

Notes on Seed saving

Why save seed?

-----It's free!

-----The germination rate is better from seed saved than from bought seed because it can be harvested at peak ripeness.

-----Seed adapts and develops tolerance to local conditions.

-----Many newer varieties in today's catalogues are genetically similar to one another and are also F1 hybrids. This means that they have been bred to produce good crops rather than producing viable seed, unlike heritage varieties.

-----It's in our gardens that most crop diversity survives and can thrive.

-----We need to keep the genetic heritage of seeds as diverse as possible to adapt to climate change.

Seed Saving Techniques

For some crops, seed saving is very simple. For others seed saving may take more forethought and sometimes needs special techniques.

What you need to know:-

1. How long will it take to produce seed?
2. How much space will it take up?
3. What you do you need to do to keep the variety pure?

The plant time clock:-

Annuals- If you sow them in Spring they will go on to produce flowers and seeds and then die back in the same year. eg. Lettuce, peas, french & broad beans.

Biennials- They take 2 growing seasons to produce seed. In the first year they form the part that we eat, but if you leave them in the ground to experience a period of winter cold they will go on to flower and produce seed in the second year. So biennial crops grown for seed use up space for much longer. eg. Carrots, parsnips, brassicas such as brussels sprouts, kale and beetroot.

Perennials- These plants go on growing from year to year and reproduce in more ways than just setting seed. eg. asparagus and globe artichokes in permanent beds, or dug up and propagated from tubers, or offsets, such as potatoes or shallots.

(some frost tender plants that are actually perennials in their country of origin, such as runner beans and tomatoes, are treated as annuals in our climate.)

Pollination-

When you are seed saving you need to know a little about how pollination occurs for different crops. To produce viable seed, flowers must be pollinated. A flower is 'self-pollinated' if pollen is transferred from anthers to stigma within the same flower. Crops which nearly always self-pollinate are called 'inbreeders' and these are the easiest to keep pure. A flower is "cross-pollinated" if pollen is brought from another flower by the wind or insects. If this pollen comes from another flower on the same plant or a plant of the same variety then the resultant seed will give plants that are 'true to type', which is what we are after! If, however, the pollen comes from a flower of a different variety then the seeds will carry traits from both varieties and the plants grown from them can look different from both parent plants.

Saving seed from a few varieties-

Seed is best stored in paper bags, labelled clearly with as much info. as you have. Then store the bags in an airtight container in a dry, cool place.

Chillies Wear gloves! Select healthy, unblemished, fully ripe fruit. Cut open and extract the seeds. Place on a kitchen towel until they are dry and brittle before packaging.

Tomatoes....Pick a mature tomato off the plant. (Not an F1 variety) Cut in half, scoop the seeds out of the middle into a small jam jar. Half fill the jar with water and leave on the windowsill for a few days to ferment. Then tip into a sieve and rinse of all the sticky flesh around the seed. Leave to dry on a piece of paper towel, then store.

Peas.....They are best harvested as whole plants. Hang them upside down to dry fully, then they can be podded.

Broad beans.They are usually easy to grow from seed as the pods mature early and the seeds are easy to collect. However, cross-pollination between varieties from neighbouring gardens can be a great problem. To keep seed saving simple you really need to have an isolated plot and grow only one variety both for eating and for seed.

Runner beans will also cross-pollinate with other varieties of runner bean but they will not cross with other species of bean.

French beans. These are very easy to save for seed as the flowers nearly always self-pollinate.

Biennials

Beetroot, Cabbage, Carrots, Leeks, Onions, Parsnips, Swede, Turnip, Celery all take two years to produce seed and all present the challenge of avoiding cross pollination. So it's difficult to save seed from these crops unless you can isolate them. The isolation distance must be far enough to prevent pollen from being carried by the wind and visiting insects. It varies from species to species. This challenge can

be met by 'caging'...which means constructing a pollination cage around the plants, covered with fine netting to allow airflow, light and water in and to keep insects out. Then you have to introduce pollinators into the cage. This can be done by using anglers maggots which hatch into blowflies.

Squash, including courgettes, marrows, pumpkins, cucumbers

If you have an isolated garden, and are growing just one variety for eating and for seed, you do not have to worry about unwanted cross-pollination. But if you are growing more than one variety you will need to hand pollinate.

This family (known as curcubits) have separate male and female flowers on the same plant. The female flower has an ovary that resembles an undeveloped fruit at its base. The male flower lacks this feature, simply having a thin stalk. To keep your seeds 'true' follow these steps for hand pollination:

1. Before dusk, locate male and female flowers on the same plant that have yet to open.
2. To prevent insects from flying in, use masking tape to shut the tips of the flowers that are about to open the next morning.
3. When the morning dew has dried the following day, pluck off the male flower leaving a short stem. Gently remove the tape and all the petals, leaving only the anthers, turning the male flower into a pollen paintbrush!
4. Carefully remove the tape from the female flower and allow it to open. Swipe the pollen brush onto the female stigma.
5. Re-tape the female flower and securely mark the stem with colourful waterproof thread.
6. The eventual fruit will be the one from which you save your 'true' seed.
7. Leave the fruit on the plant until it has matured and hardened. Cut open and scrape out the seeds then wash them to remove any fibre. If you rub them with your hands in a bowl of water, the good seeds should sink to the bottom and immature seeds or debris will float. Drain the seeds in a sieve and dry on a labelled plate for a few weeks.

For much more detailed information on seed saving consult :

Back Garden Seed Saving by Sue Stickland
Seedswap by Josie Jeffery

there are also many other books available on the topic. Best stick to UK authors for info. that is relevant to our climate and growing vocabulary!