



Revised April 2020

# Rutabagas and Turnips in the Garden

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## Summary

Rutabagas and turnips are cool season vegetables that prefer sunny locations and fertile, deep, well-drained soils. Incorporate plenty of organic matter and an all-purpose fertilizer into the area before planting. Plant seeds ¼-½ inch deep. Thin seedlings to 3-6 inches apart in row with rows 18 inches apart. Plant turnips 2-3 weeks before the last frost. Turnips taste best when plants grow rapidly and mature before the heat of summer. Rutabagas should only be grown as a fall crop. Avoid water or fertilizer stress during growth. Irrigation should be frequent and uniform to ensure good growth. Control insect and diseases throughout the year. Harvest when roots reach full size.



## Varieties

There are many good rutabaga and turnip varieties for sale in local gardening outlets and through on-line seed catalogs. Suitable rutabaga varieties include American Purple Top and Marian. Turnip varieties include Purple Top and White Globe. Most varieties grow well in Utah.

## How to Grow

**Soils:** Rutabagas and turnips prefer fertile, well-drained, deep, sandy soils rich in organic matter for best growth. Most light soils in Utah are well suited for production. Heavy clay soils will need to be amended with plenty of compost and should be double dug to allow good root development.

**Soil Preparation:** Before planting, determine fertilizer needs with a soil test and then follow the recommendations given with the test report. If fertilizer applications are warranted, work the fertilizer into the top 6 inches of soil. If you fertilize with compost, apply no more than 1 inch of well-composted organic matter per 100 square feet of garden area.

**Plants:** Rutabagas and turnips are always grown from seed. Rutabagas should be seeded in the summer and grown as a fall crop as they develop slowly, need time to fill out the root, and do not withstand summer heat as well. Turnips can be sown after soils reach 40°F. Seeds germinate best at 60-85°F and require 7-10 days to emerge. Rutabaga root development occurs best when temperatures are less than 75°F. Turnips grow best when temperatures do not exceed 85°F. Low temperatures do not seriously damage plants and can enhance root flavor.

**Planting and Spacing:** Seeds should be planted ¼ inch deep and thinned when plants have 3-4 true leaves. Crusting soils will limit seedling emergence and affect plant stands. Seed turnips every 4 weeks for season long production. For fall rutabagas and turnips, select early maturing cultivars and plant 75 days before the anticipated maturity date. The maturity date should be about 2-3 weeks after the first fall frost. High summer temperatures reduce growth, decrease quality, and cause bitter or off flavors to develop if plants are not watered properly.

After emergence, thin turnips 3-4 inches between plants in rows 12-18 inches apart. Denser plantings will reduce weed pressure. After emergence, thin rutabagas, spacing them 4-6 inches between plants in rows 18 inches apart. Wider in-row spacings are needed to accommodate the larger root.

**Water:** Water regularly, applying 1-2 inches per week depending on weather. Water requirements depend on soil type. Use drip irrigation if possible. Mulching around the plants helps to conserve soil moisture. Moisture fluctuations cause root disorders like cracking, woody roots, and pithiness, and contribute to bitter flavors.

**Fertilization:** Apply ¼ cup per 10 feet of row of a nitrogen-based fertilizer (21-0-0) 6 weeks after emergence to encourage rapid plant growth. Place the fertilizer to the side of the plants and irrigate it into the soil.

**Mulches:** Use fabric covers to protect seedlings from frost (early or late) and insects. Apply organic mulches around the plants during summer when temperatures increase. Mulches will cool the soil and reduce water stress. Organic mulches include grass clippings, leaves, straw, and newspapers. These also help control weeds.

## Pest Control

**Weeds:** Rutabagas and turnips do not compete well with weeds. Weed control is particularly important during germination and establishment. Thin closely spaced plants to encourage good root size. Avoid deep cultivation around plants as root pruning and damage will affect growth and yield.

**Insects and Diseases:** Most rutabagas and turnips are moderately fast growing but are susceptible to many of the same production problems as cabbage. Rotate planting locations from year to year to help control diseases.

Insect	Identification	Control
Aphids	Green or black soft-bodied insects that feed on underside of leaves. Leaves become crinkled and curled. May transmit diseases. Insects secrete honeydew, making plants appear shiny, wet, or sticky.	Use soil insecticidal soaps, appropriate chemicals or strong water stream to dislodge insects.
Cabbage Worms	Worms are light to dark green. Adult moths are gray, brown or white. Worms chew holes in leaves and hide in and under leaves.	Control worms with chemical or biological measures.
Flea Beetles	Small black beetles that feed on seedlings. Adults chew tiny holes in cotyledons and leaves. Beetles can reduce plant vigor or may kill seedlings.	Control with chemicals at seeding or after seedlings have emerged from the soil.
Disease	Symptom	Control
Alternaria Leaf Spot	Damping off of seedlings. Leaf spots on leaves or heads are a more common symptom. Spots form concentric circles which have a black sooty color.	Apply appropriate chemicals. Avoid overhead irrigation. Practice good sanitation. Rotate crops.

## Harvest and Storage

Rutabaga and turnip leaves can be harvested anytime after they reach full size. For greens, pick off the older leaves. Roots are mature 60-80 days from seeding. Use a digging fork to loosen soil and pull up plants by the tops and trim off leaves. Start harvesting when rutabaga roots reach 4 inches in diameter and the turnip is greater than 2 inches. Rutabagas and turnips are quite tolerant to light frosts. Many gardeners overwinter some rutabagas and turnips under heavy mulches and soil in the garden. If soils freeze deeply, pull and store indoors. Wash the roots and store in cool moist conditions (35°F and 95% relative humidity) for 3-4 months.

## Productivity

Plant 5-10 feet of row per person for fresh use and 5-10 feet for storage. Expect 5-7 pounds of greens or roots per 10 linear feet of row.

## Nutrition

Rutabagas and turnips are low in calories with an abundance of flavor and crunch. A cup serving is very high in vitamin A and C, iron, and fiber. Rutabagas generally have higher amounts of these than turnips.

## Frequently Asked Questions

**Q. Why are my rutabagas small, tough, and bitter tasting?** Rutabagas are best grown as a spring crop in cooler locations of Utah or as a fall crop in hotter areas. When they develop and mature in hot weather, they do not enhance their typical sweetness and flavor. In hot locations, adjust the planting season so root development takes place in the cooler days of fall using the time it takes a particular variety to mature.

**Q. Can you use turnips for greens?** Turnip tops are nutritious and often eaten as cooked greens. Certain cultivars - such as 'Shogoin' - are grown exclusively for greens. Other cultivars provide both greens and roots, such as 'Purple Top,' 'White Globe,' 'Just Right' and 'Tokyo'.

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