

Effects of salinity on growth, antioxidant contents and proximate compositions of Sabah snake grass (*Clinacanthus nutans* (Burm. F.) Lindau)

ABSTRACT

This study was carried out to determine the effect of salinity on growth, antioxidant contents and proximate compositions of Sabah snake grass (*Clinacanthus nutans* (Burm. f.) Lindau). Six salinity levels were used, namely 0 (control), 4, 8, 12, 16 and 20 dS/m. Highest salinity level, 20 dS/m, significantly increased the phenolic content (1.95 mg GAE/g), flavonoids content (3.84 mg QE/g), and proximate compositions such as ash content (19.83%), crude protein content (16.43%), crude fat content (18.45%) and crude fiber content (10.73%) of *C. nutans* although the plant growth and leaf relative water content were reduced. Therefore, salt-stressed *C. nutans* can be considered as excellent sources of antioxidant contents and protein for human consumption.

Keyword: Salinity; Growth; Antioxidant; Proximate compositions; Snake grass