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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 APRIL 6, 1986

SCHEDULE OF MEMBERSHIP DUES IN THE AMERICAN DAFFODIL SOCIETY

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IN THIS ISSUE

<i>Four Very Large Landscapes</i>	Elizabeth T. Capen	131
<i>In Search of Banjo Paterson</i>	Meg Yerger	140
<i>Board of Directors' Meeting</i>		142
<i>Ground Rules for Miniature Daffodils</i>	Joy Mackinney	148
<i>Convention Registration</i>		150
<i>Otis Etheredge</i>		151
<i>Bulletin Board</i>		151
<i>The Daffodils of Louis Comfort Tiffany</i>	Martha Wren Briggs	155
<i>The Daffodil Data Bank and You</i>	Tom D. Throckmorton	163
<i>Not the Times, but Certainly All Daffodils</i>		166
<i>Here and There</i>		167
<i>1986 Daffodil Show Dates</i>	Mrs. Hubert Bourne	169
<i>Beginner's Corner</i>	Frances Armstrong	173
<i>W.E.H. Hodson and the Fly</i>	Jean Manfredi	175
<i>Preparing and Transporting Daffodils to Shows</i>	Marie Bozievich with Nancy Whitlock	180
<i>Bloom Protection</i>	Don Barnes	182
<i>Setting Up a Hybridizing Program</i>	Lewis T. Turner	186
<i>"A Rose by any Other Name . . ."</i>	David Karnstedt	189
<i>Pequenita—A Fine New Miniature</i>	James Wells	190

THE COVER PHOTO

is of Gene and Dale Bauer's "Golden Mountainside" in the San Bernardino Mountains in California. For 27 years, Gene has been planting daffodils to transform the mountain each spring. (Bauer photo.)

FOUR VERY LARGE LANDSCAPES

ELIZABETH T. CAPEN, *Boonton, New Jersey*

Acres of daffodils in blocks of thousands are beyond the aspirations of most of us, but four or so decades of exploring have revealed a few places where the gardeners found the space, the funds, the muscle power, and especially the interesting terrain and the artistic imagination to have achieved superb very large daffodil landscapes. I have met four that passed every test.

Three of these—one primarily commercial, one professional, and one, what is termed "an estate garden"—exemplified and taught me the principles of creating landscapes with daffodils; while the fourth, strictly amateur, showed what a determined gardener can accomplish.

THE RUSSELL GARDEN

The first of these was the John L. Russell garden of Dedham, Massachusetts. John Russell was famous locally as the "Daffodil King" and the "Flower Show Boy." Actually, he represented Breck & Son, then a leading seed and bulb distributor, and he annually produced the major display at the pre-spring show of the Massachusetts Horticultural Society,

as well as offering his inimitable several hundred thousand daffodil landscape at Dedham.

I met him first through the pages of *The Flower Grower*, when Paul Frese, later a founder of the ADS, was editor. In these pages, in several articles, John Russell expounded his philosophy and techniques of landscaping with daffodils. He stressed the primary importance of location—"Open enough to permit several hours of sunlight, with irregular land, deciduous trees, large rocks or ledges, and a stream or pond."

Then, he gave directions on how to enhance the terrain: by creating pockets, emphasizing contours, perhaps changing the course of a brook or damming it, adding a wall or a fence. He wrote of skillfully directing attention away from the ugly to the beautiful. Finally, he gave explicit directions on where, how, and what to plant.

On rereading these articles, kindness of the research of Mrs. Brennan of the New York Botanical Garden Library, where Paul Frese has sent his *Flower Grower* records, I realize that many of the theories I have tried to follow are pure J.L.R.

I met Mr. Russell because of a case of cold feet. His articles had led me to believe that daffodils were the supreme landscape plant of spring. With two daughters at Colby College in mid-Maine, where spring is slow to come, I had launched a daffodil-planting project. Suddenly, I feared that what succeeded in northern New Jersey might not in mid-Maine. At the time, Mr. Russell's garden was the only one to bridge this thousand mile gap.

Mr. Russell led me up hill and down over what he explained was an ex-cow pasture, showing me that while types were grouped, individual varieties were separated. He pointed out such useful truths to a landscaper, that while the new Beersheba ("new" in the 50 s) always began growing sideways, the old Mrs. Krelage grew straight up and persisted, even in sod.

(A few years later, a Dutch friend, Jack Doornbosch, introduced me to Gloria, a cross between them, that "carried the best traits of each." We have a batch of several hundred or so Gloria, unreplanted for 30 years. We agree.)

I learned from John Russell that mid-Maine, the Boston area, and northern New Jersey—the clay of the first and the gneissic-based podzolic soil of the other two—(clayish with rocks) will grow almost all standard daffodils, are especially welcoming to the early cyclamineus hybrids, and hesitate only when it comes to the tender jonquils and tazettas. We found this true in subsequent plantings from mid-Maine to north Jersey.

Mr. Russell led me to his hide-away—a half underground unheated pit. Here he was growing his private treasures—new hybrids for the next Boston show, or the next beyond.

It was a great loss to the budding ADS when John Russell was struck by a car and killed while posting signs to his famous garden in early 1958. Although the family tried to maintain the display, without the originator, it proved impossible.

PAUL F. FRESE



John Russell Garden

THE WISTERS OF SWARTHMORE

Not long after my assist from John Russell, I became aware of an entirely different daffodil project being pursued in and around Swarthmore, Pennsylvania, by John Wister, Gertrude Smith Wister, and their professional arm, the Arthur Hoyt Scott Foundation.

John had become enamored of daffodils as a lad in Germantown. But he said it was after the war that his eyes were opened to the great advances in daffodils in Little Falls, New Jersey, by Chester A. Hunt who provided for anyone with a dollar to spare, a display of the best of spring.

I, too, was entranced by the Hunt garden many years later, but it was what it inspired in Swarthmore that provided my lodestar before and after the formation of the ADS.

By 1930, John had reorganized his personal collection and first testing plan, and under the banner of the Foundation, added the very best daffodils that could be found. Twenty years later, the by-products of that program had turned a run-of-the-mill northern campus into a festival of spring.

By the early 50s, wherever you looked there were daffodils about the Swarthmore campus. I especially remember a long wide walk between two college buildings. It was flanked by wide borders of thousands of daffodils—not a mishmash, but blocks of a hundred or so each of individual varieties, forming interesting patterns by their contrast of color and form.

Another part of the campus—a meadow—was planted informally with many short cups and poets and provided for students a place to ramble and to pick a sample of spring.

The explosion of daffodils at Swarthmore and at Tyler Arboretum, implemented by John and Gertrude Wister, has no parallel.

On their home grounds, in Swarthmore, they continued to explore the newest, while clinging to pets. In the front, still sits Vanilla. Try to find it elsewhere; it took me quite a time.

JEAN FLAGLER MATTHEWS OF BROOKSIDE, RYE, NEW YORK

An entirely new daffodil landscape arose in Rye, New York, when Jean Flagler Matthews hired the very best to construct it. Jean began with what cannot be added. Her home in Rye was along a wide stream, in rolling terrain and with an elegant large outcrop. (Remember John Russell's suggestions?)

Her architect was the best—Adrian Frylink, scion of a Dutch bulb family and recognized country-wide. Adrian planned and supplied.

To implement, Jean enlisted James S. Jack, who organized a crew of fourteen. No such group had ever been assembled to my knowledge to make a daffodil garden.

Adrian and Jimmy followed the principles, first expounded by John Russell, in small numbers—then by the Wisters—in hundreds. Now, at Brookside, each variety was planted by thousands. The scale became bigger.



Daffodils in *pachysandra* in the Wister garden.

ELIZABETH CAPEN



Brookside

DALE BAUER



Thousands of daffodils adorn the Bauer mountainside.

Mrs. Matthews was a gracious hostess, who loved to show her daffodils, entertaining large groups for lunch in a big tent, preceding a conducted tour.

While there were many distinguished deciduous trees at Brookside, there was very little accompanying woody material. This was no year-round landscape. But Jimmy Jack was always looking to the future and trying out new ideas. We walked along a wall where he was testing in dozens varieties he was considering adding in thousands.

There was a wonderful slope with multiple thousands of muscari. (Too bad film is so poor with blues.) And he showed me along and around a small brook a hundred or so candelabra primula. Jimmy, perfectionist plantsman, was dissatisfied. I thought it the best I had ever seen.

Of course, this was the same crew who had staged the greatest indoor daffodil shows ever, as I mentioned.

A few years ago, Brookside, on the death of the chatelaine, ceased to exist.

CALIFORNIA

Most of the country recognizes that when it comes to big scale projects, California leads us all, and so, it is not surprising that the fourth and newest of the large scale daffodil plantings that first taught me principles of daffodil landscaping, and now is following them, is right in the midst of that incredible state.

Also, not surprisingly, this landscape is not where long-time daffodil aficionados would look for it. Three conventions in California have not uncovered any daffodil garden at all. All meetings were completely delightful. Those of us fortunate to have been there were intrigued by the outdoor daffodil show at Descanso, let alone the opportunity to meet and hear Frank Reinelt, who has been called the greatest hybridizer of this century (he once bred daffodils), and those extraordinary gardens opened to us only through the charm of Jack Romine—unforgettable experiences, but no growing daffodils.

To find real daffodil-growing country in California, you must take to the hills. In California, climate does not vary in relation to latitude. There it is altitude that makes the changes.

And so, I discovered one more daffodil landscape on the grand scale in the San Bernardino Hills, high enough above sea level (5,500 feet) that all major types of daffodils are comfortable.

Gene (artist) and Dale (architect) Bauer have created a Shangri-La, where only the hardy should aspire to visit. My trip was literally breath-catching. Gene drove us—a hand occasionally touching the wheel—as she expertly moved along the zig-zag route that climbed over a mile.

Once there, you are torn between viewing the sweeps of many thousand daffodils over the rugged mountainside and exploring more closely the unusual intimate display of many hanging pots and a complete cut flower presentation of the newest in Dale's interpretation of chalet—California style—which of itself made it worth that perilous climb.

In front of you are sweeps of daffodils in the multiple thousands in drifts among the ponderosa pine. The terrain is rugged, the paths are not gentle, trees still must be pruned of excess, and there is a lack of accompanying material that turns a whole lot of planted daffodils into the composition that we call "landscape." But, there are daffodils, well-chosen and well-placed, one of a kind in each drift and the drifts of varying shapes, all commensurate with the massive scale.

And while scale is the dominating factor in landscaping, scale is not solely related to acreage, although often thought to be so. It is more a factor of what the eye observes, and the eye is a tricky observer, as any camera fan has learned to his sorrow. I remember a 15-acre flat sweep that had less landscape impact than our 50' x 100' side lawn. So, it was flat. I do not mean to imply that those on flat terrain cannot landscape. They just have to work harder, as those of us, dealing with a whole lot of rocks, instead of the arm-deep top loam of Iowa, must work to provide suitable soil.

So, I call Gene's landscape massive, not because of the actual acreage she has planted, which she tells me is only about five, but because of the impact on the viewer.

To stand by Dale's aerie and look over hundreds of thousands of daffodils, with the mountains looming beyond, is to see daffodils as my 30 years of ADS conventions and spring visits, here and in Europe, have not.

Gene is 100 percent gardener. For 27 years, she has pursued her goal of proving the "superb adaptability of daffodils to landscaping" by creating "large vistas of color." She has achieved her goal by hard physical work. While she can plant 1000 bulbs from 7 A.M. to dark, it may take weeks of rigorous work to prepare the soil.

I was amused when she explained that, although she had an area where she tests some of the newest, she never lets visitors there—not for fear of eager trowels (which has happened), but because she did not want any visitor to think that was daffodil gardening. She struck a chord with us, having been shocked to see a shot of our working area presented as "The Capen Garden."

This massive mountainside California garden is of course new and created in the enthusiasm of a dedicated convert. While it follows many precepts taught by John L. Russell, it seems it may be forgetting some of those earlier propounded by E. A. Bowles and others. Naturalism it does not have.

And the future? All landscaping plans for the future. What will happen to such massive plantings, as years take toll? Whatever happens, I am sure Gene will find a way to cope. And in the meantime, daffodil fanciers who can get to the Southwest in spring will want to see what is surely "a host of golden daffodils."

Of course, these very large gardens are not the only ones that have provided inspiration for landscaping through decades of garden visiting. Every garden teaches, but the editor will not let me name them all: Ray



A foggy day in the Bauer garden.

Allen's Kingwood Center in 1958—completely overwhelming and unforgettable; Charlie Mueller's commercial display garden—a living catalog, the last of a type; the beautifully presented and generously shared garden of Betty and Charlie Gruber, who hosted at the 1976 Pennsylvania convention. As I survey my mental map of the country, I note that state after state has gorgeous gardens. We can all be proud of the American progress in horticulture, finally relating to American climates and soils, rather than in obeisance to British dictates.

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IN SEARCH OF BANJO PATERSON — HINSBY'S POET

MEG YERGER, *Princess Anne, Maryland*

The poet daffodil, Banjo Paterson, was bred by J.H. Hinsby and listed in the 1938 *RHS Classified List* as having been registered by The Victoria Society of Australia. So it was to friends in Victoria that I went for help in locating bulbs after thirteen years of searching. It is better to inquire in person, as I found out in fall of 1984 on the Australian trip with the Daffodil Society. Rodney Emmerson of Leongatha gave me two bulbs and Ken Hughes of Longeray Daffodil Farm included three bulbs with a large order I gave him.

A search for facts about the breeder was almost as difficult as the search for the bulb itself. If it were not for articles by C.E. Radcliffe and William Jackson of Tasmania in the *RHS Yearbooks* from 1933-1939, 1946, and 1949, we would not know anything at all about him. A great deal of the information in this article is quoted verbatim in the interest of accuracy.

Until about 1890, there seems to be no record about daffodil growing in Tasmania. According to Mr. Hinsby's own notes he began growing daffodils as a hobby at that time in Taroona, near Hobart, in southern Tasmania. This coincided with the time of the Second Great Daffodil Conference and Exhibition held at the RHS Garden at Chiswick in April, 1890. There had been an earlier conference in 1884 after which Peter Barr published his now famous *Ye Narcissus or Daffodyl Flowre, and Hys Roots*. Very likely Hinsby's interest was aroused by such daffodil enthusiasm in England. He had a good collection of daffodils from many divisions, including poeticus, and about 1898 or 1899 started in on raising seedlings for pleasure rather than for profit. The poeticus stock available to him included poeticus grandiflorus from his early collection. He recorded having used it both as seed and pollen parent in his crosses. This might have been the poet we know as Praecox Grandiflorus. Praecox was used in England at that time.

Alister Clarke of Victoria was part of a syndicate acquiring stocks of the earliest productions of the Rev. G.H. Engleheart in 1897, so it is a safe assumption that many poeticus were included. Dante was one of these and was used as seed parent with pollen from Ornatus to create Banjo Paterson. Banjo Paterson in turn became seed parent of Hinsby's Barbara Robinson and King of Poets, both with pollen from a seedling. Pollen from Banjo Paterson was used on Minuet by William Jackson to create Gosta Berling, which was named in 1933 but was not registered.

Almost simultaneously, another source for daffodil stock occurred when actor George Titheradge left Australia in 1898 to settle down in England. He had a large collection of daffodils sort of foisted upon him by an obscure nurseryman near Melbourne who saw a chance to popularize the daffodil by connecting the plant with the name of the theatre idol, probably the most popular actor in the country. Titheradge actually liked

roses better, but the nurseryman lined him up for lecture appearances at ladies' social and literary clubs with the subject being daffodils. In self defense he became proficient in the subject, and so completely hooked on daffodils he destroyed trees and other plants in his yard—except roses—to make room for bulbs. Eventually he bought about eight acres of land and developed into a daffodil farmer. The sale of bulbs upon his departure was financially satisfactory to him and put good stock into the hands of Leonard Buckland and Alistair Clarke who came to be the most noted raisers of seedlings in Australia. Tasmanians, too, benefited from the sale through the Hobart nurseryman, J. Lipscombe, who acquired many of the bulbs.

