

Efficiency of Early Selection in the Icatu Coffee*

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SUMMARY

Early selection of coffee has been studied in straight *Coffea arabica* cultivars but not in cultivars developed by interspecific hybridization like the Icatu, originally derived from a *C. canephora* x *C. arabica* cross. Seven selection fields of F₃ and F₄ of BC₂ generation located in Mococa, Campinas, Garça and Pindorama in State of São Paulo, Brazil were studied, being the yield recorded for seven to ten consecutive years. The *a posteriori* study of yearly selection was performed by comparing coefficients of phenotypic correlation between total yield of progenies and of individual trees with their annual and cumulative yields in each experiment. Cumulative data of 4 to 6 consecutive harvests were very effective in identifying the best progenies of Icatu coffee. For individual trees 100% efficiency was only attained in the 4 localities after the 5th harvest when the selection intensity was 50%. If intensity decreases to 25%, efficiency became much lower in all selection fields. Correlation of total yields and cumulative yields in high yielding years was very high. This information indicates that selection of best progenies and trees can be securely done on the basis of such years only. Although this does not save time, it however reduces considerably the costs of the coffee breeding program.