



Wormwood (lat. *Artemisia*)

Eliseeva Tatyana, Chief editor of the project EdaPlus.info

Tkacheva Natalia, phytotherapist, nutritionist

Email: eliseeva.t@edaplus.info, tkacheva.n@edaplus.info

Abstract. The article discusses the main properties of wormwood and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. The chemical composition and nutritional value of the leaves are indicated, the use of wormwood in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of wormwood on the human body under certain medical conditions and diseases are analyzed separately. The scientific foundations of diets with its application are considered.

Keywords: beneficial properties, potentially dangerous effects, side effects, beneficial properties, contraindications, diets

Useful properties of wormwood

Table 1. Chemical composition of wormwood leaves (according to [Food+](#)).

Basic substances	100 grams of dried tarragon wormwood contains ^[4] :
Carbohydrates	50.22 g
Squirrels	22.77 g
Water	7.74 g
Alimentary fiber	7.4 g
Fats	7.24 g
Saturated fatty acids	1.881 g
Minerals	
Potassium	3020 mg
Calcium	1139 mg
Magnesium	347 mg
Phosphorus	313 mg
Sodium	62 mg
Iron	32.3 mg
Zinc	3.9 mg
vitamins	

Vitamin C	50 mg
Niacin	8, 950 mg
Vitamin B-6	2.410 mg
Riboflavin	1.339 mg
folate	0.274 mg
Thiamine	0.251 mg
Vitamin A	0.21 mg

What exactly is used and in what form

Wormwood root is used as a raw material for decoction, it is insisted on wine. Make an extract from the root. From **wormwood grass** and leaves prepare decoctions, napar. **Fresh chopped grass** is used as part of lotions, compresses, **wormwood juice** is used in means to increase appetite. On the basis of wormwood create a tincture. **Alcoholic extract** and **essential oil of wormwood** are also widely used in medical practice. Wormwood is part of various teas and medicinal preparations. In homeopathy, the herb and roots of wormwood are used for epilepsy and gynecological diseases. Smoking cigars from the dry grass of wormwood is prescribed for bronchial asthma. ^[5]

Medicinal properties

Wormwood root contains volatile oils, cineole, fenchon, borneol, camphene, thujone, inulin, resinous substances, organic acids, and some tannins. Preparations from the roots of this type of wormwood have a diuretic, antispasmodic, anthelmintic effect on the human body. Stimulate the functions of the stomach and increase the secretion of digestive juices.

In the herb of wormwood, prohamazulene bitternesses (absinthine, anabsinthine, artabsinus), absinthol volatile oil containing thujol, thujone and other terpenes, resinous substances and a small amount of tannins, malic and succinic acids are found. Wormwood also improves digestion, has a mild laxative effect, and enhances biliary motility.

In the herb of wormwood, in addition to the substances and bitterness listed and characteristic of the root part, cymene, camphene, poisonous thujone and dehydromarticaire ether are also found. This type of wormwood has a general strengthening effect on the human body. It is used in the practice of pain relief and acceleration of the process of childbirth.

Crimean wormwood herb contains volatile oils containing absinthol and pinene, artimine and tauremizine (stimulates respiration, increases blood pressure, improves heart function in acute heart failure), flavonoid axillarside. The medicinal value of Crimean wormwood is associated with the strengthening of the heart muscle, an exciting effect on the nervous system ^[6]

In official medicine

A diverse range of pharmaceutical preparations based on wormwood:

- Wormwood herb;
- Wormwood tincture. Apply 5-20 drops three times a day for half an hour before meals;
- Artemisia bitter thick extract;
- Tauremizine (tablets). Assign one tablet 2-3 times a day (each tablet 0.005 g);
- 0.25% solution of tauremizine in 1 ml ampoules. Administered subcutaneously and intramuscularly at 0.5-1 ml, intravenously - 1 ml with 10 ml of a 20% glucose solution in case of drug poisoning, sleeping pills, acute heart failure, collapse, infectious and other diseases that suppress the respiratory and vasomotor centers.

