

# Boehmeria nivea - (L.)Gaudich.

Common Name	Ramie
Family	Urticaceae
Synonyms	B. tenacissima. Gaud.
Known Hazards	Although members of the nettle family, plants in this genus do not have stinging hairs[235].
Habitats	Rocky places to 1200 metres[109]. A very common plant in China, growing in thickets, roadsides, edges of forests in mountains at elevations of 200 - 1700 metres[266].
Range	E. Asia - China to the Himalayas of Bhutan, Sikkim and Nepal.
Edibility Rating  ()	ĕĕ
Medicinal Rating 🕕	••
Care 🕕	₩4   () () () () () () () () () () () () ()





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## Summary

## **Physical Characteristics**



Boehmeria nivea is a PERENNIAL growing to 1.8 m (6ft) by 1 m (3ft 3in). It is hardy to zone 7 and is not frost tender. It is in flower from Sep to October. The flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant)

The plant prefers light (sandy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils. and can grow in very acid soils. It can grow in semi-shade (light woodland) or no shade. It requires dry or moist soil.

## **Habitats**

Woodland Garden Sunny Edge; Dappled Shade; Cultivated Beds;

## Edible Uses

Edible Parts: <u>Leaves</u>; <u>Root</u>. Edible Uses:

Root - peeled and boiled. A pleasant, sweet taste[179]. We can detect very little flavour, but the root has a very strange mucilaginous texture that does not appeal to most people who have tried it[K]. Once in the mouth, it takes a lot of chewing before it is ready to be swallowed[K]. The leaves are used for making cakes[283]. This report could refer to the plants use as a poultice[K].

### **Medicinal Uses**

Plants For A Future can not take any responsibility for any adverse effects from the use of plants. Always seek advice from a professional before using a plant medicinally.

Antiphlogistic; Astringent; Demulcent; Diuretic; Febrifuge; Haemostatic; Poultice; Resolvent; Vulnerary; Women's complaints.

Antiphlogistic, demulcent, diuretic, febrifuge, haemostatic and vulnerary. Used to prevent miscarriages and promote the drainage of pus[147, 178]. The leaves are astringent and resolvent[218, 240]. They are used in the treatment of fluxes and wounds[218]. The root contains the flavonoid rutin[283]. It is antiabortifacient, antibacterial, cooling, demulcent, diuretic, resolvent and uterosedative[218, 283]. It is used in the treatment of threatened abortions, colic of pregnancy, haemorrhoids, leukorrhoea, impetigo etc[283]. The fresh root is pounded into a mush and used as a poultice[283].

## Other Uses

Fibre; Paper

A fibre is obtained from the inner bark of the stem - of excellent quality, it is used for textiles, linen etc and is said to be moth-proof[1, 46, 57, 61, 74, 171]. Yields are from 375 to 900 kilos of fibre (per acre?)[123]. Two to four harvests per year are possible depending upon the climate, it is harvested as the stems turn brown[123]. Best harvested as the female flowers open according to another report[169]. The outer bark is removed and then the fibrous inner bark is taken off and boiled before being woven into thread[178]. The fibres are the longest known in the plant realm.[61, 171] The tensile strength is 7 times that of silk and 8 times that of cotton, this is improved on wetting the fibre[61]. The fibre is also used for making paper[189]. The leaves are removed from the stems, the stems are steamed and the fibres stripped off. The fibres are cooked for 2 hours with lye, fresh material might require longer cooking, and they are then beaten in a Hollander beater[189] before being made into paper.

## **Cultivation details**

Requires a rich warm sandy soil that is very well drained[1, 57, 123, 200]. Intolerant of wet soils[200]. This is a very greedy plant and can soon impoverish a soil. All plant remains, after the fibre has been removed, should be returned to the soil[123]. Does best in areas with high temperatures and high humidity plus a rainfall of 1100cm evenly distributed throughout the year[123]. Tolerates a pH in the range 4.3 to 7.3. This species is fairly hardy in Britain when dormant, though it may require some protection in winter (a good mulch to protect the roots should be sufficient). The young growth in spring, even on mature plants, is frost-tender and so it is best to grow the plants in a position sheltered from the early morning sun[K]. The plant has been growing for many years in a sunny well-drained bed at Cambridge Botanical Gardens (which has low humidity and low rainfall), it has made a clump over 2 metres wide though it only reaches about 1.5 metres in height[K]. Boehmeria nivea, an extremely variable species, is widespread over large areas of subtropical and tropical Asia. Its complex species includes several infraspecific taxa, four varieties of which are found in China[266]. The sub-species B. nivea tenacissima. (Gaud.)Miquel., which produces the fibre 'Rhea' is a native of Malaysia and is not hardy in Britain[200]. Ram is much cultivated in China for its fibre[1], with a history of cultivation going back at least 3000 years[266]. It is also occasionally cultivated for its fibre or as an ornamental plant in Europe[50]. A very greedy plant, it requires a lot of feeding if it is to perform well[123].

### Propagation

Seed - sow spring in a warm greenhouse and only just cover the seed. When they are large enough to handle, prick the seedlings out into individual pots and grow them on in the greenhouse for at least their first winter. Plant them out into their permanent positions in late spring or early summer, after the last expected frosts. Division in spring. Very easy, larger divisions can be planted straight into their permanent positions whilst smaller clumps are best potted up and kept in a cold frame until they are growing away well. Layering. Basal cuttings in late spring. Harvest the shoots when they are about 10 - 15cm long with plenty of underground stem. Pot them up into individual pots and keep them in light shade in a cold frame or greenhouse until they are rooting well. Grow them on for their first winter in the cold frame and then plant them out in the summer.

