

# Impact of KVK trainings in adoption of home science technologies

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■ **ABSTRACT :** A study was conducted to find out the effectiveness of training programmes on adoption of selected home science technologies imparted by KVK Bagalkot. Total 254 rural women were selected for the study. The data revealed that majority of trained women belonged to high level of adoption in washing powder and phenyl making, maize products, bakery products and medium level in mango products. Dairy management technology adopted by more number of trained women whereas low adoption was found in seed treatment and integrated farming system technology. None of the trained women adopted vermicomposting technology. Size of land holding exhibited significant but negative relationship with respect to adoption level of home science technologies. Major constraints faced by trained women in adoption of the technologies were financial assistance, non-availability of raw materials, market facility, non co-operation and lack of family encouragement.

■ **KEY WORDS:** Adoption, Home science technology, Impact, KVK, Rural women, Training

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In the era of technological development, Home Science technologies are advancing at high speed. The progresses in any field depend to a large extent on quick and effective dissemination of new practices or technologies among the beneficiaries and bring back of their problems to the research labs for their solution. For this training is one of the essential components which refers to the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills. To adopt innovative technology, to save time or energy, to make them aware of drudgery reducing equipments, to take income generating activities during off season, and to start self employments

training is very essential for upliftment of rural women.

With this in view, the Indian Council of Agricultural Research (ICAR) during the fifth five year plan, launched an innovative project for imparting training in agriculture and allied areas to the farmers, school drop-outs and field level extension functionaries in the country by establishing Krishi Vigyan Kendras (KVK's). One of the main tasks of Krishi Vigyan Kendra is to provide and improve the level of knowledge of the trainees about the improved practices, because knowledge is cognitive component of individual's mind and plays an important role in covert as well as overt behaviour. Therefore the individuals with a greater technical knowledge of

improved practices would lead to a high adoption possibly because knowledge is not inert. Hence the present study was designed to find out the effect of KVK training programmes on trained rural women

### Objectives of the study:

- To analyze the extent of adoption of technologies by trained rural women
- To study the relationship between independent and dependent variables
- To identify the problems in adoption of imparted technologies

### RESEARCH METHODS

The study was conducted in Bagalkot district of Karnataka state during 2014-15. A list of trainees was obtained from KVK Bagalkot who were imparted training on home science technologies. Out of six taluks of Bagalkot district, highest number of trainees were observed in Bilagi and Bagalkot taluk. From each taluk number of villages were listed and final selection of villages were made based on availability of women trained from KVK. The selected villages were Chikkasounsi, Benakatti, Bhagavati, from Bagalkot taluk; Anagwadi from Bilagi taluk. Total 254 rural women were selected for the selected four technologies. Out of the total sample, equal number of trained and untrained rural women were considered for each selected technology from the four villages *i.e.* 127 trained rural women who have undergone training at KVK and two hundred and 127 untrained rural women from the same village were randomly selected for the study.

To assess the impact of trainings on rural women 4 home science technologies *viz.*, washing powder and phenyl making, maize products, mango products, bakery

products were selected for the study. The data was collected from trained and untrained women with the help of pre tested schedule by personal interview technique in an informal atmosphere. Mean and standard deviation were used for classification of respondents into various categories. Correlation was employed to know the relationship between dependent and independent variables.

### RESEARCH FINDINGS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

#### Adoption of washing powder and phenyl making by trained rural women :

A glance at Table 1 showed that, adoption was found to be equal in materials required for preparation of phenyl, plastic and glass bottles to store phenyl and preparation of phenyl jel (66.67 % each) followed by use of perfumes and colours (50.00 %), materials required for preparation of washing powder, wearing gloves or plastic bag while mixing powder, packing method for washing powder and price fixing (33.33 % each). Overall adoption index was 47.92.

