



Camelina: Cultivation, Composition and Nutritional Value and Medicinal Impacts

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Abstract: *Camelina sativa* is an oilseed crop and known as gold of pleasure and false flax. It holds promise as a source of human food and animal feed products and it is considered as a new source of essential fatty acids, particularly *n*-3(omega-3) fatty acids. The seed of *Camelina* can contain more than 40 % oil, 90 % of which is made up of unsaturated fatty acids, including a 30–40% fraction of alpha linolenic acid (18:3n-3), another 15–25% fraction of linoleic acid (18:2n-6), about a 15% fraction of oleic acid and around 15% eicosenoic acid. Tocopherol content is about 700 mg kg⁻¹. The oil is capable of improving the n-6/n-3 fatty acids ratio in food. Alpha linolenic acid (18:3n-3) serves as a substrate for EPA (Eicosapentaenoic acid), DHA (Docosahexaenoic acid) and hormones with important functions in human organism, particularly in the maintenance of immunity. A cholesterol reducing effect of *Camelina* oil was confirmed in trials with volunteers. The reduction of cholesterol in blood serum was ascribed to the synergistic effects of alpha linolenic acid (18:3n-3) and antioxidants. An enrichment of food with α -linolenic acid appears extraordinary important for infants and children. Dietary α -linolenic acid promotes a healthy growth as well as optimal neurological development. The incorporation of *Camelina* oil in diet for children appears to be promising health promoting measure. Health promoting potential of *Camelina* oil has high contents of α -linolenic acid, tocopherols and other antioxidants make *Camelina* oil nutritionally very attractive.

Keywords: *Camelina* oil, dietary supplement, nutritional value, healthy food.