

ASSOCIATION OF CHARACTERS IN HAND POLLINATED PROGENIES OF *HEVEA BRASILIENSIS* (WILLD. EX ADR. DE JUSS) MUELL. ARG.

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Nursery evaluation of sixty three genotypes of *Hevea*, obtained from 1982 hand pollinations was carried out for yield and related characters like plant height, girth, number of latex vessel rows and bark thickness. Simple, partial and multiple correlations of the variates were estimated. Yield on test tapping was positively correlated with all other characters. Plant height showed significant correlation with girth. Girth and number of latex vessel rows showed significant positive correlation with bark thickness. Studies on partial correlation revealed that number of latex vessel rows is the most important character influencing the nursery yield. The characters studied could explain 43 per cent of yield variability in the nursery stage.

Key words - *Hevea brasiliensis*, Progeny analysis.

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INTRODUCTION

Yield is a complex polygenic character and is dependent on a number of components. A knowledge of the association of quantitative characters, especially of yield and its attributes, will be of immense practical value in crop breeding programmes. Selection pressure can be profitably exerted on any of these easily discernible characters having close association with yield (Kamalam et al, 1978). Thus how selection pressure on one character brings about changes in other traits is worth studying. Correlation studies between various yield components at nursery stage have established the influence of vigour, bark thickness and number of latex vessel rows on the yield of *Hevea* clones (Narayanan and Ho, 1973; Ho et al, 1973). In the present paper correlations of four characters

with nursery yield in 63 hand pollinated progenies of *Hevea brasiliensis* are reported.

EXPERIMENTAL

The materials comprised of sixty three genotypes resultant of 1982 hand pollinations in five cross combinations maintained in the nursery at RRII (Table 1). The five parental

Table 1. Genotypes and their parentage

Genotypes	Cross combinations	Total No.
82/1 — 82/29	RRII 105 x RRIC 100	29
82/30 — 82/32	RRII 105 x PR 107	3
82/33 — 82/35	RRII 105 x PB 5/51	3
82/36 — 82/52	GT 1 x RRIC 100	17
82/53 — 82/63	GT 1 x RRII 105	11
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