

Nettle (*Urtica dioica*) – its role and its importance in the life of the Romanian people and in popular traditions

A. Stroia, C.Cace, C.Costea, L. Libardea

There isn't a single person in Romania – from a small child to an 80 year old person, who, when asked:

- „What is the nettle?”, or
- „What is the nettle traditionally used for in Romania?

Not to be able to offer a perfectly documented answer.

But what would you say if the interlocutor you are asking these questions would answer: „When I hear the word nettle, it takes me back to my childhood, to the renowned “Nettle soup”, to the renowned “Mashed nettles”, “Nettles with garlic”, to the “pleasant, refined and special taste of the traditional Romanian dishes I have known as a child!”

The nettle is a very well known plant in Romania, because it is used in the cuisine. For this reason, few think about its healing properties, to the fact that it can contribute to a better health.

Its name in English, “nettle”, comes from the Dutch word “netel”, which means “needle”, due to the fact that upon touching, when the plant is young, it stings. In spite of this, nettles that are cooked or used as infusion no longer sting and have a pleasant taste.

In Romania, as in the whole of Europe, North of Africa, Asia and North America, the nettle (*Urtica dioica*) is spread in uncultivated lands, in the plains, hillsides or mountains, on the edges of forests or roads, at the base of trees etc, being one of the many species of “spontaneous flora”.

As Simon Florea Marin notices, in Volume I of his work “Romanian Celebrations”, published at the Romanian Cultural Foundation Publishing House in 1994, during the spring, when nettles begin to grow, the Romanians, especially those who are poor and have run out of food and do not know how to make it through the big Fasting, which is the longest and hardest fasting period, are very glad to hear they can eat nettles.

In Muntenia during the rigorous time of the big Fasting, nettles are consumed as “Nettle soup”, with a bit of rice and as “Faint nettles”, with rasped horseradish.

Fasting cuisine in Romania, apart from the ritualistic – “coliva” (wheat and nuts cake), bread braids, cakes, “mucenici” etc – includes already famous nettles, orache, watercress, sorrel, boiled plums, cabbage, vegetable stew, beans, “sarmale” and stuffed green peppers etc.

These are easy to cook in daring combinations and especially through firm omissions. By forgetting that meat or dairy ever existed – as Romanians have been doing for a thousand years – hundred of recipes can be made, by stealing away from the unclean “sweet area” only the vegetables

1. A few words about the “Nettle”:

There are over 20.000 species of edible plants in the world, out of which less than 20% are used to produce 90% of our food.

In spite of this, there are hundreds of edible plants that are less known world wide yet are delicious and nutritious. One of these plants is the nettle (*Urtica dioica*).

From the botanical point of view, the nettle is a kind of herbaceous plant from the “Urticaceae” family, with its stalk and leaves covered in stinging hairs, which grows in the spontaneous flora and is used in the textile industry, in medicine and food. Around 45 types of nettles are found in the spontaneous flora of Central Europe.

From the traditional Romanian point of view, the nettle is:

- “firstling”, a spring delicatessen, out of which renowned traditional Romanian dishes are obtained, such as nettle soup,
- a well known “healing weed”, medicinal plant that can be used in a vast array of illnesses and suffering;
- a plant, which, upon biological maturity, due to its high content in vegetable fiber and its resistance can give way to resistant textures (predominantly cloth bags);
- a plant, which, upon biological maturity and when dried, can be used as a “bead” of protection, on top of which hay can be placed;
- a plant that stings, with an irritant action of the skin;

- a weed, just as any other weed in the spontaneous flora.

1.1 The morphological characteristics of the nettle's leaves (*Folium urticae*):

The anatomical part of the grown nettle (*Urtica dioica*), that is used in food consumption are the leaves (*Folium urticae*).

These have the following characteristics:

- Placement of the stalk: opposed;
- Form: oval, zigzagged edges, with many stinging, rigid hairs;
- Dimensions:
 - length: 7-14 cm;
 - width: 2 - 4 cm;
- They have a pointy tip, covered in harsh hairs;
- The characteristic color is dark green;
- Specific smell;
- Bitter taste.

1.2 The morphological characteristics of the nettle plant (*Herba Urticae*):

The nettle (figure 1) is made of:

- **Young stalks**, which are harvested before or during the time of bloom, characterized so:
 - Dark green color;
 - Shape – with 4 obvious sides;
 - It is covered with harsh hairs;
 - Specific smell;
 - Bitter taste;
- **The leaves** (*Folium Urticae*), (figure 2), with the characteristics previously described;
- **The root of the plant** (*Radix Urticae*), characterized so:
 - Made of a mix of rhizomes and thin roots, cylindrical, light brown color on the outside;
 - Has no smell;
 - Has a slightly stinging taste;
- **The flowers (figure 3)**: are dioecious, formed from panicles, disposed on the under pit of the superior leaves;
- **The fruit**: oval, greenish, with a persistent perigone.



