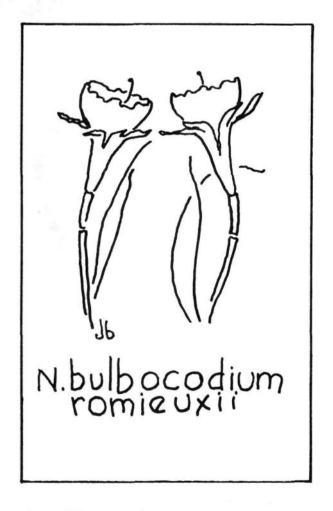
The

DAFFODIL JOURNAL



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Articles and photographs (glossy finish) on daffodil culture and related subjects are invited from members of the Society. Manuscripts should be typewritten double-spaced, and all material should be addressed to the Editor.

DEADLINE FOR THE NEXT ISSUE IS JAN. 15, 1972

THE COVER DRAWING

is by Jane Birchfield. N. bulbocodium romieuxii is one of the North African bulbocodiums that will bloom during the winter in pots under glass or outdoors in less severe climates.

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THE VIEW FROM MT. HOOD A REPORT FROM THE NORTHWEST TERRITORY

By Tom D. THROCKMORTON, M.D., Des Moines, Iowa

When one stands on the summit of Mt. Hood and looks directly to the west, the city of Portland is seen as it sprawls about the Willamette River, just before the waters merge into the mighty Columbia. If it happens to be the end of the first week in April, the city appears a lovely nascent green, tinged with reddish-pink — as millions of rose shoots fatten and burst forth in the warm, moist air of Spring. The madrona trees have donned their mantillas of lacy white racemes, and most lawns have yielded their first lush growth to the cutting bar.

Following the swollen Willamette River to the left, one sees Oregon City, marking the misty cascades where the waters are compressed into a narrowing defile. In this channel are tightly strung rows of fishing boats, heralding the salmon season. Above Oregon City, the waters of the river become more placid, and just short of the river's edge is an ancient filbert orchard. The tree limbs are covered with lichens and garlanded by mosses; gnarled and rheumatic branches seem to grudge the youthful season. Just a hair's-breadth left of these groves is an area of greenish-white with splashes of yellow, red and pink. This is Daffodil Haven, and the tall, spare figure moving among the immaculate plantings is Grant Mitsch.

If, on the other hand, one looks northwest from the summit to the Columbia River, the city of Gresham comes into view. Further still, to the right, are the towering fir trees of the Lewis and Clark Forest. The forest climbs toward Crown Point and then recedes as it washes against Larch Mountain. High on the shoulder of Larch Mountain is a spot of color — golden yellows, fiery reds and oranges, and flashes of white and pink. These colors mark the daffodil fields of Murray Evans, as the early divisions burst into bloom. Thus, at our feet are the works of America's two greatest daffodil hybridizers. These are the men, the fields, and the blooms to be enjoyed by all of us as the American Daffodil Society meets in Portland, Oregon, April 6 to 8, 1972.

Jean and I made a pilgrimage to these areas this last spring, and herewith is a report of new doings at Grant's and new happenings at Murray's. Many of you had the experience of such a trip in 1968. The quiet, unassuming Grant Mitsch is unchanged, as is his warm, hospitable wife, Amy. All else is different! The open cool garage is there, but few of the lovely blooms displayed inside were on the shelves 4 years ago. From the tall, cool, misty loveliness of Euphony and Oryx to the mind-boggling color of Cool Flame and a host of Bre'r Fox seedlings is an expanse of color breaks and combinations undreamed of only a daffodil-generation ago.

The plantings are different. Those acres about the Mitsch home, where we walked before, are now all given over to seedlings, small seedling stocks, and a few small and valuable clones just marketed. The rest of the varieties, and all the large stocks, are grown in large fields, less than a mile away. Here we saw rows of Festivity so long that perspective almost drew them together at the horizon. A long row of Irish Coffee looked ethereal against a background of dark evergreens. All the rows and stocks were plainly labeled. The lush plants burst upward out of the soft reddish soil in military order. Not a weed! Not a virus-stained leaf! Not a spindly plant in the lot!

We had especial enjoyment in "hopping rows" of daffodils about the homesite. Here were the seedlings and small stocks. Here also were a full coffeepot and a jar of cookies.

Most dramatic were six rows of pink seedling selections, each row 300 feet long. To walk past 1,800 feet of choice new pink daffodils is almost a shattering experience. It is literally true that we were unable to make a single choice among them. There they stood, in stocks of from 6 to 60 bulbs, all different, all magnetically attractive. Yet, with a feast of pink color spread before us, we found ourselves unable to make a beginning.

Among my notes are the following observations:

Milestone appeared even more lovely than I remembered it: a double-triangle perianth about the color of a well-grown Binkie, and a truly stylish pink cup.

PORTLAND CONVENTION

April 6, 7, and 8, 1972

The 1972 ADS Convention will be held at the Sheraton Motor Inn, Portland, Oregon, on April 6, 7, and 8. The theme of this meeting will be American Hybridizing and American Daffodils. The highlights will be visits to see the daffodils of Grant Mitsch and Murray Evans and also the new seedling blooms from crosses made by Bill Pannill, Dr. Tom Throckmorton, and the late Harry Tuggle.

An exhibit of the best of all the new varieties and seedlings of these hybridizers will be on display at the hotel. In addition, there will be a competitive show, awarding the major ADS awards, including the Harry I. Tuggle, Jr. silver tray, the Gold Quinn and Watrous medals, and the new award honoring Larry Mains. Classes for single-stem and 3-stem entries of standard cultivars will NOT be included, but the usual seedling and collection-of-5 classes will be. All members whose daffodils bloom in early April are urged to enter the competition.

An interesting program is being arranged, covering selection of seed and pollen parents by computer (Dr. Throckmorton), experiments in seed germination (Dr. Bender), the use of colchicine on daffodil species and other plants (Jack Romine), and how to select and name new cultivars for registration (Bill Pannill).

Plan to come early or stay after the meeting for a vacation in the Northwest. A card to the Chairman from those who plan to attend would be most helpful in planning for the meeting.

Wells Knierim
1972 Convention Chairman

Amberjack has improved remarkably. The pinkish suffusion extends equally throughout both cup and perianth, and the coloration of the molded blooms even improves after cutting.

Euphony (Leonaine, open pollinated) has an indescribably lovely pale color, almost as if made from ectoplasm. Milestone is a sister seedling.

Paricutin still maintains its position as the reddest cup in the territory but, alas, it is not quite sunproof. However, a new series of large-cupped seedlings by pollen of Bre'r Fox have deep glowing orange-red cups which seem colorfast.

In comparison with most other plants, it is uncommon for a daffodil to throw a "sport." Nonetheless, Festivity has yielded a self-yellow counterpart. Murray Evans always described Monument as a "Yellow Festivity." Monument and the new Mitsch Festivity-sport were planted side by side. The only difference any of us could really make out was a little straighter and more frilled cup on the new sport. Jean thought the sport had slightly more of an amber cast in the perianth than Monument.

Camelot was blooming beautifully and had unbelievable substance: if only it had another inch or two of stem.

Kingbird had a perianth as flat as any playing card, a stem sturdy as any poker, and a prim cup which just missed the small-cupped division by a couple of millimeters.

Then there was an open-pollinated Accent seedling with a nicely formed pink cup and yellowish perianth. The perianth did not have a clear, sharp hue which delighted the eye; rather it had a gray cast, which some might call "muddy."

The largest bloom on the place was a seedling: (Precedent \times Carita) \times watermelon-pink seedling. The perianth was truly enormous, and the frilled, basin-shaped pink cup almost covered it.

Seedling GO 17/1 is Daydream o.p. The perianth was pale yellow, beautifully formed, and the smartly tailored cup was a good solid unquestioned pale pink.

The handsomest reverse bicolor seedling on the place had been in bloom more than 2 weeks before we saw it. The parentage is Handcross \times (Fawnglo \times Lunar Sea). The perianth was a deep golden yellow, in contrast to a long bone-white trumpet with a beautifully engineered frilled and rolled lip.

F 133/1 is a new red and yellow double which Murray Evans prefers to Tonga, his favorite until he saw this one. Unrecorded seedling \times Enterprise was the parentage; we may never know where it got the gorgeous color, the long stem, and the short neck.

Playboy × Daydream gave a whole series of delightful 2a seedlings, with cups shorter and straighter than usual, unflanged and somewhat darker toned than the clear yellow perianth — a style not commonly seen and one which we liked. As a family, they were extraordinarily smooth, and most of them had a thin but classy white ring where the cup and petals made their juncture. Two of these have been named and introduced: Scio and Topnotch. We grow the former and regard it as without equal.

A series of really hardy pinks come from Rose Caprice × Caro Nome. These looked more like a giant Rose Caprice with a true clear pink replacing the coppery tones in the cup. The tremendous substance of the perianth formed "ribs" in that climate and Grant had consigned it to the "mix." In our climate that substance would have made a firm, sturdy flower.

Seedling 104/1 was a fascinating split-corona type (Rose Caprice \times Interim) \times Caro Nome. The perianth was reasonably white, for a "pink," and the segments were pure white with the tips dipped in old rose.

D7/1 is Accent × (Hillbilly × Wild Rose), and Grant has a pretty reasonable stock. It is a pink "collar" daffodil which seemed superior to most of that type.

The hill behind these seedlings, some may recall, rises like a choir of tall firs. Coloring the open areas are yellow violets, forsythia, and trilliums. A single woodpecker issued his noisy challenge to the trees, while among their

roots bloomed wine-colored erythroniums and yellow N. cyclamineus, com-

pletely undisturbed by the overhead racket.

C 32/4, a white 2c seedling (Accent X Oratorio), caught my eye — an attractive wavy-type with the style of Accent and the enormous strength, length, and substance of Oratorio.

A 5/10 (Cara Nome × Accent) looked like Accent to me, but was equipped with a broader, white, and more fashionable perianth, standing at the correct 90° angle to the deep pink cup. I suspect Grant may well find a

name for this one, perhaps in time for your visit next year.

E 32/1 was the first pink we had seen which had the style of a true trumpet. A full expanding pure pink trumpet with a flanged edge stood out before a white perianth made of ace-of-spades segments. Troupial X (Pink Monarch X Accent) is the breeding, and the trumpet has a good deal of length in hand.

An extraordinarily tall and handsome pink seedling took our eye: Gay Mood X Accent its breeding, and its cup more of a "shocking orange"

than "pink."

C 50 is a series of pink seedlings, Quickstep X Accent, with long stems, nodding heads, and small cups which are even more pink than Accent. Indeed, containing a very light touch of lavender to true them up, the shade of pink in the cups was entirely to our liking.

Mr. Fowlds has brought out an eye-catching flower, F313/1 (Fortune's Blaze \times ?) \times N. cyclamineus. The stems are long. Its sharp lemon-yellow perianth reflexes immediately from an extremely long, deep-orange cup. We

think it will do well among the cognoscente.

Seedling C39/1 is Rose Caprice X Accent. This is an extremely deep pink, better formed than either parent, with a whiter perianth and a bit more of it. At the time we saw it, the flower could have stood a little more stem.

Those of us waiting for a better and smoother pink trumpet may well be interested in C38/1. The breeding is Radiation X Rima. It is long in the stem, of superior form and color, and seemed a better-than-usual "laster."

Among the most colorful seedlings was a series from Firecracker X Velvet Robe. The deep golden perianth served admirably as a foil for the fiery red cup. This latter was straight edged, without a flange, and tailored to our tastes.

The D46 series was appealing; out of Green Island X Signal Light, the result was a more tasteful and less blowsy Selma Lagerlöf. The creamy-white perianth was cut from sturdy material, and the bright orange band to the

sharp lemon cup seemed to indicate where the action was.

Jean and I ordered a few bulbs from Grant before we left. As we drove back to Portland, in the twilight and plash of rain, it seemed just the right time to leave Daffodil Haven: another day and wonder might have been dulled: another day and we never could have decided among the few stocks

we did purchase.

