The influence of inulin addition on nutritional composition of spelt pasta

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Relevance of the Thesis

Spelt (Triticum aestivum ssp. spelta L) is a subspecies of an ordinary, soft wheat and is often used for production of different food products such as pasta production. Pasta is excellent choice for incorporating some nutrient components, and therefore inulin can be used due to its ability to function as a fat or sugar replacer. Both spelt and inulin have excellent nutritional and medical characteristics, functional properties and technological importance. According to accepted experimental plan, it was investigated the effect of addition of inulin (5 g/100 g of sample and 10 g/100 g of sample) on the nutritional quality of spelt pasta. By consuming 200 g of integral pasta with 10% of inulin, 21.6 g of dietary fibers is took in, fulfilling the daily intake of dietary fibers recommended by nutritionists and the world healthcare organizations (WHO). Based on obtained results it can be concluded that nutritive composition of spelt pasta is dependent on inulin content, and maximum dietary fibers and indigestible carbohydrates content measured in pasta with 10% of inulin. The amount of digestible carbohydrates decreases and the content of non-digestible carbohydrates increases by adding inulin. By increasing the content of inulin, the energy value of the spelt pasta was reduced. Inulin incorporated in pasta is a potential solution for increasing the necessary level of dietary fibers. Spelt pasta with the addition of inulin is a new functional product with changed nutritive composition in order to improve human health.
Main Results

By consuming 100 g of this pasta, 8.21-10.81 g of dietary fiber is added per day into the diet, while by consuming 200 g of integral pasta with 10% of inulin, 21.6 g of dietary fiber is took in, fulfilling the daily intake of dietary fibers recommended by nutritionists and the world healthcare organizations (WHO 2003).
Impact and Prospectum

Based on the presented data it can be concluded that nutritive composition of spelt pasta is dependent on inulin content.

Maximum dietary fibers and indigestible carbohydrates content were measured in pasta with 10% of inulin.

The amount of digestible carbohydrates decreases and the content of non-digestible carbohydrates increases by adding inulin.

The energy value of the spelt pasta is lower caused by increasing the content of the added inulin.

Inulin incorporated in pasta is a potential solution for increasing the level of dietary fibers that need to be taken in order to improve human health.

Spelt pasta with the addition of inulin is a potential new functional product with changed nutritive composition.
Thank You

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