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Impact of Millet Value Addition Training in Dharmapuri District of Tamil Nadu

M A Vennila[1] , R Thangadurai [2]and C Sivakumar[3]

Krishi Vigyan Kendra, Dharmapuri (Tamil Nadu)

ABSTRACT

The present study was undertaken with the objective to assess the effectiveness of training on millet value addition as an enterprise/ self employment venture. The training programme was focused for educated unemployed semi urban/ rural youth who have interest in self employment. Skill development training on preparation of value added products like ready mix, health mix, murukku mix, adai mix, paniyaram mix, sancks, cookies, bread, cake and rusk from millets was imparted to thirty farmers for the period of one month. The impact of the training was assessed by pre and post evaluation testing in terms of improvement in knowledge for different parameters. It was observed that trainees had gained knowledge on instant millet food preparation, millet bakery foods, millet noodles, millet snacks and packaging of value added products preparation and nutritive value of millets after training. Thus, it can be inferred that exposure to training had increased the knowledge of respondents related to all the sub-components of millet value addition. It may therefore, be concluded that trainees succeeded in acquiring knowledge after exposure to training on millet value addition.

Key Words: Millet, Value addition, Gain in knowledge, Training.

INTRODUCTION

Millets are highly drought tolerant and can usher in food, feed, fodder, nutritional and livelihood security to all in dry land ecosystems as Miracle Nutri-Cereals**.** The use of millets in different ways are necessary today, it is essential to virtually evaluate their role in the conservation of bio diversity, human and animal nutrition, industrial uses and therapeutic diets in the form of functional foods in relation to requisite mandate (Anony, 2015). In Dharmapuri district various types of millets were cultivated in about 50,289 ha. Sorghum, Finger Millet, Little Millet, Pearl Millet, Foxtail Millet, Barnyard Millet and Kodu Millet are the major millet crops cultivated in Dharmapuri district. The farmers are mainly cultivating the millets under rainfed condition. After harvesting the produce, the farmers were used to sell in the local market and some of them used to keep it for own consumption. The farmers' never practicing pre -processing and value addition practices and their awareness towards these technologies was minimum. Millet value addition has been appreciated as a technically feasible and profitable venture and widely accepted by the researchers as a good venture for higher income, employment generation and rural development. It can also play a significant role to alleviate poverty and generate employment opportunity for educated unemployed youth.

Extension trainings have been considered an outlet for exchange of concepts with in a community. Therefore, trainings have been widely accepted strategy with high returns on investment. In this context Krishi Vigyan Kendra, Dharmapuri conducted entrepreneurship development training on millet value addition for farmers, farm women and rural youth on various aspects of millet value addition. Millet value addition is simple and suitable for rural areas, is labour intensive and can provide employment in both the rural areas and semi-urban. Millet value addition will improve

Corresponding Authors Email : avennila26@yahoo.co.in

Table 1. Socio-economic profile of trainees undergone millet value addition training (n= 30).

Sr. No.	Particulars	Trainees attended millet value addition	
		Frequency	Percentage
A	Gender		
	Male	12	40.00
	Female	18	60.00
B	Age		
	Young (< 30 yr)	16	53.34
	Middle (31 – 40 yr)	10	33.33
	Old (> 40 yr)	4	13.33
C	Community		
	SC/ ST	4	13.33
	Backward	26	86.66
	Others	-	-
D	Education		
	Primary	-	-
	Middle school	-	-
	Matriculate	12	40.00
	Senior Secondary	6	20.00
	Diploma	5	16.67
	Graduate	4	13.33
	Post graduate	3	10.00
E	Land holding		
	Landless	9	30.00
	Marginal (<1 ha)	17	56.67
	Small (1-2 ha)	4	13.33
	Semi medium (2-4 ha)	0	0
	Medium (4-10 ha)	0	0
	Large (>10 ha)	0	0
F	Occupation		
	Farming	7	23.33
	Business	5	16.67
	Service	0	0
	Housewife	18	60.00
G	Annual Income		
	Low	22	73.33
	Medium	7	23.34
	High	1	3.33
H	Millet value addition experience		
	Low	28	93.33
	Medium	2	6.67
	High	-	
I	Post harvest technologies		
	Low knowledge (1-3)	20	66.67
	Moderate knowledge (4-6)	8	26.67
	High knowledge (7-8)	2	6.66

their socio-economic condition of farmers, families and solve employment problems of both literate and illiterate especially in rural areas. Keeping in view the importance and increasing demand of value addition, the present study was undertaken with the objective to assess the impact of training on knowledge about millet value addition.

MATERIALS AND METHODS

The training program on millet value addition technologies was focused on educated, unemployed farmers, farm women and rural youth for those who have interested in self employment. The study was conducted at ICAR KVK, Dharmapuri, Tamil Nadu. Thirty trainees were imparted training on millet value addition technologies for thirty participants out of which 12 were men and 18 were women for a period of one month.

