



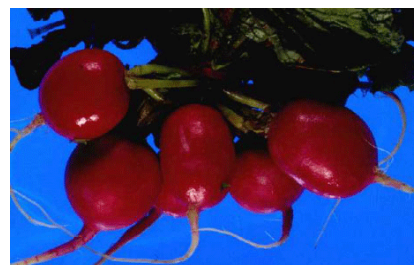
Reviewed by Dan Drost, June 2010

# Radishes in the Garden

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## Summary

Radishes are cool season vegetables that prefer sunny locations and fertile, deep, well-drained soils. Incorporate plenty of organic matter and a complete fertilizer into the area before planting. Plant seeds  $\frac{1}{2}$ -1 inch deep. Thin radishes to 1-3 inches apart in row with rows 12 inches apart. Plant 2-3 weeks before the last frost in spring and again in early September for fall production. Radishes taste best when grown in cool weather. 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 radishes when the roots reach full size.



## Radish Varieties

There are many good radish varieties for sale in local gardening outlets and through seed catalogs. Most grow well in Utah. Root shape, size, and color vary among varieties. Radish varieties include Champion, Cherry Belle, Daikon Long White, Icicle, and Easter Egg.

## How to Grow

**Soils:** Radishes prefer fertile, well-drained, deep, sandy soils rich in organic matter for best growth. Most light soils in Utah are well suited for radish production. Heavy soils need to be amended with plenty of compost to allow good root development.

**Soil Preparation:** Before planting, incorporate up to 2-4 inches of well composted organic matter and apply 2-4 cups of all-purpose fertilizer (16-16-8 or 10-10-10) per 100 square feet. Work this into the top 6 inches of soil.

**Plants:** Radishes are always grown from seed. Radishes can be sown after soils reach 40°F. Seeds germinate best at 55-75°F and require 5-10 days to emerge. Seeds should be planted  $\frac{1}{2}$ -1 inch deep. Maintain a uniform and moist soil surface to ensure good plant stands.

**Planting and Spacing:** Radishes grow best when temperatures do not exceed 80°F. Plant radishes at 10 day intervals to maintain a steady supply throughout the year. Fall plantings should start in mid- to late August to avoid summer heat. Thin closely spaced plants to encourage good root size. Radishes should be thinned to 1-2 inches between plants in the row with rows 10-12 inches apart. High summer temperatures trigger flower stalk development in many varieties. Hot weather also causes bitterness, increases “hot” flavors and causes root hollowness. Cooler conditions improve root flavor and quality.

**Water:** Water radishes regularly. Water requirements depend on soil type. Mulching around the plants helps to conserve soil moisture. Use drip irrigation if possible. Moisture fluctuations cause root cracking, slow leaf development, and contribute to “hot,” bitter roots. Stress during the first 6 weeks of growth often leads to premature flowering and low yields.

**Fertilization:** Apply  $\frac{1}{4}$  cup per 10 foot of row of a nitrogen-based fertilizer (21-0-0) after emergence to encourage rapid plant growth. Place the fertilizer to the side of the plants and irrigate it into the soil.

## Problems

**Weeds:** Radishes do not compete well with weeds. Weed control is particularly important during germination and early establishment when plant growth is slow. Avoid deep cultivation around the plants as root pruning and damage will affect growth and yield.

**Insects and Diseases:** Most radishes grow rapidly and are not susceptible to many production problems. Rotate the planting location in the garden from year to year to help control many diseases.

Insect	Identification	Control
Root Maggots	Small white maggots that burrow into the root and bulb. Lowers yield and quality	Use soil insecticides.
Flea Beetles	Small black beetles that feed on seedlings. Adults chew tiny holes in cotyledons and leaves. Feeding injury reduces plant stands or may kill seedlings.	Control with chemicals at seeding or after seedlings have emerged from the soil. Use floating row covers to exclude pests.
Disease	Symptom	Control
Root Rots	Fungal diseases that cause decay and rotting of the root. May affect plant stands.	Use crop rotation, improve soil drainage, and apply seed treatment to provide effective control.

## Harvesting and Storage

Radishes can be harvested when the roots reach full size. Generally roots are mature 25-45 days from seeding depending on variety. Pull up plants by the tops and trim off leaves. Wash and store in plastic bags in a refrigerator for 2-4 weeks. Radishes should be harvested before heavy frosts or freezes.

## Productivity

Plant 3-5 feet of row per person for fresh use. Expect about 50 bunches of radishes per 50 linear feet of planted row.

## Nutrition

The popular red radish is low in calories with an abundance of flavor and crunch. A 1/2 cup serving of radishes (about 12 medium) provides plenty of potassium, vitamin C, folate and fiber. Winter radishes such as daikons are similar in nutrients.

## Frequently Asked Questions

**Q. What causes radishes to crack and split?** Old radishes will generally split, so harvest them when they are younger. A heavy application of water after a dry period will also cause mature roots to split.

**Q. Why do my radishes grow all tops but no roots?** There are several reasons for this problem. First, when planted too thickly and not thinned properly, plants fail to grow sizeable roots. Second, when temperatures are too hot (planted too late or unseasonable weather in spring) bulbing may be suppressed. Finally, if grown in too much shade, roots will not fill out completely.

**Q. What causes my radishes to be so “hot”?** The “hotness” of radishes results from the length of time they have grown. Radishes that grow too slowly, are heat stressed, or are very old are often “hot.”

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This publication is issued in furtherance of Cooperative Extension work. Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University. (HG/2004-14pr)