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Total phenolic content, antioxidant activity and time of browning of Brinjal (*Solanum melongena*) as affected by variety and the stage of maturity

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Three brinjal (*Solanum melongena*) varieties namely Lena iri, Malaysian and Amanda at three maturity stages (5-7 days prior to harvestable stage, at harvestable stage, 5-7 days after harvestable stage) were analysed for their total phenolic content and antioxidant activity. Aliquots of 3 g of homogenized brinjal samples were extracted with acetone, water acetic acid mixture (70:29.5:0.5 v/v), centrifuged and desolventized to obtain the extracts for measuring total phenolic content. Methanolic extracts of brinjal samples were used for measuring DPPH radical scavenging activity. The total phenolic content was determined using Folin-Ciocalteau method and the antioxidant activity was determined based on the scavenging effect on 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical. The total phenolic content of brinjals ranged from 31-127 mg of GAE/100 g of fresh fruit and the antioxidant activity (expressed as percent inhibition of DPPH radical) ranged from 42-71%. The highest total phenolic content was observed in the Lena iri variety while the total phenolic contents of Malaysian and Amanda were in the same order of magnitude. In general, the antioxidant activity of all three brinjal varieties varied with the maturity stage. Both the total phenolic content and antioxidant activity increased with the maturity in all three brinjal varieties. Time taken for browning was determined visually and it gradually decreased with the maturity

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