

# A NEW EXPERIENCE IN WEED CONTROL

**P. S. LIYANAGAMA**  
*Coconut Research Institute.*

A recurring problem of coconut growers in Sri Lanka is the maintenance of coconut lands free of weeds.

Although several traditional methods are used to control weeds, there are the following constraints.

1. Requirement of a large labour force in plantations.
2. Higher expenditure due to increasing wages.
3. Inability to obtain the required labour in time.
4. Inability to perform timely weed control operations.

These constraints have been successfully overcome by the Coconut Research Institute using mechanized weeding.

The Institute has tried out a weed slashing implement than can be fitted to an ordinary four-wheel tractor. It is a simple implement operated by the P.T.O. and can be easily manoeuvred like a harrow. The implement has two steel blades, which revolve at very high speed by the P.T.O. via a gearbox. The blades, which are 7 cm (3 inches) wide and 30 cm (12 inches) long, have a sharp cutting edge and rotate at very high speed parallel to the ground, thereby cutting the weeds. The blades are boxed the top and the sides by metal plates, which prevents scattering of trash. The depth of cutting can be adjusted from ground level upto 15 cm (6 inches).

Maintenance of this implement is very simple. Daily greasing and topping up of gear box oil are the only maintenance operations required. A village blacksmith can sharpen



*Mechanical slasher  
in operation.*

the blades, and can also make new blades when necessary.

The models of the slasher with blades of 120 cm (48 inches) and 150 cm (60 inches) are available, costing in the range of Rs. 30,000/- to 40,000/-

Weed control using this slashing implement was cheaper than any other method. Manual slashing of weeds in a coconut estate costs about Rs. 300.00 - 350.00 per hectare. Mamoty weeding is still more expensive. It is possible to slash 1.6 to 2 hectares a day, and therefore the cost of weeding when using the implement with this one's own tractor is about Rs. 60-85/= per hectare.

Weeds such as Illuk which normally cannot be controlled by manual slashing, can be con-

trolled with this implement. Repeated slashing prevents flowering of the weed and retards growth due to depletion of food reserves, resulting in the death of the weed. Even a thick weed growth does not affect the efficiency of this slasher.

As this implement could slash an area of about 2 ha of land during a normal 8 hour shift. the weeding programmes in large estates can be maintained on schedule. The difficulties in obtaining labour on time are obviated.

This mechanical slasher can be introduced to the estates as a better method than the traditional weeding methods. This implement is being used successfully in several estates belonging to the CRI. Planters who wish to inspect this slasher in operation may do so by prior arrangement with the CRI.