Egyptian Herbal Monograph

Volume 3

Herbal Formulations Used in Egypt

Egyptian Drug Authority (EDA)

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Pygeum, Saw palmetto, Pumpkin, Tomato, Uva ursi

خوخ أفريقى/ بلميط منشاري / قرع عسل / طماطم / عنب الدب

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1. Names & Synonyms

Pygeum (1)

***Prunus africana* (Hook.f.) Kalkman.**
Family: Rosaceae .
Syns.: *Lauro-cerasus africana* (Hook.f.) Browicz, *Pygeum africanum* Hook.f.
Arabic: Barkouk Afriki برقوق أفريقي - Khoukh Afriki خوخ أفريقي
English: African stinkwood, African prune, African cherry, bitter almond, iron wood, pygeum, red stinkwood (2).

Saw palmetto

***Serenoa repens* (W.Bartram) Small** (1,3).
Family: Arecaceae (1,3).
Syns: *Corypha repens* W.Bartram, *Corypha obliqua* W.Bartram, *Diglossophyllum serrulatum* (Michx.) H. Wendl. ex Salomon, *Sabal serrulata* (Michx.) Schult.f., *Chamaerops serrulata* Michx., *Brahea serrulata* (Michx.) H. Wendl. (1,3).
Arabic: Balmit minshary بلميط منشاري
English: Serenoa , Saw palmetto (4) and Saw palmetto berry (5).

Pumpkin (6)

***Cucurbita pepo* L.**
Family: Cucurbitaceae.

Syns: *Cucurbita aurantia* Willd., *C. courgero* Ser., *C. esculenta* Gray, *C. fastuosa* Salisb., *C. melopepo* L., *C. ovifera* L., *C subverrucosus* Willd., *C. verrucosus* L., *Pepo melopepo* Moench., *P. verrucosus* Moench., *P. vulgaris* Moench.
Arabic: kar-e-asal قرع عسل
English: Pumpkin.

Tomato (1)

Solanum lycopersicum L.
Family: Solanaceae
Syns: *Lycopersicon esculentum* Mill., *Lycopersicon cerasiforme* Dunal,
Arabic: Tamatem طماطم
English: Tomato

Uva ursi (7)

***Arctostaphylos uva ursi* L.**
Family: Ericaceae.
Syns.: *Arbutus uva-ursi* L., *Arctostaphylos media* Greene, *Arbutus officinalis* Wimm., *Arbutus procumbens* Patzke, *Mairania uva-ursi* Desv., *Uva-ursi buxifolia* S.F. Gray, *Uvaursi procumbens* Moench.
Arabic: Enab eddib عنب الدب
English name: Bearberry, Uva ursi.

2. Parts used for medicinal purpose

Pygeum africanum*:* Dried bark (stem /trunk) (8,9).
Saw palmetto: Dried ripe fruit (10).
Pumpkin Dried seeds (6,11).
Tomato: Fruit (12).
Uva ursi: Dried leaves (7,13).

3. Major chemical constituents

Pygeum

- **Phytosterols**: β-Sitosterol and its glucoside (14) and β-sitostenone (15,16).

- **Triterpenes**: Ursolic (14) and oleanolic acids (17).
- **Phenolic acids**: Ferulic acid and its esters of docosanol and tetracosanol (17).
- **Fatty acids**: Lauric and myristic acids (16).
- **Others:** *N*-Butylbenzene-sulfonamide and atraric, benzoic and *p*-hydroxybenzoic acids (14,17).

Saw palmetto (18)

- **Fatty acids and their glycerides:** Monoacylglycerides (1-monolaurin, 1-monomyristicin). Oleic acid (unsaturated) and capric acid, caproic acid, caprylic acid, lauric acid, myristic acid, palmitic acid and stearic acid (saturated).
- **Steroids**: β-Sitosterol, campesterol and stigmasterol.
- **Carbohydrates**: Invert sugar, mannitol, high molecular weight polysaccharides with galactose, arabinose and uronic acid identified as main sugar components.
- **Other constituents**: Flavonoids (e.g. rutin, isoquercitrin, kaempferol), pigment (carotene), resin, tannin and volatile oil.

Pumpkin

- **Fixed oil:** composed mainly of linoleic, oleic, palmitic and stearic acids (19).
- **Phytosterols:** β-Sitosterol, $\Delta^{5,24}$ - stigmastadienol, Δ^{7}-stigmastenol, Δ^{7}- avenasterol (20).
- **Phytoestrogens:** including lignans (as secoisolarisiresinol), isoflavones (as genistin, daidzin and formononetin) and quercetin (21).
- **Phenolic acids:** Protocatechuic, caffeic, syringic, vanillic, *p*-coumaric and ferulic acids (21).
- **Protein:** composed mainly of the amino acids: arginine, glutamic and aspartic acids (22).
- **Others**: Vitamin E (Tocopherols), micro-elements such as phosphorus, magnesium, potassium, zinc and iron (22) as well as β-carotene (23).

