) and to be safe from aflatoxin affected seeds (59.65

per cent).

Regarding knowledge about the crisis management practices related to soil testing parameter were; to adopt soil testing for nutrient management (38.84 per cent) and to follow soil testing report for low expenses on fertilizers (30.07 per cent). This finding leads to conclude that for minimizing the cost of fertilizers they have less knowledge of soil testing and application of fertilizers as per recommendations for maintaining soil physical and chemical properties to have sustainable agricultural production. Also regarding knowledge about the crisis management practices related to sowing parameters were; to follow appropriate distance between two lines (89.77 per cent), to follow proper depth sowing (88.04 per cent), to adopt recommended seed rate (85.71 per cent), to follow pre- monsoon sowing for good harvesting of groundnut (84.85 per cent), to adopt recommended seed treatment at sowing time (82.97 per cent) and to fill up gaps in crop (80.21 per cent).

Table 3 : Distribution of respondents as per knowledge of related crisis management practices

n=200

Sr. No.	Practices	Expert score	Respondents Score	Per cent
A	Seeds			83.51
1	To be safe from duplicate seeds.	1.57	1.41	89.81
2	To be safe from mixed seeds.	2.43	2.21	90.95
3	To avail sufficient and low cost of seeds.	1.08	0.94	87.04
4	To be safe of less productive varieties.	1.62	1.46	90.12
5	To be safe from aflatoxin affected seeds.	1.14	0.68	59.65
B	Soil Testing			34.45
6	To adopt soil testing for nutrient management.	1.21	0.47	38.84
7	To follow soil testing report for less expenses on fertilizers.	1.43	0.43	30.07
C	Sowing			85.26
8	To follow pre- monsoon sowing for good harvesting of groundnut.	1.32	1.12	84.85
9	To follow proper depth sowing.	0.92	0.81	88.04
10	To follow appropriate distance between two lines.	0.88	0.79	89.77
11	To adopt recommended seed rate.	1.54	1.32	85.71
12	To adopt recommended seed treatment at sowing time.	1.82	1.51	82.97
13	To fill up gaps in crop.	0.96	0.77	80.21
D	Fertilizer			72.17
14.	To adopt recommended dose of fertilizers.	1.78	1.05	58.99
15	For timely application of fertilizers	1.18	0.97	82.20
16	To apply sulphur fertilizers during proper moist condition in soil.	1.43	0.88	61.54
17	To adopt recommended dose of Micro-Nutrient.	0.84	0.56	66.67
18	To apply Mouram (Tanch) in soil.	3.16	2.89	91.46

Sr. No.	Practices	Expert score	Respondents Score	Per cent
E	Plant Protection			73.38
19	To save crop from sucking pest like aphid, thrips and Jassids.	1.23	0.97	78.86
20	To save crop from larval infestation.	1.86	1.61	86.56
21	To save crop from root rot and stem rot.	1.23	0.78	63.41
22	To save crop from tikka and rust.	1.62	1.31	80.86
23	To use proper insecticide and fungicide	1.56	0.96	61.54
24	To use of recommended doses and proper quantity of insecticide/ fungicides.	1.42	0.81	57.04
25	To adopt proper method of application of pesticides/ fungicides.	1.03	0.87	84.47
26	For timely application of pesticides/fungicides.	1.09	0.81	74.31
F	Labour Scarcity Management			88.91
27	To follow timely land preparation, timely fertilizer application and seed treatment against labour scarcity.	2.89	2.49	86.16
28	To follow sprinkler and drip irrigation methods against labour scarcity.	1.12	1.02	91.07
29	To follow timely plant protection measures against labour scarcity.	1.27	1.13	88.98
30	To follow timely weeding and harvesting against labour scarcity.	2.74	2.45	89.42
G	Harvesting and Storage			85.17
31	For timely harvesting.	1.04	0.98	94.23
32	To follow proper method of threshing, grading and transporting.	0.83	0.71	85.54
33	To follow proper pest protection measures in storage.	1.03	0.78	75.73

The data also summarized that the groundnut growers had knowledge about the crisis management practices related to fertilizer parameters were; to apply *mouram* (tanch) in soil (91.46 per cent), timely application of fertilizers (82.20 per cent), to adopt recommended dose of micro-nutrients (66.67 per cent), to apply sulphur fertilizers during proper moist condition in soil (61.54 per cent) and to adopt recommended dose of fertilizers (58.99 per cent).

It is apparent from Table 3 B showed that the groundnut growers had knowledge about the crisis management practices related to plant protection parameters were; practices to save crop from larval infestation (86.56 per cent), to adopt proper method of application of pesticides/ fungicides. (84.47 per cent), to save crop from *tikka* and rust (80.86 per cent), to save crop from sucking pest like aphid, thrips and jassids (78.86 per cent), timely spraying or application of pesticides or fungicides (74.31 per cent), to save crop from root rot and stem rot (63.41 per cent), to use proper insecticides and fungicides (61.54 per cent) and to use of recommended doses and proper quantity of insecticides or fungicides (57.04 per cent). Also groundnut growers were knowing the importance of time of different operations so that they can follow irrigation through drip or sprinkler system, weeding and harvesting to be safe from labour scarcity if exists.

On the basis of data presented in Table, it is clear

that the groundnut growers had knowledge about the crisis management practices related harvesting parameters were; measures for timely harvesting (94.23 per cent), to follow proper method of threshing, grading and transporting (85.54 per cent) and to follow proper protection measures during storage (75.73 per cent).

This finding leads to conclude that groundnut growers understood the importance of harvesting of crop at proper time with grading and plant protection measures during storage for maintaining quality of produce.

CONCLUSION

A well-functioning agricultural extension service is one of the critical inputs required for increasing productivity, improve income of groundnut producers and reduce poverty. It is, therefore, important to ensure that agricultural extension services are adequately funded, well-coordinated and regulated. Effective linkages among research, extension and farmers involved in technology development and dissemination and provision of facilitating factors are essential.

REFERENCES

Amir, M. I. (1996) Development and application of a standardize knowledge test for summer groundnut

- production technology, M.Sc. (Agri.) Thesis (Unpublished) Gujarat Agricultural University, Sardarkrushinagar
- Anonymous, (2013) District wise area, production and yield per hectare of kharif groundnut crop in Gujarat state for the years (2011 to 2013). SEA (Solvent Extractors' Association of India) groundnut crop survey
- Gohil, G.R. 2010. Crisis management adopted by cotton growers of south Saurashtra agro climatic zone. Ph.D. Thesis (Unpublished). Junagadh Agricultural University, Junagadh
- Gorfad, P. S. 2012. Farmers' perception and adoption of groundnut production technology. Ph.D. Thesis (Unpublished), Junagadh Agricultural University, Junagadh
- Sonawane, H.P., Jadhav, S. S and Neware, S. S. (2015). Farmers' Perception Towards Crop Insurance Scheme in Maharashtra. *Guj. J. Ext. Edu.*, 26(2): 141-143
- Vinaya Kumar, H. M., Shivamurthy, M. and Biradar, G. S. (2016). A Scale to Measure climate-induced Crisis Management of Farmers in Coastal Karnataka (India). *Advances in Life Sciences*. 5 (16): 6206-6212

Received : August 2017 : Accepted : November 2017