

# Effectiveness of training on food processing among women in Haryana, India

## ABSTRACT

The study was conducted in seven villages purposively selected namely Dhanakurd, Ramayan and Beer Hansi from Hansi-I block, Ludas and Patan from Hisar-II block, Sulakhni and Balawas from Hisar-I block. A training program regarding food processing was very useful among trainees, with maximum training effectiveness score of picking of seasonal vegetables (WMS 2.43), preservation of fruits and vegetables (WMS 2.26), milk and milk products (WMS 2.40) and baking (WMS 2.22). Regarding the coverage of training, it was found that content of the training was considered very well covered by most of the respondents (61.54%) followed by (31.73 %) respondents who considered training content as of medium level. The methodology used in training programmed was considered very well by nearly half of the respondents irrespective of the type of training. The working environment was also rated as excellent and very good by (40.00 %) of the respondents. Rest of the respondents (15.38 %) considered the working environment as good. Majority of the respondents found training material as very much useful and practical sessions satisfactory. Nearly half of the respondents (52.88 %) were ready to start training on food processing as an income generating activity.

**Keywords:** Food processing, rural women, utility, coverage, Haryana

## INTRODUCTION

Need-based training programme acts as a catalyst for increasing the motivational level of trainees who in turn try to put their sincere efforts to learn and gain maximally from the training programme. It can thus be assumed that training need identification acts as a foundation pillar of training and helps in prioritizing the training areas for a particular group of trainees.

Kumar et al. (2006) reported that KVK organized a number of training to utilize the spare time of farmer, farm women, unemployed and unskilled rural youth. The KVK organized on an average of 128 trainings per years 1999-2006. Maximum vocational training is given on vermin-compost production followed by dairy, fruits and vegetable production and minimum on commercial cultivation of flowers, fruits and exotic vegetables. The outcome of training programme was shown that there is 14.7-36.8% increase in income after the adoption of training.

Venugopalan (1992) emphasized that considering women's involvement in wide range of activities it is evident that their production potentials can be realized only if women get the necessary training, technical (know – how) and support.

33 The improved food processing word is highly fragmented as it widely comprises of the sub-  
34 segment like fruit and vegetables, milk and milk products, grain processing, meat and poultry,  
35 alcoholic beverages, packaged or convenience food and packaged drinks.

36 Das and Baruah (2000) pointed out that the involvement of farm women in modernization of farming  
37 practices and village industries is absolutely essential. They provided training on squash and pickle  
38 preparation to make use of locally available fruits and vegetables.

39 Davi and Shaik (2012) concluded that a profound training programme acts as a vehicle to enhance  
40 employee skill and enable them to perform better in their job. An effective training programme is one  
41 that addresses training needs and delivers training according to training objectives.

42 Sridhar *et al.*(2013) conducted a study to check the percentage change in the income level of the  
43 different trainees before and after training. It was found that there is about 86% gain in knowledge  
44 among the poultry farmers. The beneficiaries got hands-on experience during the training program  
45 and started backyard poultry in their respective villages. It was found that 63.4% of trainees got the  
46 improvement in the knowledge level of the food processing training. It was found that almost 58.55%  
47 increase in the knowledge and the work efficiency of the rural youth in gardening training which was  
48 sufficient for starting own business.

49

## 50 **MATERIALS AND METHODS**

51 Food processing training includes two trainings each in the processing of milk and milk products,  
52 pickling of seasonal vegetables and preservation of fruits and vegetable and one training on baking.  
53 Thus a total of seven pieces of training were conducted during 2008-2015. A total of 155 scheduled  
54 caste women were covered under the training on food processing. All the available beneficiaries  
55 covered under the trainings on food processing with at least 100 trainees were to be selected thus 104  
56 respondents were available and formed the sample of the study. Training utility was measured by  
57 getting the response on three-point continuum i.e. very useful, useful and undecided with the score  
58 assigned as 3, 2, 1 respectively. A well-structured interview schedule was constructed for data  
59 collection. The collected data was quantified and interpreted by using suitable statistical tools such as  
60 frequency, mean score and rank.

