



SPINACH

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The Macquarie Dictionary describes spinach as 'a large herb grown for its juicy, edible leaves'. Many gardeners reserve this description for the plant known as English spinach. This common name is somewhat confusing, as the plant is believed to have originated in modern day Iran.

Records indicate that spinach was included with the seed stock sent from England to Australia with the First Fleet. Winter is the ideal time to plant this short-lived, leafy annual, but there are also plenty of other delicious spinach greens to explore.



FACT FILE

Botanical Name: *Spinacia oleracea*

Family: *Chenopodiaceae*

Origin: *Iran*

Climate: English spinach is a short day plant, best suited to growing in cooler climates during late autumn, winter and early spring. Plants have a habit of bolting to seed as summer approaches and the days lengthen and/or temperatures increase. It is grown during winter in the subtropics, but is generally considered unsuitable for tropical regions.

Availability: English spinach is generally available commercially all year round. Entire plants harvested at 5-7 weeks and sold in bunches. Individual leaves are picked and marketed as baby spinach. Frozen supplies can also be obtained.

Varieties: Heirloom selections and open pollinated types include **Bloomsdale Long Standing**, **Round Royal Denmark**, **Amsterdam Giant** and **Hector**. They tend to have large, rounded, succulent leaves with entire margins. **Summer Green** has more upright growth, smaller leaves and deeply lobed margins. It is noted for its fast maturity.

Growing Your Own

Seeds germinate easily when temperatures are cool. Somewhere between 5 and 16 degrees Celsius is ideal. Soaking seeds overnight in cold water speeds germination. Sow direct into prepared garden beds or containers for later transplanting. Each seed gives rise to a clump of 2-3 individual plants. Avoid attempting to separate them as root disturbance can set plants back several weeks. Punnets of seedlings may also be purchased from nurseries.

The number of plants established will depend on whether you intend to harvest entire plants or individual leaves. Allow 10cm between seedlings if harvesting entire plants. While temperatures remain mild, successive sowings can be made every four to six weeks to provide continuity of supply.

If allowing plants to mature for harvest of individual leaves, space them at 30cm intervals. Establish six - ten plants at any one time, repeating plantings two to three times during the growing season if climatic conditions allow. Shading plants will extend the growing season and can result in a more tender harvest.

Be Quick

Like all leaf vegetables, spinach needs to be grown quickly. It must not suffer water or nutrient stress or it will become tough and bitter. Enrich beds with compost, provide good drainage and ensure a soil pH of between 6 and 7 prior to planting.

Water and apply liquid seaweed regularly and mulch to maintain adequate soil moisture. Compost tea, fish based products or other liquid nutrients can be applied to the foliage to boost growth.

Broccoli boxes make good containers for growing spinach if you have limited garden space. The polystyrene helps to insulate the root system against excessive heat and plants can be moved into sunny or shaded positions depending on the time of year.



When harvesting individual leaves always cut the outermost leaves first. Avoid excessively defoliating plants at any one time.

Watch Out For This

Water, nutrient and heat stressed plants will grow slowly and produce a tough, bitter harvest prone to premature flowering and seed formation. Chewing insects love to feast on the leaves. They are most problematic when temperatures are warm at the beginning and end of the main growing season. Shade cloth coverings over plants provide physical protection from insects. Inspect plants regularly and hand pick caterpillars. Derris dust and molasses sprays may also be used.

Seed Saving

Spinach produces tall flower spikes as temperatures and day length increases, but saving seed can be difficult. Plants may be male, female, bisexual or in some cases totally infertile. Several plants are required to ensure that cross pollination between plants is achieved and viable seed is obtained. Seed is wind pollinated and different strains must be isolated to avoid cross pollination and contamination of pure strains.

Did You Know?

While English spinach contains significant quantities of iron, it is bound up with the oxalic acid contained in the leaves and therefore is not well absorbed by the body. Spinach is however a good source of vitamin C, beta-carotene and folate.

Easy Greens

There are many different plants that are commonly referred to as spinach. Most are easier to grow, more productive and climatically more adaptable than English spinach. With diverse growing habits that include climbers, groundcovers, shrubs and colourful foliage annuals, there is no need to restrict them to the vegetable patch. Most can be used as a substitute for English spinach in cooked dishes.

