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***Enicostemma littorale* have Potential as Functional Food Ingredient**

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Enicostemma littorale is a perennial herb which is commonly found in India. In Hindi, it is called Chota chirayata. It has sessile lanceolate leaves and aerial parts of the plant have essential minerals like iron, potassium, sodium, calcium, magnesium, silica, phosphate, chloride, sulphate and carbonate. Many important compounds have been isolated from different parts of the plant like enicoflavin, gentiocrucine, steroids and triterpenoids including catechins, saponins, betulin (Rai and Thakar, 1966). *E. littorale* also exhibited antihyperglycemic activity in hyperglycemic rat models (Gupta and Seth, 1962). Its hot aqueous extract has also been used by the traditional healers for the treatment of diabetes, fever, stomach pain, dyspepsia and malaria (Murali *et al.*, 2002). Its anti-inflammatory and anticancer potential has also been reported in the previous studies (Kavimani and Manisenthkumar, 2000; Vasu *et al.*, 2005).

In free radicals, there are one or more unpaired electrons which are highly unstable and become the cause to other molecule by acquiring electrons from them to gain stability. Superoxide anion, hydroxyl radical and hydrogen peroxide are the some Reactive Oxygen Species (ROS) which are highly reactive and have significant damage potential. Despite it, they perform different essential functions in our body like energy supply, detoxification, chemical signaling and immune function (Valko *et al.*, 2007). Some herbal plants have short shelf life due to their perishable nature. A common way to conserve their qualities is drying them which may reduce storage volume and enhance their shelf life. Sun/shade drying or microwave drying/oven drying functions have been performed to inactivate Polyphenol oxidases enzymes but it has altered the phytochemicals composition of the plant (Capecka *et al.*, 2005).

A research attempt has been made by Indian scientists and their findings were published in the Research Journal of Medicinal Plant 3 (3): 93-101, 2009. The basic aim of the study was to assess the effects of various drying methods on the total phenol contents and antioxidant properties (DPPH (2-diphenyl-1-picrylhydrazyl) and FRAP (Ferric Reducing Antioxidant Power) of *Enicostemma littorale* under different solvent. They concluded that after different drying treatments, plant material led to significant reduction in antioxidant properties of *E. littorale* in methanolic extracts as compared to that of the boiling water extracts which exhibited significantly stronger antioxidant potentials even in dried plant materials (Mueller-Harvey, 2001). It is just due to greater solubility of compounds, breakdown of cellular constituents and hydrolysis of tannins. A strong free radical scavenging activity in *E. littorale* have potential in the food industry as functional food ingredient. The researchers suggested that the compounds extracted by simple boiling would benefit better rather than methanolic solvents and there is a dire need to evaluate new technologies in this regard.

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