

ABSTRACT

Zuzana Bílková, Biological activities of *Lavandula angustifolia* essential oil, Thesis, Charles University in Prague, Faculty of Pharmacy in Hradec Králové, thesis author: PharmDr. Jan Martin, PhD., Hradec Králové, 2013, 72 pages.

The thesis called „Biological activities of *Lavandula angustifolia* essential oil“ is interested in biological activities of *Lavandula angustifolia* essential oil, specifically antifungal, antioxidant, anti-inflammatory, cytotoxicity, nematicidal and repellency activities. The aim of work was to find out, if the oil can be used in these indications and become natural substitution to the chemical compound toxic to the environment.

Antifungal activity was tested against the most common human pathogens, low toxicity proves that essential oil can be used on human cells without causing any harm. Antioxidant activity was tested on NO reaction, nematicidal activity was tried on protection of crop where nematodes cause huge economic loss. Repellency activity can protect both decorative and agricultural plants.

Key words: *Lavandula angustifolia*, biological activities, anti-inflammatory, antifungal, cytotoxicity, repellency, antioxidant, nematicidal, essential oil.