

Perception of farm women of Tinsukia district of Assam towards use of improved serrated sickle for drudgery reduction

■ Mrinmoy Chetia*, Rupak Kr. Nath and Amal Ch. Sarmah
Krishi Vigyan Kendra (A.A.U.), Tinsukia (Assam) India

ARTICLE INFO

Received : 10.05.2018
Revised : 08.09.2018
Accepted : 22.09.2018

KEY WORDS :

Drudgery, Farm women,
Improved sickle

ABSTRACT

Agriculture is an important unorganized sector where majority of the women labour force is engaged either in their own field or in the fields of other farmers. Tinsukia is the East most district of Assam and the women of the farming community of the district mainly perform the activities like transplanting, weeding, harvesting, post harvest handling etc. The perception of farm women of Tinsukia district of Assam on efficiency of drudgery-reducing improved serrated sickle was studied and also SWOT analysis was done among 60 farm women selected through purposive random sampling method. It is observed that largest percentage of farm women are satisfied that the shape of the sickle can reduce physical injury during harvesting, time and energy saving, good grip and mostly that this is a women friendly tool. This analysis indicates that use of serrated sickle by farmwomen for harvesting of different crops could be a useful implement and found reduction in drudgery of farmwomen with increased output like harvesting of various crops, time saving, more income per unit of time and not require the sharpening of cutting edge frequently.

How to view point the article : Chetia, Mrinmoy, Nath, Rupak Kr. and Sarmah, Amal Ch. (2018). Perception of farm women of Tinsukia district of Assam towards use of improved serrated sickle for drudgery reduction. *Internat. J. Plant Protec.*, **11**(2) : 158-160, DOI : 10.15740/HAS/IJPP/11.2/158-160, Copyright@ 2018: Hind Agri-Horticultural Society.

*Corresponding author:
mrinmoysworld@gmail.com

INTRODUCTION

Rural women are the most productive work force in the economy of India as our economy is mainly based on agriculture. Agriculture is an important unorganized sector where majority of the women labour force is engaged either in their own field or in the fields of other farmers. The extent and nature of involvement of the women farmers differ with the difference in socio-demographic characteristics and the agricultural

production systems. Apart from maintaining and balancing the domestic life, women perform most of the hard and risky jobs in farming like land preparation, seeding, weeding, harvesting and threshing, etc. Tinsukia is the East most district of Assam. The women of the farming community of the district also perform the activities like transplanting, weeding, harvesting, post harvest handling etc. like other parts of the country. Most of the works performed by farmwoman are tedious as

well as time consuming. Also many of these operations are traditionally done in varying body postures for long time resulting inconvenience and body pain. Singh *et al.* (2016) have collected the opinion of farm women and reported that maximum drudgery of farm women were in rice-transplanting and harvesting activities. Mrunalini and Snehalatha (2010) have revealed the harvesting, weeding and threshing operations as the drudgery prone-tasks as ranked by the women farmers. The harvesting of cereal crops in India is mostly done manually by sickles. Mostly, the sickles are made by village artisans with wide variation in shapes and sizes. The ordinary sickle being used for harvesting is very simple and the design has not been changed for years. As a result, these sickles are very rough to handle and gives poor working efficiency. Singh (2009) has suggested that the use of improved tools and equipments can reduce the drudgery of women farmers in various farming activities. Mishra *et al.* (2013) have concluded that the improved sickle of good quality steel with serrated edge was more preferred by the farm women for harvesting when compared to the traditional sickles. One type of improved sickle introduced by Central Institute of Agricultural Engineering (CIAE), Bhopal consists of serrated blade, ferrule and wooden handle was demonstrated among the farm women of Tinsukia district of Assam. Due to its less weight *i.e.* about 180 g the fatigue coming on wrist is less and the drudgery involved in harvesting is reduced as compared to local sickles which are heavier *i.e.* weighing about 350 g. Keeping these points in view this study was conceptualized to understand the perception of farm women of Tinsukia district of Assam on efficiency of drudgery-reducing improved serrated sickle. Strength, weakness, opportunity and threat (SWOT) analysis of improved sickle and their impact on farm

women health was also done.

