



Мать-и-мачеха (лат. *Tussilágo*)

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Abstract. The article discusses the main properties of mother-and- stepmother and its impact 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 plant are indicated, the use of coltsfoot in various types of medicine and the effectiveness of its use in various diseases are considered. The potentially adverse effects of mother-and- stepmother on the human body under certain medical conditions and diseases are analyzed separately. The scientific foundations of diets with its application are considered.

Key words: mother and stepmother , useful properties, potentially dangerous effects, side effects, contraindications, diets

Beneficial features

Table 1. The chemical composition of coltsfoot (according to [Food+](#)).

Main substances (g / 100 g):	Fresh feijoa [1]
Squirrels	2.47
Fats	1.74
Minerals	
Potassium	0.295
Calcium	0.463
Magnesium	0.228
Sodium	0.057
Iron	0.912
Zinc	0.0353
Copper	0.081

What exactly is used and in what form

In the treatment of various diseases in the framework of official medicine and in the recipes of traditional healers, flower baskets and coltsfoot leaves are used, from which decoctions and infusions are prepared. The leaves and inflorescences of the coltsfoot are part of the nursing and diaphoretic herbal preparations. Fresh leaf juice is prescribed for both internal and external use. Leaf extract with syrup is used during rehabilitation therapy. Externally, coltsfoot is used in the form of lotions (prepare gruel from fresh leaves), compresses, rinses. [3]

Medicinal properties

The leaves and flowers of coltsfoot contain triterpene saponins (faradiol), flavonoids (rutin, hyperoside), bitter glycoside tusilagin , mucus, tannins, traces of volatile oils that act antibacterial and anticonvulsant , carotenoids (taraxanthin dye), silicon, malic and gallic acids, mineral salts, polysaccharides (inulin, dextrin). The flowers contain phytosterols . The leaves also contain sitosterol and the trace element zinc. [5]

What is coltsfoot used for? Basically , as an expectorant, emollient, anti-inflammatory, mild diaphoretic, choleretic and weak antispasmodic. In scientific medicine, an infusion of coltsfoot leaves is prescribed for laryngitis, tracheitis, chronic bronchitis, bronchopneumonia, bronchial asthma, and bronchiectasis.

The mother-and-stepmother justified itself as an effective disinfectant for abscess and gangrene of the lungs. In folk medicine, in addition, an infusion of leaves is recommended for fever, catarrh of the stomach, intestines and bladder, with an inflammatory process in the kidneys, dropsy, general physical exhaustion; to increase appetite and improve digestion in chronic enterocolitis.

Raw coltsfoot juice is considered an effective diaphoretic and choleretic agent. Outwardly, an infusion of leaves is used for rinsing with sore throat, for douching with general diseases of the vagina, while enhancing the therapeutic effect by ingesting coltsfoot infusion in a tablespoon up to 6 times a day. [6]

In official medicine

In the assortment of pharmacy products, you can find coltsfoot leaves, dry raw materials in packages of different weight values.

In folk medicine

- **When the mucous membrane of the** upper respiratory tract is inflamed, tea from the coltsfoot is useful: a tablespoon of flowers is brewed in a glass of boiling water and allowed to brew for a quarter of an hour. Drink warm 100 ml twice a day.
- **As an expectorant and enveloping agent** in inflammatory processes of the upper respiratory tract, a decoction is recommended for children and elderly patients: a tablespoon of coltsfoot leaves is poured into 200 ml of water and boiled over low heat. Let it brew for 10 minutes. Take half a glass three times a day (for adults, this decoction should be given with the addition of other herbs). [5]
- **When coughing** , an infusion is prepared from a tablespoon of the mixture (take all herbs equally) of coltsfoot leaves, black elder flowers, tall and lime-colored mullein, rhizomes of couch grass and comfrey, brewed in a glass of boiling water. Withstand the infusion for at least 8 hours and take 50 g four times a day.
- **For liver diseases, rashes, spots on the body**, a tablespoon of a collection of coltsfoot flowers, rue grass and highlander (taken in proportions 5:3:10) is steamed in 200 ml of boiling water, let it brew for 10 minutes. Drink infusion in an amount up to 3 glasses per day.

