APPLE AND PEAR BY-PRODUCTS – SOURCES OF BIOACTIVE COMPOUNDS FOR THE FOOD INDUSTRY

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Introduction

Fruit and vegetable wastes and by-products derived from food processing industry represents nowadays, one of the most common environmental and economic problems. Huge amounts of wastes and by-products are generated [4]. The apple and pear pomace includes the peel, seeds, stem, cores and some edible parts, which traditionally are formed during apple processing. In recent years, researchers have established that these by-products are a valuable source of functional nutrients: phenolic compounds, pigments, dietary fibers, essential oils, enzymes, vitamins and fatty acids [3]. Therefore, valorization and conversion of these by-products into new reusable products can contribute to the mitigation of environmental problems and make a path towards sustainable development [2]. Apple pomace contains ample amounts of health promoting phytochemicals, including phenolic acids, flavanols, anthocyanins, and dihydrochalcones [1].

Methodology

Determining the current state of research through the study and analysis of scientific articles.

Results

Numerous researches confirm the opportunity of valorizing apple and pear by-products by using them in various areas of the food industry. More than 30 sources published in the last 20 years were identified and studied. The content of biologically active substances in by-products from apples, pears, or other plant products has been studied in these researches. Additionally, methods for extracting these substances have been proposed, and the possibility of integrating these by-products in various forms (powders, extracts) into traditional food products, such as bread, dairy products, and others, has been investigated.

Conclusions and Implications

This study established the increased interest of researchers in studying the potential for valorization of by-products from apples, pears or other plant products, due to their high content in biologically active substances.

Keywords: *valorization, by-products, biologically active substances*

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