



Gone to Seed – Seed Saving Workshop

8th September 2019

- **Demonstration of saving wet seed (tomato fermentation)**
- **Demonstration of sorting pea seed for saving**
- **Demonstration of cleaning seed using threshing and winnowing eg. lettuce, sude**
- **How to store seed – discussion**
- **Feedback on how we have all fared, what has worked, what were the problems**

Cleaning wet seeds: Tomatoes

Eqpt: Jar, water, kitchen sieve, cutting board, knife, teaspoon, plate

When are they ripe enough? Allow toms to ripen fully on the plant.

Demo seed saving: Cut in half and squeeze or scrape the seeds and surrounding gel into a jar or bowl. Some varieties have more seed than others and size is not necessarily an indicator eg. some beefstakes might only have 2-3 seeds. Can still use deseeded toms for cooking so don't waste. For lots of cherry toms (which have lots of seed) might be easier to crush them. Put into plastic bag, remove air, crush with rolling pin then sieve out pulp and skin.

Fermentation method: Seeds surrounded by gelatinous sac which needs to be removed by fermentation, to stop them sticking together, to aid germination (gel acts as germination inhibitor, stops seeds sprouting inside the tomato) and also helps to kill off many seed borne diseases. Add seeds and gel into a bowl or jar (if not much gel add up to same amount of water). Cover with cloth or loose lid and leave in warm place to ferment, stir twice/day. Approx. 3 days but depends on temperature – check and process when gel has come away from the seeds, don't leave longer as seeds may start to germinate. Will be smelly with mould on top. Add water and stir thoroughly, pour off mould and other debris from top, good seeds should sink to the bottom. Add more water to rinse seeds, pour off excess water, repeat until water is clear and seeds are at bottom. Tip into sieve, flush with water, remove any debris, allow to drain.

Drying demo: Don't try and dry too fast at too high a temp. Tip onto glass or china plate or shiny tray (where they won't stick) and put in warm (not too hot - not above 35 degrees C) airy place out of direct sunlight. eg. warm windowsill, airing cupboard, empty well ventilated greenhouse. Allow to dry completely and stir around to separate them.

Storage: Once they are dry, rub them off the plate and store in a cool, dry place, in a paper envelope, where they should keep well for at least 4 years (depends on lots of factors but if grown and cleaned properly, main factor should be storage conditions). Store where temp and moisture levels constant; damp is more of a problem than temperature. Seeds should be brittle, not bendy if completely dry.

Label with the variety and date.

Additional drying: Unless totally dry, seeds are not really dormant, just napping and using reserves slowly. They cannot be put into airtight containers as they will suffocate; if not in airtight containers, will absorb moisture when weather becomes humid and start to germinate – up shot of this is they will not store for very long. So best to dry completely so seed is totally hibernating. Can use silica gel to dry seeds completely and then store seeds in airtight container and put in fridge at 4 degree C - can extend life of seed. Real Seeds use baked rice instead of silica gel.

Saving peas and beans

Eqpt: Different types of peas at different stages of maturity, plastic trays

When to harvest? Pods should be left on the plant to mature - until the pods are brown and the seeds start to rattle (not all will rattle, eg. mange tout). If the weather is bad, once the pods start to wither (eg. brown and parchment like), pull up whole plants and bring inside (for example hung upside down from the shed roof), to allow them to ripen and dry further. Balancing act – dry enough but not coming out of pod and falling to ground. Shell the peas when pods are really dry. Some peas have pods that clings to seeds, have to shell by hand, as tend not to spring open.

How to select for disease/damage? Pick out any that are damaged, discoloured, have started to germinate or are mouldy, or look very different from others. Watch out for holes and dust (pea moth larvae) – lay eggs on flowers in June-July (early sowings may avoid them) and larvae eat developing pea, leave pea and pupate in soil, so usually gone by time you harvest seed. Damage to pea seed varies but best to discard if have enough.

Compare with other pea varieties. eg. some wrinkle - seeded (modern sweet varieties – high sugar content, less starch, tend to be less hardy), some round seeded (higher starch content, tend to be much hardier and often used as overwintering or early pea or for dried peas). Peas look different and have different colours so make sure know what they should look like and remove any that are not true to type. Compare with previously saved seed – colour and markings etc.

How to dry? Spread out shelled peas and allow to dry further if necessary in a warm (but not hot) place. Can test peas and beans – if press with thumb nail or teeth, should not be able to dent the seed casing if dry enough.

How to store? Label with the variety and date, and store (same as for toms but need bigger bags!). Will last 3-5 years.

Cleaning Seed – Threshing and Winnowing

Eqpt: seed sieve, sheet, bag and stick, large plastic container, plastic tray, dust mask.

Pods, capsules or seedheads should be dry and hard. Threshing – method of separating seeds from coverings, commercially done by machine, but can use DIY method. eg, bag with stick/rolling pin, tapping pods against side of large bucket, rubbing between hands. Seeds

will be mixed with chaff so need to separate the two, either by sieving or winnowing – or combination of the two. Sieving will catch large debris/chaff and seeds will fall through – need to try different sizes of mesh to get correct one. If seeds heavier than chaff, can winnow – toss seed up in air current or fan and chaff blows away whilst seed falls back into container. Or pour seeds from one container into another in air current. Best to do on top of sheet or seeds will go everywhere.

Creates lots of dust so do in well ventilated area or wear mask.

Useful references:

https://seedalliance.org/wpcontent/uploads/2010/04/seed_saving_guide.pdf

<http://www.realseeds.co.uk/seedsavinginfo.html>

<https://www.seedsavers.org/learn>

Books:

Back Garden Seedsaving by Sue Stickland

Seed to Seed by Suzanne Ashworth