

## EFFICACY OF DIURON FOR WEED CONTROL IN RUBBER SEEDLING NURSERY

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A field experiment was conducted to study the effectiveness of three doses of Diuron viz., 1.0, 2.0 and 2.5 kg per ha for controlling weed growth in rubber seedling nursery. Application of diuron at the rate of 2.5 kg per ha at planting, could control weeds effectively for a period of 120 days and was significantly superior to the lower doses tried. Single application of diuron at the rate of 2.5 kg per ha gave a cost saving of 29.9 per cent over the manually weeded plots. Application of Diuron at the rate of (2.5 kg per ha) at planting followed by a second application at the rate of 1.0 kg per ha after two months controlled weeds effectively and resulted in a total weeding cost saving of 55.8 per cent over manual weeding. Herbicide application followed by mulching was also equally effective and economical in controlling weed growth. No phytotoxic effect was noticed on the seedlings from application of the herbicide.

**Key words :** Weed control, Seedling nursery, Diuron, Mulching, *Hevea*.

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### INTRODUCTION

The main objective of a seedling nursery for rubber is to raise the maximum number of healthy and vigorous stock seedlings which would attain buddable girth within the shortest time. In order to achieve this, the plants must grow in a favourable environment without having to compete for light, water and nutrients. Restricting/controlling weed growth in rubber seedling nursery is thus a major factor that has to be given due importance since unchecked weed growth will ultimately restrict plant growth.

Manual weeding is the most common cultural practice followed for regulating weed growth in seedling nursery. However, utmost care is to be taken during manual weeding as the implements used for weeding may cause damage to the

young plants. Further, the increased cost of manual weeding and the problems related to labour availability have made the prospects of using chemicals for weed control attractive. Use of diuron at 2 to 3 kg per ha has been reported to control both monocot and dicot weeds for a period of 2 to 3 months in seedling nursery (Mathew and Punnoose, 1975). Progressive reduction in weed growth with increasing levels of diuron was also reported (Mathew *et al.*, 1977).

Butani *et al* (1988) reported that when observed 30 to 90 days after application, diuron was most effective at the rate of 2 kg/ha. There was no phytotoxicity to peach seedlings. Diuron at the rate of 2 kg per ha applied at pre-emergence or early post-emergence stage controlled weeds effectively in nurseries of