

First Industrial Massive Propagation of *Coffea canephora* Through Somatic Embryogenesis Organized in Thailand

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SUMMARY

As well as in some other coffee producing countries, for various economical and technical reasons (IMD report), Nestlé purchases green coffee directly from the growers in Thailand. In parallel Nestlé gives assistance to the small coffee farmers in various domains including selected planting material and agricultural practices. After more than five years of evaluation of various Robusta clones in different countries including Thailand (ASIC 2004), some have been selected for their agronomic, industrial and quality performances. Their large-scale propagation through somatic embryogenesis has been undertaken in collaboration with the Department of Agriculture (DOA). Pregerminated somatic embryos are produced in both CHRC (Chumphon Horticultural Research Center) and R&D Nestlé Tours and developed into plantlets locally. The scaling up of the acclimatization was initiated by the CHRC in 2003 with the objective to produce 200,000 plants/year. Based on this first experience, a new project started in 2005 aiming to produce 1 million plants/year. The project is to distribute 6 millions of plantlets from selected clones over 6 years and therefore to replant up to 10 % of Robusta acreage from Thailand. After one year, the average acclimatization rate already reached up to 45 % and is expected to reach 60% in the coming months. The first commercial plantations made from these clones have shown up to 3-5 times the average field yield for coffee observed in Thailand. After many years of efforts from various research groups in the world, this technology finally reached the practical and industrial stage.