

MEASURING THE QUANTITY OF ANTHOCYANIDINS IN FROZEN FRUITS

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Abstract

Fruits are recommended in the everyday diet, the recommendation coming from the content of the fruits: antioxidants, minerals, water, dietary fibers. The first line behind the antioxidant status are anthocyanidins and vitamins with proven positive effects for the human well-being. Each fruit has its own fresh- available period, so it needs to be additionally treated in order to stay fresh during the whole year. Freezing is one of the options to be used for a longer period and to keep preserve all its healthy nutrients, which is not the case when it is thermally treated. Quick frozen fruits are identical for their nutritional content as the fresh ones.

We analyzed the following fruits during our research: raspberries, strawberries and sour cherries which are naturally high in flavonoids and anthocyanidins with very effective antioxidant and anticancer properties and protect the human body from cardiovascular, degenerative illnesses and cancers. In our research, the measuring in the frozen fruits is made with a spectrophotometric method - pH differential method.

It was established that the highest amounts of anthocyanidins are registered in the raspberries 94.45 mg/100 g, in the sour cherries 65.89/100 g and in the strawberries 35.67 mg/100g. The total acidity and pH level of the fruits are determined with this research. The biggest total acidity have the raspberries 16.73 g/100g with the determined the lowest pH level (3.90).

The freezing on low temperatures not just allows to prolong the period for consuming of the fruits, it also allows to preserve its nutritional quality, which can be seen from the results we got in our research.

Key words: *Antioxidants, Healthy nutrients, Spectrophotometer, Total anthocyanidins, Frozen fruits, Raspberries, Strawberries, Sour cherries.*