



# Seed Savers EXCHANGE

## **How to Grow Carrots (Daucus carota)**

*Carrots are appreciated around the world as fresh eating vegetables, kitchen staples, and long-term storage crops. When planting carrots, be aware that they can be finicky in the early part of the season. Carrots are biennials, producing seed after two years of growth, but the reward is well worth the effort. Carrot seed can be used for next year's crop and also as a culinary spice.*

**Time of Planting:** Plant carrot seeds outdoors when the soil is above 45

**Spacing Requirements:** Plant carrot seeds ¼ inch deep and 1 foot apart. Later in the spring, thin carrot plants to 2-3 inches apart in rows 18-24 feet apart.

**Time to Germination:** 7-21 days

**Special Considerations:** As the shoulders of the carrots begin to emerge from the soil, mound a little mulch or dirt around the exposed root to prevent greening.

**Common Pests and Diseases (and how to manage):** Carrot plants can suffer from a number of pests and diseases, including carrot rust fly, carrot weevil, cutworm, flea beetle, slugs, leaf blight, and soft rot. Consider planting resistant varieties and thin plants on a damp, overcast day.

**Harvest (when and how):** To harvest carrots, pull the roots up by their tops. Be gentle when uprooting carrots; some deep rooted varieties may snap when harvested.

**Eating:** Carrots are a versatile culinary crop. They can be used fresh, in salads, diced and simmered with onions and garlic to start many sauces, or they can be roasted and served as a main dish. The texture of carrots holds up to many cooking methods, from stews to pureed soups.

**Storing:** Fresh carrots will last 4-5 months when stored at 33 °F with a relative humidity of 90-95%. They will keep for 7-9 months when stored at 35 °F with a relative humidity of 95-100%.

## **How to Save Carrot Seeds**

*Carrots are a popular garden crop, but they pose several challenges for seed savers - such as their ability to cross-pollinate with wild carrot, or Queen Anne's lace. Carrots also require vernalization - a period of cold - before they set seeds, so seed harvest happens in the second year of growth.*

**Life Cycle:** Biennial

**Recommended Isolation Distance:** Separate varieties by at least 800 feet-½ mile in their second season of growth.

**Recommended Population Sizes:** To ensure viable seeds, save seeds from at least 5 plants. When maintaining a variety over many generations, save seeds from 20-50 plants. If you're saving seeds for genetic preservation of a rare variety, save seeds from 80 plants.

**Vernalization:** Vernalization can happen in the field or in storage. Overwinter carrots in the field if you will have 10-12 weeks of cool weather (around 50 °F) without regular temperatures below 15 degrees F. In the northern United States, where winter temperatures frequently fall below 15 degrees F, carrots must be dug before the first hard frost and vernalized in storage. If possible, dig carrots when the soil is relatively dry; shake or gently brush the roots to remove as much soil as possible, but do not wash them. Trim tops down to just above the crown by making two or three diagonal cuts upward from the base of the leaf stems, being careful not to cut the crown of the plant.

Carrot roots can be stored in perforated plastic bags or any ventilated container: in bags, evenly disperse wood shavings around the carrot roots; in containers, line the bottom of the container with wood shavings, clean sand, or dry leaves, and then alternate each layer of carrots with a thin layer of whatever storage medium is being used. Cull diseased or off-type roots prior to storage and again before replanting.

In the spring, roots should be removed from storage and prepared for replanting. Each plant should be set so the plant's crown is just above the soil line, mimicking the height of the crown during its first season in the garden. When growing carrots for seed, increase spacing to 6-18 inches between plants, in rows 24-48 inches apart. Staking is recommended.

**Assessing Seed Maturity:** As carrot seeds mature, they turn from green to tannish brown; fully mature seeds detach from the plant.

**Harvesting:** Individual seed heads can be harvested by cutting stems several inches below the umbels. The harvested material should be moved to a well-ventilated space that is protected from rain for further drying for 5-14 days.

**Cleaning and Processing:** Carrot seeds can be easily threshed by rubbing the seed heads between one's hands or against a fine mesh screen. Because each pair of seeds is held on by a thin stem, dislodging the seeds into a container by gently brushing the tops of the seed heads results in a cleaner seed lot containing fewer dry flower stems.

**Storage and Viability:** Store carrot seeds in a cool, dark, and dry place in an airtight container to keep out moisture and humidity. When stored under these conditions, carrot seeds can be expected to remain viable for up to six years.

**For more seed saving and gardening tips, visit:**

[seedsavers.org/learn](https://seedsavers.org/learn)