A treasure Hinsby received at this same period was the book, *Ye Narcissus or Daffodil Flowere, and Hys Roots*, given him by Peter Barr himself. Hinsby had the good luck to take Mr. Barr around to all the florists in Tasmania during the time soon after 1898 that Barr made a seven year world tour lecturing on daffodils and other plants. In Tasmania he was delighted to see so many newly raised British cultivars being cultivated.

William Jackson, who was to become a noted raiser and promoter of daffodils, arrived in Tasmania in 1898 and in his later writings referred to Hinsby as the doyen of daffodil raisers in Tasmania. C.E. Radcliffe (familiarily known as Criff), by profession a surveyor from Hobart, got started on growing daffodils with a gift of bulbs from Hinsby in 1923, and sowed his first seed in 1925. In an article in a *RHS Yearbook* he referred to Mr. Hinsby as the father of seedling raising in Hobart; and that until 1923, he was the only one in probably all of Tasmania who was doing any crossing. Jackson and Radcliffe were forceful in popularizing daffodils in Tasmania, and their breeding of daffodils was a lasting contribution of worldwide importance. Once they had started, it didn't take the pair long to catch up with the twenty-five year lead Hinsby had on them in raising seedlings. They freely exchanged bulbs for breeding. A poet they all used was *Minuet*, which Jackson imported from Herbert Chapman.

Competitive interest in exhibiting seedlings was intensified by the offer of a perpetual challenge cup for twelve seedlings raised by the exhibitor which was donated by Mr. C.E. Webster of Hobart, president of The Tasmanian Horticultural Society. This cup was first won by Radcliffe with Jackson and Hinsby close followers. The three of them were neck and neck year after year with point scoring always necessary and usually less than half a point difference among them.

Mr. Jackson wrote a few paragraphs in the 1946 *RHS Yearbook* as a memorial at the death of J.H. Hinsby in his eighty-second year (he must have been born about 1864). This tribute spoke of him as the doyen of daffodil raisers, the names of whose seedlings appear so often in the pedigrees of the best and newest seedlings. Jackson added that Hinsby won the twelve seedling cup at Hobart with unfailing regularity until those to whom he had given his best stock trod too closely on his heels; however, he still won again at intervals.

It happens that Banjo Paterson, for whom Hinsby named his popular poet daffodil, was also born in 1864; so it may be more than coincidence that the name was chosen.

According to *The Encyclopedia Britannica*, Andrew Barton Paterson (Banjo, 1864-1941) was a writer for the *Sydney Bulletin* who, with his prose and poetry, provided racy ballads of outdoor life and achieved a place in public affection which continues to the present day from his authorship of *Waltzing Matilda* which one hears played several times a day on a visit to Australia and often on TV networks anywhere pictures of Australian scenes or animals are shown.

This writer wanted to think *Waltzing Matilda* was a kangaroo showing off for Big Red, the largest kangaroo in Australia. But no—it turns out that the term *Waltzing Matilda* is Australian slang for a man who has to tramp along railroad tracks to inspect them for safety. Paterson wrote the words to the song and his sister wrote the music.

BOARD OF DIRECTORS' MEETING

Chicago, Illinois, October 12, 1985

(Abridged from the Report of the Secretary)

Twenty-seven directors and two guests were present. Mrs. Goethe Link, president, presided; and Ms. Marilyn J. Howe, secretary, recorded.

PRESIDENT'S REPORT: President Link asked for a moment of silence for the members we have lost since our last meeting. A letter was received from Harold Cross on behalf of the Tasmanian Daffodil Council inquiring whether the ADS had plans to host a 1988 World Convention. If not, they wished to host it. The ADS convention is already planned for Washington D.C. for 1988. She also announced that the Executive Committee on a vote of five to two agreed to fund Dr. Mathes with an additional \$1000.00 to finish his project. She then read a letter from Lowell V. Thugelt, Regional Director, National Capitol Region, United States Department of the Interior, stating that the NPS, by law, must buy its bulbs from the lowest bidder. She thanked Mrs. Pardue for all her efforts on the fall board meeting.

FIRST VICE-PRESIDENT: Dr. Snazelle stated he will give his report as part of the Budget Committee.

SECOND VICE-PRESIDENT: No report.

SECRETARY: Minutes: Ms. Howe asked the minutes from the King of Prussia meeting be approved as mailed. Mrs. Bourne asked that the minutes record the proposed by-law that was voted down by the Board. The proposed amendment, which the Board rejected, was:

Amend Article I. **MEMBERSHIP** Sec. 5. Investment of Dues of Life Members---. Add sentence to read:

"Life membership is available only to an individual."

TREASURER: Mr. Knierim reported on the liquid funds of the Society. He has received \$3566.00 profit from the King of Prussia Convention. However, he stated he has not received the financial statement.

REGIONAL VICE-PRESIDENTS REPORTS: Reports were received from six of the nine regions.

REPORTS OF THE STANDING COMMITTEES: (Full reports on file with the Secretary.)

AWARDS: Mrs. Bourne asked everyone to get show dates to her before the January 5, 1986, deadline. She stated that the major portion of her budget will be spent on a three year supply of ribbons.

BREEDING AND SELECTION: Dr. Bender reported that he had several requests for seed, but his New Zealand connection is gone and he has been unable to fill the requests. He also stated that there were a record number of hybridizers at the annual breakfast held in King of

Prussia last spring. Discussion of disease resistance and disease complexes failed to produce any clear consensus. Discussion of when to color code seedlings during their blooming season generally supported the thoughts expressed by Sir Frank Harrison: that the color code should describe the flower as it grows for the originator and that he or she may color code the cultivar in the most attractive stage of maturity.

CLASSIFICATION: Mrs. Thompson announced that Goose Green has been re-classified to 3W-GYR.

DATA BANK: Dr. Throckmorton reported that the Data Bank is capable of printing out information in many ways. He suggested that the Executive Director prepare a list for *Journal* publication plus prices of each. Orders should be placed through the Executive Director. He also thanked Mrs. Kate Donald of the RHS for all her help and cooperation in keeping the Data Bank up-dated.

EDITOR OF THE JOURNAL: Mrs. Gripshover's report stated that the ADS continues to publish four 64-page issues of the *Journal*. The budget figure of \$15,500 which was given to the First Vice-President will allow us to continue with the limited amount of color which we now have. She did some research concerning the budget figure, which as we all know is the biggest item in the budget, and was interested to find that in the early 1970s when the *Journal* averaged 48-52 pages, it accounted for over 60% of the expenditures. In the 1980s, the 64-page *Journal*—with color—accounts for just over 50% of our expenses. She also informed the Board of her resignation as Editor effective after the June 1986 issue.

LIBRARY: Mrs. Owen announced that four books have been added to the library. They are as follows: *Annual Review of the Stockbridge House Experimental Horticultural Station, North Yorkshire, England*; *Garden Life* (has pictures of the third World Daffodil Convention in New Zealand—a Japanese publication); *Hardy Bulbs for Amateurs* by Rev. Joseph Jacobs, 1924; *Garden Bulbs in Color* by J. Horace McFarland, LHD, R. Marion Hatton, and Daniel J. Foley. *Herbertia*, Volume 13, 1946, a publication of the American Plant Life Society, was presented on behalf of Dr. Harold Koopowitz. The issue is dedicated to Guy Wilson and contains articles by him.

MEMBERSHIP: Mrs. Armstrong's report stated that membership is down 5.5% since last September. Mrs. Liggett moved to appoint a committee to work up a brochure to encourage new members. Mrs. Cox seconded. Motion carried.

MINIATURES: Mrs. Mackinney suggested that the Miniature Daffodil Growers' Breakfast, with cost, be included on the registration form. The suggestion has been forwarded to the Memphis committee.

PHOTOGRAPHY: Mrs. Shryoc's report stated that 21 sets of slides for programs have been scheduled so far this fall.

PUBLICATIONS: Mr. Ticknor's report, due to its length, was postponed until New Business.

PUBLIC RELATIONS: Mrs. Howard's report suggested a bulb sale, talks to local garden clubs and societies, and informing local nurseries and garden centers about benefits of membership in the American Daffodil society as ways to generate public interest. She also commended the RVPs on the high quality of their newsletters.

REGISTRATIONS: Mrs. Anderson's report stated that ten hybridizers registered fifty-four new daffodils for 1985. (Her complete report appeared in the December *Journal*.) She asked the Board to consider raising the registration fee due to increased costs. Dr. Throckmorton moved to raise the fee from \$1.50 to \$2.50 effective immediately. Dr. Snazelle seconded. Motion carried.

RESEARCH, HEALTH AND CULTURE: Julius Wadekamper reported on the status of the various grants the ADS has given. Mrs. Thompson moved that in the name of good will that the ADS relieve the University of Georgia without prejudice of any obligation to complete the project. Mrs. Cox seconded. Motion carried. Mr. Wadekamper proposed funding a research project to determine the nutritional requirements for daffodils for the hobbyists and home gardeners. The research will be conducted by Dr. Bernie Wesenburg of Washington State Experimental Station at Puyallup. Soil analysis of fourteen locations around the country has been completed. Controlled test beds have been set up by the fourteen volunteers. Fertilizer and bulb weight coordination are to be carried out by Dr. W.C. Anderson of Washington State University. Mrs. Kraemer moved to fund the project for \$3,000.00 over the next three years. Mrs. Owen seconded. Dr. Throckmorton expressed

concern that this work has been done by the R.H.S. Mr. Wadekamper said it had not been done according to Dr. Anderson. Motion carried.

ROUND ROBINS: Mr. Etheredge's report stated a new Robin is underway under the direction of Loyce McKenzie covering species, Divisions I-VIII. All other Robins continue to fly.

SCHOOLS AND JUDGES: Mrs. Liggett reported 25 Accredited Judges Retired, 243 Accredited Judges, and 56 Student Judges. Three sessions of School III are planned for 1986: LaCanada, California; Columbus, Ohio; and Martinsville, Virginia. School III for New England Region - no information available to date.

SHOW REPORTERS: Mrs. McKenzie's report appeared in the September *Journal*.

TEST GARDENS and WISTER AWARD: Mrs. Bozievich stated that one new test garden has been added, the Louis Ginter Botanical Garden in Richmond, Virginia. Two gardens have been deleted, one at Vassar College in Poughkeepsie, New York, and one at the AHS River Farm Headquarters in Mount Vernon, Virginia. She also stated that the first Wister Award was awarded to Stratosphere.

EXECUTIVE DIRECTOR: Miss Anderson reported the office has been busy over the summer. She stated concern over the loss of membership in the June quarter.

UNFINISHED BUSINESS:

SOCIETY INSURANCE: Mr. Frank's report was not received in time for the meeting. Mrs. Kraher stated that William Mackinney also looked into matter of liability insurance and found that the premiums were prohibitive. President Link said she would write to Mr. Frank about the insurance and report at the spring meeting.

TAPING OF MEETINGS: Dr. Snazelle reported that the cost of video taping the annual meeting is prohibitive. He recommended that we should not procede. He also suggested that perhaps an ADS member who had equipment could volunteer to do the taping.

PUBLISHING POSSIBLE LISTS AVAILABLE FROM THE DATA BANK: Julius Wadekamper moved we publish in the ADS *Journal* a list of possible print outs that are available from the Daffodil Data Bank and the cost of each. Mr. Erlandson seconded. Motion carried. Dr. Throckmorton asked that all orders be placed through the Executive Director.

NEW BUSINESS:

1986 BUDGET: Dr. Snazelle proposed the following budget for 1986.

AMERICAN DAFFODIL SOCIETY PROPOSED BUDGET OF 1986

ESTIMATED INCOME FOR 1986

Dues	\$12,000.00
*New Life Members	1,200.00
Income From Cash Reserves	
* Interest on \$20,000.00 CD, Phoenix Savings and Loan @12.75%, due on 10/86; Includes the Larus Fund \$10,000.00	\$2550.00
Interest on \$5000.00 CD, First National Bank of Seattle @11.50%, due 12/86	575.00
Interest on \$10,000.00 Ford Motor Bonds @8.5% due 3/91	850.00
Interest on \$11,000.00 CD, Homestead Savings and Loan @13.15%, due 5/30/89	1446.00
Interest on \$3500.00 CD, Bank of Mississippi @7.0%	<u>325.00</u>
	5,746.00
Convention Advance Refund	1,000.00
Sales from Executive Director's Office	3,500.00
Slide Rental	150.00
Advertising	500.00
Projected Memphis Convention Surplus	1,500.00
	<u>\$25,096.00</u>
Total Income	
LESS: *Restricted Income	1,200.00
Estimated Total Unrestricted Income	<u>\$23,896.00</u>

*Restricted Income - Only interest from New Life Members and from the Larus Fund may be spent.

ESTIMATED EXPENDITURES FOR 1986

Officers

President	\$ 200.00
First Vice-President	100.00
Secretary	<u>200.00</u>

500.00

Regional Vice-Presidents

New England (133)	\$ 266.00
Northeast (173)	346.00
Middle Atlantic (320)	640.00
Southeast (113)	226.00
Midwest (175)	350.00
Southern (131)	262.00
Central (85)	170.00
Southwest (100)	200.00
Pacific (183)	<u>366.00</u>

2,826.00

Committee Chairman

Awards	\$ 736.00*
Breeding and Selection	-0-
Classification	25.00
Data Bank	400.00
Editor of the Journal	15,500.00
Library	-0-
Membership	-0-
Miniatures	25.00
Photography	175.00
Publications	-0-
Public Relations	25.00
Round Robins	50.00
Registrations	10.00
Research, Health and Culture	2,000.00
Schools and Judges	75.00
Show Reporter	40.00
Test Gardens (Wister Award)	<u>100.00</u>

19,163.00

*Includes \$236.00 for insurance on ADS Trophies

Executive Director

Executive Director's Salary	\$ 3,600.00
Clerical Salary	2,200.00
Social Security	389.00
Telephone	100.00
Postage	1,500.00
Printing and Supplies	1,200.00
Audit Expense	<u>-0-</u>

8,989.00

Convention Advance

1,000.00

Total Estimated Expenses

32,478.00

Total Estimated Income

23,896.00

Deficit to be taken from Reserve

(8,582.00)

Mrs. Krahmer moved to accept the budget as proposed. Dr. Throckmorton seconded. The Board felt that income may be understated and expenses are overstated. Motion carried.

The meeting was recessed at 12:00 noon.

The meeting reconvened at 5:00 P.M. with Mrs. Goethe Link presiding and Mrs. James Liggett recording.

ENDOWMENT FUND: Dr. Snazelle made a preliminary proposal for a comprehensive Endowment Fund. The purpose of the fund would insure the financial security of the American Daffodil Society through the support of *The Daffodil Journal*, the editor, Research Endowment Fund, and the Executive Directors's Office. The specifics are as follows: The overall goal is \$275,000. The breakdown is:

1. *The Daffodil Journal* Endowment - \$100,000.00 The purpose of this endowment is to subsidize printing and mailing costs of the *Journal*.
2. *The Daffodil Journal* Editor endowment - \$25,000.00. The purpose is to subsidize a salary for the editor. [none currently]
3. Research Endowment Fund - \$50,000.00. The purpose of this endowment is to foster research on all aspects of daffodils including diseases, pest, nutrition, propagation, genetics, etc.
4. The Executive Director's Office Endowment Fund - \$100,000.00. The purpose is to subsidize the business functions of The American Daffodil Society as carried out by the Executive Director.