Early the next morning we met Grant for breakfast at the Benson Hotel a lovely old and elegant hostelry with great service and a matchless menu. Grant ordered oatmeal with brown sugar, Jean had coffee an a Danish pastry, and I surrounded bacon, eggs, buttered toast, and somewhat less than a gallon of coffee. Grant had just delivered a station-wagon load of longstemmed daffodil blooms to the flower market, where the local florists could have access to them. Jean and Amy had picked thousands of blooms the previous afternoon, most of them unnamed varieties you and I will never see. These were not exhibition flowers but in Grant's words: "Daffodils that grow well, do well, last well, and people just seem to like and want them." A fairly good description of a commercial flower! These types are grown in a special field and next year, perhaps, you can talk Grant out of a few bulbs. Not much for the show table, but gorgeous in a clump or along your driveway.

With Grant as trail-leader, Jean and I followed along the Columbia River, up through the firs to the Crown Point store. Here we met Stella Evans. We bought a few things for a picnic luncheon and, after final directions from Stella, made our way through an undulating and narrowing maze of roads to the flank of Larch Mountain. We found Murray Evans in the midst of his seedlings.

Those among you who remember his daffodil fields a few years ago would be lost. The clump of daffodils still blooms in the crotch of the old tree. The combination chipmunk-bird house is still in place. The home-made humming bird feeders are assiduously attend by the feisty little rufous hummingbirds. But the daffodil fields stretching outward and to the left are gone. Now, extending upward over the long rolling rise to the right are more daffodils than you have ever seen. Long, straight rows, wide aisles of reddish-brown loam, and cloud-capped Mount Hood over that-a-way.

His four-star effort for the 1971 season is the most perfect white trumpet any of us had ever seen. Even Murray could not fault it, not even for lack of whiteness. This variety, Celilo \times Vigil, stood head and shoulders above its siblings: sturdy long tough stem, great straps of foliage, and a short neck leading into a greenish eye. The flower itself might be described as an improved and even whiter Celilo. Panache and Ulster Queen are going to have to move over, before even getting comfortable on their thrones.

Another outstanding and very white trumpet was Celilo \times (Petsamo \times Zero). The pollen parent itself tends to be a bit ribby, but confers a great deal of class and whiteness on its children.

Not to be outdone by these magnificent white trumpets was a whole row of yellow trumpets, blooming for the first time. Murray, reluctant to praise his things, said that among these flowers were several that "completely satisfied his taste in yellow trumpet daffodils" — and I might add, our taste, too. These seedlings were Arctic Gold \times (Galway \times early Mitsch 1a seedling). The flowers were an even deeper gold than the seed parent. There was a good deal of variety in form, but none in quality. The one which took my eye had a perianth as flat and round as a golden double-eagle. At a sharp right-angle to these flat petals was a long, extremely narrow golden trumpet, ending in a suddenly widened, rolled, ruffled, and flanged edge. The whole flower stood at attention, 90° to the stem and tall as any grenadier. The whole aspect of this flower was most uncommon, a sort of unselfconscious regality exuded from it. Murray preferred a larger, somewhat better formed and, if possible, smoother Arctic Gold.

To date, Murray has not produced a lb daffodil which he considers superior to Jolly Roger: Wahkeena by an unnamed Mitsch seedling with Bread and Cheese as one parent.

Looking over toward Mount Hood, our attention was immediately riveted by a row of Wahkeena. More than 250 feet long, any flower in this row could have stood with confidence in its division. And not far away was another row of gorgeous blooms with which I was unfamiliar. Actually, this variety proved to be Trousseau, grown to such handsome proportions and such beguiling coloration as to be unrecognized by me.

Seedling H31 was startling in color and in size. With well-dressed and healthy parents, Paricutin X Armada, this plant may be introduced as

Multnomah.

For the first time I saw a pink trumpet daffodil which had all the features one thinks of in connotation with trumpet forms: plenty of cup length, wide expanding mouth, pleated throughout its length, a rolled edge, and looking us in the eye with a certain sort of maleness that is characteristic of the better trumpets. The color of the trumpet was an unqualified and satisfactory pale "pink." The parentage, Woodlea \times (Roman Candle \times Rima), leads one, correctly, to expect a cleancut flower. The plant had the added advantage of early bloom, being at full maturity when less than 25% of the seedlings were in flower.

Vantage, first seen by us in 1968, still has that deep raspberry frill and is now available on the market. An excellent sister seedling is worth intro-

ducing, if Murray can ever develop enough stock.

And speaking of "enough stock" — anyone having Yellowstone had better hang on to it and grow it with deluxe care, because the Evans' stock is now down to a total of a single bulb — double-nosed, though.

Arapaho was just opening. The edge of the cup was both lighter in color

and wider than I had expected, making it a most attractive bloom.

Seedling 16/1, Daydream × Bethany, is a beautiful yellow with a straight cup. It is being watched closely by both Murray Evans and Bill Ticknor, who has a little of it. The cup has an unusual peachy-buff shading, which does not fade or tend to reverse, and the entire effect is one of smoothness.

This season, the groups of seedlings which have Murray out to look at them four times a day are two series of pink doubles. The better of the two is Pink Chiffon \times (Rose Garland \times pink seedling). Some of these were as pink as anything seen in nondouble varieties, and one of them had a heart of pure raspberry. There was great variation in form, some being prim, classy things with exhibition styling. Others had such clusters of petaloids in the center as to make them actually of greater length than diameter. I fear these latter types would never open in our climate, but in Oregon some of these huge flowers were unusually attractive.

The other series of pink doubles was Pink Chiffon × Carita. These were very nice and some were very pink, but on the whole this series was not as spectacular as those previously described. Between these two series were 76 double flowers in bloom or in bud. One of the stems terminated in two

huge, fat buds - making for a double-double, I suppose.

Murray has a very real "thing" about whites. I had a running correspondence with the late Fred Board, and he rather strongly faulted Vigil as lending a certain narrowness of petal to its children. Murray Evans thinks rather highly of Vigil as breeding stock and compared it with Interim's role in the further breeding of pinks; i.e., although lacking in substance itself, it passed many fine ingredients into the mix of heredity.

The rufous hummingbirds engaged our attention from time to time, as they flashed their iridescent markings about the homemade feeders — soy sauce bottles filled with 1 part of sugar to 6 parts water, with red fruit coloring,

semi-inverted in a netting sling.

Another sturdy seedling, Sacajawea × Armada, will probably be introduced by the Dutch as Marimba. It is, as you would expect, an early, tall 2a with an orange cup. Another such introduction is a 2c to be named Lure: out of Wahkeena by (Content × Flora's Favorite).

We were stopped in our tracks by a partial row of Honeymoon: Cantatrice \times Trousseau — large well-engineered trumpet blooms, on long stems, which excite by the very delicacy of their pale limy-lemon color. These flowers open with a white petal and a lemon cup; the petal becomes jaundiced and the cup a bit anemic until the two are almost the same hue. Old Satin does this, and although the whole process may sound like a bilious attack, the end result is bewitchingly beautiful. Perhaps I shall tell you more about flowers of this type when we meet in Portland this next spring.

Yosemite, a lovely 2c, came from pink breeding: Radiation × (Trousseau × Pink O'Dawn). The bloom is after the style of Ave, but the injection of

Trousseau has made it somewhat less susceptible to basal rot.

Another child from unlikely parents is Profile. This tall, yellow-cupped Polindra-type flower resulted from a Limerick × Broughshane cross — as if one were to mate a Chihuahua with a Newfoundland and obtain a Dalmatian. In the case of Profile, the stem is long, the trumpet shortened, the cup color diluted — a white-perianthed flower with a sparkling yellow cup has resulted.

A number of years ago Murray was helping Grant Mitsch during bulb-digging time. While resting at noon, he discovered a number of spontaneously thrown daffodil seeds on the sawdust-covered paths between the seedling beds. Being a curious cuss, Murray gathered about a Bull Durham sack full, planted them out, and from the resulting seedlings came the chartreuse Oneonta and another seedling, T54. This latter, bred to Accent, has resulted in a series of daffodils with an overall pinky-buff color. T54 itself had a white perianth and a buffy cup; the petals subsequently became jaundiced, lending the whole bloom its fascinating coloration.

In Murray Evans' experience, pollen taken from a double bloom, when it can be found, and placed on a single standard variety has never resulted in double progeny. The reverse cross, single pollen onto double-type bloom, gives a high percentage of doubles. However, Mrs. Richardson's current series of pink doubles has resulted from pollen taken from double varieties and placed on appropriate single blooms. Experiences such as these make daffodil hybridizing of continuing interest. If you like growing them, try sowing them.

Just to keep apace with modern trends, Murray also has a pink-cupped seedling with a yellow perianth: ((Binkie \times (King of the North \times Content)) \times ((Shirley Wyness \times Mabel Taylor) \times (1b buff seedling \times unnamed 2b pink seedling)). Thus, as breeding material becomes of increasing complexity, the storage value of the Daffodil Data Bank is increasingly evident.

The largest really white daffodil on the Evans place is D207 (Petsamo \times Zero). This lacks some of the attributes of a good flower, but size is certainly not one of them.

A row of Ballyknock grew to such perfection that we could not recognize it, although the round perianth and narrow flaring golden trumpet could make it little else. Guy Wilson's heart would overflow could he but see his flower in Oregon.

Another series of 5-year-old seedling trumpets seized our attention: Glenshesk \times Ulster Queen. These left little to choose among them and showed again the extraordinary whiteness that is going into the newer daffodils. One out of this group was chosen by Jean as her favorite.

For my taste the most unusual flower on the place was one Murray called "tobacco-pink." This child of Accent × (Radiation × Cordial) had a white perianth of fairly good form and cup of pink shaded with an opaque tan which made it about the color of Spanish tile. This description sounds a bit unlikely, but the actual color intensity approaches that of Mitsch's Cool Flame. We looked at this flower again by evening's last light, rich in violet and purple, and the cup could be seen glowing at least 50 feet away. I suppose the color description of "tobacco-pink" is fairly accurate, but Murray has declined my proferred name: "Bull Durham."

While on the subject of unusual flowers, let me tell you that we have also seen something about as uncommon as a unicorn. While walking down a row of pink seedlings, turning up little flower faces, Jean had the experience of turning up a truly pink 3b. Really! This good-sized bloom had a marvelously white perianth, of enough substance and size to make a sail-maker's heart leap for joy. The triangular, flat petals overlapped to an extent rarely seen. And at sharp right angles to them was the tiny cup, a pure deep pink, shading green toward the ovary. The cup was straight sided, nonflaring, delicately ruffled and sharply cut without a flange. If one were artistically capable of cutting out and putting together the ideal pink small-cupped daffodil, this would be it. As you might know it, in all the excitement, we have forgotten the parentage. Thus it ever has been, with parents of outstanding and gifted children.

Those of you fortunate enough to have ordered one or more of the H-44 seedling series are in for a lovely surprise. This long, long row of beautiful things is Frigid \times (Cushendall \times Cantabile). Frigid, usually a shy seeder, proved especially fertile to this pollen, and the late Harry Tuggle was unable to choose among them. He suggested they be put on the market, unnamed; this year is your opportunity to obtain a bulb or so of this unusual cross. The delicate loveliness of the flowers had the same appeal to me as when I handle a transluscent bit of Belleek china.

Jean and I had dinner with Stella and Murray — one of those meals where you keep right on eating after you are full. Some kind of wild berry pie topped it off, and my digestive juices still flow at the mere thought of it.

Later, after goodbyes and promises to see them next spring, we drove down the narrow road which reluctantly leads to "civilization."

The next morning the big jet circled easily and gained altitude, and there stood Mount Hood, feet in daffodils and shoulders in the clouds. We thought over the past few days, and wondered if psychiatrists ever worked through flowers, and especially through daffodils. On the one hand is Grant Mitsch: shy, retiring, sensitive; and developing flaming pinks, ruby reds, flaring cups and exciting yellows where none existed before. On the other hand is Murray Evans: outgoing, rugged, and self-sufficient, and developing whiter whites, softer and pinker doubles, and tiny little cups with picoted edges. Do you suppose the flowers are trying to tell us something?

Jean and I hope you all intend to come to Oregon early in April 1972. We'd like to see you; you can find us either at Daffodil Haven or on the

shoulder of Larch Mountain.

MUSINGS AND MEANDERINGS

By POETICUS

Endangered species is a phrase one encounters with growing frequency. Usually it is applied to species of animals, but there are many species of plants which have been lost in the wild and others whose survival is threatened because their occurrence is limited and because of human greed in one form or another. The Gordonia altamaha (Franklinia) has not been found in the wild since 1790 and $N. \times iohnstonii$ may have been lost although it can still be found in a few gardens. Many of our eastern natives are in full retreat and the New England Wildflower Preservation Society was created to see that no native species became the passenger pigeon of the plant world.

