

Mustard Family (Brassicaceae)

Kale

Brassica oleracea

aka leaf cabbage



Origin: Mediterranean region and Turkey



Varieties we grow: Curly, Kavolo Nero

Other varieties: Red Russian, Redbor



DID YOU KNOW?

Brassica oleracea species derive from wild cabbage which would grow in coastal environments and therefore had a high tolerance for salty conditions. This crop was then cultivated and selected for different qualities, giving us a variety of vegetables that are all actually one species! For example, kale has been selected for its leaves, broccoli for its stems and flowers, cauliflower for its flowers and brussel sprouts for their buds.

GROWING KALE



APPEARANCE AND SIZE Depending on the variety, kale can have textured, curly, wavy or frilled leaves that vary in colour from dark green to dark red and purple. It has thick stems and when in flower, it has yellow four-petaled flowers that attract pollinators. Mature kale plants are large, reaching up to 60cm tall and wide, so make sure to plant in an appropriate location. For growing in large pots, choose a dwarf variety which would grow to about 45cm tall and wide.



GROWING SEASON Kale is a cool season crop, providing food in the colder months. Sow kale seeds outdoors from March to June. Sowing in spring will bring harvests from autumn onwards and summer sowings will result in harvests through winter and early spring.



SUNLIGHT Kale can be planted in full sun or light shade with 6-8 hrs of sunlight.



SOIL Prefers rich, well-draining soil with an adequate supply of compost. Kale can tolerate alkaline soils and prefers a soil pH of 6-7.5.



WATERING Water young plants regularly. Mature plants should only need watering during dry periods. Ensure that plants grown in containers get watered more often, as they will dry out faster.



HYDROPONICS In a hydroponic system, kale likes an EC of 1.6 and a pH of 6. A warm environment and 14 hrs of light encourage quick growth.

USING KALE

COMMON USES

Belonging to the mustard family, kale has a pungent flavour. This is due to the presence of the amino acid glucosinolate which provides the sulfuric taste. The leaves can be tough so massage them before use to soften them up.

Kale is versatile and can be eaten raw or cooked. You can add it to smoothies, pesto, stews, soups, stir fries, eggs, burgers, salads and more! For a healthy savoury snack, make kale chips. Try the Sri Lankan kale mallung, which is a stir fry with kale and grated coconut. Caldo verde is a Portuguese soup which consists of pureed potatoes, finely sliced kale, salt and olive oil. Check our website [HERE](#) for recipes.

NUTRITIONAL VALUE

Kale is high in vitamins K, A, C, E, B6, folate in addition to the minerals manganese, iron, calcium, magnesium, potassium and phosphorus. Nutrient levels will decrease when the kale is boiled.

HARVESTING KALE

Harvest the outer leaves of kale leaving the middle in tact as this is where new growth will come from. Pick leaves that are at least 5 cm tall and don't let them get too big, as they will become tough and leathery. Aim to harvest around 1/3rd or up to a half of the plant at any time, harvesting more if the plant is bigger.



STORING AND PRESERVING KALE

DRYING

You can dehydrate leafy greens such as kale, lettuce, spinach and chard to make a green powder. To dry in a dehydrator, place leaves on a sheet in a single layer and dry at 40C for 4-8 hours. To dry in the oven set your oven to the lowest setting, open the door to reduce moisture, and cook for 2-4 hours. Check in periodically and discard any burned leaves. Store in a dry, clean jar out of direct sunlight for up to a year. Add to dishes just before serving, do not cook.

FREEZING

Wash the kale, pat dry and chop it up. You can freeze the kale in chunks, in which case bundle the kale into small balls and place them in the freezer in a suitable container. If you want to freeze the kale as separate parts, lay out on a cookie sheet without any overlapping layers, flash freeze for 1 hr in the freezer and then transfer to a suitable container and store in the freezer. To maintain flavour and colour for longer, blanch the kale before freezing. If just blanching leaves, do it for 2.5mins. If leaves and stems, blanch for 3 mins. Frozen kale will last 6 months in the freezer, while blanched kale will store for up to a year.

STORAGE

Store kale in the fridge in a plastic bag to maintain moisture. Use within a week of harvest.

COMMON PESTS

CABBAGE WHITEFLY

IDENTIFY

- Found on Brassicas only. Small white-winged insects, that fly up in from the underneath the leaves when disturbed
- Black or greyish powdery moulds may develop on the upper leaf surface on sticky honeydew excreted by the whiteflies.
- Whiteflies are sap sucking and only affect the leaves. Brassicas usually withstand the pest but they are an issue on kale as they affect the leaves meant for consumption.

TREAT

- Check your plants regularly as there is a higher chance of control if spotted early.
- Encourage natural predators in the garden such as ladybirds, ground beetles and wasps by having a diversity of pollinator attracting plants and habitats.
- Organic sprays and plant oils are only recommended if the infestation is out of control. Otherwise, it is recommended that the whiteflies are tolerated and kale leaves thoroughly washed before consumption.



Use netting or mesh to protect seedlings from birds!

CABBAGE CATERPILLARS

IDENTIFY

- Large and small white butterflies and cabbage moth caterpillars feed on brassica plants.
- Caterpillars of the large white are black, yellow and hairy. Caterpillars of the small white are pale green with velvety hairs. Cabbage moth caterpillars are hairless and a yellowish or brownish green.
- The caterpillars will eat holes in the outer leaves.

TREAT

- Check your plants regularly from spring onwards as there is a higher chance of control if spotted early. Pick off any caterpillars and eggs.
- Tolerate small populations as the caterpillars provide food for birds and parasitoid wasps.
- Grow plants under fine netting, ensuring it does not touch the plants as adults could lay eggs through the net.
- Encourage natural predators in the garden such as ladybirds, ground beetles and wasps by having a diversity of pollinator attracting plants and habitats.

