

7 Alleged Sheep Sorrel Benefits & Uses

Sheep sorrel is an herb with a long history of traditional indigenous use. Science reveals it's a potent source of antioxidants, nutrients, and unique active compounds. It's often described as the most important component of the original Essiac formula. Is this true? What does the science say?

What Is Sheep Sorrel?

Sheep sorrel (*Rumex acetosella* L.) a medicinal and culinary herb that belongs to the buckwheat family. The whole plant is edible. Other names it goes by are common sorrel, red sorrel, sour weed, and dock.

Folk healers around the world have foraged and prepared the wild plant for millennia.

They treasured the whole plant for its medicinal properties and prepared the leaves and aerial parts in salads and soups ([Korpelainen & Pietiläinen, 2020](#); [Bello et al., 2019](#)).

Sheep sorrel has such a rich and long history of cultural use that even scientists describe it as underutilized by modern medicine ([Bello et al., 2019](#)).

It grows worldwide and can adapt to diverse environments, but it favors the northern hemisphere. You can spot it on fields, meadows, and open woods.

To the untrained eye, sheep sorrel can pass as “just another weed.” It's not as exotic as other heavily commercialized plants, so its health-promoting potential gets neglected. The biggest danger that can come from this is its disappearance.

Sheep sorrel is easy to forage or grow, and use as a functional food—especially in poor rural areas and harsh climates. It can also be made into tea, tinctures, and salves to support health.

It is an incredibly adaptable wild edible with unique medicinal properties. It's time to bring together the traditional and modern scientific knowledge about the benefits of this plant, many of which are still an active area of research.

Active Compounds in Sheep Sorrel Roots & Leaves

Scientists have isolated over 70 active compounds from sheep sorrel. Each part of the plant has a characteristic imprint of these compounds. This is key to understanding its benefits! ([Bello et al., 2019](#)).

Whole Plant

Some traditional texts mention using the whole herb. The whole plant extract contains the highest amount of:

- **Quercetin**, also called the “master flavonoid” ([Mostafa et al., 2011](#))
- **Emodin**, which is believed to have anticancer effects. It might also improve blood flow, bowel movements, and viral and parasitic defense ([Mostafa et al., 2011](#); [El-Bakry et al., 2012](#); [Gupta & Rai, 2018](#))

Roots

Sheep sorrel roots are a source of:

- Anthraquinones and polysaccharides, which are suggested to carry some antitumor effects ([Korpelainen & Pietiläinen, 2020](#))
- Total antioxidants ([El-Bakry et al., 2012](#))

Leaves & Aerial Parts

The aerial parts (leaves, flowers, fruits, stalks) are a concentrated source of:

- Antioxidant flavonoids and polyphenols, also suggested to carry potential anticancer effects ([Korpelainen & Pietiläinen, 2020](#); [Mostafa et al., 2011](#))
- Tannins, *astringent* or “shrinking” plant actives that help stop bleeding and diarrhea ([Derksen et al., 2014](#))

Sorrel leaves are a great source of nutrients but are also high in sour-tasting oxalic acid—an anti-nutrient that can be dangerous for people with kidney problems. Cooking them destroys most of the oxalic acid, but raw leaves shouldn’t be used regularly ([Tuazon-Nartea & Savage, 2013](#)).

Both the leaves and roots are high in many antioxidants. Antioxidants can scavenge and neutralize free radicals that cause oxidative stress, cellular damage, and DNA mutations ([Lobo et al., 2010](#)).

In Essiac

Despite popular claims, there is no direct evidence to claim that sheep sorrel is the most important ingredient in Rene Caisse's original Essiac formula. It’s the second most predominant ingredient, after burdock root.

Some manufacturers claim that the “original” Essiac tea contains the whole sheep sorrel plant, including the root. However, evidence is also lacking to support this.

Rene Caisse did refer to the importance of using the roots of one of the plants in Essiac. Based on archive documents, she was likely referring to burdock root (the main ingredient), *not* to sheep sorrel.

In fact, **a recent animal study used Essiac with aerial parts of sheep sorrel to demonstrate anti-leukemic activity in rats** ([Kabeel et al., 2018](#)).