Figure 1: The big nettle plant, or forest nettle (*Urtica dioica*)



Figure 2: Nettle leaves (*Urtica dioica*) - (*Folium urticae*)

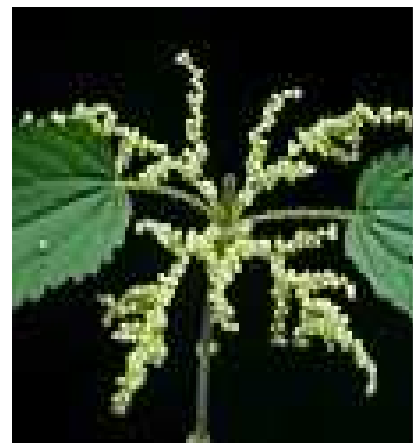


Figure 3: Nettle inflorescence (*Urtica dioica*)



Figure 4: The tip of the nettle plant (*Urtica dioica*)



Figure 5: Nettle flowers (*Urtica dioica*)



Figure 6: Nettle fruit (*Urtica dioica*)

2. The explanation for some of the words used here:

- **“firstling”**, has the following linguistic meanings:
 - the first fruit of the earth from an agricultural annual production;
 - alimentary product (especially fruit or vegetable), placed on sale for the first time during the year;
 - product (mostly agricultural), which appears on the market before its due time.
- **delicatessen**: fine food, culinary specialties, tasty food product, savory, which impresses with its quality;
- **barrack**: a big pile of hay, or corn (or other cereals), disposed in a cylindrical shape, with a cone tip;
- **weed**:
 - a generic popular name for any herbaceous plant that is uncultivated and spontaneously grown on cultivated land, damaging the cultures;
 - a generic name given to many herbaceous edible plants that are cultivated, such as greens;
 - a name given to uncultivated edible plants, as for example the dandelion
- **healing weed**: a weed used in popular medicine or the pharmaceutical industry.
- **greens**: the green leaves of vegetable plants (dill, parsley, lovage etc), used as condiments.
- **dioecious** (the term refers to unisex plants): a plant that has male and female flowers in different individuals of the same species. It comes from the French word: “*dioïque*”;
- **perigone**: a very simple floral cover, undifferentiated into cup and corolla. It comes from:
 - The French word “*périgone*”;
 - The Latin word „*perigonium*”.

2.1 Etymology:

- **nettle**, comes from the Latin word “*urdica*” (identical to “*urtica*”);
- **“firstling”**, comes from the Turkish word: “*trufanda*”. It is similar to:
 - The neo-Greek word “*τρο(υ)φαντά*”;
 - The Bulgarian word: “*trufanda*”.
- **“delicatessen”**, comes from the German word “*Delikatesse*”;
- **“barrack”**, comes from the Slavic word: “*stogŭ*”;
- **“weed”**, is considered a word of obscure origin” in the Serbian language. It is similar to:
 - The Serbian word “*burjan*”;
 - The Russian word “*burjan*”;
 - The Bulgarian word “*buren*”;
 - The Hungarian word „*burján*”;
- **„greens”**, is considered a local word. It comes from the adjective „*verde*” (green) + the suffix „*ea*□*ă*”. The word „*verde*” (green) come from the Latin word „*vir(i)dis*”.
- **dioecious**, comes from the French word: “*dioïque*”;

- **perigone**, comes from:
 - The French word “*périgone*”;
 - The Latin word „*perigonium*”.

2.2 Synonyms:

- “**The big nettle**” is also called in the popular language:
 - the curly nettle,
 - the kingly nettle,
 - the masked nettle;
 - the forest nettle,
 - the Romanian nettle;
- “**The small nettle**” is also called in the popular language:
 - “oieșea”,
 - the gentle nettle,
 - the hot nettle;
- “**The dead yellow nettle**” (*Lamium galeobdolon*) is also called in the popular language:
 - “gălbiniță” (yellow plant);
 - yellow “sugel”;
 - yellow nettle;
 - dead nettle;
 - “zabrea”.
- “**The dead white nettle**” (*Lamium album*) is also called in the popular language:
 - “fata mitei”;
 - the bear’s honey with white flowers;
 - white “sugel”;
 - the white nettle;
 - the curly nettle;
- **barrack** – synonymous with „*haystack*”;
- **weed** – synonymous with “*herbs*”, generally,
- **medicinal weed** - synonymous with “*medicinal plant*”;
- **greens** – synonymous with “*fresh leaves*”.

3. The chemical composition of the nettle (*Urtica dioica*):

In the chemical structure of the nettle (*Urtica dioica*) the following have been identified:

- proteic substances, having a great number of amino acids;
- carbohydrates;
- amines;
- sterols;
- cetones (methylheptenone and acetophenone);
- volatile oil, fat substances, sitosterols;
- formic acid and acetic acid;
- the vitamins C, B₂, and K (around 400 units per gram), pantothenic acid;
- folic acid;
- chlorophyll, protoporphyrin and coproporphyrin;
- carotene;
- salts of calcium, magnesium, iron, silicon, phosphates etc.

The blistering substance in this plant is formed from formic acid, an enzyme and a toxalbumine. By drying, these substances are lost or are transformed, hence the blistering properties disappear.

