



Egyptian Herbal Monograph

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Volume 3 **Herbal Formulations Used in Egypt**

Egyptian Drug Authority (EDA)

2026





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Fennel Oil, Guava, Thyme, Tilia, Honey زيت الشمر / جوافة / زعتر / تيليو / عسل

1. Names & Synonyms

Fennel (1)

***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 (2)

***Psidium guajava* L.**

Family: Myrtaceae.

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

Arabic: Gawafa جوافة

English: Guava.

Tilia (3,4)

***Tilia cordata* Mill.**

Family: Tiliaceae (Malvaceae).

Arabic: Tilio تيليو

English: Lime flower (5), Linden, Tilia and small leaf linden, small leaf lime (6).



***Tilia platyphyllos* Scop.**

Family: Tiliaceae (Malvaceae)

Arabic: تيليو

English: Lime flower (5), 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 (6).

Thyme

***Thymus vulgaris* L. (7)**

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

Family: Lamiaceae (Labiatae).

Arabic: Za'ater زعتر

English: English Thyme, Garden Thyme.

***Thymus zygis* L. (8)**

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

Family: Lamiaceae (Labiatae).

Arabic: Za'ater زعتر

English: Spanish Thyme.

2. Parts used for medicinal purpose

Fennel oil: Dried ripe fruits (9).

Guava: Dried leaves (2).

Tilia: Flower (4-6).

Thyme: Dried and fresh herb (10,11).



3. Major chemical constituents

Fennel (12)

- **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 (13)**
- **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 (14,15)**

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 (13)**

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).

Tilia (4)

- **Flavonoids:** Kaempferol, quercetin, myricetin and their glycosides (mainly Kaempferol-3-*O*- β -D-(6"-*E-p*-coumaroyl)-glucopyranoside "tiliroside") and proanthocyanidins (5,16).
- **Phenolic acids:** Caffeic, chlorogenic and *p*-coumaric acids (5,16).
- **Essential oil:** Alkanes (mainly tricosane) (17), phenolic alcohols and esters, and terpenes including citral, citronellal, citronellol, eugenol, limonene, nerol, α -pinene and terpineol (monoterpenes), and farnesol (sesquiterpene) (5).
- **Others:** Mucilage, tocopherol (phytosterol) and amino acids (5).



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 (11).
- **Flavonoids:** apigenin, narigenin, kaempferol, and luteolin (and its glycosides) (18).
- **Phenolic acids:** salvianolic, rosmarinic, cinnamic, ferulic, caffeic and gallic acids (18).
- **Others:** monoterpene glycosides.

4. Medicinal uses (Indications)

- A) Cough sedative.
- B) Relief irritation of the throat in colds and catarrh of the upper respiratory tract.

5. Herbal preparations correlated to medicinal use

Combination of bitter fennel oil, guava liquid extract (Extraction solvent: warm water), thyme liquid extract (Extraction solvent: ammonia solution:glycerol:ethanol:water), tilia liquid extract (Extraction solvent: warm water), and honey.

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

Adolescents, adults and elderly:

- Combination of 1–1.5 mg of fennel oil, 100–150 mg of guava extract, 100–150 mg of thyme extract, 100–150 mg of tilia extract, and 666–999 mg of honey, 2 times daily.
- Combination of 0.3 mg of fennel oil, 73.2 mg of guava extract, 180 mg of thyme extract, 180 mg of tilia extract, and 1020 mg of honey, 3 times daily.

Duration of use:

- Not to be used more than 2 weeks.



- 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.

7. Contraindications

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

8. Special warnings and precautions for use

If the symptoms worsen or if dyspnea, fever or purulent sputum occurs, during the use of the medicinal product, a doctor or a pharmacist should be consulted (19).

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

- **Anticonvulsants:** Fennel may increase the risk of seizures; avoid concurrent use (20).
- **Ciprofloxacin:** The product may affect the absorption, distribution, and elimination of ciprofloxacin. If the two are used concurrently, their dosages should be separated by at least 2 hours (20-22).

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 and gastrointestinal system, seizures, hallucinations, nausea, vomiting or anorexia may occur (20).
- Gastric disorders may occur (19).



- If adverse reactions occur, a doctor or a pharmacist should be consulted.

13. Overdose

- No case of overdose has been reported

14. Relevant biological properties

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

15. Additional information

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16. Date of compilation/last revision

21/05/2026.



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