Learn more about the different properties and health benefits of sheep sorrel root and leaves in this post.

Sheep Sorrel Uses

Overview

Sheep sorrel has an incredible number of traditional and historical uses. It's believed to help with scurvy, cancer, infections, jaundice, mild diabetes, skin, respiratory, gut, liver, gallbladder, heart, and inflammatory disorders. Clinical studies have yet to test its effects, so most of these uses remain unverified by modern science ([Bello et al., 2019](#)).

Folk remedies from ancient times speak of sheep sorrel's anti-inflammatory, antioxidant, diuretic, antimicrobial, anti-tumor, anti-nausea, heart-protective, diuretic, painkilling, antiviral, and antifungal properties ([Korpelainen & Pietiläinen, 2020](#)).

Traditional & modern preparations

The Iroquois and many other native people ate **sheep sorrel's sour-tasting leaves** raw or occasionally cooked. Some strains of sheep sorrel are believed to be indigenous to Canada ([Kuhnlein & Turner, 1991](#)).

People traditionally used **water from boiled sorrel** to wash chickenpox sores, boils, shingles-afflicted skin, poison ivy rashes, blisters, acne, and other skin sores. It is purported to reduce pain and itching and speed up the healing process ([Korpelainen & Pietiläinen, 2020](#)).

Drinking sorrel water with a bit of honey was also believed to bring down a fever, clear sinus infections, and help recover from the cold and flu. It's said to reduce pain and inflammation, encourage sweating, and help flush excess fluids from the body ([Bello et al., 2019](#)).

The roasted seeds were eaten as a purported cure for dysentery (a type of infectious intestinal inflammation) ([Mostafa et al., 2011](#)).

In the Czech Republic, sheep sorrel is said to be used to manage lumps and tumors. Folk healers of Eastern Europe consider it a "**blood cleanser**" ([Bello et al., 2019](#)).

Products that contain sheep sorrel extracts have registered drug status in Europe and are used for acute and chronic **viral respiratory infections** ([Derksen et al., 2014](#)).

Benefits of Sheep Sorrel

1) Source of Potent Antioxidants & Nutrients

Sheep sorrel is packed with antioxidants and nutrients. Antioxidants can quench oxidative stress and contribute to good health. Oxidative stress is suspected to underlie aging and many diseases of the modern lifestyle, including cancer, diabetes, chronic inflammation, and neurodegenerative disorders ([Isbilir et al., 2013](#)).

Sheep sorrel is among the plants with the highest quercetin content, according to the USDA Database for the Flavonoid Content of Selected Foods ([Bhagwat et al., USDA](#)).

The database lists that 100g of fresh sheep sorrel contains 86.2 mg of quercetin. The typical quercetin dosage in supplements is 500 mg/day, which is impossible to achieve with most other foods ([Bhagwat et al., USDA](#); [Li et al., 2006](#)).

Quercetin is a strong antioxidant and natural antihistamine. According to limited research, it may help fight viruses, reduce inflammation, and support immune and heart health. It's also being researched for preventing and inactivating cancer in cells, but its effects on people remain unexplored ([Shoskes et al., 1999](#); [Zahedi et al., 2013](#); [Kowalski et al., 2005](#)).

Sheep sorrel is an exceptional source of vitamin C. The leaves contain 750 to 1200 mg/100 g, which is over 800% of the RDA ([Atanassova et al., 2018](#)).

This explains why **indigenous people used sheep sorrel leaves** to prevent scurvy. Folk healers also gave it as therapeutic food for health conditions caused by vitamin C deficiency. Plus, the leaves are a good plant-based source of protein and contain all essential amino acids ([Bello et al., 2019](#)).

It's important to use wild-crafted sheep sorrel. One study discovered that wild sheep sorrel is much higher in the total amount and activity of antioxidant phenolics than the cultivated variety. Sheep sorrel's antioxidants are also being researched against Alzheimer's disease in test tubes ([Isbilir et al., 2013](#); [Mantle et al., 2000](#)).