4. The classification of the nettles used in Romania:

The main species and varieties of nettles used in Romania are:

- “**the big nettle**” (*Urtica dioica*), also called the curly nettle or the forest nettle is one of the oldest healing plants that grow in Romania. From the big nettle (*Urtica dioica*) the

roots, the leaves, the stalk and the flowers have a curing effect. For this reason, it is even considered the “queen of medicinal plants”. It has big leaves, which can grow as large as the palm of our hand;

- **“the small nettle”** (*Urtica urens*), also called the **“hot nettle”**, a perennial herbaceous plant, that usually occupied large areas, having a root that can reach 125 cm in length. The leaves, opposed, petiolate, grayish green, heart shaped, are of small dimension, with a pointy tip (the small nettle has round leaves) and big knurls. Both the stalk and the leaves are covered in stinging, very fine hairs. The flowers are small, greenish, disposed at in the under pit of the superior leaves, in a cluster. From the female flowers arise the fruit, which looks like small nutmeg;

- **“the dead nettle”** (*Lamium*). It is used in medicinal purposes; the flowers are mainly harvested, but also the leaves. It comes in three varieties:

- **“the yellow dead nettle”** (*Lamium galeobdolon*). It grows in humid forests, ditches, under bushes, near hedges and especially green hedges, around ruins, in damp shady places and wherever the big nettle is found too (*Urtica dioica*). It blooms in April and may, even later in the mountains;

- **“the white dead nettle”** (*Lamium album*). It blooms like most weeds from May to October near roads, around ruins, railroads. The plant and the flowers smell characteristically and they taste sweet.

- **“the red-purple dead nettle”** (*Lamium maculatum*), an herbaceous medicinal plant with red – purple flowers, also known as “little nettle”. It is a plant for temperate weather, prefers fertile soil, rich in nitrogen. Most often it is found next to other weeds, in gardens, vineyards, on the edges of dumps or roads.

5. Harvesting nettles:

The optimum time for the harvest:

- the leaves or the plant's areas exposed to the air: beginning in May until October;
- rooted rhizomes:
 - either in the spring (March - May);
 - or in the autumn (September - November).

The nettle leaves (*Folium Urticae*) are harvested by:

- Plucking the leaves directly off the plant with your hand wrapped in cloth or protected by a thick glove, so as to avoid irritation;
- Raking the part exposed to air and later plucking, before they whelk.

After the harvest the leaves or the nettle plants are not to be kept stuffed together or pressed, because they warm up and darken.

The nettle plant (*Herba Urticae*) is harvested by cutting or raking the aerial part of the plant (where it grows in masses). Then foreign bodies are separated, such as:

- other plants;
- lignified parts;
- parts without leaves etc.

The nettle root (*Radix Urticae*) is harvested:

- with a hoe;
- simply by plucking, if the land is light.

After harvesting, the root is to be shaken, washed of soil and the parts exposed to air are cut off.

Drying nettles:

Drying the leaves and the air-exposed parts of the plant is done separately from drying the roots and rhizomes.

Drying the leaves, or the air-exposed parts of the nettle plant:

After the harvest, leaves of the air-exposed parts of the plant are dried naturally or artificially:

- **natural drying** is done in the shade, because the light can discolor the leaves and the air-exposed parts of the plant. In order to dry leaves or air-exposed part naturally, these are placed in a thin layer or are left in the open air, or are placed on paper in sheds, in airy

places or in lofts covered with whiteboard. During the drying, the leaves are periodically turned over;

- **artificial drying** is also done in the absence of sunlight, in drying installation, at a temperature of 50 – 60 degrees.

6. Drying the roots and the rhizomes:

These can be dried in the sun, and in humid weather they can be dried in covered places, that are airy. Artificially, this is also done at 50-60 degrees.

6.1 The drying efficiency is:

- for leaves : 4,5 - 5,5 / 1;
- for the air exposed parts : 6,0 – 7,0 / 1 ;
- for rhizomes with roots : 4,0 – 5,0 / 1.

7. Possibilities for using nettles:

The nettle is a valuable plant, very much appreciated by man during the evolution of society, because it has a real potential for use in different purposes, as for instance:

- as a food source for man especially in the spring
- as food for animals
- as a medicinal plant
- as prime matter in the chemical industry for obtaining chlorophyll
- for obtaining textile fibers, used to make sacs
- etc.

The nettle (*Urtica dioica*) is one of:

- the 143 plants best suited for consumption by people;
- the 54 plants considered to have the best medicinal properties;
- the 50 plants considered to be the most sought plants.

7.1 The uses of the little nettle (*Lamium maculatum*)

The small nettle (*Lamium maculatum*) is used as tea for female diseases, urinary problems, and coughing, digestive problems. The leaves and the small plants can be consumed as salad, together with other plants.

The flowers have an unpleasant smell, which is why the small nettle (*Lamium maculatum*) is used less in salads, compared to other varieties of dead nettle.

7.2 Using the “white dead nettle” plant (*Lamium album*).

Although the pharmaceutical action of this species has not been thoroughly studied:

- the flowers are used empirically, either as emollient, cough syrup, or astringent.
- Due to its high content in tannin (12 – 14%), the whole plant is used as an anti-diarrhea remedy.

