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Attitude of farmers towards Parbhani Shakti sorghum variety

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Abstract

The present study was conducted in Marathwada region of Maharashtra state during the year 2022-23 with the objective to study "Attitude of farmers towards Parbhani Shakti sorghum Variety". Aurangabad district was selected purposively from Marathwada region of Maharashtra state on the basis of maximum number of farmers cultivating Parbhani Shakti sorghum variety. 80 respondents were selected purposively from 42 villages of 8 tehsils who were cultivating Parbhani Shakti sorghum variety. An Ex-post-facto research design was followed for the study. Data was gathered using a well-structured interview schedule created with the study's objectives in mind. The collected data was analyzed, classified and tabulated. Statistical tools such as frequency, percentage, mean, standard deviation and coefficient correlation were used to interpret findings and draw conclusions.

The detailed analysis of profile characteristics of farmers indicated that majority (61.25%) of the respondents belonged to middle age group, near about half (45.00%) and (46.25%) of the respondents were educated up to College level and big land holding. Majority of the respondents (83.33%) had annual income between 75951 to 5,14360 /-. More than half (52.50%) of the respondents having medium sources of information. Nearly two third (67.50%) of the respondents belong to medium extension contact category. (55.00%) of the respondents had medium level of knowledge. Majority of (62.50%) of the respondents had medium level of risk orientation.

It was observed that majority (68.75%) of the respondents had favourable attitude towards Parbhani Shakti sorghum variety.

It was observed that education, land holding, sources of information, extension contact, knowledge and risk orientation were positive and highly significant with attitude of farmers towards Parbhani Shakti sorghum variety.

Age and annual income were positive and significant with attitude of farmers towards Parbhani Shakti sorghum variety.

It is revealed that 100 percent of respondents having problem of pest and diseases and infestation of weed. 81.25 percent having problem of fluctuation of climatic condition. Unavailability of labour and high labour cost were another constraints as per 56.25 percent. 27.5 percent respondents having problem of unavailability of transport facility. 22.5 percent having problem of high cost of commission by the middlemen for sale of sorghum.

Keywords: Attitude, positive, sorghum, Parbhani Shakti, variety

Introduction

Sorghum is the main staple diet of the people of Maharashtra. Due to its multiple uses such as food, feed, fodder and fuel, its drought hardiness, stability of yield and adaptability over wide range of climates, sorghum has maintained its importance and dependability. Sorghum is a rich source of nutrients and its nutrient composition indicates that it contains 0.3 to 3.3% of ash and minerals such as phosphorus, potassium, magnesium, iron, and zinc in varying quantities. Iron and Zn are critical for human health and its deficiency results in poor growth of children, reduced immunity, weakness and morbidity. Micronutrient malnutrition is recognized as one the major global challenges and consumption of diets poor in micronutrients is one of the reasons for the micronutrient malnutrition. Currently dietary diversification, supplementation and fortification are the methods employed to address micronutrient malnutrition. However these methods are not always feasible and cost-effective. Bio-fortification (increasing the grain micronutrient density by genetic means) offers a low-cost sustainable option for combating

micronutrient malnutrition and complements well with all on-going approaches to address the micronutrient malnutrition.

Parbhani Shakti (India's first biofortified sorghum variety) Sorghum variety was released by VNMKV, Parbhani and ICRISAT, Hyderabad in the year 2018. It has significant characteristics of higher iron and zinc than regular sorghum, high yield variety, dual purpose with good grain quality and the variety is resistant to grain mold with high protein content of 12% and a low phytate content (4.14%). The area under Parbhani Shakti was significant in the Aurangabad district of Marathwada region. After release of this variety it is necessary to know the attitude of farmers towards Parbhani Shakti sorghum variety in Sorghum growing areas. Therefore the present investigation on "Attitude of farmers towards Parbhani Shakti Sorghum variety" was undertaken with following objective.

Objectives of the study

1. To study the profile of farmers.
2. To study the attitude of farmer towards Parbhani Shakti

sorghum variety.

- To delineate relationship between the profile of farmers and attitude of farmers towards Parbhani Shakti sorghum variety.
- To study the constraints faced by farmers in cultivation of Parbhani Shakti sorghum variety.

Materials and Methods

The present study was conducted in Marathwada region of Maharashtra state during the year 2022-23 with the objective to study "Attitude of farmers towards Parbhani Shakti sorghum Variety". From Aurangabad district 8

talukas were selected purposively, where 42 villages purposively selected from each talukas, From selected villages 80 farmers were selected randomly who were cultivating Parbhani Shakti sorghum variety. Ex-post facto research design was used for present study. The data from respondents collected through questionnaire. The interview schedule was constructed by formulating relevant questions in accordance with the study objectives. The data collections from the respondents were collected, tabulated, analyzed and evaluated using suitable statistical tools like frequency, percentage, mean, standard deviation and Pearson's coefficient of correlation.