#### Adoption of maize products by trained rural women:

It becomes clearly evident from the Table 2 that, 88.57 per cent of adoption was found in use of dry corn kernels, salt and saucepan with lid for pop corn making while, women had 71.43 per cent of adoption about use of required ingredients for preparing pakoda and frying corn pakoda till it turns golden brown colour followed by frying corn pakoda on medium fire (54.29%). Using ghee for preparing sweet corn halwa (20.00%) and adding dried milk to halwa (17.14%) was adopted by

Table 1 : Adoption of washing powder and phenyl making by trained rural women		(n=06)
Sr. No.	Statements	Adoption index
1.	Using washing soda, salt, acid slurry, TSP, STPP and AOS for the preparation of soap powder	33.33
2.	Adding different perfumes and colours for the attraction of market and better price for phenyl	50.00
3.	Wearing gloves or plastic bag while mixing soap powder	33.33
4.	Using polythene bag or plastic bag to pack washing powder	33.33
5.	Fixing the price of the prepared powder based on quality, quantity and labour charges	33.33
6.	Using pine oil, turki red oil and water for the preparation of phenyl	66.67
7.	Storing phenyl in plastic bottles or glass bottles	66.67
8.	Using 100g of phenyl jel for preparation of 1 liter of phenyl	66.67
	Overall adoption index	47.92

very less respondents. Overall adoption index of preparation of maize products was 50.

### Adoption of mango products by trained rural women:

A look at the data in the Table 3 indicated that, maximum adoption was found in type of container to store mango pickle, washing and wiping mango with cleaned cloth, dry and clean utensils for storage of pickles (96.67% each) followed by various ingredients for preparation of mango pickle (93.33%) and oil to preserve pickle (83.33%). Very less adoption was found

in proper stage of pouring prepared jam in glass bottles, adding ascorbic acid to preserve mango jam (06.67% each) and keeping mango jelly at least one hour to cool and settle (03.33%) and overall adoption index was 48.33.

### Adoption of bakery products by trained rural women:

The data recorded in Table 4 depicts that, adoption was found to be cent per cent in required materials for preparation of biscuits, temperature for baking biscuits (100.00 % each) followed by special packing of the

Table 2 : Adoption of maize products by trained rural women		(n=35)
Sr. No.	Statements	Adoption index
1.	Using corn kernels and salt for preparing pop corn	88.57
2.	Using complete dry corn kernels for preparing pop corn	88.57
3.	Using saucepan with lid to prepare pop corn	88.57
4.	Using ghee for preparing sweet corn halwa	20.00
5.	Adding dried milk, after frying sweet corn paste	17.14
6.	Using corn, onion, chilli, garlic, cumin powder for preparing corn pakoda	71.43
7.	Frying corn pakoda on a medium fire	54.29
8.	Frying corn pakoda till it turns golden brown colour	71.43
	Overall adoption index	50.00

Table 3 : Adoption of mango products by trained rural women		(n=30)
Sr. No.	Statements	Adoption index
1.	Storing mango pickle in glass bottle	96.67
2.	Adding ascorbic acid during preparation of mango jam	06.67
3.	Pouring mango jam in glass bottles while it is warm	06.67
4.	Using oil to preserve pickle for longer time	83.33
5.	Keeping mango jelly at least one hour to cool and settle	03.33
6.	Using mango, mustard powder, salt, chilli powder and oil for preparation of mango pickle	93.33
7.	Washing and wiping mango with clean cloth while preparing mango pickle	96.67
8.	Using clean and dry utensils for better storage of mango pickles	96.67
	Overall adoption index	48.33

Table 4 : Adoption of bakery products by trained rural women		(n=08)
Sr. No.	Statements	Adoption index
1.	Using maida flour, sugar, dalda, milk products, for the preparation of biscuit	100.0
2.	Maintaining temperature for baking biscuits	100.0
3.	Adding vanaspati after mixing sugar and salt to the maida flour for bread preparation	0.00
4.	Keeping maida dough for minimum 1 ½ hour for bread making	0.00
5.	Using egg for preparation of cake	0.00
6.	Using dry fruits for preparation of bakery products	50.00
7.	Special packing of the bakery products	62.50
8.	Using yeast for bread raising	0.00
	Overall adoption index	39.06

**Table 5 : Relationship between independent variables and adoption of the home science technologies of trained rural women (n=127)**