In popular medicine, the flowers are especially used in the genital and urinary apparatus (dysmenorrheal, leucorrhea) and for inflammation of the prostate.

7.3 Using the small nettle (*Urtica urens*):

The young leaves of the small nettle (*Urtica urens*) are used to prepare salad or some very tasty and nutritious dishes, which are made in the same way as spinach, by boiling in water with a little sugar, after being washed in salted water.

Mashed nettle is food very good for birds, because it is rich in calcium and contributes to the consolidation of bones.

The small nettle (*Urtica urens*) is used medicinally for:

- **burns**, for mild burns, when the first symptoms are redness and stinging pain, for sun burns, when the pain is stinging;
- **chicken pox**, in case of eruptions with stinging pain or burning. The symptoms are aggravated by physical strain or overheating;
- **insect stings and bites**, when red pustules appear, with a burning sensation and intense itching. It is recommended for bee stings;

• **rashes**, eruptions similar to the rashes caused by nettles, with bumps that give a burning sensation and intense stinging. Scratching makes it worse and so do cold-water bandages. Crustaceans, overheating, can cause the rash or it can come along with rheumatism.

8. Using the nettle in alimentary purposes:

The leaves of the species **“big nettle”** (*Urtica dioica*), harvested in the spring, are used for consumption. From these the renowned traditional dishes are made: “Nettle soup”, “Mashed nettles”, “Nettle dish with garlic”, salads etc.

Due to the high content of vitamins and micro elements and the sour taste, the young leaves are used to make salads.

Eating nettles is based on the positive effect it has on the psyche and its cleansing effect on the blood.

Nettle pudding has been declared the oldest recipe from Great Britain, dating back to 6000 BC. Nettle pudding was one of the Brits’ favorite foods long before the Romans arrived.

Other traditional Romanian dishes based on nettles are:

- nettle stew;
- nettle white sauce stew;
- nettles with horseradish and polenta;
- dish made of nettles and nuts;
- nettles with eggs and polenta;
- etc.



Figure 7: Cleaning the nettles



Figure 8: Washing the nettles 4-5 times



Figure 8: Boiling the nettles



Figure 9: Mixing the nettles with a part of the water they were boiled in



Figure 10: Nettles with boiled eggs and polenta

Nettles must be boiled on a small fire. They must be stirred often, because they easily get stuck to the bowl. The ingredients which imprint the smell and savor of the dish must be added when the food is almost ready, and then the food is kept boiling for only a little longer.

For those who do not know anything about the nettle, it is hard to believe that these banal plants that grow on the side of the forest, in open fields or ditches can be made into varied and delicious meals. The secret in preparing nettles is experience at first, but also respecting the recipe and the way they are supposed to be prepared and served. Those who get to know the savor of nettle foods will look for nettles every spring.

9. The pharmaceutical action of the nettle:

Known ever since the antiquity as a medicinal plant, the nettle acts as:

- haemostatic;
- astringent;
- hematopoietic;
- mild hypoglycemic;
- diuretic;
- external antiseptic
- stimulator of skin tissue epithelization.

Other actions of the nettle:

- the watery extract inhibits the development of several pathogens (*Shigella*, *Staphylococcus*, *Pasteurella* etc.);
- the nettle leaves are a rich source of chlorophyll, and there are different industrial procedures for extracting this plant colorant;
- externally, chlorophyll is used in the cosmetic industry and in dermatology;
- root tincture is used in lotions, mixed with other plants that act against hair fall;
- Nettles leaves are part of the anti bronchial tea no. 2 composition.

In popular medicine, the fresh parts of this plant that are exposed to air are used as:

- external means of revulsion for rheumatic pains;
- galactagogue and internal depurative substance, in diets kept in the spring.

9.1 The therapeutic used of the nettle:

The therapeutic uses are based on the following properties if the nettle extracts:

- in diuretic actions, nettles:
 - favor the transfer of uric acid from the tissues into the blood flow;
 - increase the degree of elimination of uric acid through the urine;
- anti allergic properties;

In traditional phytotherapy, the nettle is considered to have haemostatic, astringent, anti diarrheal, anti inflammatory, scaring, hypoglycemic, anti anemic and re-mineralizing properties.

*
* *

The nettle (*Urtica dioica*), also called the stinging nettle used to be used in the past for treating arthritis and also other afflictions of the skin. The method by which this plant was applied to the body is what makes the history of the nettle so interesting (there is even research that somehow supports the ancient practice of striking yourself with a nettle): self-flagellation with a nettle (people used to hit the skin of their bodies with a bunch of nettles to fight against rheumatism). Presently, the nettle is known for its ability to soothe discomfort while urinating for men who suffer from benign acute afflictions of the prostate. This is why it is no longer necessary to hit yourself with a nettle in order to benefit from the goodness of this medicinal plant, unless you want to. The nettle is available as pills and root extract – the latter being especially efficient in treating HPB. The regular dosage is of 450 mm, as pills, taken twice a day or one spoon of liquid extract three times a day.