61

## 62 **RESULT AND DISCUSSION**

63

### 64 **The utility of training on pickling of seasonal vegetables**

65 The data in Table -1 depicted that green chilli pickle was considered as highly useful with  
66 (2.43 WMS) and ranked 1<sup>st</sup> followed by lemon and green chilli pickle (2.25 WMS) ranked 2<sup>nd</sup>, and  
67 mixed vegetable pickle (2.15 WMS) ranked 3<sup>rd</sup>.

68 **Table 1: Utility of training on pickling of seasonal vegetables**

Sr. No.	Pickles	Very useful (3)	Useful (2)	Undecided (1)	Over all utility / W.M.S	Total WMS	Rank
<b>1.</b>	<b>Lemon and green chilli pickle</b>						
	Ingredient	8	14	2	2.25	2.25	II
	Method	9	11	4	2.20		
	Precaution	10	11	3	2.29		
<b>2.</b>	<b>Green chilli pickle</b>						
	Ingredient	13	11	-	2.54	2.43	I
	Method	9	14	1	2.33		
	Precaution	12	10	2	2.41		
<b>3.</b>	<b>Mixed vegetable pickle</b>						
	Ingredient	9	12	3	2.25	2.15	III
	Method	7	13	4	2.08		
	Precaution	6	15	3	2.12		

69 **B. Utility of training on fruit and vegetable of preservation :-**

70 The data in Table-2 depicted that green chilli pickle was considered as highly useful with  
71 (2.26 WMS) ranked 1<sup>st</sup> followed by lemon and green chilli pickle (2.22 WMS) ranked 2<sup>nd</sup>, mixed  
72 vegetable pickle (2.09 WMS) ranked 3<sup>rd</sup>, Tomato Sauce (2.06 WMS) ranked 4<sup>th</sup>, potato chips (1.99  
73 WMS) ranked 5<sup>th</sup> and anola candy (1.78 WMS) ranked 6<sup>th</sup>.

74 **Table 2: Utility of training on fruit and vegetable preservation**

Sr. No	Products	Very useful (3)	Useful (2)	Undecided (1)	Over all utility/ W.M.S	Total WMS	Rank
<b>1.</b>	<b>Lemon and green chilli pickle</b>						
	Ingredient	16	21	3	2.32	2.22	II
	Method	15	20	5	2.25		
	Precaution	11	22	7	2.1		
<b>2.</b>	<b>Green chili pickle</b>						
	Ingredient	14	24	2	2.3	2.26	I
	Method	12	25	3	2.22		
	Precaution	11	28	1	2.25		
<b>3.</b>	<b>Mixed vegetable pickle</b>						
	Ingredient	10	27	3	2.2	2.09	III
	Method	11	25	4	2.17		
	Precaution	8	21	11	1.92		
<b>4.</b>	<b>Tomato sauce</b>						
	Ingredient	12	19	9	2.07	2.06	IV
	Method	14	16	10	2.1		

	Precaution	9	23	8	2.02		
<b>5.</b>	<b>Anola candy</b>						
	Ingredient	8	23	9	1.97	1.78	VI
	Method	11	19	10	2.02		
	Precaution	7	10	13	1.35		
<b>6.</b>	<b>Potato chips</b>						
	Ingredient	11	24	5	2.15	1.99	V
	Method	9	21	10	1.97		
	Precaution	6	22	12	1.85		

75 **C. Utility of training on the processing of milk and milk products:-**

76 The data in Table-3 indicated that production & preservation of paneer was considered as  
77 highly useful with (2.40WMS) ranked 1<sup>st</sup> followed by sweet lassi (2.32 WMS) ranked 2<sup>nd</sup>, flavoured  
78 milk (2.22 WMS) ranked 3<sup>rd</sup>, burfi (2.1 WMS) ranked 4<sup>th</sup>, *chhana* (2.08 WMS) ranked 5<sup>th</sup>&  
79 production & preservation of cream (1.93WMS) ranked 6<sup>th</sup>.

