



Research Article

SCIENTIFIC ORIENTATION AND ITS RELATIONSHIP WITH THE LEVEL OF KNOWLEDGE OF BANANA GROWERS ABOUT INTEGRATED PEST MANAGEMENT

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Abstract: Scientific orientation is characterized by a belief in science and scientific approaches to resolve the problems in farming. It plays an important role in soaring the level of knowledge of banana growers about integrated pest management. Keeping this in view, an attempt has been made to study scientific orientation and its relationship with the level of knowledge of banana growers about integrated pest management. The result of the study revealed that a great majority (88.00 per cent) of the banana growers had high to very high level of scientific orientation. It is also revealed that scientific orientation of banana growers had positive and highly significantly correlation ($r = 0.401^{**}$) with their level of knowledge about IPM.

Keywords: Scientific orientation, Integrated pest management, Banana growers

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Introduction

Banana becomes one among the most popular fruits due to its low price and high nutritive value. Integrated pest management is a system approach to pest control which combines biological, cultural and other novel approaches with the judicious use of pesticides. The prime intent of IPM is to maintain pest levels below economically damaging levels while minimizing detrimental effects of pest control on human health and environmental resources.

Scientific orientation is characterized by a belief in science and scientific approaches to resolve the problems in farming. Scientifically oriented farmers are always inclined to use scientific methods in farming and have a favourable attitude towards profession. Keeping the above facts in view, an attempt has been made to study scientific orientation and its relationship with the level of knowledge of banana growers about IPM.

Objectives of study

To study the scientific orientation of banana growers

To ascertain relationship between the scientific orientation of banana growers and their level of knowledge about integrated pest management practices

Material and Methods

The present study was undertaken in Anand district of Gujarat state. The level of knowledge of banana growers about IPM was studied with the help of the developed test. Five villages having fairly good number of banana growers adopting integrated pest management practices were selected from each taluka purposively. 10 banana growers adopting integrated pest management practices were randomly selected from each village. Thus, total sample size was 100 banana growers adopting integrated pest management practices

Scientific orientation

It is characterized by a belief in science and scientific approach to solve the problems in IPM adopted banana cultivation.

It was measured with the help of scale developed by Patel (2009) with due modifications. The responses from the respondents were obtained against each item in terms of their agreement or disagreement with statement. There were fourteen statements in the scale. Out of these, statement number 2, 5, 7, 9, 10, 11, 13 and 14 were positive whereas, statement number 1, 3, 4, 6, 8 and 12 were negative. The positive and negative statements were scored as following:

Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Positive	5	4	3	2	1
Negative	1	2	3	4	5

Maximum score one could obtain was 70 and minimum could be 14. On the basis of arbitrary method, the respondents were grouped into the following five categories:

SN	Category	Score Range
1	Very low	Up to 25.20
2	Low	25.21 to 36.40
3	Medium	36.41 to 47.60
4	High	47.61 to 58.80
5	Very high	58.81 to 70.00

Results and Discussion

Scientific orientation

Scientific orientation is characterized by a belief in science and scientific approaches to resolve the problems in farming. Scientifically oriented farmers are always inclined to use scientific methods in farming and have a favourable attitude towards profession. The data regarding scientific orientation of the respondents are presented in [Table-1] and showed graphically in [Fig-1].

From the results shown in the [Table-1], it can be inferred that slightly more than three-fifth (62.00 per cent) of the banana growers had high level of scientific orientation, followed by 26.00 per cent were with very high level of scientific orientation and 07.00 per cent were with medium level of scientific orientation.

Table-1 Distribution of the banana growers according to their scientific orientation, n=100

SN	Scientific Orientation	Frequency	Per cent
1	Very low (Up to 25.20)	2	2.00
2	Low (25.21 to 36.40)	3	3.00
3	Medium (36.41 to 47.60)	7	7.00
4	High (47.61 to 58.80)	62	62.00
5	Very high (58.81 to 70.00)	26	26.00
Total		100	100

03.00 per cent and 02.00 per cent were having low and very low level of scientific orientation. Thus, it can be concluded that a great majority (88.00 per cent) of the banana growers had high to very high level of scientific orientation. Formal education and frequent contacts with the concerned experts or subject matter specialists results in scientific orientation. As the farmers had a higher level of education, high level of extension contact, good social participation and high mass media exposure which might have helped them to develop a scientific outlook towards farming practices and there by having a high level of scientific orientation. This finding is in line with the findings of Patel et al. (2017) [1] and Sondarva (2017) [2].

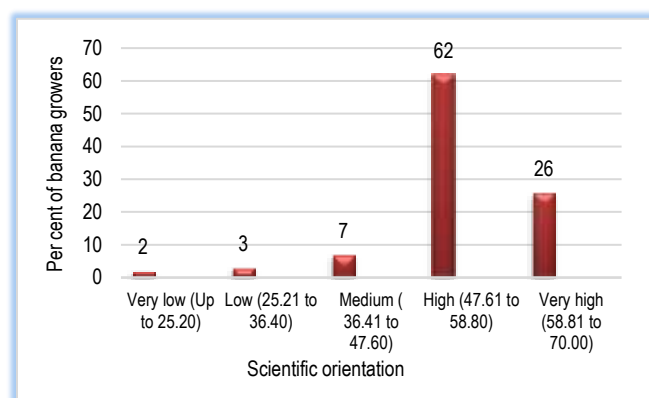


Fig-1 Distribution of banana growers according to their scientific orientation

Scientific orientation and Knowledge

It is clear from the correlation coefficient value ($r = 0.401^{**}$) that scientific orientation of banana growers had positive and highly significantly correlation with their level of knowledge about IPM. Hence, null hypothesis "there is no relationship between scientific orientation of the banana growers and their level of knowledge about IPM" was rejected. Thus, it can be concluded that scientific orientation had significant influence on level of knowledge of banana growers about IPM.

This result might be due to the reason that higher level of education, more active social participation, high extension contacts (in terms of interaction with scientists of Anand Agricultural University and SMS of KVK) and high mass media exposure might have persuaded and motivated them to gain new information related to scientific technology for getting good production and higher income. As a result, their level of knowledge about IPM might have increased positively. This finding has been similar to findings reported Patel et al. (2015) [3], Khatri (2017) [4], Patel et al. (2017) and Gamit (2018) [5].

Conclusion

From above study, it is revealed that a great majority (88.00 per cent) of the banana growers had high to very high level of scientific orientation.

Application of research: It is also revealed that scientific orientation of banana growers had positive and highly significantly correlation ($r = 0.401^{**}$) with their level of knowledge about IPM.

Research Category: Extension Education

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Study area / Sample Collection: Anand district of Gujarat state

Cultivar / Variety / Breed name: Banana

Conflict of Interest: None declared

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.

Ethical Committee Approval Number: Nil

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