Use two spoons full of dried leaves in a cup of boiled water as tea and drink it four times a day. You can also eat fresh nettle leaves, prepared in a vegetable brew. This plant is an excellent source of Vitamin C and the liquid that is left from boiling the nettles can also be drunk as nettle tea.

It appears that the nettle has anti-histamines and natural anti-inflammatory substances in its composition. The theory says that the pointy leaves of the nettle help to inject this natural medicine into the organism when they are pressed against the affected area.

The name it has in English – nettle is said to have come from the Dutch word *netel* which means needle – this is not far from the truth because it does indeed sting. In spite of this, the nettles prepared as infusion or food no longer sting and have a pleasant taste.

9.1.2 Where do nettles grow?

Nettles are spread across the globe, except for the arctic region, the center and the south of Africa. They are often found next to hedges, houses, on lakeshores and generally in the plains up

to the mountainous areas. They are plucked only in unpolluted areas, where the soil does not contain harmful substances. Therefore, the nettles picked up on the side of the road or next to houses may contain lead, which is toxic for the organism.

Pay attention to where you buy them, for you must know where they came from!

9.1.3 Against which ailments do nettles act?

Many botanists and nature lovers say that the antihistamines in the nettle are an extraordinary treatment against high fever. In one study, the participants who were given two nettle 300 mg pills daily declared that their symptoms improved greatly. The nettle is sometimes used for easing congestions and freeing the bronchi tracts for people who suffer from asthma or allergies. Moreover, nettles can be useful for people who suffer from arthritis, in order to reduce the high dosage of anti-inflammatory and non-steroid medication, which leads to stomach problems and gastro intestinal bleeding, during long term treatments. In one of the studies made by German researchers, the people who took nettle brew only needed one fourth of the anti-inflammatory non-steroid medication, compared to those who only took the simple treatment, while obtaining the same pain relief. The nettle also contains great quantities of boron and silicon; two minerals that help ease the symptoms of arthritis and tendinitis.

At the same time, the nettle is also a natural diuretic. It helps the organism eliminate uric acid and the bacteria which cause infections of the urinary tract or kidney stones. The diuretic action of nettles can also prove useful in diminishing arterial pressure and in comforting pre-menstrual bloating. The nettle is recognized for its ability to soothe the symptoms of benign prostatic hypertrophy (HPB), an affliction that causes the prostate to swell as well as urinary problems for men. The nettle helps men urinate better during the day, therefore eliminating the bothering symptoms, namely frequent urination during the night. The nettle prevents the organism from transforming testosterone into 5-alfa-reductaza, an enzyme that stimulates the prostate to swell again in middle age.

You can try to grow your own nettles. They can be grown in almost any kind of soil. You must wear gloves when you pluck this plant. The fine hairs, which cover the nettle, especially those on the nettle's leaves contain histamines that may cause pain lasting for a few hours. The leaves, the stalk and the roots of this plant are all edible.

Yes!

You can: use two spoons full of dried leaves in a cup of boiled water as tea and drink it four times a day. You can also eat fresh nettle leaves, prepared in a vegetable brew. This plant is an excellent source of Vitamin C and the liquid that is left from boiling the nettles can also be drunk as nettle tea.

No! Attention: too much can be harmful!

Due to its diuretic action using the nettle for an extended amount of time can lead to an electrolytic imbalance. Women who breastfeed should not consume nettle, while people who consume them regularly must make sure that their diet contains enough potassium. Some laboratory studies have demonstrated that the nettle can cause the contraction of the uterus, so even pregnant women must avoid consuming it.

9.1.4 Nettles – Benefits and Preparation:

Although the nettle is a well-known plant often used in our diets, most of the time we do not think of its healing properties, of the fact that it might better our health. We will now get to know it as a new plant, as a precious aid of ours, appreciating it for its true value.

- Nettles contain a great number of amino acids, vitamins (A, B2, C, and K), chlorophyll, mineral salts (Calcium, Magnesium, Iron, Silicon, etc), protein substances, pantothenic acid, folic acid, amines, cetones etc.

- Due to this rich content, they are used in our diet and as medicinal plants in treatments for the regeneration and detoxification of the organism;

9.1.5 How to use nettles:

Nettles can be used in numerous ways, such as:

- Nettles prepared in early spring as puree, food with garlic, salads etc.
- The juice obtained from fresh leaves can be crushed and squeezed, 2 – 3 spoons per day.
- Use the nettle infusion diet.
- Use the crushed nettle seeds;
- Use roots, stalks and leaves.

For medical purposes, the juice obtained from freshly grinded leaves can be used.

9.1.5.1 The nettle infusion diet:

For regeneration and detoxification you could have a nettle infusion diet (one spoonful of fresh plant, well crushed in a cup of boiled water or a spoon of dried plant powder in a cup of boiled water, left to cool for 15 minutes), 3 cups of tea per day for 3 – 4 weeks.

It is not recommended that this diet last longer than 6 weeks, because excess can be harmful.

