

Abstract

This bachelor thesis focuses on exploring plant-based alternatives to milk, dairy, meat and meat products. The thesis is divided into two parts, theoretical and practical. The theoretical section examines the nutrients found in milk and meat, ingredients used in plant-based alternatives to dairy and meat products, the nutrients they contain and their impact on human health. In the next chapter I summarize the legislation concerning meat and milk, this is followed by a chapter examining ultra-processed foods (which include plant-based alternatives to meat and dairy), and another chapter focused on vegetarianism – characterizing its different types, explaining its benefits and risks and describing its history.

The primary objective of this thesis was to investigate public awareness of plant-based alternatives to milk, dairy and meat products, with a secondary goal of comparing the views of vegetarians and vegans to non-vegetarians. The first part of the practical section is an evaluation of an anonymous non-standardized questionnaire. This survey was used to determine the respondents' awareness of plant-based products and their nutritional value. A total of 349 people participated, including 222 non-vegetarians, 88 vegans, and 39 vegetarians (lacto-ovo vegetarians) from various age groups and educational backgrounds. The survey results indicate that vegans and vegetarians consume plant-based alternatives more frequently than non-vegetarians. One of the most common reasons for consuming these products was to try new foods, with the high cost of plant-based alternatives being the primary drawback. A significant amount of respondents, primarily vegans and vegetarians, lacked sufficient knowledge regarding the quality of nutrients obtained from plant sources and their bioavailability. However, a significant number of vegan and vegetarian respondents had a good understanding of fortification in plant-based alternatives and its importance.

The next objective of this thesis was to assess the range of plant-based alternatives available in supermarket chains, evaluate the nutritional value of a few selected products, and rate their sensory attributes. A total of 244 plant-based alternatives to milk, dairy, meat, meat products and fish were found in the supermarkets and hypermarkets visited. The store offering the greatest number of these products was identified, and 10 of these products were selected for evaluation. Each of the products was compared to its animal-based equivalent, using the Nutrition Facts table and the ingredients list written on its packaging. It was found out that none of the plant-based alternatives was of the same or better quality than its animal-based equivalent. Nonetheless, some of the plant-based alternatives had certain advantages over the animal-based foods, such as lower content of sugar, salt, or saturated fatty acids, or higher content of fibre. However, none of the plant-based alternatives had better organoleptic properties than the animal-based food the alternative was supposed to substitute. The highest rated plant-based alternative was a coconut yogurt alternative, while a plant-based cheese alternative received the lowest rating.