

## Introducing the *Artemisia* (Part 1) White Mugwort (*Artemisia lactiflora*)

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**Above:** The white mugwort, which is both a vegetable and medicinal herb that is not commonly available in local vegetable markets but one that most senior Chinese Singaporeans will be familiar with.

### The genus *Artemisia*

The *Artemisia* species that most of us are familiar with is the temperate-growing tarragon (*Artemisia dracunculus*), a culinary herb used to prepare some Western dishes. Artemisias are members of the daisy family, Asteraceae, also known as Compositae.

In Singapore, three *Artemisia* species can be found. They include the white mugwort (*A. lactiflora*), the common mugwort or moxa (*A. vulgaris*) and the redstem wormwood (*A. scoparia*). All three species are edible and possess medicinal properties.

This is the first article in the series consisting of three articles written on the genus *Artemisia*. It will focus on the white mugwort, which is both a vegetable and medicinal herb that is not commonly available in local vegetable markets but one that most senior Chinese Singaporeans will be familiar with.

## The White Mugwort

*Artemisia lactiflora*, more commonly known as the white mugwort, has its origins in China. It produces off-white, milky coloured flowers that are borne on plumes. That is probably how its specific name “lactiflora” was derived. Due to the pearl-like appearance of the flowers, the white mugwort’s Chinese name is called the “Pearl Vegetable” (珍珠菜, zhen zhu cai). This is the name that Chinese Singaporeans use to refer to this plant. It has another Chinese name, 角菜 (jiao cai).



**Above:** The white pearl-like flowers of the white mugwort (Source - NParks).

This *Artemisia* species has one of the coarsest leaves in the genus. They are smooth, slightly glossy, deeply cut and dark green in colour. The leaves are held via reddish purple petioles. There is another variety with green petioles. This plant is sometimes referred by another English name – the duckfoot vegetable – probably due to the resemblance of the leaf shape with the webbed foot of the aquatic bird. The white mugwort is not easily available for sale in local vegetable markets. One probably has to venture to the vegetable farms located in the ‘rural’ areas of Singapore, such as Lim Chu Kang to look for the white mugwort. Some community gardens in the housing estates may also be growing it. Occasionally, some of larger plant nurseries may stock it.

A check with the older generation revealed that the white mugwort is traditionally cooked like a leafy vegetable together with coagulated pig’s blood. The white mugwort is now mostly used in a variety of fish dishes to mask the fishy odour. Medicinally, it is a bitter aromatic tonic herb. Its leaves and flowering stems are used internally in traditional Chinese medicine to treat menstrual and liver problems.

A perennial, upright and much branched shrub that can attain a height of about 1 to 1.5 m tall, most of the white mugwort plants seen in cultivation grow as a tuft consisting of several non-flowering, low lying rosettes. That is probably due to a result from frequent picking for food. It is a leafy vegetable that is easy to grow and requires very little maintenance.

Better grown under semi-shaded and cool conditions, the white mugwort should be protected from direct tropical sunshine. As it has a shallow root system, this plant needs to be grown in soil that is constantly kept moist but not soggy. Hence plants should neither be allowed to dry out nor be grown in waterlogged soil. It is best grown in well-drained, fertile soil. The white mugwort can also be grown in containers, such as, in a long shallow trough. It is therefore a leafy vegetable that can be grown successfully by apartment gardeners as long as there is some filtered sunlight for about 6 hours daily.

In the outdoor vegetable garden, the white mugwort can be planted together in a mass to give a uniform green colour. In terms of the distance between individuals, plants can be spaced at about 30 cm apart to accommodate their spread. They can also be planted along the border of a vegetable growing bed. Because for their preference for shade, the white mugwort can be planted amongst shrubby fruiting vegetables like the lady’s finger. This will not only make the best use of the usually bare space below the fruiting shrubs, it will also help to suppress weed growth and reduce the likelihood of soil splashes on the leaves of the plants growing above.

Propagation can be done by means of seeds, stem-cuttings or division and is vital to keep a stock plant in the garden. Plants tend to become straggly and unproductive after repeated harvests. Because seeds are not readily available, the most practical way is to stick a stem tip cutting into a pot of soil obtained from the material bought from the market or taken from an established plant. For each stem cutting, ensure there are several nodes to allow rooting. Crowded, mature clumps can also be dug up, split and planted separately. Newly propagated plants should be given shade and kept moist to take root and recuperate.



**Above:** The upright habit of this white mugwort plant is evident. The stem tip consisting of the young leaves can be harvested for food uses as well as for propagation of new plants.

For food, the white mugwort is harvested when it is about 15 cm high and plants are cut at the stems about 5 cm above the ground. There should be some nodes left on the stems so that the plants can regenerate. Done this way, the white mugwort becomes a 'cut and come again' vegetable. After harvesting, plants should be fed with either an organic or chemical fertiliser to revitalise them and to promote new growth.

The white mugwort is seldom bothered by pests and diseases. Aphids may attack the new young leaves and mealybugs may congregate amongst the leaf axils. These two pests can easily be eliminated by spraying the affected plants with a suitable insecticide. Spider mites may also attack the young leaves and growing tips and such infestations can be spotted by the appearance of mishappened leaves. Affected plants can be treated by cutting away the affected parts and then sprayed with a petroleum oil-based insecticide, such as summer oil. Plants should be spaced out to allow air circulation and grown in well-drained soil to reduce the likelihood of crown rot.

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## Picture Credits

The contributor would like to express his gratitude to the Singapore National Parks Board (NParks) for granting him the permission to use the picture of the flowering white mugwort.

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