

Perceived Constraints of Consumers Regarding Soybean Consumption

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ABSTRACT

With the increasing population and heavy pressure on land it is a big challenge for agricultural scientists and nutritionists to fulfill the nutritional requirements of whole population. There is a strong need for natural and economical protein foods which an average income earning family can afford as a part of its daily meal. High protein of soybean makes it a substitute for expensive products. Soybean with its high nutritive and therapeutic value can be included in regular diet for improving the well being of the population. In spite of its tremendous advantages soy products have not registered their entry among rural consumers. It was, therefore, considered imperative to explore the constraining factors, which inhibit the consumption of soybean and its products in four villages of Haryana state. Women being the major decision maker of family cooking system were included as the respondents. The results indicated that out of total 19 constraints the major constraints were unavailability of soybean in village shops, lack of time & readiness to accept additional responsibility of preparing soybean products, non-cooperative attitude of family members to supply soybean, extra efforts and time required for preparing soybean products along with urban biasness of products and considering soybean as non vegetarian meal were perceived to be the major constraints.

Key words : Population; Agricultural scientists; Nutritionists; Soybean; Decision maker;

Soybean is an excellent source of good quality having 40 percent protein and 20 percent oil. It possesses several advantages over other protein sources because of low cost, high availability and excellent functional properties in food system. The quality of soy protein is the best among all plant proteins and it is the most economical protein source in the world. One way to increase soybean acceptance among masses could be to transform them into forms with which people are familiar and modify them according to local taste, as most of people like to eat a healthier diet without fundamentally changing their eating pattern. In spite of its nutritional significant soybean could not become common man food. It may be because of many misunderstandings and misconceptions that exist in the mind of common man. Considering the importance of promoting soybean among rural masses an attempt was made in the present study to identify the perceived constraints in consumption of soybean and its products.

METHODOLOGY

The present study was conducted in Haryana State.

Out of 19 districts in Haryana State, two districts, namely, Fatehabad and Rohtak were selected randomly. Two blocks from each of the selected districts i.e. total four blocks were selected randomly. Out of the four selected blocks, four villages were randomly selected by selecting one village from each of the selected blocks. The selected villages in present investigation were Dariyapur from Fatehabad block, Khabara Kalan from Bhattu block, Behni Maharajpur from Meham block and Bhauakbarpur from Rohtak block. 15 rural women from each village who were having knowledge regarding soy-based products were selected randomly. Thus, total 60 respondents were covered under soy based intervention programme and perceived constraints of women regarding inclusion of soybean and its products in dietary pattern were studied.

Constraint in present study was defined as any condition or situation, which might impede, hinder or restrict the acceptance of soy based products among rural women. The four categories of constraints were included in the present investigation, which were personal, educational, situational and social in nature.

The constraint identification was done with the help of schedule developed for this purpose. Responses were obtained under three categories viz., agree, somewhat agree and disagree categories with the allotted score of 3, 2 and 1 respectively. Weighted mean score and ranks were calculated to assess overall ranking of constraint

RESULTS AND DISCUSSION

Perceived personal constraints regarding soybean consumption: Table 1 indicated personal constraints faced by rural women. Total five constraints of personal nature were perceived for soy consumption. Rank wise ordering of various personal constraints on the basis of mean scores revealed that non cooperative attitude of male members to purchase soybean for household use (2.15) was the major constraint faced by women which was followed by lack of readiness among women to accept additional responsibility of soybean processing (2.01) and lack of confidence in preparing soy products (1.80) disliking for soybean taste (1.43) and beany flavor of soybean (1.18) were the other constraints in order of severity.

Perceived educational constraints regarding soy consumption: Data incorporated in Table 2 revealed the educational constraints faced by the respondents. Lack of knowledge regarding various soy products was the most severe educational constraint as it was assigned the highest mean score (1.15). The other three constraints as per mean score value and ranks were lack of knowledge regarding soy processing technique (1.11), lack of knowledge about nutritional importance of soybean (1.10) and lack of knowledge about health benefits of soybean (1.05). The respondents reported total four educational constraints but the number of respondents perceiving these constraints was very small. It was also found that mean score values of the educational constraints were the lowest among all the four categories.

Perceived social constraint regarding soya consumption : Table 3 incorporates the social constraints faced by rural women and it was found that most commonly faced constraint of social nature was urban biasness of soy products as it was assigned first

Table 1. Perceived personal constraint regarding soy consumption

Personal Constraints	Response categories			Total Score	Weighted Score
	Agree (3)	Somewhat agree (2)	Disagree (1)		
Disliking for taste	7 (21)	12 (24)	41 (41)	86	1.43
Beany flavour of soybean	3 (9)	5 (10)	52 (52)	71	1.18
Lack of confidence in preparing soy products	16 (48)	16 (32)	28 (28)	108	1.80
Non cooperative attitude of male members	19 (57)	23 (46)	18 (18)	121	2.01
Lack of readiness to accept additional responsibility	22 (66)	25 (50)	13 (13)	129	2.15

Table 2. Perceived educational constraints regarding soy consumption

Educational Constraints	Response categories			Total Score	Weighted Score	Rank
	Agree (3)	Somewhat agree (2)	Disagree (1)			
Lack of knowledge regarding soy processing tech.	2 (6)	3 (6)	55 (55)	67	1.11	II
Lack of knowledge about health benefits	1 (3)	4 (8)	55 (55)	63	1.05	IV
Lack of knowledge about nutritional importance of soy	2 (6)	2 (4)	56 (56)	66	1.10	III
Lack of knowledge regarding commonly used soy products	3 (9)	3 (6)	54 (54)	69	1.15	I

