



Fennel

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Fennel is one of those plants that can be both friend and foe, depending on your point of view. Its rapid growth and adaptability to a range of soil types and climatic conditions have seen the species sought after by gourmets and cursed as a weed.



Fennel was considered to be of sufficient importance to be included in the inventory of seeds brought to Australia in 1788 by the First Fleet. It is not clear whether the offspring of fennel grown by early settlers is responsible for the weed status of the species across much of the country.

Culinary fennel found its way into our diets following the influx of southern European migrants in the 1950s, but commercialization of the crop and more widespread consumption is a more recent phenomenon.

Fact File

Botanical Name: *Foeniculum vulgare*

Family: *Apiaceae*

Origin: *Southern Europe*

Description: *Fennel is a hardy perennial, characterized feathery green foliage and the intense aroma of aniseed. It produces towering flower stems up to 2.5 m high that bear greenish yellow umbellate flowers, followed by large heads filled with aromatic seeds. Selected forms that have a mild flavour and develop a bulbous base are favoured for culinary use.*

Climatic Range: *Fennel is adaptable across a wide range of climates but dislikes frost and extremely hot weather. This tends to encourage plants to flower and set seed prematurely. Peak growing periods are spring and autumn in most climates. Autumn plantings are preferred in subtropical regions and crops can be grown successfully in the tropics during the dry season.*

Friend or Foe

Fennel is a plant of many disguises. Despite its variety of growth habits and various uses, all the different types of fennel grown are selected varieties of the same species.

Wild Fennel

Mention fennel and some people reel back in horror. They immediately imagine the feathery green foliage and the overpowering aniseed smell common to wild fennel. Wild fennel is commonly found growing as a weed along roadside cuttings, in wasteland areas and degraded paddocks.

This fennel is considered a weed in most parts of the country and has declared weed status in some regions. Fennel has allelopathic characteristics, secreting substances that inhibit the growth and germination of other species and thereby reducing competition from other plants. Fennel has a deep root system that helps it to withstand adverse conditions. It propagates by root division and is spread by cultivation. It also produces vast quantities of seed that germinates readily.

While many appreciate the robust flavour of wild fennel, you should avoid collecting wild fennel growing in roadside locations as this may have been sprayed with herbicide. The potential harm associated with consumption of roadside fennel that has been sprayed has resulted in some local authorities and contactors using coloured dye to indicate herbicide application to plants.



Culinary Selections

For culinary types, the word fennel immediately conjures up mouthwatering images of Florence fennel, finocchio or sweet fennel. Prized by gourmet chefs, this fennel selection develops a swollen base that is harvested for use as a vegetable and salad ingredient. It features prominently in Italian dishes. The base has a crisp texture and mild aniseed flavour and can be eaten raw or cooked.

Foeniculum vulgare var. dulce and *Foeniculum vulgare var. azoricum* are two strains of Florence fennel that have been developed by selective propagation for culinary purposes. Several named varieties of these strains are available from seed suppliers.

Commercial Crops

Commercial supplies of Florence fennel are widely available from March until November, but least expensive and in most abundant supply from July to September.

During summer, heat can make fennel go quickly to seed, so growers tend to harvest crops early as young, tender baby fennel. This is because plants that flower and seed prematurely as a result of stress have a tendency to become tough and woody. The foliage of Florence fennel is also used in cooking and as a garnish. It has a less robust flavour than wild fennel.

Fennel seed is an essential ingredient in many cuisines. The seeds are used in bread, pastries, pasta and pickles or used to make a tea drunk as an aid to digestion. Fennel is also said to reduce and prevent flatulence, hence its common use in vegetarian dishes based on pulses. Folklore suggests that chewing fennel seeds reduces tummy rumbles and suppresses hunger pangs.

Fennel oil is used to make the popular aniseed drink known as Pernod. Fennel oil also finds its way into everything from medicines to air fresheners.

In the Garden

Ornamental gardeners prize the attractive, contrasting foliage of bronze fennel (Eden seeds). Like wild fennel, this plant has weed potential, so care should be taken to avoid allowing plants to develop seeds.

As a colonizing plant, fennel roots help to break up hard ground and contribute valuable vegetative matter to degraded soil. Where fennel is grown as commercial crop, gardeners prize the harvest trash as garden mulch. As a member of the carrot family, the umbellate flower heads of fennel are an important source of nectar and pollen for beneficial insects. Some organic growers plant fennel specifically for this purpose.

