

## Artemisia

species in the genus *Artemisia* called mugwort include:

*Artemisia abrotanum*, southernwood

*Artemisia absinthium*, wormwood

*Artemisia annua*, or sweet Annie

*Artemisia argyi* - Chinese mugwort, used in traditional Chinese medicine

*Artemisia californica* (California sagebrush) leaves

*Artemisia douglasiana* – Douglas mugwort, native to western North America

*Artemisia glacialis* – alpine mugwort

*Artemisia indica* - Japanese mugwort

*Artemisia japonica* - Oriental mugwort

*Artemisia mauiensis* (Maui wormwood)

*Artemisia nilagirica* (Indian wormwood)

*Artemisia norvegica* – Norwegian mugwort

*Artemisia pontica* (Roman wormwood)

*Artemisia princeps* – Japanese mugwort ("yomogi"), Korean mugwort ("ssuk"), used in traditional Chinese medicine.

*Artemisia pycnocephala* (beach sagewort) pacific coast of California

*Artemisia stelleriana* – hoary mugwort

*Artemisia verlotiorum* – Chinese mugwort

*Artemisia vulgaris* - common mugwort, used as a culinary herb and medicinally throughout the world

## History

The name of the plant genus *Artemisia* has a rather colorful and somewhat dubious history, according to some sources, it was named for Artemisia the sister/wife of the Persian Satrap Mausolous whose fame derives from the tomb built by Artemisia in the ancient city of Helicarnassus, today in modern Turkey. The word mausoleum derives from this tomb, considered one of the seven wonders of the ancient world. History tells us that Artemisia was a botanist and medical researcher and the plant genus *Artemisia* – which includes over 400 species - was named for her.

However, turning to Greek sources we find that *Artemisia vulgaris* or common Mugwort derives its generic name from that of the Greek moon goddess Artemis, a patron of women. So, we have many choices for our genus, you may pick either salacious or romantic. Regardless of the name, Artemisias are a fascinating group

of plants and we will try and make some sense out of the encyclopedic information regarding them, here this evening.

The genus *Artemisia* belongs to the Compositae/Asteraceae (daisy and sunflower) family found throughout northern Europe, North and S. America, Africa, and Asia. Many artemisias are grown as ornamentals for their finely cut, aromatic, often silver foliage which makes excellent background material in perennial borders and is used very successfully for arrangements and posies.

Artemisias are easily cultivated even in poor dry soils. Several are attractive border plants, especially in white gardens. The aromatic leaves of some species are used for flavoring. Most species have an extremely bitter taste. *A. dracunculoides* (French tarragon) is widely used as a culinary herb, and with its cousin *A. dracunculus* (Russian tarragon) have been particularly important in French cuisine.

### **Some Artemisia Varieties & Uses**

Bitter wormwood, *Artemisia absinthium* was used to repel fleas and moths, and in brewing (wormwood beer, wormwood wine). The aperitif vermouth (derived from the German word Wermut, "wormwood") is a wine flavored with aromatic herbs, but originally with wormwood. The highly potent spirits absinthe and Malört also contain wormwood.

Wormwood has been used for centuries as a moth repellent, general pesticide and as a tea/spray to repel slugs and snails. Before its toxicity was known it was used as the name implies as a worming medicine for both people and animals. Historic references to wormwood date back as far as 2000 B.C. in Egypt. Wormwood leaves contain absinthin a substance which can be toxic to other plants.

*Artemisia cana* is a species of sagebrush native to western and central North America. It known by many common names, including silver sagebrush, sticky sagebrush, silky wormwood, hoary sagebrush, and dwarf sagebrush.

This type of *Artemisia* was identified informally by its collector, Meriwether Lewis during the epic Lewis and Clark Expedition of 1807 while on the great plains collecting what he called "silky wormwood" and what appears to be – from his

drawing - *Artemisia vulgaris*, common mugwort which he described in the following passage from the journals:

"On these hills many aromatic herbs are seen; resembling in taste, smel [ sic ] and appearance, the sage, hysop, silky wormwood, southernwood and two other herbs which are strangers to me the one resembling the camphor in taste and smell, rising to the height of 2 or 3 feet; the other about the same size, has a long narrow, smooth, soft leaf of an agreeable smel [ sic ] and flavor; of this last the Antelope is very fond; they feed on it, and perfume the hair of their foreheads and necks with it by rubbing [ sic ] against it."

