BKAP410
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SHORT NOTE Bhartiya Krishi Anusandhan Patrika

Awareness about Drudgery Reducing Technologies for Farm Women

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10.18805/BKAP410

ABSTRACT

Background: Agriculture is the process of producing food, feed, fiber and many other desired products by the cultivation of certain plants. The practice of agriculture is also known as “farming”. Agricultural technology refers to technology for the production of machines used on a farm to help with farming. Agricultural machineries have been designed for practically every stage of the agricultural process. They include machines for tilling the soil, planting seeds, irrigating the land, cultivating crops, protecting them from pests and weeds, harvesting, threshing grain, livestock feeding and sorting and packaging the products. Technology has played a big role in developing the agricultural industry. And women play major role in farming activities, which constitute nearly 43% of the world’s agricultural labor force, which rises up to 70% in some countries. But they do not have adequate awareness and access to improved technologies to reduce their drudgery and improve productivity, unlike men. Hence the present study has been conducted to make a positive impact by empowering them and bring awareness.

Methods: In this research study sample were selected on the basis of front line demonstration method to introduce the set of 7 drudgery reducing tools *i.e.* Paddy thresher, Twin wheel hoe, Serrated sickle, Vegetable collection bag, milking stand cum stool, stalk puller, Rack, were given to the farm women for exposure .These implements were given to 5 self help group of 50 farm women and data were collected from them regarding the awareness about the technologies before and after the front line Demonstration programmes.

Result: Adoption levels were assessed after completion of a crop season. It was found that partial awareness was there about the improved equipment before training and awareness was in the random selected group after the training programs. About 80 per cent of the farm women have adopted the given technologies. This study can helpful for promotion of technology in gender perspective towards the challenges of farm women would help in reducing drudgery and occupational health problems of women workers in agriculture.

Key words: Agricultural machineries, Cultivating crops, Pests and weeds, Planting seeds, Production,

INTRODUCTION

Women in agriculture mainly use the old and traditional tools and implements. These tools are not gender friendly also has less efficiency. Most of the work performed by these tools are tedious and time consuming. Many operations are done in varying posture. Thus use of these tools for long time causes the body pain and inconvenience. In agriculture area mostly task performed by the women are generally repetitive, monotonous and arduous. Agriculture activities like sowing, transplanting, irrigation, weeding, fertilizer application, plant protection and harvesting have immense drudgery impact on farm women. For farm activities like threshing, winnowing and milling now machines are available but in some areas mainly in hilly areas these activities is carried out manually by the farm women. So these activities are also reason for drudgery.

In India most of the farm women are either unaware or have little knowledge about the technology advancement. The information is not available to them. Gender friendly tools are available in different areas like agriculture, horticulture and animal husbandry. Main motive of using gender friendly or women friendly tools is to reduce the drudgery, save time, increase the productivity, improve the work efficiency or farm women can get leisure time, conserving energy, can improve quality of work. In this reference these study was planned to assess the awareness of farm women regarding drudgery reducing technologies.

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How to cite this article: Tiwari, M.V., Poshia, V.K., Bhinsara, D.B. and Verma, P.D. (2023). Awareness about Drudgery Reducing Technologies for Farm Women. Bhartiya Krishi Anusandhan Patrika. doi:10.18805/BKAP410.

Submitted: 18-12-2021 **Accepted:** 14-07-2022 **Online:** 05-07-2023

MATERIALS AND METHODS

The present study was conducted in Narmada district of Gujarat. In Narmada district Dediapada taluka was purposively selected form the operational villages of KVK, Purposive sampling procedure was used to select the area and simple random sampling was used to select the sample. A sample size of 5 SHG (50) was selected for the collection of descriptive data. An interview schedule was used to gather information related to research from the

respondents. The collected data was tabulated and analyzed with the help of descriptive technique (frequency, percentage).

RESULTS AND DISCUSSION

A total of 10 front line demonstrations and 7 method demonstrations were conducted in the village and nearly 250-number of farm women were participated in the program. Initially, survey was conducted to test their knowledge about the use of drudgery reducing technologies. Based on information of their level of understanding, they were explained about the salient features of technologies, cost, benefits and impact.

