

Methods and Potential in Valorization of Banana Peels Waste by Various Extraction Processes: In Review

ABSTRACT

Over 114 million metric tons of bananas are produced each year. The peel, which accounts for roughly one-third of the fruit's weight, is commonly discarded as waste in the food industry. For centuries, the peel has been prized for its potential to heal a host of ailments. This by-product contains a large concentration of compounds with potent antioxidants linked to several health benefits. Consequently, the extracted valuable components, such as pectin, from this by-product could be applied to the pharmaceutical and food industries. More than 13% of pectin recovery is extracted by current extraction methods, such as ultrasound-assisted extraction. Subcritical water extraction also successfully extracts the pectin with high quality of extract. This review focuses on banana production and the role of pectin. Significant factors affecting its presence within the banana peel, the extraction methods, and current extraction applications are also presented and discussed, highlighting future research into its potential uses.