

The Effect of Natural Antioxidants from Mulberry Leaves and Cacao on Oxidative Stability of Rapeseed Oil

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The cacao bean and its tasty products, known around the world, are the great source of specific antioxidants. They contain a high level of flavonoids, which are mainly represented by catechin and epicatechin as well as specific polymers of procyanidins, polyphenols similar to those found in vegetables or tea. *Morus alba* leaves shows high antioxidant activity, too. They have been used in Indian and Chinese Medicine for treatment for ages. Recent studies indicate that products made of mulberry leaves can be used as pharmaceuticals, because of their bioactive components.

The aim of this study was to evaluate the antioxidant activity of cacao powder and mulberry leaves and to define an effect of cacao powder and mulberry leaves on the oxidant stability of rapeseed oil.

In extracts the total content of phenolic compounds, reducing power and chelating properties were determined. Oxidative changes in rapeseed oil were monitored by measuring the anisidine value, peroxide value and index Totox. The protection factors for rapeseed oil with mulberry and cacao in Oxidograph and Shall tests were specified.

The research indicated a high antioxidant activity of mulberry leaves and cacao powder. Results of tests on the effects of additives on the stability of rapeseed oil showed that the both of extracts affect on it. However oxidant stability depends on the amount of each extracts added to oil. *Morus alba* leaves extract and cacao powder can be use to improve oxidative stability the rapeseed oil.

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