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Relational Analysis of Soybean growers Profile with Awareness Towards MAUS-725 Variety

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Abstract
The present study was conducted in Renapur, Ahmadpur and Nilanga tehsils of Latur district from Marathwada region of Maharashtra State in 2024-2025, entitled with "Awareness of soybean growers towards MAUS-725 variety". Four villages from each tehsil were selected. Total twelve villages were selected for research study. Fifteen soybean growers were selected from each village and hence 180 soybean growers were selected for the study. Expost facto research design was used for the study. As regard with independent variable farming experience, land holding, annual income, market orientation had positively significant relationship with awareness towards MAUS-725 variety and education, area under soybean, social participation, sources of information, innovativeness, economic motivation and risk orientation had highly positive significant relationship with awareness towards MAUS-725 variety.

Keywords: Awareness, MAUS-725, Soybean growers.

Introduction

Soybean (Glycine max (L.) Merrill) is a globally significant oilseed crop, valued for its high protein and oil content. In India, soybean ranks as the second most important oilseed crop and plays a crucial role in ensuring nutritional security and supporting rural livelihoods. The primary soybean producing states in India include Madhya Pradesh, Maharashtra and Rajasthan, with Maharashtra's Marathwada region contributing substantially to the overall production. Among the districts in this region, Latur holds a prominent position in both cultivated area and yield.

In this context, Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV), Parbhani, developed and released a new soybean variety named MAUS-725 in the year 2023. This variety was developed through hybridization between two popular and widely accepted varieties JS-9305 and MAUS-71. MAUS-725 has

been bred to combine high yield potential, early maturity, improved seed quality and resistance to major diseases and pests affecting soybean in Maharashtra. MAUS-725 is an early maturing variety that matures in 93 to 98 days, making it suitable for kharif season cultivation under varied agro-climatic conditions. The variety is morphologically distinct with purple flowers, four seeded pods and bold seeds with high test weight, which contributes to its superior productivity and market acceptability. It is also adaptable to a range of soil types, especially medium to low fertility soils common in the region. In terms of disease resistance, MAUS-725 exhibits moderate to high resistance to several economically important diseases, including bacterial pustule, pod blight, yellow mosaic virus (YMV), brown spot, bacterial blight, alternaria leaf spot, soybean crinkle virus and indian bud blight. The variety also shows resistance or moderate resistance to important insect pests such as stem fly (tunneling), girdle beetle, foliar defoliators, aphids and whitefly. These resistance traits help reduce crop losses and the need for chemical plant protection measures, thereby promoting sustainable farming.

In State Multi-location Trials (MLT) conducted across Maharashtra from 2017–18 to 2020–21 (36 trials), MAUS-725 recorded an average seed yield of 2207 kg/ha. It also shows good seed viability, favorable plant height for mechanical harvesting and desirable pod and seed traits that meet soybean grower and market expectations.

The development and dissemination of improved crop varieties have significantly contributed to enhancing agricultural productivity, particularly in rainfed regions. Among these, MAUS-725, a newly developed soybean variety, has demonstrated considerable promise in terms of high yield potential, early maturity and resistance to major pests and diseases. Despite these agronomic advantages, the effectiveness of such varietal innovations largely depends on the extent of soybean growers awareness and understanding of their features and benefits.

Assessing the level of awareness among soybean growers regarding the MAUS-725 variety is essential for promoting its widespread use and ensuring that scientific advancements reach the intended beneficiaries. Soybean growers awareness is influenced by a range of socio-economic and psychological variables including farming experience, education, land holding size, area under soybean cultivation, annual income, degree of social participation, access to information, level of innovativeness, economic motivation, market orientation and risk orientation. These factors collectively shape the knowledge and perceptions of soybean growers about MAUS-725 variety. Therefore, it is essential to understand the relational analysis of the soybean growers profile with awareness towards MAUS-725 variety.

This research aims to evaluate the relational analysis of the soybean growers profile with awareness towards MAUS-725 variety.

Materials and Methods

The present study was carried out in randomly selected Latur district from the Marathwada region of Maharashtra State. The Latur district consist of ten tehsils namely Ahmadpur, Ausa, Chakur, Deoni, Jalkot, Latur, Nilanga, Renapur, Shirur Anantpal and Udgir. Out of these three tehsils namely Renapur, Ahmadpur and Nilanga were selected randomly. From each selected tehsil four villages were selected randomly. Thus twelve villages from three tehsils were selected for this study. From each of the selected village fifteen soybean growers were selected randomly. Thus a total 180 soybean growers were selected as respondent for the present study. This selection was done by using simple random sampling method. Data were collected by personally interviewing the soybean growers with the help of pretested and structured interview schedule. The collected data was organized, tabulated and analyzed with the help of

statistical tools like frequency, mean, percentage, standard deviation, correlation of coefficient (r) and multiple regression.

