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Effectiveness of Training Programmes Conducted by District Agricultural Training Centre

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ABSTRACT

Karnataka State Department of Agriculture (KSDA) during 2001 established 23 District Agricultural Training Centres (DATCs) to provide trainings to farmers, farm women and extension workers of the department. The objective of DATCs are to impart training to farmers and farm women on improved agricultural technologies and update the knowledge and skills to staff of department in advanced agricultural technologies. The study was conducted in Dharwad district during the year 2014-15. Total 300 rural women (150 trained + 150 untrained) were selected for the study. The study revealed that majority of the trained rural women had medium level of knowledge about integrated pest management (56.70 %), integrated farming system (73.40%), dairy management (63.30%) and seed treatment (73.30%). Whereas, 43.30 percent of rural women had high level of knowledge about organic farming. Untrained rural women showed low level of knowledge about different agricultural and allied technologies except dairy management. With regard to adoption, majority of trained women belonged to high level of adoption about dairy management and seed treatment. With respect to integrated pest management majority of them had medium level of adoption and low level of adoption was found in integrated farming system and organic farming. Training programmes conducted by DATC had a good impact on knowledge gain and adoption of agricultural and allied technologies by the rural women. It helped them in creating awareness, to increase the knowledge and practicing the improved skills for betterment of their livelihood security.

Key words: *Adoption, District Agricultural Training Centre, Knowledge, Rural women, Training.*

INTRODUCTION

With fast emerging sophisticated innovations and technologies in every field, training is increasingly becoming a potent instrument that can help people bring about improvement in their prevailing conditions and ways of making a living[2]. The term training refers to the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies.

Training helps to provide an opportunity and broad structure for the development of human resources and technical skills. The importance of training for women empowerment has gained the attention of policy makers in our country. Different attempts are being made to make rural women self-sufficient through various training programmes. Training is meaningful only if it is need based and brings attitudinal change to establish own enterprise. District Agricultural Training Centre (DATC) is one of the training institutes, which provides training to framers, farm women and extension workers of the department. Application of agricultural and allied technologies demands for training at various levels to farmers and farm women. The need of the hour is to reach the unreached. Agricultural extension at present is focused on commodity oriented macro level technologies while the need is micro farming situation based in location specific, problem oriented interventions. It is in this context that the farmers- expert's interaction brings in high degree of confidence among the farmers and farm women. In order to reinforce and strengthen this mode of working Karnataka State Department of Agriculture (KSDA) during 2001 established 23 District Agricultural Training Centres (DATCs) to provide trainings to farmers, farm women and extension workers of the department. The objective of DATCs are to impart training to farmers and farm women on improved agricultural technologies and update the knowledge and skills to staff of department in advanced agricultural technologies. Now more importance is given for Human Resource Development (HRD) activities. DATCs deal with agriculture and allied subject with limited trainers. In order to know the effect of trainings conducted for rural women by District Agricultural Training Centre (DATC) Dharwad the present study was taken up with the following objectives;

 1) To find out the knowledge level of trained and untrained rural women with regard to technologies.

 2) To analyze the extent of adoption of technologies by trained rural women.

MATERIALS AND METHODS

The study was conducted in Dharwad district of Karnataka state during 2014-15. A list of trainees was obtained from District Agricultural Training Center (DATC) Dharwad, who were undergone training on agricultural and allied technologies. Out of five taluks of Dharwad district, highest numbers of trainees were observed in Hubli, Dharwad, Kalaghatagi and Kundgol taluks. From each taluk numbers of villages were listed and final selection of villages were made based on availability of women trained from DATC. Total three hundred rural women were selected. Out of the total sample, equal numbers of trained and untrained rural women were considered for each selected technology from the different villages i.e. one hundred and fifty trained rural women who have undergone training in DATC and one hundred and fifty untrained rural women from the same village were randomly selected for the study. To evaluate the effect of trainings on rural women knowledge and adoption, agricultural and allied technologies like Integrated Pest Management (IPM), Integrated Farming System (IFS), dairy management, seed treatment, and organic farming 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. Interval method was adopted for classification of respondents into various categories. Suitable statistical tools were used to analyze the collected data and presented in the form of results.

