

Vol. 15, No. 4  
June 1979

The

# DAFFODIL JOURNAL



Quarterly Publication of  
AMERICAN DAFFODIL SOCIETY, INC.

# The Daffodil Journal

ISSN 0011-5290

Quarterly Publication of the American Daffodil Society, Inc.

Vol. 15

JUNE 1979

Number 4

## OFFICERS OF THE SOCIETY

CHARLES H. ANTHONY, *President*

27 Gale Road, Bloomfield, Conn. 06002

MRS. JOHN BOZIEVICH, *First Vice President*

6810 Hillmead Road, Bethesda, Md. 20034

MRS. ERNEST K. HARDISON, JR., *Second Vice President*

1950 Chickering Road, Nashville, Tenn. 37215

MRS. MARVIN V. ANDERSEN, *Secretary*

7 Perth Drive, Wilmington, Del. 19803

WELLS KNIERIM, *Treasurer*

31090 Providence Road, Cleveland, Ohio 44124

## Executive Director — WILLIAM O. TICKNOR

Tyner, North Carolina 27980

(Tel. 919-221-8388)

All correspondence regarding memberships, change of address, receipt of publications, supplies, ADS records, and other business matters should be addressed to the Executive Director.

THE DAFFODIL JOURNAL is published quarterly (March, June, September and December) by the American Daffodil Society, Inc., Tyner, N.C., 27980. Second class postage paid at Tyner, N. C., and additional mailing office. Subscription price (including membership) is \$7.50 per year, \$20.00 for three years. Single copies of current or back numbers are \$1.50.

### Chairman of Publications

Mrs. William Pardue  
2591 Henthorne Road  
Columbus, Ohio 43221  
(Tel. 614-486-2775)

### Editor, Daffodil Journal

Mrs. Paul Gripshover  
Rt. 3, 1206 Natchez Trace Road  
Franklin, Tennessee 37064  
(Tel. 615-790-6202)

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 JULY 15, 1979

## SCHEDULE OF MEMBERSHIP DUES IN THE AMERICAN DAFFODIL SOCIETY

Individual .....	\$7.50 a year or \$20.00 for three years
(Juniors, through 18 years of age, \$3.00 a year)	
Family .....	\$10.00 a year for husband and wife, with one copy of the Journal, or \$27.50 for three years.
Individual Sustaining Member .....	\$10.00 a year
Individual Contributing Member .....	\$15.00 a year
Overseas Member .....	\$5.00 a year or \$12.50 for three years
Individual Life Membership \$100.00	

## THE COVER PHOTO

of the Central Ohio Daffodil Society Display Garden in Columbus, Ohio, was taken by Handy Hatfield when the garden was in full bloom this spring.

## IN THIS ISSUE

<i>Display Garden Wins Award</i> .....	Ruth Pardue	167
<i>Bulletin Board</i> .....		171
<i>The Grant and Amy Mitsch Award</i> .....	Jean and Tom Throckmorton	174
<i>How They Were Made</i> .....	Marie Bozievich	175
<i>Narcissus Pollen and Pollen Storage</i> .....	Harold Koopowitz	179
<i>A Seek and Find Puzzle</i> .....	Joy Mackinney	181
<i>Searching the Sources</i> .....	Peggy Macneale	181
<i>"Some Like It Hot . . ."</i> .....	David Karnstedt	184
<i>The Best Cornet in this Clump!</i> .....	Polly Brooks	185
<i>Daffodil Diseases and Pests: Part I</i> .....	Theodore E. Snazelle, Ph.D.	186
<i>The Irish Connection</i> .....	Marie Bozievich	190
<i>My Recollections of Guy L. Wilson</i> .....	Sandy McCabe	196
<i>Williams's Glory - Poeticus</i> .....	Meg Yerger	199
<i>Daffodils - Spring Magic</i> .....	Theodore E. Snazelle, Ph.D.	201
<i>Here and There</i> .....		204
<i>The Flight of the Robins</i> .....	Dr. Glenn Dooley	206
<i>Propagation of Daffodil Bulbs from Sliced Bulb Segments</i> . . .	Maurice Worden	208
<i>N. serotinus from Seed</i> .....	Helen K. Link	209
<i>Bits and Pieces</i> .....		210
<i>The Green-eyed Poets are Beautiful</i> .....	Helen K. Link	212
<i>Financial Report</i> .....	Wells Knierim	214

---

## DISPLAY GARDEN WINS AWARD

RUTH PARDUE, *Columbus, Ohio*

Mrs. W. J. Perry, Public Relations Chairman, reported in the *March Journal* that there are many plantings and display gardens appearing in the United States. The Central Ohio Daffodil Society Display Garden continues to expand with 1128 cultivars and varieties now planted at Whetstone Park in Columbus, Ohio. This garden when viewed by the 1978 convention visitors brought requests for information.

The display garden was established in October, 1974, in cooperation with the Columbus Department of Recreation and Parks. The city provides the land and tills the beds, incorporating super phosphate. The bulbs are donated by ADS members and planted by Central Ohio Daffodil Society members. In early April, the cultivars are marked with plastic labels which are furnished by the Society. The City of Columbus engraves the markers. The markers are removed at the end of the blooming season and stored by the Society.

It is the intent of this display garden to show which cultivars make the best garden plants in our area. The beds are on a slight rise of a hill with no protection from wind. The beds are mulched with shredded bark. No other special care is given and only the natural rainfall provides moisture.

During the blooming season, the cultivars are observed at three-day intervals by the evaluating committee. Notes are made on vigor of plant. A scale of points is used in order to insure uniform evaluation. The scale used is:

Length of bloom season	20
Sturdy stem (holds bloom up)	20
Substance	20
Floriferousness	15
Color (non burning, good contrast, intensity)	10
Rate of multiplication	5
Vigor of foliage	5
Blooms held above foliage	5
	<hr/>
	100

Evaluation is done only on bulbs that have been down for three growing seasons. The evaluating committee is Mrs. David Spitz, Miss Lura Emig, Mr. Handy Hatfield, Mrs. Paul Gripshover, and Mrs. William Pardue. It has been most interesting to see cultivars which are of show bench quality stand up well in the garden-flower competition. The cultivars showing superior performance in 1977 were Kinglet 7Y-O, Chat 7Y-W, Ceylon 2Y-O, and Tete-a-Tete 6Y-O. The 1978 cultivars were Panache 1W-W, Ardour 3Y-R, Wahkeena 2W-Y, Paricutin 2Y-R, Clare 7Y-Y, and Pretty Miss 7W-Y. The winners for 1979 are Nampa 1Y-W, Prologue 1W-Y, Shining Light 2Y-ORR, Romance 2W-P, Cave 3W-GYR, Tahiti 4Y-YRR, Little Witch 6Y-Y, Canarybird 8Y-GYY, and Marionette 2Y-YR.



Nampa, which received an Award of Garden Merit in Columbus in 1979. (Hatfield photo)



Top: left, Shining Light; right, Canarybird; bottom: left, Romance; right, Tahiti. Award of Garden Merit winners in Columbus in 1979. (Hatfield photos)

Some problems have been encountered in this project. The most troublesome is weed control. Thistle is the worst to control. In an effort to eradicate it, Amitrol was used in August, 1975. Its effect on the dormant bulbs can be seen in the photo. The bulbs shown were growing six inches apart. The affected bulb produced foliage and flowers with no chlorophyll. The second season showed some recovery, but the bulbs were extremely small when dug in June, 1977.

The beds at present are being treated with Round Up. The plants show no ill effects and bloom count is good.

Several cultivars have been rogued due to unhealthy foliage. Willis Wheeler pointed out five cultivars with problems. These were removed. A number of misnamed plants were corrected by Phil Phillips. Correct labeling and healthy plants are essential to such a garden.

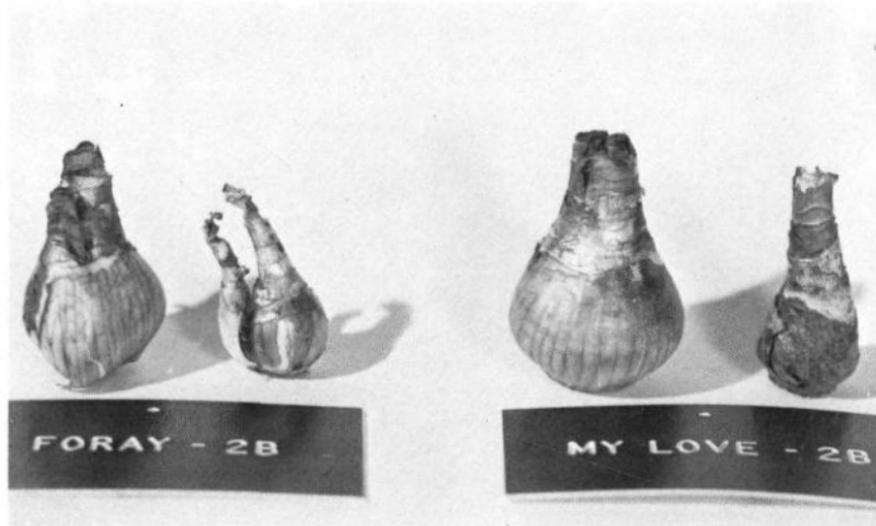
Each spring bloom count is recorded and health of plant noted. Records are being computerized for ease in handling data. Copies of records may be obtained in the Fall from Mrs. Hubert Bourne for \$6.00 to cover cost. Mrs. Bourne's son, Michael, does the computer work for our Society.

Digging of bulbs is done on cultivars which have been down three or four years and increase is recorded. Three bulbs are replanted. Excess bulbs are planted in other Columbus parks.

The Central Ohio Daffodil Society welcomes donations of bulbs (three bulbs of each cultivar are requested). A list of cultivars presently grown will be sent to interested donors upon request. For tax purposes, a letter from the City of Columbus will be sent to bulb donors.

This garden is enjoyed by thousands of people. At the 1979 State Convention of Garden Club of Ohio, Incorporated, member of National Council of State Garden Clubs, Incorporated, a Citation of Merit was presented to the Central Ohio Daffodil Society for its garden.

We encourage other societies to make public plantings and study the cultivars to know which ones do well in their particular area.



Bulbs showing the effect of Amitrol which was applied for thistle control. Healthy bulbs on the left.

# BULLETIN BOARD

## REPORT OF THE EXECUTIVE DIRECTOR

After one year on the job, the Executive Director can report that the loveliest flower of all generates great activity throughout this country and around the world. Laura Lee and I retired from the hurly burly of Washington, D.C., to relax and enjoy rural North Carolina. Enjoy we have, and so have our daffodils, but relax we have not. We have received bushels of mail. In the first three months of this year we had 70 telephone calls. The reward of the position is the friendly, lively contact we have with so many interesting people. The burden is that it doesn't leave us time to work in our garden or to correspond leisurely.

The Executive Director inherited a problem from George Lee. George Lee had a list of persons to whom he automatically sent publications such as the *RHS Daffodil Yearbooks*. We could only assume this was by mutual agreement but apparently it was not. We mailed *Daffodils 1978* according to the list. Most recipients sent a check with a thank you. Some sent a check with a polite "no more." Some returned the books, a few snapped our heads off, and sixteen members who received the books have not been heard from at all.

What to do? If you received a book that you do not want and have not paid for please either return it, or a check, and a note. If you are on the list and want off please drop us a card. If you are off and want on, let us know. Where there is no indication of a change of interest the list will remain the same.

While the change-over of the headquarters of the Society from George Lee in New Canaan, Connecticut, to the Ticknors in Tyner, North Carolina, has been most successful and generally painless where the Society is concerned, the Society has actually suffered a great loss. The library came down to Tyner in excellent condition and intact except for two books. But what two books they are! One is William Herbert's *Amaryllidaceae*, original edition, 1837, a rare and wonderful book. When last a copy was sold it went for \$190. The other missing book is E. A. Bowles' *Handbook of Narcissus* published in 1934. It is one of the two best books published on daffodils. (The other is the *AHS Daffodil Handbook* which can be purchased from the Executive Director.) There is no record or explanation as to why these two books are missing. What few leads existed have been followed up. A book such as Herbert's *Amaryllidaceae* can't help but turn up somewhere at sometime. If any member has borrowed either of these two valuable books, please call the Executive Director collect.

The Library should shortly be open for use and we expect to have a list of our books printed in the *Journal*. It is suggested that heavy users contribute towards postage. A problem still exists regarding the mailing of invaluable books.

As mentioned above, the chief reward of this position is the friendly notes and suggestions from members. Those of you to whom I have owed personal letters for a long, long, time please don't give up on me. I'll answer them yet.

WILLIAM O. TICKNOR

## FROM THE EDITOR'S DESK

If April comes, can the March *Journal* be far behind? That was the question asked in the Northeast Region's Spring Newsletter, and one that I'm sure is asked with more and more frequency when each issue of the *Journal* is overdue. Let me assure you that those of us who are charged with publication of the *Journal* are no less frustrated than you. The problem has been in getting the labels from the computer center. It was thoroughly discussed at the Board meeting in May, and hopefully the *Journal* will be coming to you on schedule in the future.

With this issue, the *Journal* is being printed and mailed from the Nashville area; however, requests for additional copies or back issues or notice of failure to receive a *Journal* should still be sent to the Executive Director.

## 1979 FALL BOARD MEETING

The Fall Board Meeting will be held on September 28-29 at the Cross Keys Inn in Baltimore, Maryland.