*Artemisia 'filifolia'* silver sagebrush is an aromatic shrub found in grasslands, floodplains and montane forests. The leaves have a narrow blade shape, are evergreen, grey-green in colour, and have a distinct aroma.

*Artemisia stelleriana* is known as Dusty Miller, but several other species bear that name, including *Jacobaea maritima* (*Senecio cineraria*), *Silene coronaria* (syn. *Lychnis coronaria*), and *Centaurea cineraria*.

*Artemisia arborescens* (tree wormwood, or sheeba in Arabic) is a very bitter herb indigenous to the Middle East used in tea, usually in combination with mint.

*Artemisia abrotanum*, *A. absinthium* 'Lambrook Silver' and *A. arborescens* may be grown as informal hedges. *Artemisia annua* is a large but neat plant with handsome, fragrant foliage, useful for filling gaps in the back of a border or providing contrast to smaller, more colorful plants.

Many artemisia varieties have insecticidal properties with wormwood being the most potent. Roman wormwood is less toxic and is used to flavor the drinks Vermouth and Campari. A sachet made of wormwood leaves will keep moths at bay.

## Medicinal Uses

Medicinally, *Artemisia* has been used as an anti-malarial plant for 2000 years in the East, its active ingredient, artemisinin (quinqhaosu) was isolated in 1972. Resistance to many other antimalarial drugs is now widespread, so artemisinin derivatives have become extremely important in the "Roll Back Malaria" programme of the World Health Organisation. Riamet is the trade name of a

combination malaria treatment. Synthetics derived from *A. annua* are now the most promising anti-malarials for drug-resistant strains of the disease. The artemisia annua grown in Vietnam has the highest concentration of artemisinin. Treatments containing artemisinin are now standard worldwide for malaria caused by the bacterium *Plasmodium falciparum*.

Artemisias used medicinally include some of the most bitter herbs known. Southernwood (*A. abrotanum*) has been cultivated since antiquity to repel insects and contagion. It was popular in posies (nosegays carried to ward off infection and unpleasant smells) until the 19<sup>th</sup> century. Bunches of southernwood and rue were placed in court to protect against the spread of jail fever from the prisoners. Another traditional use was as a cure for baldness and according to Culpepper who wrote in the “English Physician Enlarged” in 1653: “*the ashes of southernwood mixed with old salat (sic) oil helps those that have their hair fallen and are bald, causing the hair to grow again either on the head or in the beard.*”

Wormwood (*A. absinthium*) has been a household remedy since biblical times, its bitterness becoming a metaphor for the consequences of sin: “*for the lips of a strange woman drop as an honeycomb, and her mouth is smoother than oil; but her end is bitter as wormwood (Proverbs 5:3-4).* The word ‘absinthium’ means without sweetness and refers to the intensely bitter taste.

Essential oil of wormwood was an ingredient in Absinthe, an alcoholic aperitif first made by the Frenchman, Henri Pernod in 1797. Consumption of Absinthe became a serious problem in the 19<sup>th</sup> century both in Europe and in the United States. The use of essential oil of wormwood was banned in various countries, beginning with Switzerland in 1908, after discovery that the chemical component Thujone is addictive and in excess can cause hallucinations and damage to the central nervous system. And rightfully so as it has been said that the painter Vincent van Gogh was imbibing absinthe when he lopped off his ear to send to a woman. The *absinthin* being water soluble will wash off the leaves and leach into the soil interfering with and stunting the growth of plants in close proximity to the wormwood.

Today’s successors to Absinthe – anisette and vermouth do not contain Thujone. Tarragon, also known as *Artemisia dracunculus* used to be known as a dragon herb – a cure for poisonous stings and bites.

Mugwort, *Artemisia vulgaris* also known as common artemisia, felon herb, St. John's herb, chrysanthemum weed, sailor's tobacco, and moxa is a perennial member of the Compositae/Asteraceae family, and a close relative of wormwood (*Artemisia absinthium*). Mugwort has long been considered an herbal ally for women with particular benefit in regulating the menstrual cycle and easing the transition to menopause.