Gifts would be solicited from membership pledges to paid over the next five years and from Estate bequeaths. A projected kickoff date for the Endowment campaign would be January 1, 1987. Dr. Throckmorton moved to table the proposal until Dr. Snazelle is president. Motion carried. Mr. Erlandson moved that we continue to study the proposal until Dr. Snazelle becomes president. Mrs. Krahmer seconded. Motion carried.

EDITOR OF THE JOURNAL PROPOSALS: Mrs. Pardue presented two proposals on behalf of the Editor of the *Journal*. She moved for the establishment of the American Daffodil Society Endowment Fund to support the operating costs relating to the publication of the *Journal*. She further moved that all monies currently held in reserve for the life members be placed in this fund, along with any further life member dues. Since this proposal is similar to Dr. Snazelle's proposal. Mr. Wadekamper moved to table the proposal until Dr. Snazelle becomes president. Dr. Throckmorton seconded. Motion carried. In the next proposal she asked that Item #6 under Duties of the Editor of the *Journal* in the Board manual be deleted. Mrs. Krahmer moved that Item #6—which states that the editor publish a source list of bulb growers (for both standards as well as miniatures) either with the membership Roster in the December *Journal* or separately in another issue of the *Journal*—be deleted. Dr. Throckmorton seconded. Motion carried. Dr. Throckmorton moved that the Executive Director be assigned to mail the *Journal* which involves sorting, counting, and bundling in zip code order per post office regulations. Miss Bankhead seconded. Motion carried.

Special Announcement

Murray Evans's and Bill Pannill's

*Hybridized Novelty Daffodils for show
and garden are now available thru:*

RUSSELL GRAHAM

PURVEYOR OF PLANTS

4030 EAGLE CREST RD. N.W.

SALEM, OREGON 97304

*Descriptive listing available free to ADS mem-
bers. Send request with self addressed/
stamped envelope.*



CULTIVAR SHOW: Mrs. Krahrmer presented a proposal for a cultivar show. She then moved that the Minnesota and Delaware Daffodil Societies be allowed to hold a cultivar show in 1986. Mr. Wadekamper seconded. Mrs. Liggett expressed concern that ADS judges have not been trained to judge a cultivar show. Mrs. Bourne felt that this type of show will be difficult to stage. Motion carried.

RESEARCH FUND: Mr. Knierim moved to put \$27,276.00 in the Research Fund. Mrs. Bozievich seconded. After discussion Mr. Erlandson moved to table the discussion due to financial reasons. Motion carried. Mr. Knierim then moved to put \$3,369.00 profit from the King of Prussia Convention into the Research Fund. Mrs. Spitz seconded. Motion carried.

PUBLICATION REPORT: Dr. Snazelle moved to table Bill Ticknor's report until the 1986 convention. Mrs. Krahrmer seconded. Motion failed. President Link read Mr. Ticknor's report. The report recommended that the Society postpone publishing a new book for five years. He stated that our present *Handbook* is an exceptionally fine book only 20 years old, the ADS has a five year supply on hand, that the alternative of ADS publishing it is cost prohibitive, and the possibility of picking a for-profit publisher is questionable. He did not believe that it is presently worthwhile to do the work necessary to prepare such a book. Dr. Snazelle expressed concern that the present book on daffodil culture is out of date and is not selling. Dr. Throckmorton moved to accept the report and thanked Mr. Ticknor for a job well done. Mr. Knierim seconded. Motion carried. (Complete report is on file with the Secretary). Dr. Snazelle announced Mr. Ticknor's retirement from the Board effective April, 1986. The meeting was adjourned at 6:00 P.M.

DAFFODILS FOR SALE

Over 100 modern cultivars offered in new 1986 list, including many cultivars not offered last year. List also features choice daylily varieties and some other selected perennials. For this free list, write:

GERARD KNEHANS, JR.
ROUTE ONE
OWENSVILLE, MISSOURI 65066

I am interested in purchasing '54, '55, '56, and '57 *RHS Yearbooks*, other daffodil books, and daffodil catalogs. Let me know what you have and the price.

Also, I have FOR SALE a very nice original copy of Dykes's "Notes on Tulip Species." Inquire at above address.

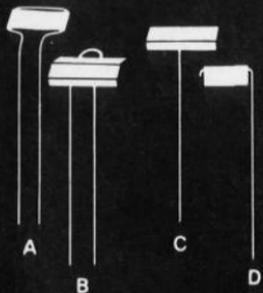
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20" \$22.95. Style C: Single Staff 100-20" \$18.20. Style D:
Swinger 100-10" \$14.75.

Shipping and Handling Charges: Zip codes under 75000 add \$3.05 per 100, over 75000 add \$4.25 per 100; OHIO residents add 6% tax. SEND FOR FREE BROCHURE. Inquire about other styles and sizes available, smaller quantities, special sales, high volume discounts, permanent marking devices, and fund raising plans. *Satisfaction guaranteed.*

EON INDUSTRIES, Dept. D, 3000 Manley Road,
Maumee, Ohio 43547



GROUND RULES FOR MINIATURE DAFFODILS

Revised from Report by PEGGY MACNEALE, 1978

DEFINITION OF A MINIATURE DAFFODIL

1. A miniature daffodil is one which has been approved by members of the ADS Miniatures Committee as being a true miniature. Since length of stem and flower size differ not only from region to region, but from season to season in the same garden, it has been determined by various growers from all sections of the country, which flowers are true miniatures.

2. The Approved List of Miniatures of the ADS as currently amended by publication in the *Daffodil Journal* shall be the authority for describing a daffodil as a miniature. British growers have a different criteria for calling a flower a miniature, requiring only that the stem be not more than six inches tall. Thus many large flowers are called "miniatures" in overseas catalogs. A more proper description of these would be "dwarf."

SHOWING MINIATURES

1. Only those miniatures as defined above may be entered as miniatures in a show for ADS awards.

2. A seedling (miniature candidate) is exempt from this rule and may be entered in the division to which the originator has assigned it, following all rules in the schedule for exhibiting seedlings.

ADDITIONS TO THE APPROVED LIST

1. Size (scale) is the key requirement for listing. A candidate that is considered too large (out of proportion) will not be considered.

2. A miniature candidate shall be added to the Approved List when it meets all the conditions listed below:

- a. submission of the name, with pertinent information by the hybridizer;
- b. recommendation of three ADS members who have successfully grown it for three years;
- c. and is commercially available.
- d. The above information should be sent to the Miniatures Committee Chairman.

REMOVAL (DELISTING) FLOWERS FROM THE ADS APPROVED LIST

1. A cultivar/variety considered to be unsuitable as a miniature may be removed from the Approved List when a number of miniature growers request that it be deleted.

2. Candidates for Removal must be published in the *Daffodil Journal* with requests for reaction from ADS members, who must give reasons for requesting removal.

The December issue (4th Quarter) of the *Daffodil Journal* shall be the cut-off date for new additions to, or deletions from, the Approved List of Miniatures. The Chairman of the Committee on Miniatures shall be appointed by the ADS President.

JOY MACKINNEY, *Chairman*
Committee on Miniatures

THE DAFFODIL SOCIETY



was established in Britain in 1898 to cater for the needs of all daffodil enthusiasts and now has members in all the countries where daffodils are grown seriously.

The Society issues two publications each year to all members and welcomes contributions from all growers on the complete range of topics.

Minimum membership subscription is £3.00 per annum; overseas members £8.00 for three years (optional); payment by STERLING International Money Order please to:

Hon. Treasurer, Ivor Fox, 44 Wargrave Road, Twyford, Reading, Berks., England.

Does Your Garden Color End Too Soon?

Join the NATIONAL CHRYSANTHEMUM SOCIETY

and enjoy colorful blooms until frost.

Your membership includes 5 issues of The CHRYSANTHEMUM. Also free BEGINNER'S HANDBOOK.

Annual Dues \$8.50 Write to:

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2612 Beverly Blvd., SW
ROANOKE, VA 24015

PEONIES, Queen of Flowers

Spectacular beauty, fragrant endurance unlimited, practically a permanent perennial. Excellent for use in landscape as an accent plant during blooming season, foliage decorative until hard frosts. Peonies—a permanent investment—will bloom for years.

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Dues \$7.50 paid annually. Bulletin published quarterly
Send for list of publications

AMERICAN PEONY SOCIETY
250 INTERLACHEN RD., HOPKINS, MINN. 55343



HEMEROCALLIS (Daylilies)

Enjoy this wonderful flower when your daffodil season is finished. Its long bloom season will greatly expand your garden enjoyment.

Constant improvements in color, size, form and habits insure rapid growth of interest in this fine plant.

Four colorful journals a year filled with informative data on varieties, culture, performance and progress. Many Round Robins open to participation.

ONLY \$12.50 PER YEAR
Join THE AMERICAN HEMEROCALLIS SOCIETY
Joan D. Senior, Secretary DeQueen, Arkansas 71832



REGISTRATION FORM

ADS CONVENTION, APRIL 3-5, 1986

MEMPHIS AIRPORT HILTON, MEMPHIS, TENNESSEE 38132

Name _____

Address _____

City _____ State _____ Zip _____

Christian or Nickname _____

REGISTRATION FEE: Before March 5 \$90.00
After March 5 \$105.00

Registration includes: National Show; April 3: Awards Cocktail Hour; April 4, Symposiums, Banquet; April 5, Tour, Lunch and Banquet.

Do you plan to exhibit? YES _____ NO _____

Please make checks payable to: ADS Convention and mail to Mrs. Jean Davis, Registrar, 7468 Highway 304, West, Hernando, Mississippi 38632.

HOTEL RESERVATION REQUEST

American Daffodil Society
Memphis Airport Hilton Inn
2240 Democrat Road, Memphis, Tennessee 38132
Telephone (901) 332-1130

Please submit by: March 5, 1986

Main Building:		Executive Court:
Single	\$63.00	\$72.00
Double	73.00	82.00
Plus applicable tax of 12 $\frac{3}{4}$ %		

Name _____

Address _____

City _____ State _____ Zip _____

Arrival Date _____ Time _____ Departure Date _____ Time _____

I wish to share a room with _____

Send directly to Memphis Airport Hilton Inn with a deposit for first night's lodging or please note number of your credit card.

AX _____ VISA _____ MC _____

Expiration date _____

OTIS H. ETHEREDGE

Otis H. Etheredge, 51, of Saluda, South Carolina, died Wednesday, January 22, after a brief illness.

Otis was a graduate of, and received his Masters Degree from, the University of South Carolina, and was a counselor in Northside Middle School, Lexington, South Carolina.

Being an accomplished musician, he was organist at his church for many years.

He had served in the United States Army and the Reserve.

For many years he had been a member of ADS and had served as Regional Director for the Southeast, and was chairman of the Round Robins.

Knowing good flowers, he was a keen exhibitor, winning best in the Atlanta show many times, as well as winning the Gold Ribbon in Williamsburg in 1983.

There are many nice seedlings in his beds and hopefully some will be saved.

Many of his friends called him the "Perfect Southern Gentleman."

He loved God and his fellowman and served both.

Sympathy is extended to his family and friends. We all shall miss him.

BULLETIN BOARD

FROM THE PRESIDENT'S DESK

Since this will be my last report as President of the ADS, I wish to thank all members for their support during the past two years. The members of the Board of Directors have given me their full support and cooperation in solving the problems of the Society. I am grateful to the members of the Executive Committee for their advice between meetings.

A sound research program is now under way with three projects ongoing: namely, basal rot, fertilizer, and tissue culture. We hope we will get information from all three projects which will help us grow better daffodils.

Daffodils To Show and Grow has been brought up to date and the third edition was published in 1985. Dr. Tom Throckmorton and his committee, and Mr. and Mrs. William Ticknor are responsible for keeping us up to date.

The *Journal* has had two very successful years. We are especially proud of the recognition given it by the National Council of State Garden Clubs. Color has added a great deal of beauty to its contents. Many excellent articles on growing and showing daffodils have appeared in the *Journal* due to the efforts of our hardworking editor. Mary Lou Gripshover has given much time and effort in making the *Journal* what it is; we shall miss her expertise in 1986. Farewell, Mary Lou, and we wish you well in your retirement. Thank you for a job well done.

Three years ago our Test Garden Committee set up a testing program for garden daffodils. Stratosphere was used as the cultivar for testing for a daffodil which would do well in many parts of the country. In a few areas it did not do well as a garden or show flower, but in a majority of the regions it did very well, and is now recommended as a good garden flower. It has been awarded the first ADS Wister Award.

Our financial condition is still sound, but it has changed over the past two years due to rising costs of our *Journal*, postage, and printing, Regional Newsletters, and a general rise in the cost of many other things. We have had a 5.5% drop in our membership in 1985. Unless expenses can be pared we may need to have a raise in dues. A raise in dues may cut our membership still more, so it seems advisable to strive for a larger membership. This can be done with the help of everyone who is now a member. Talk to your friends, get them to join us, advertise the Society at your shows. There is force in numbers.

Various ways of financially endowing the Society for the future are being studied. We need an endowment fund large enough to help support our *Journal*. At the present time our income from dues does not cover the cost of the *Journal*. Research should continue, and this can be done with the help of a large enough fund, from which only the interest can be used. Bequests, contributions in lieu of speaker's fee, gifts in memory of deceased friends and family, or gifts honoring individuals would all be ways of helping to assure the financial future of the American Daffodil Society. As I retire from office, my one hope is to see the Society prosper in the future.

I am grateful to the Officers, Executive Committee, Committee Chairpersons, and all members of the Board of Directors for their help the past two years. THANK YOU!

HELEN K. LINK

"WHERE CAN I GET . . . ?"

RHS Color Chart Mrs. M. B. Adams
1509 West Glenn Ave.
Springfield, IL 62704

LAST MINUTE CONVENTION UPDATE!

Those people planning to attend the Miniature and Hybridizing Breakfasts at the convention in Memphis should make reservations at the time they register for the convention. Breakfasts will be \$6.00 each. Please include a separate check for these events.

Harold Cross's lecture on double daffodils will be used as the Judges' Refresher.

JUDGING SCHOOLS 1986

School III—March 23, 1986; Descanso Gardens, La Canada, California; Chairman: Marilyn Howe, 11831 Juniette St. Culver City, CA 90203.

April 10, 1986; Martinsville, Virginia; Chairman: Donald King, Box 236-C, Hartfield, Virginia 23071.

April 28, 1986; Upper Arlington Municipal Services Building, 3200 Tremont Road, Columbus, Ohio 43221; Chairman: Mrs. James Liggett, 4126 Winfield Road, Columbus, Ohio 43220.

School II—April 15, 1986; Chestnut Hill, Massachusetts; Chairman: Mrs. T.C. Haffenreffer, Jr., 46 Suffolk Road, Chestnut Hill, Massachusetts 02167.

School III—April 16, 1986; Chestnut Hill, Massachusetts; Chairman: Mrs. T.C. Haffenreffer, Jr., 46 Suffolk Road, Chestnut Hill, Massachusetts 021167.

Required Reading: *Handbook For Growing, Exhibiting, and Judging Daffodils*

School II - Chapters 5, 8, 9, 2 (except page 6), 7 (pp. 30-33)

School III - Chapters 6, 7, (pp. 33-34), 2 (pp. 5-7), Review Chapter 7 (pp. 30-32)

There will be a Judges Refresher held at the National Convention in Memphis, Tennessee. Those judges wishing to take it for credit, may register at the convention.

