



## Growing Lettuce for Seed Saving

Lettuce is an easy crop to grow for the table and for seed saving. For food, lettuce grows quickly and should be harvested while young. Plant this cool-season crop early, as it “bolts” – produces a tall stem and then flowers – when the weather gets hot. Keep your lettuce crop well-watered to prevent premature bolting.

Lettuce is cold-tolerant and can be planted in April, either indoors and then transplanted, or seeded in the garden. It will survive light frosts. It is a great early fall crop too. In mid-August, sow seeds directly in the garden. If you cover the lettuce bed with floating row cover, you can harvest lettuce until the first hard frost. Some varieties can be harvested through most of the winter if well-protected.

Lettuce is self-pollinating and therefore the risk of cross-pollination among varieties is low. Even so, varieties must be separated by at least 3 m. A weed called prickly (or wild) lettuce will cross-pollinate with garden lettuce. This weed is common in the Creston valley. It has short spines on the leaves and stalk, and exudes milky sap when the reddish stem is broken. Remove prickly lettuce before it flowers. For seed saving, it will take 6-8 weeks from the time the lettuce plants bolt to harvestable seed heads.



*Prickly lettuce*

## **Preparing the Garden**

Soil should not be too wet or too dry when you cultivate it for planting. Remove weeds. Add manure, compost, or all-purpose organic fertilizer and dig it in. Rake it smooth. If possible, wait a few days before planting so the soil will settle. This way, the small seeds will have good contact with the soil and it will retain moisture better. Make a row that is about 2-3 cm (2") deep to help conserve moisture. Water thoroughly so water penetrates to the bottom layers of soil.

## **Planting**

If you are planting more than one variety, make sure you put a label on each. Also make a map of the location of each variety.

Plant a short row in April and then sow another short row 2-3 weeks later – you might even get one more planting in before the weather gets hot.

- Sprinkle the seeds thinly in the row – no more than 10-15 seeds per 30 cm (1 foot).
- Cover with soil so the seeds are 0.6 cm (¼") deep.
- Tamp the soil over the seeds.
- Note that the row of seeds is in a shallow trench to retain moisture while the seeds are sprouting.

For seed saving, you must separate varieties of lettuce by at least 3 m (10 feet). You could sow your first planting for consumption, then replant and let some plants in the second or third planting bolt, flower, and produce seeds.

## **Watering**

Use a fine spray or drip irrigation to keep the seeds and lettuce plants moist, especially while the seeds are germinating and the plants are small. Regular watering will prevent the lettuce from becoming bitter. Mulch will help the plants conserve moisture.

## **Thinning**

Lettuce should be thinned, otherwise the plants become crowded, heads don't form properly, and they are difficult to harvest.

- For leaf lettuce, space plants 10 cm (4") apart; for romaine types, 20 cm (8") apart; for head lettuce, at least 30 cm (12") apart.
- You can, however, plant them closer together and thin by harvesting for the table.
- For seed saving, leave at least 6 plants spaced 40 cm (16") apart after you have harvested for food.



*Thinning allows lettuce heads to develop fully.*

### **Pests**

Slugs can be a problem, especially if the plants are close together. Keep watch for them and pick them off or put out slug bait (non-toxic, made of iron phosphate). Other things to try are brewed coffee, coffee grounds, beer traps, and diatomaceous earth.

### **Harvesting for Food**

If you are growing for food, you can take outer leaves off for salads and let the plants continue to grow. Or, you can just pull the plant up and cut off the roots (especially if you weren't diligent in thinning). Better yet, cut the top off about 6 cm (2") above the soil surface. The plant will continue to grow. Eventually the plant will lose vigour, so for a continuous supply of salad, plant a new row.

### **Seed Saving**

It is important to save seeds from plants that are typical for the variety and don't bolt early. Pull out any plants that don't conform to variety characteristics or are early bolters.

When lettuce bolts, a tall stalk appears – this is the beginning of seed production. The stalk branches and can reach 1 m tall. Temperatures up to 29°C are optimal for flowering and setting

seed. It is best to water below the leaves of the plants, as overhead watering will reduce seed quality.

The flower heads are pale yellow - lettuce in flower looks rather weedy. Flowering can continue for a month or more. Seed maturation also takes this long. When grey pappuses or “feathers” appear on lettuce seed heads, they are ready to be harvested.

- *Pappus – a fluffy structure attached to each seed that allows it to disperse by wind. Dandelions and thistles also have these – they are all members of the aster family of plants, Asteraceae.*



*Lettuce in flower (left), flowers and pappuses (right).*

### **Harvesting Seeds**

- If you don't have a lot of plants, you can pull pappuses with their attached seeds from each head. That way you can let the rest of the heads remain on the plant to continue maturing. If you wait too long to harvest, though, wind could pick up the pappuses with their attached seeds and blow them away.
- Another way to harvest is to bend the branches with feathered seed heads down into a bag and shake the branches. Mature seeds and pappuses will fall into the bag, while immature heads will remain on the plant.
- A third way is to enclose the flower branches with seed heads in a breathable cloth bag. The bag and its contents can then be cut off of the plant and shaken.

## **Seed Cleaning**

Cleaning lettuce seeds can be challenging. If you hand-picked or shook the seed heads into a bag, you can just lightly rub the seed heads between your hands to separate seeds from surrounding material. The chaff, largely light-weight pappuses, can be winnowed by pouring the seeds and chaff into a container in the wind or in front of a fan. Heavier-weight material that remains is difficult to remove, but the seeds could be screened with 20 mm mesh screening. Some chaff among the seeds won't affect seed quality.

## **Record Keeping**

Fill out an evaluation form for each variety. This information will help to decide which varieties should continue to be grown for the seed bank. It will also help determine whether the seeds you planted were "true", not a hybrid. For example, if you planted a reddish tinted leaf lettuce like Red Sails and the plants you grew were solid green, the seeds may have come from parent plants that were cross-pollinated.

If you keep a journal with notes on gardening activities, you will be able to remember when each variety was planted, how it grew, and whether you liked it.

## **Storage**

Store seed bank seeds and your own in a paper envelope in a cool, dry place. Your seeds will last for years in the refrigerator if they are very dry and the envelope is in a jar with a tight lid.

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