### "WHERE CAN I GET . . . ?"

#### CULTIVARS:

Cushlake 3W-WWO  
Polar Sea 3W-GWW  
Pera 3W-R  
Stray Pink 2W-P  
Rose Royale 2W-P  
Penwith 2W-O

#### FIND IT HERE:

Rose Royale 2W-P

#### DESIRED BY:

Mrs. Orville Nichols  
11119 College Rd.  
Olive Branch, Mississippi 38654

#### COMMERCIAL SOURCE:

Rathowen Daffodils  
"Knowehead," Dergmoney,  
Omagh, County Tyrone  
Northern Ireland

## BULBS WANTED

Donors of bulbs for the display garden at Owl's Hill, the residence of the Chancellor of The University of Tennessee at Nashville, will have received a detailed list of the bulbs which were donated by the time this note has been printed. However, other prospective donors are requested to write Dr. Ted Snazelle, Division of Arts and Sciences, The University of Tennessee at Nashville, 10th and Charlotte, Nashville, Tennessee 37203, for this list so that they might donate cultivars which are not currently planted at Owl's Hill. Bed space is still available for a number of cultivar and species forms.

## FUNDRAISER

Schultz Company is now offering garden clubs and fund raisers 100% profit, double your money, on their complete line of horticultural products. Write for details to Jean Jones, Schultz Company, 11730 Northline, St. Louis, Missouri 63043.

## DAFFODIL SEED BROKER

Once again Phil Phillips Open Pollinated Seed (POPS) will be available to members. In all likelihood there will also be a large quantity of *N. jonquilla* seed needing to be planted. Who knows at this time what else will be available by fall? Those of an inquisitive nature and with great patience should send in their request to the Daffodil Seed Broker at the seldom-heard-of village of Tyner, N.C. 27980. Send a 15¢ postage stamp with the request.

## AUSTRALIAN AND NEW ZEALAND CULTIVARS

With the large number of introductions that are being registered each year and a number from down under that are unregistered but being bought by our members, the Classification Committee would appreciate having a list of those cultivars being grown by our members. Would members please send in the names of all cultivars from Australia and New Zealand that they are growing giving registration date if known, or whether unregistered, grower, and country of origin. All of these should be listed in the *Data Bank* (as far as I know) but not necessarily included in a new edition of *DTSE&G*. Thank you for your cooperation in this matter. (Note to Australian and New Zealand Growers: It would be most helpful if you could supply a list of cultivars bought by overseas purchasers.)

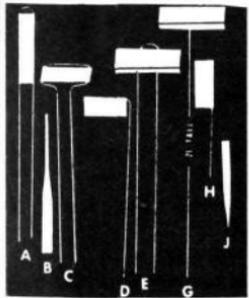
—AMY COLE ANTHONY, *Classification Chairman*

## DAFFODILS IN IRELAND

The Northern Ireland Daffodil Group has published a short history of daffodils in Ireland to commemorate the visit to Ulster by those attending the World Daffodil Convention and Tour in 1979. This 136 page book contains articles about the Irish hybridists of the past and present, with a look at what current hybridizers hope for in the future. Daffodil links between Ireland and the rest of the world are not neglected, and there are also articles on various ways to grow daffodils. Photos throughout the book "put faces with the names" and add to the reading pleasure. Cost of the book is \$5.00 postpaid and may be ordered from the Executive Director, W. O. Ticknor, Tyner, N.C. 27980.

THE PERMANENT METAL LABEL	
A—Hairpin Style Markers . . . . .	10 for \$1.65
B—Plant or Shrub Labels . . . . .	50 for \$1.50
C—Cap Style Markers . . . . .	10 for \$1.65
D—Swinging Style Markers . . . . .	10 for \$1.50
E—Rose Markers . . . . .	10 for \$1.65
F—Tall Display Markers . . . . .	10 for \$2.25
G—Tall Single Staff Markers . . . . .	10 for \$2.15
H—Pot or Rock Garden Markers . . . . .	10 for \$1.25
J—Small Plant Labels . . . . .	50 for \$1.25

**PAW PAW EVERLAST LABEL COMPANY**  
Box 93 — S Paw Paw, Michigan 49079  
Quantity Prices Available Postage Prepaid



# THE GRANT AND AMY MITSCH AWARD

JEAN AND TOM THROCKMORTON, *Des Moines, Iowa*

The fact that lovely daffodils are being bred and shown by amateur hybridizers has gone almost unnoticed by the American Daffodil Society. To be sure, in most daffodil shows there has always been a section for "unnamed seedlings." This is usually in a darker, out-of-the-way corner; occasionally one of these seedlings has seen the light as "Best-of-Show."

More recently, unnamed seedlings have been allowed to compete with standard daffodils in the classified divisions of the show — a step in the right direction. However, no real recognition, except the Rose Ribbon, has ever been accorded these outstanding seedlings. Yet, the ADS has many lovely awards for highly specialized daffodils or groups of daffodils. It seems a strange oversight that today's daffodil children, from which may come tomorrow's show winner and garden stalwart, have been largely overlooked!

The ADS Board of Directors has remedied this oversight. At the fall Board meeting, October, 1978, the Board voted a distinguished Award for the best unnamed seedling standard daffodil to be exhibited at the show, held in conjunction with the annual Daffodil Convention. This Award is doubly distinguished by honoring America's greatest daffodil hybridizer and by the rules which govern the achievement of the prize: "The Grant and Amy Mitsch Award for Daffodil Hybridizing shall be given for three stems of the best standard daffodil seedling, from any division, exhibited by the raiser at a National Daffodil Show. The Award shall be a 'traveling prize' and given annually when in the opinion of the judges it is warranted."

Think this over! Grant Mitsch honors this Award by his very pre-eminence as a hybridizer:

(1) He has given us 358 new and lovely cultivars, distributed through all standard divisions except Division 12.

(2) He has been the recipient of every distinguished daffodil award available to him, including the Peter Barr Cup, and the Gold Medal of the ADS.

(3) He has given and shared his time, knowledge, bulbs, pollen and seeds to any who asked. His competitors are among his most sincere admirers and friends.

(4) His personal simplicity, rectitude, and example have removed a great measure of "con artistry" from the daffodil world.

As to Amy Mitsch, I don't suppose she has made many daffodil crosses. She's been too busy taking care of Grant and "running the store:" cutting flowers for the market; staging blooms; keeping records and books; making sales; marking, digging, cleaning and sorting bulbs; running a restaurant and rest station during the high season of bloom.

And Grant and Amy together have produced two lovely daughters, both daffodil enthusiasts. One of them, Elise, with her husband, Dick, are taking over the "business" — this will enable Grant and Amy to go right

ahead and work as hard as ever. Elise Havens has some lovely new introductions; but you've not heard the last of the Mitschs.

The rules which govern the Mitsch Award are unique in their own way. It is common knowledge that the first or "maiden" bloom of a daffodil seedling may well be the only really elegant bloom the cultivar ever throws. This has always bothered Grant in that unproved and probably uncharacteristic seedling blooms may be found in competition with named cultivars whose true capabilities are known. Therefore, to win the Mitsch Award, the exhibitor must enter a vase of three stems of his seedling — offering solid evidence of what the cultivar has done over a period of several years. The blooms must be grown and staged by the "raiser;" i.e., the person first blooming the cultivar.

Thus, the Mitsch Award honors those very things in which the Mitschs believe. It will also honor the hybridizer who earns it.



The Grant and Amy Mitsch Trophy  
(Gripshover photo)

---

## HOW THEY WERE MADE

MARIE BOZIEVICH, *Bethesda, Maryland*

Two new trophies were offered at the National Show in Boston this spring, the Grant and Amy Mitsch Trophy and the Betty and John Larus Award. Both trophies are for seedlings exhibited by the hybridizer — the Mitsch Trophy for standard daffodils and the Larus for miniatures. I had the responsibility and pleasure of making them, and Mary Lou Gripshover has asked me to write an article describing how it was done.

Each trophy was individually designed and completely hand-crafted every step of the way. The making of them was a labor of love and a way of expressing my gratitude to all the hybridizers whose beautiful flowers have brought me so much joy.

First of all, the artist thinks about the design. Some sort of chalice seemed appropriate to honor Grant and Amy Mitsch because of their devout approach to life. I also wanted to express in some way that the award was for hybridizing, so a cover was made suggesting a daffodil, with stamens and pistil given prominence.

The bowl of the chalice was made first, being "raised" from a flat disc of heavy sterling silver eight inches in diameter. This process involves stretching and shaping the silver with a heavy ball-peen hammer. First the silver must be annealed (or softened) by heating it to 1200°F. I covered both sides with borax flux to prevent "fire-scale" and then used two acetylene torches (one in each hand) to heat it.



Marie Bozievich at work. (Knierim photo)

The first hammering was done on a flat anvil, going from the center of the disc in circles to the perimeter. Each hammer blow (and I *wbammed* it) stretched the silver and caused it to turn upward. This process was repeated many, many times, each time annealing the silver before hammering.

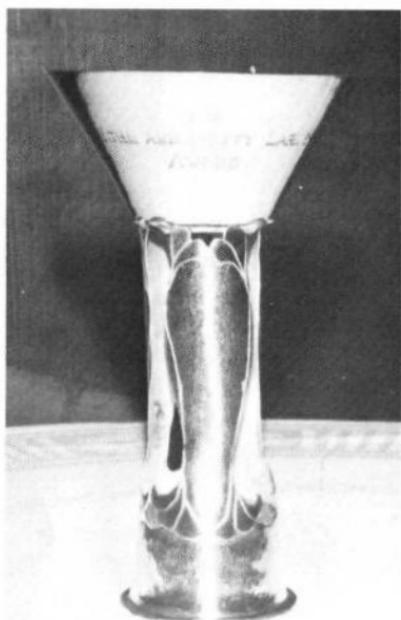
When the sides had curved up too much to be hammered from the inside, the bowl was placed on a curved stake and worked from the outside. I continued raising and annealing until the bowl was stretched to the desired shape and size. Then it was time to refine the shape and smooth out all the dents I had made. This process is called planishing and is done with a light hammer with a flattened peen. It is very time-consuming as the hammer blows must be placed with precision very close together. Each time I planished and annealed this bowl it took four to five hours, and it was planished six times after it was raised.



The cover was made from another disc of silver, smaller and lighter in weight. The daffodil shape was scratched on with a scribe (any other marks would disappear), then the disc was annealed and embedded in a flat pan full of pitch to hold it in place and support it while the petal shapes were pushed out from the back with dapping tools. The texturing of the background was done from the right side with a patterned nail point. A paper pattern was made for the cup of the daffodil and this was used to saw out the silver piece which was then bent into the proper shape and soldered to the center of the daffodil.

The stamens of the flower are represented by citrines, and the gold settings for them were cast from wax models in a centrifugal casting machine. (This is a fascinating process which I won't describe here.) The stigma is represented by a moonstone and a silver bezel setting was made for it. The settings were soldered to small silver tubes and the whole assembly soldered into the base of the cup. Finally a thick wire was soldered to the perimeter of the cover to strengthen it and to hold it in place on the bowl.

The stem of the chalice is made of plexiglas which was turned and shaped on a lathe by my good husband. The base is a shallow bowl (upside down) which was hammered and planished in the same manner as the larger, deeper bowl was done. Then silver collars to fit around the top and the bottom of the plexiglas stem were made and soldered to the bowls. The stem was anchored in the collars by drilling holes and fitting in small silver tubes as rivets.



The John and Betty Larus Award  
(Gripshover photo)

The John and Betty Larus Award is different in spirit. In designing it, I was anxious to express some of the special qualities of miniature daffodils, particularly their daintiness and grace.

The cup was raised and hammered from a five inch disc of sterling, and the base was also formed by hammering. The three sections of the stem were sawed from sheet silver with a fine-toothed jeweler's saw, then shaped and planished.

The miniature species daffodils portrayed on the inside of the cup were etched in the following manner: the cup was painted all over with an asphalt based "resist," then the previously made sketches were transferred and scratched through the resist with a pointed tool. The cup was then immersed in a nitric acid bath and the acid ate away the silver where the protective cover had been scratched away. During the etching process bubbles are gently brushed away with a feather or soft brush, and frequent checks must be made on how deep the etch has penetrated.

After the etch was completed a ring was soldered to the base of the bowl to support the stem, then all the pieces were assembled and soldered together, along with a hammered ring at the bottom to add weight to the base.

When finally completed, both trophies were carefully gone over with fine emery cloth to eliminate scratches and then polished.

I hope that the members of the Society will enjoy these new awards and that many hybridizers will compete for them.

# NARCISSUS POLLEN AND POLLEN STORAGE

HAROLD KOPOWITZ, *University of California at Irvine Arboretum*

Although it takes two parents to make a hybrid daffodil, most care must be taken with the pollen parent. The reasons for this will be made clear shortly. In order to harvest a good supply of seed, we feel that a minimum of ten to twenty of the same cross should be made and perhaps the number should be even higher than that. One needs lots of seeds in order to find rare combinations of the parental characters in their offspring. Although some flowers such as Green Island and its offspring tend to be generous with the seed they produce, others are very sparing. I calculate that the average number of seeds I harvest per pod is only about eight, and perhaps only twenty-five percent of the crosses bear pods that reach maturity. In part the poor yield is due to the way-out nature of many of the crosses that I attempt; but it also, I believe, has had to do with the kind and quality of the pollen I have been using.