- With pulmonary tuberculosis, freshly squeezed juice from the leaves of the coltsfoot is drunk for a long time, 4 tablespoons per day. ^[7]
- **When coughing, as an expectorant**, an infusion is advised: 2 tablespoons of a mixture of coltsfoot leaves, large plantain and licorice root (in a ratio of 3:2:2), pour 400 ml of boiling water, let it brew. Take 0.5 cup three times a day. ^[6]
- **With tonsillitis**, the composition is useful: leaves of coltsfoot, raspberry and sage, calendula flowers (all herbs equally), chop, mix. Steam a tablespoon of this collection in 200 ml of boiling water, let it brew for half an hour, strain and drink 100 ml of infusion three times a day.
- **For whooping cough and bronchiectasis**, take coltsfoot leaves and pine buds in equal parts. Grind the ingredients, mix well. Pour 2 tablespoons of the collection with a glass of cold water and let it brew for 2 hours. After boiling for 5 minutes, strain and drink 1/3 cup daily, observing the same intervals between doses.
- **For colds**, syrup is recommended. To prepare it, you will need: 2 cups of coltsfoot flowers, lemon juice (from 2 lemons), 1.5 liters of water, 1.5 kg of sugar. Peel the inflorescences from the receptacle, rinse thoroughly, pour boiling water over. Insist for a day. After the infusion, strain, pour the juice of 2 lemons into it, add granulated sugar and cook until it thickens. Pour the warm syrup into jars and store in a dark, cool place. For colds, add to tea, milk.
- As a **diuretic**, an infusion helps: prepare a collection of coltsfoot leaves, raspberries and oregano herbs (in a ratio of 2: 2: 1). Pour a tablespoon of this mixture in a thermos with 200 ml of boiling water and leave overnight. Strain the infusion. Drink hot before bed.
- **With duodenitis**, it is recommended to take coltsfoot with honey. Boil a tablespoon of dry coltsfoot leaf in 200 ml of boiling water. Allow to cool slightly, strain, add a tablespoon of honey. Reception up to three times a day, a tablespoon.
- **For diseases of the bladder**, mix a dry leaf of coltsfoot, bearberry and lingonberry (each herb should be taken equally). Brew and drink like regular tea.
- **Cough remedy**: 28 g each of coltsfoot leaves, fennel, veronica and 14 g of orris root. Mix the herbs, steam 3 tablespoons of the collection in 4 cups of boiling water, let it brew for 2 hours, strain and take a tablespoon every two hours. You can add some honey.
- **Remedy for sore throat and hoarseness**: 42 g of coltsfoot leaves, 56 g of marshmallow root, 28 g of licorice root, 14 g of orris root. Mix all the ingredients, steam 3 tablespoons of the herbal mixture in 4 cups of boiling water, let it brew for a quarter of an hour, then strain and bring to a boil again. Sweeten with honey and drink 2 cups daily. ^[3]

Externally:

- Lotions with fresh juice (or crushed leaves of coltsfoot) treat purulent wounds, ulcers, abscesses.
- With hair loss and dandruff, accompanied by itching of the scalp, a strong decoction of coltsfoot and nettle leaves is recommended for washing (4 tablespoons of each herb per liter of water).
- With erysipelas, the affected areas are sprinkled with powder from the leaves of the coltsfoot. ^[7]
- For douching, a decoction is prepared from the leaves of the coltsfoot at the rate of 50 g of raw material per liter of water. Boil the broth for 5 minutes, strain, cool to the desired temperature. ^[6]
- For headaches, fresh coltsfoot leaves are applied with the smooth side to the forehead and temples.
- With rhinitis, the juice of fresh leaves is instilled into the nose.
- For colds, inhalation with coltsfoot and chamomile helps. A teaspoon of coltsfoot leaves and 2 teaspoons of chamomile flowers pour 0.5 liters of boiling water, boil for a couple of minutes, let cool to the desired temperature. Breathe over herbal steam for about 10 minutes.

