DPPH AND NO RADICAL SCAVENGING ACTIVITY EFFECT USING EXTRACTION OF FOUR HALOPHYTE SPECIES IN KOREA

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ABSTRACT

The 1- diphenyl 2-picrylhyorazyl (DPPH) assay and nitrite oxide (NO) were used to evaluate the radical scavenging activities of four halophyte species, *Phragmites australis, Limonium tetragonum*, *Suaeda japonica* and *Salicornia europaea*. DPPH scavenging activity was analyzed according to the method of Brand-Williams et al. Nitric oxide (NO) scavenging activity was measured by a Griess reagent. The plants in the coastal area were more antioxidant than those in inland plants. The DPPH results show the scavenging activity in the order of potency: *S. japonica* > *S. europaea* > *L. tetragonum* > *P. australis.* NO scavenging activity of *P. australis* leaf and stem extracts at inland area evaluated was 33.7% and that of root extracts was 38.0% on same concentration. NO scavenging activity of *P. australis* leaf and stem extracts at coastal area evaluated was 39.3% and that of root extracts was 48.1% on same concentration. NO scavenging activity of *S. japonica* leaf and stem extracts at coastal area evaluated was 47.5% and that of root extracts was 39.6%. NO scavenging activity of *S. europaea* leaf and stem extracts at coastal area evaluated was 47.6% and that of root extracts was 40.5%. A significant linear correlation was established between DPPH and corresponding NO radical activity of extracts of abalone tissues.

Keywords: 1, 1- diphenyl 2-picrylhyorazyl (DPPH), nitrite oxide (NO), *Limonium tetragonum*, *Phragmites australis, Salicornia europaea, Suaeda japonica*.