80 **Table 3: Utility of training on processing of milk and milk products**

Sr. No.	Processing of milk and milk products	Very useful (3)	Useful (2)	Undecided (1)	Over all utility /W.M.S	Total WMS	Rank
1.	<b>Paneer</b>						
	Ingredient	11	9	-	2.55	2.40	I
	Method	8	12	-	2.4		
	Precaution	7	11	2	2.25		
2.	<b>Sweet lassi</b>						
	Ingredient	7	12	1	2.3	2.32	II
	Method	9	10	1	2.4		
	Precaution	7	11	2	2.25		
3.	<b>Burfi</b>						
	Ingredient	6	9	5	2.05	2.1	IV
	Method	7	8	5	2.1		
	Precaution	5	13	2	2.15		
4.	<b>Chhana</b>						
	Ingredient	6	11	3	2.15	2.08	V
	Method	4	12	4	2.0		
	Precaution	5	12	3	2.1		
5.	<b>Flavored milk</b>						
	Ingredient	8	10	2	2.3	2.22	III
	Method	5	12	3	2.1		
	Precaution	6	13	1	2.25		
6.	<b>Cream</b>						
	Ingredient	4	11	5	1.95	1.93	VI
	Method	4	9	7	1.85		
	Precaution	5	10	5	2.00		

81 **D. Utility of training on Baking-** The result in Table-4 revealed that making of chocolate cake was  
 82 considered as highly useful with (2.22WMS) ranked 1<sup>st</sup> followed by eggless cake (1.93 WMS) ranked  
 83 2<sup>nd</sup> and kaju biscuits (1.78 WMS) ranked 3<sup>rd</sup>.

84 **Table 4: Utility of training on Baking**

Sr. No.	Baking products	Very useful (3)	Useful (2)	Undecided (1)	Over all utility/ W.M.S	Total WMS	Rank
<b>1</b>	<b>Kaju biscuits</b>						
	Ingredient	3	9	8	1.75	1.78	III
	Method	2	8	10	1.6		
	Precaution	5	10	5	2.0		
<b>2.</b>	<b>Chocolate cake</b>						
	Ingredient	8	10	2	2.3	2.22	I
	Method	5	12	3	2.1		
	Precaution	6	13	1	2.25		
<b>3.</b>	<b>Eggless cake</b>						
	Ingredient	5	9	6	1.95	1.93	II
	Method	3	10	7	1.8		
	Precaution	4	13	3	2.05		

85

86 **Coverage of training**

87 The coverage of training was seen in terms of coverage of subject matter, methodology used,  
 88 and working environment, the usefulness of training material, practical sessions and opinion about  
 89 income generation. It can be seen from the Table-5 that content of the training was considered very  
 90 well covered by most of the respondents (61.54%) followed by (31.73%) respondents who considered  
 91 training content as of medium level. The methodology used in the training programme was considered  
 92 very good by nearly half of the respondents irrespective of the type of training. **The working  
 93 environment was also rated as excellent and very good by (40.00%) of the respondents. Rest of the  
 94 respondents (15.38%) considered the working environment as good. Majority of the respondents  
 95 found training material as very much useful and practical sessions satisfactory. Nearly half of the  
 96 respondents (52.88%) were ready to start training on food processing as an income generating  
 97 activity.**