- When mastitis begins, compresses are recommended from the leaves of the coltsfoot, soaked in hot milk.
- With bronchial asthma in children, it is advised to pour 40 dry leaves of coltsfoot with 0.5 liters of vodka. Leave the raw material overnight. On the first evening, put the leaf soaked in vodka on the back of the child. The next day, attach the sheet to the chest. So alternate treatment for more than a month.
- With thrombophlebitis, brew 3 tablespoons of chopped coltsfoot grass in 200 ml of boiling water, let it brew for half an hour, then strain. Use infusion for compresses.
- **Bath with coltsfoot**
200 g of flowers and leaves of coltsfoot pour 3 liters of boiling water, boil the broth for a quarter of an hour, let it brew, strain and add to a full bath. ^[3]

in oriental medicine

In Chinese medicine, coltsfoot flowers (*kuan dong hua*) are used to treat wet coughs accompanied by copious phlegm; to activate the lungs.

In scientific research

Nicholas Culpeper in his herbalist (The complete Herbal , 1653) indicated that "... fresh leaves, juice or syrup from coltsfoot are suitable for the treatment of hot dry cough, wheezing and shortness of breath." Also, according to the records of a British healer, coltsfoot remedies help with fever, erysipelas, burns and blisters. ^[eight]

The pharmacological and phytochemical aspects of the study are the aim of the scientific work of a group of Chinese scientists (Li K.Y., Tsang T.Zh. and others). ^[9]

Karomatov 's article is devoted to the medicinal potential of coltsfoot I.J. , Ibatova H.B., Amonova M. ^[10]

The composition of water-soluble polysaccharides contained in the leaves of the coltsfoot and the significance in antiallergic therapy was studied in the work of Korzh A.P., Guryev A.M., Belousov M.V. and others ^[11]

In cooking

The coltsfoot flowers are edible. They are added to salads, honey is insisted on them. Dried flowers are added to the dough for pancakes or fritters, in pastries. Young leaves of coltsfoot are added to soups, salads, stews, after boiling them to get rid of bitterness. Dried and fresh leaves are used in herbal teas.

- Carrot salad with coltsfoot leaves

For the salad you will need: 50 g of fresh carrots, 30 g of coltsfoot leaves, 30 ml of kefir, salt to taste. Grate the carrots, rinse the coltsfoot leaves thoroughly under running water, chop, mix with carrots, season with kefir or yogurt without additives and salt.

- Sauerkraut and coltsfoot salad

Required products: 300 g of sauerkraut, 100 g of young leaves of coltsfoot, 40 ml of vegetable oil. Rinse the leaves of the coltsfoot, finely chop, mix with sauerkraut and season with vegetable oil.

- Soup with coltsfoot leaves

For the soup you will need: 100 g of fresh coltsfoot leaves, 200 g of potatoes, salt to taste, sour cream for serving. Cut the potatoes into slices, rinse the leaves of the coltsfoot well and chop finely. Boil potatoes until half cooked, add coltsfoot leaves, bring to a boil, remove from heat and let the soup brew. Salt to taste and serve with sour cream. ^[3]

- Honey with coltsfoot

Preparing such herbal honey is simple: separate the inflorescences of the coltsfoot from the cups, disassemble the inflorescences-baskets. Pour the prepared flower mass into a sterilized glass container and pour liquid honey to the top. Infuse honey in a warm place, on a windowsill well lit by sunlight, etc. Soak honey for 6 weeks. Then strain into a separate container and store in a cool place.

- Herbal lollipops with coltsfoot

Ingredients: 15 cups coltsfoot leaves, 5 cups water, 450 g sugar, 2 cups corn syrup, 3 tablespoons butter, a pinch of baking soda, a tablespoon vegetable oil.