Artemisia flowers in packs. The pharmacy network receives flower baskets of wormwood, packaged in boxes, called "citrus seed". This name is given because the flower baskets of wormwood resemble seeds in appearance. ^[6]

In folk medicine

In ancient times, with the help of a wormwood drink, participants in the Olympic Games relieved muscle and nervous tension. Modern folk healers successfully use wormwood as part of medicinal potions.

As a diuretic, choleric, anticonvulsant and anthelmintic, a decoction of the root of wormwood is used. Half a tablespoon of roots is poured with water in an amount of 200 ml. After boiling for about 10 minutes on low heat, let cool.

With a reduced secretion of gastric juice, bile, constipation, they drink a decoction of wormwood herb. One teaspoon of herbal raw materials is brewed in a glass of boiling water, let it brew. Apply throughout the day in a tablespoon half an hour before meals. Such a drug is useful for stress and sleep disorders, it stabilizes the nervous state and improves sleep patterns.

Herb wormwood in the form of an alcohol tincture or decoction is appropriate as a medicine for mycotic pneumonia (caused by oversaturation with antibiotics). Half a tablespoon of herbal raw materials is poured into a glass of water and boiled for 5 minutes over low heat, insisted for 30 minutes. Drink from one tablespoon to 50 ml of the resulting liquid twice a day before meals. Such a decoction mobilizes the body's defenses.

Napar from Crimean wormwood grass (a handful of chopped herbs and 200 ml of boiling water) is drunk in a tablespoon 3 or 4 times a day for pneumonia, bronchiectasis, bronchial asthma, circulatory failure, acute myocardial infarction.

In obstetrics and gynecology, a decoction of wormwood is prescribed for amenorrhea and hypomenstrual syndrome, for nausea and indisposition of pregnant women, and also as a remedy that anesthetizes the birth process. In the absence of physiological bleeding, 3 tablespoons of wormwood herb should be infused for 24 hours in a glass of cold water. Drink an infusion of a tablespoon every 3 hours.

An infusion of wormwood herb is used to stimulate the activity of the digestive tract and improve appetite (single dose - 3-8 g).

Powders from inflorescences of wormwood seaside in combination with honey (10 g of raw materials are mixed with 100 g of honey) are prescribed for helminthic invasion.

An infusion of tarragon wormwood herb (6 g of raw materials per glass of boiling water, a third of a glass before meals 3 times a day) is prescribed for catarrh of the stomach, for chronic gastritis with low acidity of gastric juice, for dropsy, flatulence and as an antiscorbutic agent.

Wormwood helps in the treatment of alcohol addiction. Pour 4 tablespoons of oregano and a spoonful of chopped wormwood into a glass of water. Drink such a boiled and filtered broth in a tablespoon three times a day for two or three months. Approximately on the 14th day of using this drug, dependent people feel indifference to alcoholic beverages, up to complete rejection.

- **External funds:**

Fresh juice of wormwood heals wounds and abscesses; compresses from steamed grass are recommended for inflammation of the mammary gland and to accelerate the maturation of abscesses; infusion rinse the mouth with toothache, make baths with sweating feet.

Fresh crushed leaves of wormwood are successfully used for hemorrhages on the body due to injuries, dislocations, sprains of tendons.

The fresh juice of the annual wormwood heals the scab.

Poultices from the inflorescences of wormwood seaside are applied to areas of the skin affected by cancer, to corns and warts.

An infusion of wormwood inflorescences is used for rubbing with muscular and articular rheumatism, neuralgia and lumbago [6,7,8]

in oriental medicine

Avicenna often practiced healing various ailments with the help of **wormwood**. Wormwood decoction was used by the healer to treat sore eyes; as a diuretic and choleretic effect; to expel helminths from the body; recommended to women to normalize the cycle. Avicenna treated jaundice and dropsy with fresh juice of wormwood. And he offered wormwood wine as a means of stimulating digestive activity.

Wormwood was considered by Avicenna as part of a system for treating kidney stones and erosive formations in the cervix. To baths from the herb of wormwood, he attributed the value of an abortifacient. A decoction of wormwood in the form of lotions was recommended for the treatment of headaches and rhinitis.

halitosis and even epilepsy are treated with an infusion from the flower part of wormwood.

Chinese medicine in the treatment of diseases of various etiologies widely practices the method of non - burning cauterization - heat puncture - in which the herb of wormwood is used in the form of special cigars.