Table 1 revealed that fifty six per cent of farm women belonged to the age group of 21-40 years whereas only four per cent belonged to the age group of below 20 years. Thirty four per cent of the farm women were in between 41-60 years and six per cent were above 60 years old. The random selection of farm women was based on-partial or complete involvement in agricultural operations and also willingness to participate in the front line demonstrations training programmes.

It was found from Table 2 that thirty per cent of farm women were having below 10 years of work experience followed by 40 per cent were having 11-20 years of work experience, 10 per cent were having 21-30 years of work experience, 12 per cent were having 31-40 years of work experience. This implies that all the farm women of the study were involved in farming activities either for full time or part time.

Table 3 depicted that When pre-evaluation was done with different technologies 90 per cent of the farm women knew about serrated sickle and 80% knew about twin wheel hoe, similar awareness were recorded for Rack and stalk puller (86%), After the Front line demonstration s training Programmes and method demonstration were done for post evaluation to which highest percent of farm women were knew about, Twin wheel hoe, serrated sickle and Rack. More than 50% farmwomen had come to know about the drudgery reducing tools in post evaluation *viz*; milking stand and stool, paddy thresher, vegetable collection bag and stalk puller respectively.

During conduction of front line demonstration, The sample of the study has distributed the tools from the KVK for using in their fields. Table 4 showed that Paddy thresher got rank I for paddy threshing because manual threshing is very tedious job. Sickle (II) and Twin wheel hoe (III) were used in vegetable and floriculture crops *i.e*. palak, okra, chilli, tomato, as they are widely grown in this area. Rack is used for collection of weeds, drying of paddy etc. Stalk puller was used for uprooting of cotton and pigeon pea stalk because cotton, pigeon pea and paddy are the main crops of this area. Vegetable collection bag is more suitable for collection of kitchen garden vegetables. Milking stand and stool was used for milking, by they save time and used both hand for milking. On the whole the sample of the present study have used the technologies either in to or partially in their fields depending on the crops cultivated.

Table 1: Distribution of sample by age (N=50).

Age in years	Frequency	Percentage
Below 20 years	2	4.0
Between 21-40 years	28	56.0
Between 41-60 years	17	34.0
Above 61 years	3	6.0

Table 2: Distribution of sample by field experience (N=50).

Work experience (%)	Frequency	Percentages (%)
Below 10 years	15	30.0
Between 11-20 years	20	40.0
Between 21-30 years	5	10.0
Between 31-40 years	6	12.0

Table 3: Awareness about drudgery reducing technologies (N-50).

	Before FLD training		After FLD training	
	f	%	Yes	No
Paddy thresher	-	-	49	98%
Twin wheel hoe	35	70	50	100
Serrated sickle	38	76	50	100
Rack	23	46	50	100
Milking stand and stool	-	-	48	96%
Vegetable collection bag	-	-	45	90%
Stalk puller	23	46	49	98%

Table 4: Adoption level on gender friendly drudgery reducing tools N=50.

	Frequency (N)	Percentages (%)	Rank
Paddy thresher	50	100	I
Twin wheel hoe	46	92	III
Serrated sickle	48	96	II
Rack	43	86	IV
Milking stand and stool	40	80	VI
Vegetable collection bag	38	76	VII
Stalk puller	41	82	V

From the study, it was showed that women were involved in various agricultural operations which were carried out by traditional methods. However they have heard about few of the improved tools but not used it due to lack of accessibility. Moreover they were not aware of how to use the improved technologies. Through intervention of these technologies and method demonstration at their fields. Awareness levels were increased and started using them in their fields when they were accessible to them in their village. Findings of Singh *et al*. (2019) also supported the study on women friendly improved farm tools and implements for reducing drudgery in farm operations. Benchmark study was conducted in Madhya Pradesh regarding involvement of farm women in agriculture and allied activities. Findings of the study revealed that the adoption level of improved farm tools and equipment had increased efficiency and reduced drudgery with 4.78 per cent which was quite low reported by Singh (2009).

CONCLUSION

It can be concluded that awareness among the farmers can be increased by conducting front line demonstrations, where we can introduce/ educate/train in using the technologies. If they are aware and implements are accessible, they were able to adopt the improved tools as per their crop needs and reduce their drudgery. However there is a need to supply these technologies at their door step to utilize them as every farmer cannot afford to purchase them.

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