



# **Egyptian Herbal Monograph**

**Volume 3**

**Medicinal Plants used in Egypt**

**Egyptian Drug Authority (EDA)**

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# Egyptian Herbal Monograph

## Medicinal Plants Used in Egypt

*Tilia cordata* Mill.

تيليو

### 1. Names & Synonyms (1, 2)

***Tilia cordata* Mill.**

**Family:** Tiliaceae (Malvaceae).

**Arabic:** تيليو

**English:** Lime flower (3), Linden, Tilia and small leaf linden, small leaf lime (4).

***Tilia platyphyllos* Scop.**

**Family:** Tiliaceae (Malvaceae)

**Arabic:** تيليو

**English:** Lime flower (3), Linden, Tilia and large-leaf Linden

***Tilia x vulgaris* Heyne**

Naturally-occurring hybrid of *T. cordata* and *T. platyphyllos* Scop.

**Family:** Tiliaceae (Malvaceae)

**Syn:** *T. europaea* auct. non L.

**Arabic:** تيليو

**English:** European linden, European lime tree, Linden and Tilia (4).

### 2. Parts used for medicinal purpose

Flower (2-4).

### 3. Major chemical constituents (2)

- **Flavonoids:** Kaempferol, quercetin, myricetin and their glycosides (mainly Kaempferol-3-*O*- $\beta$ -D-(6"-*E*-*p*-coumaroyl)-glucopyranoside "tiliroside") and proanthocyanidins (3, 5).
- **Phenolic acids:** Caffeic, chlorogenic and *p*-coumaric acids (3, 5).
- **Essential oil:** Alkanes (mainly tricosane) (6), phenolic alcohols and esters, and terpenes including citral, citronellal, citronellol, eugenol, limonene, nerol,  $\alpha$ -pinene and terpineol (monoterpenes), and farnesol (sesquiterpene) (3).
- **Others:** Mucilage, tocopherol (phytosterol) and amino acids (3).



#### 4. Medicinal uses (Indications)

- A. Relief cough and irritation of the throat in colds and catarrh of the respiratory tract (3, 4).
- B. Relief of mild symptoms of mental stress (3, 4).

#### 5. Herbal preparations correlated to medicinal use (3)

##### 1. Comminuted herbal substance as herbal tea for oral use.

1.5 g of the comminuted herbal substance in 150 ml of boiling water as a herbal infusion

##### 2. Liquid extract, extraction solvent ethanol 25% v/v.

##### 3. Tincture, extraction solvent ethanol 45% v/v.

##### 4. Aqueous extract

Herbal preparations (2-4) are in pharmaceutical dosage forms. The pharmaceutical form should be described by the pharmacopoeia full standard term.

#### 6. Posology and method of administration correlated to medicinal use (3)

##### Preparation 1

##### Indication A

**Adolescents, adults and elderly:** 1.5 g as herbal tea, 2-4 times daily. Daily dose: 3-6g.  
**Children between 4 and 12 years of age:** 1 g as herbal tea, 2-4 times daily. Daily dose: 2-4 g.

##### Indication B

**Adolescents, adults and elderly:** 1.5 g as herbal tea 2-4 times daily. Daily dose: 3-6 g.

##### Preparations 2 and 3

##### Indications A, B

**Adolescents, adults and elderly**

**Preparation 2:** 2 ml, 1-2 times daily. Daily dose: 2-4 ml.

**Preparation 3:** 1 ml, 1-2 times daily. Daily dose: 1-2 ml.

##### Preparation 4

##### Indication A

**Adolescents, adults and elderly:** extract Eq. to 3-6 gm, 2-4 times daily.

**Children between 4 and 12 years of age:** extract eq. to 2-4 gm, 2-4 times daily.



**Duration of use:**

**Indication A**

The therapy should start at first signs of common cold. If the symptoms persist longer than one week during the use of the medicinal product, a doctor or a pharmacist should be consulted.

**Indication B**

If the symptoms persist during the use of the medicinal product, a doctor or a pharmacist should be consulted.

**Method of administration:** Oral use.

**7. Contraindications (2-4)**

Hypersensitivity to active substances and to other plants of the same family.

**8. Special warnings and precautions for use (3)**

- If the symptoms worsen during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- The use in children under 12 years of age is not recommended.
- In case of infusion; the use in children under 4 years of age for the relief of symptoms of common cold is not established.

**9. Interactions with other medicinal products and other forms of interaction (2, 3)**

None reported.

**10. Fertility, pregnancy and lactation (2, 3)**

- Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended.
- No fertility data available.

**11. Effects on ability to drive and use machines (3)**

No studies on the effect on the ability to drive and use machines have been performed.

**12. Undesirable effects (3)**

- None known.
- If adverse reactions occur, a doctor or a pharmacist should be consulted.



### **13. Overdose**

No case of overdose has been reported (3).

### **14. Relevant biological activities**

Not required as per Egyptian guidelines for registration of herbal medicines.

### **15. Additional Information**

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### **16. Date of compilation/last revision**

06/08/2023.



## References

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3	Community Herbal Monograph on <i>Tilia cordata</i> Miller, <i>Tilia platyphyllos</i> Scop., <i>Tilia x vulgaris</i> Heyne or Their Mixtures, Flos (2012). EMA/HMPC/337066/2011. Committee on Herbal Medicinal Products (HMPC).
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6	Fitsiou, I., Tzakou, O., Hancianu, M. and Poiata, A. (2007). Volatile constituents and antimicrobial activity of <i>Tilia tomentosa</i> Moench and <i>Tilia cordata</i> Miller oils. <i>Journal of Essential Oil Research</i> , <b>19</b> , 2, 183-185, DOI: 10.1080/10412905.2007.9699255.