MATERIAL AND METHODS

The present study was carried out in Tinsukia districts of Assam. The front line demonstrations were conducted in six villages during last two years (2016-17 to 2017-18). The participants from these villages were selected through purposive random sampling method. A total of 60 farm women, 10 from each village were selected. In the demonstration group, serrated sickles developed by CIAE, Bhopal were provided. The farm women were fully motivated to use improved sickle. Their perception towards this improved sickle was tested through some pre formulated standard statements. SWOT analysis was done to find out the potential of improved sickle for harvesting.

RESULTS AND DISCUSSION

The opinions of the selected farm women on the use and performance of improved serrated sickle is shown in Table 1. It is observed that largest percentage of farm women are satisfied that the shape of the sickle can reduce physical injury during harvesting, time and energy saving, good grip and mostly that this is a women friendly tool. Hence, based on the percentage of score obtained by the improved sickle it shows that they are highly satisfied with it.

SWOT (strengths, weaknesses, opportunities and threats) analysis for use of improved serrated sickle in harvesting by farmwomen of Tinsukia district was administrated. This analysis indicates that use of serrated sickle by farmwomen for harvesting of different crops could be a useful implement and found reduction in drudgery of farm women with increased output like

Statements	Satisfied		Undecided		Dissatisfied	
	F	%	F	%	F	%
No chance of physical injury during operation	56	93.33	0	0	4	6.67
The curvature is helpful in avoiding hitting the fingers	60	100	0	0	0	0
Girth of the handle is in accordance with the palm to ensure proper grip	57	95	0	0	3	5
Serrated ends make it possible to cut the stem easily with less energy input	58	96.67	0	0	2	3.33
More straw can be recovered compared to the traditional sickle	58	96.67	0	0	2	3.33
More area can be covered within less time	47	78.34	8	13.33	5	8.33
Easy to adopt and maintain	44	73.33	13	21.67	3	5
The technology is women-friendly	50	83.33	7	11.67	3	5

Where F= Frequency; %= Percentage

harvesting of various crops, time saving, more income per unit of time and not require the sharpening of cutting edge frequently. This indicates better possibilities of adoption of the same as drudgery reduction tool for farm women.

Strength	Serrated blade Firm grip Light in weight Ferrule and wooden handle Does not require the sharpening of cutting edge frequently
Weakness	Unawareness and unavailability of improved implements for harvesting Bending posture is same Break down at the joints
Opportunity	Less time consuming Women friendly Require to develop at local manufacturers Useful in harvesting of various crops
Threat	Farmers are poor Middle man can exploit while buying Poor care towards the implements by the farmers

Conclusion:

The women in the agricultural sectors are required

to get awareness and trained properly for the use of ergonomically designed tools and techniques in farming, to reduce the drudgery involved, to increase productivity and income, respectively. The farm women who used improved sickle for harvesting were highly satisfied after using it. SWOT analysis also showed that the improved serrated sickle has a very good perspective among the farm women. The local manufacturers can produce such implement with given standardized size and weight as it shows demanding among the users.

REFERENCES

Mishra, R., Singh, Y.P., Mishra, Y.D., Singh, S. and Singh, H. (2013). Dissemination of improved sickles for female agricultural workers for crop harvesting; *Technofame: J. Multidisciplinary Adv, Res.*, **2** (1) : 118-123.

Mrunalini, A. and Snehalatha, C. (2010). Drudgery experiences of gender in crop production activities. *J. Agric. Sci.*, **1** (1): 49-51.

Singh, S. P. (2009). Physiological workload of women workers in operation of manual rice transplanters; *Gender, Technology & Development*, **13** (2): 271-284.

Singh, Surabhi, Ahlawat, Santosh, Sanwal, Sarita, Ahlawat, T.R. and Gora, Alok (2016). Drudgery reduction of farm women through improved tools. *Internat. J. Agric. Sci.*, **8**, (14):1242-1249.