Silver beet (*Beta vulgaris*)

Australian gardeners often use the terms silver beet and spinach interchangeably. Silver beet is easy to grow across a range of climates. The leaves are deep green, large and crinkled with broad white stems and a strong taste. In the United States, silver beet is called Swiss chard. This name is usually reserved for coloured varieties of silver beet such as Rainbow Chard or Ruby Chard in Australia and New Zealand. Propagate by seed.

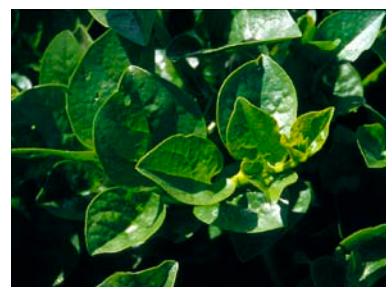
Perpetual Spinach (*Beta vulgaris*)

Varieties of this selected form have smooth green leaves on fine stems and a mild, more delicate flavour than traditional silver beet. It produces a continuous harvest over a long period and is typically more tolerant of warm growing conditions than either English spinach or traditional silver beet varieties. Perpetual spinach is often available in pots in the herb section within nurseries or may be propagated by seed.



New Zealand Spinach (*Tetragonia tetragonioides* - pictured)

Also known as Warrigal Greens, this native groundcover can be found growing naturally on exposed sand dunes and as an understorey plant. It is hardy across all climates. Plants sold from non-organic outlets are frequently hydroponically grown. Propagate by seed or cuttings.



Malabar spinach (*Basella rubra* - pictured)

Also known as Ceylon spinach, this glossy leafed, vigorous tropical climber is best grown as a trellis crop. This makes it easy to pick and the leaves remain clean. It grows during the warmer months in temperate and subtropical climates and year round in the tropics. Propagate by seeds and cuttings.

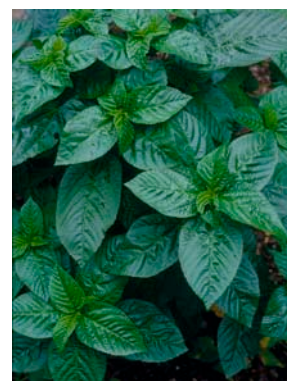


Chinese spinach (*Amaranthus gangeticus*)

This fast growing annual plant is harvested whole and sold in bunches when young. Left to mature, it grows to over 2m and is harvested for its individual leaves. Propagated easily by seed.

Egyptian Spinach (*Corchorus olitorius* - pictured)

This hardy shrub-like plant grows as an annual or short-lived perennial and is related to fibre producing jute plants. The soft green leaves have a delicious, delicate flavour. Copes well with hot, dry conditions without becoming bitter. Propagated easily by seed.

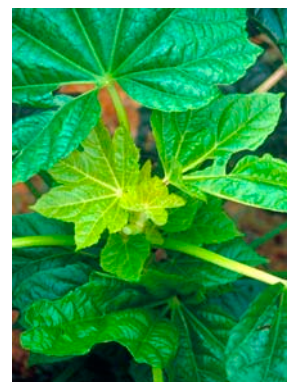


Water Spinach (*Ipomoea aquatica*)

Aquatic and dryland selections of this popular Oriental vegetable are available. Plants grow best during summer in cooler climates and year round in the tropics. Closely related to the sweet potato, it is propagated by seed or cuttings.

Hibiscus Spinach (*Abelmoschus manihot*- pictured)

There are numerous varieties and several subspecies of this leafy green shrub which is also known as aibika. The National Agricultural Research Institute of Papua New Guinea alone lists seventy-nine different selected accessions. Select a cutting grown perennial form as they are typically more delicious and rarely seed. Annual types seed prolifically and have the potential to become weeds. Leaves can also be used to wrap and cook food in.



Mustard spinach (*Brassica juncea*)

Related to cabbage and broccoli, the soft, peppery foliage of this lettuce-like plant can be used sparingly as a salad green. When cooked as spinach the heat disappears. Plants are propagated by seed and coloured foliage forms are highly ornamental in appearance.

French Spinach (*Atriplex hortensis*)

Also known as mountain spinach or garden orach this annual has become naturalized throughout parts of Europe. Foliage colour varies according to variety with red forms having the distinction of retaining their colour when cooked. Plants are extremely hardy in dry or coastal situations and tolerate exposure to salt. Sufficiently attractive to be grown as a foliage ornamental. Propagated from seed.

The foliage of many other plants can be used as a spinach substitute. Make the most of what you grow by harvesting the young leaves and tip growth of rosella, sweet potato, choko and pumpkin vines.