The nettle infusion diet can also be used in the following cases: renal and biliary lithiasis, diabetes, gout, water retention, bronchitis, metrorrhy, hemorrhage, dysmenorrhea, diarrhea, hemorrhoids etc.

For treating wounds and scarring you should use an infusion with 3-4 spoons of leaves in a cup of boiled water - local baths or compresses.

For the hair and fighting against dandruff you can use infusions of 40-50 grams of crushed leaves per 1 liter of boiled water. It is left for 30 minutes covered, then it is poured and the hair is washed.

A decoction of 250 g of dried roots, dried stalks and dried leaves can also be used in 5 liters of water. It is left to boil for 30 minutes, then filtered and used for washing your hair.

9.1.5.2 Use crushed nettle seeds:

For treating enuresis and urinary incontinence you can use crushed nettle seeds, 2-3 grams in the evening with a spoon of honey.

9.1.5.3 Use roots, stalks and leaves:

You can also use a decoction from 250 grams of roots, stalks and leaves in 5 liters of water. It is left to boil for 30 minutes, poured and then the hair is washed. Nettles can also be dried and crushed. The powder can be added to food as vitamins and minerals for strengthening the organism.

Nettle leaves can be dried and grinded, while the powder can be added to food for strengthening the organism, vitamin intake and mineralization.

9.2 Medicinal uses for some species of “dead nettle”:

9.2.1 “The white dead nettle” (*Lamium album*)

Tea prepared from “**white dead nettle**” (*Lamium album*) flowers and leaves have a medicinal effect in:

- ameliorating hard diseases of the pelvic organs, especially in women;
- fighting against insomnia;
- fighting against urinary retention, urinary tract diseases, stinging during urination, severe renal diseases;
- anasarca, a generalized inflammation of serum liquid in the subcutaneous conjunctive tissue, which appears in some heart, kidney or liver diseases etc;
- Treating ulcerations, varicose veins (used as infusion bandages).

9.2.2 “The yellow dead nettle” (*Lamium galeobdolon*) is recommended as a remedy for:

- Bladder paralysis in the case of elderly people;
- Colds in the bladder and nephritis;
- Incurable renal sclerosis and renal irrigation.



Figure 11: Blooming plant of yellow dead nettle (*Lamium galeobdolon*)



Figure 12: Blooming plant of white dead nettle (*Lamium album*)



Figure 13: Blooming plant of little nettle or red dead nettle (*Lamium purpureum*)



Figure 14: The small nettle (*Urtica urens*)

9.3 How does the nettle act upon the organism?

- It offers vitamins and minerals for the organism;
- It eliminates anemia;
- It balances the defense system of the organism;
- It cleans the blood, having a detoxification effect;
- It acts against bacteria by limiting or preventing their multiplication;
- It has a benefic effect on bronchitis and asthma; it makes the bronchi secretions fluid and favors their elimination; it fights against coughing;
- It stimulates the metabolism;
- It stimulates biliary, pancreatic, gastric and intestinal secretion; it stimulates the intestinal peristaltic and the digestion;
- It fights against diarrhea, dysentery and inflammation in the digestive tract;
- It fights against intestinal parasites;
- It activates the physiological processes of erythrocyte, leukocyte and thrombolytic formation
- It thins the blood;
- It decreases glucose in the blood;
- It has haemostatic effect, it stops bleeding;

- It enhances the quantity of urine, contributing to the elimination of toxic substances in the blood and the body;
- It favors the massive elimination of uric acid;
- It stimulates the secretion of mammary glands;
- It activates the regeneration of cells and epithelization by favoring the scarring of wounds;
- It favorably influences rheumatism and gout;
- It provokes the calming of fever;
- It is a capillary tonic and fights against dandruff.

All these properties demonstrate that the nettle can in fact strengthen our organism by purifying the blood and regenerating cells.

Let us summarize:

Nettles are a delicious spring food, recommended for the treatment of the following ailments:

- Renal affections, prostate or bladder;
- Blood circulation problems;
- Benefic effects for varicose veins, varicose ulcer or hemorrhoids;
- Gastric, hepatic or intestinal ailments;
- Gastric, hepatic, pancreatic or intestinal secretion insufficiency;
- Indigestion, enteritis, diarrhea, dysentery;
- Duodenal ulcer, biliary or duodenal lithiasis;
- Gastric problems caused by tobacco;
- Urinary retention, uremia, urinary incontinence;
- Mother's milk insufficiency;
- Haemoptysis, internal or uterine hemorrhage, metrorragy, irregular cycles, vaginitis, leucorrhea;
- Water retention in the body;
- Ascites, rheumatism, gout;
- Obesity, lumbago, sciatica and other nervous problems;
- Tonsil problems, pneumonia, bronchitis;
- Asthma, allergies;
- Wounds, rashes, psoriasis;
- Alopecia, dandruff, seborrhea;
- Tumors;
- Cancer prophylaxis.

10. Technologies for obtaining products based on nettles:

10.1 Nettle tincture:

• Preparation:

- 20 spoons of powdered leaves are put in a closed jar, with 400 ml of edible ethylic alcohol, in a concentration of 50% v/v;
- The jar is hermetically closed and left for 12 days to macerate;
- The content of the jar is filtered and the resulting tincture is placed in small dark bottles.