NAOMI LIGGETT
Judges & Schools Chairman

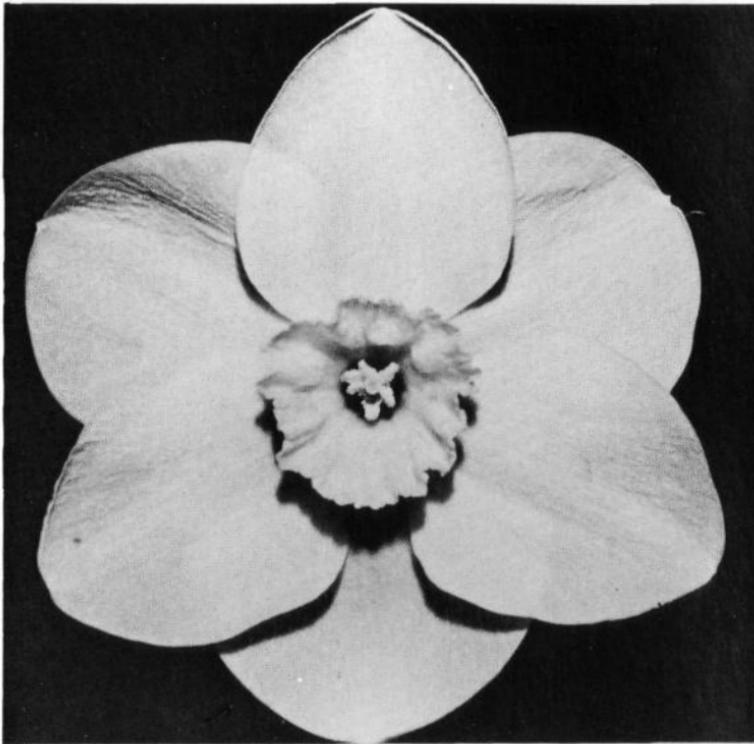
DAFFODILS 1985-6

The latest of these annual publications by the Royal Horticultural Society includes articles covering the show scene in Britain as well as at Springworld 1984.

Miniature enthusiasts will find John Blanchard's "Portuguese Diary" interesting as he described seeing the species in their native habitats. Brian Duncan recounts for us some of the accomplishments of Tom Bloomer, recipient of the Peter Barr Memorial Cup for 1985, while Clive Postles treats us to "The Growing Methods of John Lea." Alec Gray gives us "The History of Tete-a-Tete" and Barbara Fry tells of using Matador in her breeding program to obtain colorful poetaz. Within these 112 pages, there is much to interest the daffodil growers (and even a short piece to interest the tulip growers!). The book is available from the Executive Director for \$5.00.

COOL CRYSTAL RECEIVES AWARD OF MERIT FROM RHS

On April 30, 1985, Cool Crystal, raised by Grant Mitsch and exhibited by E. Jarman, was awarded an Award of Merit as a show flower. Obviously, Cool Crystal is doing as well in Britain as it does in this country.



GRIPSHOVER

Cool Crystal

Memorial Contributions

Dr. Freeman Weiss	Mrs. John Capen
Mrs. Elizabeth S. Tracey	Mrs. Ann B. Kenny
Mrs. H. R. Larrick	Mr. & Mrs. R. L. Armstrong
Maurice T. Worden	Mr. & Mrs. Ed Zimmer
	Earl W. Bettis
	Marilynn Howe
Charles Anthony	Mr. & Mrs. R. L. Armstrong
Otis Etheredge	Barbara Tate
	Eve Robertson
	Ruth Pardue
	Mary Lou Gripshover

ATTENTION DAFFODIL SHOW CHAIRMEN AND JUDGES CHAIRMEN

At the present time there are fifty-six student judges. Many of them will be completing their instructions this spring and need shows to student judge. The Middle Atlantic Region has the largest number with twenty-two students. It is difficult for this many students to receive invitations to judge. If you have already secured your judges, consider using three accredited judges and one student per panel. Check the membership roster for the students in your area.

MRS. JAMES LIGGETT
Schools & Judges Chairman

THE DAFFODILS OF LOUIS COMFORT TIFFANY

MARTHA WREN BRIGGS

Long Island University, Greenvale, New York

Drawings by GENE BAUER

All flowers pleased and delighted Louis Comfort Tiffany, the twentieth-century master of the stained-glass medium, but daffodils were a special favorite. He used representations of their perky yellow blooms and vertical green foliage in landscapes for his stained-glass windows and in decorating his lamps and vases. He adorned the capitals of a porch at Laurelton Hall, his Long Island estate, with large golden glass daffodils and had daffodil bulbs planted profusely around his grounds.

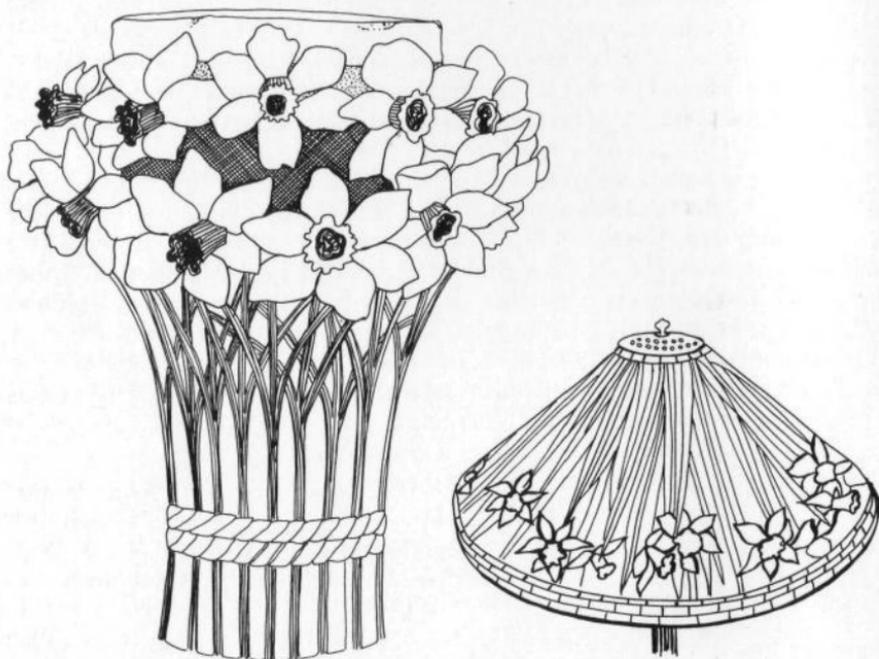
Tiffany lived at Laurelton Hall from 1905 until his death in 1933. Although the 480-acre estate was left to the Tiffany Foundation as a place where young artists could study in a rural environment, it suffered a fate similar to other large estates on Long Island. Finding maintenance almost impossible during and after World War II, the Foundation, with the Court's permission, subdivided and sold the property. Traces of Tiffany's landscape planting at Laurelton Hall can still be found. Groups of large yellow daffodils cascade down the sloping hillside beside the road that was originally the approach to the main house.

Mrs. Comfort Tiffany Gilder, one of Tiffany's twin daughters, remembers that "... daffodils [grew] wild in a field [on the estate], thousands and thousands of them." This field is now undeveloped, but was apparently used at one time for agricultural purposes. Around its edges bloom large yellow daffodils and the small, white-petaled *Actaea*, with cups trimmed in red.

The daffodil field was a special place for the Tiffany children. Normally, they were not allowed to pick any of the estate's flowers; for their father considered each blossom a unique treasure, and his "greatest pleasure was watching a flower grow from a bud to a full bloom."

Mrs. Dorothy Burlingham, Tiffany's youngest daughter, relates that if a child "broke a flower it wasn't considered an accident [by her father];" it was considered a crime and "woe [came to] the child who stepped on a plant." Grandchildren were allowed to pick only two nasturtiums each time they visited their grandfather. Daffodils were the only flower that the children could pick free of rules and regulations! Mrs. Gilder, in her 1962 poem *Daffodils*, reveals that "in the spring the children [her brother and sisters would] run to the [field] of daffodils; stop first to gaze with rapture, then, darting here and there...slowly pick [daffodils] one by one," for them truly a special treat, although some of the children from the nearby town of Oyster Bay would ride bicycles to the daffodil field and surreptitiously "pick bunches of the largest yellow daffodils [they] had ever seen, before or since." One of the bike riders, now in his sixties, identifies the field daffodils as King Alfreds, created in 1899 by John Kendall, six years before Tiffany bought Laurelton Hall.

To insure that daffodils were always represented at his home, Tiffany used glass replicas of them in decorating the Daffodil Terrace, which he designed and added to Laurelton Hall sometime after 1914. The Daffodil Terrace was an opened, three-sided, large rectangular porch. Contemporary photographs show at least six marble columns supporting the terrace's wooden roof. The 22-½ inch capitals, now privately owned, are



Left, detail of a Daffodil Capital; right Lamp No. 1479, Inverted Daffodil Pattern.

encircled with two rows of staggered, large, three-dimensional daffodils made of rich opalescent glass and set in cement. Their long green stems and overlapping leaves were bound twice with a hemp-like textured brown glass cord, repeating a decorative tradition begun in Egypt. The opalescent glass gave the capital daffodils a bright, long-lasting color. Tiffany perfected opalescent glass at his studio in Corona Queens, not far from Laurelton Hall; opalescent glass had coloring agents, such as minerals, metallic oxides, and sulphides, added to it while still in a molten state; thus the glass, whether used in stained-glass windows, lamps, vases or glass daffodils, had a permanent color that was part of its composition.

The New York Times reported on March 8, 1957, that the fifty-one year old mansion at Laurelton Hall had been "set ablaze by a fire left by vandals in one of the fireplaces" which had burned for twenty-two hours. Hugh McKean, a Tiffany Foundation alumnus of 1930, returned to Laurelton Hall after the fire and found that while the main section of the house had been destroyed, the Daffodil Terrace was "still intact," but that exposure to the elements had caused the daffodils that "originally sparkled with a high [opalescent] sheen to acquire a soft matte finish."

Early photographs of the Daffodil Terrace show a pear tree which preceded the construction of the terrace and was left to grow through a square hole in the terrace's wooden roof, and also show the end of the terrace farthest from the house. This end of the terrace was partially enclosed by a waist-high balustrade on either side of a Moorish arch. Access through the arch was prevented by a rectangular panel in its lower half, and in its center was a large urn filled with what appeared to be big daffodils, similar to those on the daffodil capitals.

The Daffodil Terrace was saved from destruction by Mr. McKean and is "in storage in Winter Park, Florida, the property of the Charles Hosmer Morse Foundation." Mr. McKean also salvaged many of the architectural adornments Tiffany had created for Laurelton Hall. He donated the loggia entrance that had column capitals decorated with Oriental poppies, East Indian lotuses, saucer magnolias, and peonies to the Metropolitan Museum of Art in New York City "as a way of completing the glassed-roofed garden court that serves as an entrance" to the Museum's American wing.

Tiffany became the prime advocate of the Art Nouveau movement in the United States. The Art Nouveau movement began in England about the same time Tiffany started his decorative glass business. This movement was espoused by interior decorators (Tiffany's first business venture was as an interior decorator), furniture and ornamental designers. It featured decorative elements of free flowing forms or swirling lines of trees, vines, and flowers. Numerous varieties of flora can be found in Tiffany's vases, lamps, and stained-glass windows. Lilies, wisteria, iris, hollyhocks, daisies, poppies, pansies, roses, and laurel are some of the recognizable flowers that accent many of Tiffany's stained-glass windows.

Definitely distinguishable and distinctly recognizable daffodils dominate the left foreground of the Charles A. Duncan Memorial stained-glass

window in the Pilgrim Congregational Church in Duluth, Minnesota. Done in 1924, this window is one of two panels in a casement window that form a pure landscape composition. The combined windows capture a scene of hills and lake surrounded by blue iris and yellow daffodils. A lavender wisteria vine climbs the side of the window opposite the daffodils and festoons itself across the window's decorative arches.

In contrast to the abstract iris which border the blue-green lake, realistic yellow daffodils are depicted in unmistakable characteristic positions with trumpets at various angles: profile, three-quarter view, slightly forward. Flowers are also shown from behind. A mass, composed of individual slender, tall, green daffodil leaves with a naturalistic bend, arches across the lower portion of the stained-glass panel. To avoid the artistic difficulty of rendering the perspective of the landscape's middle ground, the group of daffodils has been placed on a slightly rising hill, to cause a logical transition from the foreground to the background.

In the same way, a strategically placed daffodil plant with two small flowers facing forward aids in the landscape perspective in the Tennessee memorial window at Blandford Church, Petersburg, Virginia.

Blandford Church, converted in the early nineteenth century from a deserted colonial church to a Confederate shrine, contains fifteen Tiffany windows. Each of eleven former Confederate states donated a figural stained-glass window to honor its deceased sons and more than 30,000 other Confederate soldiers buried in Blandford cemetery. Each of the figural windows at Blandford, one of only a few churches to have all Tiffany windows, features a five-foot tall figure of a Christian saint posed on a bluff before a landscape. In the Tennessee window, where St. Philip is portrayed, two small daffodil blossoms, with individually delineated leaves, mark the edge of St. Philip's bluff. They add a light color accent to relieve the mass of green foliage that hides the unseen middle ground of the window.

Made with the same materials and by the same technique as stained glass windows, Tiffany's leaded lampshades featuring daffodils were some of his studios' most popular items. The shape, size, position and placement of daffodils on the lampshades created patterns that favored two basic designs: one of inverted daffodils and the other of all-over, distributed daffodils. In each, units of daffodils were repeated several times around the lampshade. Some designs were repeated as many as four times, and often two different units of daffodil clusters would be alternated on the periphery of a dome or cone-shaped lampshade.

In the inverted daffodil design the whole daffodil plant, flowers and foliage, was actually positioned upside down to cover the wide, lower portion of a cone-shaped lampshade to place the main element of design at, or just above, eye level.

An inverted daffodil pattern was used to decorate the cone-shaped shade of a table lamp, identified in the 1906 Tiffany Studios' catalogue as number 1479, now in the collection of the New York Historical Society. The inversion of the daffodil plant is visually emphasized by the long,

ribbon-like, green leaves and stems which, because of the inversion, have their largest part (or base) at the top of the small opening of the conical lampshade. The leaves taper naturally as they meet the abstract daffodils encircling the wide lower rim of the lampshade. Positioned as they would grow, but inverted, the abstracted yellow-orange daffodils, placed in five repetitive clusters about the shade, have trumpets formed by circles and petals formed by pointed rectangular pieces of leaded glass. Tiffany Studios used the same inverted daffodil prototype for cone-shaped lampshades, the only difference being their background colors: green, blue, and multicolored. The original list price for these lampshades was one hundred dollars. Now they are worth an estimated six to seven hundred dollars.

The all over distributed daffodil motif for Tiffany's cone and dome-shaped lampshades had several variations. They utilized, in most instances, recognizable, yellow daffodils in natural (non-inverted) growing positions, and distributed them singularly or in clusters over the entire lampshade with leaves and stems filling in the remaining space.

Large daffodils, usually in all stages of development, and in full, profile or three-quarter views, were placed at various heights or locations on the lampshades to decorate as much area as possible. In one instance, shade number 1448, a dome shade, has thirty single daffodils positioned seemingly at random, but actually the daffodils, which face in different positions, are really in a traceable order which is repeated three times around the shade.



Left, Cone Lampshade in all over distributed daffodil motif; right, Lamp No. 5230, daffodils and a second flower.

Tiffany was fascinated with color. Different color tones and tints, such as yellow-orange, two-tone yellow, and orange with yellow tints, are used in the daffodils on his various lampshades. Daffodil foliage was done in tints of green, sometimes streaked with yellow. To accommodate a pattern, each leaf, whether bending or straight, massed or single, tapers to a point and in most lampshades is constructed as one long, continuous shape. The leaves on lampshade number 1449 in the Egon and Hildegard Neustadt Collection, and identified by them as the Long Stemmed Daffodil lampshade, are treated differently: they are formed by extra long leaded rectangular segments of glass and create the impression of a mosaic.

