

∞ Growing Lettuce Seed ∞ *Lactuca sativa* ∞

Observations from 15 years growing lettuce seed at Seven Seeds Farm, 2/10/10

Good place to start. Selfer

1. Crop Lifecycle, and Basic Biology: Lettuce is an annual seed producer that is moneicous with perfect flowers that are generally self pollinated. Crossing is rare and only occurs when flowers physically touch. Open receptive to pollen for a few hours a day.

Seeds not encased in a fruit or pod.

2. Growing Seed

* **Climatic requirements:** Long Season, about 5 months from transplants to seed harvest

* **Soil and fertility requirements:** medium soil fertility and nitrogen

* **Field preparation and planting:** Flowering lettuce plants are large and occupy more space than head lettuce, so we space at 12 inches apart within the row in rows that are 18-24 inches apart.

* **Cultivation and irrigation:** Grow lettuce plants as normal, over head water fine After flowering commences, drip irrigation is preferable to minimize fungal disease spread. Weed control and keeping a clean field becomes important so that weeds that go to seed are NOT inadvertently harvested with lettuce seed.

Growing seed creates good environment for growing weeds.

3. Flowering and Pollination: Lettuce bolts and initiates flower part of its life cycle in response to warming soil temperatures, so it is important to plant early enough to have nice sized heads before summer heat arrives. Plants are SELF-POLLINATED.

4. Isolation Requirements: we practice a 25 foot separation between varieties of lettuce. Can plant closer and save crosses

5. Genetic Maintenance

Population size: It is possible to save seed from 1 lettuce plant because it is self pollinated. However, I will often see only one plant out of 1,000, or 5,000 that exhibits unique traits, so maintaining a population is always a good idea (at least 25 plants)

Selection (timing and criteria): Rogue off types and disease susceptible plants during the vegetative stage, before flowering. Important never to harvest seed from dead plants that still managed to make seed because they may transfer wimpy ass potential to succeeding generations, which you don't want. So during seed harvest it is important to keep an open eye.

6. Seed Harvest

Transplant mid-April to May, harvest mid-August to September 1st.

Red plants are smaller (Merlot). Learn your varieties.

Timing and signs of maturation: We pull plants from the roots when 70% of each plant contains mature / dry seed. The other part of the plant may still be in flower, but a good portion of this will mature if left to cure on Geo-Tex ground cloth in the field for a week.

Harvest – how to: Alternately you can go through the field and shake plants while still rooted into trash cans when 70-80% of the plant is in mature seed. This is A LOT of FUN! That is, if your idea of fun entails, breathing lots of vile tasting bitter dust and getting exposed body parts covered in a scaly residue of latuca latex. However, the advantage of this approach is that once the seed is harvested you can dry it under cover in a shed or barn. With the pulling the plants up from the roots method, there is a one week danger period where rain could be a very detrimental occurrence for seed quality.

Non-mechanical harvest more efficient at small scale.

Drying: It is important to immediately spread lettuce seed and its associated chaff to dry shortly after harvest.

Cleaning: Using a variety of screens and fans we can get lettuce quite clean. A Clipper type screen cleaner is helpful but not necessary.

7. Diseases: Sclerotinia is a fungal disease that predominately affects the plants from the flowering stage onward. Then there are the typical lettuces challenges of powdery mildew, tip burn and bottom rot.