

Proximate and Amino Acid Composition of *Amaranthus hybridus* (Spinach), *Celosia argentea* (Cock's Comb) and *Solanum nigrum* (Black nightshade)

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Abstract : The proximate composition, trace metal level and amino acid composition of *Amaranthus hybridus*, *Celosia argentea* and *Solanum nigrum* were determined. These vegetables were high in their ash contents. Twelve elements were determined: calcium, chromium, copper, iron, lead, magnesium, nickel, phosphorous, potassium, sodium and zinc using flame photometer, atomic absorption and UV-Visible spectrophotometers. Calcium levels were highest ranged between 145.28 ± 0.38 to 235.62 ± 0.41 mg/100g in all the samples followed by phosphorus. Quantitative chromatographic analysis of the vegetables hydrolysates revealed seventeen amino acids with concentration of leucine (6.51 to 6.66 ± 0.21 g/16gN) doubling that of isoleucine (2.99 to 3.33 ± 0.21 g/16gN) in all the samples while the limiting amino acids were cystine and methionine. The result showed that these vegetables were of high nutritive values and could be adequate used as supplement in diet.

Keywords : proximate, amino acids, *Amaranthus hybridus*, *Celosia argentea*, *Solanum nigrum*

Conference Title : ICGHOST 2014 : International Conference on Ghost Conference

Conference Location : ghost city, Other

Conference Dates : December 12-13, 2020