• Way to administer:

- The resulting tincture is administered 4-6 times a day, one small spoon in a little water.

10.2 Nettle root tincture:

• Preparation:

- 15 spoons of powdered roots are put in a closed bottle, with 400 ml of edible ethylic alcohol, in a concentration of 60 % v/v/;
- The bottle is hermetically closed and left for 14 days to macerate;
- The content of the bottle is filtered and the resulting tincture is placed in small dark bottles.

- **Way to administer:**

- The resulting tincture is administered 4-6 times a day, one small spoon in a little water.

10.3 Powder:

- **Preparation:**

- the roots and the air exposed part of the nettle are grinded well, then the resulting product is filtered to get rid of any parts that haven't been grinded well enough;
- The powder is stored in hermetically closed glass jars, in cold dark places for a maximum of 4 weeks (because some active principles of the nettle cause oxidation in time).

- **Way to administer:**

- the resulting powder obtained only from the air exposed parts of the nettle are administered 3-6 times a day, one spoon on an empty stomach;
- The root powder is administered 4 times a day, half a spoon, on an empty stomach.

10.4 Combined infusion:

- **Preparation:**

- the method of preparation is the same for leaves and for roots;
- 3-4 spoons of nettle grass powder or 2 spoons of macerated roots are put in 0.5 liters of water;
- it is left to macerate for 8-10 hours, after which it is filtered;
- the resulting product is put away and the plant that remains after filtering is boiled in another 0.5 liters of water for 5 minutes;
- then it is left to cool and filtered;
- in the end, the two extracts are mixed together, making approximately one liter of combined nettle infusion;

- **Way to administer:**

- It is administered internally, (2-4 cups a day).

10.5 Nettle juice:

- **Preparation:**

- is obtained from freshly plucked leaves, while the plant is still green (meaning from spring till late autumn);
- the juice is obtained from a blender:
- 100 grams of well washed plant are put into the blender's bowl in 150 ml of water;
- the mix becomes homogenous by blending, and the resulting mixture is filtered through gauze;

- **Way to administer:**

- 120 ml per day are administered for treating liver, bile, intestinal afflictions and anemia.

11. Other traditional Romanian dished (composite products) with nettles

11.1 Pies and pancakes stuffed with nettles:

Ingredients:

- 1,0 kg nettles;
- 1 spoon of corn flour;
- 2 spoons of butter;
- 2 spoons of sour cream;
- 1 egg;
- salt;
- 4 - 5 garlic pieces;

Preparation

- The nettles are carefully cleaned and boiled for 15 minutes;
- The garlic is cleaned and then grinded into a paste;
- The boiled nettles are filtered, dried off if necessary and then grinded;
- The butter is heated up, spinach is left to fry for 5 minutes, while continuing to stir;
- The garlic with sour cream, egg and flour are added;
- Salt is added, until it all comes together;
- Pancakes or pies can be stuffed with the mixture and anointed with sunflower oil.
- After it is stuffed, the product can also be baked in the oven.

Note:

- Powdered pepper;
- 1 spoon of sugar;
- 1 spoon of lemon juice;
- Will refine the nettle paste even more.
- In order to thicken the nettle paste, 1 glass of boiled rice can be added.

11.2 Mashed nettles:

Mashed nettles are made from nettles boiled for 2-3 minutes, which keep all their vitamins and minerals. One of the two dressing presented here can be added, according to preference.

Ingredients:

- 1,0 kg nettles (the best are very young nettles, from the forest, small, which grow during the spring);
- one spoon of sunflower oil;
- one onion bulb;
- salt;
- Black pepper.

Dressing „Option 1”:

- 1 spoon of corn flour;
- 3 spoons of water left over from boiling the nettles;
- 2 green onions;
- 2 pieces of crushed garlic;
- optionally:
 - aromatic condiments: coriander, caraway, thyme;
 - 2 spoons of sour cream;
 - grinded horseradish;

Dressing „Option 2”:

- 1 spoon of corn flour;
- 2 spoons of sour cream;
- two crushed eggs;
- 1 spoon of sunflower oil;
- 2 green onions;
- 2 pieces of crushed garlic;
- Optionally aromatic condiments: coriander, caraway, thyme.

Preparation:

- The nettles are cleaned of impurities and washed several times; (Do not drain the water out of the bowl you are using for washing the nettles – instead remove the nettles with your hand protected in a glove, so that the sand and earth is left on the bottom of the bowl. Repeat this several times, until the water left in the bowl is very clean);
- The washed nettles are placed in 1 liter of salted boiling water, in an open pot. The nettles are then left to boil for 2-3 minutes;
- when they are considered to be boiled over, they are drained of water (but kept in a cup filled with the water they were boiled in);

- after they've been left to cool, they are well grinded on a wooden plate and mixed together with some of the water they were boiled in;
- one of the options of dressings is prepared from the specified ingredients;
- The green onion is cleaned up, chopped up and left to fry in a spoon of sunflower oil and spoon o water, for 203 minutes, until it develops its aroma. Then the grinded nettles are added together with the water they were boiled in and a very thin puree is obtained;
- The preferred dressing is added. Salt and paper are added if necessary, as well as nettle sauce, which makes the puree puffy. It is mixed on the stove for 5 minutes.
- it is served with hot polenta;
- According to taste, grinded horseradish and sour cream can be added.

