



ESCOLA SUPERIOR AGRÁRIA
INSTITUTO POLITÉCNICO DE CASTELO BRANCO

**“ANTIMICROBIAL ACTIVITY OF SELECTED
COMPOUNDS OF NIGELLA SATIVA SEEDS”**

Engenharia das Ciências Agrárias – Ramo Agrícola
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Abstract

N. sativa it's used in folk medicine as food preservative, spice, condiment. In seeds oil two compounds were selected for testing it's antimicrobial activity. TQ and THQ were tested against microbial species, selected as representatives of both classes of Gram-positive and Gram-negative bacteria, as well as against one yeast fungi specie.

B. cereus, *S. aureus*, *S. epidermis* were more sensible to TQ, while *S. epidermis* were more sensible to THQ. Both compounds inhibit Gram-positive bacteria's and *C. albicans*; however none of the compounds inhibit Gram-negative bacteria.

The antimicrobial activity of *N. sativa* seed oil was determinated by micro dilution method.

Key words: *N. sativa*, Gram positive bacterias, Gram negative, TQ, THQ, micro dilution method.

Abstract

N. sativa é usada na medicina tradicional como conservante, especiaria e codimentar. No óleo das sementes foram seleccionados dois compostos pela sua actividade antimicrobiana. TQ e THQ foram testados em espécies microbianas pertencentes a Gram negativo e Gram positivo assim como uma estirpe de fungo.

B. cereus, *S. aureus*, *S. epidermis* foram as bacterias mais sensiveis à TQ, enquanto *S. epidermis* foi a bactéria mais sensível à THQ. Os dois compostos inibiram as bactérias pertencentes a Gram positivo assim como o fungo testado – *C. albicans*. No entanto nenhum dos compostos inibiu o crescimento de bactérias Gram negativo

A actividade antimicrobiana do óleo da *N. sativa* foi determinada através do método das microdiluições.

Palavras-chave: *N. sativa*, bacterias Gram-positivo, bacterias Gram-negativo, TQ, THQ, teste das microdiluições.