

## Nutritional Importance of Weeds and Their Health Benefits

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The species which grow on their own, without human efforts can be termed as weeds. They are in general harmful to the crops and can dominate the vegetation if not cared for. Weeds are generally controlled from crop fields and destroyed. Despite many of the weeds are found to be medicinally important, such weeds can be collected from crop fields and used for curing the diseases and also used as vegetable because of its nutritional value. Edible weeds are highly nutritious, often surpassing cultivated vegetables in vitamins A, C, and K, as well as minerals like iron and calcium and also rich in phytochemicals, antioxidants, phenolics and fiber, they provide significant health benefits, acting as natural food sources, livestock fodder and nutrient-dense additions to human diets.

### Key aspects of the nutritional importance of weeds include:

- **High Nutrient Density:** Many common weeds, such as *Amaranthus* and *Chenopodium*, are considered superfoods due to their superior content of micronutrients compared to conventional leafy greens.
- **Medicinal Properties:** These plants possess therapeutic, anti-inflammatory and antidiabetic properties, making them valuable for both health supplements and traditional medicine.
- **Nutritional Support for Livestock:** Weeds are frequently more nutritious and less fibrous than grass, providing excellent fodder for livestock health.
- **Bioactive Compounds:** Weeds contain bioactive compounds that are increasingly used for developing functional and fortified foods.

**Soil Nutrient Indicators:** The presence of specific weeds can indicate soil nutrient levels (e.g., dandelions for potassium, clover for nitrogen), while their decomposition helps cycle these nutrients back into the soil, enhancing future crop nutrition.

Common garden weeds often found as edible, nutritious vegetables include purslane, dandelion, *Amaranthus*, *Alternanthera*, *Phyllanthus* and lamb's-quarters etc., are rich in vitamins, often serving as hardy, sustainable alternatives to cultivated greens in salads or cooked dishes. They are highly resilient and common in or around, cultivated plots. Some of the most common weeds used as leafy vegetables are listed below.

**Dandelions:** Common name: Blowball, wet-the-bed

Scientific name: *Taraxacum officinale*

Part used: young tender leaves, flower & roots

Consumption method: Raw leaves, Salad, subject along with other vegetable

These weeds are lawn-lovers and are a great source of vitamins and minerals. One of the first greens of spring, you can use the tender young dandelion leaves in salads or in cooking, as well as their flowers and roots.



Dandelions are reported to be good detoxifiers and sources of iron and calcium. Dandelions are also a good source of B vitamins, potassium, magnesium and zinc. Young leaves before the flowers appear are used in culinary to minimize the bitter flavour often associated with older dandelions. Dandelion greens take the place of arugula nicely in salads and on pizza. The yellow part of the flower can also be eaten as raw or cooked, even made into fritters or used in baked goods.

**Lamb's quarters:** Common name: Bathua, or white goosefoot

Scientific name: *Chenopodium album*

Part used: leaves, roots and seeds

Consumption method: soups, curries and stuffed parathas, Juice, sandwiches

These weeds are highly nutritious, wild edible weed used extensively as a leafy green vegetable, especially in India. It is rich in iron, protein, calcium and vitamins A, C, and E, often prepared like spinach in soups, curries and stuffed parathas.



The leaves, roots and seeds have nutritional uses. Lamb's quarter leaves can be used fresh in salads. They can also be juiced, ideally as an ingredient to smoothies, but for best results only use the young tender leaves of the plant. The seeds can be ground and used as additions to cereal and flour or sprouted to use as a micro-green that can be eaten in salads or added to sandwiches.

**Pigweed:** Common name: Perslane, Moss Rose, 11 O'Clock, Sun Rose, Table Rose, or Mexican Rose.

Scientific name: *Parchulaka olesia*

Part used: whole Plant, stems, leaves, yellow flowers

Consumption method: salads or cooked in stir-fries, soups and stews.

It is a highly nutritious, edible succulent weed, boasting a slightly salty and sour, spinach-like flavour. It is exceptionally rich in omega-3 fatty acids, vitamin A, C and antioxidants. The entire plant stems, leaves and yellow flowers can be consumed raw in salads or cooked in stir-fries, soups and stews. Considered one of the most nutritious land-based plants, because of its high levels of omega-3 fatty acids (ALA), which are beneficial for heart health. It is also high in magnesium, potassium and calcium. The leaves and stems are crisp, providing a texture similar to spinach or watercress, often described as having a refreshing, slightly tangy or sour taste.



