J Krishi Vigyan 2023, 11 (2) : 17-20 DOI : 10.5958/2349-4433.2023.00005.3

Constraints Faced by the Farmers and Researchers about Crisis and its Management Practices in South Gujarat

S R Kumbhani , R M Bhuva and C K Timbadia *

Department of Agricultural Extension and Communication,
NMCA, NAU, Navsari, Gujarat, India

ABSTRACT

The present study was carried out in six districts of South Gujarat. Paddy, Mung, Tomato and Banana crops were taken under the present study. Total 18 talukas and 18 villages which possessed the highest area under respective crops were selected purposively. A lottery method of randomization was adopted to get 5 growers of the village for each crop. In this way, 20 farmers from the village and 60 from the district were selected as respondents. In all, 360 crop growers were selected as respondents for the study. Further, 48 researchers were randomly selected from six districts. Thus, total sample size was 408 for study. Unavailability of quality seed at the time of sowing, high price and non-availability of chemical fertilizers, scarcity of labours during critical operations, high occurrence of pests and diseases in the crop and failure of crop due to heavy rainfall were the major constrains faced by the farmers and researchers. Therefore, improved and certified seed should be provided by Government at proper time, provide chemical fertilizer in subsidized rate and in required quantity, improved implements should be developed for the field operation, crop integration helps to mitigate pests and diseases problems and formulation of contingency plans well in advance to cope with the crisis situation were the major suggestions given by the respondents.

Key Words- Constraints, Crisis, Growers, Management, Suggestions.

INTRODUCTION

The crisis in Indian agriculture, which has been building up for decades, is not one of declining profitability but of non-viability of the bulk of landholdings. A crisis is a major, unpredictable event that threatens to harm an individual or organization and its stakeholders. Although crisis events are unpredictable, they are not unexpected. Crisis can affect all segments of society and are caused by a wide range of reasons. The practice of crisis management involves attempts to eliminate technological failure to avoid or to manage crisis situations. Crisis management consists of skills and techniques required to assess, understand, and cope with any serious situations, especially from the moment it first occurs to the point that recovery producer start. The men made as well as environmental factors play pivotal role on the production of crop. It is therefore, expected that respondents should have perfect knowledge and active adoption of advisable crisis management practices in crop cultivation. Therefore, to increase the knowledge and adoption of farmers about crisis management practices in crops, one should know about the constraints faced by them. Keeping this in view, the present study was undertaken to identify the constraints faced by the farmers and researchers about crisis and its management practices in South Gujarat.

MATERIALS AND METHODS

Ex-post-facto research design was used in the present investigation. Paddy, Mung, Tomato and Banana crops were taken under the present study. The present study was carried out in six districts of Gujarat state *viz*, Navsari, Surat, Valsad, Tapi,

Corresponding Author's Email: srkumbhani@nau.in

*Vice Chancellor, Gujarat Natural Farming & Organic Agricultural University, ATIC, Anand, Gujarat, India

Table 1. Distribution of the farmers and researchers according to constraints experienced by them. (n=408)

Sr. No.	Constraint	F	%	Rank
1.	Unavailability of quality seeds at the time of sowing	329	80.63	I
2.	High price and non-availability of chemical fertilizers	311	76.25	II
3.	Scarcity of labour during critical operations	297	72.79	III
4.	High occurrence of pest and disease in the crops	289	70.83	IV
5.	Failure of crop due to heavy rainfall	281	68.87	V
6.	Lack of information about future aberrant weather conditions	265	64.95	VI
7.	Problem of storage due to pest and disease	258	63.23	VII
8.	Non-availability of technical knowledge about crisis situation	233	57.10	VIII
9.	Falling prices of Agricultural commodities	224	54.90	IX
10.	Yellowing of seedlings in rice at nursery stage	216	52.94	X
11.	Reduction in Agricultural subsidies	213	52.20	XI
12.	No facilities like farm ponds check dam etc. for storage of the rainwater	185	45.34	XII
13.	Unavailability of irrigation water at critical stages of crop	162	39.70	XIII
14.	Conversion of agricultural land for alternative uses	148	36.27	XIV

Bharuch and Narmada of South Gujarat region were approached and dominated areas for all four crops were identified. Three talukas from each district which possessed highest area under respective crops were selected purposively. Further, same procedure was followed to get one village from each talukas. In all, 18 talukas and 18 villages were selected from study area. At the end, a lottery method of randomisation was adopted to get 5 growers of the village for each crop. The crop wise lists prepared and 8 researchers were randomly selected from the each district. In all, 48 researchers were selected as respondents for the present study. In all, 360 farmers and 48 researchers, so total sample size were 408 selected as respondents for the study. The data were collected by using the personal interview method. The respondents were asked to mention the constraints and suggestions. The opinions about the constraints and suggestions were summed up and converted into frequency and percentage. The rank was given to each constraint and suggestion by putting them in descending order.

RESULTS AND DISCUSSION

Constraints faced by the farmers and researchers about crisis and its management practices

The data collected from the respondents were compiled and arranged in light of the stated objectives.

