IV

Sir,

Subject : **A labour survey device for removal of *Phunki* (used up Brood Lac) from palas (*Butea monosperma* (Lam.) Taub.) trees**

The existing recommended method of removal of *phunki* involves climbing the inoculated trees individually, costing 1.5 paise per *palas* tree (Krishnaswami and Malhotra, 1960). Where large number of trees is to be operated and adequate number of skilled (in the art of climbing trees) labourers is not available, the execution is more often delayed. Unrecovered *phunki*, which is allowed to remain on trees beyond three weeks, acts as a source for carry over of lac pests, affecting the lac crop adversely (Glover, 1937). In addition, during the process of climbing and alighting the trees, the workers incidentally cause considerable damage to the newly settled lac colonies either by rubbing or breaking the lac bearing shoots.

In order to obviate the necessity of climbing the trees, an inverted 'J' shaped steel cutting hook was fixed on a four metre long light bamboo pole (Fig. 1) and tried for pulling down the *phunki* bundles from ground level.

The device was tested on a large scale at kundri lac orchard (Palamau : Bihar on *palas*. Two comparable teams of 10 workers each were engaged to work side by side. Six workers of the treatment group removed the *phunki* bundles with the aid of the 'hook' and remaining four collected them. Similarly 6 workers of the control group climbed the trees and remaining 4 collected the lac. The bundles falling from the trees, in both the cases, remained safe due to the cushioning effect of ground vegetation and virtually no loss of resin was observed in the process.

The results of the field trial are summarised in the following table :

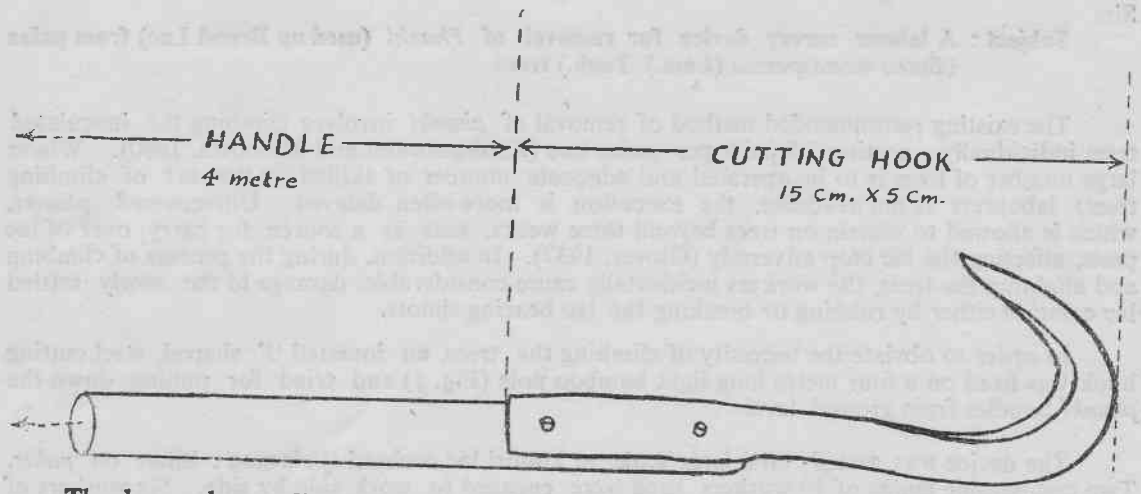
Table

	Treatment group			Control group		
Trial No.	Total no. of trees operated	Output per labourer per day	Cost per tree (Paise)	Total no. of trees per day	Output per labourer per day	Cost per tree (Paise)
I	1500	150.0	0.66	730	73.0	1.38
II	1545	154.0	0.64	650	65.0	1.38
III	1410	141.0	0.70	615	61.5	1.64
Ave-rage	1485	148.5	0.67	665	66.5	1.50

It may be seen from the table that the output per labourer was enhanced from 66.5 to 148.5, i.e., by 123 per cent, resulting in reduction of per tree expenditure from 1.5 to 0.67 paise i.e., 55.3 per cent over control.

The use of this simple, cheap and efficient device which also obviates undue damage to lac crops is thus highly recommended.

Fig. 1



Thanks are due to Dr. S.C. Sengupta, Director, and Dr. A. Bhattacharya, Entomologist for providing necessary facilities and to Shri S.N. Sharma, Fieldman and Shri R.L. Singh, Senior Artist-cum-photographer, for technical help.

References cited

Glover, P.M. (1937)—Lac Cultivation in India. *Indian Lac. Res. Inst.*, Ranchi : 49. Krishnaswami, S. and C.P. Malhotra (1960)—Propagation and cost of cultivation of lac on *palas* (*Butea monosperma*) on a large scale under forest conditions at the Kundri forest, Palamau division, Bihar. *Bull. Indian Lac Res. Inst.*, 98 : 7.

Division of Entomology,
Indian Lac Research Institute,
Namkum, Ranchi.

Yours faithfully

Sd/- R. C. Mishra
Sd/- C. P. Malhotra

* * * *