A questionnaire was formulated comprising of general information, background of participants, landholding etc. A pre evaluation test was conducted to know the level of knowledge of participants

regarding value addition technologies of millets, preparation of value added products like ready mix, health mix, murukku mix, adai mix, paniyaram mix, sancks, cookies, bread, cake and rusk from millets, marketing of value added products etc. Thorough training on various aspects of processing and value addition of millets was imparted during the training programme. Likewise, after completion of the training course, post evaluation was performed in order to assess the knowledge gained by the trainees and effectiveness of training.

To test the knowledge of trainees, a set of 14 questions related to importance of value addition, importance of balanced food, knowledge on different products prepared from millets, knowledge on economics of production, importance of packaging of value added products and knowledge of evaluation of value added products etc. were used. Hence, gain in knowledge was calculated from the difference of scores obtained in pre and post knowledge test of the trainees.

Gain in Knowledge	=	Post evaluation score - Pre evaluation score / Total respondents	x	100

RESULTS AND DISCUSSION

The participants differed in their socio-economic status based on education, occupation, landholding and annual income etc (Table 1). The results revealed that 60 per cent of the participants were female whereas 40 percent were male and this finding was in line with Roy *et al* (2013). The age of participants was between 18 to 42 yr. Majority of the participants (53.34%) were in age group of below 30 yr whereas 33.33 per cent were 31- 40 yr and 13.33 per cent are above 40 yr of age and this finding is in line with Khursheed (2012). Information with respect to caste showed that 86.66 per cent of the participants belong to backward caste followed by scheduled caste (13.33%).

With respect to education indicated that 40 per cent studied up to matriculation level followed by senior secondary (20%), Diploma holders (16.67%) graduation (13.33%) and post graduation (10%) and this finding was in accordance with Chhodvadia *et al* (2016) Information with respect to occupational background revealed that 60 percent of the participants are housewife followed 23.33 percent of trainees belonged to farming background and only 16.67 per cent belonged to business class. It was found that, 73.33 per cent of the participants were getting low annual income, 23.34 per cent of them had medium annual income and remaining 3.33 per cent were getting high annual income. With regard to millet value addition experience, majority of the respondents (93.33 %) had low experience followed by 6.67 per cent with medium experience. Regarding post harvest technologies majority of the participants (66.67%) had low level of knowledge followed by medium level of knowledge (26.67%) and high level of knowledge (6.66%)

It was noted (Table 1) that majority of the participants (56.67%) were having marginal land holders whereas few of the participants (13.33%) were under small farmers category. Further, 30 per cent participants were from landless category and thus it was evident that the landless farmers wants to take up self employment on value addition of millets which does not require much land and therefore, landless farmers were found to be interested to adopt this enterprise to supplement their family income. The socio-economic factors impacting the adoption of millet value addition enterprise were not consistent with one another. Age has no significant relationship in adoption of millet value addition technologies.

Pre exposure and post-exposure scores were computed for all the sub-components of millets value addition (Table 2). In pre-evaluation test, the knowledge range of different participants was 13.3 per cent regarding the millet bakery products preparation and economics of value added products preparation to 30 percent in millet ready mixes preparation. Post evaluation training score of various practices ranged from 66.7 per cent in case of marketing channels and evaluation of value added

Table 2. Gain in Knowledge after attending training with respect to different components on Millet Value addition technologies. (n= 30)

Sr No.	Statement	Pre training (%)	Post training (%)	Change in Knowledge
1.	Nutritive value of millets	7 (23.3)	28 (93.3)	+21 (70.0)
2.	Millet ready mixes preparation	9 (30.0)	27 (90.0)	+18 (60.0)
3.	Millet bakery product preparation	4 (13.3)	26 (86.6)	+22 (73.3)
4.	Millet noodles preparation	0 (0.00)	22 (73.3)	+22 (73.3)
5.	Millet snacks preparation	7 (23.3)	29 (96.7)	+ 22 (73.3)
6.	Millet instant food preparation	5 (16.7)	28 (93.3)	+ 23 (76.7)
7.	Economics of value added products preparation	4 (13.3)	22 (73.3)	+ 18 (60.0)
8.	Marketing channels	8 (28.7)	20 (66.7)	+ 12 (40.0)
9.	Importance of packaging of value added food items	6 (20.0)	28 (93.3)	+ 22(73.3)
10.	Evaluation of value added products	0 (0.0)	20 (66.7)	+ 20 (66.7)

products to 96.7 per cent in case of millets snacks preparation. None of the trainee had knowledge on millet noodles preparation and evaluation of value added products. It was noticed that pre training knowledge score was not much satisfactory for all the aspects of training programme. However, the knowledge score gained by participants after training was more satisfactory in all aspects. Sufficient gain in knowledge regarding millet value addition was recorded for sub-components *viz.,* millet instant food preparation, millet bakery food preparation, millet noodles preparation, millet snacks preparation and packaging of value added foods, nutritive value of millets, evaluation of value added products, millet ready mix, economics of value added products preparation and marketing channels.

