



Egyptian Herbal Monograph

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Volume 3

Herbal Formulations Used in Egypt

Egyptian Drug Authority (EDA)

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Medicinal Plants Used in Egypt

Eucalyptus, Fennel, Guava, Thyme, Tilia كافور / شمر / جوافة / زعتر / تيليو

1. Names & Synonyms

Eucalyptus (1)

***Eucalyptus globulus* Labill.**

Family: Myrtaceae.

Syns.: *Eucalyptus maidenii* subsp. *globulus* (Labill.) J.B.Kirkp.

Arabic name: Kafur كافور (2)

English: Eucalyptus (3).

Fennel (4)

***Foeniculum vulgare* Mill.**

Family: Apiaceae (Umbelliferae).

Syns: *Anethum foeniculum* Clairv., *A. foeniculum* L., *A. rupestre* Salisb., *Feniculum commune* Bubani., *F. azoricum* Mill., *F. capillaceum* Gilib., *F. dulce* DC., *F. foeniculum* L. H. Karst., *F. officinale* All., *F. panmorium* DC., *F. piperitum* DC., *F. sativum* Bertol., *Ligusticum divaricatum* Hoffmannsegg et Link, L., *Foeniculum* Crantz., *Meum foeniculum* L. Spreng., *Ozodia foeniculacea* Wight et Arn., *Selinum foeniculum* L. E.H.L.Krause.

Arabic: Shamar شمر

English: Fennel

Guava (5)

***Psidium guajava* L.**

Family: Myrtaceae.

Syns.: *Psidium aromaticum*, *P. cujavillus* Burm, *P. pomiferum*, *P. pyriferum*, *P. pumilum*.

Arabic: Gawafa جوافة

English name: Guava



Thyme

***Thymus vulgaris* L. (6)**

Syns.: *Origanum thymus* Kuntze, *Thymus collinus* Salisb.

Family: Lamiaceae (Labiatae).

Arabic: Za'ater زعتر

English name: English Thyme, Garden Thyme.

***Thymus zygis* L. (7)**

Syns.: *Origanum zygis* (L.) Kuntze, *Thymus angustifolius* Salisb.

Family: Lamiaceae (Labiatae).

Arabic: Za'ater زعتر

English name: Spanish Thyme.

Tilia (8,9)

***Tilia cordata* Mill.**

Family: Tiliaceae (Malvaceae).

Arabic: Tilio تيليو

English: Lime flower (10), Linden, Tilia and small leaf linden, small leaf lime (11).

***Tilia platyphyllos* Scop.**

Family: Tiliaceae (Malvaceae)

Arabic: Tilio تيليو

English: Lime flower (10), 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: Tilio تيليو

English: European linden, European lime tree, Linden and Tilia (11).

2. Parts used for medicinal purpose

Eucalyptus: Fresh /dried leaves (3,12).

Fennel: Dried ripe fruits (13).



Guava: Dried leaves (5).

Thyme: Dried and fresh herb (14,15).

Tilia: Flowers (10,11,16).

3. Major chemical constituents

Eucalyptus

- **Essential oils:** 1,8-Cineole (eucalyptol), *p*-cymene, α -pinene and α -limonene (17).
- **Others:** Chlorogenic and ellagic acids, quercetin, quercetin 3-glucuronide, luteolin and rutin (18).

Fennel (19)

- **Essential oil:** *trans*-anethole (+)-fenchone, estragole (methylchavicol), limonene, *p*-anisaldehyde, α -pinene and α -phellandrene.
- **Phenolic acids:** rosmarinic acid and caffeoylquinic acid derivatives.
- **Flavonoids** :eriodictyol-7-rutinoside, quercetin-3-rutinoside.
- **Others:** triterpenes, smaller terpenes (monoterpenoids, sesquiterpenoids and diterpenoids) and reducing sugars.

Guava

Phenolic Compounds (20)

- **Flavonoids:** Quercetin and its glycosides, avicularin, apigenin, guaijaverin, kaempferol, kaempferol-3-arabofuranoside, hyperin, myricetin, rutin, catechin, epicatechin, epigallocatechin gallate and proanthocyanidins.
- **Phenolic acids:** Gallic acid and caffeic acid.

Essential Oil (22,24)

- β -Caryophyllene, 4 α -selin-7 (11)-enol, β -caryophyllene oxide, α -selinene, β -selinene, δ -cadinene, daucol, cubenol, 1,8-cineole (eucalyptol) and aromadendrene.



Others (20)

- Sugars: Sulphated and unsulphated polysaccharides (uronic acid), minerals (calcium, potassium, sulfur, sodium, iron, boron, magnesium, manganese and zinc), vitamins (C and B) and macronutrients (protein and fat).

Thyme

- **Essential oil:** the main components are thymol, carvacrol, *p*-cymene, α and β -terpinene, linalool, terpinen-4-ol, borneol, 1,8- cineole, α -thujene, α -pinene, and caryophyllene (15).
- **Flavonoids:** apigenin, narigenin, kaempferol, and luteolin (and its glycosides) (23).
- **Phenolic acids:** salvianolic, rosmarinic, cinnamic, ferulic, caffeic and gallic acids (23).
- **Others:** monoterpene glycosides.

Tilia (9)

- **Flavonoids:** Kaempferol, quercetin, myricetin and their glycosides (mainly Kaempferol-3-*O*- β -D-(6''-E-*p*-coumaroyl)-glucopyranoside "tiliroside") and proanthocyanidins (10,24).
- **Phenolic acids:** Caffeic, chlorogenic and *p*-coumaric acids (10,24).
- **Essential oil:** Alkanes (mainly tricosane) (23), phenolic alcohols and esters, and terpenes including citral, citronellal, citronellol, eugenol, limonene, nerol, α -pinene and terpineol (monoterpenes), and farnesol (sesquiterpene) (10).
- **Others:** Mucilage, tocopherol (phytosterol) and amino acids (10).

4. Medicinal Uses (Indications)

Productive cough associated with cold.



5. Herbal preparations correlated to medicinal use

Combination of aqueous extracts of eucalyptus, fennel, guava, thyme, and tilia.

Herbal preparations 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

Adults and Adolescents: Combination of 0.075 g of eucalyptus extract, 0.15 g of fennel extract, 0.375 g of guava extract, 0.15 g of thyme extract, and 0.1875 g of tilia extract, 3 times daily.

Children (4-12 years old): Under medical supervision.

Combination of 0.025 g of eucalyptus extract, 0.05 g of fennel extract, 0.125 g of guava extract, 0.05 g of thyme extract, and 0.0625 g of tilia extract, 3–4 times daily.

Duration of use: If the symptoms persist longer than one week during the use of the medicinal product, a doctor or a pharmacist should be consulted.

Method of administration: Oral use.

7. Contraindications.

Hypersensitivity to the active substance(s) or to other plants of the same families.

8. Special warnings and precautions for use

- If the symptoms worsen or if dyspnoea, fever or purulent sputum occurs during the use of the medicinal product, a doctor or a pharmacist should be consulted (3, 25).
- The use in children under 12 years of age is under medical supervision (10).

9. Interactions with other medicinal products and other forms of interaction

Non reported.



10. Fertility, pregnancy and lactation

- 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

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

12. Undesirable effects

- Allergic reactions affecting the skin, the respiratory or and gastro-intestinal system may occur (13).
- Gastric disorders may occur (15).
- If adverse reactions occur, a doctor or pharmacist should be consulted.

13. Overdose

No case of overdose has been reported.

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

27/04/2026.



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