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ABSTRACT BOOK

Wild Edible Mushrooms Structural Portions: Chemical Composition and Antioxidant Potential

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The organic acids and phenolics composition of entire wild edible mushrooms (*Russula cyanoxantha*, *Amanita rubescens*, *Suillus granulatus* and *Boletus edulis*) and correspondent cap and stipe was determined by HPLC-UV and HPLC-DAD, respectively. Their antioxidant potential was assessed by their % DPPH scavenging activity. The results showed that all of the species presented a profile composed at least five organic acids: oxalic, citric, malic, quinic and fumaric acids. Ascorbic, succinic and shikimic acids also appeared in some of them. *A. rubescens* presented the highest organic acids content, followed by *B. edulis*, *R. cyanoxantha* and *S. granulatus*. The results indicated that quinic acid, followed by malic or citric acids were the major compounds. In a general way, it seems that organic acids are preferably fixed in the cap, except in *A. rubescens*, in which they are mainly present in the stipe. All species exhibited phenolic compounds, but only *p*-hydroxybenzoic acid was identified. This compound just appeared in cap or stipe of *A. rubescens* and *S. granulatus*. All of the species revealed DPPH scavenging activity, in a concentration-dependent way. *B. edulis* presented the highest capacity. In general, the cap is the part that shows the highest antioxidant activity, except for *A. rubescens*, in which entire mushroom displayed the strongest effect. No correlation was found between organic acids and phenolics contents and the antioxidant capacity. So, other compounds are, most probably, contributing to antioxidant effects observed.