This season I decided that one of the things that was needed was a good way to estimate the viability of pollen. While we were searching for an artificial medium on which we could grow the pollen, we discovered a few things. Pollen is very sensitive to being wetted. A drop of water on pollen will destroy its ability to grow. This means that once a flower has been thoroughly wetted, even though the pollen might look all right, it is probably useless. The obvious source of such water is rain, and this is also the reason why it is so difficult to get seed set if it rains right after you have pollinated the flower. One way that water can get on the anthers (the organs that produce the pollen) that we had not thought about previously is dew. This year I went out among the flowers very early in the morning and found dew not only all over the outside of the blossom, but droplets of dew had also formed inside the trumpets. Usually most of the dew evaporates before one gets to the beds and one could then select useless pollen. For those people who live in drier climates and have to water their plants, drops of water from the hose are equally fatal. Pollen that has been wetted tends to be "crummy" rather than powdery. As a rule, we now only use pollen that separates easily into powder and does not stick together in lumps. There may, however, be a very few pollen grains that did not get wet and for a very special cultivar it may be worth the gamble to use "crummy" pollen. In order to be absolutely sure that the pollen has not been wetted, one should select a flower from which the anthers have opened during the day it is to be used; or the flower itself should be picked or protected as it is opening. Actually the anthers can be picked out of the flower and placed in a gelatine capsule before they have released their pollen, and they will still do so if dried properly.

The pollen of some flowers is susceptible to sunburn. This is specially true of cultivars such as Matador where the sun will actually bleach the pollen. Also pollen from flowers that have been exposed to the sun on the plant for a week or so may have lost a lot of its viability. In these cases the pollen is usually orange or bright yellow when the flower is fresh but it becomes a greyish white later on. There are some cultivars, however, which may have whitish pollen to start with, and these are fine.

In trying to grow pollen, we found that there are other factors that control growth as well. One of the most important of these is an adequate oxygen supply. If the pollen is in a tight lump then only the pollen at the edge of the lump can get sufficient oxygen to grow. Now some pollens are exceptionally vigorous and one will find that these can make it through to the outside of the lump. In previous years I used to put as much pollen on the stigma as I could get to stay on. Now I dust it lightly. Perhaps the old idea of using a brush (which I never have) had good points as it spread the pollen lightly and evenly over the stigma. This really needs some controlled experiments. The results of this year's tests, which are not strictly controlled, suggest I will get good set. It will be interesting to see if the average number of seeds per pod increases.

Pollen storage is really quite easy. The two crucial things are to keep the pollen dry and cold. This is how I usually do it. As soon as the anther starts to open, or it has just opened, the anther is torn off and the whole thing placed in a gelatine capsule. I usually place up to six anthers in a single capsule and I use the largest size I can find, usually 000. One can purchase these at the local pharmacy, although I usually get a very curious stare when I ask for them. If I try and explain that they are to be used for pollen storage then the stare becomes even more curious. One *wants* gelatine capsules, but a twist of porous paper would also work. Waxed paper is not too good although it is easier to scrape the pollen off that.

One can write and label on the gelatine capsule with a laundry marker pen. This is one reason why the larger capsules are easier to handle. The next thing to do is to shake the capsule to and fro to coat the inside walls with pollen. In fact this is a good test to see if the pollen is nice and powdery. If you want to try and store pollen from one year to the next then I suggest that you put one anther in each capsule so that after it has been used you can throw the remains away. Once the pollen is on the walls then place the capsule in a "frost-free" refrigerator for a few days. This will dry the pollen and you will see that the remains of the anther have shrivelled up. I generally put the capsules in the egg tray as this has convenient receptacles that can hold the capsules. *Do not place* them in the meat, vegetables, or cheese compartments as those do not have dried air flowing over them. If pollen is to be used for one season then you can just leave the capsules where they are and retrieve them as needed.

In order to keep the pollen from one season to another it needs to be frozen after it has been dried. Get a small jar and place fresh silica gel on the bottom. Then after a few days in the egg compartment place the capsules in the jar and put it in the freezing compartment. Do not expect to be able to take pollen out of the freezer and then use it and then put the capsule back directly into the freezer repeatedly. This can be done a few times but we suspect that there are limits to the number of times a sample can be frozen and thawed. This is the reason for suggesting separate capsules and samples.

One of the easiest ways to get pollen out of the capsule is with a flat wooden toothpick. These can be discarded conveniently and can also be used to apply the pollen directly to the stigma. When handling capsules of pollen, do not leave them directly in the sun for any length of time and don't clutch them in your hot little hand. If the air is very moist the pollen will absorb some moisture directly from the air. This is fine if the capsule is to be returned to the refrigerator but if placed back in the freezer water crystals may form and burst the pollen cells.

## A SEEK AND FIND PUZZLE

In the box below are 60 daffodil names. They read forward, backward, diagonally, vertically and horizontally in a straight line. The ten letters left over are a 2W-P from Ballydorn Bulb Farm.

MURDERIBOLDLADT  
AEATCANISPRITEO  
CURLIEWCRGNIRPSP  
APRLRSLMSNIP ECN  
WHIUIEVAUSUSEAO  
AOMAMNGZIPARCNT  
MNATUYENEMOLASC  
EYSOGRATESUTNOH  
HTAMORNORVALANA  
CIIPIETYEEAAPNT  
AXLTMPEBNRHEEEN  
NYYUEARNOORTLTO  
ARNOAPNA INCLARE  
POBEBUNCRANAULN  
MATAPANGORIALTO

Actaea Argosy Atom Aurum Ave Avenger Bebob Birma Bold Lad  
Buncrana Canape Canby Canisp Chat Chemawa Clare Curlew Descanso  
Eribol Eros Euphony Irani Luan Macaw Matapan Merlin Mite Monument  
Nampa Norval Olathe Oneonta Orion Oryx Panache Pango Papua Petite  
Puppet Red Rum Rima Salome Scio Sesame Snipe Sonnet Spring Sprite  
Sauve Teal Tern Top Notch Tye Valana Verona Vulcan Xit Zero Zip

— JOY MACKINNEY, *West Chester, Pa.*

---

## SEARCHING THE SOURCES

PEGGY MACNEALE, *Chairman,*  
*ADS Committee on Miniatures*

As chairman of the ADS Committee on Miniatures, it is increasingly evident to me that ADS members who want to vary their collection of miniatures are frustrated to a high degree. Although the few sources invariably offer a list of six or eight, including April Tears, Bobbysoxer, Sundial, Tête-a-tête, *N. asturiensis* (though it may be called *minimus*), bulbocodium types, *Canaliculatus*, *N. cyclamineus*, and *N. jonquilla*, there are many frustrations in succeeding with these. Anyone who has bought these cultivars and varieties over and over again knows how difficult it is to find the right spot for them, especially the species. Instead of increasing, the outcome is much more liable to be a slow decline, or many leaves but few blooms. We are forced to conclude that the cultivars and varieties on the Approved List of Miniatures which cannot be found in

any catalogue are even harder to grow, or else there would be an advertised surplus supply.

One problem in ordering miniatures is that we often receive the package so late in the fall that cold weather is liable to overwhelm the bulbs before they have a chance to make a good root system. To be safe, in this event, it would be wise to plant the bulbs in plastic berry boxes, and sink them in a cold frame. Placing an early order isn't always possible because often we receive the catalogues so late: those sent from abroad go by slow boat, and reach us in June or later. The deJager catalogue also comes very much later than other sources in the States. When the bulbs don't arrive until November, they are often half-way dried out, which is another factor in their reputation for quick demise. Then, too, there is the fact, as far as some of the species are concerned, that they are dug from the wild at blooming time and never have a chance to ripen properly. If the supplier grows them on so they recover vigor, that is fine, but we can only hope that this happens.

In the June, 1973, issue of the *Journal*, Mary Lou Gripshover published a fine source list for miniatures. This was carefully researched, and would bear looking up. We have new ADS members since then, however, who may not have access to that article. Besides, there are changes in both the Approved List and the bulb sources, so we are trying to up-date the 1973 article.

BROADLEIGH GARDENS, Barr House, Bishops Hull, Taunton, Somerset TA4 1AE, England, has a very extensive miniature list. Alec Gray's originations can be found here as well as some of Blanchard's miniature hybrids when available in sufficient quantity. The catalogue comes late in the season, and a minimum order of \$16.00 is required. Some of the bulbs are so expensive that it doesn't take long to surpass this figure! As it is really impossible to order *early* from this catalogue, be prepared for some cherished hope-fors to be sold out before your order arrives in England.

WALTER BLOM AND ZOON no longer ships bulbs to the USA.

LINDSAY DETTMAN in Australia offers a few of the miniatures that are easily available from other sources so one may as well avoid the acclimatization problem unless he begins to handle miniatures that might be originated down under. So far there is little interest in the smaller flowers in New Zealand or Australia, although Hawera (pronounced *Ha-wera*) originated in Hawera, N.Z.

P. DEJAGER & SONS, South Hamilton, Massachusetts 01982, offers at least ten miniatures, mostly the ones mentioned earlier in this article, plus a few others. The main problem here is getting the bulbs in good time for early fall planting.

DAFFODIL MART, Gloucester, Virginia 23061 — Brent Heath has moved his business back to Gloucester and is making a huge effort to build up a supply of a wide variety of miniatures. The common ones can be had for a good price by the dozen, so this is the best source in the States. He also lists many hard-to-find ones, at a hefty price, such as Pease-blossom, \$10.00, and Yellow Xit, \$20.00.

RICHARD HAVENS, carrying on the Mitsch business, offers some of the newer Approved List bulbs, and we will see more of these as Eileen Frey's and George Morrill's hybrids become available. Roberta Watrous originations are found here also, though they are sold out fast, and must be withdrawn for increase from time to time.

MICHAEL JEFFERSON-BROWN, Whitbourne, Worcester, is another source from England, though again, his catalogue arrives pretty late. Two of the newest ADS miniatures are found exclusively in his list, and he has offered others from year to year. One of the problems with M. J-B. miniatures is that they are seldom registered with the RHS, so information about them is hard to obtain.

GERRITSEN & SON, Box 86, 2250 A.B., Voorschoten, Holland — the split-corona enthusiast is likewise a miniature hybridizer. The Gerritsen list includes a number of the fairly recent additions to the Approved List, such as Petit Beurre and Piccolo.

PARK SEED CO., Greenwood, South Carolina 29646, issues a fall catalogue with a surprising list of bulbs, including a number of miniatures. You may have to look carefully to pick out some that may be mixed in with the standard triandrus hybrids, etc., but with the new Approved List in front of you, there should be no trouble.

GERALD WALTZ, on retirement, has turned over his stocks to Brent Heath.

MATTHEW ZANDBERGEN'S wholesale firm has been sold to GROENEVELD EN LINDHOUT, Noordwyk, Holland. For *groups* desiring *quantities* (nothing less than 50 bulbs of a kind), willing to translate prices from Dutch florins to dollars, and willing to pay airmail delivery charges, this may be a help.

Other possible sources (send for price lists):

CHARLES MUELLER, River Rd., New Hope, Pennsylvania 18938.

MARY MATTISON VAN SCHAİK, Rte. 1, Box 181, Cavendish, Vermont 05142

WABERLOO GARDENS, Devon, Pennsylvania 19333.

Watch for future listings from Murray Evans and Carncairn Daffodils — both Murray and Kate Reade are interested in helping out in the miniature scene.

In conclusion, if any reader has had experience with further sources of miniatures, please communicate with me or another committee member. We will try to keep this source list updated periodically.

### 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 \$7.50 PER YEAR

Join THE AMERICAN HEMEROCALLIS SOCIETY

Joan D. Senior, Secretary DeQueen, Arkansas 71832



## “SOME LIKE IT HOT . . .”

DAVID KARNSTEDT, *West St. Paul, Minnesota*

When Bill Ticknor first took Grandpa's razor to Falstaff's neck, he admitted some apprehension. After all, as he later related, the bulb *was* worth \$10 — not really the sort of item with which one would experiment.

In early July, when I lifted my bulb of Flyaway, I was disappointed to find that it had not produced an offset. Looking at that fat, little, round resting in the palm of my hand, I could only wish that I had had more, since the three-flowered stem I exhibited in our show last May generated such interest. The thought occurred to me that I *could* have more — if the bulb was twin-scaled. But (I could only think), it's just one bulb — and so scarce! What if the attempt should fail?

Nearly two months passed as the end of August, and of summer approached — I had made no decision. Then, as our usual late summer spell of very hot weather — mid-nineties and high humidity — arrived, I did it. The decision was not as bold as one might think, for not all caution was abandoned to the wind! When sectioning the bulb, it is quite possible to isolate not only the apical meristem, but at least one piece of secondary meristematic tissue as well. I've found the section containing the apical meristem will nearly always survive the incubation and subsequent growth period in the soil. Hence, one has at least one piece of the cultivar survive, so not all is lost.

For several hours, the more than two dozen sections soaked in a Benlate suspension. The unrisned sections were then gently mixed into *barely* damp peat moss, placed in an airtight plastic bag, tied, put into another plastic bag, tied, and set on the top shelf (in the dark) of the kitchen closet. The temperature in that closet had to be in the high eighties, in spite of the airconditioning. In three weeks, the first little bumps of tissue could be seen between the scales. After six weeks, the little bulblets had taken shape and by eight weeks, several were nearly one-half inch high.

We had been having a long, warm fall, so I decided to plant the segments/bulblets outdoors. I counted twenty-six segments with bulblets of varying size; but of greater interest were the loose scales that had broken away during incubation. In past twin-scale projects, the loose scales were of no value, but here were seven loose scales — each of which had unmistakable evidence at their bases of the imminent growth of bulblets!

