

Properties of Inulin and its usage in Food Products

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Since the roles of dietary fibers in preventing and treating some diseases have been well documented, the addition of purified dietary fibers to food has become more popular. Different types of dietary fibers, such as pea, apple, sugar beet, soy and citrus fibers, as well as inulin and gums are now incorporated into foods for their nutritional properties or for their functional and technological properties (e.g., gelling or thickening properties). Dietary fiber intake in European countries is currently estimated to be 3 – 11 g per person per day. However, nutritionists recommend intakes of ~ 25 g per person per day. The development of fiber – enriched foods would help consumers to meet such recommendation.

The aim of this study was to estimate 3% inulin addition influence to model margarine on its sensory evaluation. The color, taste, spreadability and melting have been taken into account through the whole evaluation process. Sensorial analysis was carried out according to PN – A – 86936 Norm. Received results for experimental margarines (with inulin) were compared with model margarine (without fiber) and also to margarine with 3% oats addition.

The results of the research showed that the margarines containing inulin had good sensory quality. Sensorial evaluation of experimental margarine with inulin didn't show any deviation from the model margarine. Inulin had a positive effect on the taste, spreadability and texture of final products, unlike with margarine with oats addition. In the case of inulin – as example of soluble dietary fiber – the structure of margarine was creamy, smooth and homogeneous. In the case of oats fiber, the structure was not homogeneous and fiber could be sensed. After analyzing the results, we can state that selection of dietary fiber to be used in food production is significant. Fiber solubility in water-phase of the product is an important factor.