

# The Brassicas 101 – Cabbage, Cauliflower and Kale

Cabbage, cauliflower and kale are members of the Brassica family. They are cool season vegetables with a fast growth rate. Seedlings can be planted in the garden two weeks before the last frost date as long as they have been hardened off. The Old Farmer's Almanac has estimated that the last frost date for Grosse Pointe Farms, MI is May 3, 2026.

**Planting instructions.** Cabbage, cauliflower and kale each grow to 1-2 feet tall and wide. Plant hardened off seedlings 18-24 inches apart. All three need loamy soils with plenty of compost.

**Growing requirements.** Brassicas require full sun to light shade. A little afternoon shade can protect the heads of cabbage and cauliflower from sun scorch. The brassicas are heavy feeders so side dressing with a good quality vegetable fertilizer every 2-4 weeks through their growing season is recommended. They also require one to 1 ½ inches of water weekly. A layer of mulch around the plants will help retain moisture.

While there are a number of family similarities, there are a few differences. The growing requirements for cauliflower differ slightly. The cauliflower head is made of curds, tightly packed immature flower buds. These buds are very sensitive to temperature changes, especially the white variety. This requires that the head is blanched to avoid discoloration

**Blanching cauliflower.** Begin the process when the head is about the size of a large chicken egg and the head is completely dry. Simply fold some larger leaves over the head and secure them on the opposite side. Clothes pins, rubber bands or string can be used. Block the light with the larger leaves, but leave a little room for continued growth. Check under the leaf blanket occasionally to make sure insects aren't hiding there and that the head has room to grow.

**Harvesting the brassicas.** Maturity, days to harvest, for cabbage is around 70 days. Cauliflower maturity ranges from 60-90 days, while Kale can be harvested in as little as 30 days. Leaving the cabbage or cauliflower heads in the garden too long may lead to splitting or bolting (blooming). Cut the heads as soon as they are fully formed and firm to the touch. Use a sharp knife to cut the head at the base. Depending on temperatures, a second harvest might occur, but with smaller heads.

Harvest tender young kale leaves for use raw in salads. Older leaves may need to be cooked as they become tougher with age. Always remove the outer leaves, allowing new growth from the center.

**Storing brassicas.** Bring cabbage heads indoors as soon as possible after cutting. They will last in the refrigerator for about two weeks if wrapped in plastic. Cauliflower can be frozen for later use. Another storage method for cauliflower is to lift the whole plant, shake the soil off of the roots, and hang by the roots in a cool, dry, dark, well-ventilated room. Mist the head if it looks dry. Cauliflower can last up to one month using this method. Harvested kale will keep in the refrigerator crisper drawer for about a week.

# Brassica Pests and Diseases

Like all vegetable plants, the brassicas have their list of bug-a-boos. Since pollination is not required by these plants, row covers or insect netting can prevent adult moths from laying their eggs on young plants. The problem with covering the plants is that the brassicas are cool crops, so trapping heat may cause problems as spring temperatures rise.

- One of the best pest prevention methods is to plant marigolds alongside the brassicas. Marigolds deter many of the brassica pests. Their roots, especially the French marigold roots secrete a chemical substance that will repel or kill some species of nematodes, those nasty little creatures that attack plant roots.

## Brassica Pests

- Cabbage worms and cabbage loopers are the leading threat. They chew holes in the leaves.
  - o Cabbage worms are the larvae of the cabbage butterfly. Caterpillars are velvety green with faint yellow stripes and grow to 1 inch long. They are usually found on the undersides of leaves where they feed.
  - o Cabbage loopers are often mistaken for cabbage worms because of their similarities. They are also small, pale green caterpillars with white lines that run down the sides of their bodies. They arch their bodies as they crawl along (think inchworm). Like cabbage worms, they feed on the undersides of the leaves, leaving small holes.
  - o Cabbage worm and cabbage looper treatment.
    - Invite beneficial insects and natural enemies like parasitic wasps into the garden. Plant calendula and marigolds among cabbages to attract beneficial predatory insects.
    - Pick off worms and eggs by hand or trim off heavily infested leaves.
    - Apply row covers or fine insect netting at planting time.



