

Réponse aux carences minérales de clones sélectionnés *Coffea canephora* Pierre

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SUMMARY

A trial comparing twelve high yielding *C. canephora* clones was established in Macenta (Guinea) on an acidic, unsaturated soil, with calcium/potash misbalance and high aluminium content. Another trial at Lola on a fertile soil is used as control. Assessments on mineral deficiencies symptoms, growth and yield were made and analysed. Leaf contents were analysed.

Highly significant differences are found for these criteria in the first trial. Some clones exhibit normal growth and yield without deficiency symptoms, whereas others show conspicuous deficiency symptoms and abnormal development. These are correlated with the proportion of K and Ca in the sum of cations as measured in the leaves. The role of Al in the absorption of P and of exchangeable bases is discussed.

Based on this variability between the clones, it seems possible to select clones for their ability to grow and yield in unsaturated soils with a high exchangeable Al content. Propositions are made for further investigation on this tolerance.

Key words: *Coffea canephora*, Coffee breeding, Guinea, mineral deficiency, soil aluminium, calcium, magnesium, potassium.