Wormwood herb is common in Indian medicine as a remedy for combating helminthic invasions and for general strengthening of the body [5]

In scientific research

English botanist, pharmacist and physician Nicholas Culpeper, the creator of a popular herbalist in Britain, described 3 types of wormwood - bitter, sea and Roman (Pontic) - and characterized their properties.

Culpeper's compatriot, botanist, mycologist and pharmacist John Hill wrote about the medicinal value of wormwood. He claimed that a tincture from the flower part of the plant "normalizes digestion, increases peristalsis, regulates acidity and improves the flow of bile." The scientist mentioned wormwood wine as an effective remedy for improving digestive functions.

Culpeper also emphasized the healing effect of Roman wormwood juice on the liver and spleen, wrote about the use of wormwood tincture for gout. [9]

Modern medicine often turns to the study of the medicinal properties of wormwood. The scientific work of German scientists (I.K. Baumann, H. Glatzel and others) is based on the effect of wormwood on the secretion of bile and pancreatic secretions. A comparative aspect of the properties of the

tincture of wormwood and wormwood is highlighted in the study of M. Locatelli Correa-Ferreira , G. Rodríguez Noleto . [10,11]

Domestic researchers also consider wormwood as a plant with great medical potential. Within the framework of the international scientific and practical conference “Traditional medicine of the 21st century. Treatment to achieve the goal ”Ivanova E. presented an extensive report where the chemical composition of the plant and its medicinal properties were analyzed. The value of wormwood essential oil in the treatment of infectious diseases and chronic inflammatory processes was considered in their work by Ramazanova B., Akyshebaeva K., Mamatova A. The object of research in the thesis of Zarubina L. is the antimicrobial activity of the components of wormwood. The scientific work of Itzhanova Kh. is devoted to the characteristics of the biologically active substance - arglabin . In particular, the antitumor properties of arglabin are emphasized . The role of another representative of wormwood in the fight against oncological diseases - wormwood annual - is revealed in a study by Zhigzhitzhapova S. Artemisinin , secreted by wormwood, is actively introduced by specialists into the practice of anticancer therapy. Medical significance and medicinal potential of wormwood are analyzed by Omarova R., Sakipova Z., Bekezhanova T. [12-17]

Weight regulation

Wormwood is used in detoxification programs , with its help they cleanse the body, get rid of toxins and parasites. The period of wormwood cleaning is combined with a strict diet. The use of wormwood for such purposes should be carried out under the strict supervision of a physician, overdoses should be avoided.

In cooking

Tarragon wormwood (other names: tarragon, tarragon, dragon wormwood) is a wonderful spicy herb that has been used by culinary specialists for centuries: it is added to sauces, marinades, pickles, drinks, meat and poultry dishes.

It is on herbal raw materials from this plant that the famous Tarragon drink is prepared.

Cooking tarragon at home is quite simple. For homemade tarragon you will need: a bunch of fresh tarragon, half a lemon, 2 teaspoons of sugar, chilled boiled water, crushed ice. Separate stems from leaves. Cut the tarragon stalks and blanch in a little water and let cool. Grind the leaves with sugar, pour non-hot boiled water (water temperature about 40 ° C) and let it brew. Later, combine both infusions, pour into a glass container and cool in the refrigerator. Strain the drink, pour into glasses, adding ice cubes and a small amount of lemon juice.

Wormwood is productively used in the alcoholic beverage industry. The main component of the legendary absinthe is an extract of wormwood.

The preparation of various sauces greatly benefits from the addition of this spicy herb.

Creamy tarragon sauce is quick and easy to prepare. To implement this recipe, you need half a bottle of dry white wine, finely chopped small onion, black pepper, salt, 2 sprigs of fresh tarragon and another ½ tablespoon of chopped leaves, one cup of heavy cream. Simmer tarragon stalks in wine, pepper and onion in a deep frying pan (about 20 minutes). Remove the stems (they will no longer be needed), pour the cream into the pan, reduce the sauce over low heat until it thickens. Salt and add finely chopped tarragon leaves. Serve with chicken, fish or vegetables. [eighteen]

In cosmetology

Wormwood has cosmetic value. At home, you can use wormwood decoction to cleanse the skin of the face. A steam bath with wormwood tones and promotes better blood circulation. Scrub of crushed wormwood herb and honey-based salt grains perfectly cleanses oily skin. Wormwood infusion and decoction are used as a hair rinse. Essential oil and extract from wormwood are components of various creams and lotions.

