

## Impact of farm implements in cotton cultivation

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### ABSTRACT

In cotton cultivation, weeding and removal of cotton plants after harvesting are the laborious which leads to higher production cost to the cotton growers. Hence, KVK, Salem conducted front line demonstration (FLD) for the popularization of weeders and cotton shredder. 50 FLDs were conducted in Attur taluk of Salem district in 50 hectare area. Apart from one time investment incurred for the purchase of weeders viz., peg (Rs. 600/No) star (Rs. 600/No) and multityne (Rs. 1000/No), 44 labourers were saved in peg and star weeders and 36 labourers saved by weeder operation. The farmers preferred multityne weeder due to its suitability for all soil types, moisture condition and higher efficiency. Manual cutting and uprooting of cotton stalk required 60 labourers and wages about 3600/- (Rs. 60/labour) per hectare. But in the cotton shredder used on hire basis (Rs. 250/hr), 0.6 hr was required to complete one hectare area and 56 number of labourers were saved compared to manual cutting. Field days conducted and positive farmers feed back also obtained. By conducting effective front line demonstrations of these weeders and cotton shredder, the cost of cultivation can be reduced and net income can be increased to a great extent.

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### INTRODUCTION

Cotton is grown in an area of 9 million hectares in India. In Tamil Nadu, particularly in Salem district, cotton is cultivated around 16000ha. The production is 40-42 thousand bales. In India, a production target of 24 million bales by 2020 is aimed. In achieving this, crop management strategies are going to play a vital role rather than the releasing spree of hybrids and high yielding varieties. The gap between the potential yields and average farm yields is to be bridged by proper crop management packages of which the farm machinery is going to play a pivotal role in the future.

Agriculture labour input is becoming increasingly costlier on one side and the labour efficiency and the turnover of work duration of working hours and availability for agriculture purpose are deplorably deteriorating, resulting in poor crop management, increasing the cost of cultivation and poor income to the cotton farmers (Venkatachalapthy (2001)). Hence, farm mechanization is the need of the hour. The principal advantage of mechanized agriculture is that it reduces the demand for labour and able to complete the operations in time. Based on this background, KVK, Salem conducted survey in cotton growing areas of Attur block of this district and identified the following problems

### Constraints:

– In the cotton cultivation, among the field operations, weeding and removal of cotton plants

after harvesting are the labouries which leads to higher production cost to the cotton growers.

– Cotton being a slow growing crop during the initial stage needs more labour for weeding and leads to more cost of cultivation.

– Unavailability of labour for agricultural purpose, farmers are not able to complete weeding in time and this associates crop weed competition and yield loss.

– Since cotton is a deep rooted crop, pulling out the cotton plant after picking kapas, needs more labour and energy. In Salem district, most of the agricultural operations are done by the women farmers, they experienced harmful to their hands in pulling out the cotton plant. Keeping, these things in mind, KVK, Salem initiated front line demonstrations during 2005-06.

### METHODOLOGY

Details are given in Table 1 about the field demonstration.

**Table 1: Details of the field demonstration**

Village	Malliakarai
Block	Attur
Area	50 ha
No of farmers	50
No of demonstration	50
Funding agency	Government of India, Ministry of Agriculture, Directorate of Cotton, Mumbai. Through ICAR (TOT)

### Key words :

Cotton, Front line demonstration, Hand weeder, Cotton shredder, Field day

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