



Cornus florida

E. Dalvé

**CIVIC GARDEN CENTER
BULLETIN**

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DAFFODIL PROPAGATION

By Peggy Macneale

Can you believe we are talking about daffodils this time of year? Most gardeners are ready to forget about them for a few months unless they are constantly reminded by the ripening leaves that the flowers may be pretty but the foliage is a nuisance. Admittedly, this is all too true, but there are several ways to handle this problem. Bunching the leaves with twist'ems is one solution - not the best if you hope to have blue-ribbon winners next year, but better than premature removal. Planting quick-growing, June-blooming annuals, such as poppies and larkspur, is my own solution. These come up in and among the daffodils, and when they are in flower you forget about the flopping bulb foliage. By the time they have finished their burst of bloom, and set their seeds, the daffodil leaves are yellowing. Then the borders can be cleaned up. Save some of the dried larkspur and poppy plants and shake the seed pods over the soil later in the summer. They may germinate that fall, but they are "hardy annuals", and will live through the winter. In late June or early July zinnia and marigold seedlings can be moved into the daffodil area, or beans and zucchini seeds can be sown: it is good to have some kind of plants growing to the shade the soil from Cincinnati summer sun.

Meanwhile, by carefully preserving those daffodil leaves you are aiding in one type of bulb propagation. The natural method of bulb increase is by offsets, so you can really hardly stop your daffodil clumps from becoming larger. The important thing is for the offsets to develop flower buds so the clumps will produce more than just leaves. Bulbs planted a good 8" deep will do better than shallow-planted ones: (1) they are deep enough so over-plantings of ground-cover, annuals, etc. do not compete with them, (2) they stay cooler in the summer, (3) offsets produced are fewer but larger and stronger. Bulb food scattered around the clumps in early March is also helpful in restoring the bulb's vigor so new flower buds will develop for the next season.

Now, how else can daffodils be increased? Well, naturally we think of seeds. Usually we remove faded flowers so that seeds do not develop and take strength from the bulb. However, if you want to join the widening ranks of daffodil hybridizers, let a few seed pods ripen. You will find that certain varieties produce seed very readily - this natural occurrence is called "open pollination", i.e. you don't know when or how or which bee got the pollen to fertilize that flower. On the other hand, if you want to play bee, and have an idea for a new daffodil (a brighter pink, a miniature white trumpet, etc.) then you can do your own hybridizing. The first step is to snip out the stamens, or at least the pollen-bearing anthers from the flower which will produce the seed. It is wise to do this before the pollen is ripe, so inspect your chosen plant and mark a flower that is just opening. A tweezer will serve to remove the anthers. The stigma should be protected from premature pollination by a visiting insect until you can do the cross-pollinating yourself, so tie a cheesecloth bag over the flower because it may be a day or so before the stigma is mature and ready to receive pollen. Meanwhile, you may have pollen in a plastic vial in the refrigerator from an earlier-blooming variety which you want to apply, or perhaps it is from a flower in bloom close by. To give yourself the best chance for a successful "marriage",

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brush some of the pollen on the same stigma several days in a row, re-tying the cheesecloth bag around the flower each time. The protecting bag should be left on as the weeks pass and the seed pod ripens. Shiny black seeds will spill out of the dry pod some day in July. These can be planted at once, or by September, in any starting medium you prefer. I use a cottage cheese carton for each batch of seeds, labeling the cross, and the date. In the event that NO seeds develop after all that work, you may decide to join the American Daffodil Society and take advantage of the computer printout of that organization, which will tell you the most fertile of the daffodils for this kind of project. Some types of daffodils are notoriously infertile, and some varieties will seldom ripen viable seed. This makes for a real challenge, and no one can better appreciate the hard work that growers like Grant Mitsch, Murray Evans, John Lee, Lionel Richardson, and Guy Wilson have brought to the production of the modern daffodil. They all made a first attempt, however, so anyone else can follow their footsteps. It doesn't take genius so much as patience. The seeds you plant will germinate in 2 or 3 months - or maybe more. I keep the cartons, each in a plastic bag, on a shelf by a north window. A wall register under the shelf supplies some bottom heat, and this helps. Eventually green sprigs, like so much grass, begin to poke up. Within a year these will have developed little bulbs. Re-planted in a protected box or cold frame these can be grown on until they bloom, in 5 or 6 years. This makes daffodils about on a par with orchids!

A slightly faster way to increase your supply of good bulbs is the scale method. Did you ever slice into a bulb accidentally, only to find that, rather than rotting, or drying up, it became a cluster of smaller bulbs? This is the basic idea of scale propagation: the basal plate, which represents the stem of the daffodil plant, has the capacity to generate a multiplicity of bulblets when cut or injured. During the summer use a sharp knife, which has been dipped in a formalin solution, and slice a bulb into segments, each with a section of basal plate. Place these in a benlate solution for 15 minutes or so to prevent mold, and then into a plastic bag of vermiculite that has been moistened with the benlate solution. Keep at an even temperature of 70-72 degrees for 3 or 4 months, and by then bulblets should be developing between the leaf scales attached to the basal plate. From then on it is a matter of caring for these tiny bulblets so they don't dry out. The larger ones will come along to blooming size in 3 or 4 years. A special area should be provided for them so they can mature without disturbance. It should be emphasized that this bulb-scale method of propagation is the best way to quickly increase a supply of an unusual or expensive daffodil. You may hesitate to cut up a \$5.00 "mother" bulb, but by slicing up an offset you will obtain a dozen or more bulbs at once, and give yourself a better chance of keeping this variety in case some disaster happens to the original "mother" bulb.

While we are on the subject of daffodils, let me urge Garden Center members to call me by mid-June (522-7025) if you are interested in acquiring a dozen different fine daffodils which you cannot find at any local source. These are Irish, English, and Oregon originations, and are group-ordered each year at a discount which is passed on to you. The prize of \$10.00 per dozen includes shipping, and the bulbs will be individually bagged and labeled for you to receive in October. This is not a profit-making project for me, but rather a service to Garden Center members who would like to get acquainted with some of the better daffodils.

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