# Antioxidant Potential of Microwave Cooked, Pressure Cooked and Fried Vegetable of *Lagenaria Siceraria*

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**Abstract**

Bottle gourd (*Lagenaria siceraria*) is a commonly cultivated plant in tropical and subtropical areas of the world and belongs to the family *Cucurbitaceae.* This study has proposed in an increased interest in the investigation and effectiveness of naturally occurring compounds with antioxidant properties in processed vegetable as compared to raw vegetable. The processing (cooking) treatments like pressure cooking, microwave cooking and frying were given to the vegetable and different methanolic, ethanolic and butanolic extracts were prepared. The extracts prepared from native and heat processed vegetables samples was assessed for total phenols content (TPC), total flavonoids content (TFC) and tannin contents. The ferric thiocyanate (FTC) and thiobarbituric acid (TBA) assay was used to determine the antioxidant activity of extracts prepared from native and heat treated samples of bottle gourd and the free radical scavenging activity was assessed by DPPH assay. The methanolic extract of unprocessed bottle gourd showed the highest value of TPC while TFC was observed highest in butanolic extract of unprocessed bottle gourd. The processing treatments decreased the total phenol content in order of raw > pressure cooked > microwave cooked > fried. The antioxidant activity as assessed by using FTC & TBA was highest in ethanolic extract of microwave cooked vegetable. The free radical scavenging activity was also highest (67.08%) in ethanolic extract of microwave cooked vegetable. The present study demonstrated that the various types of extracts as well as heat treatments showed pronounced effect on antioxidant potential of bottle gourd.