12 Other used of the nettle (*Urtica dioica*)

12.1 The industrial extraction of natural chemical substances:

The nettles are an important prime matter, used industrially to obtain:

- Beta carotene (pro vitamin A), used to color some alimentary products;
- Chlorophyll, used on a large scale as deodorizer in several cosmetic and medicinal products.

12.2 Fighting against insects and garden pests:

The big nettle (*Urtica dioica*) can also be used to fight against insects and pests found in vegetable or flower gardens. This is how it is done:

- A large quantity of nettles is places in a recipient filled with 300 liters of water;
- It is left to macerate for longer;
- The nettle water is then used to water the plants, which determines the absence of pests, without using any chemical substances.

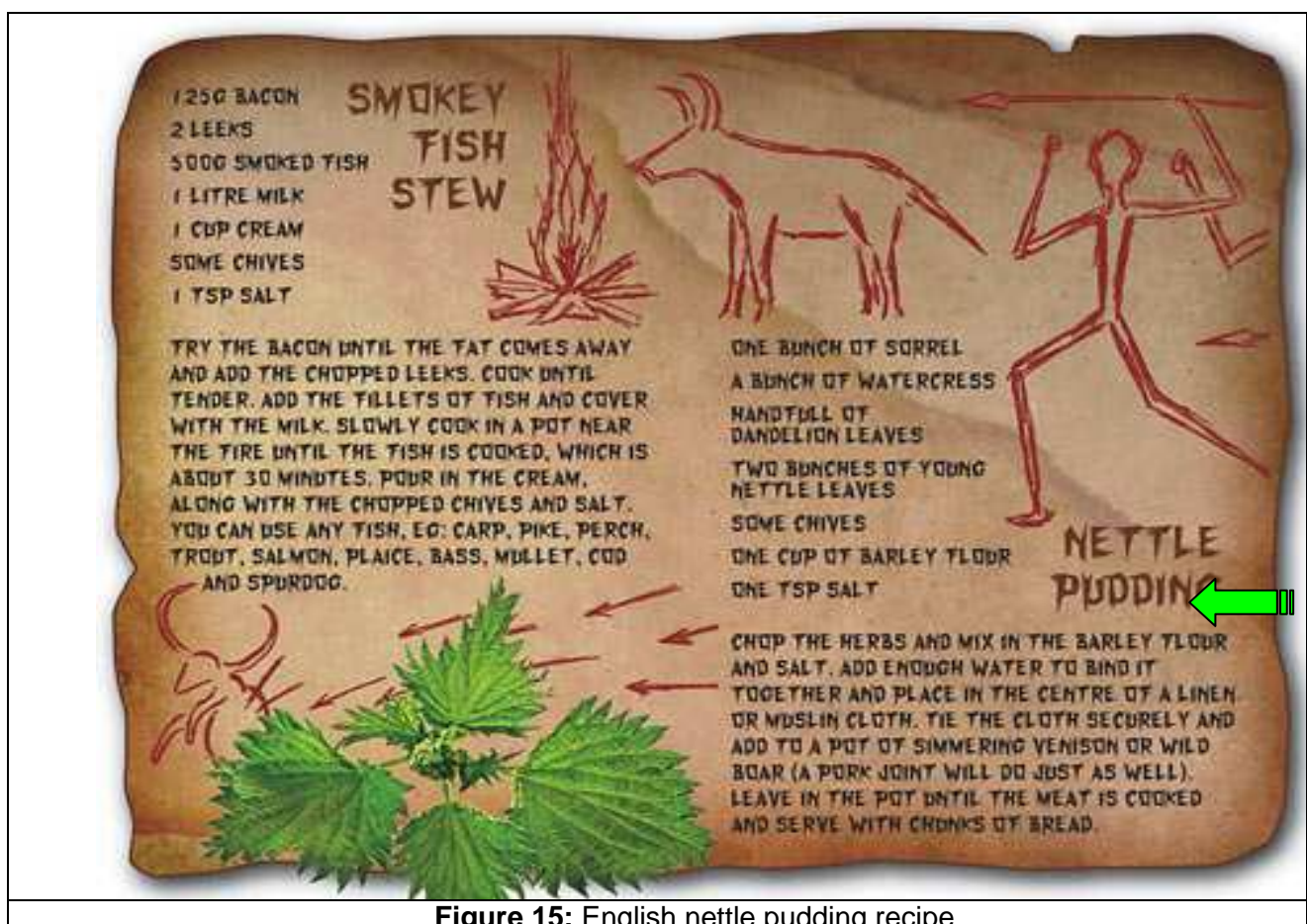


Figure 15: English nettle pudding recipe