

QUANTIFICATION OF PHENOLIC COMPOUNDS BY HIGH EFFICIENCY LIQUID CHROMATOGRAPHY IN BEVERAGES PREPARED FROM MATE EXTRACT WITH WATER SOLUBLE SOYA EXTRACT

Cátia Nara Tobaldini Frizon¹, Fabiana Lemos Goularte Dutra¹, José Alfredo Sturion², Rosemary Hoffmann Ribani¹. ¹Universidade Federal do Paraná-UFPR, Rua Francisco H. dos Santos - Jardim das Américas - 81531-980, Curitiba PR Brazil. ²Embrapa-Florestas, Estrada da Ribeira, km 111 - 83411-000, Colombo PR Brazil.

A beverage composed of mate extract enriched by water soluble soya extract, a high quality protein source, was prepared to increase the supply of mate (*Ilex paraguariensis* A. St.) products, which is a source of phenolic compounds. The concentration of 5-caffeoylquinic acid (5-CQA) and flavonol rutin (Ru) in beverages prepared with mate from two strains, A7 (planted when 12 years old) and F1 (an 80-year old native tree) from the Embrapa Foresta in Colombo PR Brazil was determined. Moreover, liquid chromatography, Agilent, C18 column of 5 μm , detector of diode arrangement and mobile phase methanol:water (acidified with formic acid) in gradient and detection in 325 nm for 5-CQA and 370 nm for Ru were used. 5-CQA and Ru rates in the A7 mate were 19.32 mg g^{-1} and 8.61 mg g^{-1} , whereas the rates in the beverage were respectively 0.18 mg mL^{-1} and 0.05 mg mL^{-1} . F1 mate presented rates of 17.93 mg g^{-1} and 6.08 mg g^{-1} for 5-CQA and Ru, whereas the rates for the beverage were respectively 0.25 mg mL^{-1} and 0.05 mg mL^{-1} . Rates in the beverages obtained were similar to those provided in cimarrón ingestion for 5-CQA (between 0.25 and 0.49 mg/mL). They were even higher in samples of mate tea on the market, at 0.008 mg/mL for 5-CQA. The supply of new mate products with new flavors increases and popularizes their consumption and provides an alternative to the population who does not consume mate in the traditional forms as cimarrón and tererê.