Glass geometric mosaic pieces form daffodil flowers and foliage in the base of Tiffany's famous Spider Web lamp. Designed about 1900, the lamp derives its name from the spider web motif on its shade. Encased between the bronze up-rights supporting this fifteen inch high table lamp are mosaic daffodils. The tall leaves and stems of the flowers are constructed of unequal, rectangular segments of green glass. The texture and visual quality of the daffodil plant in the lamp's base change with the lighting of the lamp. When the lamp is unlit the daffodil plant appears solid and rigid, the flowers placed and unmoving. When the Spider Web lamp is lighted, the light shines through the base and transforms the flowers and foliage into fragile, supple, and almost living three-dimensional replicas of their natural counterparts. Hugh McKean believes that very few Spider Web lamps were made. The exact number was not recorded by Tiffany Studios, but Robert Koch, an authority on Tiffany and his works, has located six lamps decorated with this motif.

It is unusual for more than one variety of flower to appear on a Tiffany lampshade. In 1917 Tiffany decorated a twenty-inch cone-shaped lampshade using daffodils and a second flower distributed in distinct bands or zones. In the upper six inch portion of the lampshade, now in the New York Historical Society, sixteen extra-long, trumpeted, individual daffodils are arranged in a staggered, four times repeated pattern. The daffodil heads are positioned to be seen from above so they are bent slightly forward. The flowers on the lower row dip into the band of geometric white blossoms in the lampshade's lower border where their leaves and stems originate. The forty-eight orange-centered, abstract flowers on the lampshade's rim are perhaps a variety of poeticus.

Individually blown glass vases adorned with flowers were one of Tiffany Studios' later successful commercial ventures. The daffodil motif decorated many of Tiffany's well received paper weight vases. The manufacture of a heavy paperweight vase was similar to the production of a decorative paperweight, hence the name. Flowers in paperweight vases were formed by the insertion of long glass rods or canes of various colors with contrasting centers, cut crosswise and embedded into the hot glass vase, creating the impression of daffodils or other flowers. Decorated by this method, with small flowers resembling daffodils, is a fifteen-inch high paperweight vase in a private collection. Formed by canes, the white petaled flowers appear to float and to have no physical connection to their foliage which, blown into the glass vase, is not as realistic as leaded,

lampshade leaves, but does have the sensuous, rhythmic qualities of daffodil leaves blowing in the wind.

In most of Louis Comfort Tiffany's work his love of nature is evident. His preference for flowers, especially daffodils, was reflected in the planting at his estate, in his original designs for the Daffodil Terrace and the base of the Spider Web lamp. Not able, because of the size of his glass business, to design each and every item his studios produced, he retained artistic control by approving, even after his retirement, designs for all items made at his factory, thereby reinforcing his choice of subjects and themes. Tiffany's daffodils, whether abstract or realistic, formed by leaded pieces of glass, mosaics, or glass canes, have the visual and naturalistic quality of the living plant. Through his artistic genius the thousands of radiant and colorful daffodils that once bloomed at Laurelton Hall continue still to retain their beauty in many of his stained-glass windows, countless lampshades, and numerous vases.

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THE DAFFODIL DATA BANK AND YOU

TOM D. THROCKMORTON, M.D., *Des Moines, Iowa*

The *Daffodil Data Bank* was born one hot and humid autumn afternoon in Hot Springs, Arkansas, in 1963. In those days, Hot Springs was regarded by many as Sin City—complete with casinos, girlie shows, and even horse race gambling. Also, bath houses, said to be for medicinal purposes. Having taken advantage of several Hot Springs' attractions on the previous evening, I sat in a torpor while the afternoon Fall Board Meeting of the A.D.S. droned on. I fell to thinking. A lot of people knew a lot about daffodils—but they were not writing about it nor was it being gathered together in some central location where it could be made available. Gradually, fascinating things about daffodils were drifting into the wings of obscurity to become irretrievable. This thought bothered my relaxation like a droning fly.

At that time I had access to an early IBM computer which was used for medical diagnostic studies. The purpose of all computers is the storage, retrieval, and processing of data. Why not daffodils? Indeed, why not?

After I returned home I fell to wondering what daffodil information was available and its real extent. How concentrated could I make it? Computers used cards in those days, and each card could contain no more than 88 characters. However, codes and abbreviations could be used and solved by the computer. I finally decided most daffodil information could be accumulated under the following headings:

1. Name of the cultivar—we called them clones in those days.
2. Seed parent.
3. Pollen parent.
4. Name of the breeder.
5. Classification—really this only described the physical attributes of the variety.
6. Color code—some means of inserting color into a previously black-and-white description.
7. Season of bloom.
8. Height of plant.
9. Chromosome count.
10. Fertility data.
11. Date of registration or introduction of the cultivar.

I can only wish I had the foresight to have added a code indicating the source of my information. It's far too late now! The chromosome data is still in the bank but is not included on most print-outs since it proved of little interest or importance. But it's there!

Since the inception of this scheme, only two small changes or additions have been made in the *Daffodil Data Bank*: the use of a perianth color as part of the recognized classification, and the addition of a V to indicate a cultivar subject to foreseeable variations. The beginnings were reasonably farsighted and now data in some degree is available on 12,455 daffodils.

What were the sources of this information? I suppose the bulk of it came from the *Royal Horticultural Society Daffodil and Tulip Yearbooks*. Only rarely were real compilations of data found therein, but hundreds of articles and accounts of exhibitions contributed names, colors, breeders, etc. Annually, fascinating accounts of daffodils and their aficionados were authored by the late Guy Wilson. And daffodil information was obtained from hybridists and exhibitions reported from down under. Of course, the occasionally printed *R.H.S. Classified List* was helpful in adding official information to chance accounts. My earliest copy of the *Classified List* is that of 1950—when the knowledgeable were talking easily of “barrii, leedsii, and incomparabilis.” The translation of some of these writings into meaningful computerese has not always been easy—and I am the first to admit some inaccuracies on this score may exist.

Other sources were the catalogues of the early great hybridizers—my collection extends back to the late 1930s. I have had reams of correspondence with them, dating back from Guy Wilson, Richardson, Dunlop, and through the late John Lea, all three Jacksons, and our American hybridizers, all wonderfully interesting. In those days the Dutch did little to reveal the ancestry of their creations. After considerable correspondence, lubricated by Matthew Zandbergen, the Koninklijke Algemeene Vereeniging Vorr Bloembollencultuur, (Royal General Bulbgrowers Society to you) came to my rescue with a number of Dutch daffodil parentages. The members have been most cooperative. And not least, The Royal Horticultural Society has more recently supplied to me a list of new registrations, together with helpful breeding and description information. This source is, of course, the “gold standard” and cooperation has been good, especially in the last several years when a full-time person has been assigned to unravel some of the complexities of their data accumulations. The cooperation of Mrs. Kate Donald has been most welcome.

Now that we have the data in the computer, what is to be done with it? Computers not only hold and store, in various fashions, but are also capable of processing the information to individual tastes. Herein lies the magic!

At this last Board Meeting of the American Daffodil Society, I gave my annual report on the *Data Bank*. After brief discussion, someone made the motion that I write for the *A.D.S. Journal*, a list of the capabilities of our *Data Bank*. There are many of which you probably are not familiar, and I strongly suspect I will be accused of telling you more than you really want to know.

It is the “computer program” that allows the machinery to respond to your requests. This is the “brain” of the thing and two programmers watch over this capacity. Every year something seems to be changed or added—the programmers say it is to simplify the operation. I suppose this is true. The first *Stud Book* was about two-thirds the size of the current one and took six hours of machine time just to think out the relationships before printing the book. Last month it required just twelve minutes.

None-the-less, it is the program which permits the computer to retrieve and process its contained data to your tastes.

The current possible formats are:

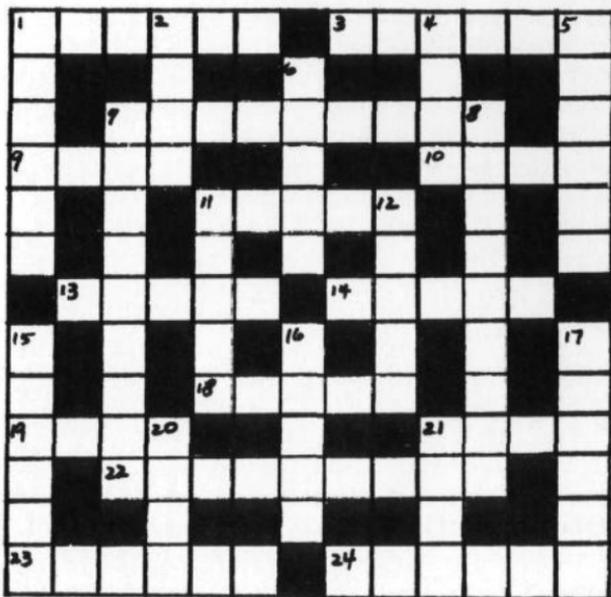
1. All pertinent information about any cultivar in the data file.
2. A list of daffodil breeders.
3. A list of daffodils bred by any known hybridizer.
4. A list of daffodils in any classification—by perianth color if desired.
5. A list of daffodils by coronal color—by zones if needed, i.e., a list of pink daffodils may be provided, or a list of pink rimmed cultivars is available.
6. A list of cultivars thought to have variable coloration because of genetic factors, i.e., reversed bicolors or toned daffodils.
7. A list of cultivars with certain chromosome counts (if they are known).
8. Lists by dates of blooming—from extra-early through late and even those out of usual season, i.e., as certain fall-blooming varieties.
9. Lists by heights in four categories, from miniature to tall.
10. Information about seed and pollen fertility of varieties, if known, or if the cultivar has progeny.
11. The date of registration—may be enlarged to permit lists of all registrations during a certain time period, i.e., 1965-1970.
12. If cultivars are not registered this fact is so noted and the date of introduction or earliest information can usually be had.
13. A list of the progeny of any cultivar can be had, divided as to seed or pollen parentage. As an example: Green Island has been the seed parent of seventy-nine cultivars and the pollen parent of another forty. Even little *asturiensis* has been seed parent to thirteen children and pollen parent to five.
14. Family trees of daffodils can be had back seven generations. This is a difficult program and only available for well defined purposes.
15. *Daffodils To Show And Grow* is automatically updated each year, and as such, can be made available.
16. *The Classified List*, i.e., the list of registered daffodils and so recognized by the R.H.S. can be obtained. This is for cultivars only contained in the bank—many old registered cultivars on which no information is available may not be included.
17. *The Daffodil Stud Book* is an utterly unique print-out. It contains all information about all cultivars, plus all the data on the offspring of each cultivar and on the parents of each child. That is, the cultivars are listed plus their children and their grandparents. For those interested in line-breeding this can be a marvelous help. It is not available except to the library of the A.D.S. where a current copy is maintained. It does not leave the library on loan.

As mentioned above, these are the various forms in which daffodil information may be obtained. Necessarily some fee must be charged for the production of these lists—a fee which goes to the computer personnel who do the work. It is probable that simple bits of information or small listings can be had at a rate of five lists for \$10.00. More complex listings must be charged at individual rates, i.e., from \$5.00 to \$15.00 each. Please order these through the Executive Director of the A.D.S. Additional postage may be expected.

Thus, the *Daffodil Data Bank* is at your service. Some delay may be expected since the print-outs are available only on free computer time. Give it a try! You just might find something fascinating—or at least settle a bet.

NOT THE *TIMES*, BUT CERTAINLY ALL DAFFODILS

(From the British Daffodil Society *Newsletter*, Summer, 1985)



ACROSS

1. One of the heavenly twins (5 W-W)
3. A seeker of direct contact with God (3 W-GWO)
7. A colored water-lily? (2 W-P)
9. A Warwickshire river (2 W-W)
10. Web-footed sea-fowl from Oregon (2 W-GWW)
11. A unit of heat (3 Y-R)
13. A Reg Wootton 3 W-O or a Bulman 1 Y-Y

14. Sun ' ', a Bloomer 3 Y-R
18. A belted constellation (2 W-O)
19. A town in Oregon (2 Y-Y)
21. A web-footed water-fowl (1 Y-W)
22. A form of gypsum but with refinement (4 W-W)
23. A group of wanderers (2 W-W)
24. A direct beam from the center of the solar system (2 Y-Y)

DOWN

1. Don ' ' (2 W-R)
2. Should be neat and tidy (7 Y-YOO)
4. Lying close and warm (1 W-W)
5. Curved billed moorland bird (7 W-W)
6. An airman? (11 Y-Y)
7. Elevated plateau east of Andes (2 Y-R)
8. Worshipper of solar energy (2 Y-R)
11. The Lone Ranger and ' ' (3 W-R)
12. Commercial center of Italy (9 W-GYR)
15. Fine cotton fabric (12 W-W)
16. A competitor (6 YG-Y)
17. Irish fishing town (2 Y-Y)
20. Russian seaport (2 W-GYP)
21. Aquatic fowl (3 W-WGW)

(Solution, p. 173)

HERE AND THERE

The Christian Science Monitor of May 22, 1985, included an interesting article titled "World Champion Grower Brings 10,000 Daffodils to Famous Chelsea Show" by Christopher Andreae. The article is about Michael Jefferson-Brown, who each year refrigerates his blooms in order to have them for the Chelsea show in late May. Next time your family complains about the daffodils in the refrigerator, tell them about Mr. Jefferson-Brown!

Our Dr. Harold Koopowitz has been elected as one of the five Directors of the Board of Directors of the American Plant Life Society.

From California comes word of the death of Maurice Worden of Mill Valley. Mr. Worden had served on the ADS Board of Directors and was a student judge. Our sympathies to his family.

Those of you who have enjoyed *The Little Bulbs: A Tale of Two Gardens* and *A Southern Garden* by Elizabeth Lawrence will be saddened to learn that she died in a Maryland nursing home at 81 last June.