Tomato (12)

- **Carotenoids:** mainly lycopene and in small amounts β-carotene, α-carotene, β-cryptoxanthin and lutein.
- **Phenolics:** rutin, naringenin and chlorogenic acid.
- **Others:** vitamin C, and vitamin E**.**

Uva ursi

- **Hydroquinone derivatives:** Arbutin and methyl-arbutin (glycosides); galloyl arbutin, and hydroquinone (18,24).
- **Flavonoids:** Myricetin, quercetin and their glycosides including hyperin, isoquercitrin, myricitrin and quercitrin; hyperoside; kaempherol (18,24,25).
- **Polyphenols:** Gallotannins, corilagin, catechin, anthocyanidin derivatives including cyanidin and delphinidin (24).
- **Phenolic acids:** Gallic, *p*-coumaric and syringic, salicylic acid, *p*-hydroxybenzoic, ferulic, caffeic and lithospermic acids (dimeric caffeic acid) (24).
- **Terpenoids**: α-Amyrin, α-amyrin acetate, β-amyrin, lupeol, uvaol, ursolic acid, and a mixture of mono- and di-ketonic α-amyrin derivatives (18, 24).

4. Medicinal uses (Indications)

Aid in case of Benign Prostatic Hyperplasia (BPH) or related to an overactive bladder, after serious conditions have been excluded by a medical doctor.

5. Herbal preparations correlated to medicinal use

Combination of pygeum powder extract (Extraction solvent: Ethanol), saw palmetto extract (Extraction solvent: carbon dioxide), pumpkin powder extract (Extraction solvent: ethanol), tomato powder extract (Extraction solvent: ethyl acetate) and uva ursi powder extract (Extract solvent: ethanol/water).

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

Adults and elderly:

Combination of 80-160 mg of pygeum extract,180-360 mg of saw palmetto extract, 30-60 mg of pumpkin extract, 41.67-83.34 mg of tomato extract and 40-80 mg of uva ursi extract, daily.

Duration of use:

As directed by the physician.

Method of administration: Oral use.

7. Contraindications

- Hypersensitivity to active substance(s) and to other plants of the same families.
- Kidney disorders (24).
- Children under the age of 18 years, as hepatotoxicity may occur (13).
- The use in children and adolescents under 18 years of age, as hepatotoxicity may occur (13) and because of its effects on androgen and oestrogen metabolism (13,26) and the lower urinary tract symptoms in these populations requires medical supervision (8).

8. Special warnings and precautions for use

- If complaints worsen or if symptoms such as fever, spasms or blood in the urine, painful urination, or urinary retention occur during the use of the medicinal product, a doctor or a pharmacist should be consulted (8,9, 26,27).
- It should not be used for prolonged periods (7,13).
- It should be used cautiously by persons with electrolyte imbalance, acidic urine, constipation, iron deficiency, anemia, malnutrition due to high tannin level, and disorders involving gastrointestinal irritation (13).
- It should not be administered with medicines or foods that acidify the urine, such as acidic fruits or fruit juice and should be administered with plenty of fluids (7).

- It may cause a greenish-brown coloration of the urine that darkens on exposure to air due to the oxidation of hydroquinone (7).

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

- A few cases of suspected interactions with warfarin have been reported. Increased INR- values have been described (28).
- Diuretics: the medicinal product may increase the action of diuretics; use together cautiously (13).
- The medicinal product may lead to electrolyte loss, primarily hypokalaemia (13).
- The medicinal product may increase the effect of NSAIDs (13).
- Urine acidifiers may inactivate the medicinal product; concurrent use should be avoided (13).

10. Fertility, pregnancy and lactation

- The use during pregnancy and lactation: not relevant.
- 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

- Nausea, vomiting, diarrhea, abdominal pain (especially when taken on an empty stomach) (13,26,27).
- Allergic or hypersensitivity reactions may occur such as skin rash, headache (13,26,27).
- Electrolyte loss (sodium, potassium) (13).
- If adverse reactions occur, a doctor or a pharmacist should be consulted.

13. Overdose

Hepatotoxicity, cyanosis, tinnitus, vomiting, seizures, cardiovascular collapse, delirium, shortness of breath and feeling of suffocation (13).

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

01/06/2026.

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