

Egyptian Herbal Monograph

Volume 3

Medicinal plants used in Egypt

Egyptian Drug Authority (EDA)

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Sambucus nigra L.

البيلسان

1. Names & Synonyms (1)

Sambucus nigra L.

Family: Viburnaceae.

Syns: *Sambucus florida* Salisb.

Arabic: Al-Bailasan البيلسان, Al-Bailasan Al-Aswad الأسود البيلسان, Alkhomman الخمان (2).

English name: Black Elder, Elder flower, European Elder and sweet Elder (3-7).

2. Parts used for medicinal purpose

- Dried flowers (3-8).

3. Major chemical constituents

- **Flavonoids:** Quercetin-3-*O*-rutinoside, kaempferol-3-*O*-rutinoside, and isorhamnetin-3-*O*-rutinoside, myricetin and cyanidin-3-sambubioside-5-glucoside (9).
- **Phenolic acids:** Chlorogenic acid (5-*O*-caffeoylquinic acid) and its derivatives, coumaroylquinic acids, dicaffeoylquinic acids, gallic acid, *p*-hydroxybenzoic acid glucoside (9,10), *p*-anisic acid, cinnamic acid, *p*-coumaric acid, ferulic acid (10), caffeic acid (11).
- **Volatile oil:** Hotrienol, linalool, *cis*-linalool oxide, nerol oxide, citronellol, α -terpineol, together with (*Z*)-3-hexenol, hexanal, hexanol and heptanal from autoxidation of fatty acids (9).
- **Others:** Triterpenes, sterols, tyrosol, free fatty acids and pectic polysaccharides (12).

4. Medicinal Uses (Indications)

- A. Diaphoretic to help relief fever in cases of common cold and flu (5, 6).
- B. Relief of early symptoms of common cold and flu such as coughs, sore throat, and mucus buildup (catarrh) of the (upper) respiratory tract (3, 5, 6).
- C. Reduce nasal congestion and discharge associated with sinusitis, hay fever/allergic rhinitis (6).



5. Herbal preparations correlated to medicinal use

- 1) Comminuted herbal substance is added to hot water in the form of infusion or decoction (3,5,6).
- 2) Liquid extract, extraction solvent: Ethanol 25% (3,5).
- 3) Tincture (1:5), extraction solvent: Ethanol 25% (3,5).

Herbal preparations (2 and 3) 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

Preparation 1

Indications A and B

Adolescents, adults and elderly

- Single dose: 2 - 5 g in 150 ml boiling water as a herbal infusion, 3 times daily (3,5,6,13).
- 3 - 6 g of the comminuted herbal substance in 200 ml water as a decoction, divided in 2 single doses, daily (3).

Indication C (6)

Adolescents 14 - 17 years and adults: 6 - 15 g, daily.

Children 10 - 11 years and adolescents 12 - 13 years: 3 - 7.5 g, daily.

Children 5 - 9 years: 1.5 - 3.75 g, daily.

Children 2 - 4 years: 1 - 2.5 g, daily.

Preparation 2

Indications A and B

Adolescents, adults and elderly: Single dose: 2 - 5 ml, 3 times daily (3-5,7,8).

Indication C (6)

Adolescents 14 - 17 years and adults: Equivalent to 1.5 - 15 g, daily.

Children 10 - 11 years and adolescents 12 - 13 years: Equivalent to 0.75 - 7.5 g, daily.

Children 5 - 9 years: Equivalent to 0.375 - 3.75 g, daily.

Children 2 - 4 years: Equivalent to 0.25 - 0.5 g, daily.



Preparation 3

Indications A and B

Adolescents, adults and elderly: Single dose: 10 - 25 ml, 3 times daily (3-5, 8,14).

Indication C (6)

Adolescents 14 – 17 years and adults: Equivalent to 1.5 – 15 g, daily

Children 10 - 11 years and adolescents 12 – 13 years: Equivalent to 0.75 – 7.5 g, daily

Children 5 - 9 years: Equivalent to 0.375 – 3.75 g, daily

Children 2 - 4 years: Equivalent to 0.25 – 0.5 g, 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 (3, 8).

Method of administration: Oral use (3-8, 14).

7. Contraindications

- Hypersensitivity to the active substances and to other plants of the same family (3)

8. Special warnings and precautions for use

- If the symptoms worsen during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- If dyspnoea or purulent sputum occurs, a doctor or pharmacist should be consulted (3).
- The use in children under 12 years of age is not recommended without medical supervision (3,5).

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

- None reported (3).

10. Fertility, pregnancy and lactation (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

- No studies on the effect on the ability to drive and use machines have been performed (3).



12. Undesirable effects

- None known (3).
- 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

25/12/2023

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