SECHENOV UNIVERSITY
LIFE SCIENCES

INTERNATIONAL CONFERENCE
INTEGRATION NETWORK OF THE PHARMACEUTICAL ECOLOGY - 2025

MOSCOW 2025

Phytochemistry and Therapeutic Potential of Linden Flowers

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INTRODUCTION

Linden flowers are considered a type of CHD due to their biologically active substances. Linden flowers come from *Tilia* trees, known for their fragrant, cream-colored blossoms. Used in herbal medicine, linden flower tea promotes relaxation, sleep, and respiratory health due to its bioactive compounds. The small-leaved lime (*Tilia cordata*), a native broadleaf species, is shade-tolerant and drought-resistant, making it valuable for increasing forest diversity and resilience in changing climates. There are two producing plant for Tilia :

- *Tlila Cordata* Mill – Small-leaved linden
- *Tilia Platyphyllos* Scop – Large-leaved linden

MEDICINAL USE OF TLILIA

- Expectorant
- Immunomodulatory
- Antioxidant

THE BAS GROUP

- Flavanoids
- Polysaccharides
- Volatile substances

BAS IDENTIFICATION METHODS:

- Thin-layer chromatography
- Qualtative reaction

COMMONLY USED METHOD OF TILIA

Infusion

1. **Crushed flowers (loose)**
2. **Powdered flowers (in filter bags)**

RESULT

- Linden flowers are considered a type of CHD due to their biologically active substances
- They are obtainable easily
- The main BAS are polysaccharides and flavonoids
- Polysaccharides and flavonoids are detected by TLC and Qualitative reaction (SP RF 15 ed.)
- The medicinal properties of linden flowers are: diuretic, antipyretic, diaphoretic, antibacterial, anti-inflammatory, immunomodulatory, astringent, antispasmodic and sedative activities

CONCLUSION

Tilia is an effective and perspective CHD, which has a well researched composition of BAS and has been used in medicine for a long time. However, it is still important to improve the methods of authenticity and good quality. Quantitation methods for polysaccharides, flavonoids need to be improved taking into account the modern physico-chemical methods of analysis such as HPLC and spectrophotometry. This will ensure the required level of quality and the safety of herbal medicinal products based on *Tilia*