

Polyphenols from Winery Wastes as Potential Source of Antioxidants

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Abstract : A large amount of waste products is generated throughout the whole winemaking process as well as during work in the vineyard. This waste is as a source of phenolic compounds, such as resveratrol and polydatin, which possess a strong antioxidant capacity. Changes in the amounts of phenols were compared depending on the growing conditions and wine variety. Wastes (grape stems, marc and shoots) from two wineries in the Czech Republic were analyzed. Phenols from these samples were extracted by 40% ethanol. The amount of polyphenols in these extracts was determined by HPLC and their antioxidant capacity by DPPH. We compared changes in the amounts of phenols depending on the type of waste and the wine variety. The most significant source of stilbenoids was waste from pruning (shoots). These results show that winery waste could be further reused thanks to their antioxidant content.

Keywords : antioxidants, polyphenols, resveratrol, winery waste

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