Rinse the leaves thoroughly, put in a saucepan, pour water. Bring to a boil, cook for 3 minutes, then add sugar, corn syrup, butter and boil the mass over low heat until a drop of syrup thrown into cold water hardens into a tight ball (the so-called sugar syrup sample). Remove from heat, add soda, mix and beat with a mixer until a thicker and more viscous consistency. Lubricate a mold or a deep frying pan with vegetable oil and put the candy mass into it for solidification. Frozen candy layer split into pieces. These lozenges help relieve sore throats and coughing fits and are a great natural treat.

- Coltsfoot Wine by Monica Wilde

Required: 5-liter container filled with coltsfoot inflorescences, 5 liters of water, juice and zest of two oranges and one lemon, wine yeast (bag), yeast nutrition, 1 kg of sugar (for dry wine) or 1.6 kg of sugar (for semi-sweet wine).

Boil water, add sugar, cook over low heat until sugar is completely dissolved. Pour orange and lemon zest into hot syrup and cool to 21 °C. Add coltsfoot flowers, citrus juice, wine yeast and top dressing to the cooled syrup. Stir, cover tightly and leave in a warm place for a week. Stir daily. After a week, strain into a fermentation bottle. Keep the wine in a warm place for 3 months. After that, carefully (without lifting the sediment from the bottom), pour into a bottle, hold for another 2 or 3 months. Then bottled. ^[13]

Sorbet from French chef Marc Weir (Tussilago Flowers Sorbet recipe from Marc Veyrat)

To prepare an exquisite recipe, you will need products: 30 fresh coltsfoot inflorescences, 125 g of sugar, 400 ml of mineral water, a little lemon juice, half the protein of one large egg.

Grind the inflorescences into a crumbling flower mass. Separate the flowers from the sepals. Boil water with sugar, add lemon juice. Pour coltsfoot flowers into boiling syrup, boil for 2 minutes. Strain through a sieve and let the flower syrup cool. Then add the egg white and beat thoroughly. After that, cool the sorbet in the freezer or ice cream maker. If the sorbet is prepared in the freezer, it must be periodically removed from the refrigerator and whipped to form the desired structure.

When serving, you can serve sorbet with fresh coltsfoot flowers and caramel threads. ^[12]

In cosmetology

- Emollient herbal cream for dry skin

Ingredients: tablespoon of coltsfoot extract, 1 tablespoon of lanolin, half a cup of olive or corn oil, 1 tablespoon of fresh psyllium juice.

Mix lanolin and oil, stirring, gradually add plantain juice. Add coltsfoot extract, bring everything to a homogeneous state with a mixer or in a blender.

- Face masks with coltsfoot

Mask for oily skin

Pour 2 tablespoons of dried and finely chopped leaves of coltsfoot with boiling water until gruel. Heat the mixture over low heat and let cool. Such a mask gives an anti-inflammatory effect, evens out the functioning of the sebaceous glands.

Mask for normal skin

0.5 cups of fresh stems, 0.5 cups of kefir. Rinse the leaves, grind to a mushy state, mix with kefir. Apply a face mask. Wash off with warm water after a quarter of an hour.

Mask for dry skin

Pour 2 tablespoons of finely chopped coltsfoot leaves into 200 ml of hot milk, let it brew, mix thoroughly, apply the mask on clean face skin. Wash off with water after a quarter of an hour.

For problematic skin, rashes, the following cosmetic recipe is effective. Steam 2 tablespoons of finely chopped coltsfoot leaves in 200 ml of boiling water and keep in a water bath for at least 5 minutes. Allow to cool, strain and mix the infusion with 2 tablespoons of vodka. Use this "lotion" to wipe the cleansed skin of the face, twice a day.

Wrinkle mask

3 tablespoons of crushed coltsfoot leaf pour 100 ml of hot water. Keep the infusion for a quarter of an hour, then strain. Select 2 tablespoons of infusion, combine with 2 tablespoons of sour cream, bring to a homogeneous state, apply on clean face skin, for 20 minutes. Wash off the mask first with warm water, then with cool water.

- Hair rinse with coltsfoot

Useful coltsfoot for hair. To improve and strengthen them, prepare a decoction: burdock leaves and coltsfoot (in a ratio of 1: 1) pour water and boil in a water bath for 20 minutes. Rinse washed hair with warm decoction.

