Lambsquarters (Chenopodium album) is a Nutrient-Packed Edible Weed

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Fact Sheet 005

Background and Culinary Uses

Lambsquarters (also known as white goosefoot, white pigweed, fat hen and wild spinach) is a common, annual weed, closely related to quinoa, and widely distributed throughout the world. It is extensively consumed in India and Africa, where leaves and young shoots are eaten as leaf vegetable. The seed is known to have been used by the Blackfoot Indians in the Great Plains of Montana, and the Canadian provinces of Alberta and Saskatchewan. A very hardy plant, lambsquarters is a highly nutritious and healthy addition to the diet. The raw greens (leaves and young stalks) can be used in salads, smoothies, and juices. They may be steamed, sautéed, curried, or added to soups, especially if consumed in large quantities. Some chemicals in the plant (saponins in the seed, and oxalates, nitrates and sulfates in the leaves) are mildly toxic if eaten often or in large quantities, but they can be easily removed by cooking. The greens can also be dried or blanched and frozen and the bunches with tiny green flowers are also edible. Dried, cleaned seed may be ground and eaten raw, or baked into bread. It may also be cooked like quinoa by boiling in water. Seeds are soaked in water overnight and rinsed thoroughly to remove saponins.

Health Benefits

The plant is loaded with vitamin A (11,600 IU per 100 grams of leaves), which is higher than in spinach, and about 2.5 times more than in kale. It is rich in other vitamins, minerals (particularly calcium), protein and fiber. Compared to spinach, lambsquarters has about 2 times more vitamins B1 and B2, and 3 times more vitamin C and calcium. It has some medicinal value, and is used as anthelmintic, anti-inflammatory, antirheumatic, contraceptive, laxative, and to treat urinary problems. Leaf poultice is used in the treatment of bug bites, sunburn and skin problems.

Cultivation

Lambsquarters is a fast-growing annual herb, with leaves appearing light green due to a waxy coating. A hardy plant that flourishes in moist, rich, well-drained soils, it tolerates full sun, partial shade, heat, drought, frost and poor soils. It grows to an average height of 3 ft., although it can grow as tall as 6 ft. Lambsquarters self-seeds easily, and seeds germinate as soon as the ground warms up, peaking between May and November. Seeds may be sprinkled lightly if growing in a garden patch. If cultivating in a larger area, seeds are sown directly in spring. Germination occurs within a week, but because it is spotty, sowing should be done in thick rows, and seedlings thinned to 1 ft. spacing. Plants are watered as needed, and a slow-release fertilizer may be used. Staggered planting will ensure a continuous supply of greens. Short days, continuous heat, and prolonged drought will induce flowering even in young plants. Urban farmers who grow two crops of cool season species, such as kale and spinach, would be highly benefited by planting fast-growing lambsquarters in the intervening months. Magenta spreen (Chenopodium giganteum, tree spinach) is another common variety in which new growth is magenta colored.

Harvesting

Leaves and shoot tips may be harvested beginning when plants reach 5-6 leaf stage in about 30 days, which will also encourage branching. Young leaves are diamond-shaped, with serrated margin. Mature leaves are smooth-edged and elliptical, growing up to 10 cm long. Small, light green flowers lacking petals and stems are formed in tightly clustered spikes between June and August, when days become shorter. Flower heads are also edible, but stems are tough and fibrous by then. Mature stems show purple striations. Lambsquarters has a good shelf life, and can be cold-stored for up to 7 days.
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**Pests and Diseases**

Lambsquarters is highly resistant to insect and disease, with no known serious threats.

**Saving Seeds**

Lambsquarters is highly fertile. Flowers are bisexual and set seed easily. Tiny, brown-black seeds that fall to the ground sprout readily. If saving for next season’s crop, seed can be collected by shaking spikes into a paper bag, dried and stored in a cool, dry place. Over time, seed collected from robust plants will ensure progeny that are best adapted to local growing conditions.

**Further Information**

1. Lamb’s Quarter’s [Chenopodium album](https://www.ediblewildfood.com/lambs-quarters.aspx);
2. Medicinal uses of [Chenopodium album](http://natureconservation.in/medicinal-uses-of-chenopodium-album-lambsquarters-bathua/)
4. [Chenopodium album – L.](https://pfaf.org/user/plant.aspx?LatinName=Chenopodium+album)
6. Lamb’s Quarter’s [https://wildfoodshomegarden.com/LambsQuarters.html](https://wildfoodshomegarden.com/LambsQuarters.html)

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