Mugwort was important in ancient celtic times especially for its uses in druidic rituals, being one of the nine (9) herbs used to repel evil and poisons, and used by the mother goddesses in fertility rites old beyond time. Its origin is from the Anglo Saxon word muegwrt or “midge plant” because of its use repelling insects. On the Isle of Man mugwort is known as ‘Bollan bane’ and is worn by Islanders on their national day, July the 5<sup>th</sup> . It appears in early Roman pharmacopoeias and we are told that the Romans planted it beside the road for Roman soldiers to wear in their sandals on long marches. Both the plant and its reputation for curing sore feet persisted: William Coles in his book, the Art of Simpling printed in 1656 assures us that: “*If a footman take mugwort and put it into his shoes in the morning he may go 40 miles before noon and not be weary.*”

Here in America the Hopi tribe in the southwest used *Artemisia frigida* to flavor corn. And in California certain varieties of artemisia were used to line the baskets where acorns – a native food source - were stored for winter. Bunches of wormwood lining the baskets (*artemisia* spp.) repelled the acorn worm. In short it has been known in almost every culture both for culinary, medicinal and practical uses..

Mugwort a tall and hardy European native with stout, angular, slightly hairy stems tinged with a purple hue. It has a pungent aroma when the leaves are crushed. In late summer the small reddish-yellow disk flowers cluster in long spikes at the top of the plant. Mugwort may reach to 6 ft or more in height. This tenacious herb has naturalized throughout North America and may be found growing wild in rocky soils, along streams and embankments, and in rubble and other waste places, particularly in the eastern United States. In some areas, including North Carolina and Virginia, mugwort is characterized as a noxious, alien weed.

Mugwort leaf and stem are used medicinally. For those of you studying or already adept in the study of aromatherapy it is interesting to note that Mugwort acts as a bitter digestive tonic, uterine stimulant, nervine, menstrual regulator, and anti-rheumatic. The volatile oil of mugwort includes essential chemical components

such as thujone, linalool, borneol, pinene, and other constituents. The herb also contains hydroxy-coumarins, lipohilic flavonoids, vulgarin, and triterpenes.

Mugwort added to bath water is an aromatic and soothing treatment for relief of aches in the muscles and joints. In a clinical trial, crushed fresh mugwort leaves applied to the skin were shown to be effective in eradicating warts . Taken as an infusion, mugwort is helpful in ridding the system of pinworm infestation. A species of mugwort (*A. douglasiana* – here once again we find David Douglas the renowned Scottish botanist who identified over 80 new species of plants in both N. America and Hawaii), common in the southwestern United States, was used by some western Native Americans as a prevention for poison oak rash. The fresh mugwort leaf was rubbed over areas of exposed skin before walking into poison oak habitat. The two plants often grow near one another like dock and nettles – not surprising that mother nature provides both the scourge and then the remedy.

In Chinese (as well as Japanese, Korean and most of the East) medicine mugwort, known as Ai ye or Hao-shu is highly valued as the herb used in moxibustion , a method of heating specific acupuncture points on the body to treat physical conditions. Mugwort is carefully harvested, dried and aged, then it is shaped into a cigar-like roll. This "moxa" is burned close to the skin or on the skin to heat the specific pressure points. It has been used in this way by the Chinese for over a thousand years to alleviate rheumatic pains aggravated by cold and damp. In Japan, some practitioners only use moxa for treatment.

Some people develop a contact dermatitis or allergic skin rash, if they are in contact with mugwort and certain other species of *Artemisia*. This food allergy has been called the mugwort-spice syndrome, or sometimes the mugwort-celery-spice syndrome. Oddly, people who are allergic to mugwort are also highly likely to be allergic to chamomile and should not take preparations made from either herb.

## **Cultivation - Artemisia In the Landscape**

*Artemisia* is a plant that should be on everyone's Xeriscape design list. *Artemisia* has plenty of uses in the garden landscape. It is a very drought tolerant evergreen and is excellent for xeriscaping. The plant is also particularly deer resistant and very low maintenance. Its graceful silvery foliage really complements other colors and makes them pop.

Grow artemisias for the magnificent silver foliage that complements nearly all other perennials and ties together diverse colors within the garden. They're nothing short of stunning next to white or blue flowers. They thrive in hot, dry, sunny conditions such as a south-facing slope. A number spread rapidly to the point of being aggressive, so consider limiting yourself to varieties listed below that are well-behaved. Some varieties to grow in south central Texas include:

**Artemisia abrotanum – southernwood**, (lad's love, old man) is a semi-evergreen, subshrub of Artemisia, grey-green in color with dull yellow flowers borne in panicles in late summer. It is winter hardy in zones 6 – 10. The dried leaves are used in sachets to repel moths and fleas.