RESULTS AND DISCUSSION
Socio-economic status of rural women
Majority of (64.00%) the trained women and nearly half (48.70%) of the untrained women belonged to middle age group. As high as 47.30 per cent and 49.30 per cent of trained and untrained rural women were illiterate followed by primary education 24.70 per cent and 26.00 per cent respectively. It was noticed from the Table 1 that majority of the trained and untrained rural women (76.70% and

64.70%) were belonged to forward caste followed by SC/ST (18.70% and 20.70%). Most of the trained and untrained rural women were married. And less per cent of them were found in widow and unmarried category. Equal per cent of trained women (46.70% each) belonged to nuclear and joint family. An analysis of data (Table 1) showed that most of the trained (93.30%) and untrained (82.70%) women belonged to low mass media participation, extension contact and organizational participation. A close perusal of Table 1 revealed that, majority (57.40%) of the rural women were undergone two trainings followed by more than three trainings (39.30%). The data depicted in the Table 2 indicated that majority of the trained and untrained rural women (54.70% and 52.00%) had small land holding. The results also indicated that majority of the trained and untrained (76.70% and 62.00%) women were housewives. With regard to family occupation Table 2 revealed that majority (83.30%) of trained and untrained women (70.70%) had their family occupation as agriculture.

Effect of training in terms of knowledge level of trained and untrained rural women about selected agricultural and allied technologies

The data from the Table 3 with respect to knowledge level of trained and untrained rural women about integrated pest management revealed that, more than half of the trained women (56.70%) had medium level of knowledge. In case of untrained rural women 80.00 per cent of them had low level of knowledge. These findings are in line with results of Borua and Brahma[3] and Gupta and Verma[5]. Motivational sources and attitude of rural women towards integrated pest management practices might have influenced the knowledge level. Lack of information and non-participation in training may be the reasons for low knowledge level among untrained rural women. Majority (73.40%) of the trained rural women were belonged to medium level of knowledge about IFS (Table 3). The results of the study are consistent with the findings of Sharma *et al*[3]. It was also

indicated that majority of the untrained rural women (56.70%) were found in low level of knowledge category. The reason for good knowledge among trained women might be due to different benefits provided to the rural women under IFS scheme by the government and agricultural university. Another probable reason might be impact of training programme. Low knowledge level of the untrained rural women may be due to their less extension contact, organizational participation and non-participation in training programme. Another reason might be lack of awareness and interest. Knowledge level of trained and untrained rural women about dairy management revealed that equal per cent (63.33% each) of them belonged to medium level of knowledge category (Table 3). In rural areas almost all the families owned buffalos and cows and women in the household manages animals. The participation of rural women in such type of dairy activities has created interest and motivated her to get more technical knowledge and practices in management of animals. The findings of the study were in conformity with the findings of Yadav and Mehta[12] and Aggarwal and Aulkah[1].The level of knowledge about seed treatment revealed that 73.30 per cent of the trained rural women were belonged to medium knowledge category (Table 3). Medium level of knowledge among trained women could be due to their interest and participation in training programme. Minimum knowledge of untrained women might be the results of non-participation in training programme and difficulty in memorizing and retaining scientific words and name of chemicals used in the seed treatment. The findings of the study are in consistent with results of Singh *et al*[11].Table 3 revealed that trained women (43.30%) had high level of knowledge about organic farming. The findings of the study were in conformity with the findings of Nagnur *et al*[8]. Now a day's people are becoming aware of adverse effects of using chemical fertilizers, insecticides and pesticides for the soil and also for the human being. Hence, they preferred more knowledge about

the use and advantages of organic fertilizers and insecticides. This created interest in them to participate in training programme organized on organic farming. This may be the probable reason for increase in their knowledge. Data from the Table 3 also showed that majority of the untrained rural women (63.33%) had low knowledge level. The probable reason for their minimum knowledge might be non-participation in training programme and lack of interest in learning training topics.