I've never experienced such success (more than 100%! ) with the incubation of twin-scale segments. Two things seem to account for the phenomenon: one, the very warm (mid-eighties, and higher) temperature and darkness of the incubation environment and, two, since the clone is still rather new, I believe the bulb I sectioned to have been virus free.

I think there's an important lesson to be learned here for all daffodil growers, in particular the commercial growers. The probability of a new clone being virus free is highest while the stock is still very low. Commercial growers could do themselves a great favor by twin-scaling one of the bulbs of their best new clones when the stock increases to two bulbs. Assuming the propagant to be virus free, the probability that all thirty (more or less) bulbs derived from a single twin-scale reproduction

would be virused at maturity must be extremely low when compared to an equal size stock resulting from the usual asexual reproduction from a single bulb over a period of years.

Selecting only the biggest and best looking bulbs of a stock for replanting would also tend to maintain the health of a stock. The usual practice within the industry is to sell the largest and best bulbs and plant back the smaller bulbs. In so doing, the commercial grower is, in fact, selecting *for* virus infected stock, since infected stock produces smaller bulbs. Ponder that for awhile!

---



Tommy Carr and his father, Thomas E. Carr, choose the best Cornet in Grandma Polly Brooks' garden (Brooks photo)

## THE BEST CORNET IN THIS CLUMP!

Much has been, and is being, said about "show" daffodils. There is also something to be said about the "other half" that gardeners grow.

Why grow Cornet? Because it is very early, dependable, and is good in the landscape, good for cutting, and has been seen with ribbons in some early shows. It is very hardy, long lasting, a good bloomer, prolific, and of good color. Depending on the season, weather, and location in garden, here it blooms seven to ten days before Peeping Tom to which it is sometimes compared. Cornet has a larger, stouter, much smoother, paler yellow bloom with wider overlapping petals. The stem is shorter. Because the bloom is large and heavy, it sometimes leans to the ground during rain.

—POLLY BROOKS, *Richmond, Virginia*

# DAFFODIL DISEASES AND PESTS: Part I SOME BASIC CONCEPTS

THEODORE E. SNAZELLE, PH.D.  
*The University of Tennessee at Nashville*

"We see . . . our plants wither without being able to render them assistance, lacking as we do understanding of their condition." Fabricius (1774)

Perhaps the quotation from Fabricius is the only reason that I need to begin this first article of a series on daffodil diseases and pests. Or, perhaps, it was the comment of a daffodil enthusiast who said to me, "Don't take too long in giving the program (on basal rot) as it is too depressing!" that makes me feel compelled to write. However, in the final analysis, it is the quotation of Fabricius that strikes to the core of my very existence. It would be unforgivable of me as a plant pathologist not to try to understand what causes a daffodil to suffer, and it would also be unpardonable of me not to share my understanding with those of you who want to understand fully why daffodils suffer. For if we know the why or cause of their suffering, we hope in time to either prevent or to control that suffering. Such is the way of a plant pathologist.

## WHAT IS PLANT PATHOLOGY?

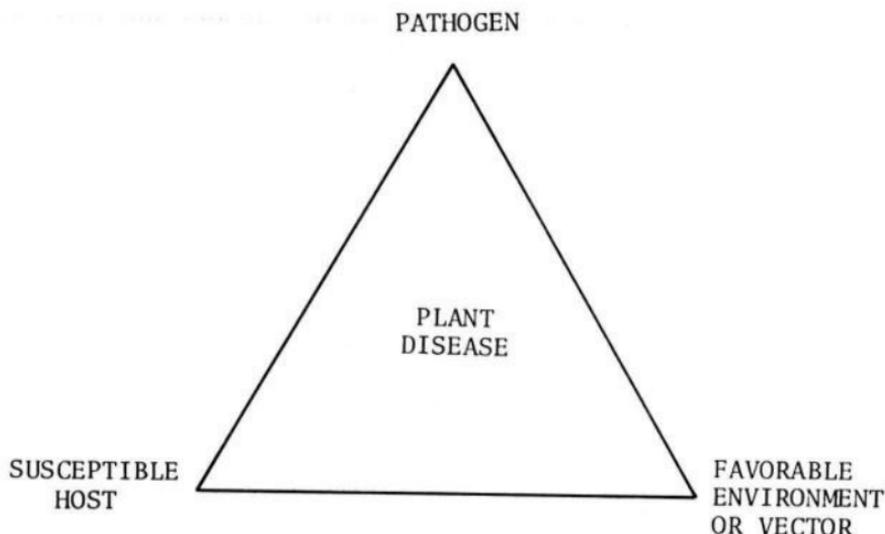
The best way to arrive at an initial understanding of the meaning of a term is to look up the root words of that term. For instance, the Greek root words for pathology are *pathos* — to suffer and *logos* — to study. Thus, pathology is literally the study of suffering, and plant pathology is the study of suffering plants.

## WHAT IS PLANT DISEASE?

As you might suspect, there are many definitions for disease; however, a simple and workable definition is that disease is a departure from a state of health. Thus, plant disease would be the departure of a plant from a state of health. There are at least two basic types of plant diseases: 1) infectious plant disease, and 2) noninfectious plant disease. Infectious plant disease is the departure of a plant from a state of health as a consequence of that plant becoming infected by a microbe, e.g. bacterium, fungus, virus, nematode, etc. Microbe is actually a term reserved for etiological (disease-causing) agents which are cellular or multicellular in nature, e.g. bacteria, fungi, nematodes. As a virus is sub-cellular in nature, it is called a microbe only for the sake of convenience. Noninfectious plant disease is that disease which is not caused by microbes but instead is caused by non-biological agents such as air pollutants, mineral nutrient deficiencies, freeze or frost damage, and damage due to wind, hail, and excess of rain. Drought is also a cause of noninfectious plant disease. If the etiological agent which causes the plant disease is a microbe, it is called a pathogen. Significantly, the pathogen or etiological agent causing an infectious plant disease can be transmitted from a diseased plant to healthy plant causing it to become sick. Despite

the popular belief, it is important to realize that disease does not spread; however, the pathogen causing the disease does spread, i.e. the pathogen can move from a diseased plant to a healthy plant causing the previously healthy plant to become diseased. Thus, pathogens spread; diseases don't spread. Of course, the same is not true for noninfectious plant disease, i.e. air pollutants can't be transmitted from plant to plant as can pathogens.

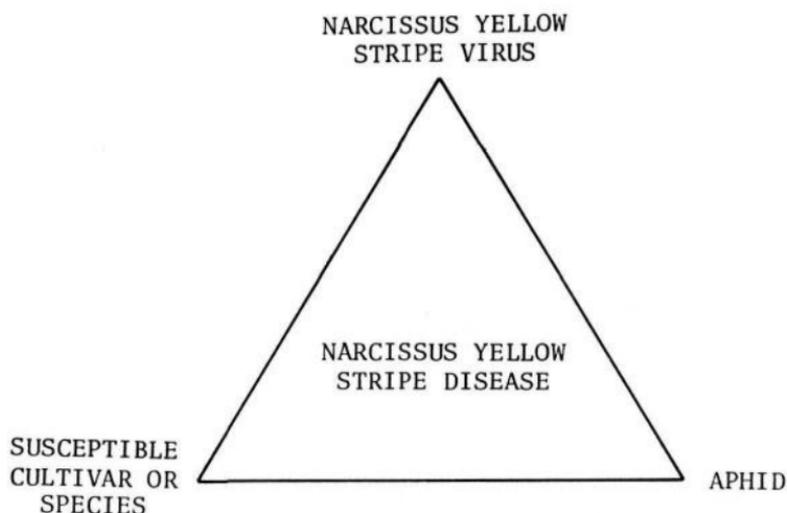
FIGURE 1 - INFECTIOUS PLANT DISEASE TRIANGLE



### INFECTIOUS PLANT DISEASE TRIANGLE

Infectious plant disease is usually considered to be the product of at least three factors: 1) a susceptible plant, 2) a pathogen, and 3) a favorable environment and/or vector. A vector is a biological agent which carries the pathogen from a diseased plant to a healthy one. For example, the vector of the virus causing narcissus yellow stripe disease is an aphid. In Figure 1, the infectious plant disease triangle illustrates that infectious plant disease is the consequence of the interaction between a pathogen, susceptible host plant, and favorable environment or vector. In Figure 2, an infectious plant disease triangle has been constructed for the narcissus yellow stripe disease. Here you can see that this disease is the consequence of the interaction between susceptible narcissus cultivars, narcissus yellow stripe virus (NYSV), and an aphid vector. In some instances, infectious plant disease is considered to be the product of four equally-important factors (susceptible host plant, pathogen, vector, and favorable environment), not just three factors, and may be thought of as a pyramid rather than a triangle with each of the four apices of the pyramid being occupied by one of the four factors.

FIGURE 2 - NARCISSUS YELLOW STRIPE DISEASE



### SPECIES CONCEPT

A species is a specific kind of plant, animal, fungus, or bacterium. With the exception of the viruses, all the pathogens causing disease in daffodils are designated by species names which are either written in italics or underlined, e. g. *Fusarium oxysporum* is the fungal pathogen causing the narcissus basal rot disease. The application of species names to virus pathogens is rarely done. Thus, a virus is often named by considering the plant species infected and the symptoms caused on that species. Hence, the name narcissus yellow stripe virus (NYSV) for the plant virus which infects narcissus causing the yellow stripe symptom. Often, as you have already observed, plant viruses are referred to by an abbreviation, e.g. NYSV, which was derived from the first letter of each word of the common virus name, e.g. *narcissus yellow stripe virus*.

### SIGNS AND SYMPTOMS

The sign of an infectious plant disease is the actual presence of the pathogen as seen with the unaided eye or with a microscope. For instance, in bulbs which are badly infected with *Fusarium oxysporum*, you can often see with the unaided eye the actual fungus as a pinkish-white growth on the outer bulb scales and around the basal plate. Or, in the case of the bulb and stem nematode, *Ditylenchus dipsaci*, the nematode can often be seen under low power magnification with the light microscope when a fleshy bulb scale is dissected in a drop of water on a glass slide. For the most part, the viruses are all too small to be seen with even the best light microscope.

A symptom of an infectious plant disease is the visible effect of the pathogen on the host, e.g. the yellow stripes which appear on the foliage of daffodils infected with NYSV is a symptom of the narcissus yellow stripe disease. Also, the blackened or necrotic (dead) fleshy bulb scales near the basal plate of a daffodil bulb infected with *Fusarium oxysporum* are a symptom of narcissus basal rot.

## NONINFECTIOUS PLANT DISEASE

Noninfectious diseases of daffodils are usually less than obvious to the daffodil grower; however, notable exceptions include the tattered flowers after a hail storm or heavy rain which beats the flowers to the ground. Mineral nutrient deficiencies do not usually express themselves too easily in daffodils although they are easily recognized in other plants through discolored leaves, etc. For example, a shortage of magnesium or iron may result in impaired chlorophyll synthesis by the plant. Consequently, the foliage will appear yellow or chlorotic instead of green as would normally be expected. Lightning damage may be recognized by a circular area of dead plants following an electrical storm. Although you might not ordinarily think too much about it, light is very important for daffodils to continue flowering. For instance, daffodils planted on the north side of a house may receive almost constant shade and will often flower poorly or not at all in subsequent years if they are left in that location. Although I am not aware of air pollutants being very important in causing damage to daffodils, they are particularly damaging to a number of broad-leaved plants. For instance, the main phytotoxic (plant toxic) component of smog is peroxyacetyl nitrate (PAN) which causes bronzing or silvering of the lower leaf surface. Also important as pollutants in causing foliar damage are sulfur dioxide which causes interveinal chlorosis in leaf veins and ozone which causes a bleached stippling of the upper leaf surface.

## PLANT PESTS

Certainly you might consider the fungi, nematodes, and viruses as plant pests; however, as we have already designated them pathogens, then the question arises as to what is a plant pest. Although the definition may be somewhat arbitrary, a plant pest may be exemplified by arthropods, e.g. insects, mites, etc., and animals like squirrels. Of course, the most infamous of the arthropod pests of the daffodil is the narcissus bulb fly, *Lampetia equestris*. Also, the bulb scale mite, *Steneotarsonemus laticeps*, is an occasional pest, particularly with bulbs which are forced into bloom. As for squirrels, they seem to have an affinity for the shallow-planted miniature cultivars and small species forms. Other two-legged and four-legged animals, e.g. boys and dogs, respectively, seem to have an uncanny ability to smash daffodils with their feet!

## CONCLUSION

It is my hope that this initial article might serve to whet your appetite for subsequent articles on fungal diseases, virus diseases, nematode diseases, and control of these diseases. Also, attention will be given to noninfectious diseases of daffodils and daffodil pests in future articles.

# THE IRISH CONNECTION

MARIE BOZIEVICH, *Bethesda, Maryland*

One of the strongest links between people is a common love of something, be it horses, antiques, or flowers; and daffodils have forged a strong bond between many Americans and Irishmen. The groundwork for these bonds was laid in London a half-century ago when the RHS Daffodil Shows were reported in the English horticultural publications. American gardeners who read these accounts were fired with a desire to try these new and beautiful daffodils. Orders were sent to England and Ireland and the resulting blooms were enthusiastically shown to other gardeners.