2) Alternative Cancer Therapy

In Essiac

Sheep sorrel is the second most predominant herb in Essiac after burdock root (the other two being slippery elm bark and Indian rhubarb).

Some people use Essiac as an alternative cancer therapy. Clinical studies on Essiac haven't yet been carried out. Only survey data, case studies, animal data, archive, and anecdotal and clinical information is available.

One survey-based study looked at the use of Essiac in 510 breast cancer patients and survivors. Women using Essiac reported beneficial effects and few side effects. However, this study did not find a link between Essiac use and markers of quality of life or mood ([Zick et al., 2006](#)).

In a recent study on mice with leukemia, a water extract containing the four Essiac herbs—including **sorrel leaves not roots**—reduced abnormal leukemia blood cells by two-thirds and helped the animals recover normal weight and blood counts ([Kabeel et al., 2018](#)).

We don't know how and if these findings would apply to leukemia patients without human studies.

Find out the truth about the Essiac and cancer in this post. Read about using Essiac for reducing chemotherapy side effects here.

Sheep sorrel alone

In 1970, a scientist named Hartwell led a field study to discover that sheep sorrel and other sorrel species (*Rumex*) are traditionally used against various types of tumors and cancer in **American indigenous medicine**. This plant is cherished by indigenous folk healers who have knowledge about many recipes and formulations that use different plant parts ([Hartwell, 1970](#)).

Almost two decades after Hartwell, a Japanese researcher found that a polysaccharide from sheep sorrel had the strongest antitumor activity out of 3 tested plants. It activated immune pathways involved in locating, engulfing, and removing cancerous cells (*phagocytosis*) in mice with bone cancer ([Ito, 1986](#)).

Emodin from sheep sorrel root stopped four tumor cell lines from dividing and mutating in another study ([Lee et al., 2005](#)).

In leukemia cells, sheep sorrel extract triggered cellular suicide or *apoptosis*. Cancer cells have a way to avoid apoptosis, which allows them to evade death and multiply in excess ([Wegiera et al., 2012](#); [Wong, 2011](#))

An analysis of sheep sorrel leaves suggests that this plant can be used as a source of nutrients that aid healthy weight gain, which is important for cancer patients ([Ladeji & Okoye, 1993](#)).

However, modern science hasn't tested sheep sorrel for cancer prevention or treatment in humans. It's impossible to know how and if findings on cells and animals in the lab will translate to people.

3) Against Ulcers, Inflammation & Fever

Ulcers

The hot water extract of sheep sorrel is a traditional remedy for stomach ulcers and stomach inflammation (gastritis).

Sheep sorrel extract reduced stomach ulcers in mice. It helped soothe stomach inflammation, swelling, moderate bleeding, and loss of cells of the stomach lining ([Bae et al., 2012](#)).

The alcohol extract had a stronger protective effect on mice than the water extract. It also neutralized damaging free radicals without harming healthy cells in test-tube experiments. Emodin from the root is suspected to carry this effect ([Bae et al., 2012](#)).

Sorrel's antiinflammatory potential may explain its use for reducing fever, but no scientific studies have yet investigated this.

Gut Disorders

A Pakistani field study noted that **the whole sheep sorrel plant is traditionally used for jaundice, vomiting, and liver problems** in rural northern parts of the country ([Khan & Khatoon, 2008](#))

Studies on tissues show that sheep sorrel might help with nausea and gut disorders like constipation and diarrhea by relaxing smooth muscles. Smooth muscles line the gut and their excessive contractions can cause pain and cramping ([Hussain et al., 2015](#))

Wounds, Skin Irritation & Diarrhea

Sheep sorrel is traditionally used to stop excessive bleeding thanks to its tannin content. Witch hazel, another indigenous plant, also contains tannins and is used for similar purposes ([Bicker et al., 2009](#); [Touriño et al., 2008](#)).

Tannins constrict body tissues, which also helps if there's any inflammation, open wounds, swelling, or irritation. The same mechanism can reduce diarrhea, as tannins attract excess water and soothe irritated cells of the gut lining. The roots and aerial parts of sheep sorrel are used for this purpose ([Bicker et al., 2009](#)).