To strengthen thin and brittle nails, it is recommended to wipe them with a composition of lemon juice, coltsfoot juice and vitamin A oil solution.

- Bath for nails

Dissolve a tablespoon of sea salt in a glass of coltsfoot infusion. Keep your nails in this infusion for 10 minutes. Then gently wipe the nails dry and smear with a nourishing cream.

If the nails exfoliate, it is useful to make a mask: mix a teaspoon of any hand cream with a teaspoon of ground red feather and coltsfoot juice. Keep the mask on the nails for 5 minutes, then rinse. ^[3]

Other uses

Dried and burned to an ashy state, coltsfoot leaves are used as a substitute for ordinary kitchen salt if it needs to be excluded from the diet due to a certain diet, etc.

Toothache is relieved by smoking special cigars made from powdered coltsfoot leaves. The smoke of such a cigar must be held in the mouth.

Dangerous properties of coltsfoot and contraindications

Coltsfoot can cause an allergic reaction in people with intolerance to its components. With uncontrolled use and in large doses, the plant can have a toxic effect on the liver (due to the content of pyrrolizidine alkaloids in coltsfoot).

Coltsfoot drugs may increase the risk of bleeding. The risk group includes patients with various disorders, circulatory disorders and those who take medications that can provoke bleeding (anticoagulants, etc.). In this case, dosage adjustment is necessary.

Coltsfoot can increase blood pressure. The simultaneous use of coltsfoot drugs and drugs that affect blood pressure should be agreed with the attending physician and carried out with great care.

Patients taking calcium channel blockers should take coltsfoot only under the supervision of the attending physician, carefully and timely responding to possible changes in the condition. ^[fifteen]

Botanical description

It is a perennial grass representing the family **Asteraceae** (*Asteraceae*).

origin of name

Among the people, coltsfoot is also called *one-sided* , *double-leaved* , *two-faced* , *rannik* , *reed grass* , *cashew* , *podbel* , *mother grass* , *king-potion* . The Latin name of the genus - **Tussilago** - comes from the noun " *cough* " (*tussis*) and the verb " *drive away* ", " *cast out* ".

Why "mother and stepmother"? The answer lies in the fact that the structural features of the coltsfoot leaf caused the Russian version of the name to appear: the bottom of the plant's leaves does not evaporate moisture so intensively, because it is covered with many villi, and when touched it seems warmer and softer than the smooth upper part of the leaf, on cool touch. This made it possible to compare the plant with maternal warmth and the aloof, cold attitude of a stepmother.

The genus Coltsfoot is monotypic: it includes only one species. The habitat of the coltsfoot is extremely extensive: Eurasia, Eastern Siberia and the mountainous part of Southern Siberia, the Asia Minor region, northern Africa, the Arctic and North America. ^[one]

Coltsfoot is a perennial herbaceous plant, up to 0.2 m high. The rhizome is creeping, branched. The stems are erect, not branched, covered with small leaves in the form of purple-purple or brown scales, grow in early spring. The top of the stem is crowned with a single drooping basket inflorescence. The coltsfoot blooms before the leaves appear (from the second half of March to the beginning of May). The flowers are golden yellow, tubular in the middle of the inflorescence, reed - along the edge. After

the end of the flowering period, the main, large basal, rosette-shaped leaves develop. They are round-heart-shaped, dense, white-felt below, with many thick, short villi, and bare above. The fruits of the achenes ripen in late April - early May.

