



Superfoods Fact Sheet

Alfalfa (*Medicago sativa*)



Parts used: Plant

Alfalfa has been known for centuries as a nutrient-rich wonder food and has been called 'the king of all foods'.

Best known as being an animal food, it is incredibly nutrient-rich as it sends its roots deep down underground (sometimes over 40 ft), enabling it to pick up nutrients other plants can't reach!

So it's not only good for animals, it's great for human too!

Historic and Traditional Uses

Tradition has it that alfalfa was first discovered centuries ago by Arabian horsemen as early as 500 BC, who noticed how it improved their livestock's performance and energy. Indeed, the name comes from the Arabic. It is believed to have first been cultivated in Persia.

It was first introduced into Spain in the 8th century as an animal feed, and taken to America by Spanish colonists. North and South America now grows much of the world's crop.

Use as a herbal medicine has been recorded for over 1500 years. Chinese physicians used young alfalfa leaves to treat kidney and digestive disorders, kidney stones, arthritis, and for blood purifying and detoxification purposes. It has also been used to relieve fluid retention and swelling. Ayurvedic medicine has long made use of the herb and both Greek and Roman herbalists recorded its use.

Health Benefits

Traditional medicine and herbalist uses include anaemia, debility, weight loss, gastro-intestinal disorders, hyperacidity, ulcers, clearing the body of toxins, promoting urination, reducing the pain associated with inflammation and strengthening blood vessels. It is also used to cleanse and rebuild the blood and promote lactation.

It is also used to aid the pituitary gland, thereby helping with the release of hormones that regulate metabolism, growth, blood pressure, water regulation, breast milk production and thyroid function.

It also contains phyto-oestrogens which make it a helpful plant with menopausal and menstrual problems.

Alfalfa tablets, taken along with yellow dock, are considered to be a better – and quicker – way of increasing iron levels in the blood than taking standard iron tablets.

Alfalfa is also high in chlorophyll, which stimulates the bone marrow to produce haemoglobin, which helps to oxygenate the blood and tissues.

It is a highly alkalising plant, and also a useful antioxidant, helping to take down inflammation in the body.

Many of alfalfa's benefits have yet to be studied, but amongst those done to date are the following:

Hormonal Balance

Alfalfa contains phytoestrogens in the form of isoflavones and coumestins, and therefore appears to be useful in helping with hormonal balance, particularly hypo and hyper-oestrogen. Phytoestrogens are not true oestrogens, but are molecularly similar to oestrogen. As such they are able to lock onto oestrogen receptors on cells. If there are high oestrogen levels they block access to stronger oestrogens, and if there is low oestrogenic activity, by binding to the receptor sites they stimulate oestrogenic activity.¹

As such they have been used for helping with menopausal symptoms, and symptoms of hormone imbalance such as fibrocystic breasts, and PMT.

Cholesterol Levels

Studies are showing that alfalfa appears to lower cholesterol levels, particularly triglycerides and LDL (low density lipoprotein), without reducing HDL (high density lipoprotein) levels, improving the total cholesterol/HDL ratios significantly.² It is thought that this might be due to alfalfa blocking the reabsorption of cholesterol in the intestines. Both the sterols and saponin content are thought to be part of the mechanism.

Diabetes

Animal studies in mice have found the alfalfa helps to improve certain aspects of the condition³. No human studies have been carried out by alfalfa is associated with 0 Glycaemic Index and good levels of fibre and will therefore not increase a person's blood sugar.

Heart Disease

According to the National Institutes of Health, certain compounds in alfalfa may help to prevent atherosclerosis. No large-scale human studies have yet been carried out. In addition alfalfa has been linked to improvements in blood pressure. Again, further studies are waiting to be carried out.



Immune Function

The saponin content, as well as the rich nutrient load in alfalfa might also help to boost the immune system.

