

ABSTRACT

The bachelor thesis deals with the topic of sugars and other sweeteners. In the theoretical part, a brief overview of carbohydrates in terms of nutrition, composition and basic breakdown is given. In detail, attention is then paid to specific types of natural energy sweeteners, non-energy sweeteners and polyols. The health effects of these sweeteners, the history of their use and, in the case of sugar, their consumption and production are discussed. Particular space is devoted to the legislation, control and safety of some non-energy sweeteners. Part of the work focuses more specifically on the artificial sweetener aspartame and the cases concerning its safety and effects on human health.

The aim of the bachelor's thesis was to identify the range of table sweeteners and syrups, to create a list of them and then to assess the most common types of syrups sensorially. Another objective was to find out what sweeteners the general public and high school students use, whether they prefer beverages with artificial sweeteners, and to find out their opinion on the safety and control of artificial sweeteners.

The practical part firstly deals with market research in 13 shops, 6 drugstores, 6 pharmacies and 3 health food stores. An inventory of 52 types of table sweeteners and 46 types of syrups offered in the selected stores was made. Subsequently, the 4 most common syrups were sensory evaluated by 20 volunteers in a verbal form based on taste and sweetness. The practical part also includes a survey conducted in the form of a non-standardised questionnaire survey. The data of which was collected online from 435 respondents and also in paper form, which was completed anonymously by 200 high school students.

From the results of the questionnaire survey, it was found that beverages with artificial sweeteners are more popular among high school students and also that most of the respondents prefer regular cola type beverages without artificial sweeteners. According to the results, the most used sweetener other than sugar is honey. The survey showed that respondents' views on the safety and control of added sweeteners varied. The results may be biased by the selected respondents and the selected secondary schools.

keywords:

sugars, sweeteners, artificial sweeteners, polyols, sweetener safety