Daffodil species are found in the wild on the borders of the Mediterranean and as far as we are aware there is no organized effort in any of the countries involved to assure their survival. The taxonomy of the daffodil has been attempted a number of times, but the list of species and wild hybrids is still not final; however, a number of accepted species can no longer be found or are rare in the wild, such as N. poeticus poetarum, N. minor, N. pseudonarcissus bicolor, N. pseudo-narcissus gavi, and N. atlanticus.

A number of dealers offer species and wild forms and it may be said that almost all, and probably all, of these are collected bulbs. Obviously depletion and ultimate exhaustion depends on the activities of the collectors and the ability of individual species to reproduce. Once the withdrawal of bulbs exceeds the normal increase, the species must be regarded as endangered, because the collecting of bulbs is not likely to be restrained as long as there is a demand and the bulbs are still to be found.

As a general rule, the cultivation of species is difficult and many are likely to prove short-lived. This is less true of N. pseudo-narcissus and its numerous subspecies, although some of these tend to go to leaves and stop flowering. The bulbocodiums are not reliably hardy in the north and are best flowered

in a coldframe or greenhouse.

Those who profit from the gathering and sale of species and wild hybrids are not apt to concede that there are any endangered species, much less to name them. It would be helpful if someone who was familiar with conditions but not under the influence of a profit motive would report on the abundance or scarcity of the species now listed in catalogs. For their part, gardeners should order species and wild forms with restraint, keeping in mind any known facts as to their scarcity, their probable resentment of cultivation, and their lack of garden value. Many species are on the approved list of miniatures and if there is evidence that any of these are threatened, possibly the list could identify them or even delist them. Traffic in certain American wildflowers is forbidden by many states which harbor them and their exhibition in shows or use in arrangements is prohibited by sponsoring clubs.

The Rosewarne Experimental Horticulture Station, Camborne, England, carries out field experiments for a number of commercial crops, including daffodils. Their reports are read with interest and careful study is almost certain to turn up some nuggets of daffodil gold. A recent report delved into

the characteristics of 634 cultivars, including size, and we were fascinated to discover that the largest of the flowers they tested is Tarzan, a 2b introduced by the de Graaff Bros. in 1948. We are told that specimens measured 14 centimeters, or 5.5118 inches; not quite the 8 inches one dealer has been known to claim for his products, but still a very respectable size.

If size is your bag, then Tarzan is your flower. We can't tell you where to buy it, but we can be of some help by quoting the official description: "Perianth creamy white, stained yellow at base, creased, top 3 segments buckled, often caught in corona. Segments slightly twisted, pointed, overlapping. Corona lemon, suffused orange with narrow edge of pale lemon, some white blotches on edge, fluted. Very rough, large, ugly. Neck grows badly in water. Poor poise."

Now that you are on your way toward being able to boast that you have the largest daffodil, we will lure you further by mentioning that three other varieties are tied for second place, measuring 5.12 inches. We will not disclose their names, but they may be had by sending a stamped, self-addressed envelope to Poeticus in care of the Editor of the Journal.

SIR WATKIN REVISITED

In the March 1969 Daffodil Journal, I wrote of my acquaintanceship with the venerable Sir Watkin, Sir Watkin, now well over 100 years old, is a sturdy reliable all yellow 2a. In his youth, Sir Watkin cut quite a figure and was seen in all the best gardens. He was given the title of "The Welsh Peerless," and his picture was in every catalog. Now the golden knight is far surpassed by young dandies such as Monument, Space Age, Camelot, and Sunbird. He rusticates in the garden while they traipse off to the shows.

Sir Watkin, though, has every good quality except that of surpassing beauty. Jane Birchfield gave me one round bulb of it in 1962, and I planted it by a fence and left it alone. In July 1971, I dug Sir Watkin. In the past 9 years it had the following blooming record:

1963 - 1 bloom: 1964 - 2: 1965 - 4: 1966 - 6: 1967 - 11: 1968 - 18:

1969 — 28; 1970 — 32; 1971 — 40 plus.

I had never mulched it, fertilized it, or bothered it except to admire its flowers and cut them for the house or for friends. In July 1970 I was planting near Sir Watkin and was startled to see daffodil bulbs sitting at the surface of the soil. I investigated and found that Sir Watkin had multiplied so much that the population explosion had pushed the bulbs up and apart, not only exposing them but leaving a sizeable cavity between and under the bulbs. I pointed it out to my family and left old Sir Watkin alone.

This year I dug up the whole area, including Sir Watkin. I collected 53 bulbs, almost all of them small hard rounds a little larger than a 50-cent piece. The hole between the bulbs was still there and in the hole was the nest of a field mouse — tiny rootlets, soft mouse fur, and fine lint. The

colorful old gentleman had a sideline of raising livestock.

William O. Ticknor

DAFFODILS IN LONDON, APRIL 1971

By ROBERT E. JERRELL, Orinda, California

No one could sensibly claim that the ideal time to receive a stranger warmly and graciously is during the first hours of setting up a daffodil show. Yet under just that circumstance I was given as reassuring and friendly a reception as anyone might hope for. As I entered the side door of the Royal Horticultural Society's New Hall in London, the array of crates and boxes, buckets of water, flowers, and other paraphernalia of a show told me at once I had found the right place. A slightly hesitant question (because I never knew if my American twang would be understood) led me quickly to Mr. W. J. Dunlop, who was busily and single-handedly arranging his impressive display. Though it was no time for conversation, he very kindly took time to introduce me to Mr. Brian Duncan of Omagh, County Tyrone, whom I had planned to meet. With flowers to unpack and entries to place he, too, could ill afford a break for social amenities, but break he did to introduce me to Mr. and Mrs. Tom Bloomer and others of the group from Northern Ireland. I tried to avoid the temptation of too much conversation about the flowers and the show by making myself useful in helping to place some of the entries on the benches. This had, of course, the personal benefit of giving me an insight into the organization and classifications used in this most notable of daffodil shows. Later, as some of the fever pitch began to subside, I found myself chatting with people whose names had for years been legend. Notable among these was Mr. Cyril Coleman, whom I had been told to speak to if I wanted permission to follow the judging the next morning. I sensed at once that I was talking with a serious grower with keen judgment and superb good humor. In a wry way, when I asked about the judging, he handed me his own entrance card and said, "If you have any difficulty getting in, ask them to contact me. I am not an officer in the Society, but I am usually consulted on most matters." There was a twinkle behind this remark that made me know my presence would be all right. We soon fell to conversation. about seedlings and the origins of Charity May and Jenny. The hour quickly drifted on until I suddenly realized, when we were interrupted in a pleasantly domestic way, that there was a hard day ahead and that I had had rather more than my share of conversation for the evening.

That next day was to be historic, of course. When I arrived, the judging teams were just beginning to group. More introductions to Messrs. Lloyd, de Navarro, Blanchard, Lea, Barr, and others, and more small talk. Then Mr. Barr suggested that it might be of special interest to me to follow the judging of the Amateur Classes, which included the competition for the Engleheart Cup — Best Exhibit of Twelve Flowers Raised by the Exhibitor. This was the first class judged by the team I accompanied. There were three entries, which is remarkable when we realize that probably only one person in North America, namely Grant Mitsch, would even be in a position to make such an entry, let alone bring in a round dozen flawless flowers on a given day. The quality of each exhibit was incredibly high, but to my eye one of the three had an almost luminous aura about it. This ultimately proved to be Mr. John S. B. Lea's winning group, which included his Canisp, Inverpolly, and Eribol among other named varieties and numbered seedlings. Mrs. Lionel Richardson, who had held the Cup for many years, took second

place, and Mr. Blanchard fell third, though such a fall was a very graceful one, indeed. The flowers of these exhibits deserve some individual attention.

Of the varieties in Mr. Lea's winning group only Canisp was known to me — and only by reputation — as a very high-quality 2c. As shown in London, it proved to be of slender and very elegant proportions that seem to me to give an insight into the particular type of flower that Mr. Lea seems to choose among his seedlings. The entire group appeared to have a special. classical style unmarred by the slightest informality of line or texture. The note of extreme refinement, almost austerity, centered on a bloom of Inverpolly, again in the 2c class, and a large, very white flower with a formal crown of middle length. To this went the award for Best Flower of the Show, and I understand this was a repeat win for the cultivar. Mr. Lea's 2b red, Eribol, was remarkable for its brilliance, but in my opinion his wellformed red and white 3b, which was shown under seedling number 3-41-62, was even better from the standpoint of contrast and color depth. This seedling has since been named Cul Beag and is unsurpassed but for the possible exception of William Roese's Top Secret which I saw for the first time this spring at the Descanso Show in La Canada, California. It will be of interest to compare the performance of these flowers when they become available, because we know that Cul Beag was grown under cloistered conditions, while Top Secret came from the open garden. Both are incredibly fine on the show bench. Among the red-and-yellows the seedling 3-41-63, now named Torridon, was an intensely rich 2a with notable smoothness. Achentoul, which provided an entry as a red and white double, might best be described as an improved Acropolis with strong, clean contrast. Mr. Lea has done considerable work in Division 4 with particular emphasis on pinks of which his Kinbrace is a worthy example. Even this, however, is surpassed in my view by his seedling 1-61-62 which seems tighter, better, and without a quality of heaviness. These and other entries in the Engleheart competition were such that anyone who is seriously interested in exhibiting will be well advised to watch Mr. Lea's introductions closely as they appear commercially. The prestige that accompanies holding this highest of daffodil awards will, of course, move these flowers into considerable prominence.

Mrs. Richardson's entry in the race, which (as she described it herself) may have had better overall variety and balance, was lovely but not ultimately exciting. It is to Mr. Blanchard's third-place entry that I prefer to turn my comments. His seedling 71/3BR/1 was outstanding with a bright red-rim cup and lavish, deep green center. The named cultivar, Purbeck, is a 3b with an appealing pink-orange cup and good form. Seedling 59/45B is a deep, Blaris-type pink of considerable appeal. In general the shades of pink development on display at the London Show seemed rather washy to me and far behind some of the newer shades that are beginning to appear from our own Northwest, such as Murray Evans' Vantage or Mitsch's Cool

Flame and Ruby Throat.

In preference to discussing Mrs. Richardson's entries for the Engleheart Cup I shall consider her commercial display as a whole. For the benefit of those who have not been able to attend the London show I should note that growers take stands around the periphery of the Hall from which they are able not only to present the cultivars they offer but also to accept orders for bulbs from the viewing public. Mrs. Richardson's is far the largest presentation, and it affords on excellent occasion to observe as many as a dozen

or more blooms of each of a great number of cultivars. There is a very real advantage to this for the prospective buyer, for a single entry for exhibition can be carefully selected and groomed, whereas a whole vase of one kind will tend to reveal overall performance and flower characteristics. Thus I made a number of notes at various stands with the intention of remembering not only outstandingly good flowers but also ones lacking in some respect. These is no doubt that too much material is introduced to the trade, and catalog remarks are seldom addressed to faults. For that reason it seems useful to mention some of the obvious shortcomings in flowers that were seen.

The Richardson stand dominates the others in the number of cultivars displayed and in the range of variation in form and color. One must note, however, that for all purposes only the first four RHS Divisions are represented. (Mrs. Richardson's current catalog lists only seven cultivars in the remaining Divisions, and only one of those is from her own raising.) Considering her flowers by Division, of the 1a's Lismore with a flanged trumpet and Olympic Gold were both fine, but the new Montaval was not up to quality. Its value may rest in its being late-flowering for this group. Among the 1a's I noted the 1971 introduction, Mount Ajax, as nondescript, and Renvyle as both pale and heavily ribbed. Also new was the 1c, Ashavan, which is both rough and crepy of texture.

In Division 2 the yellow selfs made rather a stronger showing with the new and exceptionally smooth Golden Chance and Golden Aura of consistent quality in all flowers. Johore among the red cups showed good color but unfortunately prominent ribs. In the same color class I noted both Avala and Royal Palace as commonplace and Royal Charm as narrow. Royal Jester in this group is very bright but strictly a decorative flower. Most impressive among the intense 2a reds was Cathay, with high quality and good, rich color though not up to the vibrance of Lea's Torridon. Lastly and most importantly in this class — but entirely different — was Shining Light, with a pale perianth suggesting a touch of apricot and a deep orange cup of an intriguingly restful and satisfying quality. I studied this vase of blooms at considerable length, and I do not hesitate to call it the finest cultivar on display in the Hall. It came from the work of the late Mr. Board, and if the bulb performs well in other climates, it stands a candidate for position among the handful of really magnificent show daffodils. The subtlety and flawless balance of its flowers suggest the hand of a master. One final note in this general color group should be made about another flower from the same grower, Altruist. My understanding is that Mrs. Richardson will introduce this next year (1972), and it will certainly be the finest thing to date in the vein of apricot perianths. In addition to magnificent color, it has solid substance and an appearance of stamina. Only time, of course, will tell if it will endure sun; but even if not, it would merit whatever trouble is necessary to show it as it appeared in London.