**Chilkere soppu, Sanna harive:** Common name: Slender amaranth/green amaranth

Scientific name: *Amaranthus viridis*

Part used: leaves and tender stems

Consumption method: boiled, steamed, or stir-fried stews and subji

This weed is a highly nutritious, widely consumed wild weed and cultivated leafy vegetable known for its spinach-like flavour. Rich in protein, calcium, iron and fiber, it is used in traditional cuisines across Asia, Africa and the Caribbean. The young leaves and tender stems are typically boiled, steamed, or stir-fried stews or steamed, featuring a mild, slightly earthy flavour. Traditionally used as a diuretic, purgative and to treat inflammation, with the ash sometimes used for soap-making.



**Sessile joyweed:** Common name: dwarf copperleaf, Sisso spinach, Brazilian spinach

Scientific name: *Alternanthera asessilis*

Part used: The tender leaves, shoots and young stems

Consumption method: stir-fry, curries (Kootu), soups or steamed, dal fry

It is cultivated as a vegetable worldwide. It is widely consumed, highly nutritious and edible aquatic or semi-aquatic perennial herb used as a leafy vegetable in South Asia (India, Sri Lanka, and Southeast Asia). The tender leaves, shoots and young stems are eaten cooked or



fresh due to their rich protein, iron and mineral content. Often prepared as a stir-fry, curries (Kootu), soups or steamed, often in combination with lentils. A 100g serving of leaves contains approximately 4.7g of protein, 60kcal, 2.1g of fibre and is rich in calcium. Traditionally used in Ayurveda and Siddha for eye health (night blindness), as a cooling agent, for digestive issues and in hair oil preparations. Often overlooked this edible herb is also known for its potential health-promoting properties, including antioxidant, antimicrobial and anti-diabetic effects.

**Bhumi amla:** Common name: Stone breaker, seed-under-leaf, Gale of the Wind

Scientific name: *Phyllanthus niruri*

Part used: All parts of the plant

Consumption method: fresh tender leaves and shoots to chutneys, mixing them into soups, or cooking them with lentils and greens. It is also prepared as a tea (decoction) or taken as juice

It is a small, bitter, annual herb used in traditional medicine as a therapeutic tonic. While not a common staple vegetable, its fresh leaves are sometimes consumed to treat conditions like jaundice, dyspepsia and kidney stones. It is known for its hepatoprotective and antiviral properties. It is



extensively used in Ayurveda as a medicinal herb, with all parts often included in decoctions to treat ailments such as skin diseases, anemia and excessive thirst. In some regions, its leaves are utilized in traditional,

therapeutic dishes or as a medicinal tea, though it is more frequently taken for its potent medicinal properties (liver protection, kidney stone reduction) rather than as a daily food item. It contains vitamins C, flavonoids, alkaloids and phenolic compounds.

**Prickly Chaff Flower:** Common name: Chirchita, Apamarga, or Devil's Horsehip

Scientific name: *Achyranthes aspera*

Part used: Tender leaves and stems

Consumption method: boiled or cooked, often as a spinach substitute or in mixed greens dishes

This weed is versatile wild, edible herb often used as a leafy vegetable, particularly during scarcity or in traditional, seasonal dishes. Its tender leaves and stems, usually available for a short period, are consumed boiled or cooked, often as a



spinach substitute or in mixed greens dishes. Leaves & tender stems used as a pot herb and often cooked in rural India as a vegetable. The seeds are sometimes used as a famine food and can be cooked with milk. The plant is regarded as a storehouse of nutrition, although it is often underutilized. Beyond food, it is a well-known medicinal plant, often used for digestive issues and as a diuretic.

**False amaranth:** Common name: Commonly known as, *latmahuria* or *kunjara*,

Scientific name: *Digera muricata*

Part used: leaves and tender stems

Consumption method: Sabji, simply boiled, saag

It is a nutritious wild edible plant used as a leafy vegetable. The leaves and tender stems are cooked into stir-fries (sabji) or boiled, often considered a famine food due to its high nutrient content. It



is rich in calcium, iron and protein. Leaves and tender shoots are typically cooked as a leafy vegetable/saag. Often described as a "little spinach" or "Ceylon spinach," it provides a nutritious alternative to cultivated greens. Because of high in protein, calcium, and iron used in traditional medicine; to treat constipation, diabetes, and urinary disorders and also for cooling effects, The leaves contain valuable compounds that have been studied for potential anti-inflammatory and cancer-fighting properties.

**Conclusion: it's time to make an essential shift in the garden!** The next time you find the "annoying weeds" popping up around your flowers or crops, gather them joyfully! Fill your basket and be thankful for their presence and their generous health benefits. The moment we begin discovering and understanding our weeds, our gardens have the potential to become even more productive. The usually unwelcome herbs become treasured new friends, and this can be the way to achieve a genuinely perfect garden which add nutrients to our diet and in turn our health.

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