

Egyptian Herbal Monograph

Volume 4

Herbal Formulations used in Egypt

Egyptian Drug Authority (EDA)

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Thyme/ Primula

زعتر / زهرة الربيع

1. Names & Synonyms

Thyme

Thymus vulgaris L. (1)

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

Family: Lamiaceae (Labiatae).

Arabic: Za'ater زعتر.

English name: English Thyme, Garden Thyme.

Thymus zygis L. (2)

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

Family: Lamiaceae (Labiatae).

Arabic: Za'ater زعتر.

English name: Spanish Thyme.

Primula (3)

Primula veris L.

Family: Primulaceae.

Syns.: *Primula officinalis* (L.) Hill.

Arabic: Zahr El-hakl زهر الحقل, Zahrat El-rabee' زهرة الربيع

English name: Cowslip, Primula (2-4).

2. Parts used for medicinal purpose

Thyme: Dried and fresh herb (1, 2, 5).

Primula: Root (6-11).

3. Major chemical constituents

Thyme:

- **Essential oil:** Thymol, carvacrol, *p*-cymene, α and β -terpinene, linalool, terpinen-4-ol, borneol, 1,8-cineole, α -thujene, α -pinene and caryophyllene (4).
- **Flavonoids:** Apigenin, narigenin, kaempferol and luteolin (and its glycosides) (12).



- **Phenolic acids:** Salvianolic, rosmarinic, cinnamic, ferulic, caffeic and gallic acids (12).
- **Others:** Monoterpene glycosides (13).

Primula:

- **Triterpene saponins:** Primula saponins I and II, priverosaponin B22-acetate (6, 14, 15).
- **Phenolic glycosides:** Primverin and Primulaverin (6, 14).

4. Medicinal uses (Indications)

- A. Expectorant in case of productive cough (16).
- B. Treat symptoms of acute bronchitis and respiratory infections with thick phlegm following exposure to cold (17).

2. Herbal preparations correlated to medicinal use (16)

1. Thyme liquid extract (Extraction solvent: Ammonia solution 10%, glycerol 85%, ethanol 90%, water (1:20:70:109)) and Primula liquid extract (Extraction solvent: Ethanol 70%).
2. Thyme liquid extract (Extraction solvent: Ammonia solution 10%, glycerol 85%, ethanol 90%, water (1:20:70:109)) and Primula liquid extract (Extraction solvent: Ethanol 55%).
3. Thyme liquid extract (Extraction solvent: Ammonia solution 10%, glycerol 85%, ethanol 90%, water (1:20:70:109)) and Primula tincture (1:5) (Extraction solvent: Ethanol 50%).
4. Thyme liquid extract (Extraction solvent: Ammonia solution 10%, glycerol 85%, ethanol 90%, water (1:20:70:109)) and Primula soft extract (Extraction solvent: Ethanol 55%).
5. Thyme liquid extract (Extraction solvent: Ethanol 20%) and Primula liquid extract (Extraction solvent: Ethanol 15%).
6. Liquid extract from mixture of Thyme and Primula (Extraction solvent: Water).
7. Dry extract from Thyme (Extraction solvent: Ethanol 70%) and dry extract from Primula, (Extraction solvent: Ethanol 47.4%).
8. Dry extract from Thyme (Extraction solvent: Ethanol 70%) and dry extract from Primula (Extraction solvent: Water).

Herbal preparations are in pharmaceutical dosage forms. The pharmaceutical form should be described by the pharmacopoeia full standard term.

3. Posology and method of administration correlated to medicinal use (16)

Preparation 1

Indication A

Adolescents, adults and elderly: Single dose: 500 mg Thyme extract and 250 mg Primula extract, 6 times daily.

Children 4-11 years: Single dose: 330 mg Thyme extract and 170 mg Primula extract, 3-5 times daily.

Indication B

Infants 6-12 months: 65 mg Thyme extract and 32.4 mg Primula extract, 6 times daily. Total daily dose: 390 mg Thyme extract and 194.4 mg Primula extract.

Children 1-4 years: 162.5 mg Thyme extract and 81 mg Primula extract, 6 times daily. Total daily dose: 975 mg Thyme extract and 486 mg Primula extract.

Children above 5 years, adolescents and adults: 487.5 mg Thyme extract and 243 mg Primula extract, 4 times daily. Total daily dose: 1950 mg Thyme extract and 972 mg Primula extract.

Preparation 2

Indication B

Adults: 500 mg Thyme extract and 250 mg Primula extract, 3 times daily.

Children above 4 years: 250 mg Thyme extract and 125 mg Primula extract, 3 times daily.

Preparation 3

Indication A

Adolescents, adults and elderly: 430 mg Thyme extract and 210 mg Primula tincture, 5 times daily.

Children 4-11 years: 360 mg Thyme extract and 180 mg Primula extract, 3-5 times daily.

Preparation 4

Indication A

Adolescents, adults and elderly: 1160 mg Thyme extract and 170 mg Primula extract, 4 times daily.

Children 4 -11 years: 770 mg Thyme extract and 120 mg Primula extract, 3-4 times daily.

Preparation 5

Indication A

Adolescents, adults and elderly: 1240 mg Thyme and 410 mg Primula, 3-5 times daily.

Preparation 6



Indication A

Adolescents, adults and elderly: 3080 mg equivalent to: 620 mg Thyme extract and 220–510 mg of Primula extract, 4 times daily.

Preparation 7

Indication A

Adults and elderly: 160 mg Thyme extract and 60 mg Primula extract, 3 times daily.

Preparation 8

Indication A

Adolescents, adults and elderly: 75 mg dry Thyme extract and 37.5 mg dry Primula extract, 3 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.

4. Contraindications

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

5. Special warnings and precautions for use

- If the symptoms worsen or persist longer than one week during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- If dyspnea, fever or purulent sputum occurs, a doctor or a pharmacist should be consulted (4-6, 16).
- The use in children under 4 years (Herbal preparations 2, 3 and 4), under 12 years (Herbal preparations 5, 6 and 8) and under 18 years (Herbal preparation 7) is not recommended without medical supervision (5, 16).
- Insufficient data are available concerning administration in infants under 6 months (Herbal preparation 1). Therefore, it should not be given to infants under 6 months.
- Caution is recommended in patients with gastritis or gastric ulcer (16).

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

None reported (16).

7. Fertility, pregnancy, and lactation (16)

- 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.

8. Effects on ability to drive and use machines (16)

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

9. Undesirable effects

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- Gastric disorders, nausea and allergic reactions may occur (6, 16).

10. Overdose

No case of overdose has been reported (16).

11. Relevant biological properties

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

12. Additional information

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13. Date of compilation/last revision

06/08/2023.

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