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Title: Antioxidant Activity of Selected Nigerian Green Leafy Vegetables

Author: O.A. Odukoya, S.I. Inya-Agha, F.I. Segun, M.O. Sofidiya and O.O. Ilori

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Abstract: Antioxidant activity of hot water extracts of 21 Green Leafy Vegetables (GLV): *Amaranthus hybridus* Linn. (Amaranthaceae), *Amaranthus caudatus* (Amaranthaceae), *Beilschmedia manni* (Meisn.) Benth. Et Hook.f. (Lauraceae), *Celosia argentea var argentea* (L.) O. Kuntze (Amarantheceae) *Celosia argentea var cristata* Linn. (Amarantheceae), *Corchorus olitorius* L. (Tiliaceae), *Crassocephalum crepidioides* (Benth). S.Moore (Asteraceae), *Gnetum bucholzianum* Welw. (Gnetaceae), *Gongronema latifolium* Benth. (Asclepiadaceae), *Heinsia crinita* (Afz.) G. Taylor (Rubiaceae), *Hibiscus callyphyllus* Cav. (Malvaceae), *Lasianthera africana* P. Beauv (Icacinaceae), *Myrianthus arboreus* P. Beauv. (Urticaceae), *Pterocarpus mildbraedii* Harms (Papilionaceae), *Pterocarpus santalinoides* DC. (Papilionaceae), *Solanum macrocarpon* L. (Solanaceae), *Solanum melongena* Linn. (Solanaceae), *Struchium sparganophora* (Linn.) O. Ktze (Asteraceae), *Talinum triangulare* (Jacq.) Wild. Portulacaceae, *Telferia occidentalis* Hook (Curcurbitaceae) and *Vernonia amygdalina* Del. (Asteraceae) was investigated. Potential free radical scavenging activity of these vegetables was confirmed by spraying spots of the extracts with DPPH (yellow color on purple background). Antioxidant activity was assayed in linoleic acid model system. Total polyphenols as Tannic Acid Equivalent (TAE) and ascorbic acid were evaluated spectrophotometrically. The activity of each extract was calculated as %inhibition of lipid peroxidation. The extracts showed marked antioxidant activity in linoleic acid model systems. Antioxidant values (AA) ranged from as low as 3.67% in *A. hybridus* to as high as 68.41% in *C. argentea var cristata*. Phenol content (TAE) varied from 21.83 mg/100 g dry weight in *T. triangulare* to 546.97 mg/100 g dry weight in *G. bucholzianum*. Ascorbic acid content (ASC) was from 13.41 mg/100 g dry weight in *V. amygdalina* to 187.11 mg/100 g dry weight in *G. latifolium*. There was low correlation between AA/TAE ($R^2 = 0.432$), AA/ASC ($R^2 = 0.28$) and TAE/ASC ($R^2 = 0.35$), respectively.

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