

ACCEPTABILITY OF PEARL MILLET PRODUCTS AMONG RURAL WOMEN

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ABSTRACT

Pearl millet is the most important millet crop in India, in terms of area and production share, after rice and wheat. Pearl millet grain contains 27% to 32% more protein, higher concentration of essential amino acids, twice the extract (fat) and higher gross energy than maize. The present study was conducted in Haryana state. Forty rural women from each *Balsamand* and *Banda Hari* villages were selected randomly. Results indicated that perceived feasibility of value added products of pearl millet measured in terms of relative advantage, physical compatibility, cultural compatibility, simplicity and triability. The overall acceptability of value added products of pearl millet was of medium level. Less than half of the respondents (42.50%) had medium skill acquisition and were willing to adopt value added products of pearl millet as an economic activity with somewhat difficulty (47.50%).

KEY WORDS: Rural women, Training, Feasibility, skill acquisition, Pearl millet products

INTRODUCTION

Pearl millet (*Pennisetum glaucum*) is the most widely grown type of millet. Because of its tolerance to difficult growing conditions such as drought, low soil fertility and high temperature, it can be grown in areas where other cereal crops, such as maize or wheat, would not survive. Pearl millet production is concentrated in the developing countries which account for over 95% of the production and acreage. India continues to be the single largest producer of pearl millet in the world, although the area has been declining in the traditional growing states of Gujarat, Rajasthan and Haryana. Pearl millet is usually grown as a dry-land dual purpose grain and fodder crop although it is sometimes irrigated in India, particularly the summer crop grown mainly as a forage crop. It is a principal source of energy, protein, vitamins and minerals for millions of the poorest people in the regions where it is cultivated. Pearl millet grains are very high in calories—precisely the reason they do wonders for growing children and pregnant women. Iron deficiency, which is widely prevalent in India, impairs children's physical growth, mental development, and learning capacity. Anemia is often induced by iron deficiency, and when severe it can increase women's risk of dying in childbirth (IFPRI, 2010). Pearl millet can be used in developed of traditional foods utilization in value addition. Processing makes it possible to make variety of food products by adopting various technologies like baking, extrusion cooking etc. (Seetharam *et al.* 2001). Eastman *et al.* (2001) suggested pearl millet as an important non-traditional ingredient in extruded products to meet required nutritional values. To overcome the problems of undernutrition and overnutrition and provide a good opportunity to rural women, there is need to develop value added, fiber rich commercial products from cereals and nutritional evaluation of new crop varieties and develop an enterprise for rural women to make them self-employed.

RESEARCH METHODOLOGY

The present study was conducted in Hisar district of Haryana state. Forty rural women each from *Balsamand* and *Bandaheri* villages of Hisar district. From the selected villages a sample of 50 women from each village was drawn randomly. Thus a total of 100 women respondents were selected randomly for creating awareness of pearl millet value added products through experts and motivational lectures. Four days training was organized for 40 women from both the villages. For the present study the adoption feasibility as an enterprise was measured by taking into account the various parameters viz., Relative advantage, Cultural compatibility, Simplicity/ complexity, Observability, Triability. The training was imparted on value added products of pearl millet like *laddoo*, *namkeen sev*, *dhokla* and cake, etc. After imparting training to women, they were prepared pearl millet products.

RESULTS AND DISCUSSIONS

Perceived Feasibility of Value Added Products of Pearl Millet as an Enterprise

Perceived feasibility for value added products of pearl millet by rural women was measured in terms of extent of merit of pearl millet products for future adoption or rejection. In the present context, feasibility was defined as the extent to which rural women perceived value added

Table 1: Perceived Feasibility of Value Added Products of Pearl Millet

Sr. No.	Products	Attributes	Name of Village		Pooled Sample (n=40) WMS	Rank
			<i>Balsamand</i> (n=20)	<i>Bandaheri</i> (n=20)		
			WMS	WMS		
1.	<i>Laddoo</i>	Relative advantage	2.85	2.80	2.82	II
		Physical compatibility	2.65	2.65	2.65	III
		Cultural compatibility	2.30	2.65	2.47	IV
		Simplicity	3.05	3.00	3.02	I
		Triability	3.00	3.05	3.02	I
2.	<i>Namkeen Sev</i>	Relative advantage	2.40	2.50	2.45	I
		Physical compatibility	1.95	1.95	1.95	IV
		Cultural compatibility	2.00	2.05	2.02	III
		Simplicity	2.35	1.85	2.10	II
		Triability	1.70	1.75	1.72	V
3.	<i>Cake</i>	Relative advantage	1.70	1.50	1.60	IV
		Physical compatibility	2.75	2.80	2.77	II
		Cultural compatibility	2.30	1.45	1.87	III
		Simplicity	3.20	2.95	3.07	I
		Triability	1.65	1.40	1.52	V
4.	<i>Dhokla</i>	Relative advantage	1.60	1.50	1.55	V
		Physical compatibility	2.75	2.90	2.82	II
		Cultural compatibility	2.30	1.55	1.92	III
		Simplicity	3.10	2.95	3.02	I
		Triability	1.85	1.40	1.62	IV

products of pearl millet as relative advantage, physical compatibility, cultural compatibility, simplicity and triability.

