Harpagophyllum, known as grapple plant, wood spider or, most commonly, devil’s claw, is a genus native to southern Africa. Devil’s claw belongs to the sesame family (Pedaliaceae) and is named after elaborately hooked fruits. The plants develop large tuberous roots, which are used medicinally for pain and fever reduction and to stimulate digestion. Colonists brought devil’s claw to Europe where it was used to treat arthritis.

Two species are used for medicinal purposes: Harpagophytum procumbens and Harpagophytum zeyheri. Although the species are difficult to distinguish on the basis of morphological characteristics, chemical analyses show clear differences. H. procumbens is found in eastern and south-eastern Namibia, southern Botswana, and in the Kalahari region of Northern Cape Province, South Africa. H. zeyheri has a similar range, and is also found in Angola.

It is hardly possible to distinguish the two species at the place of wild collection. On local markets they are generally offered in mixtures. Only specialized and experienced companies can reliably offer the two species of devil’s claw separately. Anklam Extrakl works together with such expert companies.

The so-called PCHG value is used to distinguish Harpagophytum species in the laboratory. Past attempts to cultivate devil’s claw have not been economically successful. As a result, all commercial material is derived from wild populations. In order to ensure sustainable harvesting and to protect the populations, collection permits are issued by the local authorities. Harpagoside is the active ingredient in H. procumbens and H. zeyheri, ranging in concentration from 1–3 %.

Pharmacopoeial and other monographs

Documentation to support your regulatory process (up to an ASMF including stability report) is available upon request.

The powdered extract of devil’s claw (Harpagophytum radix) is produced from the herbal drug using water or a water-ethanol mixture as extraction solvent.

Harpagophytum procumbens / zeyheri – radix
Teufelskralenwurzel
Devil’s Claw Root

Harpagophytum procumbens / zeyheri – radix
Teufelskralenwurzel
Devil’s Claw Root

Extract qualities

Harpagophyti e rad. extr. spir. sicc. - 00-115-1281-05
Devil’s Claw Powdered Extract
DER 1.7–4:1
Extraction solvent 40 % ethanol
100 % native extract
assay 2.1 % harpagoside content

Additional extract qualities are available upon request.
Devil’s claw is described to possess anti-inflammatory, antirheumatic, analgesic, sedative and diuretic properties. Traditionally, it has been used as a stomachic tonic, and for arthritis, gout, myalgia, fibrositis, lumbago, pleurodynia and rheumatic disease. Modern uses of Harpagophytum focus on the treatment of rheumatic and arthritic conditions as well as lower back pain.

Dosage

For painful arthrosis and tendonitis:
- Dried tuber 1.5–3 g as a decoction, three times daily
- Liquid extract 1–3 ml (1:1, 25 % ethanol) three times daily

For loss of appetite or dyspepsia:
- Dried tuber 0.5 g as a decoction, three times daily
- Tincture 1 ml (1:5, 25 % ethanol) three times daily

Functional properties

Constituents

The most important constituents of dried Harpagophyllum procumbens roots are:

- Carbohydrates: fructose, galactose, glucose and myo-inositol (monosaccharides), raffinose, stachyose (46 %) and sucrose (oligosaccharides)
- Iridoids: harpagide, 8-O-(p-coumaroyl)-harpagide, harpagoside, procumide, 6-O-(p-coumaroyl)-procumbide, and procumboside (glucosides). Pharmacopoeial standard: no less than 1.2 % harpagoside
- Phenols: acetoside and isoacetoside (glycosides)
- Amino acids and flavonoids (kaempferol, luteolin)


Disclaimer

The content of this brochure is based on our findings and experience. Our goal is to inform our customers to the best of our current knowledge. The information is, however, non-binding. Rights of third parties must be observed. The recommended dosages are only guidelines and cannot replace preliminary trials with individual products. Furthermore, before sale, it is essential that all products satisfy local legal requirements.