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#### Czech J. Food Sci.

Buřičová L., Andjelkovic M., Cermakova A., Réblová Z., Jurček O., Kolehmainen E., Verhé R., Kvasnička F.:

# Antioxidant capacity and antioxidants of strawberry, blackberry and raspberry leaves

Czech J. Food Sci., 29 (2011): 181-189

The total phenolic content (Folin-Ciocalteu method), free radical scavenging ability expressed as DPPH value, ferric reducing antioxidant capacit (FRAP), and oxygen radical absorbance capacity (ORAC) were determined in water extracts of leaves from Rosaceae family plants (Fragaria vesca L., Rubus fructicosus L., and Rubus idaeus L.). The antioxidant capacities of the extracts (in the order of the above mentioned methods) were 73.6-88.9%, 60.1-71.4%, 49.7— 78.0% respectively, and 45.3—66.5% of that of green tea water extract. Further, the presence of 15

compounds (gallic acid, rutin, ellagic acid caffeic acid, *p*-coumaric acid, quercetin, kaempferol, myricetin, quercetin-3-d-glucoside, ascorbic acid, (+)-catechin, (–)-epicatechin, epicatechingallate, epigallocatechin, procyanidin B1) was studied by HPLC-ECD and their antioxidant capacities were compared to the antioxidant capacity of the extracts. Out of the compounds studied, mostly (+)-catechin, ellagic acid, and (–)-epicatechin participated in the antioxidan capacities of the studied plant leaves water extracts. The antioxidant capacity of the capacity of the extracts.