

UPROOTING OLD TEA USING A HESFORD WINCH

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Since the inception of the tea replanting programme at Campion Group, Bogawantalawa, the uprooting of the old tea was done with two 'Trehwella' hand winches. In 1965, however, a 5-ton Hesford winch was used in conjunction with a Massey-Ferguson 29 HP tractor. A pair of wheel weights have been fitted to the front wheels of the tractor, which can be taken to the middle of the field even in steep areas if temporary field paths are constructed. The main winch cable was attached to four small slings each of which was looped round one bush. While these four slings were being used, a further set of slings were being looped round four neighbouring bushes. The longer extension cables measure 83 ft and 55 ft. It is possible to loop these directly round ten bushes and remove them at one pull. The uprooting is equally thorough with either of these methods, but the latter is much quicker and wears the cable out faster. *Grevillea* trees were uprooted by fitting the cable seven feet above the ground, tightly around the trunk. Almost no roots were left behind. It can also be used to remove other species of shade trees.

A total of seven labourers were employed ; four of them, supervised by a more experienced labourer, fitted the slings around bushes ; two others fitted the slings onto the main cable and the remaining labourer cleared the obstructions (rocks etc) out of the way of the main cable. The rate at which the uprooting is done depends on the terrain. At Campion, an acre of tea on rocky, uneven and steeply sloped land was uprooted in a week.

Costs

The initial cost of the winch was Rs 7,500/-. The cost could be defrayed to some extent if it were shared by a group of estates in the same area or company. A comparison of the expenses involved, is given in Table 1, from which it is seen that a saving of Rs 210/- per acre was made, over the cost of uprooting using Trehwella winches. This saving accrues in spite of the fact that *Grevillea* removal costs are *not* included for Trehwella winches, whereas they *are* for the Hesford winch.

Advantages and disadvantages

Ideally, a more powerful tractor (35-40 HP) might be used, because more bushes can be removed each time. Fewer roots remain when a winch is used. The costs of secondary uprooting are, therefore, much less. The disturbance of the soil is also minimized. The weather during uprooting must not be too wet because the tractor may tend to get bogged down. Extreme droughts are also not ideal for uprooting because the work takes a longer time. A period must, therefore, be chosen when it is neither too wet nor too dry.

A further point is that the labour is more enthusiastic and seems to enjoy working with the tractor winch, whereas using the hand winch is usually a very unpopular task.

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TABLE 1—A comparison of the costs of uprooting tea using a Trewhella winch with the cost using a Hesford winch

Area	Trewhella winch			Area	5-ton Hesford winch with 29 HP Massey-Ferguson tractor		
	5 A.	0 R.	22 P.		5 A.	3 R.	19 P.
Time taken for uprooting (Days)			117	Time taken for uprooting (Days) ... 63 (No repairs to tractor or winch during this period)			
Uprooting commenced	28-1-65			Uprooting commenced	18-7-65		
Uprooting completed	24-6-65			Uprooting completed	16-9-65		
Initial and secondary uprooting costs including removal of stumps and roots 1156 labourers			Rs cts 3,017.16	Initial and secondary uprooting costs including Tractor drivers salary for 63 days			Rs cts 374.20
				34½ gallons petrol @ 3.28½ per gallon			113.34
				295½ gallons kerosene @ 92½ per gallon			293.34
				8 tins motor oil @ 10/50 per tin			84.00
				28 labourers for cutting paths to take tractor to uprooting site			73.08
				31 labourers for removing uprooted bushes etc to nearest road or ravine			80.91
				Contract for initial and secondary uprooting @ 200.00 per acre			1,173.75
Levelling — (318 labourers)			829.98	Levelling — (345 labourers)			*900.45
			<u>TOTAL</u> <u>3,847.14</u>				<u>TOTAL</u> <u>3,093.07</u>
Cost per acre			<u>737.16</u>	Cost per acre			<u>527.04</u>
				Saving per acre over the use of the Hand winch			<u>210.12</u>

* Cost per acre with Trewhella winches excludes the removal of *Grevillea* trees, whereas cost per acre with the Hesford Power winch includes removal of *Grevillea* trees.