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Estimation of antioxidant capacity of selected leafy vegetables and fruits in a drinking yoghurt.

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Antioxidants are commonly found in fruits and vegetables. They can be incorporated in to different types of foods to improve the antioxidant capacity. Fermented dairy products such as drinking yoghurts are unique in their taste and nutritional profile, but are not valuable sources of antioxidants. This study was conducted to predict on the most suitable variety of plant extracts to incorporate into a drinking yoghurt to increase its antioxidant activity. As leafy vegetable varieties Ranawara *(Cassia auriculata),* Hathawariya (*Asparagus racemosus),* Mukunuwenna *(Alternanthera sessilis)* and as fruit varieties Pomegranate (*Punica granatum),* Orange (*Citrus sp.),* Banana (*Musa sp.*) and Mango *(Mangifera indica)* were selected. Water was used as the extracting solvent. The "FRAP" assay (Ferric Reducing Antioxidant Power) and "DPPH" assays (2, 2-diphenyl-1-picryl hydrazyl) were selected for determining the antioxidant capacity. For the FRAP assay Ascorbic acid was used as the standard. Among the selected fruits and leafy vegetable varieties Mukunuwenna had the highest retention and increment of antioxidants with the increased antioxidant activity after the fermentation while orange and pomegranate also had higher retentions and increments with increased antioxidant activity after the fermentation in lower concentrations. Although certain plant varieties such as Ranawara had very high capacity of antioxidants in the fresh form, they had very lower amounts of retention and increment of antioxidants. The results revealed that Mukunuwenna is the best leafy vegetable and Pomegranate and Oranges were the most suitable fruit varieties to be incorporated into a drinking yoghurt in order to increase the antioxidant capacity.

Key words: Antioxidant Activity, FRAP assay, DPPH assay, Fruits, Leafy Vegetables

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