

**ARTEMISIA ABSINTHIUM LINN (AFSANTEEN): A REVIEW**

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ABSTRACT

Artemisia absinthium linn (*Afsanteen*) is an aromatic, bitter, shrubby plant. This grows from 60 to 120 cm in height with a woody, hardy and high branched bearing stem. The Leaves of the plant, probably the best known species, have been used in medicines. The whole plant is an aromatic tonic and formerly enjoyed a high reputation in the debility of the digestive organs. It was also regarded as an anti-helminthic. Before the discovery of cinchona, it was largely used in intermittent but now a day it is mostly used on its own or in tea mixtures, for various digestive upsets, taken over a long period. However wormwood becomes habit-forming and will eventually cause serious brain damage. It is advisable to taken wormwood internally only under the supervision of qualified medical or herbal practitioner. Externally a

decoction is used as a gargle and in compresses for bruises. Oil discovered from fresh plants is used in homeopathic tinctures. The flowering stems are used medicinally. The constituents include an essential oil with thujone and thujole, a bitter compound organic acids and tannins.

KEYWORDS: *Afsanteen*, *Artemisia absinthium*, *Afsanteen* Vilayati.

INTRODUCTION

The history of herbal remedies in the treatment of many diseases dated back to ancient times. *Artemisia absinthium* or worm wood is a species of artimisia, native to temperate regions of Eurasia and Northern Africa and Northern United States. It is grown as an ornamental plant and is used as an ingredient in the spirit absintine as well as some other alcoholic drinks. *Artemisia absinthium* is herbaceous, perennial plant with fibrous roots. Leaves are spirally arranged. Basal leaves are upto 25 cm long, bipinnate or tripinnate with long petioles, uppermost leaf can be both simple and sessile. Its flowers are pale yellow tubular, and clustered in spherical bent down heads.^[1] The leaves of a plant, probably the best-known species, have been used in medicines and such beverages. It is a shrubby, perennial, silky plant. This plant grows from 60 to 120 cm in height with woody, hardy round High branch bearing stem.^[2] A perennial herb of tufted habit with tall, erect furrowed and angled stems, usually woody at the base and alternate, silvery green finely divided leaves. The hemispherical, yellow rayless drooping flowerheads are arranged in long racemose panicles. The fruit is cylindrical, slightly flattened achene, with no pappus. All parts of the plant are covered with a silvery white down.^[3]

The whole plant is an aromatic tonic and formerly enjoyed a high reputation in debility of the digestive organs. It was also regarded as an anti-helminthic. It is prescribed in form of poultice or fomentation as an antiseptic by distillation; it yields dark green or yellow oil, having a strong odour of plant and an acrid taste. The Unani morphology of *Afsanteen* has been described in detail by certain unani physicians. Stem is straight, long and aromatic with numerous branches. Bark is whitish green in color. The leaf of plant is about 2 inches long and has resemblance with leaves of Saitar. The leaves are greenish white in color. The flower has resemblance with flower of Babuna but smaller than. External color of flower is white but internally. It is yellow. There is smaller bulb at the base of flower which is filled with small seeds. The seeds are bitter in taste. The seeds has resemblance with seeds of Aspand. The taste of leaves and other parts is very bitter similar to Aloe-Vera and have peculiar hard smell. *Afsanteen* is of five types: Soosi, Tarmoosi, Nabati, Khorasani, and Roomi. It is found in mountaneous region of North Africa, Europe, Asia, Syberia, Mangolia, Khorasan and India.^[4, 5, 6, and 7]

Vernaculars

Arabic	<i>Afsanteen</i>
Bengali	Mastaru
Bombay	<i>Afsanteen</i>
Deccan	<i>Afsanteen</i> vilayati
English	Wormwood
Greek	Apsinthion
Gujarati	Mastaru
Urdu	<i>Afsanteen</i>
Sanskrit	Damar
Unani	<i>Afsanteen</i>

HABITAT

Wormwood, grows all over Europe in dry waste places, such as roadsides. It is native to the British isles but is generally uncommon. It is very old herbal remedy and is frequently grown in herb gardens. The common name, worm wood and the word for the aperit if verimouth, which used to be flavored with the herbs, have same linguistic origin.^[3]

ETHNO BOTANY

Artemisia absinthium is an aromatic, bitter^[2] shrubby.^[8] Perennial, hoary, pubescent^[9] silky, herbaceous plants.^[10, 11] This plant grows from 60 to 120 cm in height with a woody, hardy and high branched bearing stem.

STEMS

The stems are erect, angular^[9] and Leafy^[2] The stem branch twigs are having prominent ridges and furrows covered by white hairs.