Effect of training in terms of adoption level of trained rural women about selected agricultural and allied technologies

The data recorded in Table 4 and Fig.1 revealed that, about half (50.00%) of the trained rural women were belonged to medium adoption category followed by low (30.00%) and high (20.00%) regarding IPM. The results of the study are in lined with the study of Narendra Prasad *et al*[9]. (2011). The probable reason for medium adoption might be development of interest in adoption of need based technologies. IPM technologies have certain degree of relative advantage over the traditional varieties in terms of effective control of pest and diseases and high yield. Participation in training programmes might be another reason for their adoption. Remembering the chemicals name and non-availability and non-availability of chemicals in the nearby market may be probable reason for less adoption among the trained rural women. Majority of the trained women (60.00%) belonged to low level of adoption category followed by medium and high adoption category (20.00% each) with regard to integrated farming system [Fig.1]. Similar results were reported by Malabari[6]. The probable reason for this may be most of the rural women possessed less or no land and. Some of the IFS practices may not be suitable to adopt. However agricultural families possess livestock they were not aware of the importance of IFS practices which can improves and maintains the soil fertility and ecological diversity i.e. use of compost and mixed cropping and crop rotation.Fig.1 also

showed that majority of the trained rural women (73.33%) had high level of adoption in dairy management followed by low (16.70%) and medium level of adoption (10.00%). The findings are in line with the results of Chauhan[4]. Knowledge level on dairy technology, attitude towards improved management practices, perceived cost of technology and perceived cultural compatibility together influenced their adoption practices and it is one of the ways to earn income for the family other than agriculture. It also ensures nutritional security for the family members. Another probable reason for higher adoption may be the training which motivated and influenced their attitude. Non availability of space and less education level might be the probable reason for less adoption of some of the dairy management practices. With respect to seed treatment methods Fig.1 indicated that majority of the trained women (43.33%) were found in high level of adoption category followed by low (33.33%) and high adoption level category (23.33%). Traditional methods of seed treatment, storage practices and new seed treatment practices followed by other members in the social system influenced their decision to adopt seed treatment technology. Experience of loss of yield or produce due to untreated seeds, soil borne diseases and improper storage practices might be the possible reason for the adoption of seed treatment methods by rural women. Other contributing factors may be knowledge gain about importance and advantages of seed treatment in the training programmes. The results of the study are not consistent with Borua and Brahma[3]. Remembering the name of chemicals by rural women and non-availability of chemicals nearby market may be other probable reason for low adoption. As high as 43.30 per cent women were belonged to low level of adoption category followed by medium (36.70%) and high adoption category (20.00%). With regard to organic farming (Fig.1). The study conducted by Meti[7] also found with same results. Impact of training programmes has created awareness about the

bad effects of chemical/ synthetic fertilizers, pesticides and insecticides on human being. They also know that use of bio fertilizers and bio- pesticides will enhance the fertility soil which will further improves the quality of crops produced. Lack of family support and financial assistance was the reason for less adoption of organic farming practices.

Constraints faced by trained rural women in adoption of technologies

Lack of financial assistance was the main constraint in adoption of technologies as expressed by 89.33 per cent of trained rural

women followed by lack of market facility (69.33%). Other problems were high cost of raw materials (56.00%), lack of guidance (20.66%), non-co-operation and lack of encouragement of family members (12.66%) and availability of raw materials and lack of adequate time (9.33% each) [Fig.2]. It was mainly due to their low economic status, less extension contact, less organizational participation, inadequate access to credit facilities and other services. They need to approach financial institutions for which they do not have exposure.

