

Natural Antioxidants and its application in traditional Indian dairy products – An Overview

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Abstract

Natural antioxidants have been suggested to have beneficial effects on human wellbeing and various disease conditions such as cardiovascular diseases, neurodegenerative disease, diabetes and cancer. The application of antioxidant products for various diseases by natural plants has ancient origins, long before modern synthetic medicines and antioxidants have been created. The ability of natural antioxidants to scavenge reactionary oxygen species (ROS) against oxidative stress has been attributed to several of the biological activity. Milk products, due to their possible antioxidant activities, are the most promising and fascinating foods. The most commonly consumed food in Indian countries are the traditional dairy products such as paneer, chhana, sandesh, dahi, lassi, ghee, butter and so on. Fortified natural antioxidants may enhance their nutritional and therapeutic values in milk products.

Introduction

Rapid urbanisation and industrialisation in developing countries such as India have led to drastic lifestyle change leading to life style related conditions on the social and economic fronts. Because of the appearance of numerous life style related health conditions, the study of functional foods complemented by functional constituents or substances is increasingly concerned. Other than their nutritional value, functional foods provide a health advantage. Functional foods contain bioactive compounds that provide the health and well – being benefits of functional foods.

Herbs were widely used for centuries as food and medicine. It has reported a broad range of active plant compounds such as flavonoids, terpenoids, ligans, sulphides, polyphenols, carotenoids, coumarin, saponins, plant sterols, curcumins and phthalides. Recently, research interests have centred on many herbs which may be useful adjacent in reducing risks of cardiovascular (CVD) and cancer diseases that have hypolipidemic, antiplatelet, anti- tumour or immune stimulation properties (Hussain *et al.* 2015). Today, industry is very interested to use these herbal bio-actives for the variety of ways that the medicinal benefits of herbs could be transmitted as carriers through certain foods. Milk and milk products are one of the most significant sources and can be used as carriers for such foods (Sawale *et al.* 2013). A large quantity of milk is used for the manufacturing of Indian dairy products. Converting liquid milk into