It is clear from Table 1 that in pooled sample pearl millet *laddoo* found to be simple to use and easy to try on small scale with ranked 1st followed by relative advantage, physical compatibility and cultural compatibility.

In pooled sample, perceived feasibility of pearl millet *dhokla* and cake found to be simple to use (rank 1st) followed by physical compatibility, cultural compatibility, easy to try on small scale and profitability.

Profitability rank 1st was observed for pearl millet *namkeen sev* followed by simple, cultural compatibility, physical compatibility and trialability in pooled sample as well as in both the villages.

Overall Acceptability of Women Respondents for Pearl Millet Value Added Products

The overall acceptability of value added products of pearl millet by respondents was measured and quantified by summing individual score of the respondent's symbolic adoption and their willingness to adopt it for income generation and home consumption.

Data in Table 2 revealed that 50 per cent of the respondents had medium overall acceptability for value added products of pearl millet whereas 37.50 per cent respondents were having high acceptability. Only 12.50 per cent respondents showed low acceptability for value added products of pearl millet as useful enterprise for income generation as well as for home consumption also. Thus, it can be inferred that overall acceptability of value added products of pearl millet fall in moderately medium category.

Table 2: Overall Acceptability of Women Respondents for Pearl Millet Value Added Products

Categories	Total (n=40)	
	F	%
High (16-21)	15	37.50
Medium (8-15)	20	50.00
Low (1-7)	05	12.50

Skill Acquisition of Women Respondents for Pearl Millet Value Added Products

Skill acquisition of women respondents for value added pearl millet products in village *Balsamand* and *Bandaheri* and pooled sample was assessed through pre and post exposure mean score skill acquisition of respondents for value added products of pearl millet was calculated in frequency, percentage and have been presented in Table 3. The data point out that most of the respondents (80%) were having low skill followed by medium (10%) and high skill (10%) at pre exposure stage in *Balsamand* village. After exposing them to training 45 per cent of the respondents acquired skills at medium level followed by low skill (30%) and high skill (25%) respectively.

In *Bandaheri* village, 85 per cent of the respondents were having low skill followed by medium (10%) and high skill (5%) at pre exposure stage. However, at post exposure of training half of the respondents (50%) were acquired medium level skills followed by low skill (40%) and high skill (10%). The similar trend was observed in pooled sample also. Thus it can be inferred that women acquired skill when exposed them to training.

Table 3: Skill Acquisition of Women Respondents for Value Added Products of Pearl Millet Products

Sr. No.	Categories	Pre-Exposure		Post-Exposure	
		F	%	F	%
1.	Balsamand village (n=20)				
	Low	16	80.0	06	30.0
	Medium	02	10.0	09	45.0
	High	02	10.0	05	25.0
2.	Bandaheri village (n=20)				
	Low	17	85.0	08	40.0
	Medium	02	10.0	10	50.0
	High	01	05.0	02	10.0
	Total (n=40)				
	Low	33	82.50	14	35.0
	Medium	04	10.00	19	47.50
	High	03	07.50	07	17.50

Willingness of Women Respondents for Adoption of Pearl Millet Products

Willingness of respondents for adopting value added products of pearl millet for income generation was measured through three continuum scale. Data presented in Table 4 revealed that in *Balsamand* village 50 per cent respondents can be adopted with somewhat difficulty on commercial level as well as home consumption followed by can't be adopted (40%) and can be adopted without difficulty (10%) respectively.

It is clear from Table 4 that 45 per cent of the respondents of *Bandaheri* village were ready to adopt pearl millet with somewhat difficulty, 50 per cent respondents can't be adopted whereas only 5 per cent respondents can be adopted pearl millet products on commercial level.

Regarding pooled sample as shown Table 4 that respondents adoption towards value added products of pearl millet for income generation as well as for home consumption revealed that 47.50 per cent of the respondents can be adopted with somewhat difficulty followed by 45 per cent respondents can't be adopted and 7.50 per cent of the respondents can be adopted without difficulty. Thus, it can be inferred that less than half of the respondents were willing to adopt value added products of pearl millet with somewhat difficulty.

Table 4: Willingness of Women Respondents for Adoption of Pearl Millet Products

Categories	<i>Balsamand</i> (N=20)		<i>Bandaheri</i> (N=20)		Total (N=40)	
	F	%	F	%	F	%
Can be adopted without difficulty	02	10.0	01	05.0	03	07.50
Can be adopted with somewhat difficulty	10	50.0	09	45.0	19	47.50
Cannot be adopted (commercial level)	08	40.0	10	50.0	18	45.00

CONCLUSIONS

It is concluded that the "Training" was the most useful extension technique for transfer of technology and trainees start their self-employment within their local areas with locally available resources. Results revealed that maximum number of the respondents perceived value added pearl millet products i.e. *laddoo*, *namkeen sev*, *cake and dhokla* etc. to be simple to use, easy to try on small scale and profitable. Half of the respondents had medium overall acceptability of pearl millet products and medium skill acquisition and willing to adopt pearl millet products with somewhat difficulties.

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