

***Coffea arabica* Clones from F1 Hybrids in Central America**

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SUMMARY

The aim of the breeding programme in Central America is to enlarge the very narrow genetic basis of Bourbon, Caturra, and Catuai, whilst increasing quality and productivity. It is based on heterosis (hybrid vigour = production of fruit-bearing nodes) and genetic diversity obtained by combining dwarf commercial varieties with Sudanese-Ethiopian origins. Somatic Embryogenesis has been developed to multiply vegetatively selected F1 trees. Comparative trials were established in 4 Central American countries. Some clones show a good level of resistance to Coffee Leaf Rust, CBD, and to nematodes. Their products exhibit a noticeable stability (homeostasis) for chemical contents and for cup quality, despite a significant increase in productivity as compared to traditional varieties. The dwarf varieties Caturra, Catuai opened the way to a “green revolution” in coffee growing. It is believed that the use of F1 hybrids, combined with proper strategies, should pave the way to a “double green revolution”: economically sustainable coffee growing, but environment friendly as well. Six hybrid clones are expected to be definitely selected within one year, and available for large scale planting within 2-3 years.