

THE NUTRITIONAL EVALUATION OF SOME CHOCOLATE BARS ASSORTMENTS

ALDA SIMION, BORDEAN DESPINA MARIA, SIRBULESCU CLAUDIA, SCEDEI DANIELA, MOATAR MIHAELA, MOIGRADEAN DIANA, CRISTEA TEODOR, SPATARIUC DUMITRU, ALDA LIANA MARIA*
Banat's University of Life Sciences "King Michael I" from Timisoara, Romania

Abstract: *In this paper, we made a comparative evaluation from the point of view of the nutritional value for eight assortments of chocolate bars. The content of fats, saturated fatty acids, carbohydrates, fibers and proteins was analyzed. These parameters differ greatly from one assortment to another, some assortments recording high values of sugars and saturated fatty acids. In the laboratory, we analyzed the mineral content using the XRF (X-ray fluorescence) technique. The experimental results show that these chocolate bars are a very good source of minerals such as K, Ca, Fe, Mn, Zn and Cu and the consumption of such a bar contributes to ensuring the daily requirement of these elements.*

• Introduction

Chocolate is a food source noted for its flavonoid content. Cocoa has the highest flavanol content of all foods and contributes to greater dietary intake of flavonoids than fruits, tea, and vegetables [4,5,6]. Based on flavonoid and mineral content, the consume of dark chocolate with low sugar and higher cocoa content are recommended in terms of supporting bones health [8,9].

Material and method

The analysis of the mineral content of chocolate bar assortments was made using X-ray fluorescence analyzer device (X-MET8000).



Fig.Chocolate bar assortments samples

• Results and discussions

We find the presence of a very large number of additives in chocolate bar samples, and the consumption of large quantities of these products can pose health risks.

The experimental results show that these chocolate bars are a very good source of minerals such as K, Ca, Fe, Mn, Zn and Cu.

• Conclusions

All varieties of chocolate bars have a high content of K, Ca and Fe, being able to be consumed in order to ensure the daily requirement of these minerals, but the high caloric content of these products imposes caution in uncontrolled consumption.