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# Lettuce in the Garden

*Dan Drost*

## Summary

Lettuce is a cool-season vegetable that prefers sunny locations and fertile, well-drained soil. Plant seeds ¼-½ inch deep, 2-3 weeks before the last frost. Final spacing for head lettuce should be 8-12 inches apart in the row with rows 12-18 inches apart. Lettuce tastes best when plants grow rapidly and mature before the heat of summer. Avoid water or fertilizer stress during growth. Control insect and diseases throughout the year. Harvest lettuce when the leaves or heads reach full size.



## Recommended Varieties

Lettuce comes in a variety of head types, leaf colors and textures. Planting a range of different types makes salads more interesting. Varieties vary greatly in maturity, flavor, texture, and tolerance to garden conditions. There are many good varieties for sale in local gardening outlets and through seed catalogs. Most grow well in Utah. Here are a few selections to try.

Head Type	Varieties
Crisphead	Summertime, Salinas, Great Lakes, Iceberg
Butterhead	Buttercrunch, Esmeralda
Cos (Romaine)	Lentissima, Cimmaron Red Romaine, Italian Blonde Romaine
Leaf	Red Sails, Oakleaf, Salad Bowl, Black Seeded Simpson

## How to Grow

**Soil:** Lettuce prefers fertile, well-drained soils rich in organic matter for best growth. Most soils in Utah are well suited for lettuce production.

**Soil Preparation:** Before planting, incorporate 2-4 inches of well composted organic matter or apply 4-6 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:** Lettuce can be grown from seed or transplants. Lettuce can be sown after soils reach 40°F though seeds germinate best at 55-65°F and will emerge in 7-10 days. Temperatures above 80°F reduce seed germination. Seeds should be planted ¼-½ inch deep and thinned when plants have 3-4 true leaves. Plants removed at thinning can be transplanted to adjacent areas if some roots are maintained. Thinned plants can also be eaten. Transplants provide an earlier harvest. Transplants should have 4-6 mature leaves and a well-developed root system before planting out. Generally 5-6 weeks are required to grow transplants to this size.

**Planting and Spacing:** Seeded or transplanted lettuce should be spaced 8-12 inches between plants in the row with 12-18 inches between rows in a location that will receive full sunlight. Dense plantings will reduce weed pressure. Lettuce grows best when temperatures do not exceed 75°F. Temperatures down to 32°F do not seriously damage young plants. Transplants should be planted near the last frost-free date for the growing area. Seeded lettuce may be planted 2-3 weeks earlier. High summer temperatures reduce growth, decrease quality, and cause bitter or off flavors to develop. For fall lettuce, select early maturing cultivars and plant 50-75 days before the anticipated maturity date. The maturity date should be about 1-2 weeks before the first fall frost. Plants can be left in the garden after light frosts.

**Water:** Water lettuce regularly supplying 1-2 inches per week. Water requirements depend on soil type and temperatures. Use drip irrigation if possible to conserve water. A mulch around the plant also helps conserve soil moisture and reduce weed growth. Moisture fluctuations will cause leaves to become tough, slow head development and contribute to off-flavors. Wet and dry periods favor the development of tipburn, a browning of the edge of some of the internal leaves.

**Fertilization:** Apply ½ cup of a nitrogen based fertilizer (21-0-0 or 34-0-0) per 10 foot of row 4 weeks after transplanting or thinning to encourage rapid plant growth. Place the fertilizer to the side of the plants and irrigate it into the soil.

**Mulches and Row Covers:** Plastic mulches help conserve water, reduce weeding and allow for very early maturity, especially with transplants. Fabric covers are used to protect seedlings and transplants from frost. Apply organic mulches such as grass clippings, straw, and newspapers to cool the soil when temperatures increase, reduce water stress, and help control weeds.

## Problems

**Weeds:** Lettuce does not compete well with weeds. Weed control is particularly important during establishment. Closely spaced plants will help control weeds. Cultivate shallowly and avoid root pruning to ensure uninterrupted growth.

**Pests and Diseases:** Most lettuce is fast growing and is not susceptible to many production problems. Rotating locations from year to year helps control most diseases.

Insects	Identification	Control
Aphids	Green or black soft-bodied insects that feed on underside of leaves. Leaves become crinkled and curled.	Use insecticidal soaps, appropriate insecticides, or strong water stream to dislodge insects.
Slugs	Soft-bodied or shelled mollusks that chew holes in leaves.	Control with appropriate pesticides or traps. Avoid moist conditions that favor these pests.
Flea Beetles	Small black beetles that feed on seedlings. Adults chew tiny holes in cotyledons and leaves. Beetles can reduce plant stands or may kill seedlings.	Control beetles with appropriate insecticides at seeding or after seedlings have emerged from the soil.

## Harvesting and Storage

Lettuce can be harvested almost any time during growth. Crisphead lettuce should be harvested when heads are firm. Butterhead and cos lettuce are harvested when heads are in the early heading stage. Leaf lettuce may be picked anytime after leaves form, but before the seed stalk forms. Older leaves are often stripped off the plants first, allowing the young leaves to continue to grow. Lettuce can be stored for 1-2 weeks if refrigerated. Some gardeners grow lettuce hydroponically throughout the winter under artificial lights.

## Productivity

A 10-15 foot of row will yield 6-10 pounds of lettuce. Plant 10-20 feet of row per person.

## Nutrition

Lettuce is low in fat, sodium, and cholesterol. It is a good source of fiber, vitamins A, C, B6, folate, calcium, iron, and potassium.

## Frequently Asked Questions

***How do you prevent lettuce from browning when stored several days in the refrigerator?*** To prevent browning, store at low temperature (ideally 34-36°F) and elimination excess moisture on the leaves. Leaf spotting will also occur if lettuce is stored with ethylene producing fruits like apple or pear.

***How do I prevent my lettuce from going bitter?*** Avoid water stressing the plants and growing lettuce in temperatures above 80°F. Wash and store the leaves in the refrigerator for a day or two. Much of the bitterness will disappear.

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