One of the first of these devotees was Chester Hunt of New Jersey, who ordered bulbs in 1914 and ended up with a large display garden and an importing business. However, most of those who sent to England and Ireland for bulbs set to work hybridizing. B. Y. Morrison was employed by the U. S. Department of Agriculture in the Office of Plant Exploration and Introduction and in the early 1920's carried on a large correspondence with the famous daffodil raisers of that time. He imported the latest novelties and planted them in his garden in a Maryland suburb of Washington, D. C. Another employee of the Department of Agriculture, living a short distance away in another Maryland suburb, was Edwin C. Powell who began breeding daffodils in 1922. These two men interested many people in acquiring daffodil collections. They helped stage and judge some of the early shows of the Maryland Daffodil Society which had been organized in 1919 in Baltimore following an inspirational lecture by T. McKean Miere. This pioneer group is now an organization of garden clubs from all over the state, as well as individual members.

At the same time Miss Mary Bierne of Ashland, Virginia, had accumulated a collection of imported daffodils and had begun to hybridize. Her estate of 14 or 15 acres was named Rhodien after her grandfather's estate in Ireland. She continued to import the best and finest cultivars and lectured widely, stimulating an ever-increasing interest in daffodils. Inspired by her enthusiasm, the Garden Club of Virginia formed a Daffodil Committee and test garden in 1930 and began a wide distribution of bulbs, predominantly Irish, to the member garden clubs. Their first daffodil show was held in Charlottesville in 1931 and yearly shows have continued to the present time, sponsored by individual members within the federation and moving to a new locality every two years. The standards for these shows have been very high and have provided a tremendous stimulus to daffodil growing throughout the state.

In Nashville, Tennessee, another avid importer and collector of new daffodils, Mrs. Paul Davis, had put together in 1930 the most complete garden of novelties in the United States. She bought whole stocks of seedlings from hybridizers abroad and named and registered more than 100 cultivars, but did not introduce any of them.

Other early enthusiasts who looked across the ocean for bulbs were Mrs. F. Stuart Foote of Grand Rapids, Michigan, and Mr. and Mrs. Kenyon Reynolds of Pasadena, California. They attended a Daffodil Conference in London in 1935, and bought many English and Irish bulbs from which

they began breeding. Mrs. Foote named and registered with the RHS nearly 50 cultivars and Mr. and Mrs. Reynolds registered over a dozen. Of all these, only Patricia Reynolds (1W-P) can be found in gardens today.

The eminent horticulturist, Dr. John Wister, had been assembling comprehensive collections of iris and peonies in his garden in Germantown, Pennsylvania, and became interested in daffodils in 1921 when he visited the garden of Chester Hunt. After a sojourn abroad he imported many of the new daffodils seen there and, in 1930, when The Arthur Hoyt Scott Horticultural Foundation began its work in Swarthmore, he transferred most of his collection there. In the study collection of the Scott Foundation thousands of cultivars have been tested and either discarded or transferred to the permanent plantings. The focus here has been on daffodils most suitable for garden use and for naturalizing, rather than for show blooms. Dr. Wister's knowledge and enthusiasm have created a great deal of daffodil interest throughout the Philadelphia area and statewide through the Pennsylvania Horticultural Society and state Federation of Garden Clubs.

In 1926 a quarantine prompted several Dutch growers to set up bulb farms here. One of them was M. van Waveren who started growing bulbs in Gloucester, Virginia, on a farm leased from Charles Heath. When the embargo was lifted later, and van Waveren left, George Heath (Charles' son) took over the farm. He began bringing in bulbs from Ireland and England, paying \$100 for a bulb of Broughshane (which translates into at least \$500, in today's money). He propagated these bulbs to sell and started a business under the name of "The Daffodil Mart." Each spring he set up a display of blooms in an ancient barn said to have been once owned by George Washington. One of the first amateurs to see his flowers was Carey E. Quinn, the founding father of the American Daffodil Society. George Heath also sent displays of his newest imports to flower shows in many parts of the country. At that time he was the link to Richardson, Dunlop, and Guy Wilson for the American growers. His son, Brent, carries on the business at the present time.

On the other side of the continent in Oregon was Grant Mitsch, who had begun breeding daffodils in 1934 while still earning his livelihood with gladiolus. He had joined the RHS and began reading their *Journals* and in particular the 1933 *Daffodil and Tulip Yearbook*. To quote Mr. Mitsch: "Through this I learned a lot about the two great Irish breeders, Guy Wilson and Lionel Richardson, and, getting their catalogues, I couldn't help but buy a few of the newer daffodils. That was the start of really getting involved in breeding daffodils." During World War II, Guy Wilson sent over a number of seedlings to Mr. Mitsch; and at the same time he obtained Green Island from Richardson and Mabel Taylor from Alister Clark in Australia. These cultivars were important cornerstones in his breeding program. He repeated Guy Wilson's cross of King of the North  $\times$  Content, laying the groundwork for his great success with reverse bicolors. Later he interested Murray Evans and many others in hybridizing.

America is a hotbed of amateur breeders today, and the family trees of most of their seedlings reveal branches, limbs and often a main trunk of Irish originations.

Now perhaps it would be of interest to present a review of the

American visitors to Ireland (and vice versa) who forged some of the personal links between us.

In June, 1953, Robert Moncure of Virginia visited Guy Wilson after spending some time in May with Alec Gray. In September, 1956, Willis Wheeler, also of Virginia, traveled to Broughshane. He was met at the airport by Willie Dunlop who took him to The Knockan to see Guy Wilson, where (to quote Mr. Wheeler) "the evening was spent before a beechwood fire in a room displaying watercolors of famous daffodils as well as scenes of the British Isles and New Zealand." Mr. Wheeler returned the next day and was surprised to find two other Americans there, Mr. and Mrs. Pierce Timmis of West Wardsboro, Vermont. Mr. Wilson gave them all a tour of the fields, the seedling boxes and beds, the sterilizing equipment and the packing room.

In April, 1959, Katherine "Kitty" Bloomer made a trip to Ireland and the RHS and Midland (Daffodil Society) Shows in England. She went first to the Richardsons at Prospect House, then to England, then back to Ireland to visit Guy Wilson. Her glowing description of this trip made me long to do the same thing.

In the spring of 1962 Eve Robertson of South Carolina made her pilgrimage. She began at the London Show, traveling next to Prospect House and then to Northern Ireland where she visited Willie Dunlop and Tom Bloomer. This was the year following Guy Wilson's death and she sadly strolled around The Knockan regretting that she had not made the journey sooner. From here she returned to England, visiting Fred Board in Derbyshire and then going on to Scotland to Iverene to view more daffodils and the spectacular rhododendrons.

In 1965 Dr. and Mrs. John Wister and Miss Harriet Worrell visited Mrs. Richardson and Willie Dunlop. Then in 1966 the number of American visitors increased to six, when Bill and Rosemary Roesé and Ken and Frances Dorwin, all from California, visited Mrs. Richardson before the London Show, and Larry Mains from Media, Pennsylvania, and Kitty Bloomer came afterwards. Kitty brought daffodils from her garden in Virginia and, entering fifteen classes in the amateur and novice sections of the RHS show, won twelve awards. After the show she visited Mr. Board, along with Larry Mains, then went to Ireland and later to Holland. Meanwhile, the Dorwins and Roesés were traveling about in England, stopping to see the daffodils of J. M. de Navarro, Dick deJager (the Guy Wilson collection), and Allen Hardy. The Dorwins went on to Holland as well.

I could not find any records of American visits in 1967. Mrs. Richard Bell of Columbus, Ohio, saw the RHS Show in 1968 but did not go to Ireland.

In 1969 Dr. Throckmorton of Des Moines, Iowa, stopped at Prospect House on his way to see the London Show and to go "daffodil hunting" in the mountains of northern Spain. Louise Hardison of Nashville, Tennessee, had snatched her daughter, Lee (another daffodil lover), from her school in Switzerland to take her to the RHS Show, and then went on to visit Mrs. Richardson in Waterford. Mr. and Mrs. Eames of California were also at the show but I do not know if they visited Ireland.

In 1970 my dream came true and I was on my way to Ireland. At Shannon I met Frances Armstrong who lives in the mountains of Virginia

and we drove around Ireland sightseeing for several days, ending up in Waterford. Wells and Mary Knierim were there too, and after drinking up the Richardson daffodils we all continued on together to London, and later to Holland. The Knierims and I returned to Northern Ireland. I visited the Harrisons and the Reades and the Knierims went to Omagh, then traveled east to see the flowers at Carncairn and Ballydorn. Ruth and Bill Pardue, with their children, were in Ireland also, visiting Mrs. Richardson after seeing the London Show.

In the 1970's there has been a steady stream of visitors from the USA, a great many of them going to Northern Ireland as well as Waterford. In 1972 Roberta Watrous and Letitia Hanson (both of Washington, D. C.) made a trip, going to Waterford and London but also including a visit to Alec Gray and the Rosewarne Experiment Station. In 1973 Dr. Throckmorton returned, this time with his wife, Jean, and made a tour of the shows and growers of Northern Ireland. In subsequent years came Jane and Roxie Moore, Virginia Perry, Charles and Amy Anthony, Lib and John Capen, as well as a return visit for me and two more for the Roesés. Also, there were many who dropped in on the London Show but did not get to Ireland. Among those were Jack Romine, Robert Jerrell, Bill Pannill, Mr. and Mrs. Donald King, Mrs. Chesterman Constantine, and Tazewell Carrington.

The traffic going the other way was pretty much a trickle. Probably the first Irishman to make his way across the Atlantic and end up with armloads of daffodils was young John Russell who emigrated to the new world and worked in the seed business, first in New York and then in Boston, Massachusetts. He staged many Gold Medal flower exhibits for his employers, Breck & Sons, at East Coast shows. After retirement at the end of 48 years service, he created Russell Gardens in Dedham, Massachusetts. With four acres of naturalized daffodils, it is one of New England's showplaces.



Carey E. Quinn, C. Reginald Wootton, and Guy Wilson at the first ADS convention in 1956 in Washington, D. C. (from the *RHS Daffodil and Tulip Yearbook*, 1957)

Guy Wilson made a visit to these shores in 1956, on the occasion of the first ADS Convention. He was accompanied by Reg Wooton and the two of them were an instant success. Our ADS Conventions seem to have been the drawing card for most of the Irish visitors. Nell Richardson attended at least a dozen conventions, visiting her many friends in all areas of the USA prior to and following the meetings. She also attended several fall meetings of the ADS Board of Directors, of which she was a member. She was sorely missed when we gathered in Boston this year.

Kate Reade has come to three ADS Conventions and sent her daughter, Patsy, to Cincinnati and her niece, Rose, to Portland.

The 1976 Convention was a banner one for overseas visitors and six daffodil growers from Ireland, one from Holland and two from England helped us celebrate our country's 200th birthday. They were: Nell Richardson, Jack Goldsmith, Brian Duncan, Kate Reade, Patricia and Frank Harrison, Matthew Zandbergen, Barbara Abel Smith and John Lea. The magnificent flowers which they brought with them will always be remembered — we enjoyed them almost as much as we did our good friends!

Brian Duncan came back in 1977 with his wife Betty and made the acquaintance of our West Coast fanciers. Driving with the Roesés, they then took a trip along the coast up to Oregon where they visited with the Mitsch's and Evans's and reveled in the daffodil plantings. Last year the visitors were Clarke Campbell and Sandy McCabe, as well as Kate Reade and Barbara Abel Smith who were making a return trip.

Americans hope to welcome many more visitors in the future and we feel sure that the scores of our compatriots and others who attended the World Convention in Northern Ireland this year went home with a lilt in their hearts and a desire to return to the Emerald Isle.

*(This article was written for Daffodils in Ireland published by the Northern Ireland Daffodil Group and a copy of the manuscript was also sent to your Editor.)*



Helen Richardson and Grace Baird at the Columbus show in 1974  
(Gripshover photo)



William Bender, N. P. Harrison, and Matthew Zandbergen at the 1973 convention in Williamsburg (Gripshover photo)



Jack Goldsmith and Brian Duncan join ADS judges Ruth Pardue and Naomi Liggett in Columbus in 1976. (Gripshover photo)

# MY RECOLLECTIONS OF GUY L. WILSON

SANDY MCCABE, *Omagh, Northern Ireland*  
(from the Northern Ireland Daffodil Group Newsletter)

When the Midwife first slapped my bottom in April, 1935, it is possible that just over a mile away, Guy Livingstone Wilson was welcoming some newly flowered seedlings in a less physical manner. If he heard of my arrival, which is doubtful, it would only have been of passing interest to him as he was totally committed to Mistress Daffodil — particularly at flowering time. They were his children and his life's work as most of the readers of this paper will know.

I can not recall when our paths first crossed, but it must have been at First Broughshane Presbyterian Church Sabbath School, of which august body he was the Superintendent. As my family worshipped in that church, I was enrolled in the Sunday School at an early age. I can well remember his genial presence each Sunday announcing the closing hymn and leading us in prayer.

He was a devout Christian whose work for the Church can best be summed up in a tribute paid by the Rev. Dr. Robert Strawbridge in a "potted history" of First Broughshane Church which he wrote in 1936.

Mr. Strawbridge stated in that publication that "the congregation owes more than words can express to Mr. Guy L. Wilson, Clerk of Session, for the generosity and enthusiastic service which the congregation experiences at his hand continually." Guy Wilson was responsible for the floral arrangements in the Church EACH Sunday — a task which he undertook and fulfilled for many, many years. It was a time consuming job and he was known to spend hours arranging the flowers in his own meticulous and artistic fashion.

