

## Serrated Sickle for Reducing the Drudgery of Farm Women in Mehsana District, North Gujarat

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**Abstract :-** Most of the works performed by farm women are tedious as well as time consuming. Also many of these operations are traditionally done in varying body, which if done for long duration cause inconvenience and body pain. Hence, a study was conducted on testing and evaluation of serrated sickle made by CIAE, Bhopal. Farm woman is participatory mode of reduce their drudgery. It was observed during the course of investigation that farm women were using desi sickle while harvesting their crops. The labour requirement by using serrated sickle was 16 labour/ha as against the harvesting by lockle sickle 18 labour/ha.

**Keywords:** - Farm women, Serrated sickle, Drudgery reduction.

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### I Introduction

The harvesting of fodder and cereals crop in India is mostly done manually by sickles. There is large variation in the types of sickle being use in different parts of the country. Mostly the sickles are made by villages artisans with wide variations in shapes and sizes. The serrated sickle introduced by Central Institute of Agricultural Engineering, Bhopal consists of steel blade with special serration and a special handle that makes of operations of sickle easy and comfortable compared to the traditional sickle. Special shape of the handle gives protection of fingers from getting rubbed to the soil or stubbles. Cutting of crops stalk is being done with the serrated sickle sawing action as against by impact or pulling action in case of local sickle. Due its less weight i.e. about 180 gm the fatigue coming on wrist is less and the drudgery involve in harvesting is reduced as compared to local sickle with are havier i.e. weighing about 350 gm. The sickles have been found very usefull for harvesting wheat, fodder and other crops that do not have woody stem. In our country, women are the most important functionaries in agriculture and related activities. Women population and the empowerment to this population is equally important in the nation development.

This study was undertaken to popularise the serrated sickle and compare its performance with local Sickle being used by the rural farm women for cutting grasses, fodder and cereals crops for maximising efficiency and safety in use.

### II Materials and methods :

The serrated sickle demonstration was conducted in Mehsana district by the Krishi Vigyan Kendra. A total of 10 farm women were selected. Five farm women from Karanpura (Becharaji Taluka) and five farm women from

Laxmipura (Unjha Taluka) villages. These two villages were selected to carry out the study. We provide serrated sickle developed by CIAE, Bhopal for cutting down of fodder crop. In order to compare the performance of both these sickles. Various paramaters noted were time taken to harvest one hactare area of fodder, labour saving and level of drudgery.

The method used to collect information was interview of the farm women selected to undertake harvest of fodder crop. For this purpose a semi structured interview schedule was developed to know change in level of drudgery during harvesting.

### III Results and Discussion :

It was observed during the course of investigation that farmers were using local sickle while harvesting their crops. The local sickle has heavy weight with reduced the effeciency of the operator as well as cause cuts on fingers and pain in wrist and hands. Local sickle need operated sharpening. The use of improved serrated sickle become relevant for more effiience and time saving our conventional method of harvesting according to Sadhna Pandey, B.S. Meena, Purushottam Sharma, R.N. Dwivedi. Serrated sickle no need operated sharpening.

Table-I Performance of serrated sickle v/s local sickle (N=10)

Sr No.	Parameter	Serrated sickle	Local sickle
1	Labour saving (labour/ha)	16	18
2	Time consumption (hr/ha)	11.11	12.5
3	Level of drudgery	Low	Medium

Table-1 indicates that the labour requirement by using serrated sickle was 16 man/ha as against the harvesting of fodder by local sickle 18 man/ha its field capacity. According to Kulkarni and Sirohi (1985). The sharpened part of the sickle is the most important factor affecting working capacity of farmers and the handle determining the convenience in using this tool may also have an indirect effect on working capacity. the use of serrated sickle may improved working efficiency. This present finding were, thus in agreement with these workers. According to Hansa S. Patel, Brijendra, Singh Rajavat and Minakshi Bariya design of serrated sickle is a farmer friendly and does not result in any damage to the works. Hence, it reduce the drudgery amongst the farm women while working in the field.

#### IV Conclusion

It was thus concluded that use of improved serrated sickle by the farm women is desirable for cutting of fodder as well as cereal crops due the fact that it reduce drudgery on the hand and saves time and money on the other hand. Hence, such improved technologies need to be demonstrated on a large scale amongst the rural farm women. It is suggested here that other hand tools and farm implements should also be tested for reducing the drudgery of farm women and effective tools and implements should be made easily accessible for them.

#### V Reference

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