

GLASGOW SEED LIBRARY



A quick guide to seed saving



GROWING PLANTS FOR A SEED CROP

Avoid F1 Hybrid seeds. These are seeds which give rise to a first generation hybrid (F1 hybrid) which is especially uniform with good vigour, yield and disease resistance. But the seed saved from these plants will not be true to type and could have entirely different characteristics from the parent plant. Choose instead 'open pollinated' seeds.

Grow enough plants. If the population of the plants that you are growing is too small, your crop will experience inbreeding depression after a few generations of seed saving - symptoms include reduced vigour, disease resistance and yield. This is because there is not enough genetic diversity within the population. Each species has a different ideal population size which you can find online. French beans, peas, tomatoes, lettuce, squash require a population size of only 12 plants.

Save seed from the best plants. Remove any diseased plants before flowering and only save seed from the healthiest, most vigorous, tastiest plants. However, selection that is too severe may lead to inbreeding depression if you are left with too few plants and too small a gene pool.

Isolate your seed crop from other varieties of the same species. This prevents crossing

between varieties which would lead to seed which is not true to type. To achieve this:

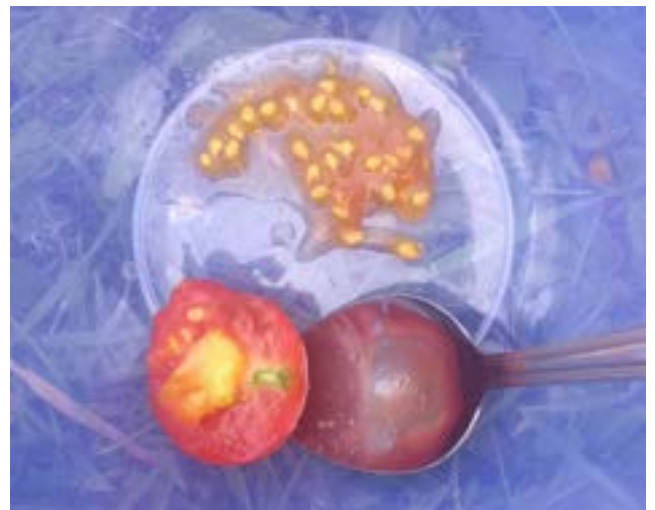
- Grow only one variety of the species on your site or ensure that your isolation distance is sufficient between varieties. This differs for each species.
- Net insect pollinated crops which are likely to cross on alternating days to prevent cross pollination.
- You can grow self pollinating crops like lettuce, tomatoes, french beans, peas. These have a very small isolation distance.

Start your seed crop as early as possible.

We have a short season with a very wet autumn in Scotland and many plants take much longer to form seed than they do to produce a vegetable or flower. To ensure the best success of your seed crop start early in the season (except hardy varieties that you plan to overwinter).

PROCESSING

Wet Processing



Harvest Time

Some fruiting crops take just a little extra time for the seeds to fully mature and you may still be able to eat the food in some form, for example, tomatoes, peppers, watermelon and winter squash. Saving from courgettes and Aubergines is more tricky. You need to wait for courgettes to get really big and hard, and aubergines must be hard and shrivelled before you can save seed from them.

Processing

Tomato seeds must undergo fermentation to remove the jelly coating around the seed. The other plants just need to have their seeds removed and dried using the drying methods stated above. For tomatoes:

- Scoop out the seeds and place them in a labelled jar with a paper lid. You can add a little water if the contents are too dry.
- Ferment the seed in its pulp for several days. A layer of mould should form on the top and the seeds should fall to the bottom of the jar.
- Remove any floating seeds.
- Wash the remaining seeds and sieve them to separate from water.
- Spread the seeds on grease proof paper so they don't stick to it and label.

- Place the seed and remaining chaff in a bowl. Lightly blow over the material to remove the chaff. Alternatively pour the material from one bowl to another in a light breeze. The breeze should remove the chaff for you. This happens because the chaff is lighter than the seed. This process is called winnowing.



Dry processing



STORAGE

Moisture encourages mould which will kill your seeds. Take these steps to control moisture:

- When collecting seed, in the field, double bag it in a paper bag so moisture can escape
- Remove all leaf and seed coating debris as this will hold some moisture
- Make sure the seed is really dry. You can use silicone sachets baked rice or a dehumidifier to draw moisture out of seeds.
- Store in an airtight container with some silicone sachets

Harvest Time

The seed pods should be paper dry. If it's a really wet autumn and most of the seed pods on your plant are getting dry, remove the whole plant and hang upside in a dry place to finish the drying process.

Maintain temperature at a low and unfluctuating level. Ideal temperature is 4 degrees - if you store in a fridge make sure you use an airtight container to avoid moisture getting in.

Processing

- Crush the dry plant parts in a bag, plastic container to loosen the seed from the rest of the plant. This is called threshing.
- Use a sieve to separate larger plant parts from the seed. You will be left with seed and fine seed husks called chaff.

