CONTROL OF LEMON GRASS (*CYMBOPOGON CITRATUS*) IN AN IMMATURE *HEVEA BRASILIENSIS* PLANTATION

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In an experiment to evaluate the efficacy of different methods of control of lemon grass (*Cymbopogon citratus*) weeds in immature rubber plantation, glyphosate spraying at the rate of 3 L/ha (1.2 kg ai/ha) was the most effective and economical treatment. Both uprooting and slashing of lemon grass were uneconomic. Spraying of paraquat 2.25 L/ha (0.54 kg ai/ha) for up to seven rounds within the experimental period of 280 days was not effective.

Key words: *Cymbopogon citratus*, Herbicide, *Hevea brasiliensis*, Weed control.

The control of weeds in immature rubber (*Hevea brasiliensis*) plantations accounts for more than 34 per cent of the total cost of cultivation during that phase (Pothen *et al.*, 1988). Excessive growth of weeds in the plantations affects the growth of rubber plants and causes serious inconvenience for various estate operations like manuring and plant protection (Mathew *et al.*, 1984). Cover crop establishment is also hindered by excessive weed growth. The increasing cost and scarcity of labour may render the manual control measures unviable in the near future (Mani *et al.*, 1989). The possibility of weed control by the application of herbicides in rubber plantations has been demonstrated (Kalam and Punnoose, 1975; Mathew *et al.*, 1977). Chemical weed control methods have the advantages that they do not disturb the soil surface and expose the soil to erosion, and are less time consuming (Mathew *et al.*, 1984). Glyphosate (N – Phosphomethyl glycine) controls most of the narrow-leaved weeds and some broad-leaved weeds in rubber plantations (Mani *et al.*, 1987).

Cymbopogon is an important genus of aromatic grasses with about 120 species, of which nearly 27 occur in India (Kumar *et al.*, 1997). They include cultivated, semi-wild and wild species. The chief constituent of the oil extracted from it is citral, which is the starting material for the preparation of cosmetics, perfumes and synthetic vitamin A. The lemon grasses are hardy, grow under a variety of conditions, spread very fast and have become a threat to immature rubber plantations in many locations. Slashing and uprooting have been the traditional method of control of this weed. However, these methods are very labour intensive and expensive. Therefore, an experiment was laid

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