*Cabbage looper and looper moth*

*Cabbage moth and cabbage worm*

- Cutworms chew through the young stems, effectively destroying the plants.
  - Cutworms are also the caterpillars of moths. They cut down young plants to the soil level and eat the leaves.
  - They are nocturnal, feeding at night and hiding during the day in leaf debris or in the soil. When disturbed, they curl into a 'C' shape.
  - Cutworm treatment
    - Make foil collars that extend 2-3 inches into and above the soil line.
    - Handpick larvae off and dispose of them. Use a flashlight to find them at night.
    - Spread diatomaceous earth around the base of the plant. The fine powder dehydrates them. Always follow label instructions.
    - Remove all plant debris at the end of each growing season to reduce the occurrences of overwintering.



*Cutworm moth and larvae*

- Aphids are attracted to young tender plants.
  - Aphids are small, soft-bodied insects that are usually found on the underside of the leaves and stems of plants.
    - Most aphids are green or yellow in color, but others are pink, brown, red, or black. Heavy infestations can yellow or distort leaves and stunt the plant's growth.
    - Aphids feed in groups and release honeydew, a sticky, sugary substance that attracts ants and leads to sooty mold, causing black growth all over the plant.
  - Aphid treatment. Because they are so small and reproduce rapidly, they can become an infestation quickly.
    - Spray insects off the leaves with a jet stream of water.
    - Invite aphid predators, lacewings and ladybugs, onto infested plants.
    - Companion plant flowering herbs like yarrow to attract aphids away from vegetable plants. Alyssum, calendula and marigolds attract Ladybugs who delight in feeding on aphids.
    - Prune out heavily infested leaves.
    - In extreme cases, it may be necessary to treat with Neem Oil. Always follow label instructions.



*Aphids*

*Sooty Mold*

- Flea beetles

- Flea beetles are very small, measuring between 1.5- and 3-mm. They are dark in color and iridescent. They get their name because they jump like fleas when disturbed.
- Flea beetles are more detrimental to young plants.
- They feed on the leaves leaving holes or pits.
- Flea beetle treatment.
  - Use floating row covers before the infestation.
  - Companion plant dill and marigolds close to vegetable plants to thwart the beetles from the desired plants.
  - Apply a layer of mulch under the plants to prevent beetles from reaching the top of the soil.
  - Dust leaves with plain talcum powder. It repels flea beetles.
  - Use diatomaceous earth or Neem oil to control the population. Always follow label instructions.



*Flea beetle*



*Slug*

- Slugs can also be problematic for the brassicas. They love the soft, tender foliage and the moisture filled leaves.
  - Slug treatment.
    - Hand pick slugs off plants and dispose in a bucket of soapy water.
    - Create a barrier with diatomaceous earth.
    - Keep the garden clean by removing hiding places such as old garden debris.
    - Water in the morning so leaves can dry out earlier in the day.

## Brassica Diseases

- Clubroot, downy mildew and black rot are fungal diseases that destroy plants in the brassica family.

Disease prevention centers around planting resistant varieties, crop rotation and diligent fall cleanup of debris to lessen overwintering fungal spores.

## Resistant cultivars for zones 6-7 and Michigan gardens

- Cabbage
  - o Brunswick – a red cabbage with a longer than usual shelf life
  - o Golden Acre – a green cabbage with compact heads
  - o January King – a cold-hardy cabbage with blue-green leaves and a sweet flavor
- Cauliflower
  - o Cheddar – a sweet mild tasting, orange cauliflower that matures in just 68 days
  - o Fioretto 70 – a white cauliflower with a sweet and nutty flavor that matures in 70 days
  - o Snowball – an early white variety reaching maturity in 55-60 days
- Kale
  - o Winterbor – a beautiful variety of kale with curly blue-green leaves, resistant to flea beetles and caterpillars
  - o Red Russian – a sweet, mild and fruity flavor with flat leaves, resistant to aphids
  - o Dwarf Blue Curled Vates – a smaller variety of kale, colder tolerant, even of a light frost

For more information on companion planting, trap cropping and attracting good bugs to the garden, look for the 'Build it and They Will Come – Attracting Beneficial Insects to the Garden' article on this web page.