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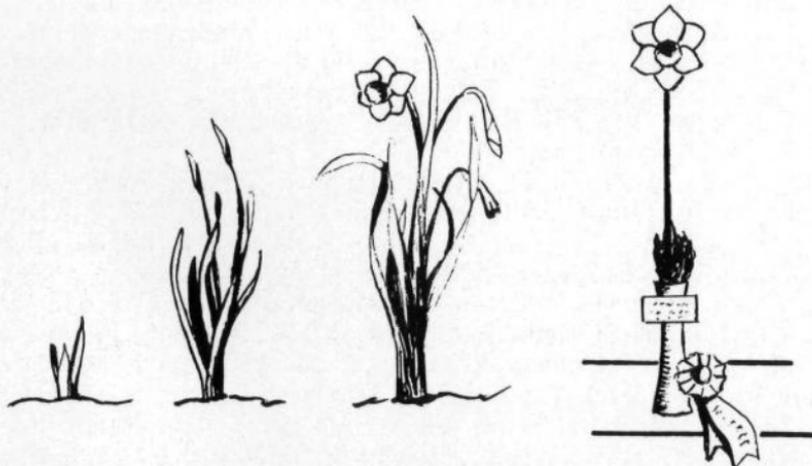
1986 DAFFODIL SHOW DATES

MRS. HUBERT BOURNE, *Awards Chairman*

- March 8-9—Fortuna, California. The Fortuna Garden Club at the Fortuna Monday Club House, Sixth and Main Streets. Information: Mrs. Christine Kemp, P. O. Box 212, Fortuna, CA 95540.
- March 14—Dallas, Texas. Southwest Regional. Texas Daffodil Society at the Dallas Civic Garden Center, Fair Park. Information: Mrs. James R. Walther, 7244 Ashington, Dallas, TX 75225.
- March 15-16—Clinton, Mississippi. Mississippi State Show. Central Mississippi Daffodil Society at the B. C. Rogers Student Center, Hall of Fame, Mississippi College. Information: Dr. Ted Snazelle, 418 McDonald Drive, Clinton, MS 39056.
- March 15-16—Walnut Creek, California. Pacific Regional. Northern California Daffodil Society at Heather Farm Garden Center, 1540 Marchbanks Drive. Information: Mr. Fred Froid, 16 Sanchez Street, San Francisco, CA 94114.
- March 16-17—Little Rock, Arkansas. Arkansas Daffodil Society and Arkansas Federation of Garden Clubs at the Robinson Convention Exhibit Hall. Information: Mrs. Jesse Cox, 228 Daffodil Lane, Hot Springs, AR 71901.
- March 22-23—Atlanta, Georgia. Southeast Regional. Georgia Daffodil Society at the Atlanta Botanical Garden, Piedmont Park. Information: Mr. V. Jack Yarbrough, 3700 Thaxton Road, S. W., Atlanta, GA 30331.
- March 22-23—La Canada, California. Southern California Daffodil Society at the Descanso Gardens, 1418 Descanso Dr. Information: Ms. Marilyn Howe, 11831 Juniette, Culver City, CA 90230.
- March 27—Oxford, Mississippi. Oxford Garden Club at the Lafayette County-Oxford Public Library. Information: Mrs. Will A. Hickman, 206 St. Andrews, Oxford, MS 38655.
- March 29-30—Nashville, Tennessee. Middle Tennessee Daffodil Society at Cheekwood Botanical Gardens, Forrest Park Drive. Information: Mrs. Alex Taylor, Rt. 6, Pinewood Road, Franklin, TN 37064.
- March 29-30—Chapel Hill, North Carolina. Garden Council of Chapel Hill and Carrboro and the North Carolina Botanical Garden, Totten Center, North Carolina Botanical Garden. Information: Dr. Elise Olsen Cheesborough, 109 Carolina Forest, Chapel Hill, NC 27514.
- April 3-4—Memphis, Tennessee. National Show. Garden Study Club of Hernando and Arkansas State Daffodil Society at the Memphis Airport Hilton Inn, 2240 Democrat Road. Information: Mrs. Barry Carter, 4671 Highway 304 West, Hernando, MS 38632.
- April 5—Princess Anne, Maryland. Somerset County Garden Club at the Peninsula Bank of Princess Anne. Information: Mrs. Margaret Snyder, 48 Beechwood Street, Princess Anne, MD 21853.

- April 5-6—Gloucester, Virginia. Garden Club of Gloucester at the Gloucester Intermediate School, Route 17. Information: Mrs. Carroll W. Bartlett, Route 3, Box 703, Gloucester, VA 23061 or Mrs. Arthur B. White, Ware Neck, VA 23178.
- April 11—Scottsburg, Indiana. Indiana Growers South at the Catholic Church Parish Hall. Information: Mrs. Verne Trueblood, R. F. D. 3, Box 187-A, Scottsburg, IN 47170.
- April 12-13—Williamsburg, Virginia. Mid-Atlantic Regional. Tidewater Daffodil Society at the Williamsburg Hospitality House, Richmond Road and Virginia Avenue. Information: Mr. H. deShields Henley, 115 Conifer Road, Newport News, VA 23606.
- April 15-16—Louisville, Kentucky. State Show. Kentucky Daffodil Society at the Oxmoor Center, Shelbyville Road. Information: Mrs. Richard Roof, 249 Cardinal Lane, Paducah, KY 42001.
- April 17—Upperville, Virginia. The Upperville Garden Club at the Trinity Church Parish Hall. Information: Mrs. William Tayloe, Route 1, Box 205, Middleburg, VA 22117 and Mrs. Mary Holsinger, Box 36, Upperville, VA 22176.
- April 18—Wilmington, Delaware. State Show. Delaware Daffodil Society and Pennsylvania Daffodil Society at the St. Albans Episcopal Church, 913 Wilson Road. Information: W. R. Mackinney, 535 Woodhaven Road, West Chester, PA 19380.
- April 18-19-20—Edgewater, Maryland. London Town Public House and Gardens Show, 839 Londontown Road. Information: Mrs. Emerson Smith, 807 Janice Drive, Annapolis, MD 21403.
- April 19—Chillicothe, Ohio. Adena Daffodil Society at the Veterans Administration Medical Center, Building No. 9. Information: Ms. Mary Rutledge, 704 Ashley Drive, Chillicothe, OH 45601.
- April 19-20—Cincinnati, Ohio. Southwest Ohio Daffodil Society at the Delhi Garden Center (Tri-County), 135 Northland Boulevard. Information: Ms. Pat Kipp, 3878 Lincoln Road, Cincinnati, OH 45247.
- April 19-20—Washington, D. C. Washington Daffodil Society at the U. S. Botanic Garden, Maryland Avenue & First Street, S. W. Information: Dr. Adrienne Whyte, 6704 West Falls Way, Falls Church, VA 22046.
- April 22-23—Chambersburg, Pennsylvania. Northeast Regional. Chambersburg Garden Club at the First Lutheran Church, 43 W. Washington Street. Information: Mrs. Owen Hartman, 105 Farmington Road, Chambersburg, PA 17201.
- April 23-24—Baltimore, Maryland. Maryland Daffodil Society at the Brown Memorial Woodbrook Presbyterian Church, 6200 N. Charles at Woodbrook Lane. Information: Mrs. Michael B. Rafferty, 5 Mill Brook Road, Baltimore, MD 21218.
- April 24—Indianapolis, Indiana. Midwest Regional. Indiana Daffodil Society at the Meridian St. Methodist Church, 5500 N. Meridian St. Information: Mrs. Robert H. Brunner, 610 College Lane, Indianapolis, IN 46240.
- April 24—Greenwich, Connecticut. Greenwich Daffodil Society at the Christ Church, 254 E. Putnam Avenue. Information: Mrs. Clark T. Randt, 59 Husted Lane, Greenwich, CT 06830.

- April 25—Short Hills, New Jersey. New Jersey Daffodil Society at the Community Congregational Church, Hartshorn Drive and Parsonage Hill Road. Information: Mrs. Robert A. Malin, 105 Wittredge Rd., Summit, NJ 07901.
- April 26-27—Mansfield, Ohio. Kingwood Daffodil Society at the Exhibit Hall, Kingwood Center, 900 Park Avenue, West. Information: Mr. Charles Applegate, Route 2, Box 163, Perrysville, OH 44864.
- April 26-27—Columbus, Ohio. State Show. Central Ohio Daffodil Society at the Upper Arlington Municipal Services Building, 3200 Tremont Road. Information: Handy Hatfield, 22799 Ringgold Southern Road, Stoutsville, OH 43154.
- April 28-29—Nantucket, Massachusetts. Nantucket Garden Club at the Meeting House, Harbor House, N. Beach Street. Information: Mrs. Herbert L. Gutterson, Box 106, Siasconset, Nantucket Island, MA 02564.
- April 29-30—Cleveland, Ohio. Western Reserve Daffodil Society at the Garden Center of Greater Cleveland, 31030 East Boulevard. Information: Wells Knierim, 31090 Providence Road, Cleveland, OH 44124.
- May 3—Akron, Ohio. Northeastern Ohio Daffodil Society at the Rolling Acres Mall, Akron, Ohio. Information: Jack Ward, 1743 Lafayette Circle, Stow, OH 44224.
- May 3-4—Chanhassen, Minnesota. Central Regional. Daffodil Society of Minnesota at the Minnesota Landscape Arboretum. Information: Mike Heger, 8015 Krey Avenue, Waconia, MN 55387.
- May 3-4—Mishawaka, Indiana. Northern Indiana Daffodil Society at the University Park Mall, 6501 North Grape Road. Information: Charles Wheatley, P. O. Box 150, Mondo, IN 46771.
- May 9-10—Dublin, New Hampshire. New England Regional. Northern New England Daffodil Society at the Dublin Town Hall, Main Street. Information: Mrs. William A. Barker, Lake Road, Dublin, NH 03444.



MIDWESTERN ACCLIMATIZED DAFFODILS for EXHIBITION and GARDEN

We are pleased to offer our third annual listing of midwestern grown and acclimatized daffodils for both show and garden. Emphasis continues to be placed on those bulbs that have proven themselves in our harsh climate.

Of special interest this year are two white trumpets of Brian Duncan's breeding that have proven themselves at Oakwood: Vicksburg 1 W-W, which won its class at the National Show at Valley Forge, and the large, impressive Cumberland 1 W-W.

It was most exciting to have our first trade stand at Valley Forge and to receive the Rose Ribbon award. We look forward to meeting you at Memphis in 1986.

A new home and additional growing fields have been acquired, so please note the new mailing address for Oakwood. Send now for your free 1986 descriptive catalogue.



OAKWOOD DAFFODILS

2330 West Bertrand Road

Niles, Michigan 40120

BEGINNER'S CORNER

FRANCES ARMSTRONG, *Covington, Virginia*

In southern California and the deep South, daffodil show time is underway and gardens there are in peak daffodil bloom. For those of us in cooler climates, March is also an exciting month. We pull the leaves and mulches away to find emerging foliage, we search for our first bloom and on sunny days we clean up garden debris left from fall. Soon our exhibition time will arrive also—for a daffodil lover, the most exciting time of the year.

We hope you have already written for schedules of daffodil shows in your area. Read them carefully and plan the classes in which you may have blooms to enter. If you find you may want to enter a large number of classes, request an exhibition number and entry cards, enclosing a check to cover costs of mailing. Filling out entry cards ahead is a great help in entering your daffodils on time. Be certain your blooms are properly named and classified before you leave home. There will be people at the show to help you classify but it is almost impossible for them to give you correct names. That is your responsibility. Being with other daffodil growers in the hustle and bustle of a show is great fun. If you are shy about entering, perhaps you might volunteer your services to the show. Was there ever a show that couldn't use more help?

Spring is also the time to plan new bulb purchases. Write to the advertisers in our *Journal* for catalogs or price lists. Watch for distinctive and attractive daffodils at the shows and make your lists for early ordering.

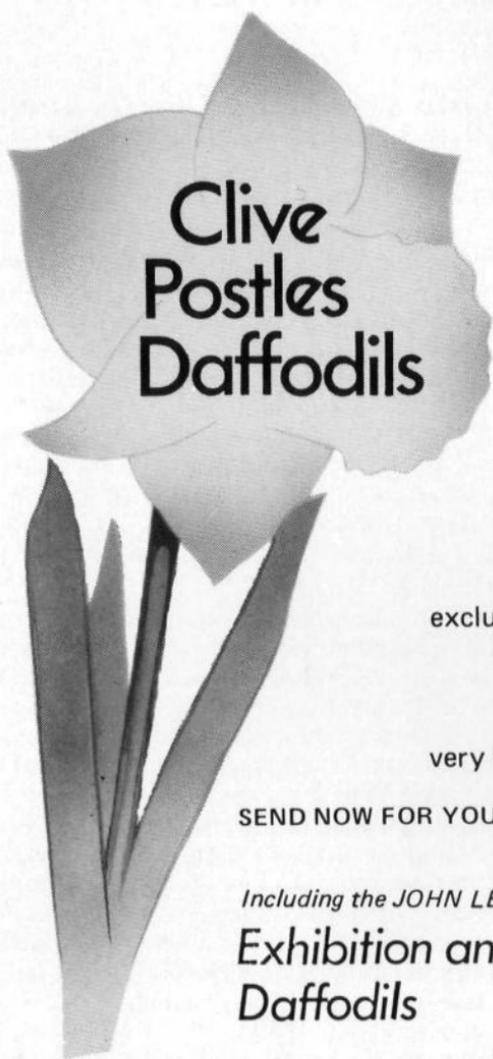
In the garden, attention to foliage is most important. Look for signs of virus in the emerging foliage. Yellow streaks and mottling, most easily seen early in the season, indicate virus disease. Dig the bulb and burn it or place it in a bag and send it off to the garbage dump.

Don't forget to nurture your foliage after flowering. The size of next year's bulb and bloom depends entirely on this year's good foliage growth. Continue watering unless the temperatures become very high. The combination of heat and moisture encourages basal rot in daffodils.

Mark clumps of daffodils that have become too thick. Plan to dig and divide them when the foliage begins to fall over and die. Digging is much easier when some foliage remains to guide you to the bulb.

CROSSWORD - Solution

Across: 1. Castor; 3. Mystic; 7. Pink Lotus; 9. Leam; 10. Gull; 11. Therm; 13. Agena; 14. Gleam; 18. Orion; 19. Scio; 21. Teal; 22. Alabaster; 23. Nomads; 24. Sunray.
Down: 1. Carlos; 2. Trim; 4. Snug; 5. Curlew; 6. Flyer; 7. Patagonia; 8. Sunbather; 11. Tonto; 12. Milan; 15. Muslim; 16. Rival; 17. Galway; 20. Olga; 21. Tern.



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W. E. H. HODSON AND THE FLY

JEAN MANFREDI, *Amherst, Massachusetts*

This article is aimed at providing information culled from a source that may not be readily available to readers of *The Daffodil Journal* but which may be helpful in working out schedules for the application of soil drenches in control of *Lampetia (Merodon) equestris*. Whether from environmental or economic concerns, we surely want to use these drenches to maximum advantage when we resort to them. Dr. Snazelle's excellent article in the *Journal* of September 1980 and the U. S. Department of Agriculture Leaflet No. 444 to which he refers suggest that the drench be applied during or at the beginning of fly activity (early May to June.) The premise of the present article is that with more detailed information about the life history, biology and habits of the fly each of us can begin to work out regionally individualized schedules for optimum success with drenching and other methods that augment control during the period of fly activity and that just prior to emergence. The most detailed study of these matters that I have discovered has been W.E.H. Hodson's article "The Large Narcissus Fly, *Merodon equestris*, Fab. (Syrphidae)," in the *Bulletin of Entomological Research*, Vol. XXIII, 1932.

I discovered this article last summer not because I was trying to work out a soil drench schedule, but because in the five days after my first Dursban drench on June 5th and 6th (first fly sighted on May 29th) I discovered that the flies I was netting with my butterfly net were almost all male. It was hard to avoid the jubilant surmise that the drench was zapping most of the females as they went about their egg-laying at the base of the leaves. However caution indicated that there were other possibilities. Were males perhaps unusually preponderant in daffodil fly populations? Were males, because of their carefree noisy life, easier to notice as they zigzagged about and easier to net as they settled on flowers to sip honey? I decided to search for information about male/female ratios in syrphid populations not really expecting to find anything as specific as Hodson's article or in fact the clear-cut explanation of my high male take in those early days of the season. (It was right there in the information that males tend to emerge earlier than females.)

The wealth of information provided by Hodson and others whose work he cites is probably basic to the summary material readily available to us. The Hodson article should be read in its entirety as its detail really defies adequate summary even for the use I am suggesting. I shall rely heavily on quotation and deal primarily with aspects of the life cycle and habits from the emergence of the larva from the bulb to the entry of the larva of the next generation into the bulb since this would seem to be the period susceptible to control by poison drenching, covering, cultivation, and netting.

Hodson's work extended over a period of eight seasons in association with the commercial bulb industry in England. After giving a brief history of the fly's first appearances in England, United States, and Canada, he proceeds to describe the morphology of the fly in its various phases, then to discuss the various bulbous plants attacked, (as to the particular types of daffodil preferred he thinks that the critical factor is not the type but "the condition of the soil and foliage of any given variety at the time of maximum oviposition"). He then gives details of observable symptoms of attack. (In planted bulbs, weak yellowish distorted foliage, if any, from affected bulbs, or circles of 'grass' from adventitious buds when the central bulb has been destroyed.)