Coltsfoot grows on sandy, wet clay, limestone and clay-chalk soils of slopes or hills, along railway embankments, in ravines, on the banks of reservoirs, along the edge of meadows, along clay cliffs, like a weed in vegetable gardens and fields. ^[2]

Growing conditions

Coltsfoot is a moderately demanding plant for care conditions. It tolerates drought quite steadfastly, takes root on any type of soil, quickly takes root, gives a large number of new shoots, but grows best in areas located in shady places (under fruit trees with dense foliage, etc.). It propagates both by division of rhizomes and by seed. One plant can produce up to 17 thousand seeds. The seeds of the coltsfoot ripen quickly, are easily dispersed by the wind and, once in the soil, are able to germinate on the very first day. The coltsfoot successfully breeds and, with the help of planting rhizomes, which easily take root in the ground, quickly grow and give dense thickets-sprouts. Annual top dressing of a plant with organic and mineral fertilizers in a complex is recommended. ^[3]

When harvesting grass, coltsfoots collect young, covered from underneath with thick, short white, felted villi, leaves that are not touched by rust. The leaves are cut along with the petiole or plucked. The time of collection of raw materials is May-June. The coltsfoot is dried on a paper or fabric base under a canopy, in places with good ventilation, scattering the leaves in a thin layer. The inflorescences-baskets of the coltsfoot are harvested in April-early May, plucking them or cutting them along with peduncles no more than 0.5 cm long. They are harvested in the same way as the leaves. The shelf life of leaves and inflorescences is 3 years.

Herbalists with little experience often confuse the plant with burdock and other members of the Aster family (Asteraceae) when collecting coltsfoot leaves. Herbs can be distinguished by a combination of external signs. When collecting coltsfoot inflorescences, in some cases, dandelion officinalis flower material is mistakenly collected. It is also necessary to distinguish coltsfoot from similar species - felt podbel, white podbel and hybrid podbel. One of the main distinguishing features can be leaf venation: in the named species of podbel it is pinnate, and in coltsfoot the lower part of the leaf is white-tomentose with three bundles of veins extending like a fan. One of the significant differences can be attributed to the peculiarity of the inflorescences: the inflorescence-basket is white with a bell-shaped wrapper, while the coltsfoot basket has a cylindrical wrapper.

It is important to remember that the collection of raw materials is possible only in uncontaminated areas located at a sufficiently large distance from highways. Plants growing along roadsides are often poisoned by accumulated salts of heavy metals. ^[2]

Power circuit

The coltsfoot serves as a food source for the larvae of many Lepidoptera species.

Video

What ailments does coltsfoot treat? Infusion of coltsfoot: recipe and cooking tips.

Mother and stepmother with bronchitis, cystitis, joint diseases: a commentary by a phytotherapist .

Literature

1. Wikipedia, coltsfoot article
2. Reference book on preparations of medicinal plants / D. S. Ivashin, Z. F. Katina, I. Z. Rybachuk et al. - 6th ed., isp. and additional - K. : Harvest, 1989. - 288 p.: ill.
3. Mother and stepmother from a hundred diseases. Konstantinov Yu., - Tsentrpoligraf , 2013. - 160 p.
4. Total lipids, proteins, minerals and essential oils of Tussilago farfara (l.) from south part of Kosova // European Journal of Experimental Biology, 2012, 2 (4): 1273-1277.
5. Karhut V.V. Living Pharmacy - K. Health, 1992. - 312 p., ill., 2, arch . ill.
6. Medicinal plants: encyclopedic reference book / ed. A. M. Grodzinsky. – K.: Olimp, 1992. – 544 p.: ill.
7. Karhut V. V. Medicines around us. - K .: Health, 1993. - 232 p.
8. Coltsfoot, The Project Gutenberg EBook of The Complete Herbal, by Nicholas Culpeper, [source](#)
9. Phytochemical and pharmacological research progress in Tussilago farfara , [source](#)
10. MEDICINAL PLANT COLMS-AND-STEPMOTH, [source](#)
11. MONOSACCHARIDE COMPOSITION OF THE POLYSACCHARIDE COMPLEX OF THE LEAVES OF COLMS AND STEPMOMS, [source](#)
12. At Home in Nature, a user's guide. Mary Choate and Aaron Brachfeld . - Coastalfields Press. – 796 p.
13. Coltsfoot-wine , [source](#)
14. Coltsfoot Rocks , [source](#)
15. Coltsfoot (Tussilago) farfara), [source](#)

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Tussilágo - useful properties, composition and contraindications

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