



Parsnips (*Pastinaca sativa*)

A close relative of carrots, parsnips have a sweeter taste, with the best flavors expressed after exposed to a couple of weeks of cold temperatures or overwintered until the spring. They have most of the same cultural needs as carrots, but require a longer growing season. Parsnips are technically a biennial that sets seed in its second year of growth, but in production it is treated as an annual.

Parsnips go very well when roasted with other root vegetables, and can be used to replace carrots in many recipes, including in baked goods.

SITE SELECTION:

Parsnips do best when planted in full sun, but they will tolerate part shade. The best soil is well-drained with a pH of 6.0–6.8. Deep, loose, and fertile sandy loam and peat soils with good moisture-holding capacity grow the straightest and smoothest roots. Soils with rocks or hard clay clumps can cause forking or disfiguration of roots.

Planting in a raised bed can provide the necessary depth of tillage in the soil to ensure long roots. The soil should be worked to a depth of at least 2 feet.

Be sure that your soil does not have high levels of calcium, as excess calcium can be a factor in cavity spot. Too much nitrogen in the soil can encourage vegetative growth of the tops, rather than focusing energy on root development.

DIRECT SEEDING – RAW SEED:

In mild areas with short summers, sow in early to midspring, as soon as the soil can be worked – parsnips are able to tolerate frosts. Parsnips germinate best when the soil temperature is 59–77°F/15–25°C. If growing in areas with long growing seasons and hot summers, plant in early summer when there is still approximately 4 months until the first fall frost.

Sow seeds in a 2 inch band, about 1 inch apart, the equivalent of 20 seeds per foot, ½ inch deep, in rows 18–24 inches apart. This spacing should allow for 3–4 bands per bed. Parsnips may take as long

as 2–3 weeks to germinate. Do not allow the soil to dry out prior to emergence.

Thin plants to 2–3 inches apart when they have 2–3 true leaves or are 6 inches tall. To avoid disturbing the roots of seedlings you want to retain, use scissors to clip thinned plants.

DIRECT SEEDING – PELLETED SEED:

If using pelleted seed, time your plantings the same as if you were using raw seed. Sow 1 pellet ever 2–3 inches, ½ inch deep, in rows 18–24 inches apart. Thinning is not necessary.

Be even more persistent in keeping the soil moist consistently throughout the germination period. The initial waterings can sometimes supply only enough water to split or dissolve the pellet. If the soil dries out before the germination period is over, the seed may receive insufficient moisture of optimal germination. In this case, it may take longer than the usual 2–3 weeks for germination.

WEED MANAGEMENT:

Keep the soil free of weeds throughout the entire growing season. Young plants do not compete well for resources, such as nutrient and light, with weeds, though older plants develop enough foliage to shade out weeds.

Prior to planting, it is best to weed or cultivate several times to decrease the number of weeds present in the bed. Flame weeding can be particularly effective, and can also be done just before the seeds germinate.

Weed several times after germination. Use only shallow cultivation as plants mature to prevent damaging the roots.

DISEASE:

There are a number of leaf blights – including cercospora, septoria, alternaria, and xanthomonas – that can reduce the yield and quality of parsnips. These can be identified by lesions and curling of the leaves. If blights infect the crop early on in its maturity, the roots may not reach full marketable size. To reduce the risk of leaf blights, select varieties with resistances, monitor the amount of water on the leaves or only use drip irrigation, plant at the proper planting density, and avoid excess nitrogen that can cause overabundant top growth. Please consult your local Cooperative Extension Agent to positively identify the specific leaf blight.

Canker can be identified by the dark-colored lesions that form on the crown and shoulder of the roots. Keeping the crowns covered with soil for the full season and maintaining a crop rotation can help reduce incidence of canker.

PESTS:

The major insect pest of parsnips is the carrot rust fly. Larvae of the fly burrow into the roots, which makes them unmarketable. The best method of control is to maintain a 3–5 year crop rotation with any crop in the Apiaceae family, such as carrots, celery, and parsley. Row cover is another method of control, as it excludes insects.

PRE-HARVEST:

Hill soil over the shoulders of the roots to prevent the occurrence of greening on the shoulders.

In the weeks nearing harvest, reduce irrigation or watering to prevent cracks developing in the roots.

HARVEST:

Begin harvesting in the fall, preferably after a period of cold weather. Cut or mow the tops and then fork or undermine, or use a root crop harvester for larger plantings. Be careful while harvesting roots, as parsnips tend to bruise easy; the light color of their skin allows any bruise to show readily. To increase the sugar content, leave in the ground throughout the winter. However, be sure to harvest all roots the next spring before the tops begin to regrow.

Balance harvests between spring and fall to allow for roots to be available for fresh eating in the fall, storage in the winter, and as an early spring harvest.

STORAGE:

If you did not remove the tops prior to harvest, cut them before placing roots in storage. Hold roots, either washed or not, in perforated bags or bins at 32°F/0°C and 95% relative humidity. Parsnips may last in storage for 4–5 months. Do not store with vegetables or fruits that produce ethylene, as over-ripening and rotting may occur.

Roots can also be stored in damp soil or sand in boxes or buckets.

Note: In rare instances, contact with the foliage can result in a severe rash. When working with parsnips on hot, sunny days, we recommend wearing long sleeves and long pants, and washing any exposed skin as soon as possible after contact.