

TECHNIQUE OF INDUCTION OF POLYPLOIDY IN RUBBER TREE¹

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The higher efficiency of the new method of inducing polyploidy developed at the CNPSD enabled in the last 2 years the obtainance of 46 polyploid clones out of 38 diploid clones while only 6 polyploids out of 4 diploids were obtained in a previous period of 3 years. In the present method the apical bud is severed and plant regulators are applied to induce a faster sprouting of more axillary buds. Colchicine is applied in the cut petiole when the buds are swollen, by injecting with a micropipette 7.5 microliters per petiole of a solution of colchicine 0.25% and dimethyl sulfoxide 0.5% in the pith of the petiole. Confirming the forecast based on the organogenesis in the apical bud, forcing bud break below the leaves with symptoms of polyploidy also contributed to enhance the efficiency of the method. The screening of polyploid clones is based on the frequency distribution of stomata per size classes, leaf and bark thickness and the caliber of sieve tubes. Due to limitations in technique chromosome counting hasn't yielded yet reliable data.

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