Among the Division 2 bicolors Relko, which is new this year in the orange-cup class, was unfortunately past prime condition. Nonetheless, it was worth seeing for its fine, clear color. Don Carlos showed prominent ribs and was not very white but was colorful all the same. Irish Rover presented an appealing variation with the addition of a prominent light edge to the orange cup. Still my personal note suggested waiting for the price of this to come down. The red and white Barbados, introduced last year, has a

small, deep cup that seems oddly out of proportion with the perianth, creating for my taste an unbalanced flower. The same Kilworth × Avenger cross produced Fire Rocket, which is clean and quite smooth. Bacchante, in the same color class, again showed conspicuous ribs. Rossini, another red from Kilworth × Rockall, was simply noted as inferior to its pollen parent, which of course sets an unusual standard of excellence. Ringleader, a new one with a lemon crown brightly edged with orange, is splashily colorful; but it was staged next to Acropolis, and in comparison Ringleader's perianth appeared rather gray.

The large-cup pinks were well represented with Fair Prospect attracting considerable attention. It is a flower of good quality and color, but it seems a bit stiff and not ultimately of the most appealing design. Celtic Song is delicately colored and quite smooth. Minerva is very pink but a disappointment because of a crepy perianth of terrible quality. Ophelia and Oriana are both delicate and very pleasant. Orpheus was noted as small and off-white, which is a frequent shortcoming of pinks generally. Rainbow is really quite a good flower with a clear band of pink in the vein of Mitsch's Coral Ribbon. It would be interesting to grow or exhibit these side by side for the sake of comparison. The last pink noted at Mrs. Richardson's stand was Salmon Spray, which is of good pink color and smooth, though the substance of the flower seems thin.

Greenjacket, in the class of small-cupped bicolors, properly deserved close attention. The cups in this cultivar seemed irregular, which may have been simply an effect of the growing season, but the flower is very good and colorful with its green center and brilliant red edge. Its sister, Green Linnet, though very white was not by comparison distinctive. The last noteworthy 3b was Ariel which I marked with the single word "quality."

The only small-cupped white I remarked in this display and elsewhere in the Exhibition Hall was Verona, of which I had heard much but never seen. The flower is indeed very good but I was surprised to find that it is not as smooth as might be hoped. Once again this may have been an effect of the season or simply a matter of grooming.

Although a number of very interesting flowers are beginning to appear in Division 4, nonetheless in this display I noted only Gay Song, which I remarked as gross and not very white.

There were several smaller commercial stands in the hall, mostly from Northern Ireland, and the brightest and most arresting of these was Rathowen Daffodils of Ballymena, which is a private undertaking of Mr. and Mrs. Tom Bloomer. The exhibitors from that area were at the disadvantage of an extremely early season which limited the number of yellow flowers available for display. Even so the Rathowen stand appeared unusually fresh and colorful. Mr. Bloomer features only his own cultivars, and his own air of cheerfulness may be reflected in his choice of daffodils. The only categorical fault I might find, and this seemed more generally true at this show than I would have anticipated, was a tolerance of ribs in the perianths; still the overall quality of cultivars was high, with an apparent emphasis on whiteness. Outstanding to my mind was a very white 3b seedling, 19/78/58, with a wire rim of color, which one hopes will be introduced in the future. Woodland Prince is a vellow-cup 3b with distinctive star shape. Woodland Star, which to my mind is a name that might better have been given to the last mentioned, is a red 3b with fine contrast. This color group seem a special interest of Mr. Bloomer's, with Omagh and the rather whiter Woodland Splendour as additional show flowers of good quality.

Ballydorn Bulb Farm of Killinchy, County Down, and Carncairn Daffodils Ltd., Broughshane, County Antrim, both had interesting displays with the latter offering one of the real treasurers of the show in the pink-cupped 6b, Foundling. This is an extremely sturdy, almost military-looking little flower that might be described as stiff but that comes off very well indeed. The pink is rich and uniform, and the perianth segments are evenly reflexed with heavy substance suggesting that the flower would hold well.

Mr. Dunlop's stand from Dunrobin Bulb Farm, Broughshane, Ballymena, showed some of the limitations of the advanced season and was a bit at the disadvantage of the lighting in a corner of the hall but was still one of the commanding displays at the show. For this reason it seems appropriate to mention his flowers not only as exhibited in London but also some as they have been grown in California. Enniskillen and the newer Irish Splendour are 3b reds of great brilliance and individuality, with Irish Splendour coming into flower several days later for us. Glenwherry is always worthy of mention for its sparkling whiteness and precision of form. The 2a Moneymore is of special interest because of the intense brassy depth of color in the perianth which almost suggests that a new color value has been introduced. Finally, grateful thanks will always be due Mr. Dunlop for the introduction of Ormeau, which is hard to surpass for perfection of form and dependability on the show bench.

The last flower I wish to mention had become almost legendary in California, and if I remember correctly it was exhibited by Mr. de Navarro. The cultivar is the 3b Estrella and it is as flawlessly formed and beautifully colored as anyone might wish. Mr. Blanchard spoke of it in some detail, and I gathered that he (or perhaps his father) had acquired the first bulbs from Australia or New Zealand. The discouraging note is that he has been able to increase his stock hardly at all in the years it has been in England. This sounds like a plant of weak constitution, which is profoundly regrettable. Hopefully it may gradually become sufficiently available to be tried in other growing areas where it may be better able to grow vigorously, for it is certainly a flower with few rivals from the standpoint of exhibition.

YEAR-ROUND DAFFODILS

Sources for daffodil design household accessories in addition to listings in September 1971 Journal include: March 1971 House and Garden, page 97; April 1971 House Beautiful, page 99; May 1971 House Beautiful, page 116 (this shows "Daffodil Dot" sheets in a wild color but they do come with white background and with yellow background and are not only great morale builders but look good on the clothesline). Bath towels with daffodils appliqued on them by SAYCO of California, and demitasse cups of Hammersley bone china decorated with dainty daffodils are carried by some top department stores. Tea towels by KAYDEE handprints of Hope Valley, Rhode Island and gilded flower-of-the-month spoons for January and April are sold through some of the junk-mail gift catalogues.

- MEG YERGER

JUDGING DAFFODILS

By MICHAEL SPRY, Past President, Australian Daffodil Society

Reprinted from The Australian Daffodil Society Newsletter, April 1971

The Royal Horticultural Society of Victoria in conjunction with some of its many affiliated Societies, is conducting a twoyear General Judges' Course at Burnley Horticultural College for some 38 interested horticulturists who aspire to be judges. The course is conducted for 2 hours every second Tuesday, and all flowers, vegetables, and Bonsai are included in the syllabus. The following is an extract from the lecture delivered by our

immediate Past President, Mr. Michael Spry, to the course:

The first rule of judging is to have humility. You will be chosen to judge living, natural flowers, which have been produced by years of painstaking work by all sorts of sensitive dedicated people. And when you cross the hall into the amateur and novice sections, the flowers there, in many cases, will have been grown by eager beginners and children wanting to learn. Be careful what you say. I deplore the tendency of some judges to sharpen their wits on the work of the exhibitors, and to pass bitter, caustic, and arbitrary comment on their fellow gardeners. The fact is: you are not there to judge, you are there to help. When you fully appreciate this, you will make a good judge.

It is of the greatest importance to know the Classification System for Daffodils. . . . This new Classification System was adopted world-wide in 1950. It is logical and simple, and places measurement first and color second.

Schedules are still unsatisfactory . . . They are still full of errors, large and small, in large and small shows. Study the schedule carefully before the show, and enquire . . . if you are puzzled or confused, because if you are then so will be the exhibitors, and judging will be hopeless.

The basis of good judging is to develop understanding through experience, and not by learning a rigid framework or by memorising a meticulously detailed pointing system. Pointing systems I regard as necessary evils.

It is necessary to understand the evolving process of how and why the hybrid daffodils came into existence, and if the trainee judge can appreciate this, then he or she will be able eventually to tackle any show.

In Nature, the flower, its productive parts, its reproductive ability, the insects, are all one system. The flower must attract insects, there must be an insect to fit it, the sexual parts must be so placed that the insect lands on them, walks on them, or brushes against them. To put it another way: a flower must have a definite form to survive.

Man does not bother with this at all in a flower-breeding program; (a) as he is doing the cross-pollinating the natural arrangement of the flower and its stigma and anthers are no longer necessary; (b) Man has his own arbitrary idea of beauty which may or may not conform with Nature (usually not), he does not take Nature into consideration, and usually, in a breeding programme, his flowers finish up quite different from the natural wild flower.

If you appreciate this fact, you will begin to understand how to approach the iudging of exhibition daffodils, or for that matter, any type of exhibition flower. What the trainee judge has to appreciate and accept is that two systems exist, and that there is a profound dichotomy.

Let us look at a few examples. Trumpet daffodils, in the wild, tend to live in mountainous places, as well as the colder and wetter parts of Northern Europe and England. They flower with their heads down — they have to, as they flower in rain and mist, and the pollen and stigma must be kept dry and warmer than the surroundings. But Man wants to see the flower — its shape and color — so he breeds them with a right angle neck so that they look at him (and the judge). A trumpet species of this type, growing for example in the French Alps, would rapidly die out — cold mists would blow in, rain would wet the pollen, and cross-fertilization would not take place.

Again, in Nature the perianth segments are irregular. They provide a pattern of light and shade of different color tonings that attract the insect; and the wind, moving through the segments, rocks the flower from side to side. Man, the perennial engineer and undying conformist, decides to breed a circular perianth, the more circular it is, the more perfect he will consider it to be; and also, viewed side-on, it shall appear quite flat. In Nature, this plant would not survive — the flatter the perianth the less play of attracting light and shade would there be, and the less the natural contrasts for the pollinating insect to observe. The large round perianth would act like a sail, and one really good gust of wind would damage the neck or break the flower off.

Lastly, as an exercise, I would ask those reading this article to compare the arrangement of stigma and anthers that we tend to breed into our exhibition daffodils with the beautiful arrangement apparent in Narcissus bulbocodium.

Some of these ideas may not appear to be quite obvious because we all spend so much time in protected gardens with specially constructed environments and microclimates. Take away our artificial barriers (and there are many of them) and let Mother Nature in, and then see what happens. In truth, if you visit some of the daffodil beds of the specialist breeders, you will be quite staggered by the number of stakes, clips, pins, elastic bands, and plastic hats. Still, this is apparently what Man requires.

To sum up: the species of daffodil is a part of Nature; the hybrid exhibition daffodil is a reflection of civilization.

I do not want you to think that all that the breeders of exhibition daffodils have been doing over the last century is to breed geometrical monstrosities. What is important to grasp is that geometrical principles and conformity to Man-made precepts are the basis of the exhibition daffodil, and that within these limits some exceptionally beautiful and colorful daffodils have been produced.

It is vitally important to remember that the first thing the judge has to look for on the show bench is beauty. The novice judge and the trainee judge have to continually ask themselves: "Is it beautiful? Is the flower coming right out from the show bench at me with sheer overpowering style, character, and beauty?" This level of understanding and appreciation of daffodils takes some years of experience to achieve, but there is no doubt that a training course is a valid short cut.

Do not, at a show, advance menacingly towards the bench with pencil and paper in hand, a head full of pointing systems and a desire to pass judgment on your fellow men. You will get the wrong results.

What to look for in judging:

1 (a) No wire or elastic band or any other support above the top of the container;

(b) Dressing of the flower allowed, but mutilation is not.

2 (a) Condition: bright, clean, fresh, new, unmarked.

(b) Form: regular, even, balanced, symmetrical, smooth (but not necessarily flat), round, overlapping. Beauty, style.

(d) Texture: strength of petal, substance, evenness of texture, not coarse, flimsy, or thin.

(e) Poise: how it sits up; how it is arranged. Character.

