

I How to Clean Seed in Dry Flower Parts

Why Clean Seed?

- » Ease and accuracy of sowing.
- » To determine the weight of the seed, so germination rates can be calculated.
- » To reduce chance of fungal problems carried in the seed litter.
- » To remove insects and eggs - weevils love lupine, gum plant, and thistles.
- » To reduce humidity and prolong storage life.
- » To reduce storage volume.



Figure I-1: Seed screens, food processor, (homemade) wooden screen all help removing seed from chaff and surrounding material.

Clean and dry as soon as possible after harvest, to prevent these problems. Not all species require cleaning (e.g. *Nassella pulchra*, *Bromus carinatus*). But these species should still be spread out on screens to dry down before storage.

Supplies:

1. Screens with different sized mesh for cleaning; picture screens and picture wood frames.
2. Square wood framed screens for drying.
3. Tubs
4. Propagation flats
5. Food processor with duct tape over blades.

Procedures

Most of the seeds collected in the Golde Gate National Parks are dry seeds of grass, legumes or pods, capsules, follicles or siliques, or contained in cones.

Drying:

The seed should be dried; we need to reduce the moisture content to 5-10% for storage. Depending on the weather, drying time may take 2 days to 2 weeks on a screen in a well ventilated place. Where humid, a food dehydrator may be necessary.

1. Find two square screens the same size, place one on the ground or table.
2. Place a piece of newspaper on the table. Place a screen on top of the newspaper.
3. Seed heads or pods should be laid out in a single layer on the top screen.
4. Place in dry, well ventilated place. If there is any breeze, lay a second screen on top, to keep seed from blowing away. Screens allow for maximum ventilation, but if not available, use newspaper in a propagation flat.
5. Put collection record information with the seed on the screen.
6. Seed is probably dry, when you take a handful and can feel no moisture in your hand. Or better yet, put seed in a new Ziploc® bag and lay in a warm place for several hours, if no condensation forms, the seed should be dry.

Cleaning for other dry seed:

Grasses, generally, require no cleaning. Just gather up, put in a Ziploc® bag; label and record and put in the refrigerator. It is good to keep seed for each project alphabetized in a bin or flat for the project in the refrigerator.

1. Find two screens, one with mesh just larger than the seed and one with mesh smaller than the seed.
2. Gently rub flower heads across the screen (e.g. *Achillea millefolium*) to break open pods.
3. Whiz in the food processor with blades covered by duct tape.
4. Pour out on screens and sift, as above.
5. Chaff can be blown off (winnowed) by putting in a slanted sided pan (like a tall pie plate or gold-panning pan) and gently blow chaff away, hopefully, leaving seed. Use quick gentle puffs.

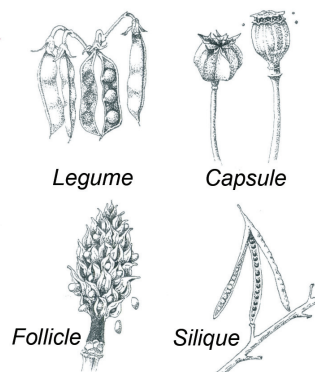


Figure I-2: Seed pod types; drawings by Sue Lorenzo.

6. For cones and pods that will dehisce: put in a paper bag.
7. Just allow seeds to dry, and shake bag to settle seeds to the bottom of the bag. The other parts can be lifted off and thrown away, leaving just the seed in the bottom of the bag. Sometimes they need to be put in a warm area, like top of a refrigerator, to open the cones.

For fire dependent conifers:

1. Put cones in paper bag to absorb resins that will be released.
2. Put that bag inside of a pillow case and zip up.
3. Run in clothes dryer for 30 minutes and check to see if opened. This is very noisy and may leave resin on inside of dryer.

To Sow, Store, or Stratify:

Dry storage keeps seed dormant until it is sown or put into stratification.

1. If the seed is to be sown fresh, go to *Procedure Sheet* for the type of sowing indicated in the SIS.
2. If the seed requires cold stratification before sowing, but the date to begin stratification is at a future date, then seed should be dry stored; go to *Procedure Sheet II: How to Store Dry Seed*.
3. If the seed is to be stratified or scarified, go to *Procedure Sheet VI: How to Stratify Seed* and *Procedure Sheet IV: How to Scarify Seed*.
4. If the SIS does not indicate stratification date, see *Procedure Sheet V: How to Calculate Seed Stratification Date*.