

Egyptian Herbal Monograph

Volume 3

Medicinal plants used in Egypt

Egyptian Drug Authority (EDA)

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Medicinal Plants Used in Egypt

Grindelia hirsutula Hook. & Arn

جرنديليا

1. Names & Synonyms (1)

Grindelia hirsutula Hook. & Arn.

Syns.: *Grindelia robusta* Nutt., *Grindelia humilis* Hook. et Arn., *Grindelia camporum* Greene.

Family: Asteraceae (Compositae)

Arabic: Grindelia جرنديليا

English name: Gumweed (2,3), Gum plant (4).

2. Parts used for medicinal purpose

Herb/ leaves and flowering tops (2-6).

3. Major chemical constituents

- **Resin (labdane type of diterpene acids):** Grindelic acid and its derivatives (7).
- **Acetylenic compounds:** Matricarianol and marticarianol acetate (8).
- **Essential oil:** Mono terpenoids as: α -pinene, β -pinene, borneol, trans-pinocarveol, bornyl acetate and limonene (9-12).
- **Flavonoids:** Mainly quercetin-methylethers (13), beside kaempferol-3-methylether and kaempferol-3,7-dimethylether (8).
- **Others:** Phenolic acids (14), saponins, triterpenoid and tannins (8).

4. Medicinal Uses (Indications)

- Relief of cough associated with cold, catarrh of the upper respiratory tract and bronchitis. (2,5,6).

5. Herbal preparations correlated to medicinal use (2,5)

1. Comminuted herbal substances are added to water as herbal tea in the form of infusion.
2. Liquid extract (1:1), extraction solvent ethanol (22.5% V/V).

3. Tincture (1:10 or 1:5), extraction solvent ethanol (60-80% V/V).

Herbal preparations (2-3) are in liquid dosage forms for oral use. The pharmaceutical form should be described by the pharmacopoeia full standard term.

6. Posology and method of administration correlated to medicinal use

Preparation 1

- 2 - 3 g of the comminuted herbal substance in 150 ml of boiling water as a herbal infusion, up to 3 times daily (2).
- 4 - 6 g of the comminuted herbal substance as a 10% infusion, daily (5).

Preparation 2

- 0.6 - 1.2 ml, 3 times daily. Daily dose: 1.8 - 3.6 ml (2).
- 3 - 6 g of fluid extract, daily (5).

Preparation 3

- 0.5 - 1 ml, 3 times daily. Daily dose: 1.5 - 3 ml (2,5).

Duration of use

If the symptoms persist longer than 1 week during the use of the medicinal product, a doctor or a pharmacist should be consulted (2).

Method of administration: Oral use (2,5).

7. Contraindications (2,5)

- Hypersensitivity to the active substance and to other plants of the same family.

8. Special warnings and precautions for use (2,5)

- If the symptoms worsen during the use of the medicinal product or if dyspnoea, high fever or purulent sputum occurs, a doctor or a pharmacist should be consulted immediately.

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

- None reported (2,5).

10. Fertility, pregnancy and lactation (2,5)

- 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 (2,5)

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

12. Undesirable effects

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- In sensitive persons, irritation of the gastric mucosa (5) and diarrhea (3) might occur.

13. Overdose

- No case of overdose has been reported (2,5).

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

13/11/2023



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