



A56 Saving seed crop by crop



Saving seed is an exciting and money saving way to complete the growing season. It lets you preserve a favourite fruit or vegetable variety to grow again next year or swap with other schools or gardening groups. This activity builds on seed saving and storage guidance in G4.5 to outline how to save seed from major crops.

Resources

- Space to grow plants to save seed from
- Sieve, stakes, twine, warm room

Top tip



Further information

See the Seed Saving Guidelines by the Heritage Seed Library.

www.gardenorganic.org.uk/hs1

Activity

- 1 Follow instructions on the next page for the crops you'd like to save seed from.
- 2 Plan your growing space according to whether crops produce seed within one season (annual) or wait until their second year to flower (biennial).
- 3 Also plan how to preserve 'varietal purity' so resulting seed is near identical to parent plants. If aiming for purity, ensure the following.
 - a Isolate different varieties to avoid cross-pollination (referenced when needed on the following pages).
 - b Remove 'rogue' plants that look different from the majority, eg with odd-coloured flowers, etc.
 - c Grow in groups to counter losses and help maintain purity, eg three to six plants of the same variety for tomato and squash; minimum 20 (ideally more) for most others, eg onion, brassicas, etc.

Extended activities

- 1 Find out how to save seed from other crops and have a go.
- 2 Design seed packets for packaging and perhaps selling your own seeds.

Health & Safety

Be careful when handling seed, washing hands afterwards. Ensure adult supervision. Wear dust mask and goggles if required when cleaning seed, eg dust from lettuce seeds and 'spines' from carrot seeds can irritate.

See also *Health and Safety Guidelines (Section SG1.2)*

Further information

G4.5 Saving your own seed

'Back Garden Seed Saving: Keeping Our Vegetable Heritage Alive' by Sue Stickland. ISBN 1899231156

Seedy Sunday, the UK's biggest community seed swap www.seedysunday.org

Saving seed crop by crop

Note: Unless otherwise stated, grow/space crops as if growing for normal food production.

Easier crops

Lettuce (annual)

Lettuce needs a long growing season to ripen seeds, so start plants early in the year under cloches or sow hardier varieties in late summer to overwinter.

Plant 45cm apart to allow good air circulation to deter grey mould (*Botrytis*).

Slice through the mature lettuce head so the flower spike can grow through quickly.

Lettuce are self-pollinating, but insects may cross-pollinate varieties so cover flowers with a 'hat' of horticultural fleece.

Seeds ripen rapidly to form dandelion-type structures. Cut off whole flowering stalk after three weeks or, for maximum yield, gently bend stalks into a clean paper bag every day, shaking to release seeds (do this from two weeks after flowering).

Clean, dry seeds last up to seven years.



Pea and French bean (annual)

Peas are self-pollinating, but insects may cross-pollinate varieties so separate varieties by several metres (ideally 20m); likewise with French beans.

Peas and beans benefit from a long growing season to give time for pods to mature and dry on the plant. If the weather is turning wet, or frost threatens tender varieties, dig up whole plants and hang up-side-down indoors to finish drying. Ripe pods are dry, brown, crinkly and hard.

Remove seeds from pods and discard any that are damaged or discoloured. Also remove any individual seeds with small holes which are evidence of pest infestation.

Clean, dry seeds last at least three years.



Tomato (perennial, grown as annual)

Most tomato plants self-pollinate. They are unable to cross-pollinate so different varieties can be grown close together and still produce pure seeds. The exceptions are small 'currant' tomatoes (*Lycopersicon pimpinellifolium*), potato leaved varieties and double blossoms on beefsteak varieties. Unlike other tomato plants, these have protruding 'stigmas' (female flower parts) that catch pollen, so flowers are best isolated in a fleece hat until fruit have set.

Allow fruit to ripen on the plant. Remove seed and rinse in a sieve under cold running water, rubbing them against the sieve to remove the gel. Spread seeds on kitchen paper and leave to dry.

Clean, dry seeds last at least six years.



Trickier crops

Onion and leek (biennial)

These grow 150cm tall flower spikes in the second year from a dormant bulb (onion) or evergreen foliage (leeks).

Insects cross-pollinate different onion varieties so grow just one variety a year. If saving seed from several varieties, isolate each and hand pollinate by rubbing flowers from different plants together. Likewise with leeks.

As soon as you see black seed within dying flowers, cut off the whole head and put it in a dry, clean paper bag to finish drying.

Clean, dry seeds last at least two years.



Radish (annual)

Spring and summer radishes are annuals. Leave them to flower where sown or replant the healthiest roots 45cm apart.

Grow autumn and winter radish as biennials, storing roots overwinter before replanting 45cm apart.

Insects will cross-pollinate radish varieties so grow just one variety a year or isolate different varieties inside fleece cages and introduce pollinators such as 'blow-flies' bought as maggots from angling shops.

Seeds pods are pale brown when fully dry. Crack open by hand to remove seeds.

Clean, dry seeds last at least five years.



Broad bean and runner bean (annual)

These are generally grown as annuals, though runner beans can overwinter indoors as tubers.

Both broad and runner beans require the same long season and seed cleaning as peas and French beans. Unlike these, bees cross-pollinate varieties, so either grow just one variety of each a year, or isolate varieties in cages and introduce pollinators (or hand pollinate daily at flowering time with a dry paintbrush).



Leafy brassicas (mostly biennial)

Insects cross-pollinate varieties of broccoli, Brussels sprout, cabbage, cauliflower and most kale (being from the same species).

If saving seed from more than one brassica, or there are wild brassicas flowering nearby, isolate each variety inside fleece cages and introduce pollinators such as 'blow-flies' bought as maggots from angling shops.

Each brassica plant produces a tall flower spike that usually needs staking.

Seed pods dry to pale brown and should be cut when crisp but before seeds are released. Crack open by hand to remove seeds.

Clean, dry seeds last at least five years.



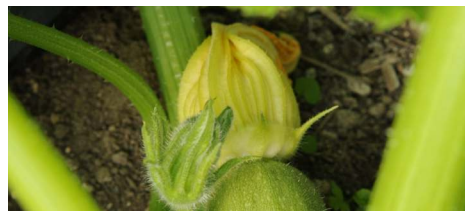
Squash, courgette and pumpkin (annual)

These benefit from a long growing season to ripen fruit so protect from spring and autumn frosts with fleece or cloches.

Pollinate by hand to prevent cross-pollination by bees. Select male and female flowers from different plants of the same variety when just about to open. They'll be mostly green with yellow around the tip. Tie flowers shut at dusk with an elastic band. Return the following morning and cut off male flowers (those with thin stalk behind). Remove petals and rub pollen into female flowers (those with immature fruit behind). Tie the female flowers shut again.

Harvest fruit before frosts and leave in a warm, dry place for three weeks for seeds to continue ripening. Remove seeds, rinse, and turn twice daily when drying to avoid mould. Store when seeds snap in half rather than bend.

Clean, dry seeds last at least five years.



Carrot (biennial)

Grow and harvest carrots as normal. Store carrots overwinter and replant in spring, spacing 45cm apart. Tall flower stalks soon develop.

Insects cross-pollinate varieties so grow just one variety every year or isolate varieties inside fleece cages and hand pollinate by rubbing flowers from different plants together.

Seed is ripe when flower heads turn brown and brittle. Harvest seed over several weeks to maximise seed quality and quantity.

Clean, dry seeds last up to three years.