His love of daffodils was not really understood by the natives of the village — myself included. This devotion coupled with his penchant for wearing tweed knickerbockers, made us regard him as being somewhat eccentric. He did not deserve this rather harsh opinion as those who were privileged to know him could testify. I have never heard him say a harsh word about anybody and he was generous to a fault, not only with his money but his flowers. Daffodils were, of course, his first love, but he also produced very fine tulips, delphiniums, lupin, lilac, gentian, crocuses, etc.

In 1950 when I was a member of his Sunday School Class and also a Boy Scout, I was fortunately selected to be one of a troop of Scouts representing Northern Ireland at a Scout Jamboree in Holland. Guy was as thrilled as I was and his only regret about my trip was that I would not be able to see the Dutch bulb fields in all their glory. On the Sunday prior to my departure I was the recipient of a gift of cash to eke out my spending money and to "help me enjoy myself" as he put it. He was a founder member of the Boy Scout Group Committee and he devoted practically as much energy and money to that organization as he did to his beloved flowers and his Church.

The following year, in July, 1951, I was first exposed to daffodils in the shape of their bulbs. (Brian Duncan maintains that it was then that I was first smitten with yellow fever, but that it lay dormant for 20 years). At that time, being on holiday from school, I was engaged by Mr. Guy to help him in the dispatch of his orders, in cleaning bulbs, running errands

and generally being a sort of dogsbody about The Knockan where his bulb farm was situated. I must have given him satisfaction because I was re-engaged in 1952 and 1953 and was thus assured of a vacational job, pocket money, and being kept out of mischief!

In my first year I had been directed to start at 8 a.m. on a Monday. However, on the preceding Saturday I chanced to meet him in the Village Post Office. I was promptly asked to report at 4 p.m. that afternoon so that he "could show me what he wanted me to do." When I arrived he said that we would make up one or two orders. When these were completed we made up another one, and another, and another until his enthusiasm gained the upper hand. I was kept with him, had my evening meal and we worked on until 10 p.m. Before I could cycle home he took me to the vegetable garden where he proceeded to fill a large basket with cabbage, beets, lettuce, peas, beans, and other varieties of greens and fruit. The basket was so heavy I was unable to cycle home and was forced to walk with the basket perched on the saddle. As I was the youngest of 5 children my Mother was absolutely thrilled with the results of my first day's work. It must have fed us for a week and, in addition, I was paid six hours overtime. I think I must be the only person in the world to start a job by working overtime.

This, however, was not the last occasion on which I worked after hours. Almost every evening just before 6 o'clock would come the inevitable question — "Sandy, can you come back tonight?" The question was always posed in a tone of voice that made acceptance inevitable. One felt that to refuse would have meant the collapse of his business which though very successful, was only incidental. It just happened and grew from his love of daffodils with which, I think, he must have been born.

On one fine summer evening (why are the summers of one's childhood always so good?) I was gazing wistfully through the window of his bulb shed. I was having envious thoughts of my pals playing tennis when unseen and unheard he materialized beside me. "What are you doing?" he asked. Not wishing to admit that I was loafing I told him that I was admiring the sunset (which was indeed beautiful). Clapping me on the shoulder he remarked, "Good boy. The Heavens declare the Glory of God and Earth showeth forth his handiwork," and off he went.

He was fastidious in his bulb selections for customers. With the possible exception of mixed seedlings, each bulb was personally selected by him. This was one job which was never delegated. He was also scrupulously fair in his dealings with clients. I believe it was in 1952 that Empress of Ireland made its debut, being selected as best flower in the London Show. This flower which has been described elsewhere as being his favorite child, was much in demand and a wealthy American wrote and offered \$200 for the least chip which would grow. The offer was politely declined and the customer informed that when the stocks were sufficiently large, it would be introduced in his catalogue and all his customers would have the opportunity to purchase.

I do not know when he introduced it but it does not appear in his catalogue for 1956 which is the earliest one I have been able to locate. As a matter of interest to exhibitors his new introductions for that year included Knowehead at 25 pounds per bulb and Easter Moon at 15 pounds. Rashee, which he introduced the previous year, was also on offer at 21 pounds.

I only rarely saw his flowers in bloom. He did not enter the cut flower market and I believe that this was so as not to weaken the bulbs for his customers. On one occasion when I did see them I was conveyed by the aforementioned Rev. Strawbridge to collect 25 bunches of flowers for sale at a function to raise money for the Scouts. I was given firm instructions that they were not to be sold for less than half-a-crown (12½p) per bunch. We knew that this would be too much for the villagers and in reality we only got one shilling (5p) for some. Needless to say, Guy was never told! He was a great supporter of charity and never refused to buy a ticket for any worthy cause. There was generally a rush to be the first to get to his door when one had tickets for sale. On one Sunday I cycled over to offer him tickets for a Scout Concert. In fact I interrupted his Sunday lunch. In return I was ticked off for selling tickets on a Sunday when I should have done it on a week-day, invited to join him for his sweet course, and got the sale of two tickets!

I also recall forming part of a choir collecting money by singing carols near Christmas. Though there were lights on in the house and we felt certain that he was at home, there was no immediate response to our rendition of "Once in Royal David's City" or whatever it was we were singing. The second carol had a similar reaction and we were feeling rather despondent that we would not receive what we knew would be a generous donation. We were half-way through the third carol (which we had decided would be our last) when the door opened and Mr. Guy appeared, attired in his dressing gown and with steam rising from his head — he had been in the bath! If my memory serves me correctly we received a special request for a favorite carol and a very generous subscription towards the work of St. Dunstan's. In my last year with him I was kept on until after Christmas. I had been awaiting confirmation of acceptance into the R.U.C. and rather than leave me at a loose end, he kept me in employment. In that year I had my first experience of sterilizing and planting bulbs and also of breaking in some new ground for the next year's planting. Normally this new ground would have been plowed but in that year six of us dug it all by spade. I am firmly convinced that this was his way of keeping me in a job. Naturally I was only too happy to stay, particularly as I qualified for a Christmas bonus. However, in January, 1954, even his ingenuity failed in finding sufficient employment for me and I had to leave.

I saw him only occasionally after that and when I was notified of his death it was like the passing of a member of my own family. Daffodil enthusiasts the world over owe G. L. Wilson a debt of gratitude for the advances he made in the breeding of the flower we prefer to all others. For myself, I shall always remember him with respect, admiration and affection and I hope I don't sound too conceited when I say that he thought highly of me. Of one thing I am sure. I know that it would have given him enormous satisfaction to know that 20 years after leaving his employment that one time schoolboy helper would be making his first trip to the RHS London Daffodil Show and gaining a third prize as a Novice with Easter Moon — his new introduction in 1956.

# WILLIAMS'S GLORY — POETICUS

MEG YERGER, *Princess Anne, Maryland*

"He that has two cakes of bread, let him sell one of them for some flowers of the Narcissus, for bread is food for the body, but Narcissus is food for the soul."

attributed to Mohammed

To a present day American financier, Percival Dacres Williams might seem to have been a "one-man conglomerate." He owned Cornish tin mines and coal mines in Wales whose material was transported on his own ships very cannily managed so there was always a load going and a load coming — never ballast! On his "Lanarth" Estate he used a "four-in-hand" as transportation to visit the twenty-one farms that were part of its twenty-two thousand acres. On top of all that he had his own 'Percival Williams Bank' (now associated with the Midland Bank).

But P. D. Williams followed the wisdom of Mohammed and turned to plants and flowers and not just those of the narcissus. He had plant collectors searching out the finest of plants for him all over the world and made 'Lanarth' one of the finest gardens in the British Isles. It was at the Royal Horticultural Society Shows of 1895 and 1896 that he became interested in daffodils. With a new awareness he saw the Lent Lilies in his own yard and went to London to buy, from Peter Barr, Firebrand to make some crosses. His enthusiasm grew and in 1897 he bought bulbs, including a bulb of the poet Horace from Engleheart himself. He must have started making poet crosses at once because several poets of his raising are listed with dates as early as 1907: Ibis, Kestral, St. Teath and Tennyson.

Possibly it can be discovered what the parentage of these could have been, but the reputation of their raiser indicates that he would have stuck to the pure strain in breeding and they would have been true poets. Since Mr. Williams did not have to make his living selling his daffodils, there was no need to please a public and he could follow his own inclinations. Not only his poets but all his flowers showed high standards for form, good substance, and short neck. It may have amused him to make jokes about the good necks of his flowers for he was known for his good sense of humor.

It is a matter of conjecture to think which poets may have been used in his crosses. A search through *RHS Daffodil Yearbooks*, Calvert's *Daffodil Growing for Pleasure and Profit*, and Bowles' *Handbook of Narcissus* gives some clues.

P. D. Williams himself mentioned *Ornatus* and *recurvus* as mainstays of gardens and referred to Herrick, Homer, and Cassandra from the *Ornatus* × *poetarum* cross as being sought after by breeders. Sappho was also sought for its roundness. He remarked that probably came from the species *poeticus verus* (now known as *poeticus hellenicus*). This roundness he also liked in Chaucer and found that its best seedlings were very good, although its average progeny was not as good as those from other poets. Since Chaucer was one of the earliest to bloom it no doubt imparted that trait, too, to many flowers bred from it.

Since Mr. Williams favored the custom of wearing a flower on his lapel, it's possible such round flat poets as Chaucer, Sappho, Huon, and *poeticus hellenicus* became his "button-hole" blooms and even provided a

convenient dab of pollen to spread around as he walked through his grounds.

Although Horace was not much used in his crosses because its progeny were apt to have long necks, it was one listed as a favorite as were Madrigal and Snow King.

By the time the *RHS Classified Lists* of 1927, 1929 and 1931 were published, there were several more Williams' poets to be added to his earlier introductions of 1907. These included: Kynance, Mrs. John T. Sheepers, Polwyn, Storeen, and Treath plus some others that were re-classified later on, after his death. One of them, Tiddlywinks, is described and pictured as a poet in Mr. Bowles' *Handbook of Narcissus* in 1934. After Mr. Williams' death in 1935, the same name was used for a 3b raised and registered in 1949 by his son Michael P. Williams. Bowles wrote the poet was "one of the neatest, roundest flowers ever seen, with a flat lemon-yellow cup edged with light coral, small enough to wear in a buttonhole if it were not too beautiful for such cruel treatment." There can only be regret for the loss of that flower which might be the nearest approach even now to a miniature poeticus.

Prince of Poets is another Williams' flower which never got registered — at least under that name. It appeared in a listing of daffodils available from Carnsulan Nurseries, Cornwall, printed at the back of Calvert's 1929 book. The name had been registered in 1927 for a poet bred by Charles Dawson, also of Cornwall.

Whatever the parentage of his poets may have been, they merited special mention in the *RHS Daffodil Year book of 1933* which summarizes the success of P. D. Williams by stating that he "started hybridizing in 1895 and raised various seedlings of refined form, including recently some beautiful hybrid poeticus varieties." Some of these of his raising were registered by other people such as Rodd by Miss G. Evelyn, 1933; Lassie by V. van Zanten, 1937; Concurrent by W. v. Ruiten, 1942; Gay Bowness by A. J. Goemans, 1943; Zaidee by Mrs. Paul Davis, 1948; and Lady Serena by Mrs. M. S. Yerger, in 1976.

The name of one poeticus registered after his death seems a final tribute to the quality of his work and all the flowers of his raising he left behind him. It is written simply in the *RHS Classified List and International Register of Daffodil Names*:

9 Williams's Glory (Will., P.D.) 1942.



The P. D. Williams Memorial Medal  
(from the *RHS Daffodil and Tulip Yearbook*, 1937)

Acknowledgement is given to Mrs. Lionel Richardson and Matthew Zandbergen whose conversations and letters were invaluable in compiling this article as the facts in *The RHS Daffodil Yearbooks* are as perfunctory as if P. D. Williams had edited them modestly himself (he seems to have always been on the Yearbook committee). Readers curious to know more about Mr. Williams will enjoy articles in the 1933 and 1936 *Yearbooks* and the description of his Memorial Medal in the 1937 *Yearbook*.

---

## DAFFODILS . . . SPRING MAGIC

THEODORE E. SNAZELLE, PH.D., *Nashville, Tennessee*

"Daffodils . . . Spring Magic" was a rather appropriate title for the garden which the members of the Middle Tennessee Daffodil Society (MTDS) prepared for the Ninth Annual Lawn and Garden Fair which was held February 8 - 12, 1979, at the Tennessee State Fairgrounds in Nashville. The fair is an annual event sponsored jointly by the Garden Club of Nashville and the Exchange Club of Nashville.