**Artemisia absinthium – wormwood**, with grey-green deeply dissected leaves with silky hairs on both sides. *Lambrook silver* is a readily available variety of this artemisia and has luxurious silvery-grey foliage. This is an exceptionally bitter herb and has been used medicinally for the digestive system and is known for its anti-inflammatory effects. It is hardy in zones 3-9.

**Artemisia annua – Sweet Annie, sweet wormwood**, a very aromatic upright shrub with finely divided silvery-grey to greenish leaves. It has been used as an anti-malarial but also to check bleeding and lower fevers as well, it can be used as a flavouring for gin, vodka or tequila. It is hardy in zones 5-9 and thrives in our south central Texas climate.

**Artemisia arborescens – tree artemisia, tree wormwood**, an aromatic upright evergreen shrub with finely divided silver-grey leaves with small yellow flowers appearing in panicles in late summer and early autumn. Its leaves are used fresh or dried in herbal posies.

**Artemisia Californica – coast sagebrush, coastal sage, romerillo**, this is a shallow-rooted shrub that can grow to 5 feet tall. It has silvery-green leaves finely divided into threadlike segments clustered on the branches. It has been immortalized by the western author Zane Grey and who does not imagine riding a horse into the sunset through the sagebrush. It is also known as the “soft chaparral” because it combines shrubs with a soft-stemmed herbaceous understorey and is part of the coastal ecosystem that is home to many birds and small wildlife, such as the threatened, orange-throated whiptail lizard. As coastal shrubs disappear, so do the creatures that live there.

**Artemisia capillaries – fragrant wormwood**, a many branched shrub with purple stems and finely divided, bright green very fragrant leaves. Panicles of fragrant purple-brown flowers are borne in late summer. It is a bitter aromatic, diuretic herb that has been used for feverish illnesses, jaundice and hepatitis. Hardy in zones 5-8.

**Artemisia dracunculus – tarragon, French tarragon or estragon**, an upright perennial with branched stems and smooth pointed leaves. Its culinary uses are to flavor vinegars, egg dishes, salad dressings, mustard and sauces, such as béarnaise, béchamel and tartare. Hardy in zones 3-7.

**Artemisia ludoviciana – western mugwort, white prairie sage**, this is a clump-forming matting variety of perennial artemisia with silver green toothed leaves. Silver Queen has larger leaves and flowers less freely. Valerie Finnis has jagged, silve- grey leaves. Hardy in zones 4-9.

**Artemisia pontica – roman wormwood**, this is a vigorous ground cover type of artemisia, with upright stems and very finely cut grey feathery leaves. In Germany pontica is used to flavor wine, bitters, cordials and vermouth. It is hardy in zones 5-9.

**Artemisia vulgaris – mugwort, felon herb, Chinese moxa**, an aromatic perennial plant with red-purple stems and deeply cut dark green leaves. The variety 'oriental limelight' has yellow green variegated foliage. It is hardy in zones 4-10. It has been used as a digestive, nerve tonic and it increases perspiration. It is used extensively in Indian Ayurvedic medicine for the female reproductive system. It is among the few culinary artemisias and is used in the U.K., Germany and Spain in dishes of eels or carp, and in stuffings for geese, pork, duck and mutton. In China and Japan it is used to flavor rice cakes and the dried flowering tops are used for tea.

**Artemisia ludoviciana 'Powis Castle'** is a hybrid form that grows upright to 2-3 feet tall. Its finely divided foliage stays put, making it a welcome addition to the border and container plantings. Zones 7-9

**Artemisia ludoviciana 'Silver King'** is a fast-spreading variety with bright silvery-white leaves that often turn reddish in autumn. Plant it on a slope in poor soil to prevent erosion. It grows 4 feet tall and is hardy in Zones 4-9.

**Artemisia ludoviciana 'Silver Mound'** forms a low mound of soft, fine-textured foliage to 1 foot tall that does not spread. Cut it back after its spring flush of growth to prevent the plant from flopping open midsummer. Zones 5-8

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