

Seed Saving Guideline No. 12

Tomatoes

Solanum lycopersicum

Family: *Solanaceae*

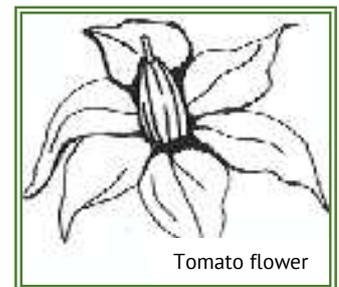
Tomatoes are generally divided into **bush (determinate)** or **cordon (indeterminate)** types. Bush tomatoes have several branches, each of which terminates with a flower truss, so the plant forms a bush. Cordons generally have a single major shoot, with trusses (and side shoots) from the axil between leaf and stalk, so the main shoot may form a very long vine. Both classifications (like the distinction between greenhouse and outdoor types) are somewhat arbitrary. Tomatoes are easy to save seed from and, with a few exceptions, easy to keep true to type.

Growing & Roguing

- Grow as you would for eating. In Britain tomatoes are treated as annuals, producing seed in the same year that they are planted.
- Tomatoes can usually produce seed outside, though varieties that are slow to grow and ripen do best in a greenhouse or polytunnel
- Tomatoes are inbreeders and many seed savers successfully maintain varieties by saving from just two or three plants, though it is best to save from at least six plants.
- Remove any plants that look sickly or have different foliage to the rest, or any that produce tomatoes that differ from the rest of the crop.

Pollination & Isolation

Most tomatoes are not capable of cross-pollination as the flowers are perfect and self-pollinating. The female stigma is very short, and grows within a tube formed by the fused anthers. For these types, different varieties can be grown close together.



There are three exceptions: currant tomatoes (*Solanum pimpinellifolium*), potato leaved varieties, and double blossoms on beefsteak varieties. These often have a protruding stigma and are able to cross-pollinate, especially if there are other protruding-stigma varieties in the vicinity. To be absolutely certain, check a few newly opened flowers using a hand lens. The green stigmas will protrude from the anther tube. For safety, you could grow just one protruding-stigma variety a year. Or, you may want to cage plants or bag trusses, the flowers will self-pollinate within these.

Harvesting

The seeds are fully mature once the tomatoes are ripe. Allow the fruits to ripen on the plant, if possible, or bring indoors and ripen them e.g. in a box or drawer with ripe apples or bananas.

Cleaning

Some varieties contain more seed than others. Large beefsteak or plum tomatoes may yield less than ten seeds, while small or cherry tomatoes can produce scores of seed.

To save a small quantity of seeds for your own use

Remove seeds from the fruit and rinse in a sieve under cold running water, rubbing them against the sieve to remove the gel coating. Spread them on a paper towel or piece of kitchen paper and leave to dry. Fold up the paper, label it, and in the spring pop the paper with the seeds attached on to moist compost in a seed tray to start your plants.

To save a larger quantity of seeds use the Fermentation method

Squeeze the pulp from ripe tomatoes into a suitable container (e.g. a large yoghurt pot or small plastic buckets). You can also process ripe fruits into a food processor with an equal quantity of water until you have a pulpy mass. The seeds are hard and will not be damaged.

Put the container into a warm place to ferment. It may smell bad but it is good for the seeds. Fermentation removes compounds that inhibit germination and it also destroys seed-borne diseases. You are merely duplicating what happens in nature.

After three or four days, when the bucket is topped with a mass of mould, add plenty of water and stir vigorously. Good seeds will settle to the bottom, so you can tip the rotting mass away. Rinse and repeat until only good, clean seeds remain. Strain the water off and place on a clean plate or piece of glass (they will stick to paper). Stir once or twice a day to promote even drying and prevent clumps of seeds forming. Dry the seeds quickly to prevent them germinating, but avoid direct sunlight or an oven. A cool, gentle breeze is best.



Storage

Tomato seeds will last in storage for about six years, depending on the variety.

Returning Seed to HSL

It is vital that seed returned to HSL is not cross-pollinated. So not send seed to us that you suspect might have crossed.

Seed must be completely dry and fully cleaned. Seed that retains moisture can go mouldy in transit and will have to be discarded. It can take a few days for seed to get to us in the post so pack seed in breathable material, e.g. a paper envelope or cotton bag, and place it in a padded envelope or stout box to protect the delicate seed from impact damage.