

WEED FLORA OF RUBBER PLANTATIONS IN KERALA

Mareen Abraham and C.T. Abraham

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A survey of the weed flora associated with rubber plantations in Kerala, India was conducted during the post-monsoon period (October-November) of 1995-97. The relative density (RD), relative frequency (RF) and the summed dominance ratio (SDR) of the weeds were worked out for determining the ecological dominance of any particular weed. Altogether 88 species of weeds were recorded in the survey : 72 dicots, 16 monocots including 12 grasses and two sedges and two ferns. The most dominant weeds of rubber plantations in all stages were *Chromolaena odorata*, *Axonopus compressus*, *Clerodendron infortunatum*, *Borreria hispida*, *Ischaemum indicum* and *Mimosa pudica*. *Cyathula prostrata*, *Justicia simplex* and *Ischaemum indicum* were dominant in plantations during the tapping stage whereas *Mikania micrantha* and *Cynodon dactylon* were dominant during the pre-tapping stage.

Key words : Rubber, Weed density, Weed frequency, Weed survey.

Mareen Abraham and C.T. Abraham (for correspondence), AICRP on Weed Control, Kerala Agricultural University, Vellanikkara, Thrissur-680 654, Kerala, India.

INTRODUCTION

Weeds comprise one of the major problems in rubber cultivation as they compete with the crop mainly for water and nutrients. During the early stages of the crop, competition for light also occurs. Therefore, a leguminous ground cover is recommended for the control of weeds in rubber during the pre-tapping stages. However, in plantations where cover cropping is not practised and also in those under tapping, a number of weeds get established causing problems for routine operations in addition to competition with the crop. The weeds commonly found in rubber plantations in South India are *Chromolaena odorata*, *Borreria* sp., *Lantana camara*, *Mimosa pudica*, *Axonopus compressus* and a variety of other plants (Pothen *et al.*, 1988). Detailed information on the weeds of rubber planta-

tions and their relative dominance in different soils and regions of Kerala is not available and therefore, this study was conducted.

MATERIALS AND METHODS

A survey was conducted in the months of October-November (post monsoon period) during 1995-97. Survey sites were selected at random, approximately at 10 km intervals by travelling along the major terrestrial routes in the rubber growing tracts of Kerala State, India. At each location, observations on weeds were taken from rubber plantations located 150 metres away from the roadside. In each garden, average species wise counts of the weeds were recorded from four different spots (1 m²) using an iron quadrat of