Table 3. Perceived social constraint regarding soy consumption

Social Constraints	Response categories			Total Score	Weighted Score	Rank
	Agree (3)	Somewhat agree (2)	Disagree (1)			
Reluctance by family members to change food habit	15 (45)	10 (20)	35 (35)	100	1.66	IV
Misconceptions regarding soybean intake	21 (63)	7 (14)	31 (31)	108	1.80	II
Lack of cooperation by family members to try out new recipes	9 (27)	11 (22)	40 (40)	89	1.48	V
Urban biasness of products	19 (57)	13 (26)	28 (28)	111	1.85	I
Consideration of soybean as non vegetarian meal	14 (42)	16 (32)	30 (30)	104	1.73	III

rank as per respondent's view in terms of mean scores (1.85). The other constraints in order of severity were prevalence of misconceptions about health hazards associated with soybean intake (1.80), consideration of soybean as non vegetarian food (1.73), family restrictions on change in food habit (1.66) and lack of cooperation by family members to try out new recipes (1.48).

Perceived situational constraints regarding soya consumption: Constraints of rural women in relation to situational aspects are presented in Table 4 and it is evident from table that lack of time to prepare soy products (2.25) was the most frequently faced constraint followed by unavailability of soybean at village level (2.20). Extra time and efforts involved in preparing soy products after processing of soybean (1.83) and comparatively higher cost of soybean (1.56) were the other constraint in order of magnitude. The mean score value of various situational constraints was comparatively higher than other constraints.

Ranking of constraints regarding soybean consumption: Overall analysis of all the four categories of constraints on the basis of average mean score is presented in Table 5. The ranks assigned to different categories of constraints unfolded the fact that constraints under situational category were the major constraints as per the perception of women, followed by the constraints in relation to personal, social and educational aspects. On the basis of mean scores and ranks assigned to different constraints under personal, educational, social and situational category, it was found that the respondents were found to encounter constraints of varied nature to varied extent As far as situational constraints are concerned it was found that the majority of the women faced the problem of lack of time for soy pre processing due to their involvement in household chores throughout day. Unavailability of soybean under village conditions and extra time consumed in preparing soy products due to its processing were the other situational constraints which were felt by majority of the women.

Table 5. Perceived constraints regarding soybean consumption

Constraints	Total score	Mean score	Rank
Situational constraints	564	1.88	I
Personal constraint	621	1.72	II
Social constraints	512	1.70	III
Educational constraints	265	1.10	IV

Improper view of male members to make arrangements for supply of soybean for household use was reported as the major personal constraint reported by majority of the women. The other major constraints perceived by women were lack of ability to accept additional responsibility and lack of confidence in preparing soy products. The constraints of educational nature were ranked last, which indicated that the severity or intensity of educational constraints was the lowest among the four categories. The low intensity of educational constraints might be due to the intervention programme on soy-based products through which women could acquire knowledge about soy processing, its health benefits and nutritional importance. The above-cited results are in tune with the results obtained by *Kulkarni and Kunnal (2002)*, *Grewal (2004)* *Nisha and Subramanian (2000)* who also observed constraints of one or other type restricting soybean consumption by the consumers.

CONCLUSION

The results obtained on perceived constraints of rural women which inhibit them to accept soy-based products indicated that women perceived the constraints of different type in varying degree. Lack of time for preparing of soy products was reported as the major constraint followed by other constraints like non availability of soybean non-cooperative attitude of family members to supply and consume soybean, lack of readiness to accept additional responsibility of soy processing and prevalence of certain misconceptions regarding soybean. The results thus obtained paved

Table 4. Perceived situational constraints regarding soybean consumption

Situational Constraints	Response categories			Total	Mean Score	Rank Score
	Agree (3)	Somewhat agree (2)	Disagree (1)			
Extra time and efforts required for processing of soybean	14(42)	22(44)	24(24)	110	1.83	III
Lack of time to prepare soy products	30(90)	15(30)	15(15)	135	2.25	I
Unavailability of soybean at village level	28(84)	16(32)	16(16)	132	2.20	II
Higher cost of soybean	12(36)	10(20)	38(38)	94	1.56	IV

guidelines to provide following suggestive measures to increase soy consumption among common masses.

Popularization of soybean needs holistic approach wherein all segments of population like women, farmers, educated youth, doctors, field functionaries, shopkeepers, school teachers etc need to be educated regarding health benefits and nutritional contribution of soybean with active involvement of State Agricultural universities, Food and Nutrition Board and various departments like agriculture, women & child development, health and education.

Methods demonstrations need to be designed for budding entrepreneurs and women by research institutes and technical organization for commercial production and utilization of soy products at local level.

Government should strive hard to ensure supply of soybean at village level on affordable cost through public distribution system and government shops as non availability of soybean emerged as the major constraint

Motivation and encouragement of family members especially the male members through awareness camps

and campaigns is required to boost up soy consumption as lack of cooperation by family members to supply and consume soybean was also reported as the major constraint. It was found during investigation that certain misconceptions like considering soybean as hot, diarrhea causing and non-vegetarian food existed in the mind of consumers. Parents also complained of diarrhea problem among children after consuming soy products as mid day meal. In depth exploration revealed that the problem occurred due to usage of unprocessed soybean. The need of the hour is to eradicate such type of misconception through organizing awareness camps and campaigns.

There is strong need to popularize indigenously developed technology of soybean processing in order to increase awareness among local shopkeepers involved in production and sale of soy flour in order to improve keeping quality, diminish anti nutritional factors and remove peculiar odor of soy based products.

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