Sourcing Seed

Organically certified seeds of Florence fennel are available from Eden seeds and Green Harvest (*Romanesco*). Diggers and Kings Seeds (*Milano* and *Tuscany*) also carry non-certified seed stocks. Seed of ornamental bronze fennel is available from Eden seeds.

Preparing to Grow Florence Fennel

Florence fennel is grown from seed sown directly into soil that has been enriched with compost. A friable soil that will allow for rapid uninhibited basal swelling is preferred. The optimum pH ranges between 6.5 and 7.5. Enrich the soil with compost and other organic material then rake to a fine tilth ready for seed sowing.

Seed Sowing

Press the seeds into the soil and lightly cover them with sieved compost. Staggering seed sowing at two-week intervals can be useful in extending the period over which crops can be harvested.



Germination takes place in 7-10 days. At this stage plants can be thinned to 4-6 plants per square metre or rows of plants space 50cm apart. Discard thinned seedlings as the shock of transplanting can set plants back significantly and result in them bolting to seed. Seeds can also be sown in shallow trenches making it easier to hill up the soil around developing bulbs.

Grow Me Quick

Like most crops, quick growth is the key to a tender, palatable harvest. Applications of compost tea, seaweed or other organically based liquid fertilizer can be used to encourage rapid growth where soil fertility is less than optimum. Begin application as soon as plant reach seedling stage and repeat each week or as necessary.

Hilling Up

Hilling is the process of mounding soil or mulch up around the base of plants and is usually carried out around six weeks after germination. This is the stage when the base of well-grown plants begins to swell. Hilling with soil excludes light and prevents greening of the base, resulting in a more tender, white, blanched harvest.

Placing bottomless milk cartons or newspaper sleeves around the base of young plants, while still allowing the foliage to spill over the top, can help to keep hilled soil from accumulating within the basal leaves. This makes cleaning and cooking preparation much easier. Planting in blocks or thick mulching can achieve a similar effect to hilling.

Tough Growing - Tough Growth

While fennel is quite drought tolerant, regular watering produces a more tender, mild flavoured harvest. Water and nutrient stress or extremes of temperature can cause plants to develop overly strong flavour, become tough and to bolt. Bolting the term used to describe plants that flower and set seed prematurely.

Harvesting

Plants can be harvested for their foliage at any time and for their base as soon as plants are deemed large enough. Mature harvest requires between three and four months of growth. To harvest the base of plants, carefully remove any hilled soil or mulch and peel back any protective sleeve. Use a sharp knife to cut the entire plant just above ground level.

If only harvesting a small portion of your crop, avoid digging up the roots at this stage, so as to avoid disturbing neighbouring plants. Remove the roots of fennel plants with a garden fork when the remainder of the crop has been harvested.

What Pests?

The pungent aroma of fennel seems to repel most pests with the exception of slugs and snails who seem to be attracted to this juicy aniseed flavoured crop. Extreme growing conditions such as very nutrient depleted soil, heavy waterlogged clay, drought, frost or extreme heat are the main causes of crop failure or a tough, unpalatable harvest.

Seed Saving

As all types of fennel are simply variations of the one species, different varieties readily cross-pollinate with one another. This means that in order to preserve the purity of bulbous fennel you must avoid potential cross pollination with different types of Florence fennel as well as wild and ornamental fennel plants.

Remember that fennel flowers are insect pollinated, so that all fennel growing within the likely radius of insect flight must be removed or at least prevented from flowering. This may require you to remove or request council slashing of roadside infestations of wild fennel.



To collect seed, allow well-grown plants to mature to produce their tall central flower stalk. Avoid collecting seed from plants that bolt as this characteristic tends to be inherited in future crops. A few weeks after flowering you will notice that the flower heads become heavy with the weight of developing seeds.

Collect seed heads before they shed by placing them into large paper bags where they can continue to dry. The seeds will collect in the base of the paper bag and do not require additional cleaning or treatment. Store seeds in containers placed in a cool, dark area. They are ready for use in cooking or sowing next season.

Weed Worries

To avoid cultivated forms of fennel becoming weed escapes, responsible gardeners remove spent flower heads before seeds are shed. If fennel is a weed in your region, you may also want to remove flower heads to prevent them acting as a source of cross-pollination for wild fennel. Always dispose of fennel roots and foliage in hot composts to avoid the possibility of unintentional vegetative or seed propagation.