Independent variables	Pearson correlation co-efficient 'r' value	
	Trained in home science (n=127)	
Age	.011 <sup>NS</sup>	
Education	-.039 <sup>NS</sup>	
Marital status	.001 <sup>NS</sup>	
Family income	.022 <sup>NS</sup>	
Family size	-.063 <sup>NS</sup>	
Type of family	-.146 <sup>NS</sup>	
Size of land holding	-.255 <sup>**</sup>	
Occupation of respondents	.140 <sup>NS</sup>	
Main occupation of family	.123 <sup>NS</sup>	
Mass media participation	-.046 <sup>NS</sup>	
Extension contact	.113 <sup>NS</sup>	
Cosmopolitaness	-.135 <sup>NS</sup>	

NS = Non-significant

\* and \*\* indicate significance of values at P=0.05 and 0.01, respectively

bakery products (62.50 %) and use of dry fruits in bakery products (50.00%). In case of adoption of adding vanaspati, yeast, keeping dough for minimum 1 ½ hour for bread making and use of egg in cake was found to be nil. Egg is one of the most essential ingredient for the preparation of cake but elder members do not allow to

**Table 6 : Constraints in adoption of home science technologies by trained rural women (n=247)**

Sr. No.	Constraints	Home science technologies	
		F	%
1.	Non-availability of raw materials	15	11.81
2.	High cost of raw materials	04	03.14
3.	Lack of financial assistance	46	36.22
4.	Lack of market facility	10	07.87
5.	Lack of guidance	17	13.39
6.	Lack of adequate time	60	47.24
7.	Non co-operation and lack of family encouragement	14	11.02

Note : Multiple answers possible

use egg as they considered it as a non- vegetarian food. Also most of the selected respondents were from hindu community where, their food culture do not allow egg. These may be the plausible reasons for low adoption of bread and cake. Overall adoption index of bakery products was found to be 39.06.

**Adoption level of trained rural women about home science technologies :**

A close perusal of Fig. 1 elicits that, more number of trained women (50.00%) belonged to high level of adoption followed by low (33.33%) and medium

