Title Qualitative relationship between caffeine and chlorogenic acid contents among wild Coffea species

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Abstract

Chlorogenic acids, *sensu largo* (CGA), are secondary metabolites of great economic importance in coffee: their accumulation in green beans contributes to coffee drink bitterness. Previous evaluations have already focussed on wild species of coffee trees, but this assessment included six new taxa from Cameroon and Congo and involved a simplified method that generated more accurate results. Five main results were obtained: (1) Cameroon and Congo were found to be a centre of diversity, encompassing the entire range of CGA content from 0.8% to 11.9% dry matter basis (dmb); (2) three groups of coffee tree species – CGA1, CGA2 and CGA3 – were established on the basis of discontinuities; (3) means were 1.4%, 5.6% and 9.9% dmb, respectively; (4) there was a qualitative relationship between caffeine and ACG content distribution; (5) only a small part of the CGA is trapped by caffeine as caffeine chlorogenate.