In relation to the biology of the fly he discusses number of generations, occurrence of adult flies, longevity of adults, proportion of sexes and coloration of flies. Relative to the first of these headings he contends with Broadbent* and against Bliss* that there is never more than one generation a year. In connection with the occurrence of adult flies he concludes that "the normal flight period in England extends approximately from the first or second week in May until the end of June." (However his notes for seven years show extremes, at one end of the period, of April 20 in 1925 and at the other end, of July 9th in 1931.) The paragraphs of greatest interest to me in connection with my own observation of netted flies last season I shall quote in their entirety:

Logevity of adults

Large numbers of flies have been bred in captivity and confined both in small cages and in insectaries in which they were provided with a close approximation to natural conditions. Females, whether fertilized or not, lived considerably longer than males. The shortest life of a female was 5 and the longest 24 days, the average being 17 days. Males varied from 6 to 18 days and averaged 11 days.

Proportion of sexes

Many hundreds of flies were bred. Of the total 54.4% were females and 45.6% males. This ratio is of interest in that it agrees exactly with that found previously by Bliss* and is remarkable in that Bliss's figure refers to captured flies whilst the writer's concerns bred individuals. It was noted that approximately up to the end of May males were the more numerous sex, whilst during June females become increasingly predominant. This is due to two factors, the relatively earlier emergence of males and the longer life of the females.

Hodson concludes that while there appear to be considerable varietal differences in coloration, "the flies mate irrespective of colour, that the varieties are both cross and self fertile. . ."

In relation to the habits of the adult fly he discusses emergence from the pupa, feeding, response to sunlight and temperature, copulation and oviposition.

Emergence from the pupa "is effected through a large orifice at the anterior end of the pupa. . . . The fly climbs any prominence nearby and very soon becomes fully matured. Ninety per cent of the flies emerge between the hours of 8 and 10:30 A.M. and none has been observed to emerge after mid-day. In newly emerged females the ovaries are small and the whole abdomen is packed with fatty globules, maturity" (sexual implied) "not being arrived at for several days. Males are sexually mature 24 hours after emergence."

"In captivity flies thrive upon dilute sugar or honey solutions....In the field flies may often be taken at flowers. Some preference is shown for those of various members of the order Compositae, notably the common dandelion. Flowering shrubs are visited and also, rather strangely, the large pink flowers of *Mesembryanthemum*. . . ." In my garden the favored flowers are the pink blossoms of *Geranium sanguineum prostratum*.

"The flies are never active on dull days, even if the temperature be as high as 70°F. In bright sunshine they may be quite sluggish at 68°F. if conditions be at all windy. Also there is an invariable tendency for flies to congregate in the warmest and most sheltered spots."

Copulation "invariably takes place in bright sunshine accompanied by a high temperature. Conditions being suitable, flies of both sexes settle in sunny spots and call to one another by means of a high-pitched vibration note which is clearly audible for some considerable distance. The note, which is produced apparently in the thoracic spiracles, is maintained for periods varying from a few seconds to two minutes, and at the conclusion short rapid darting flights are made. The male seizes the female by the thorax whilst in rapid flight and forces her to the ground. He then backs down her body and effects union, meanwhile clasping the thorax with the first pair of legs. The female sits motionless whilst the male, at frequent intervals, rapidly vibrates the wings and abdomen, again emitting the high-pitched call-note. At completion the male falls sideways and almost immediately flies away, the whole procedure occupying from 2-3 minutes.

"Males are sexually mature 24 hours after emergence and females rarely copulate until the fourth day after the emergence, the most usual day being the 6th or 7th, oviposition commencing 3-6 days later. To take a specific and typical case, a female emerged on 8th June, copulated on 15th June, commenced to oviposit on 21st June and continued daily until death on 30th June."

Hodson calculates that of the 160-200 eggs found on dissecting a female only about forty eggs are likely to be laid under normal English weather conditions. This takes into account the fact that "oviposition only takes place under sunny and warm conditions." Dr. Snazelle's range of 40-75 probably takes U.S. weather into account.) "In captivity a fly will lay fifteen or twenty eggs on and around one bulb, but in the field one egg to a bulb is the normal procedure, although very occasionally an individual will lay two, three, or four consecutive eggs on one plant."

“Egg mortality is high, ranging usually somewhere in the neighbourhood of 30% and rising in periods of adverse weather to nearly 90%. Dry hot weather shrivels up all eggs laid in exposed positions, whilst a spell of a few days of unduly wet conditions destroys nearly all eggs both above and below ground. . . . All viable eggs have been found to hatch between the 10th and 15th day after being laid.

“Fryer* has described the oviposition in some detail, and the writer cannot do better than include a very brief abstract of his observations, which were made on a narcissus bed. ‘The fly settles repeatedly on the foliage and ground, finally crawling to the centre of a plant. Here not infrequently is a hole $\frac{1}{4}$ inch or more in diameter left by the dying down of leaves and stem and extending below ground to the bulb itself. The fly backs down the hole and lays an egg on the earth forming the sides of the hole or less frequently on the leaves near the neck of the bulb. If the hole is blocked by earth or leaves the egg may be laid on earth at the edge of the hole or under lumps of earth lying near. No eggs were found in the foliage above ground.’

“The writer has had ample opportunity for observing egg-laying, such observations, to a very large extent, bearing out those of Fryer*. A point of difference is that eggs have frequently been observed to be deposited actually exposed on the soil surface and on dead leaves above ground. Such eggs rarely hatched, and even when they did so the chance of a larva successfully locating a bulb appeared to be singularly slight. Also, whenever the fly found it possible, eggs were actually tucked between the fractured ends of the outer scales surrounding the bulb neck. A point which Fryer* omitted to mention was the manner in which a fly preparing to oviposit extends the ovipositor. This is repeatedly extruded and withdrawn, the sensitive tip seeking actively for a suitable cranny in the soil, or space between the bulb-scales. When such a site is found the fly remains stationary until the egg is laid, a matter of some minutes.”

Hodson discusses habits of the larva under the following headings: entry into the bulb, larval mortality, larval behavior in bulbs, migration from bulb to bulb, rate of larval growth, reasons for variation in rate of growth and departure of larvae from bulbs. For this article notes and quotes will be taken only from the first two and last sections.

“The larva emerges from the egg through a ragged hole which it bites in the side in close proximity to the smaller end. When newly emerged, as described elsewhere, the larva is markedly dissimilar from the later instars and is exceedingly active.

“The basal region of the bulb is certainly the usual point of entry. A larva hatching from an egg placed near to, or actually upon, the side of the bulb invariably travels to the base plate and enters at the point where the scale bases meet the base plate or through a depression in the plate itself left by a dead root. Larvae hatching from eggs laid between the scales usually work down between the scales until they reach the base plate, which they then enter through its dorsal surface. Occasionally the scales are too tightly packed together for the larva to progress between them,

when entry may be made direct into a fleshy scale in the vicinity of the neck of the bulb.

“Attention has already been directed to the high rate of mortality amongst the ova. Similarly, mortality of newly emerged larvae is considerable.

“Therefore, taking all factors into account, we may expect the progeny of a single female fly to number about twelve at maturity.

“Expressed in round figures a normal larva remains in a bulb for 300 days. Exit from the bulb is usually made through the hole previously cut through the base plate, at least 95% of all larvae leaving the bulb through this hole. . . . In view of the considerable length of the larval life, and the variation in size amongst larvae at any given time during the period, the date of migration from the bulbs is singularly constant and varies very little from season to season. In the extreme south-west of England a few larvae leave in February and the migration commences generally during the first week in March. By mid-March 50% of the larvae have left, and only 3% remain in the bulbs by the end of the first week in April. Full records of dates are not available for other districts, but there are indications that in the eastern counties migration is approximately 14 days later.”

In the section of his article devoted to the pupal stage Hodson includes the last stage of larval activity. “Having left the bulb the larva travels slowly through the soil, leaving in its wake a definite tunnel about the thickness of a lead-pencil. In any but very sandy soils this tunnel can frequently be found and the larva traced to the end of it. The tunnel varies in length from six inches to over two feet and terminates usually at the surface level, where pupation takes place, with the anterior end of the pupa flush with the soil surface, from two to ten days after the bulb is vacated.

“In the writer’s experience the length of this stage has shown marked consistency, varying only between 35 and 40 days. At the same time it seems highly probable that it can be prolonged for a further ten or even twenty days, it being impossible otherwise to account for the total period of time elapsing between the earliest vacation of the bulbs and the appearance of the first flies.”

There are further sections in the article devoted to the rate of increase of the fly, parasites (none observed), and control measures. The latter section is extensive dealing with the following headings: cultural methods (“The measures comprise surface cultivation at the correct season, earthing up and occasionally cutting of foliage, early removal of lifted bulbs to cover, and the use of decoy heaps of valueless bulbs for the attraction of ovipositing flies.”); covering bulbs during growth (“small stocks of new and rare varieties or material saved for hybridising purposes. . . may conveniently and cheaply be covered, during the ovipositing season, by means of horizontal screens of butter muslin or hessian, stretched above the beds at a height of four feet from the ground. If the bulb beds are not of greater width than say five feet, ample light and air are provided for the plants at the stage of growth normal to the season of the year at which

protection is required.”); removal and destruction of infested bulbs (not practical because “migration of the larvae from the bulbs often commences before the symptoms are very obvious.”); swatting of adult flies (not recommended because the take is small and may include beneficial flies); hot water treatment of bulbs (recommended); submersion of infested bulbs in water containing chemicals (the presence of air pockets reduces chances of success); fumigation of bulbs (with paradichlorbenzene recommended at a concentration of 4 oz. for every cubic foot of space in the container for 120 hours, but the bulbs must be quite dry); deterrents to oviposition (deterrent materials have on the whole not been successful); and poison-bait sprays. (A great deal of attention is given to various trials in this connection. All rely on sugar solution as the medium for the poison. No mention is made of poison drenches as such.)

*It was not practical nor considered necessary to duplicate Hodson’s lengthy list of references in the present article.

PREPARING AND TRANSPORTING DAFFODILS TO SHOWS

(From a talk given by Marie Bozievich in the fall of 1984 as reported by Nancy Whitlock in the Middle Atlantic Regional Newsletter.)

Mrs. Bozievich began by giving hints for beginners. First, get the *Handbook for Growing, Exhibiting and Judging Daffodils* from the American Daffodil Society. Second, start by selecting bulbs that produce flowers that are consistent winners at shows and plant them carefully. Be sure to make notes on which flowers bloom at the time of your local shows. Third, be sure to read the show schedule carefully. Fourth, make up your labels at home and allow yourself plenty of time when entering a show.

All are helpful reminders for all of us, but then she went on to elaborate for the “old pros.” Those who want to enter the large collections must plan ahead. Some things they might consider at planting time:

- cooler or warmer planting areas;
- more or less sun or shade;
- classes to be entered.

In the spring, just before blooming time, one might throw some potash on the bulbs for more brilliant color. Be sure that your bulbs get plenty of water (at least an inch of rain a week, and if it doesn’t rain, she



recommends overhead sprinkling before flowers emerge and are open, and the soaker method after flowers are open). Water, water, water; fertilizer will never do what water will do for your flowers.

Now, it is time to look at your flowers more carefully than ever before. Enjoy getting to know their faces!

Mrs. Bozievich gave some helpful hints for cutting. If red cups begin to open too early, you can shade them with a white grocery sack. The sack should have two holes for ventilation. Then place four stakes in the ground for sack corners and turn the sack upside down over the stakes. Be sure to leave the sack above the ground for air circulation. When you are looking at flowers in the garden for cutting, you might mark the ones you have selected with a white tag. When you cut, be sure to make a list so you do not duplicate. Use a Sharpee pen (waterproof) to write names on the stem. Mrs. Bozievich warns that Division 3s with rims can burn in less than an hour. (They may even burn on the show bench if cold air hits them.) You can cut them before they open; Division 3 flowers will develop well after cutting.

Next, be sure to cut flowers when they are young and fresh. This is especially important if you are going to refrigerate. If you do refrigerate flowers, you should keep the refrigerator very cold, about 34 degrees, and very moist with a wet towel in the bottom. Everyone agreed with Mrs. Bozievich when she asked if the audience didn't feel that darkness, along with cold, retards the flower aging process.

Mrs. Bozievich advised us that she feels cutting with a knife spreads virus, and recommends breaking the stems rather than cutting.

Everyone was intrigued with Mrs. Bozievich's method of carrying flowers to shows, either local shows or those thousands of miles away. She demonstrated with chrysanthemums, laying flowers face up, side by side on a pillow of disposable diapers, in her packing box. She says that she picks flowers and packs them right in the garden and finds that perianth segments can overlap without damage. Then she uses diapers as a cushion, again, for the next row of flowers, using dressmaker's tape with three thumb tacks to hold down the flower stems. She advises when choosing a box, be sure that the box will fit in the trunk of your car. She uses a double-sided cardboard box (i.e., dressmaker's box) with building material glued to the inside for tacks to press into. She also uses both sides of the box for packing flowers.

Next Mrs. Bozievich discussed staging. She had the following suggestions:

Know what you are going to enter.

Be sure you have your entry tags made out before you get to the show.

Pack all flowers for a collection in one box.

Get all your bottles with water, etc., when you get to the show.

Be sure flowers are clean. (Mulch does help keep flowers clean in the garden.) Check for pollen in the cup and brush it out if some has fallen.

Check the schedule as you go along to be sure you are placing your blooms in the right category and entering according to the schedule.

BLOOM PROTECTION

DON BARNES, *Sheffield, England*

(from the *Journal* of the British Daffodil Society, February, 1985)

As with all flowers, the keen exhibitor will find that there is a need to adopt some system of protecting the blooms from the worst effects of the weather. With flowers coming to their peak in the period mid-March to mid-May, any form of protection must be able to cope with any combination from wind, sun, rain, sleet, hail stones, snow, etc., and often all within a single day.

The idea of protecting blooms is not new. J. Lionel Richardson made a number of pertinent comments in the RHS *Daffodil Yearbook*, 1933, including:

“It is almost impossible to exhibit high class flowers in perfect show condition unless some protection is used, as a great many varieties grow very considerably in size and substance if left to develop on the plant.”

“Varieties which open at approximately the same time . . . should be planted together”—makes protection easier.

“On no account should top protection be put on before it is absolutely necessary, and it should be taken off immediately the flowers have been cut.”

The basic principles have not changed. There is still a need to assess how the different cultivars perform with and without protection though the general principle of Division 1 and “all yellows” and “yellow/reds” in the ground with protection is a sound philosophy. The following comments are an attempt to review the approaches which are adopted by some leading growers.

The lazy, or is it prudent, exhibitor will ensure that he can move his blooms into a protected environment. This is an argument in favor of growing in pots—not only do the blooms get protected, the grower is also protected when caring for the developing blooms or cutting for the show. [ADS rules state, “all blooms . . . must have been grown in the open . . .”]

Others show remarkable ingenuity in devising systems of protection which can be assembled over the beds to protect the blooms growing in the open ground. This is obviously more laborious and time consuming, but it recognizes the fact that many cultivars produce their finest blooms in the ‘open’ ground and not in pots and it does not cause such havoc to the development of bulbs.

By implication, the various forms of protection are infinitely variable depending as they do upon effort, ingenuity, and availability of cash to purchase the materials. No one system is ideal or 100% successful and often they are used in combination. But a few comments are made about the different systems which have been seen.

Individual blooms can be protected by 'cones.' Provided the individual stem is well secured to a cane, this method can be very successful. The cone can be positioned to give full protection from rain and sun, but does need careful management to ensure that the elongating stem does not cause a misshape. Frequent checking of positioning is essential as is the securing of the stem to the cane which is best done by a spring clip.

A development of the 'cone' theme is a large polythene bag supported on canes or a basic framework. The polythene bag can cover a number of blooms and acts as a mini-greenhouse if of clear material, but if the cultivar is liable to burn, there needs to be some method of protecting the blooms from the sun.

