

Egyptian Herbal Monograph

Volume 2

Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)

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***Vaccinium myrtillus* L.**

التوت الأزرق

1. Names & Synonyms (1)

***Vaccinium myrtillus* L.**

Family: Ericaceae

Syns.: *Vitis-idaea myrtillus* (L.) Moench

Arabic: التوت الأزرق Toot azrak.

English name: Bilberry, European blueberry, Bogberry (2-4).

2. Parts used for medicinal purpose

Fresh and dried fruits (3, 5).

3. Major chemical constituents

- **Flavonoids:**
 - **Flavan-3-ols:** Procyanidins B1, B2, B3 and B4, and anthocyanins (3-*O*-arabinosides, 3-*O*-glucosides and 3-*O*-galactosides of cyanidin, delphinidin, malvidin, peonidin and petunidin).
 - **Flavonol-*O*-glycosides:** Quercitrin, isoquercitrin, hyperoside and astragalin (6, 7). **Flavonols:** Kaempferol, quercetin and myricetin (7).
- **Organic acids:** Malic, citric and quinic acids (7).
- **Phenolic acids:** Hydroxycinnamic and hydroxybenzoic acids (8, 9, 10).
- **Tannins:** Gallocatechin (7).
- **Stilbenes:** *Trans*-resveratrol (7).

4. Medicinal Uses (Indications)

- A. Mild diarrhoea (3-5).
- B. Problems related to varicose veins such as painful and heavy legs and peripheral vascular insufficiency (3-6).
- C. Microcirculatory disorders of the eye (3-6).

D. Slow the progression of disorders of the eye such as diabetic and hypertensive retinopathy and macular degeneration (4).

E. Minor inflammations of the oral mucosa (3, 5, 6).

5. Herbal preparations correlated to medicinal use

1. **Herbal substance or comminuted herbal substance** of the dried ripe fruits as herbal tea for decoction or macerate (3).

- Decoction: Herbal substances boiled for 10 minutes in 150-250 ml water and drunk cold.

- Cold macerate: Dried fruit soaked in 150 ml water for 2 hours and drunk.

2. **Dry extract of the fresh fruit**, extraction solvent ethanol (96% V/V) (5).

Herbal preparation (2) is 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

Preparation 1

Indication A

- 5-10 g, several times daily as a decoction/cold macerate (5) or 15-60 g, in divided doses of 5-15 g in 250 ml of water, 3-4 times daily as a decoction (3).

Duration of use:

If the symptoms persist longer than 3 days during the use of the medicinal product, a doctor or a pharmacist should be consulted (3).

Method of administration: Oral use.

Indication E

- A 10% decoction or equivalent preparations as a gargle or mouthwash (3, 5, 6), rinse the mouth several times daily (3).

Duration of use:

- If the symptoms persist longer than one week during the use of the medicinal product, a doctor or pharmacist should be consulted (3).

Method of administration: Oromucosal use



Preparation 2 (5)

Indications B, C and D

Adults

- 60 to 160 mg, 3 times daily. Not to exceed 160 mg per single dose (equivalent to 65 - 173 mg anthocyanins, daily) (4, 5).

Duration of use: At least 4-8 weeks (5).

Method of administration: Oral use.

7. Contraindications

Hypersensitivity to 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.
- For oromucosal preparations, the use in children under 12 years of age is not recommended.

9. Interactions with other medicinal products and other forms of interaction (5)

- Bilberry may increase the action of **anticoagulants**; caution should be taken if used concurrently.
- Bilberry may increase the action of **NSAIDs**, caution should be taken if used concurrently.
- **Antidiabetics and hypoglycemic herbs:** Bilberry may increase hypoglycemia; caution should be taken if used concurrently.
- **Antiplatelet agents:** Bilberry may cause antiplatelet aggregation, caution should be taken if used concurrently.
- **Iron:** Bilberry interferes with iron absorption, concurrent use should be avoided.
- **Lab Test: Blood glucose:** Bilberry may decrease blood glucose.

10. Fertility, pregnancy and lactation

- Dried fruit has been used safely during pregnancy and lactation (3, 5).
- No fertility data available (3).

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.
- If adverse reactions occur, a doctor or a pharmacist should be consulted (3, 5).

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 last revision

14/9/2022.

References

1	https://powo.science.kew.org .
2	Barnes, J., Anderson, L. A. and Phillipson, J. D. (2007). Herbal Medicines, 3 rd edition. Published by the Pharmaceutical Press. ISBN 978 0 85369 623 0.
3	European Union Herbal Monograph on <i>Vaccinium myrtillus</i> L., Fructus recens (2015). EMA/HMPC/375808/2014. Committee on Herbal Medicinal Products (HMPC).
4	Natural Health Product, Bilberry - <i>Vaccinium myrtillus</i> L. oral (2018). Health Canada http://webprod.hc-sc.gc.ca/nhp/bdipsn/monoReq.do?id=39&lang=eng .
5	ESCOP Monographs (2014). <i>Vaccinium myrtillus</i> L. European Scientific Cooperative on Phytotherapy. Edited by Roberta Hutchins and Simon Mills.
6	WHO monographs on selected medicinal plants (2002). Monographs on selected medicinal plants, 4 , 210- 243.
7	Pires, T. C. S. P., Caleja, C., Santos-Buelga, C., Barros, L and Ferreira, I. C. F. R. (2020). <i>Vaccinium myrtillus</i> L. fruits as a novel source of phenolic compounds with health benefits and industrial applications - A review. <i>Curr. Pharm. Des.</i> , 26 (16), 1917-1928.
8	Može, Š., Polak, T., Gašperlin, L., Koron, D., Vanzo, A., Ulrih, N. P. and Abram, V. (2011). Phenolics in Slovenian bilberries (<i>Vaccinium myrtillus</i> L.) and blueberries (<i>Vaccinium corymbosum</i> L.). <i>J. Agric. Food Chem.</i> , 59 , 6998–7004.
9	Michalska, A. and Łysiak, G. (2015). Bioactive compounds of blueberries: Post-harvest factors influencing the nutritional value of products. <i>Int. J. Mol. Sci.</i> , 16 , 18642–18663.
10	Ehala, S., Vaher, M. and Kaljurand, M. (2005). Characterization of phenolic profiles of Northern European berries by capillary electrophoresis and determination of their antioxidant activity. <i>J. Agric. Food Chem.</i> , 53 (16), 6484–6490.
11	Edwards, S. E., Rocha, I. D. C., Williamson, E. M. and Heinrich, M. (2015). <i>Phytopharmacy: An Evidence-Based Guide to Herbal Medicinal Products</i> . 1 st edition. John Wiley & Sons, Ltd