

Yucca aloifolia seed oil: a new source of bioactive compounds

ABSTRACT

Yucca aloifolia Linn (*Y. aloifolia*), also known as Spanish bayonet, is a drought-tolerant plant containing important bioactive compounds in various parts of the plant. *Y. aloifolia* is used as a natural medicinal herb. The purpose of the present study was to characterize and evaluate the seed oil extracted from *Y. aloifolia* seeds. The oil content of the seeds was 16.23%. The principal fatty acids in the oil were linoleic acid (73.38%), oleic acid (13.52%) and palmitic acid (8.18%). The oil has high vitamin E activity because of an appreciable concentration of tocopherols (204 mg/100 g), particularly tocotrienols, which represent 79% of the total amount of tocopherols. Tocotrienols have powerful antioxidant, anticancer, neuro/cardio protective and cholesterol-lowering properties. The thermal profile of *Y. aloifolia* seed oil was examined by differential scanning calorimetry (DSC). *Y. aloifolia* seed oil is considered to be healthy dietary oil.

Keyword: *Yucca aloifolia*; Seed oil; Fatty acids; Tocotrienols; DSC; Health benefits