The data (Table 1) indicated that 80.63 per cent of the farmers and researchers reported the constraint unavailability of quality seed at the time of sowing and ranked at the first position, followed by the constraint high price and non-availability of chemical fertilizers and scarcity of labours during critical operations which were faced by 76.25 and 72.79 per cent farmers and researchers ranked at second and third position respectively. Furthermore, the constraint, high occurrence of pests and diseases in the crop, failure of crop due to heavy rainfall, lack of information about future aberrant weather conditions, the problem of storage due to pest and disease, non-availability of technical knowledge about crisis situation, falling prices of agricultural

Table 2. Distribution of the farmers and researchers according to their suggestions to overcome the constraints. (n=408)

Sr. No.	Suggestion	F	%	Rank
1.	Improved and certified seed should be provided by Government at proper time	315	77.20	I
2.	Providing chemical fertilizers in subsidized rate and in required quantity	298	73.03	II
3.	Improved implements should be developed for the field operation	289	70.83	III
4.	Crop integration helps to mitigate pest and disease problems	278	68.13	IV
5.	Formulation of contingency plans well in advance to cope with the crisis situation	272	66.66	V
6.	Appropriate and accurate forecasting/ forewarning techniques developed	256	62.74	VI
7.	Effective control measures for storage pests should be developed	249	61.02	VII
8.	Timely training about improved technology for mitigate crisis	288	55.88	VIII
9.	Value addition to crops for ensure higher income	216	52.94	IX
10.	Training should be imparted on spraying of FeSO4 to control the yellowing of seedlings	211	51.71	X
11.	Subsidy and concessions given to agriculture sector should be increased	209	51.22	XI
12.	More financial support should be made available for farm ponds and water harvesting	176	43.13	XII
13.	Protective irrigation during critical stages	161	39.46	XIII
14.	Government should not acquire fertile agricultural land for SEZs	124	30.39	XIV

commodities, yellowing of seedlings in rice at nursery stage, reduction in agricultural subsidies, no facilities like farm ponds check dam *etc.* for storage of the rainwater, unavailability of irrigation water at critical stages of crop, and conversion of agricultural land for alternative uses were faced by 70.83, 68.87, 64.95, 63.23, 57.10, 54.90, 52.94, 52.20, 45.34, 39.70 and 36.27 per cent of the farmers and researchers ranked at fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, thirteenth and fourteenth position, respectively. These results were in line with the findings of Zala (2008), Trivedi (2009), Gohil (2010) and Tavethiya (2018).

Suggestions from the farmers and researchers to overcome the constraints

The data (Table 2) show that the 77.20 per cent of the farmers and researchers expressed the suggestion that improved and certified seed should be provided by the Government at the proper time and ranked at the first position, followed by providing chemical fertilizers in subsidized rate and in required quantity, improved implements should be developed for the field operation and it was faced by 73.03 and 70.83 per cent and ranked at second and third position, respectively. Furthermore, crop integration helps to mitigate pest and disease problems, formulation of contingency plans well in advance to cope with the crisis situation, appropriate and accurate forecasting/ forewarning techniques developed, effective control measures for storage pests should be developed, timely training about improved technology for mitigate crisis, value addition to crops for ensure higher income, training should be imparted on the spraying of $FeSO_4$ to control the yellowing of seedlings, subsidy and concessions given to agriculture sector should be increased, more financial support should be made available for farm ponds and water harvesting,

protective irrigation during critical stages and government should not acquire fertile agricultural land for SEZs were suggested by 68.13, 66.66, 62.74, 61.02, 55.88, 52.94, 51.71, 51.22, 43.13, 39.46 and 30.39 per cent and ranked at fourth to fourteen position, respectively. These results were in line with the findings of Durga (2009), Trivedi (2009), Sonawane and Jyoti (2017) and Tavethiya (2018).

CONCLUSION

Major constrains faced by the farmers and researchers about crisis and its management practices in crops were; uunavailability of quality seed at the time of sowing, high price and non-availability of chemical fertilizers, scarcity of labours during critical operations, high occurrence of pests and diseases in the crops and failure of crop due to heavy rainfall were the major constrains reported by farmers and researchers in relation to crisis and its management practices in crops. Whereas major suggestions given by the farmers and researchers to overcome constraint were; improved and certified seed should be provided by Government at proper time, providing chemical fertilizers in subsidized rate and in required quantity, improved implements should be developed for the field operation, crop integration helps to mitigate pest and disease problems and formulation of contingency plans well in advance to cope with the crisis situation.

REFERENCES

Durgga R V (2009). *Crisis management practices adopted in dairy farming by the farmers of Anand district of Gujarat. Thesis Ph.D.* Anand Agricultural University, Anand.

Gohil G R (2010). *Crisis management adopted by cotton growers of south Saurashtra agro climatic zone. Thesis Ph.D.* Junagadh Agricultural University, Junagadh, Gujarat.

Sonawane, H. P. and Jyoti, Walke (2017). Constraints faced in adoption of recommendations of tomato crop by tomato growers. *Gujrat J Ext Edu* **28**(1): 189-191.

Tavethiya B H (2018). *Crisis management adopted by castor growers of north Saurashtra region of Gujarat*. *Thesis Ph.D.,* Junagadh Agricultural University, Junagadh, Gujarat.

Trivedi M K (2009). *Crisis management practices adopted in cumin cultivation by the farmers of north Gujarat. Thesis Ph.D.,* Yashwant Rao Chavan Maharashtra Open University, Nashik, Maharashtra.

Zala P K (2008). *Crisis management practices adopted in con cultivation by the farmers of Kheda district of Gujarat state. Thesis Ph.D.,* Anand Agricultural University, Anand, Gujarat.

Received on 8/2/2023 *Accepted on 18/4/2023*