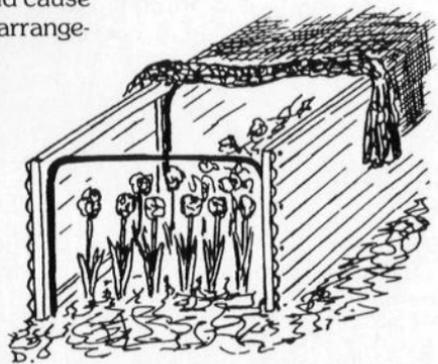
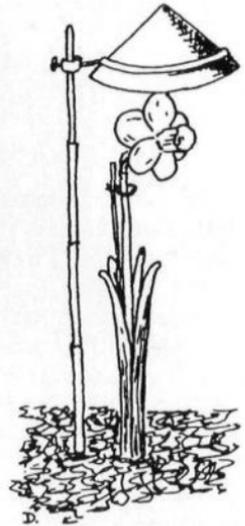
Polythene sheeting is a very versatile material and can be used in a number of different ways:

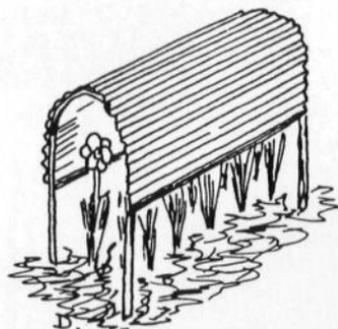
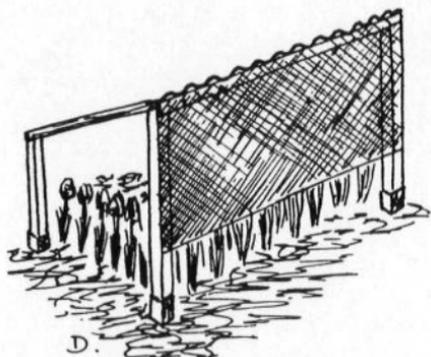
1. Commercially available tunnel greenhouses, widely used, need laying-out of the frames prior to planting of bulbs. The biggest problem is ensuring adequate ventilation. They are also problematical in relation to provision of shading to avoid the burning of cups. Indeed, some people are experimenting with these structures to produce a 24-inch 'skirt' of netting which will give some shading and free air movement and still retain the top protection.

2. Ordinary builder's quality sheeting can be used to cover small frameworks erected over beds. The problems are again ensuring that water and/or snow does not lodge on the top and cause sagging onto the blooms. Adequate arrangements must be made for ventilation and shading if this form of protection is not to create other problems.

3. Semi-rigid corrugated sheeting, either small or large section, can be used for protection. Some people use it, attached to frames, in standard sheet sizes for side protection with top protection of rokolene netting. This arrangement ensures a fair retention of moisture to create a good environment

for developing flowers, protects from wind and gives a degree of shading to the blooms. Some rigid, or semi-rigid, top covering needs to be available to protect from damage which can be caused by heavy rain or snow, but skill is needed to assess exactly when this additional protection is necessary.





Others use it as a top protection as a safeguard against any weight of snow with sides of netting and/or sheet polythene. Whilst perfectly satisfactory for protecting blooms, they may create problems of access to blooms for cutting or pollinating.

4. Small numbers of blooms can be protected by small "U" frames with small section sheeting attached. Such frames can be readily relocated, can be given added value by covering with netting shading material or cloth to avoid burning.

Glass, in the form of Dutch Lights or old window frames, is still favored by some people. They obviously have the problem of weight and inconvenience in erection, but have the advantage that it is relatively simple to attach netting, muslin or other cloth material to protect against burning of cups.

Hessian has been a traditional method of screening to protect from wind, rain, and sun. The material needs secure fastening to strong wooden frames to avoid loose material

flapping against blooms and to ensure that the total structure stands up to wind pressure.

Protection, of whatever type, should be used as late as possible to prevent stems being drawn (unless advancing of flowering is a secondary objective). It should also be taken off as soon as possible to encourage the foliage to adopt as near normal growth cycle as can be achieved.

If protection is used, it is essential to realize that the bulbs, and hence developing blooms, may not be getting the necessary amount of moisture for growth. Hence, in deciding that protection is to be used, an appropriate system of watering needs to be incorporated so that growth is not impaired and that the water is not applied in such a way as to cause other damage to blooms by tearing, splashing, or weighting down the blooms.

With any system of protection the basic needs of the developing plant and flower remain unchanged. Some systems help to create a useful buoyant atmosphere but this can be taken too far if care is not exercised. Air does need to have free access, and the ability to predict changes in conditions and set the protection, or amend it, to reflect them is important and can avoid consequential deterioration of blooms.

It is important to keep experimenting with what comes to hand; who knows, you might create the ideal conditions for a cultivar and end up with a Premier Bloom for Solihull in 1985 or 1986.

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SETTING UP A HYBRIDIZING PROGRAM

LEWIS T. TURNER, *Walkersville, Maryland*

Hybridizing can be an enjoyable expansion of your gardening hobby, with many rewards, if one sets up a workable program. When starting to hybridize flowers, the temptation is to try many different flowers from daffodils to lilies. While some can keep up with a large number of flowers, it will probably be more rewarding to start with a simple goal and set up a program to meet that goal. The following method is one which I am using in starting my breeding of daffodils this year.

What do I mean by a goal? A goal is a desired end result. It should be simple and well-defined. As you start hybridizing flowers, a goal that may seem simple can become very complex. For example, choosing to develop trumpet daffodils seems simple, but it is very broad because of the many different trumpet daffodils. It would be better to further define or limit your work in trumpet daffodils to a small group such as reverse bicolor daffodils. Once the goal has been defined, it will have narrowed down the group of flowers to a limited number from which to work.

The next step is to do some research or homework on those flowers that may be used to achieve your goal. This is where the *Daffodil Data Bank* comes in. It is well organized, easy to use, and essential to intelligent hybridizing. You can achieve some success without it, but your chances of success are greatly increased by using it. Let's use an example of reverse bicolor trumpets. Look up all the reverse bicolor trumpets and make a list of those that are in the *Daffodil Data Bank*. Next take a large card or sheet of paper and record the family history of each. Carry this back as far as you can go in the ancestry. I have included an example using Honeybird, a 1 Y-W, showing how this should be done. It will take some time. However, as you do this you will soon discover certain ancestral parents common to many in the group. Some of these ancestral parents may impart very desirable traits. That evaluation is a part of your review.

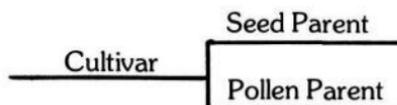
Now in the review process, you want to compile a list of candidates to use. You have already made your first list in reviewing the *Daffodil Data Bank*, and your review of that list should have developed your potential candidates for hybridizing. This list may still be large. What next in this review process? Obtain catalogs from daffodil growers and see what is available. This may eliminate some that are no longer available. Also the descriptions in many of the catalogs are excellent and should help you select those that will best achieve your goal. Another point to consider, does the daffodil you are considering have a show-record? If it does, then it has benefited from previous selected breeding and may pass desirable traits to its progeny. This one would be a prime candidate for use.

Once you have decided on what daffodils to use in breeding, develop your records to include your prior research, especially the family tree. Most of all keep records of all your crosses. The information on the parentage is very important to those who may want to use your new cross in their hybridizing program.

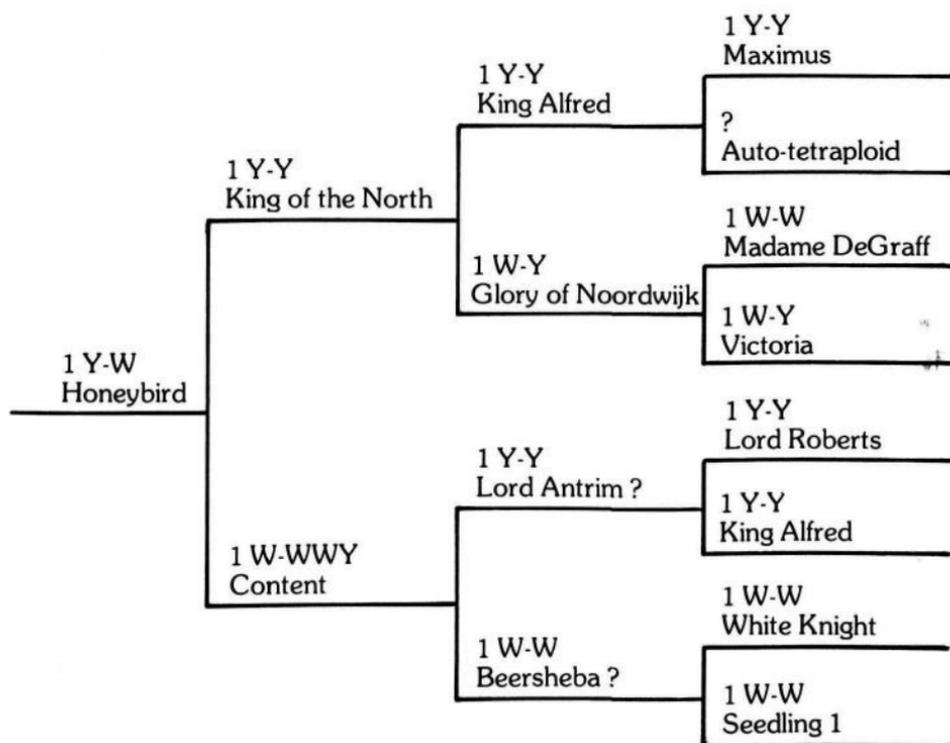
Finally, join the hybridizers' robin. I speak from my own experience with this group. To my delight, I found it an open and helpful group dedicated to the support of those who want to hybridize daffodils.

It is hoped that this method of setting up a breeding program will encourage others to give it a try. Hybridizing need not be a mystery, but rather an enjoyable hobby or profession.

The history of Honeybird has been carried back only three generations for illustration purposes, using the following format:



The seed parent should be placed above the pollen parent for consistency. The division and classification of each cultivar in the ancestry should be included for reference.



We offer the following—without comment—which was gleaned from the garden pages of the *San Jose Mercury News*:

“I don’t plant perennials or annuals or use traps for gophers. I clean away the mound of dirt from a gopher hole, clean out the tunnel, and put four or five daffodil bulbs inside, and cover the hole with dirt. Make sure the bulbs are small enough to roll down the tunnel.

“Daffodil bulbs are bitter; gophers will not eat them. The gopher turns around and goes back the way he came in the garden. I do have daffodils growing in funny places, but I do not have any gophers in my garden.”

WHAT’S IN A NAME? . . . ONE PIMM COMING UP

Were you surprised to see the name “Pimm” given to a 2 Y-R daffodil in Rathowen’s 1985 catalogue? Pimm is a delightful, cool, mildly alcoholic English drink served over a long thin cut of cucumber and ice. In the United States, it usually is served at polo matches where we’ve been introduced to it.

Now my husband and I can enjoy Pimm; he will be sipping his. I’ll be growing mine.

Now if some will explain “Fly Half” to me . . .

CECILE SPITZ

Cods Corner, January, 1986



THE ROOT.

“Clean and round,
Heavy and sound,
In every bulb a flower.”



Fragrant Rose

GRIPSHOVER

“A ROSE BY ANY OTHER NAME . . .”

DAVID KARNSTEDT, *W. St. Paul, Minnesota*

One of the recent daffodil delights to emerge from Brian Duncan's blue-blooded “stable” is Fragrant Rose. It's a delight for a number of reasons, not the least of which is that it's the perfect blend of name with flower. Not only is it a consistent performer and, by any criterion, a fine show flower, but, more importantly, it's a healthy plant and good grower. And then there's that heady fragrance . . . !

Appealing fragrance in long cup daffodils is uncommon. I can think of only a half dozen examples, at best. And the majority of those are from pink breeding (genetically linked?). One of my breeding goals has been to raise a vigorous strain of fragrant daffodils that could be used for “cut” flowers. To the two original parents, Louise de Coligny and Muscadet, in recent years I've been able to add Pink Perfume and now Fragrant Rose. While one might expect a show flower to result from the infusion of Fragrant Rose into the strain, if it were not at least as fragrant, it would be of minor benefit. While my goal is to produce an early flowering strain, both the currently available (fragrant) breeding material and my seedlings are no earlier than mid-season.

Like most people who grow daffodils for the pleasure they provide, my favorite daffodil seems to change from year to year, for whatever the reason. But this year, Fragrant Rose still stands out clearly in my memory. Arriving in King of Prussia in the evening after driving for hours to get to the National Show, I, like several other exhibitors, faced long hours of setting up my exhibits. For some reason, I left my vase of three entry of Fragrant Rose on the staging table in front of me, instead of taking it out into the show area as I did my other entries. As the night wore on and the coffee wore off, I found myself stopping to inhale deeply of those flowers on each return trip from show area. Again and again, I paused to refresh myself with that invigorating perfume. At nine o'clock the next morning, I finally said, “Enough is enough!” I placed the entry of Fragrant Rose on the show bench, pausing to take in one, deep, final draught of that delightful perfume before stumbling off to bed.

Consider for a moment, if you will, that those three flowers were cut in 90° heat and refrigerated for eight days prior to the show, had spent ten hours in a box without water, stood all night in a hot and stuffy room and were still lovely when the show closed! The blue ribbon gracing the exhibit just confirms the “class” of this marvelous daffodil. Indeed, a rose by any other name—in this case a daffodil—does smell as sweet!

PEQUENITA—A FINE NEW MINIATURE

JAMES WELLS, *Redbank, New Jersey*

I see that Pequenita has been added to the Approved List of Miniatures, and I would like to add my voice in approval. I also noted that there is already some confusion as to what is the correct bulb, and before things become too confused I thought I would try to set the record straight.

Pequenita is one of John Blanchard's hybrids between *N. atlanticus* and *N. cuatrecasii*. You will recall that *N. cuatrecasii* used to be called *N. rupicola pedunculatus*, and before that *N. scaberulus* Grazelma form, and was originally collected by Christopher Stocken.

The original number given to this bulb was 56-7C by John Blanchard and under that number it was shown by him a number of times at the RHS. It has proven to be such a good bulb in every way that John finally gave it a name last year—Pequenita.

I received four bulbs from John Blanchard in 1981, but these were returned to John the following year. Further bulbs were received from John in 1982, and I have been growing and flowering this bulb for the past three years. It is excellent in every way, being essentially free from disease—root rot, etc.—and growing and multiplying well. I have just lifted the two pans and have a total of 75 bulbs now, and they look fine.

Apparently a form has appeared under this name which is a bi-color. This cannot be the true bulb, for Pequenita is a clear yellow of one color. Anything other than this cannot be true. Unfortunately one cannot be sure that bulbs received from some retail suppliers are always true to name. I had a fine pan this year, purchased as a triandrus species, which turned out to be an indifferent form of *N. bulbocodium conspicuus*. That is why I have written this note, because I know that the bulbs I have are true, coming only direct from Blanchard. The picture will show what it is like. I have a few bulbs to spare if anyone would like to have one.



Pequenita

Grant E. Mitsch Novelty Daffodils

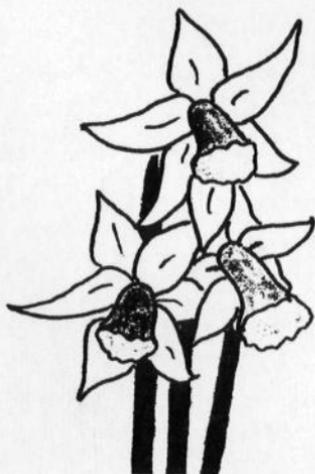
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