CHARACTERIZATION OF BIOACTIVE COMPOUNDS IN BERRIES NATIVE OF THE PATAGONIA ARGENTINA

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Berries are an excellent source of bioactive compounds because of its high content of anthocyanins and polyphenols responsible of the antioxidant activity. Several studies have attributed many health benefits associated with consumption of these fruits, which has led their use in the development of functional foods and nutraceuticals. The present study aims to characterize the content of bioactive compounds in berries native from Patagonia Argentina. Three types of native berries were used for this study: raspberry cv. Autumn Bliss, Lapins cherry and blackberry, cv. Rubus Glaucus. The antioxidant capacity (CA) (method of the free radical 2,2-diphenyl-2-picrylhydrazyl, DPPH), anthocyanins (TA) and total flavonol (TF) (method of Glories) and total polyphenol content (TP) (method of Folin-Ciocalteu) were determined. The TP in blackberry, 2.62±0.2 mg GAE/g, was higher than that in other berries (1.91±0.9 and 1.65±0.13 mg GAE/g in raspberry and cherry, respectively). The same tendency was observed for CA, TA and TF content, in which blackberries have the highest values (0.03±0.00 mg TE/g, 3.02±0.00 mg cyanidin/g, 2.41±0.02 mg quercetin/g, respectively). Cherry fruits have a significantly lower content (p<0.05) of all the studied bioactive compounds. This work concludes that there are significant differences (p<0.05) in the antioxidant capacity of native berries, showing a strong correlation between CA and CP content. Blackberry is the berry that had the highest concentration of bioactive compounds, which makes it a suitable candidate for the formulation of functional foods.