OVERVIEW OF BIOACTIVE COMPOUNDS RECOVERABLE FROM AGRO-FOOD INDUSTRIAL WASTES

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The present study is a review of the bioactive compounds existing in the industrial wastes of processed fruits and vegetables.

The agro-food industry is an important part of the world economy. A large number of companies are processing the raw materials, generating at the same time by-products and wastes which are not valorized according to their potential, and more than that, often generate financial or environmental problems.

Fruit and vegetable wastes are excellent sources of phenolic compounds with antioxidant properties (including anthocyanin pigments), carotenoids, vitamins, dietary fibers, sugar derivatives, organic acids, minerals, and other components. Many of these bioactive compounds possess health-promoting properties, due to their antioxidant, antibacterial, antitumor, antiviral, antimutagenic, and cardioprotective activities. They can be employed as natural dyes, antioxidants and preservatives of vegetal origin in functional foods.

Therefore, an innovative use of waste materials acquired from agro-food industries may establish an initiative for sustainable development in the context of circular economy, to mitigate environmental problems and even to improve human health through functional foods enriched with health-promoting recovered compounds.

Keywords*: antioxidants, functional foods, health-promoting compounds, natural dyes, phenolic compounds*

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