(f) Stem: strong, clean, straight. Short, strong neck. The length of the stem should balance the size of the flower.

COLD DAMAGE

(From Hybridizing Robins)

Just how low a temperature will daffodils stand? Several years ago the Atlanta area had a freeze which I understood killed all foliage and buds above ground but I do not know the temperature. My thermometer (Oregon) was 14 degrees when I got up the morning of March 1, the coldest of the winter. A few of the early ones were in bloom and many more in bud. I had visions of everything turning black. Two or three flower clusters of Soleil d'Or did turn black as well as one bud of California Gold. Some stems never straightened up but apparently that was the extent of the damage. On March 12. Matthew Zandbergen wrote: "We have had a mild winter but experienced a very cold spell of late with temperatures 17 degrees below zero Centigrade. The coldest temperature registered since registration takes place. This as you can imagine has not done the early varieties which were about to open much good. I have Bambi, N. cyclamineus, Minimus, Tête-a-Tête, and Jumblie out in my yard." That temperature Centigrade is about two degrees above zero by our thermometer and the flowers went ahead and bloomed!

— George E. Morrill (May 15, 1971)

Daffodil season has come and gone, with its joys and disappointments. This year I have had more disappointments than joys, however. I have lost about 50 varieties, mostly confined to one bed, and I am not sure of the cause. All the affected bulbs grew; some grew enough to bloom (though distorted) and some grew only about two inches and stopped. I have dug up most of the ones that look bad, and all the bulbs have dead roots, most have rotted basal plates, and in some cases the bulbs are also rotted. This bed was newly prepared and planted in the fall of 1969; last year everything looked fine. Since all the bulbs have dead roots, I have come to the conclusion that the bulbs froze. I should add that when I dug them, they were not very deep, leading me to suspect that the bed settled, leaving the bulbs at a shallower depth than was good for them. We had a comparatively mild winter until about the end of January; there were many varieties showing growth. Then it got very cold with no snow cover. It was also very dry, and along about late February or March I watered during a warm spell. Perhaps this was my undoing. I think the bed should probably be fumigated before being replanted with new bulbs. Any comemnts about cause or cure or affect will be appreciated. (May 18, 1971)

- MARY LOU GRIPSHOVER

OPERATION RESCUE

By HELEN A. GRIER, Yorba Linda, California

Have you ever had the misfortune of having a stem of some choice cross broken off before the seed had fully matured? If so, you will be interested in learning that the seed can be saved providing the stem is long enough and is placed in a solution of water and sugar. Rainwater is best, but if it is not available, spring or city tap water will do. Add one teaspoon (scant) of sugar to one quart of water, add two drops of 0-10-10 fertilizer to the solution, and stir well to mix thoroughly. One teaspoon of white Karo syrup can be substituted for the sugar and seems to work equally well.

Cut the stem bearing the seed pod, just enough to remove any dried or damaged tissue, remembering that the longer the stem the better are your chances of bringing the seed to maturity. Place the stem in about 2 inches of solution. If there is more you will lose too much stem at each change of solution as you will have to cut off part of the stem each time you change to a fresh batch of the solution. If after a while there is no breakdown of tissue at the end of the stem, and the solution is still being used, just pour in a bit of solution to replace that which has been used. Change the solution when the end tissues of the stem begin to rot. The stem may have to stay in the solution for a month or more before the seeds mature; the length of time will depend on the age of the seeds when the accident occured. As the stem does manufacture some of the necessary foods for the seeds, as much of the stem as is possible should be kept healthy and in a good condition. The solution just helps this cause along. Also, the stem in the container should be placed in a well-lighted area, but not in direct sunlight, and it should be kept as cool as possible, so the natural processes can continue. Too much heat will speed the breakdown of the plant tissue and thus defeat the project.

When the seed pod has matured it will split across the end in a normal manner. When this happens, remove the stem from the solution and allow it to stand upright in a dry container until the pod cracks open, showing the seeds within, which is usually within a 2-day period. At this time, remove the seeds and count them, checking the number of plump, shiny black seeds against the number of small, off-colored or shriveled ones. Plant the seeds immediately in a damp mixture which contains NO fertilizer. Place the seed container in the coolest shadiest spot in your garden, and check it occasionally to be sure it is not heating up during the day or drying out too much. It may be necessary to whisk a fine mist over the surface from time to time to prevent excessive drying. In the late fall start watering the seed container and carry on as you do for your area. In the spring you should be rewarded with several good seedlings, if all has gone well.

To date, I have two different batches of seedlings that have received this treatment and another double batch of seeds from this season, which have not yet been planted. Of the 2-year-old seedlings, three out of five have survived. There were eight seeds originally, but three of them were badly shriveled. These seeds were not planted until late in the summer, and the low return was probably due to the loss of stamina from excessive drying before the seeds were planted. These seeds ripened on a 9-inch stem and were from an F_2 cyclamineus hybrid. Four of them sprouted the first year, but one was very fine and small (probably closer to the species) and failed to live thru the hot dry summer. The second group of seedlings are from

 $2a \times 3a$ parents. There were six seeds in the rescued pod; five of them have sprouted and are doing well. The last two batches of seeds are from Quick-step \times a Richardson pink seedling and Quickstep \times Dove. These two batches came from very short stems, 2 and 3 inches long, and do not look at all promising, but will be given a little extra care and attention in the hope that there will be a few survivors.

But whether one wins or loses it is better to have tried and lost than never to have tried at all.

DAFFODILS IN SOUTH AFRICA

By Adri Zandbergen, Maraisburg, Transvaal, S.A. (From a letter to William O. Ticknor)

My father thought you might be interested in some daffodil news from our part of the world. Our organization, the Harry Deleeuw Company, is the largest bulb company in South Africa. . . . Our firm grows about 25 commercial varieties of daffodils. From our pricelist you will learn these are all "old" varieties. However they have proved themselves in the warm South African climate! At the same time we are testing "new" varieties at our farm at Belfast (one of the coolest spots in the Transvaal, where we also grow tulips). So within the next few years we hope to increase and improve our daffodil assortment (including yellow trumpets and doubles). Our mail-order outlets and other big customers are fully cooperating with us. Already daffodils can be seen in many gardens and we have come a long way from the time that daffodils, and all bulbs for that matter, were virtually unknown in this country.

To bring the South-African public to the same advanced daffodil level as in the U.S.A. or Western Europe will be another big task. Of course there is a European population of only 3½ million or so. (Although economic power of the Bantu population is increasing rapidly.) Furthermore many parts of the country are warm and very dry. All the same I have already been in contact with (among others) The Transvaal Horticultural Society in Johannesburg. We have recommended that they stage daffodil competitions according to RHS rules and classifications. Already there is a small group of fans who are building up their own daffodil collections (some of them having visited the RHS shows in London). If there is further news I will let you know.

Should you or any of your ADS members ever come this way, we would be most glad to show you or them around a bit. South Africa is a most fantastic country with plenty of sunshine, beaches, game reserves, wild flowers, etc. My father is coming out this November and I hope to show him the Garden Route in the Cape Province as I will be on a business trip in that region. My father seems to be enjoying his trips to your conventions!

The 21 cultivars listed in the pricelist may be of interest to ADS members in warmer areas: Actaea, Aranjuez, Birma, Carlton, Cheerfulness, Darlington, Early Splendour, Flower Carpet, Fortune, Monique, Mount Hood, Mozart, Orange Bell, Paperwhite, Pink Select, Scarlet Gem, Semper Avanti, Thalia, Trevithian, Unsurpassable, Yellow Cheerfulness.

BULLETIN BOARD

FALL BOARD MEETING

Thirty-five ADS directors attended the fall Board meeting on October 2 at Lexington, Kentucky. Mrs. J. C. Lamb was our hostess. Mr. and Mrs. Lamb entertained the directors and their guests on Friday evening with a patio picnic supper at their home.

The Board meeting was held on Saturday at the Continental Inns of America. Reports were given of officers, seven regional vice presidents, 14

committee chairmen, and the Executive Director.

With the membership remaining above 1400 and the controlling of expenditures, the Treasurer saw no necessity of raising dues at this time. The Committee on Miniatures decided not to list sources of miniatures because of the many complications. Mrs. W. Kent Ford has received all slides and slide sets from the late Larry P. Mains' collection and will be updating and improving the sets as soon as possible. Ceylon was chosen by the Public Relations Committee as the daffodil variety to promote in 1972. The new roster format was typed camera-ready by the Executive Director at a saving of \$335.60 to the Society. Twenty-eight new varieties of daffodils were registered this year in the United States from three American hybridizers. The Clemson Test Garden report is now available in printed form: Research Series No. 137, South Carolina Agricultural Experiment Station. Miniatures have been added to the test garden this year.

Regional vice presidents' basic expense allotment will be supplemented by 50 cents per member in excess of 125. A Memorial Fund was established, the monies to be used for special projects to be determined and administered



At Lexington: Mrs. J. C. Lamb, Walter E. Thompson, Dr. William A. Bender, Mrs. Robert F. Johnson

by the Executive Committee. The Board accepted an offer of a trophy in memory of Larry P. Mains. Committees were appointed to study the need for refresher courses for accredited judges and to establish a scale of points for judging daffodils in pots. The Board authorized the 1972 Convention Committee to hold a competitive show at Portland, to suspend the ADS show rules as to printed schedule, size and number of classes, and to offer any ADS awards they choose to offer.

The Saturday evening banquet tables were enhanced by beautiful orchids, a gift to each of the ladies from the Blue Grass Orchid greenhouses of our hosts, Mr. and Mrs. Lamb. The program was a color slide presentation by several members: Mrs. W. Kent Ford, a panorama of ADS conventions; P. R. Moore, Jr., and Mrs. J. Robert Walker, from the British Isles; Willis H. Wheeler, from the Isles of Scilly; Wells Knierim, wild flowers in Switzerland.

- Mrs. Robert F. Johnson, Secretary

CHANGES IN ADS AWARDS

At its meeting on May 1 the Board of Directors approved the addition of a miniature white ribbon to the list of awards available for ADS-approved daffodil shows. At the same meeting a motion was adopted that the ADS Red-White-Blue Ribbon be made available to major daffodil shows overseas. When the Board met again on October 2 the following actions affecting awards were taken:

(1) The rule in the Rules for Show and Schedule Chairmen concerning the selection of the best standard daffodil in the show was revised to read:

"Any judge may select one candidate for the best standard bloom, except that if a section calling for single stems provides for its champion, no other flower in that section shall be eligible. All judges shall participate in the final selection of the best standard daffodil, but no judge shall take part while any entry of his is in competition."

(2) The Miniature White Ribbon shall be made available to all shows if the schedule includes at least 2 classes for vases of three stems of miniature daffodils of one variety.

(3) The Harry I. Tuggle, Jr., Trophy will be engraved with the name of each winner and all items of expense will be added to convention expenses.

- (4) The Board accepted Mrs. Theodore Pratt's offer of a permanent trophy in memory of Larry P. Mains and empowered the Executive Committee to handle any subsequent developments. Later in the day the Executive Committee met and determined that this trophy would be offered annually at National Daffodil Shows for a collection of three stems each of nine varieties of standard daffodils from Division 3. Transportation expenses will be added to convention expenses.
- (5) The Board established a new award, the Miniature Rose Ribbon for a seedling which the exhibitor considers would be appropriate for consideration as a miniature variety.

The Procedure for Obtaining Awards from American Daffodil Society, Inc., available to show chairmen, is being revised to incorporate the changes necessitated by these and other Board actions.

- Franklin D. Seney, Chairman, Awards Committee

SYMPOSIUM

The 1972 Symposium ballot will be printed in the March issue. If your season begins before you receive the Journal, keep the Symposium in mind as your season unfolds.

DAFFODIL SCHOOLS

The following have been reported:

Dallas, Texas, March 17: Course 3 (Mrs. W. D. Owen, Chairman)

Nashville, Tenn., April 9: Course 3. Columbus, Ohio, in April: Course 2.