It was observed that 76.6 per cent of the respondents were deviating in knowledge on millet instant food preparation after training whereas, 73.3 per cent of the trainees were deviating knowledge on all the components *viz.,* millets bakery preparation, noodles preparation, snacks preparation and packaging of value added products after training (Table 2). It was revealed that 66.6 per cent of the trainees were deviating knowledge on evaluation of value added products after training whereas, 60 per cent of the trainees were deviating knowledge each on millet ready mix and economics of value added products preparation followed by 40 per cent of the trainees deviating on marketing channels. It may therefore, be concluded that respondents succeeded in acquiring knowledge after exposure to training on millet value addition. The results were similar to the findings reported by Ranjan Roy *et al* (2013) and Nagaraj *et al* (2017) that exposure to training increased the knowledge of farm women and youths. Thus, it can be inferred that exposure to training had increased the knowledge regarding all the sub-components of millets value addition. The reason behind the satisfactory gain in knowledge might be well educational background of participant also having keen interest of participants on millet value added products.

Reasons of participation

The factors which provoked the participants to undergo the training were given for ranking in order of importance as perceived by them. As shown (Table 3), 53.34 per cent respondents joined training course to adopt millet value addition as an occupation, 23.33 per cent wanted to learn about millet value

Table 3. Reason for participating in training programme on millet value addition.

Sr. No.	Suggestion	Frequency	Percentage	Ranking
1.	To take up millet value addition as an enterprise	16	53.34	I
2.	To learn about millet value added products preparation for own consumption	7	23.33	II
3.	To utilize their own farm produce for value addition	4	13.33	III
4.	To get knowledge about millet value addition	3	10.00	IV

addition techniques for own consumption, 13.33 per cent joined the training course just to utilize their own farm produce for value addition and only 10 per cent attended the training just to get knowledge on millet value addition. Similar results were also reported by Kaur (2016). It was evident that majority of participants joined the training course to adopt mushroom cultivation as an enterprise

Suggestions given by the trainees in improving Millet value addition enterprise

The suggestions offered by the trainees for further improvement of the training course were presented in Table 3. Majority of the respondents (90%) felt that financial assistance by government should be provided for starting enterprise on millet value addition and 63.33 per cent respondents expressed that they need assistance in promotional activities of their products, 53.33 percent of the respondents need linkage with marketing channels, 33.33 percent expected additional exposure visit to successful entrepreneurs' unit during training course and 16.66 percent suggested more emphasis may be given for production aspects of millets so that the farmers who had attended training they would get knowledge on improved production technologies for increasing their farm output as reported by Kavitha et al (2019).

CONCLUSION

It can be concluded that participants succeeded in gain in knowledge after exposure to training. Value added products preparation from millets is an enterprise in which requirement of land is not a big issue so even landless farmers and unemployed women and youth can get additional income through millet value addition. Awareness and training on millet value addition helped in income generation and nutrient supplementation through profitable marketing which results in improving their standard of living.

REFERENCES

Anonumous (2015). Vision 2050. Indian Institute of Millets Research, Hyderabad.

Table 4. Trainees suggestion for improving the millet value addition training.

Sr. No.	Suggestion	Frequency	Percentage	Ranking
1.	Helping them to get financial assistance from banks	27	90.00	I
2.	Helping them in promotional activities of their value added products	19	63.33	II
3.	Linkage with marketing Channels	16	53.33	III
4.	More exposure visits to successful entrepreneurs unit	10	33.33	IV
5.	More emphasis may be given for production aspects of millets	5	16.66	V

Chhodvadia H C, Joshi N S, Bariya M K and Parakhia A M (2016). Impact of Krishi Vigyan Kendra in Amreli District of Gujarat State. *Int J of Agri Sci* **8**(27) : 1576-1579.

Kavitha K, Latha R, Nazreen Hassan S and Thirukumaran K (2019). *Impact of Skill Development Training on Mushroom Cultivation in Kanyakumari District of Tamil Nadu. J Krishi Vigyan* 7(2): 144-148.

Khursheed A Butt (2010). *Impact of Entrepreneurship Development Programme on Small Scale Business.* Cost Benefit Analysis of Entrepreneurship Development Programs in Jammu and Kashmir state" at 3rd International Conference on Business and Economic Research

Nagaraj K H, Kamala Bai and Lata R Kulkarni (2017). Technology Dissemination and Impact of KVK Activities in the District of Ramanagara, India. *Int J Current Microbiol and Appl Sci* **6**(7):3931-3939.

Pandey A, Gupta N, Pandey A and Singh S (2017). Impact of Vocational Training on Value Addition in Knowledge and Adoption of Rural Women. *Int J Pure App Biosci* 5(1): 129-134.

Roy Ranjan, Shivamurthy M and Radhakrishna Rama B (2013). Impact of Value Addition raining on Participants of Farmers Training Institutes. *World Applied Sci J* **22** (10) : 1401- 1411

Sulaiman O J and Okonji P S (2010). *Empowering Nigeria Youths for National Economic development: Role of Entrepreneurship Education.* Lecture Series, Department of Business Administration Logos: University of Logos Press.

USDA(2010). A national information resource for value added agriculture, US Department of Agriculture. Rural Business Development, Washington, DC.

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