Table 1: Socio-personal characteristics of rural women

SI. No.	Characteristics		Trained (150)		Untrained (150)	
			F	%	F	%
1.	Age	Young (<30)	12	08.00	55	36.70
		Middle (31 to 50)	96	64.00	73	48.60
		Old age (>51)	42	28.00	22	14.70
2.	Education	Illiterate	71	47.30	74	49.30
		Can read and write	21	14.00	05	03.30
		Primary	37	24.70	39	26.00
		Middle school	00	00.00	17	11.30
		High school	13	08.70	10	06.70
		PUC	06	04.00	03	02.00
		Degree	02	01.30	02	01.40
3.	Caste	Forward	115	76.60	97	64.60
		Backward	7	04.70	22	14.70
		SC/ST	28	18.70	31	20.70
4.	Marital status	Married	140	93.40	136	90.60
		Unmarried	05	03.30	02	01.40
		Widow	05	03.30	12	08.00
5.	Family type	Nuclear	70	46.60	93	62.00
		Joint	70	46.60	57	38.00
		Extended	10	06.80	00	00.00
6	Mass media participation	Low	140	93.30	124	82.70
		Medium	10	06.70	26	17.30
		High	00	00.00	00	00.00
7	Extension contact	Low	149	99.30	150	100.00
		Medium	01	00.70	00	00.00
		High	00	00.00	00	00.00
8	Organizational participation	Low	150	100.00	150	100.00
		Medium	00	00.00	00	00.00
		High	00	00.00	00	00.00
9	Trainings undergone	Not attended any training	00	00.00	148	98.67
		Attended one training	05	03.30	00	00.00
		Attended two training	86	57.40	02	01.33
		Attended more than three training	59	39.30	00	00.00

Table 2: Socio-economic characteristics of rural women

N=300

Sl. No	Characteristics		Trained (150)		Untrained (150)	
			F	%	F	%
1.	Land holding	Landless	35	23.30	45	30.00
		Small farm	82	54.70	78	52.00
		Medium farm	26	17.30	19	12.70
		Big farm	07	04.70	08	05.30
2.	Occupation of the respondents	House wife	115	76.70	93	62.00
		Agriculture	00	00.00	23	15.30
		Agriculture labor	27	18.00	09	06.00
		Subsidiary	05	03.30	22	14.70
		Salaried job	03	02.00	03	02.00
3.	Occupation of the family	Agriculture	125	83.30	106	70.70
		Agriculture labor	21	14.00	23	15.30
		Subsidiary	04	02.70	21	14.00
		Salaried job	00	00.00	00	00.00

Table 3: Knowledge level of rural women about selected agricultural and allied technologies

N=300

Technology	Category	Rural women				Chi-square
		Trained (150)		Untrained (150)		
		F	%	F	%	
Integrated Pest Management (IPM)	Low	1	3.30	24	80.00	2.21NS
	Medium	17	56.70	06	20.00	
	High	12	40.00	00	00.00	
	Total	**30**	**100.00**	**30**	**100.00**	
Integrated Farming System (IFS)	Low	4	13.30	17	56.70	2.23NS
	Medium	22	73.40	13	43.30	
	High	4	13.30	00	00.00	
	Total	**30**	**100.00**	**30**	**100.00**	
Dairy management	Low	3	10.00	11	36.70	1.37NS
	Medium	19	63.30	19	63.30	
	High	8	26.70	00	00.00	
	Total	**30**	**100.00**	**30**	**100.00**	
Seed treatment	Low	6	20.00	21	70.00	5.25NS
	Medium	22	73.30	09	30.00	
	High	2	6.70	00	00.00	
	Total	**30**	**100.00**	**30**	**100.00**	
Organic farming	Low	6	20.00	19	63.43	2.28NS
	Medium	11	36.70	10	33.33	
	High	13	43.30	01	3.33	
	Total	**30**	**100.00**	**30**	**100.00**	

