

**RESEARCH ARTICLE :**

Relationship between socio-economic characteristics of farmers with perceived attributes of soybean production technologies

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SUMMARY : The present study was an attempt to compare the relationship between socio-economic characteristics of Soybean growers with perceived attributes of Soybean production technologies. The study was an “expost-facto” research carried out in Dharwad district of Karnataka State during the year 2013- 14. The study covered 15 villages from 3 talukas of Dharwad district to form a sample of 150 respondents. A pre-tested structured interview schedule was used to collect the data from the respondents by personal interview method. The results indicated that, Age had a non significant relationship with perceived attributes of soybean production technologies. Education, land holding extension contact, mass media participation, innovative proneness, scientific orientation and area under soybean crop had a positive and highly significant relationship with perceived attributes of soybean production technologies.

KEY WORDS :

Socio-economic change, Perceived attributes, Production technology

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BACKGROUND AND OBJECTIVES

Soybean besides having high yield potential 20-25 q/ha, provides cholesterol free oil 20 per cent and high quality protein 40 per cent. It is a versatile crop with innumerable possibilities of improving agriculture and supporting industry. Soybean is known as “Golden bean”, “Miracle crop” etc., because of its several uses. The soybean protein is rich in Lysine 4 per cent to 6 per cent and the oil extracted is edible one. India is in short supply of proteins and large portion of the population

are vegetarians, under this situation crop like soybean with high protein content and high yield potential became an important crop in India.

In a country like India, where majority of the population depends on vegetarian diet, edible oil offers a good concentrated source of energy. In India, about 80 per cent edible oil is obtained from groundnut, rapeseed and mustard. However, the non-traditional seeds namely soybean and sunflower are emerging as the new sources of oil, having vast yield potentials.

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In this scenario of oilseed map of the world, India occupies a prominent position, both in area (26 million hectares) and production (21 million tonnes). India has exhibited a phenomenal growth in agricultural sector after independence. Our country witnessed “Green Revolution” in late sixties onward and it is a landmark in Indian agriculture resulting not only self-sufficiency in food grains but also in export of surplus produce to other countries. Further, “Yellow Revolution” was the result of enhanced pace in the development of Indian agriculture for the last two and half decades which has contributed remarkably due to newly introduced crops like soybean and sunflower (Joshi, 2003).

RESOURCES AND METHODS

The study was an “expost-facto” research carried out in Dharwad district of Karnataka State during the year 2013- 14. Dharwad district comprises of five taluks *viz.*, Dharwad, Hubli, Kalaghatagi, Kundagol and Navalagund. Among these three taluks *viz.*, Dharwad, Hubli and Kalaghatagi were selected based on highest area under Soybean crop cultivation. In selected taluks, seven villages were selected from Kalaghatagi based on highest area under Soybean crop, similarly five villages from Dharwad and three villages from Hubli taluks are selected. From each village, ten farmers were selected randomly.

Hence, the study covered 15 villages from 3 talukas of Dharwad district to form a sample of 150 respondents. A pre-tested structured interview schedule was used to collect the data from the respondents by personal interview method. The data collected from respondents was tabulated and analyzed using appropriate statistical tools such as frequency, percentage Mean and Standard deviation. Statistical packages like Excel and SPSS version 16.00 were used for analysis.

OBSERVATIONS AND ANALYSIS

A glance at Table 1 indicated the relationship between independent variables with the perceived attributes of soybean production technologies. The findings of this study have shown that the respondents perceived attributes of improved soybean production technologies was positively and significantly related with seven personal and psychological factors, which were education, land holding, extension contact, mass media

participation, innovative proneness, scientific orientation and area under soybean crop. The result of each of these factors is discussed in the ensuing paragraphs.

Education had a highly positive and significant relationship with perceived attributes of improved soybean production technologies. The probable reason might be that the soybean practices being complex in nature could be understood better by persons having higher education level. It is an established fact that an educated person is in a better position to gather information, better understanding capacity and interpret even complex information related to the Soybean production technologies. Obviously the gain and retention of knowledge is more among the educated people as compared to illiterates and they become more interested in the innovation compared to the less educated or illiterate farmers. The findings are in consonance with the research findings of Hinge (2009).

