Micropropagation of Superior Genotypes of *Coffea arabica* L.

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SUMMARY

Coffee is one of the most important products in the world's market. The genetic improvement of coffee plants by conventional methods is an extremely slow process due to the long-life-cycle of the plant. Using this process one can take more than 30 years to obtain one variety able to be spread in coffee farms. The potentialities of *in vitro* tissue culture can be used in different fields of coffee research, namely in improvement programs. The *in vitro* micropropagation is therefore the unique procedure, which allows the production of large amounts of coffee superior genotypes with resistance to coffee rust and to Coffee Berry Disease (CBD), in a short period of time and its evaluation to commercial value on a clonal orchad. Different approaches have been considered for *C. arabica* cultivars micropropagation: meristem and axillary bud culture inducing multiple shoot development, nodal culture by the break down of apical dominance inducing the development of arrested orthotropic and plagiotropic buds, induction of adventitious buds and somatic embryogenesis. Recent advances in these approaches will be presented and discussed.