

Yellow Dock

Species (Family)

Rumex crispus L. (Polygonaceae)

Synonym(s)

Curled Dock

Part(s) Used

Root

Pharmacopoeial and Other Monographs

BHP 1983^(G7)
PDR for Herbal Medicines 2nd edition^(G36)

Legal Category (Licensed Products)

GSL^(G37)

Constituents^(G22,G48,G64)

Anthraquinones 2–4%. Chrysophanol, emodin, nepodin, physcion (aglycones).^(1–3)

Tannins Catechol 5% (condensed-type).

Other plants parts The plant constituents documented include oxalic acid, oxalates, chrysophanic acid, emodin, tannin, and a complex volatile oil (more than 60 components identified).^(4,G51)

Food Use

Yellow dock is not used in foods.

Herbal Use

Yellow dock is stated to possess gentle purgative and cholagogue properties. Traditionally, it has been used for chronic skin disease, obstructive jaundice, constipation, and specifically for psoriasis with constipation.^(G7,G64)

Dosage

Dried root 2–4 g or by decoction three times daily.^(G7)

Liquid extract 2–4 mL (1:1 in 25% alcohol) three times daily.^(G7)

Tincture 1–2 mL (1:5 in 45% alcohol) three times daily.^(G7)

Pharmacological Actions

In vitro and animal studies

None documented for the root. Slight antibacterial activity has been reported for herb extracts, which exhibited activity towards both Gram-positive (*Staphylococcus aureus*, *Mycobacterium smegmatis*) and Gram-negative (*Escherichia coli*, *Shigella sonnei*, *Shigella flexneri*) organisms.⁽⁴⁾

Side-effects, Toxicity

None documented for yellow dock. In view of the documented anthraquinone constituents, side-effects generally associated with laxatives are also applicable to yellow dock. Overuse may cause abdominal cramps and diarrhoea, and prolonged use may lead to intestinal atrophy and hypokalaemia.

Dermatitis has been reported in livestock following the ingestion of plant material in large quantities.^(G51) Oxalic acid is known to be a toxic plant acid that forms insoluble calcium salts which cause a disturbance in calcium concentrations and hence affect the blood coagulation mechanism.^(G33)

Contra-indications, Warnings

Warnings generally associated with stimulant laxatives are also applicable to yellow dock. Therefore, yellow dock should not be taken when there is existing intestinal obstruction, and excessive use should be avoided (*see* Side-effects, Toxicity).

Pregnancy and lactation In general, unstandardised stimulant laxatives are not recommended for use during pregnancy. The use of yellow dock should therefore be avoided in favour of a standardised preparation that is recommended for the treatment of constipation during pregnancy. The use of yellow dock by breastfeeding women should also be

avoided, since it has been documented that anthraquinones can be secreted into the breast milk (*see* Senna).

Pharmaceutical Comment

Limited chemical, pharmacological, and toxicity information is available for yellow dock. Documented anthraquinone constituents justify the reputed purgative action. Although the purgative effect of yellow dock is reputed to be gentle, the use of unstandardised anthraquinone-containing preparations should be avoided since their pharmacological effect is unpredictable and may cause abdominal cramp and diarrhoea.

References

See also General References G7, G22, G31, G32, G33, G36, G37, G48, G51 and G64.

- 1 de Siqueira NCS *et al.* Hydroxyanthraquinones in *Rumex crispus* L. (of southern Rio Grande). *Rev Cent Cienc Biomed* 1977; 5: 69-74.
- 2 Midiwo JO, Rukunga GM. Distribution of anthraquinone pigments in *Rumex* species of Kenya. *Phytochemistry* 1985; 24: 1390-1391.
- 3 Fairbairn JW, El-Muhtadi FJ. Chemotaxonomy of anthraquinones in *Rumex*. *Phytochemistry* 1972; 11: 263-268.
- 4 Miyazawa M, Kameoka H. Constituents of essential oil from *Rumex crispus*. *Yakagaku* 1983; 32: 45-47.