## Expert comment

Author (L.)Gaudich.

(L.)Gaudich.

## **Botanical References**

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#### Links / References

[K] Ken Fern Notes from observations, tasting etc at Plants For A Future and on field trips.

[1]F. Chittendon. RHS Dictionary of Plants plus Supplement. 1956

Comprehensive listing of species and how to grow them. Somewhat outdated, it has been replaces in 1992 by a new dictionary (see [200]).

[46] Uphof. J. C. Th. Dictionary of Economic Plants.

An excellent and very comprehensive guide but it only gives very short descriptions of the uses without any details of how to utilize the plants. Not for the casual reader.

[50]? Flora Europaea

An immense work in 6 volumes (including the index). The standard reference flora for europe, it is very terse though and with very little extra information. Not for the casual reader.

[57]Schery. R. W. Plants for Man.

Fairly readable but not very comprehensive. Deals with plants from around the world.

[61] Usher. G. A Dictionary of Plants Used by Man.

Forget the sexist title, this is one of the best books on the subject. Lists a very extensive range of useful plants from around the world with very brief details of the uses. Not for the casual reader.

## [74]Komarov. V. L. Flora of the USSR.

An immense (25 or more large volumes) and not yet completed translation of the Russian flora. Full of information on plant uses and habitats but heavy going for casual readers.

[109]Wilson. E. H. Plantae Wilsonae.

Details of the paints collected by the plant collector E. H. Wilson on his travels in China. Gives some habitats. Not for the casual reader.

[123]? Encyclopaedia Britannica. 15th edition.

It contains a few things of interest to the plant project.

## [147]? A Barefoot Doctors Manual.

A very readable herbal from China, combining some modern methods with traditional chinese methods.

#### [169]Buchanan. R. A Weavers Garden.

Covers all aspects of growing your own clothes, from fibre plants to dyes.

[171]Hill. A. F. Economic Botany.

Not very comprehensive, but it is quite readable and goes into some a bit of detail about the plants it does cover.

[178] Stuart. Rev. G. A. Chinese Materia Medica.

A translation of an ancient Chinese herbal. Fascinating.

[179]Reid. B. E. Famine Foods of the Chiu-Huang Pen-ts'ao.

A translation of an ancient Chinese book on edible wild foods. Fascinating.

## [189]Bell. L. A. Plant Fibres for Papermaking.

A good practical section on how to make paper on a small scale plus details of about 75 species (quite a few of them tropical) that can be used.

[200] Huxley. A. The New RHS Dictionary of Gardening. 1992.

Excellent and very comprehensive, though it contains a number of silly mistakes. Readable yet also very detailed.

[218]Duke. J. A. and Ayensu. E. S. Medicinal Plants of China

Details of over 1,200 medicinal plants of China and brief details of their uses. Often includes an analysis, or at least a list of constituents. Heavy going if you are not into the subject.

[240] Chopra. R. N., Nayar. S. L. and Chopra. I. C. Glossary of Indian Medicinal Plants (Including the Supplement).

Very terse details of medicinal uses of plants with a wide range of references and details of research into the plants chemistry. Not for the casual reader.

[266] Flora of China

On-line version of the Flora - an excellent resource giving basic info on habitat and some uses.

[283]Nguyen Van Dan & Doan Thi Nhu Medicinal Plants in Vietnam

An excellent book, giving information on over 200 plants, their medicinal compounds and applications.

#### **Readers comment**

#### Elizabeth H.

#### Mrs.C Sun Jun 11 2006

The textiles made from ramie are modernly said to be disinfectant or germicidal. It's this property that makes them so resistant to rot, wet or dry, and especially good for socks, athletic wear, bandages, hospital gowns, hospital linens, and clothing/underwear for women prone to yeast infections. I read somewhere that ramie textiles, like "Dragon's Blood" dye, would kill the smallpox virus. Having used smashed (with a mortar and pestle) fresh ramie to pack wounds for lack of any other real medicine, bandages, and supplies, I think that ramie deserves some serious investigation into it's medical properties. As for me, I have been getting plain natural white ramie fabric via the Internet for making curtains and summer clothes, and have been very happy with the results. The fabric does seem much stronger and tougher than cotton of the same weight and weave.

Elizabeth H.

#### Perelin Fri Feb 16 2007

Edible Uses The leaves are used for making cakes[283]. This report could refer to the plants use as a poultice[K]. The leaves of this plant IS used to make a dessert cake, at least in Korea. In summer, the leaves are steamed, combined with rice soaked in water, then ground very finely. The mixture is steamed, then poured out onto a wooden board and beaten smooth with a huge wooden hammer traditionally. The cakes are supposed to be a beautiful deep green and fragrant.

Naver Encyclopedia It's written in Korean

Elizabeth H. moses Fri Sep 19 2008

Elizabeth H.

Evaristo Piedrahita hacienda la Trindad Rio Negro Colombia Mon Nov 17 2008

I use Boehmeria nivea for cattle food

Elizabeth H. kai Fri Nov 21 2008 also add its growth stage, climactic requirement, economic importance and its distribution

http://www.pfaf.org/database/plants.php?Boehmeria+nivea

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