LEAVES

Leaves are ovate; unequally 2-3 cut into spreading linear, on both surfaces characteristic features of microscopy are the T shaped trichomes on both leaf epidermis. Numerous spherical pollen grains, with three pores are seen in powdered drug.^[12]

FLOWERS AND FRUITS

Flowering takes place from July to August.^[11] The numerous flower heads are short. The capitula are small, globular, inclined and nearly as long. They are (3-4 mm) in width. The

bracts are gray, silky-Pubescent with a rounded tip. The outer bracts are linear oblong and pubescent, while the inner cones are ovate, obtuse, broad and have a transparent, membranous margin. The flowers are yellow and fertile.^[2] The heads are heterogamous i.e. bearing both male and female hermaphrodite flowers. Each flowering head is surrounded by (8-10) bracts.^[11]

TEMPERAMENT (MIZAJ)

The unani physicians have described the temperament of *Afsanteen* as Hot in First degree and dry in second degree^[4, 7, and 13] while according to some other physician it is Hot in second degree.^[11, 14]

ACTION

The drug *Artemisia absinthium* (*Afsanteen*) is described in details in ethnobotanical and classical unani literature and various actions of the plant have been reported such as anti-helminthic, anticold, anti-inflammatory, antimicrobial, antiprotozoal, antipyretic, antiseptic, appetizer, astringent, bitter, carminative, concoctive, cholagogue and melanogauge, demulsant, emmenogauge, liver tonic, nervine tonic, slightly narcotic, sedative, stimulant, stomachic, tonic and wound healing.^[6,11,13,15,16,17,18]

MEDICINAL USES

It is therapeutically used in various diseases such as anemia, amenorrhea, and anal fissure. anorexia, ascites, chronic fever, diphtheria, dyspepsia, epilepsy, helminthiasis, hysteria, hepatitis, and splenitis, inflammation of uterus, and stomach, jaundice, loss of appetite, menstrual disorder, mental exhaustion and nervous depression, otalgia, otorrhoea, palpitation, paralysis, facial-palsy, periodic fever, piles, renal calculus, scorpion and snake bite, skin diseases, sprain and bruise.^[5,6,7,11,12,13,14,17,18,19,20,21,22]

ADVERSE EFFECTS

The plant is contra indicated in pregnancy.^[22] The internal administration of large doses can lead to vomiting, stomach and intestinal cramps, headache, dizziness, and disturbance of central nervous system.^[2] Long term use may cause Absinthinism which can lead to hallucination nervousness, and mental deterioration. It has adverse effect on stomach.^[5, 7, 19, 20, and 23] Anisoon and Mastagi are commonly being used in unani medicine as corrective for adverse effects.^[7, 20]

PHARMACOLOGICAL STUDIES

A number of studies have been carried out on *Artemisia absinthium* in recent years, showing the diverse pharmacological effect. That it possessed. They are mentioned as follows

- **Anthelmintic**

An aqueous extract of fresh leaves has been demonstrated to possess anthelmintic effect. The extract given with sugar solution on empty stomach for 8-10 days is reported to expel round worm completely. The flavonoid artemisetin isolated from the plants exhibited marked antitumor activity against melanoma-B16.^[24]

- **Antibacterial**

Artemisia oils had inhibitory effects on the growth of bacteria (*Escherichia coli*, *Staphylococcus aureus*, and *staphylococcus-epidermidis* yeasts (*Candida-albicans*, dermatophytes). *A. absinthium* oil the most active against *staphylococcus* strains.

The oil extracted from the leaves is reported to have antibacterial and antifungal activity in 1:1000 dilutions, in large doses, the oil is narcotic poison.^[22]

- **Antimalarial**

The aqueous and alcoholic extracts of leaves showed antimalarial activity against a strain of *Plasmodium berghei* in mice.

- **Antiparasitic**

A study reported that the methanolic extract from *artemesia absinthium* was investigated as a potential antiparasitic effect.

Santonin possesses anti parasitic properties. While the ethanolic extract of the plant exhibits significant anti implantation activity in rats.

- **Antipyretic**

A study shows the fever induced, through yeast injection in the rabbit, and was reduced with the application of diverse fractions of *Artemisia absinthium* using an esophageal probe.^[2, 22]

- **Hepato-protective**

Anwar (1998) reported the hepatoprotective effect of *artemesia absinthium*. The clinical observation showed 80-90 % symptoms relief from viral hepatitis.^[25]

A reported the role of Arq *Afsanteen* in normalizing liver function, after cholidocolithotomy. The clinical experiments clearly revealed that Arq *Afsanteen* is helpful in early normalization of deranged liver functions in cholidocolithotomy patients.^[26]

CONCLUSION

Artemisia absinthium has been in use since times immemorial to treat wide range of indications. It has been subjected to quiet extensive phytochemical, experimental, and clinical investigations. An experimental study has demonstrated its antihelmintic, antibacterial, antimalarial, antiparasitic, antipyretic and hepatoprotective effect.

Looking upon wide prospects and potential of *Afsanteen* for various purposes, it is worthwhile to cultivate the plant at large scale. This will help in financial upliftment of poor and landless farmers.

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