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Chapter 3

Antioxidant Properties and Health Benefits of Chilli and Capsicum

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Abstract

The genus *Capsicum* possesses a great diversity in flavour, colour, shape, size along with several biochemical compounds. Besides their direct culinary uses, peppers are also used for colouring, flavouring, preserving, nutraceutical, and medicinal purposes. Several species in this genus and varieties are pungent exclusively due to presence of capsaicin and dihydrocapsaicin. Wide range of phytochemicals, such as capsaicinoids, phenolics, ascorbic acid, and carotenoids are present in it and thus making it highly nutritional. Capsicum is a potent reducing agent and possesses a strong capacity to scavenge free radicals (Niki, 1991), particularly during oxidative stress. The whole fruit, seeds and the processed products of it are also having antioxidant property. It is known to reduce the risk of many degenerative diseases. In this context, an overview of the botanical description, biological properties, bioactive compounds, health benefit of pepper is presented.