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# **STUDIES ON THE ANTIBACTERIAL CAPACITY OF SOME THYMUS PULEGIOIDES EXTRACTS**

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### Introduction

- ✓ *Thymus pulegioides* is a well-known aromatic plant, increasingly used in traditional and modern medicine, and recently the in pharmaceutical industry.
- ✓ Over time, thyme has been used in traditional medicine to treat various types of diseases, such as: gonorrhea, respiratory, liver and kidney pain, hypertension, diseases, stomach bacteriological and fungal dermal infections.
- $\checkmark$  Among the biological properties of thymus extracts: antibacterial, antifungal, analgesic, antioxidant, antispasmodic and antimutagenic

## Results and discussions

 $\checkmark$  The antibacterial effects of the tested *T*. *pulegioides* extracts varied depending on the type of vegetative organ from which the extract was made, the concentration of the ethanolic extract tested, and the bacterial strain studied.



properties can be listed.

- ✓ Studies on the chemical composition of thyme essential oil have highlighted thymol and carvacrol as primary compounds.
- Material and method
- $\checkmark$  Ethanol extracts from the root and young branches of thyme were tested by applying the cell viability test for antibacterial capacity.
- ✓ The spectrophotometric method used allowed the determination of the inhibition rate (%) determined by the biologically active compounds present in the ethanolic extract.
- $\checkmark$  The study was conducted on standardized bacterial strains: *Staphylococcus aureus* (ATCC) 25923), Streptococcus pyogenes (ATCC19615) (Gram+ bacteria), and *Escherichia coli* (ATCC

## Conclusions

✓ The antibacterial effect of *T. pulegioides* leaf extract in the bacterial strains studied Staphylococcus decreases: aureus > *Streptococcus pyogenes > Escherichia coli.* ✓ The antibacterial effect of *T. pulegioides* stem extract in the bacterial strains studied Staphylococcus decreases: aureus > *Escherichia coli* > *Streptococcus pyogenes*. ✓The biologically active compounds in the tested extracts showed a more obvious





