

COMPARISON OF DIFFERENT METHODS OF YIELD ESTIMATION IN *HEVEA BRASILIENSIS*

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Five methods of estimating dry rubber yield were investigated in eleven clones of *Hevea brasiliensis*. The tapping system used was $\frac{1}{2} \times d/2$ without stimulation. The conventional method of air-drying of cup-lumps was found to over-estimate yield. The Metrolac method gave values closer to those of the standard method, though not close enough to the required tolerance. Pending identification of an alternative method giving results within acceptable tolerance, the Metrolac method may continue to be used with reservation.

Key words:—*Hevea brasiliensis*, Yield estimation, Dry rubber content, Metrolac method, Air dried cup lump.

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INTRODUCTION

The dry rubber content (DRC) of latex is a basic parameter of yield evaluation in rubber (*Hevea brasiliensis*). It also forms the basis of payment to the rubber producers and hence the importance of its accurate estimation cannot be over-emphasized. The ideal method of DRC estimation should be one that is accurate, rapid and easy to operate in the field and unaffected by extraneous substances added to the latex. It should require only the use of reagents and portable apparatus which are available locally at low price. No such ideal method has been developed yet.

The cup lump method, which involves coagulating the latex in the cup and drying the resultant 'biscuit' in the air or oven is easy to adopt, but the yield figures so obtained have been criticized (Alika, 1978). The standard laboratory method which gives the most accurate estimate of DRC is not easy

to be carried out in the field. Alika (1978) examined five methods of estimating dry rubber yield and recommended the use of bi-monthly coagula collection followed by air drying under shade for 21 days or drying at controlled temperature for 48 h. Yield figures from this method are usually much higher than those obtained by commercial estates and therefore the reliability of this method is questioned. This work looks at the various methods of estimating yield of rubber with a view to identifying the most suitable one.

MATERIALS AND METHODS

Eleven clones (10 'C' clones and RRIM 600) of *Hevea brasiliensis*, planted in June 1979 at Okhuo in Bendel state of Nigeria, were used as the test materials. The trees were planted in a completely randomized design with five replications and 10 trees per plot at a spacing of 6.7 m x 3.4 m. Four replicates were used for this study. The