

Organic Kale and Collards:

Growing and Seed Saving Information



Kale

Kale and collards are hardy biennials that will overwinter in milder climates, and improve in flavor with the onset of cold weather. They are in the *Brassicaceae* family, sharing species name *Brassica oleracea* with cauliflower, cabbage, broccoli, brussels sprouts, and kohlrabi.

- Scotch - Deeply curled and wrinkled leaves. Very hardy.
- Siberian or Russian – Flat leaves with lobed edges. Most tender.
- Lacinato – Dark green savoyed blade shaped leaves.
- Collards – More heat tolerant. Giant round leaves.

Soil and Nutrient Requirements

Kale and Collards thrive in well drained fertile soil high in organic matter, with pH 6.0- 7.5. They can tolerate slightly alkaline soil. A general guideline is 2-3 lbs of 8-16-16 fertilizer over 100 sq ft of garden area two weeks before planting. If boron is not present in your soils, consider adding 1 Tbs per 100 sq ft.

Position

Full sun is best, although light shade can help plants tolerate hot weather.

Seeding Depth

1/4-1/2".

Plant Spacing

Babyleaf- Direct seeding: ~60seeds/ft in 2-4" bands; Full Size- 12-18"

Row Spacing

18-30" for full size

When to Sow

Days to maturity are from direct seeding, subtract 2 weeks if transplanting. Direct sow as soon as soil can be worked or start transplants 4 weeks before planting date. Plant baby leaf every 4-5 weeks for a continual harvest. Sow fall plantings two months before first expected frost for full size and up until frost for baby leaf.

Frost Tolerant

Yes. Kale is very hardy, withstanding even a hard freeze. Cold weather causes kale to become very sweet.

Drought Tolerant

Kale can tolerate drought, but the quality and flavor of the leaves will suffer.

Heat Tolerant

Collards are a better choice than kale for hot weather.

Seed Specs

5,625-9,375 seeds/oz (7,500 avg), 90-150M seeds/lb (116M avg).

Seeding Rate

Babyleaf- 116 M seeds/100' bed (1 lb), 1.6MM seeds/1,000' bed (10 lbs) using ~1,000 seeds/ ft in 16 rows on a 36" bed. Full Size- 68M seeds/acre (12oz) using 3 seeds/10", 30" row spacing. M=1,000, MM=1,000,000

Harvest

Harvest full size leaves when desired. Kale flavor sweetens after light frosts. Kale and collards are both very cold hardy, overwintering in most climates to some degree.

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Storage

Cool leaves in cold water at harvest and store in plastic in fridge. In late fall, cut the heart of the plant and store just above freezing in a plastic bag for a few weeks.

Pest Info

Kale and collards do not usually suffer too much from pest damage, but they are subject to the same insect pests as cabbage, cauliflower, and broccoli.

- Insect pests, including cabbage looper, imported cabbage worm, and diamondback moth are largely of the Lepidoptera order and can thus be controlled by *Bacillus thuringiensis* (such as Dipel DF) and/or spinosad, preferentially in rotation with one another to prevent build-up of resistant individuals.
- Flea beetles chew small holes in the leaves and are most detrimental when plants are young; use row cover (make sure edges are sealed) or application of Pyganic™, neem or capsaicin products to control populations.

Disease Info

In general, kale and collards do not suffer much from disease. They can be affected by Black Rot, caused by the bacterium *Xanthomonas campestris* and Club root, caused by the soil borne fungus *Plasmodiophora Brassica*. Prevention includes resistant varieties, crop rotation, removal or tillage of plant debris, eliminating cruciferous weeds, and handling plants in dry conditions.

Seed Saving Instructions

Insect pollinated biennial. Different kale varieties must be isolated by ¼ mile in order to prevent cross pollination. Closer distances may be adequate if tree lines, woods or buildings are in between the different gardens. Allow plants to flower and set seed pods. Seeds are mature when black and the pods have begun to dry. Take care during seed harvest because the pods shatter readily when dry. Use a 1/8" screen to help with cleaning. Kale seed remains viable for 4-5 years under cool and dry storage conditions.