

Evaluation of antioxidant compounds, antioxidant activities, and mineral composition of 13 collected purslane (*portulaca oleracea* L.) accessions

ABSTRACT

The methanolic extracts of 13 accessions of purslane were analyzed for their total phenol content (TPC), total flavonoid contents (TFC), and total carotenoid contents (TCC) and antioxidant activity of extracts was screened using FRAP assay and DPPH radical scavenging methods. The TPC, TFC, and TCC ranged from 0.96 ± 0.04 to 9.12 ± 0.29 mg GAE/g DW, 0.13 ± 0.04 to 1.44 ± 0.08 mg RE/g DW, and 0.52 ± 0.06 to 5.64 ± 0.09 mg (β -carotene equivalent) BCE/g DW, respectively. The DPPH scavenging (IC₅₀) activity varied between 2.52 ± 0.03 mg/mL and 3.29 ± 0.01 mg/mL and FRAP ranged from 7.39 ± 0.08 to 104.2 ± 6.34 μ mol TE/gDW. Among all the measured micro- and macrominerals K content was the highest followed by N, Na, Ca, Mg, P, Fe, Zn, and Mn. The overall findings proved that ornamental purslane was richer in antioxidant properties, whereas common purslane possesses more mineral contents than ornamental ones.