

Cold Crop Vegetables

A guide to growing vegetables that prefer a cooler growing season



Cool Season Vegetables

These are vegetables that prefer a cooler growing season. However, direct sowing into the ground will not always work, because many plants prefer a warmer soil temperature in order to germinate.

Only certain plants can be sowed directly:

- kale
- garlic (best planted in fall)
- arugula
- garden cress
- lettuce
- peas
- potatoes (only seed potatoes)
- spinach
- Swiss chard

All of these particular plants prefer cooler soils to germinate.

Most plants will survive and even produce a crop despite a less than perfect growing situation. The better the growing environment created, the healthier the plants, resulting in higher crop yield.

Warm the Soil

Many varieties of vegetables will prefer a warmer germination soil than the growing soil temperature. This can be achieved by starting seeds indoors, in a cold frame, or warming the soil using plastic row covers.

Black Plastic - inexpensive, warms the soil very well and discourages weeds

Row Covers - Use hoops made of 1/2" PVC pipe spaced about 3 to 4 feet apart and attach lathe boards to side edges of cloth with heavy duty staples. You should unroll the cloth during warm, sunny days and recover each evening to protect young plants on cold nights.

Clear Plastic - warms the soil very well, but encourages weed germination

Mulching

Apply a thin layer of mulch to lower soil temperatures if necessary, and gradually increase the depth of mulch as the plants grow. This is especially important with potatoes.

At a Glance

Warm the Soil: You may either start seeds indoors, in a cold frame, or by using plastic row covers

Mulching: Apply a thin layer to lower the soil temperature if needed, particularly for potatoes

Acclimate Your Plants: It's necessary to acclimate plants grown in greenhouses to the outside elements. Place plants outside during the day for 1-2 hours at first, increasing daily for about 5 days

Hot Caps and Wall o' Water

Cut the bottom off of a 1 gallon milk jug and cover plants. Remove on warm days or place hot cap or Wall o' Water out in the garden 4-5 days prior to planting seedlings.

Acclimate Your Plants

Acclimating, or "hardening off", plants bought from a greenhouse to the outdoors helps them to better deal with wind, sun, and temperature fluctuations.

To reduce shock, start with 1-2 hours the first day, increasing incrementally every day for about 5 days before planting in the ground. Avoid direct sunlight for the first day or two if possible, as they will be unaccustomed to it and may scald.

You may also try setting the plant (still in its pot) in the location it will be planted for the last day or two of hardening off, before planting, to be sure it will be well-suited to its new conditions.

Minimum Temperatures

These cool season vegetables like it cold, but even they have a limit. Once hardened off, or acclimated, they can tolerate the following low temperatures.

31-33° F

Peas

Potatoes

31-26° F

Broccoli

Cabbage

Cauliflower

Swiss Chard

Lettuce

Onions

Radish

Turnips

Collards

Asian Greens

Strawberries

Asparagus

22° F

Arugula

Lettuce

Spinach

20° F

Brussels Sprouts

Beets (Bull's Blood & Chiogga)

15° F

Carrots

Russian Kale

Parsley

5° F

Winterbor Kale

For instructions on protecting plants from frost, [check out our video](#) on using frost blankets by clicking the link, or by scanning this QR code with your phone's camera.

