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MINERAL CONTENT EVALUATION OF SOME GREEN TEA ASSORTMENTS

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Abstract: All types of green tea are prepared from the dry leaves of *Camellia sinensis*. The type of green tea depends on the level of oxidation of the leaves. Green tea is produced from non-oxidized leaves and is therefore rich in antioxidants and polyphenols that are so beneficial for health. The purpose of this study is to evaluate the mineral content of some green tea varieties using X-Ray Fluorescence analysis. In order to achieve the objectives, we purchased various assortments of green tea. The research results show that all samples have high values of potassium content (between 41591 ppm and 67826 ppm), calcium (13601 ppm and 25774 ppm), manganese (2799 ppm and 6661 ppm) and iron (685 ppm and 1280 ppm). In conclusion, green tea can be consumed not only for its high content of polyphenols but also for covering the daily requirement of minerals, especially potassium and calcium.

Keywords: *X-Ray Fluorescence, minerals, nutritional*

• Introduction

The purpose of this study is to evaluate the mineral content of some green tea varieties using X-Ray Fluorescence analysis.

• Material and method

In order to achieve the objectives, we purchased various assortments of green tea (plain or with ginger, lemon peel or sea buckthorn). Determination of samples mineral profiles was made by using Hitachi X-MET8000 portable Spectrometer. The results are expressed in ppm (mg/kg dry weight).

• Results and discussions

The research results show that all samples have high values of potassium content (between 41591 ppm and 67826 ppm), calcium (13601 ppm and 25774 ppm), manganese (2799 ppm and 6661 ppm) and iron (685 ppm and 1280 ppm).

• Conclusions

In conclusion, green tea can be consumed not only for its high content of polyphenols but also for covering the daily requirement of minerals, especially potassium and calcium.