Table 1: Content analysis of Attitude of farmers towards Parbhani Shakti sorghum variety

Sr No.	Statement	SA		A		UD		DA		SDA	
		F	%	F	%	F	%	F	%	F	%
1.	Parbhani Shakti sorghum variety is suitable for growing in kharif season.	10	12.50	44	55.00	22	27.50	4	5.00	0	0
2.	I am confident of getting bumper yield of Parbhani Shakti under assured rainfall area.	14	17.50	13	16.25	30	37.50	14	17.50	9	11.25
3.	Farmers can grow Parbhani Shakti in high rainfall area.	8	10.00	15	18.75	28	35.00	15	18.75	14	17.50
4.	One is sure of getting more returns with increased doses of NPK to Parbhani Shakti sorghum variety.	7	8.750	22	27.50	13	16.25	18	22.50	20	25.00
5.	Lodging problem does not arise during harvesting.	8	10.00	13	16.25	24	30.00	19	23.75	16	20
6.	One is sure of yield even though there is a moisture stress during the flowering period of parbhani Shakti sorghum variety.	7	8.750	21	26.25	13	16.25	22	27.50	17	21.25
7.	Grain mould disease is not curse to the Parbhani Shakti growers.	11	13.75	21	26.25	18	22.50	13	16.25	17	21.25
8.	I do not feel that plant protection measures in Parbhani Shakti will be economical.	7	8.750	11	13.75	24	30.00	26	32.50	12	15.00
9.	Nobody is afraid of considerable losses in the production of Parbhani Shakti due to rains at maturity.	7	8.750	14	17.50	15	18.75	22	27.50	22	27.500
10.	More number of grain per panicle of Parbhani Shakti helps farmers to get more yield.	14	17.50	23	28.75	22	27.50	10	12.50	11	13.75
11.	When one thinks of inter-cropping he turns to growing Parbhani Shakti.	15	18.75	12	15.00	22	27.50	18	22.50	13	16.25
12.	Introduction of Parbhani Shakti has helps in boosting the nutritive value of day to day mill of people.	12	15.00	28	35.00	14	17.50	8	10.00	18	22.50

Majority of the respondents 68.75percent had favourable attitude towards Parbhani Shakti sorghum variety, where as 18.75 percent of the farmers had less favourable attitude and 12.5 percent had highly favourable attitude towards Parbhani Shakti sorghum variety.

Table 2: Overall attitude of the famers towards parbhani Shakti sorghum variety

Sr. No	Category	Frequency	Percentage
1	Less favourable (up to 24)	15	18.75
2	Favourable (25 to 47)	55	68.75
3	Highly favourable (48 & above)	10	12.5
	Total	80	100
		Mean= 35.3375	S.D.= 11.3638821

Table 3: Relationship between selected profile characteristics of farmers with their attitude towards parbhani Shakti sorghum variety

Sr. No.	Independent variable	Coefficient of correlation (r)
1	Age	0.255*
2	Education	0.413**
3	Land holding	0.289**
4	Annual income	0.256*
5	Sources of information	0.308**
6	Extension contact	0.333**
7	Knowledge	0.309**
8	Risk orientation	0.302**

** Significant at 0.01 level of Probability

*Significant at 0.05 level of Probability

1. Age and attitude

There was a positive and significant relationship between age and attitude of farmers towards Parbhani Shakti sorghum variety.

2. Education and attitude

There was a positive and highly significant relationship between education and attitude of farmers towards Parbhani Shakti sorghum variety.

3. Land holding and attitude

There was a positive and highly significant relationship between land holding and attitude of farmers towards Parbhani Shakti sorghum variety.

4. Annual income and attitude

There was a positive and significant relationship between annual income and attitude of farmers towards Parbhani Shakti sorghum variety.

5. Sources of information and attitude

There was a positive and highly significant relationship between extension contact and attitude of farmers towards Parbhani Shakti sorghum variety.

6. Extension contact and attitude

There was a positive and highly significant relationship between extension contact and attitude of farmers towards Parbhani Shakti sorghum variety.

7. Knowledge and attitude

There was a positive and highly significant relationship between knowledge and attitude of farmers towards Parbhani Shakti sorghum variety.

8. Risk orientation and attitude

There was a positive and highly significant relationship between risk orientation and attitude of farmers towards Parbhani Shakti sorghum variety.

Table 4: Constraints faced by farmers in cultivation of Parbhani Shakti sorghum variety

Sr. no	Constraints	Frequency	Percentage	Rank
1	Infestation of pest and disease	80	100	I
2	Infestation of weed	80	100	I
3	Fluctuating climatic condition	65	81.25	II
4	Unavailability of labour and high labour cost	45	56.25	III
5	High cost of insecticide, pesticide and fungicide	25	31.25	IV
6	Unavailability of transport facility.	22	27.50	V
7	High cost of commission by the middleman for sale of sorghum	18	22.50	VI

100 percent of respondents having problem of pest and diseases and infestation of weed. 81.25 percent having problem of fluctuation of climatic condition. Unavailability of labour and high labour cost was another constraints as per 56.25 percent. 27.5 percent respondents having problem of unavailability of transport facility. 22.5 percent having problem of high cost of commission by the middlemen for sale of sorghum.

Conclusion

It was found that out of eight profile characteristics, two of them viz., education, land holding, sources of information, extension contact, knowledge and risk orientation were positive and highly significant with attitude of farmers towards Parbhani Shakti sorghum variety. Age and annual income were positive and significant with attitude of farmers towards Parbhani Shakti sorghum variety. As we see the respondents had favourable attitude towards Parbhani Shakti sorghum Variety.

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