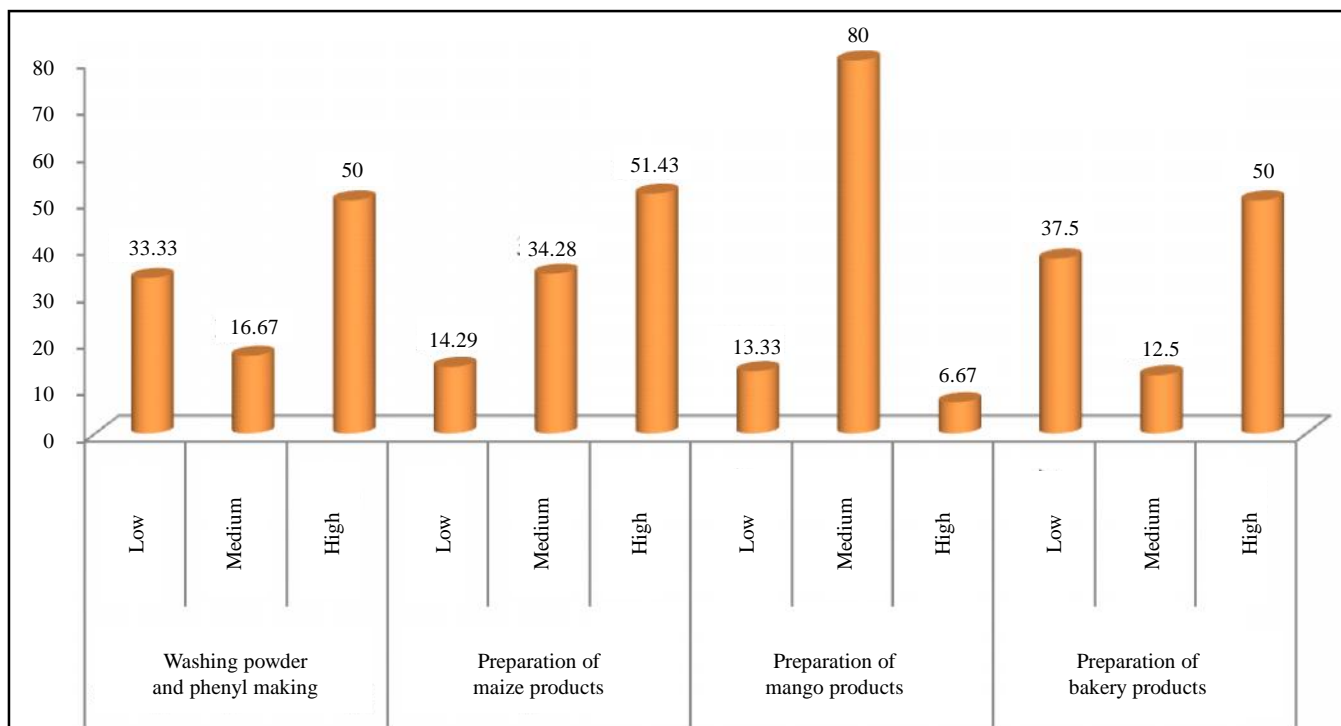


Fig. 1 : Adoption level of home science technologies by trained rural women

(16.67%) level category with respect to washing powder and phenyl making. Similar study reported by Kharatmol (2006). The probable reason for high adoption of this technology may be the methodology of preparation of washing powder and phenyl was found to be easy to understand because of proper guidance given to the trainees.

In case of preparation of maize products, more than fifty per cent of trained women (51.43%) were belonged to high level of adoption followed by medium (34.28%) and low level (14.29%). Availability of maize in their farm and local market, easy procedure of maize recipe, taste of products liked by the family members, attending upto last stage of training programme, consuming less time for preparing, giving much importance to learn new things were the possible reasons for high adoption of maize products. The findings of the study were in conformity with the findings of Panwar *et al.* (2006).

The data projected in the Fig.1 indicated that 80.00 per cent of trained women had medium level of adoption followed by 13.33 per cent and 6.67 per cent who possessed low and high level of adoption, respectively with regard to preparation of mango products. The findings of the present study agree with the findings of the Borua and Brahma (2012). The reason for medium adoption of value added products of jam and jelly from mango is that the trained women perceive it as difficult to prepare in proper consistency and hence showed less interest in preparation of jam and jelly. They felt mango pickling was more accepted product by family members and easy to prepare when compare to jam and jelly.

Fig.1 also indicated that 50.00, 37.50 and 12.50 per cent of trained women were found in high, low and medium level of adoption category, respectively about preparation of bakery products. This may be because of proper guidance and suggestions given by KVK staffs. The findings of the present study are similar with the findings of the Panwar *et al.* (2006) and Parimalam *et al.* (2016).

#### **Relationship between independent variables and adoption of the home science technologies of trained rural women :**

A look at the Table 5 showed that, size of land holding exhibited significant but negative relationship with respect to adoption level about home science technologies. This showed that increased land holding resulted in decreased adoption level of home science

technologies. They were found to be more interested to work in their farm related activities than home science. Their earnings from agriculture were sufficient to meet their day today requirements may also be the other reason for negative relationship with adoption level. The findings of the present study are not in accordance with the findings of the Chandranna *et al.* (2008).

Education, family size, type of family, mass media participation and cosmopolitaness were found to be non significant and negative relationship and other variables showed positive and non-significant relationship with adoption level of trained rural women about home science technologies.

#### **Constraints in adoption of home science technologies by trained rural women :**

An investigation of Table 6 indicated that, majority of them stated lack of adequate time (47.24 %) as their main constraint as their main occupation of the family is agriculture and fully engaged in farm, they may not get time to practice non-farm activities followed by lack of financial assistance (36.22%). The findings of the present study are in confirmation with the findings of the Santhi *et al.* (2013). Lack of guidance (13.39%), non-availability of raw materials (11.81%), non co-operation and lack of family encouragement(11.02%), lack of market facility (07.87%) and high cost of raw materials (03.14%) were other reasons in adoption of home science technologies.

#### **Conclusion:**

The above results revealed that adoption of home science technologies found to be good and many of the rural women adopted the learnt technologies. So these training programmes help in empowerment of rural women and enable them with requisite technical knowledge and skills need to start entrepreneurial activities and there by creating opportunities of income generation and livelihood security.

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