In perfumery

The bitter aroma of wormwood plays beautifully in perfume compositions. Popular spirits with the smell of wormwood *Fleur Defendue* by Lolita Lempicka and *Absinth Nasomatto* .

Other uses

The smell of wormwood helps to endure sea rolling. It is worth smelling a bunch of wormwood grass, as seasickness recedes.

From a decoction of wormwood grass, a natural dye is obtained, from yellowish green to rich dark green.

Wormwood is an effective natural exterminator. How to use wormwood against fleas? Armfuls of sagebrush, spread out on the floor in living quarters, allow you to get rid of these insects. ^[eight]

Dangerous properties of wormwood and contraindications

Theoretically, wormwood interferes with the effectiveness of acid-reducing drugs. The thujone contained in wormwood may reduce the clinical effect of phenobarbital use .

Wormwood is contraindicated in pregnancy and acute inflammatory conditions of the alimentary canal, which are accompanied by bleeding. Prolonged use can cause mental disorders and lead to poisoning ^[6]

Austrian wormwood medicines are contraindicated for obesity in the elderly; it is forbidden to take wormwood tarragon during pregnancy.

Medicines from wormwood should be strictly dosed, since this type of wormwood belongs to poisonous plants ^[7]

The use of wormwood is prohibited for ulcers, asthmatics, allergy sufferers and those suffering from gastritis.

Botanical description

It is a shrubby perennial plant of the **Asteraceae** (*Asteraceae*) family.

origin of name

The generic name of the plant in Latin (**Artemisia**) is associated with the Greek goddess Artemis, who patronized hunters and women in childbirth. In the people, wormwood is called Chernobyl, God's tree.

Types of wormwood

The species diversity of the shrub is unusually wide, the most common types of wormwood are:

- **Artemisia vulgaris** - the habitat of this species - Europe, the northern part of the African continent, the Far East of Russia, Asia, North America; like most types of wormwood, it has medicinal value, is used *in cooking* ;

- **Austrian wormwood** - a representative of the European flora; a medicinal plant whose essential oil is also used *in the perfume industry* ;
- **Medicinal wormwood (lemon)** - a species native to Asia Minor and the Mediterranean; grows in the Altai mountains, in the Caucasus, in Siberia. It has a decorative value, a delicate and rather mild aroma, used *in homeopathy* ;
- **Wormwood** - the plant is grown in Europe, the USA, Russia, in northern Africa. The species is known for its role *in the production of absinthe* ;
- **Wormwood tarragon (tarragon)** - grows wild in Europe, Asia, and America. Cultivated for the purpose of using tarragon *in cooking* .
- **Wormwood annual** - found in the south of Europe, in Central Asia. Produces the substance artemisinin , which is a key ingredient *in antimalarial drugs* .
- **Wormwood field** - grows in Russia, in the west of Siberia, in the Central Asian countries.
- **Primorsky wormwood** - grows along the coasts of the Black and Azov Seas; like many types of wormwood, it has *medicinal uses* ;
- **Wormwood** is an endemic of Central Asia. Although the plant is used *for the preparation of medicinal raw materials* , it is important to remember that it is highly toxic, it is poisonous;
- **Crimean wormwood** - grows on the plains of the Crimean peninsula, not far from the coasts. Medicinal plant, has a specific strong smell. ^[one]

Wormwood root is vertical, with many small brown roots. The stems are tall, paniculate, branched, brownish -gray. The leaves are brown-green above and grayish-white below. Small flowers are pink or reddish, collected in inflorescences of the basket. The fruit is a seed. Wormwood blooms from July to August. The fruit ripening period is August and September.