NS-Non Significant

Table 4: Adoption level of trained rural women about selected agricultural and allied technologies

n=150

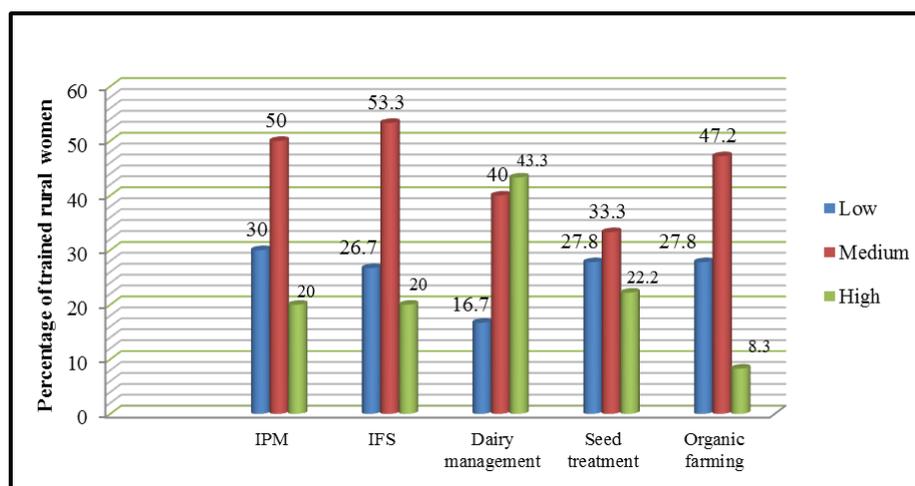| Technology	Adoption level	Respondents	
		F	**%**
Integrated Pest Management (IPM)	Low	09	30.00
	Medium	15	50.00
	High	06	20.00
	Total	**30**	**100.00**
Integrated Farming System (IFS)	Low	18	60.00
	Medium	06	20.00
	High	06	20.00
	Total	**30**	**100.00**
Dairy management	Low	05	16.70
	Medium	03	10.00
	High	22	73.30
	Total	**30**	**100.00**
Seed treatment	Low	10	33.30
	Medium	07	23.40
	High	13	43.30
	Total	**30**	**100.00**
Organic farming	Low	13	43.30
	Medium	11	36.70
	High	06	20.00
	Total	**30**	**100.00**

Fig. 1: Adoption level of trained rural women about selected agricultural and allied technologies
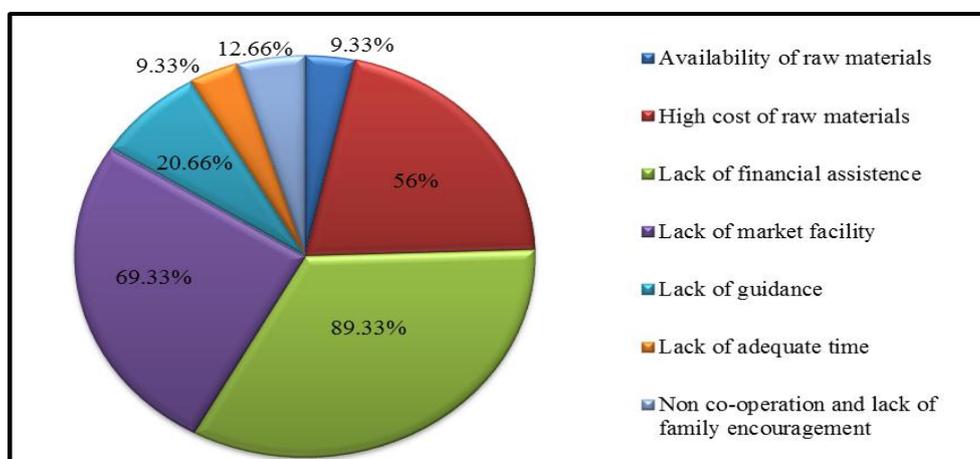

Fig. 2: Constraints faced by trained rural women in adoption of technologies

CONCLUSION

Training programmes conducted by a DATC had a good impact on knowledge gain and adoption of agricultural and allied technologies of rural women. It helped rural women by creating awareness, increasing the knowledge about innovative technologies and practicing improved skills which will help in the betterment of their livelihood security. The adoption of technologies found to be high in dairy management and seed treatment technologies. The adoption level of integrated farming system and organic farming found to be low mainly because of lack of financial assistance, non-co-operation and lack of family encouragement, lack of market facility, non-availability of raw materials etc. Hence the DATC, Dharwad should conduct feedback and follow up visits to get still better impact on imparted trainings.

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