4) Immune Health, Lung Health & Allergies

Sheep sorrel is traditionally used as a lung and immune remedy. It's high in quercetin, which is a known antioxidant immune balancer.

Quercetin stimulated a healthy immune response and reduced allergic and autoimmune reactions in cellular and animal experiments ([Li et al. 2016](#)).

Research reveals that quercetin may lower inflammatory substances like histamine, leukotrienes, and prostaglandins. These substances can trigger and worsen allergies and histamine issues. It may also relax the airways, acting on similar pathways as asthma medications, according to tissue studies ([David et al., 2016](#); [Townsend & Emala Sr, 2013](#); [Mlcek et al., 2016](#)).

In one clinical trial, a multi-herb product containing sheep sorrel improved symptoms of acute and chronic sinusitis like congestion and headache. This product also contained gentian root,

European elderflower, verbena, and cowslip flower—so it's uncertain how much each herb contributed to the effect ([Neubauer & März, 1994](#)).

No studies have yet tested sheep sorrel alone in patients with allergic, autoimmune, or respiratory problems.

5) Liver Protection & Detox

Protecting the liver from toxins

Liver damage can affect all other organs in the body. Sheep sorrel extract protected the livers of rats from toxic chemicals in one study. Plus, the extract helped reduce toxin damage to other organs. Antioxidants in sorrel are believed to help protect the liver by neutralizing the harmful effects of toxins ([Alkushi, 2017](#)).

Removing excess fluids

Sheep sorrel is traditionally used as a diuretic, but there is no mention of its diuretic effects in scientific studies.

6) Fighting Viral, Bacterial & Fungal Infections

Activity against viruses

Sheep sorrel was active against the following viruses in test tubes:

- HSV-1 ([Gescher et al., 2011](#))
- Influenza A ([Derksen et al., 2014](#))

Its antioxidants are suspected to help stop viruses from attaching to and penetrating cells. Sheep sorrel might also help cells get rid of viruses that do enter, but studies so far have been limited ([Gescher et al., 2011](#)).

Activity against bacteria and yeast

Specific root extracts of various sorrel species that grow in Europe, including sheep sorrel, showed antibacterial activity in one study in test tubes ([Orbán-Gyapai et al., 2017](#)).

Sheep sorrel was also active against a type of tropical candida yeast (*Candida tropicalis*) in one Brazilian study ([Johann et al., 2010](#)).

7) Heart Health

Sheep sorrel is traditionally believed to strengthen the heart, but the science on this benefit is extremely limited. Nutrients like potassium and vitamin C in sheep sorrel support heart health, but no human data on its effects are available ([Atanassova et al., 2018](#)).

In one study, sheep sorrel reduced blood pressure in rats. It seems to work by helping relax overly stiff and contracted blood vessels. The water extract worked better than the alcohol extract in this case ([Qamar et al., 2018](#)).

In cell experiments, sorrel whole plant extract reduced the excessive clumping of platelets that can clog arteries and cause heart disease. Plus, extract from the leaves boosted nitric oxide production, which relaxes blood vessels and improves blood flow ([Jeong et al., 2020](#); [Sun et al., 2015](#)).

Precautions & Side Effects

Sheep sorrel is considered to be safe when used in food amounts. Larger amounts of raw sheep sorrel leaves may cause gut and kidney side effects due to high oxalate content. For this reason, sheep sorrel leaves should be used with caution in people with kidney disease.

People who are allergic to sheep sorrel, other members of the buckwheat family, or weed pollen should avoid this herb.

The high oxalate content in sheep sorrel leaves may also reduce the absorption of some minerals like zinc, calcium, iron, and others.

Drug and disease interactions with sheep sorrel are also possible. Please consult your doctor before use.

In Summary

Although sheep sorrel has a rich history of use in traditional medicine, scientific studies on its benefits are still in the early stages.

Researchers say this herb is underrated since it grows wild and is high in antioxidants and nutrients that support health. Limited evidence suggests that it may help balance the immune system, reduce inflammation and oxidative stress, and soothe ulcers and wounds.

Animal and cellular studies point to its anticancer potential, but human studies are needed to determine how effective it is.