98 **Table 5: Opinion of respondents about coverage of the training programme**

Sr. No.	Dimension	Pickling of seasonal vegetables	Fruit and vegetable preservation	Baking	Processing of milk and Milk Product	Total	W.M.S
		n=24	n=40	n=20	n=20	n=104	
<b>1.</b>	<b>Content</b>						
	Well covered	18(75.0)	28(70.00)	7(35.0)	11(55.0)	64(61.54)	2.55
	Medium covered	6(25.0)	10(25.0)	9(45.0)	8(40.0)	33(31.73)	
	Ordinary covered	-	2(5.0)	4(20.0)	1(5.0)	7(6.73)	
<b>2.</b>	<b>The methodology used in the training programme</b>						
	Very good	14(58.3)	16(40.0)	10(50.0)	11(55.0)	51(49.04)	

	Good	9(37.5)	21(52.5)	8(40.0)	9(45.0)	47(45.19)	2.43
	Not good	1(4.2)	3(7.5)	2(10.0)	-	6(5.76)	
<b>3.</b>	<b>Working environment</b>						
	Excellent	11(45.83)	15(37.5)	10(50.0)	9(45.0)	45(43.27)	2.27
	Very good	9(37.5)	20(50.0)	7(35.0)	7(35.0)	43(41.35)	
	Good	4(16.7)	5(12.5)	3(15.0)	4(20.0)	16(15.38)	
<b>4.</b>	<b>Usefulness of training material</b>						
	Very much useful	19(79.2)	25(62.5)	10(50.0)	12(60.0)	66(63.46)	2.58
	Useful	5(20.8)	12(30.0)	8(40.0)	8(40.0)	33(31.73)	
	Not at all useful	-	3(7.5)	2(10.0)	-	5(4.80)	
<b>5.</b>	<b>Practical session in training programme</b>						
	Satisfactory	16(66.7)	25(62.5)	12(60.0)	14(70.0)	67(64.42)	2.51
	Somewhat satisfactory	6(25.0)	9(22.5)	5(25.0)	4(20.0)	24(23.07)	
	Not satisfactory	2(8.3)	6(15.0)	3(15.0)	2(10.0)	13(12.5)	
<b>6.</b>	<b>Opinion about starting income generating activity</b>						
	Yes	13(54.2)	21(52.5)	8(40.0)	13(65.0)	55(52.88)	1.52
	No	11(45.8)	19(47.5)	12(60.0)	7(35.0)	49(47.11)	

Figures in parentheses indicate percentages (%)

Thus it may be inferred that majority of the respondents were fully satisfied with the training material with (2.58 WMS) followed by coverage of the content (2.55 WMS), a practical session in training programme and methodology used in training programme.

## CONCLUSION

A training program regarding maximum training effectiveness score of picking of seasonal vegetables, preservation of fruits, milk and milk products and baking. Training on green chilli pickle, lemon and green chilli pickle, production and processing of paneer, sweet lassi and the chocolate cake was rated as highly useful by the respondents. Regarding the coverage of training, it was found that content of the training was considered very well covered by most of the respondents followed by respondents who considered training content as of medium level. Working environment was also rated as excellent and very well by the respondents. Rest of the respondents considered the working environment as good. Majority of the respondents found training material as very much useful and practical sessions satisfactory. Nearly half of the respondents were ready to start training on food processing as an income generating activity. These findings are supported by Desai (1996) and Akansha (2006). They also found that training programmes were very useful to trainees.

## Recommendations

- Most of the respondents were poorly satisfied with the duration of training for all the training programmes, therefore the duration of the training should be increased but the training hours

121 should be reduced so that the respondents may learn the skill sufficiently as well as can take care  
122 of their family.

- 123 • All the training are a feasible enterprise and very much suitable for rural SC women to practice  
124 and empower them economically and socially. So the NGOs, extension agencies should enhance  
125 the capacity of SC rural women by organizing them into self help groups and providing the  
126 necessary training and support in these areas so that they can start own income generating activity.  
127 Most of the respondents were unaware of the provision of bank loan for starting various income-  
128 generating activities, it is therefore recommended to organize special training/ awareness  
129 campaign in the villages.

130

131 Consent:

132 As per international standard written participant consent has been collected and preserved by the  
133 authors.

134

135 Ethical: NA

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