Wormwood grows almost everywhere, with the exception of highlands. In the steppe area, it is not as common as in the forest-steppe. The plant can be found along rivers, on the shore of a lake or pond, in wet areas of glades and forest edges. Wormwood also took root as a weed, familiar to city parks, gardens, abandoned areas ^[2]

Growing conditions

Wormwood is a plant that does not require special conditions for growth and has a high yield. Grass is grown even in those areas that turned out to be unsuitable for most representatives of the plant world. Wormwood is propagated with the help of seeds and vegetatively - by dividing the bush. Uncollected grass bears fruit, forms micro thickets , which are used to harvest medicinal raw materials. One plant can produce about 100,000 seeds that germinate well from the soil surface and at shallow depths. ^[3]

The collection of wormwood in terms of the timing and specifics of the harvesting of the raw mass depends on the type of plant. When it comes to **wormwood** , it is important to know that amateur pickers with little experience sometimes collect species of the same genus that are similar in appearance instead of wormwood. Most often they confuse and collect by mistake **Austrian wormwood** and **common wormwood** . Austrian wormwood is characterized by low stems and whitish, not large leaves, lined into thin -line segments.

Wormwood leaves are harvested before the plant blooms (June-July), separating them from the petioles when cut, and the grass is harvested in the initial flowering period (July-August), cutting the stems with a knife. If you are late with the harvest, then the grass becomes dark gray when dried, and the baskets (inflorescences) turn brown, dull brown and crumble . Drying of grass and leaves takes place in places protected from moisture and with good ventilation. When working with wormwood, the collector must adhere to safety rules, since the plant belongs to the category of potent:

During the collection, you can not touch your eyes, lips, face skin, eat food. After completing work, wash your hands thoroughly with disinfectant or soap.

At the following stages of work (processing of raw materials, drying, sorting, packaging), you need to use a respirator to protect the respiratory tract, protect your eyes with special glasses, you should refrain from eating, you should not touch your eyes and face with your hands.

After finishing work, it is necessary to carefully shake out outer clothing, wash your face and wash your hands clean.

When crushing and grinding wormwood, especially in rooms without a sufficient supply of fresh air, dust provokes irritation of the mucous tissues of the respiratory organs, a feeling of squeezing in the throat, suffocation, a bitter taste in the mouth, which persists for a long time.

If wormwood poisoning occurs, it is extremely important to consult a doctor immediately.

Wormwood grass is harvested during the flowering period (July-August), separating the apical part and side stems with a knife or sickle.

Crimean wormwood is also harvested in the phase of intensive flowering, cutting off the grass with a knife or sickle, and with dense and extensive growth, it is mowed, avoiding coarse root parts getting into the raw material.

Harvesting **wormwood**, taking into account seasonal conditions, is carried out in the last ten days of August - the first days of September. The grass is cut with a sickle. Wormwood is dried in direct sunlight, and then threshed. The resulting mass is sieved twice, using a sieve with a coarse and fine mesh, separating unnecessary components. Reusable sifting ensures the receipt of pure raw materials from inflorescences-baskets.

The shelf life of herb wormwood Crimean and wormwood common 3 years. Leaves and grass of wormwood are stored for up to 2 years ^[2]

Power circuit

Most animals avoid sagebrush because of the bitterness contained in the plant. At the same time, it is known that both wild animals and pets sometimes use the anthelmintic effect of wormwood and eat grass when they need to get rid of parasites. Wormwood roots lose their bitterness in winter, during severe frosts, and even become sweetish in taste. At this time of the year, small rodents are not averse to feasting on them. Different types of wormwood have the opposite effect on the animal's body. While *tarragon wormwood* is a good addition to cattle feed, species such as *Tauride wormwood*, *Meyer's wormwood*, and *gray wormwood* are toxic and dangerous. Poisoning by these species occurs if the hay is littered with wormwood. Even a small concentration of dry wormwood in hay or green wormwood in herbage carries a significant dose of poison for horses and sheep. The picture of acute poisoning can be replaced by the death of the animal if it is not helped in time.

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An extended HTML version of the article is available on the site edaplus.info.

Sagebrush - useful properties, composition and contraindications

Eliseeva Tatyana, Chief editor of the project EdaPlus.info

Tkacheva Natalia, phytotherapist, nutritionist

Email: eliseeva.t@edaplus.info, tkacheva.n@edaplus.info

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