ADDITIONS TO APPROVED LIST OF MINIATURES

The last Approved List of Miniatures appeared in the December 1969 Journal. The December 1970 Journal contained a list of these four cultivars which qualified to be added to the list:

1a Bagatelle

5a Doublebois

1b Lilliput

3b Paula Cottell

We have now received enough votes for the following two cultivars to enable them also to qualify as additions to the list:

7b Clare

3c Picoblanco

Thanks are rendered to those members who have written to the chairman with nominations for additions. It is hoped that during the coming season more letters will be received indicating cultivars, grown in the individual member's garden, that are considered worthy of addition. The accepted criteria for miniatures must be kept in mind:

1. It must be suitable for the small rock garden.

2. It must be unsuitable for exhibiting in the standard classes.

3. It must fit in well with the present list.

As it is recognized that cultivars on the established list should not be subject to review more than once in several years, and as there was a complete review only two years ago, it will be some time before opinion will be invited as to removal of any on the present list.

- John R. Larus, Chairman

JUDGING DAFFODILS IN POTS

The committee empowered by the Board to create a point-scoring scale to be used in the judging of potted daffodils would like to hear what shows have sizeable sections for competitive exhibits of daffodils in pots. The committee is aware of the scope of The Philadelphia Flower Show in this respect but would like to have information about others. Please help by writing to Mrs. Merton S. Yerger, Chairman, Box 97, Princess Anne, Maryland 21853 before January 10, 1972, giving: (1) name and address of sponsoring group, (2) place and date of 1972 show, (3) customary number of potted daffodil exhibits.

BLOOM DATE RECORDS

In the March 1971 Journal (page 173) members were invited to send certain bloom date records to Mrs. Daniel J. McNamara, 68 Brooktree Road, Hightstown, New Jersey 08520. More than a hundred postcards and letters were received, and a summary of the responses is being compiled. Meanwhile, additional responses would be welcomed, and would add to the value of the study to be printed in a future issue of the Journal. There is particular interest in the *Sequence* of bloom of the earliest and latest five varieties in reported gardens.

"WHERE CAN I GET . . . ?"

Requests continue to find their way to your Bulb Broker for cultivars desired by members. If you can fulfill one of these requests, please write directly to the one seeking the bulb. And if YOU'RE looking for a specific cultivar, and can't find it, send your request to Bulb Broker Mary Lou Gripshover, 2917 North Star Road, Columbus, Ohio 43221. And don't forget to let us know when a request has been granted.

CULTIVAR: DESIRED BY:

1b Effective Mrs. John P. Robinson, Palmer, Virginia 22533 11 Hillbilly Michael A. Magut, 8 Bunker Hill Dr., Trum-

bull, Connecticut 06611

11 Hillbilly's Sister Michael A. Magut

2a Red Cross Mrs. W. W. Kinsey, 118 South Walnut St.,

Philippi, West Virginia 26416

PREVIOUSLY PUBLISHED:

1b Locarno Mrs. Robert Zellman, 14 Daniels Place, White

Plains, New York 10604

N. bulbocodium serotinus Mrs. D. O. Harton, Jr., 607 Davis St., Conway,

(The Giant Hoop-Petticoat) Arkansas 72032

2a Sealing Wax Mrs. D. O. Harton, Jr. 2a Sealing Wax Michael A. Magut

5b Raindrop Mrs. William C. Baird, 1874 Collingswood,

Columbus, Ohio 43221

3a Twinkle L. P. Dettman, Grassy Flat Rd., Diamond

Creek, Victoria 3089, Australia

3b Dick Turpin George S. Lee, Jr., 89 Chichester Rd., New

Canaan, Connecticut 06840

1972 DAFFODIL SHOW DATES

A supplementary list will be published in the March issue of the Journal. Send information before January 10 to the Awards Chairman at 308 Longwood Drive, Newport News, Va. 23606 as follows: date of show; city or town where it will be held; show address or building; sponsor of show; and the name and address of the person to contact for information. Early Shows:

March 16 — Dallas, Texas — Texas Daffodil Society State Flower Show at the Dallas Garden Center, State Fair Park; information: Mrs. J. Elmer Weaver, Rt. 1, Box 368, Cedar Hill, Texas 75104 March 25 — Morrilton, Ark., Arkansas Daffodil Society State Show at Morrilton High School; information: Carl Amason, Rte. 3, Box 180, El Dorado, Ark. 71730

March 26-Memphis, Tenn. (Mrs. Charles A. Crump)

March 30-31 — Atlanta, Ga., by the Georgia Daffodil Society, the Atlanta Garden Center, and affiliated clubs at Rich's auditorium; information: Mrs. Charlotte Bates, P.O. Box 4539, Atlanta, Ga. 30302

April 1-2 — Hernando, Miss. at the De Soto County Youth Bldg., by The Garden Study Club of Hernando; information: Mrs. Morris Lee Scott, Rte 3, Box 78, Hernando, Miss. 38362

April 1-2 — Muskogee, Okla. — Southwest Regional Meeting and Indian Nation Daffodil Society Show at Muskogee Civic Center; information:
 Mrs. L. F. Rooney, 7 Spring Creek Road, Muskogee, Okla. 74401

April 8-9 — Nashville, Tenn. — Tennessee State Show at Tennessee Botanical Hall, Cheekwood, by the Middle Tennessee Daffodil Society; information: Mrs. John M. Bates, 2417 Valley Brook Road, Nashville, Tenn. 37205

April 8-9 — Gloucester, Va. by the Garden Club of Gloucester at Gloucester High School; information: Mrs. Chesterman Constantine, Gloucester, Va. 23061

Later Shows: (Full information will be given in the March issue.)

April 15—Shelbyville, Ky. (Mrs. Ralph Connor)

April 15-16 — Newport News, Va. (Mr. Francis J. Klein, Sr.)

April 19-20 - Baltimore, Md.

April 21-22 — Norristown, Pa. (Mrs. James J. Tracey)

April 22-23 — Washington, D. C. (Mrs. E. L. Gates)

April 25-26 — Chambersburg, Pa. (Miss Nellie C. Baker)

April 26-27 — Downingtown, Pa. (Mrs. Ed. M. Baker, Jr.)

April 28 — Columbus, Ohio (Mrs. James Liggett and Mrs. W. M. Pardue)

April 28 — Wilmington, Del. (Mrs. John F. Gehret)

- Franklin D. Seney

HERE AND THERE

Alexander H. Schaper of Binghamton, New York, a Regional Director of the Northeast Region, died on September 29 after an illness of two months. Mr. and Mrs. Schaper wrote for our September issue of some of the pleasure their daffodils gave them this year.

Newsletters have been received from the Middle Atlantic and New England Regions, and from the Middle Tennessee and Central Ohio Daffodil Societies.

The Middle Atlantic Region held a most satisfying fall meeting on September 18 at the Chamberlin Hotel, Fort Monroe, Va. The program included a lively panel on judging, moderated by Mrs. Howard B. Bloomer, Jr., with Mrs. R. L. Armstrong, Mrs. R. W. Wheat, III, Mrs. D. H. Patteson-Knight, and William G. Pannill as panelists. After lunch Mrs. Merton S. Yerger demonstrated methods of potting daffodils, and after dinner several members showed slides of daffodils at home and abroad.

The August issue of the New England Region Newsletter included the

annual "Review of the Catalogs," with comments on the offerings of nine dealers.

The Middle Tennessee Daffodil Society Newsletter gave news of members and Society plans, including a rather ambitious daffodil bulb sale, scheduled in conjunction with four general horticultural events at Tennessee Botanical Hall in Nashville in October.

The Charlotte Sawyer Memorial Daffodil Trail was dedicated last spring in the Memphis Botanic Garden. Over \$500 in memorials had been received by midsummer; contributions may be sent to Mrs. William Van Winton, 4930 Roane Road, Memphis, Tenn. 38117

The Central Ohio Daffodil Society has a combined card file of cultivars

grown by members.

The Distinguished Garden Award of the Pennsylvania Horticultural Society was awarded to Mr. and Mrs. Charles A. Gruber of Norristown. The citation read, in part, "Your garden is known to hundreds. In the Spring you have open house for days on end when you welcome friends, colleagues, and students who come to enjoy and study your collection of daffodils. . . . We at the Pennsylvania Horticultural Society honor you for having created a garden full of beauty and diversity and for the warm hospitality you show to others who can enjoy it with you." ADS members who attended either of the Philadelphia conventions will remember the Gruber garden.

The copy of the Tasmanian Daffodil Council Newsletter for the 1971 season sent to your editor bore the note: "You may have an odd feeling that you have read this before! Thanks for so much interesting material." Inside we found quoted from our issue of March 1971 the item "Good and Bad Parents" by Bill Pannill, and part of "Freedom of Flowering," which we had quoted from the Journal of The Daffodil Society (England). A page of the Washington Daffodil Society show schedule was also reproduced and

characterized as "a model of concise arrangement."

The National Daffodil Society of New Zealand has sent a publication of 45 pages, 1971 Annual Reports and schedules for the National shows for 1971. 1970 show winners are reported in considerable detail, and there are several articles, one on nematode diseases.

OSCAR RONALDS' LAST PINK CROSSES

(From Australian Daffodil Society Newsletter, June 1970)

Now that they have had some publicity in various parts of the world, it is about time that I jotted down a few notes about "Oscar's Memory," "Lovelock," and No. 311.

After the war, Oscar Ronalds, casting about for some different shades to add to his Mrs. Oscar Ronalds, Tarago Pink, and so on, tried The Brodie's Wild Rose. Some of the seedlings of these crosses flowered early in the 1950's, and I obtained them, under number, after he died.

Three of them were quite outstanding and similar in shape and color. As they all have the same breeding — Wild Rose × Mrs. Oscar Ronalds — it is likely that they came from the same pod. Oscar, however, gave them different numbers, so obviously they were different from birth.

They are all rather late, and of an extraordinarily deep pink color that borders on pure alizerin crimson. No. 311 will probably not be named as it is a very slow increaser.

— LINDSAY P. DETTMAN

THE AMATEUR'S PLACE IN DAFFODIL BREEDING

By WILLIS H. WHEELER, Arlington, Virginia

Certain observers of daffodil activities have pointed to the dearth of valuable commercial daffodils produced since 1930 by breeders in Ireland and England. They have suggested that the raisers have worked for the show bench and have disregarded the needs of the bulb trade and the floral industry. A reference to the catalogues of larger wholesale daffodil bulb growers in the British Isles and the Netherlands would at first glance seem to bear this out. But does this represent an intentional neglect on the part of these raisers? For an answer let us examine the matter more closely.

The daffodil raisers of England and Ireland who have become well known during the past 40 years appear to have begun growing daffodils in an amateurish way, but their successes at the shows brought them notice and gardeners began to ask for their originations. This finally led to a full-time daffodil breeding business for each of them and much pleasure for the connoisseurs of the genus *Narcissus*.

Now comes the question: would those men have gained any significant attention if they had consistently discarded their more perfectly formed flowers and had taken to the shows only those blooms produced by vigorous growing floriferous plants? I believe most will agree that if they had followed that course of action we would not have heard of them in later years. As it is, every serious daffodil fancier of today knows the names of those men even though their introductions may not be considered significant as far as the professional flower and bulb grower is concerned. Is this the situation because they purposely avoided producing flowers of interest to the professionals or was it because they didn't happen by chance to raise commercially desirable cultivars? I believe the latter is the case.

At this point it seems appropriate to consider the origin of three well known and commercially important cultivars to determine whether we owe their creation to the amateur or the professional bulb grower. I believe few would dispute the choice of la King Alfred as the most important commercial flower raised to date. John Kendall made the fortunate cross but did not live to see what he had accomplished. That daffodil, introduced in 1899, earned a First Class Certificate in the same year and although the Daffodil Register of the Royal Horticultural Society does not so indicate I assume that the award was made for a show flower. King Alfred's bulbs in that year brought £10 each (probably about \$50.00 at that time). Thereupon began its long years of fame. Even, yet, if the man in the street knows any daffodil name, it is King Alfred. I have been unable to find information on John Kendall. Was he an amateur breeder or a commercial bulb grower? I suspect he was more of the former.

Our second famous flower is 2a Fortune, first shown and registered in 1923 when it sold for £500 per bulb! Walter T. Ware gave us in that daffodil a vigorous, early-flowering cultivar of rapid increase that produced a tall-stemmed flower with a broad flat perianth of good texture and a well-proportioned crown colored bright orange. In 1924 it received the RHS First Class Certificate as an exhibition flower, a garden flower, and a flower for cutting! But what of its raiser? I have been unable to find anything to show that he was one of the big professional growers.

