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Evaluation of the vertical growth rate of oil palms (*Elaeis guineensis* Jacq.) derived from recombinations of Yocoboué progenitors in the 3rd cycle of reciprocal recurrent selection.

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ABSTRACT

Objective: The present study aims to determine the vertical growth characteristics of the progeny of the 3rd cycle resulting from recombinations involving the genitors of the Yocoboué population.

Methodology and results: The study was carried out at Ehania/PALMCI (Côte d'Ivoire), using a square lattice design, measurements were made on the height of stem of 2402 trees belonging to eighteen oil palms progenies and three popularised controls. Vertical growth rates expressed in cm/year were calculated and reported as a percentage of control 1 (LM 2 T x DA 10 D) in order to link the progenies of each trial. The results showed that eight progenies evaluated expressed growth rates statistically lower than those of the three controls. These were LM 22179, LM 22259, LM 22349, LM 22363, LM 23163, LM 24201, LM 23658 and LM 24040 that averaged 87.29% of the LM 2 T x DA 10 D control.

Conclusion and application of results: The low growth rate expressed by these progenies resulted in a reduction in growth rate of up to 14% compared to control 1, up to 6% compared to control 2 and up to 9% compared to control 3. These results can be used by the breeder to continue improving the oil palm.

Key words: Selection, Growth, Oil palm, 3rd cycle of RRS, Yocoboué