Commitment by the MTDS to create a garden for the fair had been made nearly a year earlier. During the early summer of 1978, several members of the MTDS met and ordered a number of narcissus bulbs for forcing. The bulbs arrived in the fall and were potted in a 1:1:1 soil-vermiculite-sand mixture in 8-inch plastic pots which had about 1-inch of shredded sphagnum in their bottoms. Assisting me in this potting task was Dr. Marty Perlmutter, a philosophy professor at the University of Tennessee at Nashville (UTN). Once the bulbs were potted, they were watered thoroughly and placed in two refrigerators at UTN and in a flower shop-type cooler at Louise Hardison's. This task was done on two different dates, October 20, 1978, and October 26, 1978. From then on until the pots were removed from the refrigerators and cooler about January 11, 1979, the only work required was watering. It was then that the "fun" began. The pots were placed for a few days in a dark cabinet in the greenhouse at UTN to bring on rapid growth. After a few days in the dark, the pots were placed under a bench and kept heavily watered. After the foliage had "greened," the pots were moved from under the bench onto the top of the bench into full light, both natural and fluorescent. Daffodils at this state of growth are really "water pumps" and tremendous amounts of water move through the plants and is ultimately evaporated from the leaf surfaces. Again, Marty Perlmutter provided the daily care that was required. (I really must get Marty into growing daffodils.) It was at this time that I discovered that there is really little science to the forcing of daffodils into bloom. What I thought was a science turned out to be an art. Since we were forcing into bloom nine different cultivars and four different species, I made the startling (?) discovery that these thirteen different cultivars and species had thirteen different biological clocks as far as blooming was concerned! Then, it became a game of putting some pots back into the refrigerator to slow them down so that they wouldn't bloom too early and praying over others so that they might not bloom too late.

Finally, the appointed day for staging the garden came. The date, Tuesday, February 6, 1979, will forever be indelibly recorded in my memory banks. Arriving that morning at the Women's Building at the fairgrounds wearing my Purdue jersey, levis, and "clodhoppers," I was met by four additional willing MTDS workers: Mary Cartwright, Kitty Frank, Mary Lou Gripshover, and Kathy Rychen. We worked very hard and by noon the garden was in place except for the daffodils we had forced. Our task had been made easier by the Tennessee Botanical Gardens at Cheekwood's staff who had placed the forms for the garden in place along with placing a large red maple at one end of the garden and a spot light above the garden. A dozen pots of Unsurpassable 1Y-Y along with several white pines, forsythia in bloom, several hollies, and pots of primroses and white hyacinths which had all been furnished by the fair staff were all artfully placed and were awaiting the addition the next day of the premiere feature of the garden . . . the forty pots of daffodils we had forced. Thus, an attractive garden would be transformed into a beautiful garden just in time for the preview party which was to be held on Wednesday evening, February 7, 1979. So, I drove home with a wonderful feeling of accomplishment which didn't diminish as I washed away the perspiration and dirt of my morning's labor. I then dressed and was ready to leave for the university when I looked out the bedroom window and much to my horror I saw the falling snow. Now, being a well-educated and reserved biology professor, I responded in a manner such as the situation dictated . . . panic! I immediately called Kitty Frank and told her to meet me at the fairgrounds in an hour. Also, I called my laboratory assistant at UTN to bring all the flowers down from the greenhouse and to meet me on the loading dock in thirty minutes. In the meantime, my children came in from school and my wife came in from work. I pressed them into service too. My son and I made a frantic trip to UTN in my wife's station wagon to pick up the flowers. Simultaneously, my wife and daughter drove directly to the fairgrounds to assist in putting the pots of daffodils into place. The snow was falling heavily by the time my son and I reached the fairgrounds. Mary Cartwright, who had apparently never left the fairgrounds after our morning's work, entered into the fray along with the rest of us to get "our" daffodils into place. The task was completed in time for me to return to UTN to teach my evening microbiology class and for the others to slip and slide their way to their respective homes. The snow continued to fall and by Wednesday morning, February 7, 1979, a total of seven inches of snow had fallen. Despite the snow, the preview party went off without a hitch, and I showed off the daffodil garden just like a new father would beam as friends looked onto his newborn child.

Earlier I mentioned that thirteen cultivars and species forms had been forced into bloom. The cultivars were as follows: Sweetness 7Y-Y — bloomed well, Cragford 8W-R — bloomed well, Stadium 2W-Y — bloomed well, Jumble 6Y-O — bloomed well, Little Beauty 1W-Y — bloomed well, W. P. Milner 1W-W — bloomed well, Peeping Tom 6Y-Y — bloomed well, Bridal Crown 4W-WYY — bloomed poorly, and February Gold 6Y-Y — bloomed poorly. With regard to the species forms, the following were used: *N. × odorus* 10Y-Y — bloomed well, *N. ps. obvallaris* 10Y-Y — bloomed well, *N. bulbocodium* 10Y-Y — bloomed well, *N. × odorus plenus* 10Y-Y — didn't bloom. The only surprise came

when the bulbs which were supposed to be *N. cyclamineus* 10Y-Y — turned out to be *N. bulbocodium* and the *N. bulbocodium conspicuus* 10Y-Y bulbs didn't bloom at all! Also, a pot of *N. jonquilla* 10Y-Y didn't bloom.

Well, despite the snow which plagued Nashville, the Ninth Annual Lawn and Garden Show did turn out to be a success, and I could not help the fact that my ego had become inflated considerably by the many favorable comments of those who viewed the garden including Clara Hieronymus, the respected critic of Nashville's *Tennessean* newspaper, who was much taken by the dainty hoop petticoats, *N. bulbocodium*. Thus, the fair ended on a positive note and visions of an even more beautiful garden for next year's fair danced in my mind. Indeed, daffodils are spring magic, particularly when there is much snow outside!



Peeping Tom, one of the cultivars forced into bloom by the MTDS (Snazelle photo)

### ***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.

*Join the American Peony Society*

*Dues \$7.50, paid annually. Bulletin published quarterly.*

*Send for list of publications.*

**AMERICAN PEONY SOCIETY**

**250 INTERLACHEN RD., HOPKINS, MINN. 55343**



# African Violets

Would you like to know about the growing and showing of this fascinating, everblooming House Plant? Write to The African Violet Society of America, Inc., P.O. Box 1326-D, Knoxville, Tenn. 37901 for a free Brochure. Better still, send \$6 for membership with all its advantages plus 5 issues of a colorful, informative magazine.



## HERE AND THERE

Since the March issue went to press, newsletters have come in from all directions. The Northeast Region newsletter lists shows in the region and encourages participation in the National Show.

*Narcissus Notes* from the Midwest Region gives a review of catalogues; while the Southeast Region gives show dates for 1979, reports on the Regional Show from 1978, and includes an article titled "Do Your Homework" in preparation for showing.

The newsletter from the Middle Atlantic Region gives dates for Judging School, reviews catalogues, and requests sources for some hard to find miniatures.

The New England Newsletter gives show dates and convention news and also reports that two members, Mrs. Earle MacAusland of Nantucket and Mrs. George Bragdon, formerly of Andover, won awards for stunning arrangements at the International Flower Show in Bermuda. Also included was a full page "Summary of Daffodil Classification" which makes excellent hand-out educational material.

Virginia Perry's Public Relations Newsletter mentions an article in *Southern Living* by Fred Bonnie, Garden Editor, which mentions ADS.

The first issue of the Adena Daffodil Society newsletter gives resumés of fall meetings and hints on "Picking Daffodils for Exhibition," while the Central Ohio Daffodil Society newsletter talks of celebrating a tenth anniversary and reviews the flowers which have won the "big bauble" — the ADS Gold Ribbon — in CODS shows.

Vol. 11, No. 1 of *The Avant Gardener* is a guest special issue on annuals by Paul F. Frese, an accredited judge and honorary member of ADS.



Lou Whittington, Assistant ADS Schools Chairman; Meg Yerger, ADS Schools Chairman; and Joanne Cato at the workshop prior to the Princess Anne show. (Yerger photo)

In Princess Anne, Maryland, the Somerset County Garden Club is applying for the National Council of State Garden Clubs Award No. 34, which is a Certificate of Merit for a Plant Society Show, for their 14th annual daffodil show. Winning the award would bring honor to the club as well as promote daffodil shows. We wish them well! Theme of the show was "Colors of Mistress Daffodil" and the design classes utilized the colors of the official color code. Prior to the show, an educational workshop was held.

In California, Mrs. Dale Bauer was Chairman, Arboreta and Botanical Gardens, California Garden Clubs, Inc., from 1976-1978. During that time she created an exquisite booklet each month devoted to one of the 26 districts of California and the arboretum or botanical garden located within it. One of the booklets in the series features daffodils, and is about "Gene's Golden Mountainside," her home in the San Bernardino Mountains. She had previously created a booklet on daffodils for visitors to her mountainside, where she has naturalized over 18,000 bulbs! She is currently serving as Chairman, Naturalist, for National Council of State Garden Clubs, Inc. Copies of the two daffodil booklets have been placed in the ADS library.

From Mamaroneck, New York, comes word of the death of Mrs. Richmond S. Barton (Helen) who was a charter member of the Westchester Daffodil Society as well as an accredited judge of daffodils.

# THE FLIGHT OF THE ROBINS

DR. GLENN DOOLEY, *Bowling Green, Kentucky*

Did you ever see a parade led by a "pint-size" human being? I have not seen such, either, but tiny *N. cyclamineus* led the parade of daffodil blooms in my garden this past spring. This tiny flower resides beside my house in a somewhat protected area. The deep snows and cold winds surely did much to retard the season of bloom. *N. cyclamineus* does not grow so well for me. Fortunately, I do have a few plants that have survived numerous plantings. I recall one autumn I planted a dozen bulbs of it. Come spring, not a one appeared. I have been told that other growers have beautiful clumps of it growing and blooming each year. I find that some seedlings of *N. cyclamineus* do not grow too well for me. Apparently this attribute is inherited from the tiny parent.

There is always a certain degree of apprehension concerning the winter season and its effect on various daffodils. As a general rule, the daffodils will be masters of their own destinies. However, a flooded or a water logged area will be a considerable problem for daffodils. While they do like ample moisture, they do not thrive well in water soaked soil. One Robin member wrote that the application of bone meal is not at all effective. It is not a good form of phosphate fertilizer. The explanation is rather simple. Neutral and alkaline soils will not break down the mineral found in a bone. I have dug up bones that have been buried for many, many years. There were no signs of any decomposition of the bone. However, should there be an application of bone meal in an acid soil, there will be decomposition. The rate of decomposition may be so slight that the daffodil plant will derive little use of the mineral found in bones. Therefore, it is best to add a more soluble form of fertilizer. A light sprinkle of wood ashes is often effective.

A daffodil often fascinates me. The secrets that are "locked up" in a bulb are numerous. One must grow an unidentified bulb to a flowering plant before this secret becomes known. There is a genetic clock that is wound up in each bulb. I have noticed that in late August, bulbs will start the development of the root system even though the weather is hot and dry. Occasionally I have had reasons to lift some bulbs out of a dry soil. I have found several well rooted even though the soil conditions were not thought to be favorable. Also I have noticed some daffodil plants emerging through frozen soil. I have had reports of daffodils found growing in a snow covering. In one case there were buds. What is it that regulates this clock? We know that bulbs imported from the Southern Hemisphere will have a reverse clock. It requires a period of time to reset this genetic clock so that the daffodils will have a clock that will coincide with the climatic season of this hemisphere. I have also noticed that bulbs imported from areas farther to the north will bloom later than the ones we have established. It takes a growing season before this genetic clock is adjusted. It is known that the climatic factors do have some influence on the season of bloom.

There has been a discussion in some of the Robins on the subject of cutting daffodil blooms from newly planted bulbs. Some growers insist that the first time bloom in a new environment should not be cut during the first season. Others seem to feel that there is no effect on the bulb if

such is done. There is no question that a bulb planted for the first time in one's garden should receive much consideration. I am thinking about bulbs gotten from across the seas and even from our own Pacific Coast. However, it seems to me that should I dig my own bulbs and replant, there should be no ill effect. For my part, the only necessity for cutting a blossom from a newly planted bulb is for a show. Like others, I like to see the blooms from something new and different. Like others I am most anxious to see the very best flowers in a show.

The daffodil catalogue is always an interesting piece of literature. Each year one can gain knowledge of the new developments. There was a time when the reverse colors were exciting. Now these are appearing rather frequently. There will be new poets and new tazettas. There is always room for many new and interesting cynamineus hybrids. And there are many color possibilities among the more common classes. One problem of the new color coding is the variation found in various growing areas as well as with variation in seasons. Newer daffodils with stable colors are in demand. I recall some seasons when my pink daffodils had a strong and distinct coloring. Other times I have found these same flowers to be white throughout. The stability of color can be a new goal to achieve.

The Round Robin is a most effective way for an individual to enjoy the knowledge and interest of various daffodil growers. Why not join one? A suggestion has been made to establish a Robin dealing with daffodils growing in various climate zones. Regional Robins do accommodate to a certain extent the zonal environment. Let us have several new members this year!

## VIRGINIA DAFFODIL BULBS

Varieties available this year:

CARLTON — \$95.00/1000

HELIOS — \$90.00/1000

FLOWER CARPET — \$100.00/1000

FORTUNE — \$100.00/1000

CHEERFULNESS — \$95.00/1000

MT. HOOD — \$110.00/1000

(No orders accepted after October 15, 1979)

First year blooming size. Excellent for mass plantings, fund raising, etc. All bulbs Virginia State Inspected.

**TERMS:** Price F.O.B. Gloucester, Virginia.

Cash with order.

Orders shipped via UPS, Freight collect.

Minimum order 1000. (May be mixed if desired.) For lesser quantities write for special quotation.

G.L. Hall

P.O. Box 594

Gloucester, Virginia 23061

Member: ADS, VFGA

# PROPAGATION OF DAFFODIL BULBS FROM SLICED BULB SEGMENTS

MAURICE WORDEN, *Mill Valley, California*

Twin scale propagation articles appeared in the *RHS Daffodils 1972* by A. A. Tompsett of Rosewarne Experimental Horticultural Station, Cornwall, and in the *ADS Journal*, December 1973, by William O. Ticknor. My sincere thanks to authors and publishers for those fine articles.

