

## Abstract

The substitution of animal-based foods with plant-based products is common in some alternative diets, but plant-based substitutes are also increasingly consumed by mainstream customers. The aim of this thesis was to compare animal-based foods with their plant-based alternatives and to assess how nutrition professional and the lay public is informed about the differences between them.

A total of 223 respondents, 136 of whom had no education in nutrition, participated in the questionnaire survey. The results showed that the awareness of the lay public about the nutritional composition of plant-based alternatives is significantly lower than that of professionals. Furthermore, professionals pay significantly more attention to information on food labels and consider their diet as healthier than the lay public. In contrast, education in nutrition did not have a significant effect on experience with alternative diets or on the frequency of consumption of plant-based alternatives.

The practical part of this thesis included market research as well. Differences in composition and nutritional values were found not only between animal-based foods and their alternatives, but also among plant-based products. Soy drinks appear to be the best plant-based alternative to milk, as their protein content is almost equal and soy drinks have a lower proportion of saturated fatty acids (SAFA). In contrast, plant-based alternatives to cheese are often composed mainly of modified starch and coconut fat, thus being low in protein and high in SAFA and carbohydrates. Meat substitutes generally contain less protein, more carbohydrate, and more fat. Some plant-based products also contain large amounts of additives, e.g., modified starch, thickeners, stabilizers, and colorants. In addition, a large proportion of these products are classified as ultra-processed foods, the consumption of which should be restricted from both the health and environmental point of view.

It follows that plant-based alternatives may be suitable to diversify the diet, but given the differences in nutritional composition, they should not completely substitute animal-based foods. The appropriateness of including plant-based alternatives in the diet also depends on the quality of the specific food, the quantity consumed, and the overall composition of the diet.