

Hybridizing Daffodils

February, 1999

Last month I said we'd talk about making your own daffodil hybrids. Most daffodil hybrids with only one bloom per stem are fertile, while those with more than one bloom per stem are likely to be triploids, and therefore sterile. Or at least it's highly unlikely that they'll set seed.

Pollinating the blooms is simple; you take pollen from one flower and put it onto the pistil of another flower. Daffodils have six stamens which contain the pollen (the anther, at the end), and you want to be sure and use it when it's fresh and dry. When the bloom first opens, the pollen has not yet dehisced. Wait a day or two. The pistil is in the center of the six stamens, sometimes exerted, and sometimes buried deep within the stamens. Pollinating can be as simple as taking a pair of tweezers, pulling a stamen from the desired pollen parent, and taking it to the seed parent and putting as much pollen on the end of the pistil as you can. Some people prefer to use a small artist's brush. And some people apply a solution of honey and water to the stigma (the tip end of the pistil) before applying pollen. This helps the pollen to "stick" to the stigma, and also provides a bit of food to the



pollen as the pollen grains grow. If you want to be REALLY sure that it's your intended cross and not one made by the bees or spiders that takes, you can cover the bloom with a piece of nylon stocking. But I don't know of anyone who covers blooms after making crosses. If your cross is successful, the ovary, the little round knob just under the bloom, will begin to swell, and seeds will form. This seedpod can grow to the size of a walnut or pecan. If you're crossing miniatures, maybe it will grow to the size of a peanut.

When you make the cross, you will probably want to record the parentage, either in a notebook or on a string tag you attach to the stem, for future reference. And it's also a good idea to tie the stem to a bamboo stake or something similar, so that you can find the seedpod six weeks later. Otherwise as the foliage matures, you might forget about your seedpod and it could be lost. To test if the seed is ripe, shake the seedpod. If you can hear the seeds rattling around, it's probably time to cut the pod. Or if the old blossom, which has dried up and is attached to the end of the seedpod, loosens, that means the pod is getting ready to split. Definitely pick it then, or the seed may be lost on the ground.

Fresh daffodil seed is round, black, and shiny. Opinions differ about planting time. In general, I think planting immediately is best, but then you must keep the seedbed or seedpot watered through the summer months. Daffodil seeds send down a root before sending up top growth. But in any case, the seed should be planted by the first week in September. As there are many climates, there are many ways to plant the seed. Some plant in the open ground, others plant in pots or boxes. As I live where winter is severe with lots of freezing and thawing (and heaving) of the ground, I plant in pots which I sink in a coldframe. I use a mixture of potting soil from the garden store, perlite, and a bit of fertilizer. The pots are filled to within about an inch from the top, the seeds dropped in, then more potting soil added. I top the pots with a fine



granite grit; this keeps the soil from washing out of the pot in a hard rain, and helps keep out weeds. If I were planting in open ground, I would have to plant the seed deeper to keep it from heaving out of the ground. So depth of planting depends on your climate. The seed germinates the following spring with one leaf and looks like wild garlic. The second year they look like stronger wild garlic! I keep them in pots the first two years, and then plant them out in rows after that. At two years old, the bulblets are usually pencil sized. Some people get bloom in four to five years, but I rarely get blooms before five years; usually it is six years from seed to bloom in my climate.

So why would anyone want to plant seed of something that won't bloom for five or six years? Well, it's kind of fun to watch the life cycle of a plant. And when you see buds coming on your first seedling, that's exciting, too! You might not get a world-beater, but if you get something that likes your climate, has a healthy bulb, and is an attractive flower, what's wrong with that? And who knows, you could get a world-beater! I do this for fun, without hopes of competing with the best of the modern daffodil breeders. I made my first crosses in 1967, and one from my 1969 planting, 'Three of Diamonds', is now in commerce. So, it can happen.

If you decide you'd like to try this, use pollen from your best flowers. See if there's a show near you (there's a list on the American Daffodil Society home page); if you're there when the show is taken down, ask if you can have some of the flowers to use for pollen. Be sure to ask, don't just take the blooms. You might find some different color combinations there than you have in your garden. Most of all, have fun with it. Who knows, five or six years from now you could have some great looking daffodils!