The third flower for our consideration is 2a Carlton (1927), a pure yellow

from the hand of P. D. Williams. It soon became a leading market flower. The Dutch growers promptly recognized it by an Award of Merit at Haarlem in 1930. In form and color it didn't quite match King Alfred, but it had one character in particular that placed it in favor with the commercial bulb and flower growers. That thing was floriferousness. And now that poor old King Alfred has begun to fall by the wayside because of failing health, Carlton is beginning to come into its own as a great commercial flower. In conclusion, it is interesting to note that the RHS finally gave it an Award of Merit as a garden flower in 1936 and a First Class Certificate in 1939, likewise as a garden flower.

Although my inadequate library gives little help in the matter, I believe we would be justified in classing the raisers of the three aforementioned daffodils as amateurs who were probably breeding with daffodil shows in mind. Therefore, their successes in breeding flowers of commercial value were a fortunate byproduct of their interest in show flowers. It was the lot of two of those men to have produced flowers that earned First Class Certificates recognizing their worth on the show bench, but those two flowers had more good qualities than those required for show purposes. We have only to look at the fine la's of the past 40 years that win blue ribbons at the shows to see that show success alone has not brought any of them to the point of succeeding King Alfred as the commercial yellow trumpet. While they are beautiful show flowers each lacks one or more qualities required to make them a success in the commercial bulb world. It was not their success as show flowers, however, that ruled them out. Instead, it was their lack of one or more attributes such as earliness, rapid increase, floriferousness, disease resistance, or suitability for forcing. If any one of those blue-ribbon-winning la's had had all the necessary qualities they would have been welcomed with enthusiasm by the bulb industry. However, of those evaluated, none have been found to have all the necessary qualities including the ability to produce the required thousands of blooms per ton of bulbs.

As breeding is a costly procedure infrequently indulged in by the commercial bulb grower, much of the daffodil breeding of the past century has been done by men called amateurs. They have done their work for the pleasure gained from taking winning flowers to the shows and in finally winning an Award of Merit or a First Class Certificate. Thereafter, if their winning beauty was bought by a commercial bulb grower or by daffodil fanciers, that was a bonus for their efforts. To win at one of those shows, the amateur learned by experience that his pristine white beauty had to please the eye of judges over such fine novelties as Ave, Ludlow, and Zero. He also learned that a bloom with an irregular perianth and an uneven cup would bring no blue ribbons at the shows even though the plant from which it was cut was vigorous, produced an abundance of flowers, was basal-rot-resistant, and was wonderful for garden display purposes. (I speak from experience. I had a 2b that met all those requirements except that the perianth was somewhat rough. That prevented it scoring 90%. I gave away scores of its bulbs before finally discarding it. It received much praise as a garden plant but it was not a show flower. It bore the number 4/371).

In view of the accomplishments of some amateur breeders I feel we should continue to encourage them in their work. Then, if one of their beauties has commercial attributes in addition to show ability, that will be a by-product that will doubly reward the raiser for his labor of love, originally begun with

little or no thought of commercial success. In encouraging the amateurs to continue their work we should urge them to devote more attention to the selection of parents so that the flowers they raise will have disease resistance and the other qualities needed for the commercial bulb industry. When such daffodils are produced, I am sure they will eventually find their way into the professional bulb trade as did King Alfred, Fortune, and Carlton.

CYCLAMINEUS HYBRIDS

To us, the cyclamineus hybrids seem especially fascinating, perhaps because many of them are so early and they last so long. Were we limited to but one hybrid, I am not sure what it would be. One of the first choices would be Jetfire, which has earliness, perfect form, striking color, and a long flowering season. On opening, the trumpet crown is yellow and it gradually intensifies to blazing orange red if weather is favorable. As the first flowers fade, another crop appears. A sibling, quite unlike it in form, but a bit earlier, taller, and fully as colorful is dubbed Dik Dik, a name suggested by Polly Anderson. Unlike nearly all other first-generation hybrids of *N. cyclamineus*, it has a very flat perianth. White Caps might be considered a more formal version of Dove Wings, while Perky is much taller and longer lasting with a perianth not as clean in color when first open. Prefix and Barlow are extra early and very bright yellow. Weather being favorable, Satellite is very brilliant on first opening. Willet like Charity May is one of the smoothest flowers in its group.

— GRANT E. MITSCH (From his 1971 Daffodil Notes)

This year the cyclamineus hybrids were especially fine. First to bloom was Jet Fire, which came with spectacular color and many, many bloomstalks. I have never done a very good job of growing Jenny, Charity May, and Dove Wings, but now there are many others which grow vigorously for me and increase well. Among them are three of my favorites: Titania, Joybell, and Bushtit. My special pet, Foundling, bloomed last of all (too late for the WDS show, unfortunately). This is a perfect darling of a flower. It reminds me of a little girl in a ballet tutu, ready for her first dance recital. It has a precisely formed coral pink cup and a very round swept-back perianth. It is heavily endowed with that sprightly personality we associate with the 6's.

- MARIE BOZIEVICH

This past weekend I judged at the show in Santa Barbara... Of greatest interest were a series of Bill Roese's seedlings from N. cyclamineus \times Daydream; I had seen some from this series before. Most interesting was a group of quite pale lemon reverse bicolors with absolutely white cups and unusual width in the perianth. One of these took Best Seedling. Another group of three took Best Three Stems and the middle flower of these was Best Flower. This was a solid deep gold with beautiful balance.

- ROBERT E. JERRELL

HYBRIDIZERS' FORUM

Seed Distribution - Seed Wanted

More than 11,000 daffodil seeds were distributed this year to 25 members in Florida, Oregon, California, Nova Scotia, and states in between. The seeds, from Charles W. Culpepper, in Arlington, Virginia, and from Murray W. Evans in Corbett, Oregon, will be grown in hot, cold, moist, and dry climates. Perhaps each climate will find congenial genetic qualities in certain seedlings of each cross and help them to prosper into fine healthy regional daffodils.

Murray Evans and Charles Culpepper have performed great service in providing seed for our members, but Murray is a busy professional grower and Mr. Culpepper is making plans to leave his beloved garden. Mr. Fowlds, who furnished us with seeds from his cyclamineus-trumpet crosses, is no longer able to do so. A plea is made to our hybridizers: if you produce more seed than you need next year (perhaps with a special effort) send them to the Seed Broker and let your good works blossom around our country. Hybridizers will be informed as to where their seeds are being grown.

Seeds from crosses of all sizes and kinds of daffodils are wanted. Each year requests come in stating preferences for 9's, for 1a's, for 2a yellows, for miniatures, for pinks, for jonquil hybrids, for doubles, and for whites and all possible types. (The Seed Broker has not yet had a request for seeds from a cross of *N. bulbocodium* by a split cup.)

- William O. Ticknor, Seed Broker

Identical Twins?

I am sure any daffodil grower who has raised a considerable number of seedlings will have found when lifting unbloomed bulbs that an occasional one will be in two or more parts. Some such bulbs even fall apart when taken out of the ground. I am sure that explains why I had two identical flowers show up several plants apart in a row of seedlings during my early seedling experience. They received the numbers 4/371 and 4/372 but after some years I put the stocks together since I could see no difference in them.

Since that time I have been careful to see that split unbloomed seedling bulbs go back in the ground together.

- WILLIS H. WHEELER

From the Seed Broker's Mail

You first sent me seed in the summer of 1969, and later that autumn you sent more packets. Somehow, one packet of 200 Scotch Gold \times Golden Day got misplaced, and I discovered it in October of 1970. With misgivings, I planted it like the rest, and the foliage blades came up thick as grass this March!

- LOYCE C. MCKENZIE

Seed Planting in Nova Scotia

Received the daffodil seeds on Friday. Planted them yesterday in large plastic pots and have put them in a box in a coldframe. My coldframes are

really large wooden boxes (once used for fish) covered with old window frames. The reason for standing them in a box is for added protection.

My large plastic pots are really the lower halves of plastic gallon jugs. I find they make excellent pots as they do not break as clay pots do. Moreover, on the seacoast the jugs are easy to collect from the beaches. Seems quite a few people think our seaside makes good dumping areas! I collect these jugs and make use of them. They are deeper than most clay pots and can be written on. Think there must be some Scotch in me somewhere, as I am always making use of "junk."

Will let you know how the seeds do. Was very pleased with those I planted last year. Already the bulbs are the size of a garden pea, so I think that is good growth for one season.

- RUBY PULSIVER

CHEMICAL STIMULATION OF DAFFODIL SEED SET

By George E. Morrill, Oregon City, Oregon

In the article "Matador as a Parent" (The Daffodil Journal, June, 1970), Harry Tuggle says "The use of auxins . . . has probably helped seed yields." Harry used two chemicals, one mixed in lanolin and the second in a water soluble paste. He further says that in 1969 "I had planned to test the use of several plant hormones in a water-soluble rather than lanolin-base paste." Grant Mitsch says he thinks what Harry was planning on using was something like Seedless Set.

There are several of these plant hormones readily available, primarily to encourage the early setting of tomatoes. It would seem that these would have the opposite effect from what we desire. They are for use on tomato blossoms to stimulate the growth of the tomato, an enlarged ovary, without the necessity of pollination or the growth of seed. What we desire in daffodils is more seed production, not less.

A memorandum was written on this subject and sent to a limited number of ADS members who might know if anyone besides Harry Tuggle had tried hormones. One member responded with quotations from a number of roundrobin letters. A short extract from this memo was published in the March, 1971 Journal, page 165. No one responded to this request for information. The conclusion is that hormones have not been used.

I am interested in crosses involving jonquil hybrids which may be only partially fertile so decided to try chemical hormones in the hope of getting better seed set. Three commercial products were used. Fix is a dry tablet to be dissolved in water. Tomato Set is an aerosol spray, and Blossom Set is a hydro-carbon solution to be diluted with water. The latter two use the same hormone.

As hybridizers know, there are many factors affecting pollination: weather, time of day, age of bloom, and individual characteristics of the two parents, to name a few. These factors could not be completely controlled. Using an atomizer, Fix and Blossom Set solutions were sprayed on the top of the stem, the ovary and the back of the petals. Tomato Set, from the aerosol can, was applied the same way. Half of the pollinized flowers were sprayed and the other half left for a control. A total of 16 crosses were treated.

Conclusions drawn from this limited experiment were:

- No treated seed pod grew any differently from an untreated one of the same cultivar.
- I could not see that any of the hormones helped seed set with the more "difficult" crosses.
- 3. Records were not detailed enough to show if a larger percentage of the treated flowers set seed.
- 4. Fix and Tomato Set results were variable for those flowers that did set seed. Some treated ones averaged more seed per pod and some averaged less. The aerosol spray of Tomato Set did some damage to the leaves if too much got on them.
- 5. Results from Blossom Set also varied, but not so erratically. In two cases the treated flowers that set seed had slightly fewer seed per pod and in four cases they had more.
- 6. My conclusion is that I will try Blossom Set again next year and keep more detailed records to try to determine if it really helps to get better seed set.

FLIGHT OF THE ROBINS

By Dr. GLENN DOOLEY, Bowling Green, Ky.

If I had not read the beautiful British Columbia Magazine I would not have known about daffodils in British Columbia. There is an acreage near the community of Bradner in the Fraser River Valley where as many as 50,000 dozen daffodils are handpicked daily for the trade. A half-million dozen handpicked daffodils have been transported by trailer truck to Vancouver and other destinations in Canada. For 43 years there has been a daffodil show at Bradner after Easter. It is said to be the only show of its kind in North America — and it is refreshingly noncompetitive. Perhaps some of our wandering daffodil fanciers will flow across the Canadian border next spring after the convention at Portland.

Wells Knierim reported receiving bulbs of 50 varieties from New Zealand in March 1970. He held these bulbs out of the ground until October 1970 planting time. All but two or three varieties grew well and most bloomed. He expects better blooms next spring. He planted another 20 varieties in April 1971. Three varieties appeared above ground by June 8th, and he was hopeful of some daffodil blooms in July. How about it, Wells?

Robert Mueller, of Freehold, New Jersey, was quite surprised to see so many roadside patches of yellow and white trumpet daffodils growing in the Florida Panhandle in late February and early March. These were growing vigorously. This reminds me of my early days of daffodil growing in south Texas. I bought a dozen bulbs of "flat stem jonquil." I planted the bulbs on the outer circle of shade furnished by a fig tree. This variety bloomed remarkably well for several seasons. I lifted the bulbs and brought them to Kentucky, where they do well enough in growth but not always so with blooms. I have gotten a nice increase in bulbs. Later this variety was identified as $N \times intermedius$.