Results

It was observed from the Table 2 that, nearly two third (61.11%) of the soybean growers had medium farming experience, more than one third (35.00%) of the soybean growers were educated up to secondary school, more than one third (37.22%) of the soybean growers were having 2.01 to 4.00 ha land and belonged to semi-medium land holding category, more than one third (42.78%) of the soybean growers were having 1.01 to 2.00 ha of small category area under soybean, exactly three fourth (75.00%) of soybean growers had medium annual income between Rs. 1,33,301 to 4,56,200, exactly half (50.00%) of the soybean growers had medium level of social participation, nearly two third (63.34%) of the soybean growers had medium level of sources of information, nearly two third (65.00%) of the soybean growers had medium level of innovativeness, more than half (59.46%) of the soybean growers belonged to medium category of economic motivation, more than half (55.55%) of the soybean growers had medium level of market orientation, nearly two third (61.11%) of the soybean growers had medium level of risk orientation. Also it was concluded that, nearly two third (64.45%) of the soybean growers had medium level of awareness, while 20.55 per cent of soybean growers had low level of awareness and 15.00 per cent of soybean growers had high level of awareness towards MAUS-725 variety.

Table 2: Distribution of soybean growers according to their Profile

SL. No.	Category	Soybean growers (N = 180)	
		Frequency	Percentage (%)
1.1 Farming experience			
1.	Low (Up to 13)	31	17.22
2.	Medium (14 to 39)	110	61.11
3.	High (40 and above)	39	21.67
1.2 Education			
1.	Illiterate	24	13.33
2.	Primary School (1^{st} to 4^{th})	28	15.56
3.	Secondary School (5^{th} to 10^{th})	63	35.00
4.	Higher Secondary School (11^{th} to 12^{th})	35	19.44
5.	Graduation	19	10.56
6.	Post-Graduation	11	06.11
1.3 Land holding			
1.	Marginal (up to 1.00 ha)	36	20.00
2.	Small (1.01 to 2.00 ha)	59	32.78
3.	Semi-medium (2.01 to 4.00 ha)	67	37.22
4.	Medium (4.01 to 10.00 ha)	15	08.33
5.	Large (above 10.00 ha)	3	01.67
1.4 Area under soybean			

1.	Marginal (up to 1.00 ha)	62	34.44
2.	Small (1.01 to 2.00 ha)	77	42.78
3.	Semi-medium (2.01 to 4.00 ha)	34	18.89
4.	Medium (4.01 to 10.00 ha)	6	03.33
5.	Large (above 10.00 ha)	1	00.56
1.5 Annual income			
1.	Low (Up to 1,33,300)	21	11.67
2.	Medium (1,33,301 - 4,56,200)	135	75.00
3.	High (4,56,201 and above)	24	13.33
1.6 Social participation			
1.	Low (Up to 19)	52	28.88
2.	Medium (20 to 36)	90	50.00
3.	High (37 and above)	38	21.12
1.7 Sources of information			
1.	Low (Up to 35)	39	21.66
2.	Medium (36 to 53)	114	63.34
3.	High (54 and above)	27	15.00
1.8 Innovativeness			
1.	Low (Up to 18)	37	20.56
2.	Medium (19 to 29)	117	65.00
3.	High (30 and above)	26	14.44
1.9 Economic motivation			
1.	Low (Up to 14)	41	22.77
2.	Medium (15 to 27)	107	59.46
3.	High (28 and above)	32	17.77
1.10 Market orientation			
1.	Low (Up to 14)	45	25.00
2.	Medium (15 to 31)	100	55.55
3.	High (32 and above)	35	19.45
1.11 Risk orientation			
1.	Low (Up to 9)	42	23.33
2.	Medium (10 to 18)	110	61.11
3.	High (19 and above)	28	15.56

Table 3: Correlation coefficient between profile of soybean growers and awareness

SL. No.	Independent Variable	Correlation coefficient ('r')
1.	Farming experience	0.202*
2.	Education	0.273**
3.	Land holding	0.259*
4.	Area under soybean	0.393**
5.	Annual income	0.264*

6.	Social participation	0.407**
7.	Sources of information	0.455**
8.	Innovativeness	0.405**
9.	Economic motivation	0.493**
10.	Market orientation	0.204*
11.	Risk orientation	0.422**

** Significant at 0.01 per cent level.
* Significant at 0.05 per cent level.

It is concluded from table 3 that, the results of correlation coefficient showed that independent variable farming experience, land holding, annual income, market orientation had positively significant relationship with awareness towards MAUS-725 variety and education, area under soybean, social participation, sources of information, innovativeness, economic motivation and risk orientation had highly positive significant relationship with awareness towards MAUS-725 variety.

Conclusions

As regards with the profile of the soybean growers it was observed that, nearly two third of the soybean growers had medium farming experience, more than one third of the soybean growers were educated upto secondary school, more than one third of the soybean growers were having 2.01 to 4.00 ha land and belonged to semi-medium land holding category, more than one third of the soybean growers were having 1.01 to 2.00 ha of small category area under soybean, exactly three fourth of the soybean growers had medium annual income between Rs. 1,33,301 to 4,56,200, exactly half of the soybean growers had medium level of social participation, nearly two third of the soybean growers had medium level of sources of information, nearly two third of the soybean growers had medium level of innovativeness, more than half of the soybean growers belonged to medium category of economic motivation, more than half of the soybean growers had medium level of market orientation, nearly two third of the soybean growers had medium level of risk orientation And also it was concluded that nearly two third of the soybean growers had medium level of awareness towards MAUS-725 variety.

As per relationship between awareness and profile of soybean growers it was illustrate that, farming experience, land holding, annual income, market orientation had positively significant relationship with awareness towards MAUS-725 variety and education, area under soybean, social participation, sources of information, innovativeness, economic motivation and risk orientation had highly positive significant relationship with awareness towards MAUS-725 variety.

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