

is partly driven by memories of some of the horrors perpetrated by donors in the 70s and 80s: the A4 envelope bulging like a pillow, and labelled *Dryas octopetala*. Careful combing through the mass of hairy fluff would occasionally yield enough seed to fill a packet or two. In some donations of primulas, there would be so much crushed seed pod, that it was difficult to tell whether or not there was any good seed present. But much, much worse were the wet, sticky packets containing berries, by this time decomposing and fermenting. Most seed packeters from this period will have similar tales of such horrors. All of these had to be dealt with for the benefit of the order-picking team and the recipients. These days, such sendings are dealt with more firmly! My procedures for collecting and cleaning seed have gradually evolved over the years, so I now have a few standard methods which I find easy and convenient to use. The photos accompanying this article follow the text in sequence.

The seed-cleaners toolkit

The permanent kit includes a range of tea strainers and flour sieves having different hole sizes, which can be obtained very cheaply by shopping around in chain stores, and a straight-bladed knife. These are supplemented with at least two sheets of newspaper turned up at the edges to stop seeds rolling off, two sheets of white A4 paper ditto (perhaps gleaned from the junk mail input, but not too shiny), paper bags and disposable gloves, of which more later.



A promising crop of *Tulipa tarda*



Tulipa tarda seeds are neatly stacked in three rows



Seed extraction



Seed extraction continues

Seed collecting

Ideally, I like to collect seed pods in the evening following a dry day, either on the day that they first open, or even better, on the day *before* they open. (This choice is based on observations of how seed pods mature.) If space permits, the pods can be spread out on paper to dry further and open. This stage can be informative: the flat seeds of *Lilium*, *Nomocharis*, *Fritillaria* and many *Tulipa* are neatly stacked in three ranks. In the case of *T. tarda*, the seeds are also separated by hair-like appendages within the pods. I usually put the capsules into a paper bag, and store them in a dry, shady place. After drying for a few days, the seeds can be released by tapping the bag. I hold the bag by the neck in my right hand and swing it against the palm of my left. The degree of vigour is the minimum needed to release the seeds, whilst breaking up the seed pods as little as possible. **This is very important**; the more the seed pods are broken up, the harder you will have to work at removing the dross!

The large, the flat and the knobbly

There are several ways to deal with larger seeds. The flat ones (e.g. *Lilium* etc) often contain a proportion of sterile seeds; just skin with no embryo. One of my correspondents uses the swirl and blow method: the seed is swirled around in a large soup plate and she then gently blows across the top. A German member uses a dustpan and gently tosses the seed upwards whilst also blowing across the top. In each case the light, sterile seed is blown away. I have not got the skill to use either of these methods; either I do not remove



Tulipa tarda capsules, chaff and cleaned seeds



Iris reichenbachii; separating the dross

all of the sterile seed, or half of the good stuff ends up on the floor. In addition, it makes an amazing mess; I was recommended to use the procedure in the garage only! The easiest method for me is to tip the seed into one corner of an A4 sheet of paper and move the good/bad seed into two separate piles with my fingertip. This sounds incredibly laborious, but can be done while listening to a radio programme, and only takes a few minutes per batch. Pictures show the procedure with knobbly iris seed and cleaned tulip seed.



Gladiolus italicus seed capsules



Gladiolus italicus, the first stage



Seed rolling



The final polish to remove dust

Rock and roll for round seeds

A very large proportion of seeds are, if not spherical, at least round enough to use the rock and roll method. These include *Androsace*, *Crocus*, *Chionodoxa*, *Dodecatheon*, many *Primula* species and many other popular genera. I release the seed from the pods in a paper bag as above, then tip everything onto an A4 sheet of paper. *Gladiolus italicus* is a typical example. I pick out the empty pods and large fragments if they have broken up. I then hold the sheet above the second sheet, tip it cautiously towards me, and slowly rock it to left then right. The round seeds roll down the sheet following a zig-zag route and onto the second one, while the flatter, sterile seeds and finer particles remain on the sheet. If necessary, the process is repeated several times, the seed becoming cleaner at each pass. Sometimes 'rollable dross' accompanies the seed; this can be removed using a tea strainer. This method is applicable to all round seeds, but the larger the seeds, the shallower the angle needed to get them rolling.

Sifting for smaller seeds

With seeds in the small to minute size range, the assorted tea strainers



Ramonda myconi 'Rosea' harvested capsules



Ramonda myconi 'Rosea' plonking



Ramonda myconi 'Rosea', first sieving



Ramonda myconi 'Rosea', tap, tap



Ramonda myconi, job done

(and sieves) come into their own. The whole contents of the paper drying bag are tipped onto a sheet of paper first and the pods and large fragments are removed. The rest is poured into the strainer with the largest holes first, which is gently tapped over a sheet of paper. What passes through goes into the next finest, and so on. At some stage in this progression, I usually find that one of the strainers contains good, clean seed.

Berries and pulpy fruits

These are not welcomed by the Distribution Seed receivers in their raw state (the fruits, that is), and need to be cleaned. If you intend to sow your own seed, it can also be better to clean it first, as the flesh may contain germination inhibitors. I illustrate *Daphne* berries as an example, as skill and judgment are needed here too. I aim to pick them on the day *before* the blackbirds decide that they are ripe enough to be edible, then store them in a cool, dry place, where they remain until they become soft. I then don disposable gloves and operate the squidge method. This highly technical term describes the process of placing each berry in turn onto a double layer of soft toilet tissue and gently pressing on one end. If the berry is at the right stage of maturity, the seed will pop out of the other end, free of pulp and skin. A brief roll on the paper completes the process. [Note: the disposable gloves are **essential**, as *Daphne* berries contain very toxic materials, readily absorbed through the skin. I did this without gloves just once; it is difficult to understand how the fingertips can be at the same time both



Daphne tangutica, the squidge method



Daphne tangutica, the growing seed crop



Daphne tangutica, cleaned seed

numb and intensely painful. **Do not do this job in the kitchen!** Other fruits and berries, while not toxic, may dye the fingertips in an interesting range of quite persistent colours.] The squidge

method is adaptable to a wide variety of fruits and berries. If you are in a hurry, fruits can be soaked in water to speed up the softening process. If the seeds are small in proportion to the fruits (as in the strawberry, for example), I have heard that some members whizz them briefly in a kitchen liquidiser (beware toxicity and/or irate spouse!) and then separate them using a sieve or tea strainer. Fortunately (for me) I process very little seed in this category.

All stuck up!

The problem of seed cleaning may be made more difficult by the fact that some have a sticky coating or appendage (*Cyclamen* and some *Galanthus* are examples). Handling can be made easier if the seeds are first washed in tepid water – I find a stir around in an empty yoghurt tub ideal for this – separated in a tea strainer, and dried on toilet tissue.

The procedures described might at first sight seem to be too much trouble for you, but really they are very quick and easy, and the rewards are great: the pleasure of a job well done, the ability to share your own carefully selected plants with other Members through the Seed Distribution, the extra financial input to the Society (very important in these difficult financial times) and last but not least: donor's applications for seed are dealt with first!

I hope that you will have a go at donating seed to the Distribution this year and add to its continuing success. If you have your own favourite seed cleaning methods, then do write them up for me, so that I can pass on the good news to everyone else.