



# Top Tips

## Seed Collection

### Seed Production

Your garden, and other green spaces, are constantly producing seeds from their existing plants. Flowering plants strive to reproduce and spread themselves by different means, but seed production is one of the most successful as the process of shedding seeds allows the plant to spread across geographical distances on and inside insects, animals, wind and water.

Annual plants – those that only live for one growing season – usually produce the most seed as it is essential to the survival of their species. But longer lived plants also produce seed in varying quantities. As you might imagine our native wildflowers, grasses and trees are very good at reproducing themselves by seed as their seeds have evolved to thrive in our environment and weather conditions.

Seeds form in the ovaries of plants after their flowers have been pollinated. As the flower petals wilt and shrivel the seeds and the 'fruits' surrounding them grow and develop. This fruit may be an edible fruit (apple) or pod (bean) or a dry seed head (poppy) etc. But whatever the type of fruit, when it reaches its peak growth you need to collect the seed, which is also fully formed and ready to leave the plant.



As an example these photographs show a Calendula (French Marigold) in flower and forming still green seed heads in the top photograph. Below are the dried seed heads with brown seeds, ready for storing or sowing. This is an annual plant that produces a large amount of seeds.



## Seed collection

If you are collecting seed from ornamental plants in your own garden just leave a few seed heads to ripen and mature; you do not need all the seeds that the plant produces. Keep an eye on the seed heads and when they start to go brown and dry out they will be ready to collect; you need to catch them just before they start to drop their seeds naturally.

Pick a dry day to collect the seed heads and cut them with a stem attached, but remove any leaves. Tie the stalks together and hang them upside down in a cool, dry place with a large paper (not plastic\*) bag over the seed heads. Leave them in place for a week and then check to see if the seeds have come out of the seed pods/heads – give them a careful shake to encourage them. If they fall out naturally remove the stalks from the bag.



The next part is fiddly so find a plenty of space at a table with good light and spread out a large sheet of white/light coloured plain paper. Tip out your bag of seeds and sift through the plant material to remove any dried up pieces of pods, stalks and leaves to leave just the seeds. This will probably require you to carefully shake and shift the seeds to winnow out other plant material. Some seeds are easier than others, so be patient!



Once you are left with just the seeds tip them into a small paper bag or envelop (I use envelopes from junk mail cut in half – just the right size for seeds!) Label your bags or envelopes with the plant name and date of packaging.

*\* plastic bags will retain moisture and cause seeds to rot*

## Seed Storage

All seeds have a strong outer case that has evolved to withstand extreme environmental conditions and only open crack to allow the new root and shoot appear when there are good conditions for plant survival. While the seed case is intact the seed is said to be dormant, but it is not dead, so when you store seed you need to provide conditions that keep the seed alive but dormant. They need to be kept dry in paper bags/envelopes or tin containers (large chocolate tins are ideal) in a dark, dry and cool place.



If kept in the best possible conditions seeds can continue to live in a dormant state for many years, but I usually aim to use home-collected seeds within two years. After that I collect fresh seed to use.

## Vegetable seeds

All vegetables (apart from potatoes) will produce viable seed to save for next year's crops. Just follow the same principles as above. Let some of the most productive and healthy vegetable plants flower and produce seed pods, allow these pods to ripen, go brown and dry out. Collect the pods on a dry day and allow them to dry out completely before removing the cases and storing the seeds. I have found that home-collected seed is great for developing more hardy vegetables; as you are naturally selecting the most successful plant each year to grow from.



## Fruit seeds

These are slightly different as you need to extract the seeds from the fruit – easy for apples and pears but a little messy for strawberries and currants. Make sure you have washed the fruit away from the seed and then dry and store the seed as above.

## A word of warning!

The reason that seed production is an excellent way for plants to reproduce and spread is that it is sexual and involves the mixing of different DNA from the male pollen and female ovules. As a result the seed-generated 'offspring' are unique and can evolve and adapt, which is great for the survival of the species. However, it does mean that your seeds from the parent plant may not result in an identical plant – the colour of the flowers, growth habit etc. may vary. If you take seed from an F1 plant the plant will definitely not be the same as its parent. Similarly most fruit trees are grafted so the rootstock and fruiting parts of the tree have different DNA, so again your home-collected seed will grow into a tree less vigorous than its parent.