

NURSERY EVALUATION OF *HEVEA* GENOTYPES OF THE AMAZON BASIN

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Genotypes obtained from the IRRDB sponsored *Hevea* prospection mission were evaluated for nursery characters at the Rubber Research Institute of Nigeria in February, 1990. Scion height and stem diameter had high coefficients of variation of 33 and 31 per cent respectively and they were found to be adequate for estimating genetic variability in *Hevea*. High genetic variability and correlations were obtained in this study. The entire collection from the Amazon basin is therefore promising for future breeding work.

Key words: *Hevea brasiliensis*, Genetic variability, Amazon basin, Nigeria.

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INTRODUCTION

Prospection is often carried out to broaden the genetic base in breeding programmes and to protect the existing germplasm against genetic erosion. The focus of *Hevea* prospection has been the Amazon basin which is the centre of origin of the genus. In 1981, the International Rubber Research and Development Board (IRRDB) sponsored *Hevea* prospection in the Amazon basin covering three states in Brazil viz., Rondonia, Mato Grosso and Acre. Multiplication nurseries were established in Malaysia and Cote d'Ivoire.

The Rubber Research Institute of Nigeria collected 2822 genotypes from the IRRDB multiplication nursery in Cote d'Ivoire in April and May, 1988 for conservation and evaluation in Nigeria. This study was conducted to investigate variability among these genotypes using morphological features of leaf, flush and trunk.

MATERIALS AND METHODS

The IRRDB prospected genotypes were obtained as budwood and budded onto

stock seedlings raised from unselected seeds in the Rubber Research Institute of Nigeria. The successful budgrafted plants were maintained in the nursery for hardening and transferred to the gene pool garden.

The gene pool garden was established at a spacing of 60 x 90 cm and the first census was taken in September, 1989. Evaluation was carried out in February, 1990 for the following morphological characters:

1. Stem diameter (at 30 cm from the ground);
2. Scion height;
3. Number of flushes;
4. Length of second internode; and
5. Number of leaves at third leaf whorl.

Data were collected on a sample of three plants per genotype and analysed for the following parameters: means, coefficient of variation and the ten possible inter-character correlations which were tested for significance. All the three provenances