Digestive Issues

Physicians in India practising Ayurvedic medicine use alfalfa to improve poor digestion as well as helping with constipation and to flush the bowel of built up toxins. It is also recommended for aiding with stomach ulcers and problems with gastritis.

¹ Kurzer Ms, Xu X, Dietary phytoestrogens. *Annu Rev Nutr* 1997;17:353-381; Shemesh M, Lindrer HR, Ayalon N. Affinity of rabbit uterine oestradiol receptor for phyto-oestrogens and its use in a competitive protein-binding radioassay for plasma coumestrol. *J Reprod Fertil* 1972 :29:1-9; De Leo V, Lanzetta D, Cazzavacca R et al. Treatment of neurovegetative menopausal symptoms with a phytotherapeutic agent. *Minerva Ginecol* 1998;50:207-211

² Story JA. Alfalfa saponins and cholesterol interactions. *Am J Clin Nutr* 1984;39:917-29. Molgaard J, von Schenck H, Olsson AG. Alfalfa seeds lower low density lipoprotein cholesterol and apolipoprotein B concentrations in patients with type II hyperlipoproteinemia. *Atherosclerosis* 1987;65:173-9.

³ Swanston-Flatt SK, Day C, Bailey CJ, et al. Traditional plant treatments for diabete. Studies in normal and streptozotoin diabetic mice. *Diabetologia* 1990;33:462-464; Gray AM, Flatt PR, Pancreatic and extra-pancratic effects of the traditional antiOdaibetic plant medicago stevia *Br J Nutr* 1997;78:325-334.

Other Uses

Other uses of this herb which have yet to be studied include:

Tonic in cases of malnutrition, debility and prolonged illness

Arthritis and joint problems

To increase lactation

Aiding with kidney problems and as a diuretic

Blood cleanser and purifier

Prevention of hair loss – combined with lettuce and carrot juice.

To treat anaemia – alfalfa is iron rich.

Nutrients:

Alfalfa is naturally high in many essential vitamins and minerals as well as being a good source of protein, higher than most plant foods. It is often used for feeding animals as it has the highest nutritional value of all the forage crops. Taken for human consumption usually as a tea, dried herb or as sprouted seeds it has a mild, fairly bland, flavour and can be easily mixed with other foods.

In addition to almost a full complement of the important B vitamins and important nutrients, it contains phytonutrients in the form of flavones, isoflavones, sterols, saponins and coumarin derivatives.

Due to the fact its roots go down 20 – 30 feet into the ground it is considered one of the richest land sources of trace minerals, as it can tap into minerals which are not available on the surface. It is also a source of chlorophyll, containing four times more than ordinary vegetables.

It is also fibre-rich and alfalfa tablets can be used to aid bowel function.

In addition, every 100 grams of sprouted alfalfa contains:

Calcium	32 mg
Iron	0.96 mg
Magnesium	27 mg
Phosphorus	70 mg
Potassium	79 Mg
Sodium	6 mg
Zinc	0.92 mg
Copper	0.157 mg
Manganese	0.188 mg
Selenium	0.6 µg
Vitamin C	8.2 mg
B1	0.376 mg
B2	0.126 mg
B3	0.481 mg
B5	0.563 mg
B6	0.034 mg
Folate	36 mg
Choline	14.4 mg
Betaine	0.4 mg
Vitamin A	8 µg
Vitamin E	0.02 mg

Vitamin K	30 µg
Protein	3.99 g

*Source: USDA National Nutrient Database.

Ways to Use Alfalfa

The quickest and easiest way to include alfalfa in your diet is to grow your own alfalfa sprouts and use them sprinkled on salads, or make them part of any green juice you make.

In fact, sprouted is their most common usage for the human diet – included in sandwiches, salads, vegetarian sushi rolls, sprouted bread, and in wraps.

NOTE: Be aware that if you are not growing your own, or they don't come from a trusted source there is a chance they could be genetically-modified, as much of the alfalfa now used to feed cattle has been tampered with.

