Expert Herbal Reality Resource
Greater Plantain and Ribwort

Names

Botanical Name: *Plantage lanceolata* L and *Plantago major* L

Family: Plantaginaceae

Common names:
Plantago major - Greater plantain, Broad-leaved plantain, Rat tails, Cuckoo's bread, Snakeweed, Cart track plant, Dooryard plantain, White man's foot, Waybread.

Plantago lanceolata - Ribwort, Cat's cradle, Chimney sweeps, Narrow-leaved plantain, Knock-head, Cock-grass, Jack straws.

Description

Native to Europe and Asia but spread far and wide, greater plantain and ribwort are two of around 250 species of annuals, biennials perennials within the genus Plantago.

Both are perennial, pollinated by the wind and also capable of self-fertilisation. The seeds of these two plants become mucilaginous (slimy) when wet and can adhere to animals to aid dispersal. It is worth keeping one or two in the garden to encourage wild-life, as their seeds can provide winter feed for song birds.

The leaves and aerial parts are used medicinally. Harvest during the summer when flowering.

Greater plantain: This plant loves compacted soil and is fond of growing in soil-disturbed habitats, near human activity & waste places. Greater plantain is a squat plant, possessing a basal rosette of long-stemmed, spoon-shaped leaves with prominent fibrous veins that grow up to 15 cm in length.

Tiny inconspicuous yellow-green flowers are borne on long cylindrical spikes in the summer. It grows to a height of 40 cm with a similar spread. An individual plant produces up to 20,000 seeds and can become quite invasive if left to its own devices. The seeds can remain viable in undisturbed soil for 20 years or so.

Ribwort: A plant of grasslands, road-sides and cultivated ground, ribwort grows up to a height of 50 cm with a spread of 20 cm. Also forms a rosette but whose leaves are more slender, ribbed and lance-shaped.

The plant tends to grow taller in meadows and more squat in short turf. A pointed head of small, tightly clustered brown flowers with creamy-white stamens are borne on hairy, square-shaped stems from April to October. An average plant can produce between 2,500 and 10,000 seeds in the right conditions.

There are other medicinal species within the genus including Hoary plantain (*Plantago media*), Sea plantain (*Plantago maritima*), Blond psyllium seed/ ispaghul (*Plantago ovata*) and Dark /Flea seed (*Plantago psyllium*). None of these are related to the tropical banana-like plantain fruit.

Constituents

- **Iridoid glycosides** including aucubin, catalpol
- **Flavonoids** including apigenin, luteolin, hispidulin, baicalein, scutallarein and plantaginin
- **Polysaccharides** mucilage
- **Phenolic acid derivatives**
- **Tannins**
- **Saponins**
- **Alkaloids** Indicain and plantagonin
- **Vitamins and minerals** including zinc and silica, the latter more so in ribwort

Traditional use

Documentation of the use of greater plantain in wound healing goes back to Dioscorides.

Medicinal plantains, including greater plantain and ribwort continue to be used in many parts of the world today for a wide range in indications.

Despite greater plantain being an introduced species to North America, it was adopted as an effective wound healer by Native Americans, who called it White man's footprint, referring to the wide leaves and spread of the plant wherever Europeans went.

Whilst both species are used for tissue healing, greater plantain has been used extensively to swiftly stop bleeding from external injury.

Ribwort and greater plantain have a tradition of interchangeable uses in a variety of conditions including toothache, earache, oral ulcers, gum disease, tonsillitis and internally for lung infections and inflammation.

Traditionally used within the digestive tract for internal bleeding, ulceration and haemorrhoids and within the urinary tract for urinary retention, blood in the urine and bladder or kidney pain.

Both species were valued for prevention of festering wounds, splinters and boils when used as drawing agents.

Traditional actions

Western herbal actions are

- Anti-inflammatory
- Antioxidant
- Mucous membrane tonic
- Demulcent and emollient
- Antimicrobial
- Antipruritic (anti-itch)
- Anti-catarrhal
- Expectorant
- Vulnerary

What practitioners say

Skin: Greater plantain is usually preferred for topical use, although both species can be used. Often applied on the form of salves for wounds, bruises, ulcers, shingles and dry, inflamed skin conditions such as eczema and psoriasis.

The soothing effects mean it can also be useful when added to topical preparations containing strong essential oils to help moderate any potential irritant effect, such as with a strong sinus rub.

The chopped and soaked leaves or the fresh juice can be used as a speedy remedy for healing wounds. It is sometimes combined with yarrow in staunching bleeding.

Respiratory: Ribwort is useful in coughs, sore throats, respiratory infections and for strengthening the integrity of the mucous membranes of the lungs, providing anti-inflammatory and antimicrobial effects. It is best used for coughs and colds taken as a hot infusion with a bit of honey. It can also be combined with yarrow and elderflower in such cases.

Digestive and urinary systems: The mucilage and tannin and content within both plants can go some way to explaining why they are often used for chronic or acute irritation of the mucous membrane linings of the digestive and urinary tracts.

Evidence

Antioxidant, anti-inflammatory, antiviral and cytotoxic effects have been noted in Ribwort using a variety of assays, including enhancement of lymphocyte production, secretion of interferon-gamma, inhibitory activity on proliferation of lymphoma and certain carcinomas and viruses at lower dose extracts (1,2).

Extracts of both greater plantain and ribwort have revealed the antioxidant properties remain on storing, with greater plantain revealing an increase in antioxidant activity after storage for 6 months (3).

One randomised triple blinded 14-day clinical trial on 130 patients was carried out on the use of greater plantain in the treatment of pressure ulcers. The findings indicated a significant difference in resolution of the wound damage between the test and control groups at 96% and 73% respectively (4).

A randomised open-label controlled trial on the use of a hydroalcoholic extract (10% topical gel) of greater plantain on diabetic foot ulcers and pressure ulcers resulted in the acceleration of diabetic foot ulcer healing both in reduction of erythema and wound size (5).

The effects of rectal suppositories of greater plantain on postpartum haemorrhage were looked at in a recent randomised triple blinded clinical trial. The work demonstrated a statistically significant difference between with the group given dill (*anethum graveolens*) and the control group compared to those given the greater plantain-containing suppositories, showing this method of administration can help reduce postpartum haemorrhage (6).

Safety

Greater plantain and ribwort are considered to be very safe remedies, including during pregnancy and lactation and for use in children.

No known contraindications unless sensitive to either of these two species.

Dosage

Internal use:
3-5g dried herb one to three times daily
2 heaped teaspoons to a cupful boiling water as infusion. Three times daily
3-8 ml per day 1:3 tincture
Fresh juice 5 – 15 ml three times daily

Or topically as required in the form of a salve, poultice, wash, plaster etc.

Parts used

The leaves and aerial parts are used medicinally. Harvest during the summer when flowering.

References

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