

# Narcissus Notes

B. Y. MORRISON, *Editor*

## *Waiting For The First Flower*

I wonder how many we are—beginners in narcissus breeding, still waiting for that thrilling moment when we shall see the first flower of one of our seedlings? I wonder how the others happened to start, what their plans are, and how they reconcile themselves to

that four-, five-, or six-year wait. As those who think only in terms of results accomplished cannot be expected to take an interest in the first halting steps of beginners, this story is addressed to my fellow-novices.

My first urge to try narcissus breeding came from reading, during the winter of 1943-44, the 1942 Daffodil Year Book. Nearly every article touched on progress in breeding in

---

<sup>2</sup>See, Glenn Dale Azaleas, by B. Y. Morrison, Arboretum Bulletin, University of Washington Arboretum Foundation, Vol. IX, No. 4, Dec. 1946.

some part of the world or another; but it was the illustrations of Mr. S. Stillman Berry's "Dancing Fairy" (*triandrus albus* × Bernardino) and of a group of his *jonquilla-cyclamineus* hybrids that inspired me to attempt similar crosses. Previously I had thought of breeding as an occupation for people who have plenty of time and space and quantities of the newest and most expensive bulbs. But here were perfectly delightful little flowers, quite different from anything I had ever seen, from crosses that might have been made in my own garden!

I began to read all I could find on breeding daffodils, especially on the use of the smaller species. "Breeding and Raising the Small Daffodils," by Mr. Edwin C. Powell, in the American Daffodil Year Book for 1937, and "Hybrids of the Smaller Daffodils," by Dr. W. M. Thomson, in the Journal of the Royal New Zealand Institute of Horticulture for January 1942, were particularly stimulating. I learned, of course, that crossing species is more easily said than done, but the uncertainties only increased my interest. In fact, there would be a certain advantage in a low percentage of success, since both my time and my space were so limited I could not care for large numbers of seedlings. So I made up my mind to keep the project a small side line, making comparatively few carefully selected crosses, and getting a large share of pleasure and satisfaction from what I should learn along the way, rather than from results only. One of these collateral rewards has been a slowly-increasing acquaintance with the laws of heredity, which I had long admired from a distance. Another has been a keener appreciation of species (as opposed to varieties) not only of Narcissus but of other genera. This

has led me into many interesting by-paths.

As to breeding, my greatest wish is to produce hybrids of the smaller species, especially *cyclamineus*, *jonquilla*, and *triandrus*. So far I have had no success in this. Another plan was to use one of these species as pollen parent, and a variety related to one of the other species as seed parent, as, *cyclamineus* and White Wedgwood, *jonquilla* and Niveth, *triandrus* and Beryl. In this way I hoped to combine the greatest possible number of dissimilar characteristics in each cross, but with the chances weighted in favor of the species parent. This still seems to me a good idea, even though I have not been able to carry it out. Instead, I have temporarily retreated to a third line of attack, aimed at producing *jonquilla* and (or) *cyclamineus* hybrids outside the usual all-yellow color range. With *jonquilla* or *cyclamineus* I have used *Incomparabilis*, *Barrii*, *Leedsii*, or *Poeticus* varieties chosen for perianths of good form and substance and for color (other than all-yellow). At one time or another I have tried to make use of stray flowers of *N. canaliculatus* and *N. tenuior*, and I hope before long to add *N. juncifolius* and one of the *triandrus* forms to my list of potential parents.

Although my understanding of the laws of heredity is still very limited, I hope to be able to fit any results I may achieve into their framework. This is one reason for limiting my efforts to crosses between widely differing forms or colors. It is also the reason for my decision to repeat any successful crosses, and to make reciprocal crosses whenever possible. Of course it involves the keeping of records.

My records are very simple, however. I use small sales tags, writing

the name of the seed parent in pencil and attaching the tag at the time I remove the anthers from the flower to be used as seed parent, and adding the name of the pollen parent and the date at the time of pollinating. As the seedpods wither (alas!) and are discarded I gather the tags, my only record of unsuccessful attempts. Tags for the successful crosses are collected with the seedpods and more permanent labels are made when planting the seed. In such small-scale operations as mine, it is no problem to provide a separate pot for each lot of seeds, and they are sunk level with the ground in the open, *cyclamineus* crosses in a moist place, *jonquilla* in a drier position.

My only successful crosses to date have been: Autocrat  $\times$  *cyclamineus*, *cyclamineus*  $\times$  Fortune, Tunis  $\times$  *jonquilla*, Nelly  $\times$  *jonquilla*, and Red Rim  $\times$  *jonquilla*. The first year I harvested only two seeds and neither germinated. The next year, three seeds, of which one germinated the following spring and a second a year later. In 1946 Tunis  $\times$  *jonquilla* yielded 26 seeds, of which 17 germinated. This year three seedpods (one a repeat of *cyclamineus*  $\times$  Fortune) gave a total of 11 seeds. Although I have so little to show for my first four years of effort I am far from discouraged as I feel I have made a little progress in one way or another each year.

Even so, I realize that my percentage of success is too low, and I am concerned about raising it. I have recognized some of my technical errors, such as pollinating before the stigma was receptive, but I have not found an explanation of the very misleading habit daffodil seedpods have of swelling for weeks as if they were full of seeds, only to wither and shrivel to nothing at the last minute. This year I have opened some of the withered pods and in most cases found six rows of tiny dry ovules. In several cases, though, I had misjudged the extent of withering and one or two developing seeds lay within like little pearls. Next year I must make more systematic observations.

Next year! The narcissus season is so short, and free time so scarce! It would take a stronger will than mine to make every minute count in accomplishment, even in a project so full of interest. Let those who can make their crosses by the hundreds or thousands, and reap their rewards likewise in large measure; I am content to have one or two new batches of seedlings to watch each year, a few small tickets in the lottery that sometimes brings great prizes. Meanwhile, I collect liberal and sure dividends in the form of increased enjoyment and understanding of this favorite flower.

ROBERTA C. WATROUS  
Washington, D. C.