Land holding had a positive and highly significant relationship with perceived attributes of improved soybean production technologies. The probable reason might be that the all types of land holding farmers might be adopting of technologies and perceiving their influence on soybean production because of their feasibility for adoption in their small and big holdings. The impact of the technologies also might be visible with all types of holdings.

Extension contact had a positive and highly significant relationship with perceived attributes of improved soybean production technologies. Extension activities directly help soybean farmers to gather information on new technologies, to seek information from extension experts, subject matter specialists, etc. Extension professionals and extension workers are the key persons to create the awareness about the developmental activities. Hence, higher the extension contact more favourable will be the perceived attributes of improved soybean production technologies.

Mass media participation had a positive and highly significant relationship with perceived attributes of improved production technologies by the soybean farmer. Mass media provide information on new technologies and experiences of successful farmers through various channels like television, radio, newspaper etc., which reinforces confidence in soybean farmers to take up similar activities or try out innovations in their farms. Mass media participation creates awareness, improves

the understanding and information access about agricultural programmes. Therefore, higher the mass media participation more favourable will be the perceived attributes of soybean production technologies.

Innovative proneness had a highly positive and highly significant relationship with perceived attributes of improved soybean production technologies. It refers to the behavioural pattern of an individual who has interest and desire to seek changes in farming techniques and ready to introduce such changes into his operations when practical and feasible. The most important cause of innovative proneness is a resistant to change and to try new ideas. This is treated as psychological trait which manifests in all behavioural aspects of the respondents, which also serves as an indicator of the respondent's orientation to excel in soybean cultivation and succeed in his activities. It also acts as an indicator of person's evaluative perception of activities with different dimensions such as practicability leading to rational decision making, thus it helps an individual to realize maximum economic profits from soybean crop. Thus, innovative proneness has established positive and highly significant relationship with the perceived attributes of soybean production technologies. The findings are in line with the results of Taskeen (2012).

Scientific orientation had a positive and highly significant relationship with perceived attributes of improved soybean production technologies. The plausible reason might be that, growers with scientific orientation could be more receptive to the latest technologies, employ scientific methods in making the decisions as well as acquire and adapt to new cultivation practices. This ultimately reflects on higher economic profits. The previous research findings of Birajdar (2012) are in consonance with the present results.

Table 1: Relationship of independent variables with attributes of soybean production technologies (n=150)

Sr. No.	Characteristics	'r' value
1.	Age	0.033 NS
2.	Education	0.348 **
3.	Land holding	0.341 **
4.	Extension contact	0.433 **
5.	Mass media participation	0.391**
6.	Innovative proneness	0.301 **
7.	Scientific orientation	0.227 **
8.	Area under soybean crop	0.570 **

**indicates significance of value at P=0.01

NS=Non-significant

Highly significant relationship was observed between area under soybean crop and perceived attributes of improved soybean production technologies. The probable reason might be that the small and marginal farmers might be adopting of technologies and perceiving their influence on soybean production because of their feasibility for adoption in their small holdings. The impact of the technologies also might be visible with small holdings. The findings are in dissonance with the results of Gangadhar (2009); Kalyan (2011) and Birajdar (2012).

Conclusion :

The findings of the study clearly reveals that, the perceived attributes of soybean production technology has been significantly influenced by variables such as Education, land holding extension contact, mass media participation, innovative proneness, scientific orientation and area under soybean crop. The study could identify variables responsible for appreciable extent of variation in the perceived attributes of soybean production technology by farmers. Only one variable namely age contributed significantly towards variation in the perceived attributes of soybean production technology by the farmers. The reason might be that, farmers of middle age with better farming experience, more efficient than older and younger category. Further, old age farmers have more family responsibility than the younger ones. So Line department officers and University/KVK staff can encourage old age farmers to adopt improved soybean production technologies by providing technical know-how of management practices of soybean production technologies for getting higher yields.

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