Why do blooms of some varieties of double daffodils blast each spring? I have always given the less satisfying answer for an explanation. I have stated that this blasting comes from high temperatures and dry weather.

Several years ago I was given several bulbs of a double of an unknown variety. I could never give a report because of the blasting each spring. The blooming seasons were not always hot and dry — what could be the real answer? The newer doubles have bloomed out beautifully for me under the same weather conditions. Could it be that some of the varieties are more sensitive to trace minerals?

As a general rule the entries of doubles are rather sparse in shows. This is especially true for the collections. Usually Cheerfulness dominates with Daphne as a second, I am conceited enough to believe that I had the most beautiful collection of doubles that I have ever seen in the recent Kentucky State Show. The varieties were Cheerfulness, Yellow Cheerfulness, Andria, Bali Hai, and Big-Wig. The newer varieties of doubles are something to behold. Better varieties are on the way. White Lion is more commonly grown. Some growers comment that it is a very beautiful flower. I found it so a year ago. Usually, it blooms with malformed flowers with deformed petals laden with an unattractive deep green color. It seems that the green of the buds will not bleach out into the normal color. This is a common fault in my garden. Many growers will recall that old Van Sion will display this same attribute. Some years ago Van Sion bloomed out, naturally, without this greenish color, and I found it to be a beauty. And so the fundamental question is: what causes these abnormalities?

It is interesting to receive the comments on the growing behavior of Empress of Ireland. When properly grown, this flower is of great beauty. It has accumulated an amazing record for itself. I find that it is a strong husky grower in my garden, but it does produce rough flowers at times. I suspect that this is due to weather conditions at the time the buds are developing. Among other 1c varieties, Vigil is a poor propagator but gives beautiful flowers; Cantatrice does an excellent job of furnishing show quality blooms and it increases well, too! Broughshane is a late one, and it produces excellent flowers. Rashee, Glenshesk, Alycidon, and Corinth are excellent varieties and are recommended to all beginners.

Suppose you were required to name one variety of daffodil from each class to recommend to a beginner, what would you name? Perhaps it would be more helpful to order from one catalog, but this would deny one the opportunity to make the best selection possible. I suggest that you try this experiment some time and "sell" daffodils to some zealous gardener. Remember, the price must not be excessive for this beginner. Once the idea of growing daffodils is sold, the price of the bulb will be a lesser item.

NO PATIENCE IN KEEPING RECORDS?

Last spring I found my Christmas-present tape recorder invaluable in recording bloom information on my daffodil season. Walking around my garden and talking into the mike was much easier than scribbling notes on a variety of charts - and much more likely to get done. The information could be typed and put in the proper places on the proverbial rainy day.

- LOYCE C. McKENZIE

U. S. REGISTRATIONS IN 1971

Reported by Mrs. Kenneth B. Anderson, Registration Chairman

American registrants of new daffodils and their registrations for 1971 are: Evans, Murray W.; Corbett, Ore.: Arapaho, Cordial, Dawnlight, Everpink, Marshfire, May Day, Profile, Propriety, Showboat, Tournament, Vantage. Fowlds, Matthew (by Grant Mitsch): Chipper, Comment, Delegate, Dipper, Kite.

Mitsch, Grant E.; Canby, Ore.: Aurum, Bell Song, Blushing Beauty, Circuit, De Luxe, Dik Dik, Fastidious, Mockingbird, Modoc, Pure Joy, Sandpiper, Songster.

REGISTRATIONS

Measurements given are: height (H.); diameter of flower (F.); length of perianth segments (P. segs.); length of corona (C. lgth); diameter of corona (C. diam.).



Arapaho (Evans) 2b; midseason; H. 48 cm.; F. 100 mm.; P. segs. 40 mm.; white; C. lgth. 15 mm.; C. diam. 40 mm., salmon orange. Resembles Ariel, but taller, whiter, more ruffly at margin of cup. F-285 (Blarney × (Duke of Windsor × Lady Kesteven))

Aurum (Mitsch) 1a; early midseason; H. 16"; F. 100 mm.; P. segs. 40 mm., golden yellow; C. lgth. 40 mm.; C. diam. 45 mm., golden yellow. Resembles Galway but measures 1a. A17/20 (Galway × St. Keverne)

Bell Song (Mitsch) 7b; late midseason; H. 15"; F. 65 mm.; P. segs. 29 mm., ivory with, at times, some buff or pink shading; C. lgth. 14 mm.; C. diam. 20 mm., soft pink. Resembles Divertimento but with better form, color, and substance. Z46/3 ((Wild Rose × Interim) × N. jonquilla)

Blushing Beauty (Mitsch) 2b; late midseason; H. 17"; F. 127 mm.; P. segs. 50 mm., white; C. lgth. 32 mm.; C. diam. 42 mm., salmon-toned pink. Resembles Accent but larger, broader, with crown smaller and lighter. A5/10 (Caro Nome × Accent)

Chipper (Fowlds) 5b; late midseason; H. 12"; F. 68 mm.; P. segs. 31 mm., ivory lemon; C. lgth. 14 mm.; C. diam. 9 mm., pale lemon. A distinctive small flower with rather narrow, very strongly reflexed perianth. F180/1 ((Polindra × Tunis) × N. triandrus albus)

Circuit (Mitsch) 7b; late midseason; H. 20"; F. 80 mm.; P. segs. 34 mm., clear lemon yellow; C. lgth. 10 mm.; C. diam. 25 mm., yellow, slightly deeper in tone than perianth. A yellow jonquil hybrid with very broad, overlapping perianth and small cup. Z2/21 (Aircastle × N. jonquilla)

Comment (Fowlds) 2b; early midseason; H. 20"; F. 110 mm.; P. segs. 45 mm., white; C. lgth. 28 mm.; C. diam. 70 mm., yellow with wide band of brilliant orange. Resembles Tuskar Light; crown reflexes against perianth. (Rubra × Tuskar Light)

- Cordial (Evans) 2b; midseason; H. 40 cm.; F. 110 mm.; P. segs. 48 mm., white; C. lgth. 35 mm.; C. diam. 35 mm., pink. C-158 (Pink Lace × Interim)
- Dawnlight (Evans) 1d; midseason; H. 40 cm.; F. 96 mm.; P. segs. 38 mm., sulfur lemon; C. lgth. 40 mm.; C. diam. 40 mm., white. Resembles Lunar Sea but whiter and with more roll at margin of corona. F-266/2 (Lunar Sea × Bethany)
- Delegate (Fowlds) 6a; early midseason; 13"; F. 95 mm.; P. segs. 42 mm., white; C. lgth. 26 mm.; C. diam. 28 mm., pale lemon changing to nearly white. Resembles Dipper but slightly larger and with whiter crown which is flanged and frilled. F378/9 (Green Island × N. cyclamineus)
- De Luxe (Mitsch) 2b; midseason; H. 17"; F. 112 mm.; P. segs. 48 mm., white; C. lgth. 35 mm.; C. diam. 50 mm., salmon shaded rose pink. Resembles Pink Monarch but crown smaller, deeper in color, and more frilled. 264/4 (Accent × Pink Monarch)
- Dik Dik (Mitsch) 6a; early; H. 13"; F. 62 mm.; P. segs. 27 mm., deep golden yellow; C. lgth. 22 mm.; C. diam. 19 mm., vivid orange red. Has very intense coloring, good substance, perfection of form, flat perianth. A52/6 (red cupped sdlg. X N. cyclamineus)
- Dipper (Fowlds) 6a; early midseason; H. 11"; F. 92 mm.; P. segs. 40 mm., white; C. lgth. 30 mm.; C. diam. 30 mm., pale buff yellow. Resembles Delegate, but this is a bicolor. F378/7 (Green Island × N. cyclamineus)
- Everpink (Evans) 2b; late midseason; H. 36 cm.; F. 104 mm.; P. segs. 46 mm., white; C. lgth. 24 mm.; C. diam. 38 mm., pink. E-229/1 (Wild Rose × Interim)
- Fastidious (Mitsch) 2c; late midseason; H. 19"; F. 95 mm.; P. segs. 40 mm., milk white; C. lgth. 33 mm.; C. diam. 34 mm., milk white. Resembles Pigeon, but earlier, taller, not as white. Z30/1 (Pigeon × Empress of Ireland)
- Kite (Fowlds) 5b; late; H. 14"; F. 70 mm.; P. segs. 33 mm., white; C. lgth. 8 mm.; C. diam. 23 mm., yellow with deeper rim. Resembles Dawn but with a cup not as flat. (poet \times N. triandrus albus)
- Marshfire (Evans) 2b; late midseason; H. 42 cm.; F. 102 mm.; P. segs. 44 mm., white; C. lgth. 16 mm.; C. diam. 38 mm., orange-red, yellow throat, green eye. C-151 (Limerick × Bithynia)
- May Day (Evans) 3b; late midseason; H. 42 cm.; F. 75 mm.; P. segs. 30 mm., white; C. lgth. 10 mm.; C. diam. 25 mm., yellow with orange-red band. M-54/6 (Rubra × Seraglio)
- Mockingbird (Mitsch) 7b; late midseason; H. 18"; F. 70 mm.; P. segs. 31 mm., luminous lemon gold; C. lgth. 18 mm.; C. diam. 28 mm., like perianth but changing to pure white. Resembles Dickcissel but with much broader flat perianth; one or two large flowers on a stem. Greatest contrast among the reverse bicolors. T6/1 (Binkie × N. jonguilla)
- Modoc (Mitsch) 1a; early; H. 17"; F. 103 mm.; P. segs. 40 mm., golden yellow; C. lgth. 40 mm.; C. diam. 42 mm., color same as perianth. One of the earliest of the deeper yellows having quite good form. A17/5 (Galway × St. Keverne)
- Profile (Evans) 2b; late midseason; H. 54 cm.; F. 110 mm.; P. segs. 45 mm., white; C. lgth 30 mm.; C. diam. 40 mm., yellow. Resembles Polindra but taller; blooms much later than most 2b's. B-110 (Limerick × Broughshane)

Propriety (Evans) 2b; midseason; H. 36 cm.; F. 114 mm.; P. segs. 48 mm., white; C. Igth. 38 mm.; C. diam. 51 mm., pink. B-117/1 (Rose of Tralee × Interim)

Pure Joy (Mitsch) 2b; late midseason; H. 23"; F. 100 mm.; P. segs. 43 mm., pure white; C. lgth. 24 mm.; C. diam. 30 mm., pale lemon, deeper frill. A very rounded flower with exceptionally smooth finish. D34/1 (Easter Moon \times Aircastle)

Sandpiper (Mitsch) 5b; late; H. 10"; F. 63 mm.; P. segs. 27 mm., white; C. lgth. 15 mm.; C. diam. 28 mm., lemon yellow. Distinctive in having saucer-shaped bright vellow crowns. C5/2 (Bithynia × N. triandrus albus)

Showboat (Evans) 2b; midseason; H. 40 cm.; F. 105 mm.; P. segs. 45 mm., white; C. lgth. 16 mm.; C. diam. 50 mm., yellow, salmon-orange band. F-296/1 (Bithynia \times sdlg. (Seraglio \times Gracious))

Songster (Mitsch) 2d; late: H. 19"; F. 77 mm.; P. segs. 30 mm., bright yellow; C. lgth. 26 mm.; C. diam. 36 mm., coppery buff. One bloom per stem, not jonquilla in appearance. DO11/1 (Quick Step × Daydream)

Tournament (Evans) 4; midseason; H. 45 cm.; F. 110 mm.; P. segs. 45 mm., white; C. double, orange-red inner segments. F-313/1 (Falaise × (Duke of Windsor × Lady Kesteven))

Vantage (Evans) 2b; midseason; H. 42 cm.; F. 108 mm.; P. segs. 45 mm., white; C. lgth. 20 mm.; C. diam. 40 mm., deep pink, white throat. F-277 ((Shirley Wyness \times Interim) \times sdlg.)

SIDELIGHT ON BULB LOSSES

Our daughter, Betsey, recently had a long wait at Port Elizabeth, N.J., to collect some furniture she had bought in Europe. She found there a sea of trucks, mostly picking up bulbs.

The trucker next to her needed some horticultural advice. He explained that last year he decided to try some daffodils, so he took some bulbs, but he forgot to plant them, so he put them in the attic.

His problem: "Could he plant them now?"

"So you see, Mom," said Bets, "If you're missing some bulbs, you can know they're probably in some trucker's attic!"

- ELIZABETH T. CAPEN

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