

# **STUDY OF BROCCOLI TREATED WITH GREEN TEA AS SOURCE OF ANTIOXIDANT IN EFFERVESCENT DRINK POWDER**

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(xiv + 45 pages; 9 Tables; 19 figures; 12 appendices)

*Broccoli (Brassica oleracea L. var italica Plenck) is a vegetable that contains high antioxidant capacity, mainly influenced by its phenolic compounds and vitamin C content, which may contribute towards human health. By combining broccoli and green tea as ingredients of effervescent drink, it is expected to improve the acceptance of the product among consumers. Broccoli florets were extracted with water with the ratio of 1:4 (Broccoli:water) to produce optimum extraction of antioxidant. Five different ratios of broccoli and green tea was applied to the formulation of effervescent drink powder, which are 100% broccoli, 100% green tea, 33% broccoli 67% green tea, 50% broccoli 50% green tea, and 67% broccoli 33% green tea. The effervescent drinks were tested for antioxidant properties and sensory acceptance. The best formulation was analyzed for physical properties. It is concluded that effervescent drink powder with 33% broccoli 67% green tea served to be the best formulation in terms of antioxidant capacity and overall acceptance. Synergistic interaction is observed between antioxidant compounds in broccoli and green tea in the product.*

Keywords: *broccoli, green tea, antioxidant, food synergy, effervescent drink*

References: 37 (1960 – 2011)

