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Drudgery Reduction of Farm Women Through Improved Weeding Tool-Saral Kurpi

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Abstract

Use of saral kurpi increases yield reducing the weeds. Usage of saral kurpi reduces drudgery (18%), time taken to remove the weeds (30%), energy expenditure (09%), and the work efficiency is increased (15%), and also the work output (20%). The saral kurpi has been proved to be light while performing the weeding activity.

Key words : Saral kurpi, Drudgery reduction, Farm women, Improved weeding.

Agriculture is an important unorganized sector where majority of the women labor force is engaged. According to 1981 census, 63% of men, 79% of female working populations were actively involved in agriculture. Almost 50% of the rural female workers were working as agricultural laborers and 37% as cultivators. The respective proportion of male rural workers was reversed with 55% as cultivars and only 24% as agricultural laborers. Women as agricultural laborers, participate in several activities such as seeding, transplanting, weeding, fertilizer application, plant protection, thinning, harvesting, processing, selling, winnowing, storing, looking after animals, kitchen gardening. The commonly performed agricultural activities in India were weeding, cutting/uprooting, transplanting, threshing, mannuring. Drudgery is generally conceived as physical and mental strain, agony, monotony and hardship experienced by human beings while all of women in this regard is alarming as they continue to be constrained by illiteracy, malnutrition and unemployment. Many believe that women's involvement in agricultural tasks and large is a source of heavy burden of drudgery on them (1). Weeding is the activity invariably performed by women in almost all crops. The tool used for weeding is very old and the activity is monotonous and drudgery prone. The traditional tool is kurpi used for hand weeding. Though better technologies have been developed they have not reached to the villages and particularly to farm women. Hence the present investigation was carried out to assess the impact of improved weeding tool-saral kurpi on weeding and drudgery reduction of 50 farm women.

Methods

A total of 50 farm women who are actively involved in agricultural chores were purposively selected for the investigation. Before the investigation farm women were told about the utility and usage of the improved weeding tool-saral kurpi and were asked to remove the weeds. After the trial a pretested schedule was used to elicit information on the opinion of

Table 1. Distribution of trainees according to their personal characteristics. Figures in parentheses indicate percent age.

	Characteristics	Score category	Distribution of trainees
1.	Age	Young (<35 years)	42 (84)
		Middle (35–45 years)	08 (16)
2.	Education	Primary (1st–5th std)	31 (62)
		Middle (6th–8th std)	04 (08)
		High school (9th–10th std)	05 (10)
		Higher secondary (11th–12th std)	08 (16)
		Collegiate	02 (04)
3.	Anthropometry characteristics	Height (cms)	151.3
		Weight (kgs)	52.20

Table 2. Effect of use of saral kurpi for weeding on the yield of jasmine plots.

Yield (hatti/5 cents)					Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
H	Demo L	A	Check	Percent increase	Gross cost	Gross return	Net return	BCR	Gross cost	Gross return	Net return	BCR
600	550	575	400	30.43	40000	175000	135000	4.40	40000	100000	60000	2.5

the improved technology on reduction in drudgery and energy expenditure and also its effect on work efficiency and work out put after intervention. Later the results were tabulated, analyzed and interpreted.

The work output was measured in terms of the length of the lines weeded in a given time of 30 minutes. After performing the activity the respondents were asked to rate the perceived exertion on a five point hedonic scale.

Results and Discussion

Distribution of trainees according to their personal characteristics is given in Table 1. Majority of the women belonged to young age group (84%) and had primary level of education (62%). Mean anthropometry characteristics revealed height of the respondents to be 151.3 cm and weight to be 52.20 kg.

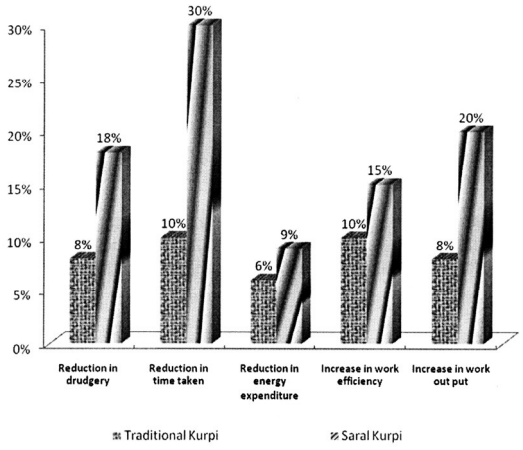

Figure 1. Effect of usage of saral kurpi on drudgery reduction in farm women.

Table 2 shows that use of saral kurpi for weeding has resulted in increase in yield by 30.43% over traditional practice. Even though the gross cost involved in jasmine cultivation plots are same, the usage of saral kurpi has made an impact in terms of gross return and it is further seen that benefit to cost ratio is 4.40 compared to 2.5 in the traditional practice inferring weeding affects the yield of jasmine plot.

Effect of usage of saral kurpi on drudgery reduction in farm women is presented in Figure 1. The reduction in drudgery is 18% compared to the use of traditional kurpi. Even the time taken is reduced in saral kurpi usage i.e., 30% compared to traditional kurpi. There is reduction in energy expenditure i.e., 9% in saral kurpi compared to 6% in traditional kurpi. Work efficiency is increased in saral kurpi usage (15% vs 10%) and also the work output is increased in saral kurpi usage (20% vs 8%). This is in line with the findings of Chaaya et al. (2) who has reported improved weeding tools increase work efficiency of farm women, work output and reduce drudgery while performing weeding activity.

Table 3 shows that the average rate of exertion by the respondents while performing the weeding activity with both traditional kurpi and improved tool—saral kurpi. The saral kurpi has proved to be light while performing the weeding activity.

Table 3. Effect of usage of saral kurpi on drudgery reduction (%) in farm women.

Parameters	Traditional kurpi	Saral kurpi
Reduction in drudgery	8	18
Reduction in time taken	10	30
Reduction in energy expenditure	6	9
Increase in work efficiency	10	15
Increase in work out put	8	20

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