My first slicing of bulbs to orange-type segments was on July 29, 1974. Bulbs of twenty-eight clones were washed in a 40% Formalin solution, one teaspoon to a pint of water. The bulb neck was cut off and the bulb sliced vertically into six or more segments, depending on bulb size. No dark areas were allowed. Round bulbs or slabs are preferable. The segments were dropped into a pan of Formalin solution, drained, and soaked for one hour in a benomyl solution (two level teaspoons of benomyl fungicide to a pint of water). They were then drained and bagged in thin plastic sandwich bags into which one or more heaping tablespoons of four parts granular vermiculite mixed with one part benomyl solution had been placed. Level the mix and place the segments on top. Secure the bag with air trapped inside. The segments must have air for roots.

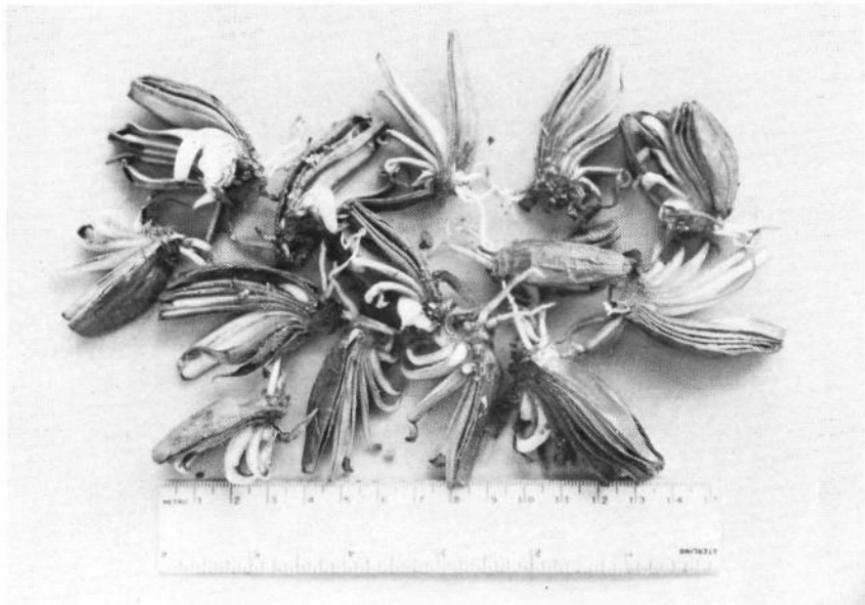
Bags were placed in three-inch plastic pots, and set on a sand bed in a nursery flat. A short electric heating cable with 63°F preset thermostat was stapled inside the flat bottom. The flat was insulated all around. The thermometer registered 63°F to 75°F during August through September and held at 63°F during early October. Potting up started October 10 and more than half the segments had developed roots. Six-inch jardiner plastic pots were used. Mix two parts leaf mold, one part redwood planting mix, one-quarter cup of fine sand and a level teaspoon of bone meal. Mix well and dampen. Press into pots and level off about two inches below the rim. Place segments and cover with an inch or so of planting mix. Top with one-half inch of fine peat, pressed, an insulation and moisture indicator. Any satisfactory daffodil planting mix should do.

The pots were placed in flats and covered with light plastic to hold moisture and show a light fog inside. Flats were stacked four high on an empty flat on the garage floor. Pots should do well in a basement away from heat, or in a root storage area. Amazingly all twenty-eight grew.

The picture is from the fourth cutting in September, 1977. Segments were cut as described above. Some segments were from larger bulbs, and are therefore larger. Put twelve or more into the carton if they are available.

The cartons were placed in zipper bags, without heat, as an experiment. Many did well, but some developed blue mold and were lost. Probably the vermiculite was too wet for use without heat. The *RHS Daffodils 1977* arrived late and was read later. An article by Mr. Tompsett quoted Dr. Alkema of the Bulb Research Center, Lisse, Holland: "Moisten vermiculite with one part by volume of water to twelve parts dry vermiculite." I shall be using less water and adding distilled water later if necessary.

The 1977 segments were potted from November 25 through December 5. The bag should show a light fog inside, but no water drops. Sandwich bags are best to start.



New growth resulting from bulb cuttage

---

## *N. serotinus* FROM SEED

HELEN K. LINK, *Brooklyn, Indiana*

Last fall in a bulb exchange with a friend in California I received some bulbs of *N. serotinus*. They were promptly planted in a pot and placed in a cool greenhouse where they received plenty of sunshine and were given a temperature near 50 degrees at night. They threw scapes very quickly. I was much impressed when one bulb had three blooms to the scape.

I permitted one seed pod to ripen. This was from open pollination. The seeds were sown directly into the pot with the mother bulb. Much to my surprise within a week I had 28 little seedlings.

I am wondering whether mutual stimulation may have had something to do with the quick and excellent germination? Botanists have discussed the matter of mutual stimulation in pollen grains, and some think it plays an important part in the germination of the pollen grains. It might be well to try germination of seed in a pot along with the seed parent. I will try it next season using some cultivars.

Many of the species seed readily in the garden. I have raised hundreds of seedlings from *N. rupicola* by planting the seeds along side the parents, but I have never seen such quick germination as in *N. serotinus*. None has ever germinated until the next growing season although they were planted immediately after ripening.

Each year in the cold frame I raise a number of bulbocodiums from seed. For me they are not long lived, and by growing from seed I get interesting color variations and keep a constant supply of bulbs for fall and winter bloom in the cold frame.

## BITS AND PIECES

(from *Cods Corner*, January 1979)

In viewing our members' gardens, Mr. Dettman found a strawberry border in a beautiful garden of daffodils. The strawberry is considered a host for daffodil fly in Australia. Mr. Phillips, our guest from New Zealand, was also with us at this time and he said the plant is also considered a host for the daffodil eelworm in New Zealand. So it seems if you grow daffodils you shouldn't grow strawberries in proximity. When Tag Bourne heard this, she asked Clarke Campbell and Sandy McCabe of Rathowen to look at her beds (she also grows strawberries) as she had some strange flies flying above her beds. After thoroughly checking her beds, they discovered no daffodil flies. She had syrphus-fly, and of no apparent danger to her daffodils. The syrphus-fly, a strange looking insect, keeps flying above the foliage while the daffodil fly stays on the foliage close to the ground ready to burrow in. As a precautionary measure, Tag dusted all the foliage and soil with Chlordane. Does anyone have any knowledge about the daffodil-strawberry incompatibility?

—CECILE SPITZ, *Columbus, Ohio*

Tag wrote Brian Duncan about the above question, and the following is his answer:

"He is probably quite right, strawberries, together with snowdrops, scillas, bluebells, onions, phlox, and sometimes tulips, can be attacked by the narcissus stem and bulb eelworm (*Ditylenchus dipsaci*). But then it has also been found that the little worm can attack upwards of 370 different species of plants including clover, oats, chickweed, plantains, hawk-weed, cat's-ear, rumex, bindweed, and even the scarlet pimpernell. So what do you do? Unless you can maintain sterile weed free conditions, I would advise buying clean bulbs, clean strawberry plants, and continue to enjoy both. This is incautious but I hope reasonably practical advice for an amateur gardener. If you are really concerned, you might send some samples of roots or runners from your strawberries to your nearest Department of Agriculture Plant Pathology Department or Nematology Laboratory for check-up and advice."

*Cods Corner* Editor, Naomi Liggett, noted that the *Daffodil Handbook* published by the American Horticultural Society, and *Daffodils and Narcissi* by Michael Jefferson-Brown both cover this pest. Strawberries are mentioned on pages 116 and 166 respectively. *The Narcissus Bulb Fly*, U. S. Department of Agriculture Leaflet #444, gives the following information: "They feed on pollen and nectar from the blossoms of numerous fruits and flowers including strawberry, apple, morning glory, buttercup, and dandelion."



"It pays to advertise" . . . so it seems as a result of a very small mention in the December and March *Journals* about articles by Helen Link on point scoring daffodils. Bill Ticknor wrote the ADS Schools Chairman that the demand threatened to wipe out all copies of those particular *Journals*. Her suggestion to him was to sell Xerox copies of the wanted

articles. However, so many of the 60 students registered for Course I in Richmond, Virginia, wanted them that Mrs. Lester Belter, Local Chairman, met the problem herself. She supplied the demand by combining reprints of the articles into a neat little eleven page pamphlet on daffodil yellow paper. Student registration fees covered the cost.

—MRS. MERTON S. YERGER, ADS *Judging Schools Chairman*

(from a letter to Bill Ticknor:)

I am writing in reply to your offer of seed of *N. jonquilla*. Anytime in the future when you have a surplus, I shall be very grateful if you could spare some. *N. jonquilla* was commonly seen almost everywhere when I was a boy in the 1920's but it is now seldom seen. In my garden, I have many bulbs sent from Willis Wheeler many years ago, and my gardening friends want them. These bulbs have not increased in the manner in which I recall *N. jonquilla* did in my boyhood. Those days it increased freely, and I had a good stock in a rather short time. I presume seedlings raised here will acclimate better and I shall relive my boyhood memories with days full of fragrant golden blossoms in the garden.

I had never tried the cutting method of propagating daffodil bulbs, but I tried it last summer with very good success. The article in the *Daffodil Journal* a few years ago was exactly true. I cut one each of Altruist and Ulster Queen into forty to forty-five pieces at the end of August, washed away the mucus in running water for about five minutes, then dipped in Benlate solution for the night and planted them next day in a large pot of slightly moist, sterile soil, and placed the pot under the greenhouse bench. After two months, I poured the contents of the pots onto a tray to examine them. Even the tiniest piece had produced a bulb which was growing vigorously. More than half of the pieces produced two bulbs, and some produced three. The largest of the new bulbs were about 10mm wide and the smallest were about 5mm wide. I am going to plant them in the ground. It will be interesting to see how they act in the future.

—SHUICHI HIRAO, *Japan*

### DOWN UNDER DAFFODILS (from *Poeticus Round Robin No. 2*)

On the possibility that some of you might find something of interest in it, I will give my evaluation of some of the daffodils I obtained from down under five years ago. None of the daffodils are poets. The report is of course highly subjective. Some of the cultivars mentioned originated in the British Isles but are no longer offered in this country and so were ordered from down under.

My 3B's from down under are as good as any I grow. Possibly the best of them is Anacapri, with good perianth and most beautiful rich coloring of cup. It has been prolific of bloom with me. Litchfield with rounded, very white, over-lapping petals and small well-proportioned cup of pale coloring has proved a pleasing daffodil. I also have liked Kindergarten, Hampstead, and Elegy. One of the finest daffodils I have ever bloomed, or ever seen, was an exquisite blossom of Dresden grown from a two-year down bulb from New Zealand. It was superb. In succeeding years this cultivar has never been quite so good, but each year it is among the very best of my daffodils. It consistently has the best perianth of any of my 3B's. Since growing Dresden and finding it so beautiful, I have wondered

that it is never among the favorites in daffodil polls. Could it be that popularity of daffodils runs in trends with certain ones becoming "fashionable" and in vogue, while equally good ones are dropped from the catalogues because they are out of fashion and not in demand?

The triandrus are another class in which those from down under, to my thinking, rank with the best we grow here. Two especially dainty, charming ones with me have been Fairy Cup and Agnes Webster, the former a bi-color and the latter all white. Noelle is another good and distinctive all-white triandrus.

None of the jonquils I received from down under have been of the quality of the best we grow here.

Tazetta Highfield Beauty really is a beauty. The soft yellow color of its petals is different from that of any other daffodil I know and the smoothest coloring I know in daffodils. This color blends very evenly to orange at the cup. It is a different and fine daffodil.

Daintiness has excellent pose and proportion and as lovely and delicate coloring of cup as I have seen in a daffodil. It does not have much substance and so is far from a show daffodil but it is a favorite of mine. Walter J. Smith is similar but not quite as good, to my thinking. This spring I picked a blossom of the latter which looked rather ordinary in the beds, but arranged in a bouquet it was among the most beautiful of a large number of cultivars.

Other daffodils from down under which I rate among the best I grow are Masquerade, City Lights, St. Saphorin, and Bonnington.

—GEORGE WOOD, *Northport, Alabama*

---

## THE GREEN-EYED POETS ARE BEAUTIFUL

HELEN K. LINK, *Brooklyn, Indiana*

There is something about a green eye or green throat in any flower which captures the eye of the beholder. For instance, the green throat of the hemerocallis, the green coloring at the base of the trumpet in the lily and the amaryllis is as charming as the green in the eye of the cups in some daffodils.

Several of the species poeticus have green eyes, namely: *N. poeticus bellenicus*, *radiiflorus*, *sp. recurvus*, and *stellaris*. Since I am extremely fond of the green-eyed daffodils, several years ago I made a few crosses using Sea Green 9W-GGR (GYR in my garden) (Engleheart, 1930) as a pollen parent. I chose Milan 9W-GYR (Alex Wilson, 1932) as a seed parent. From this cross came Lucy Jane 9W-GYR, the best of the lot. Another cross made with Sidelight 9W-R as the seed parent and Sea Green as the pollen parent gave Phebe 9W-GYR.

It is difficult to trace the parentage of Milan and Sea Green. Apparently Alex Wilson and Engleheart either did not keep good records or they were lost. No parentages are given in the *Data Bank* for many of their originations. Sidelight came from a cross of Dactyl 9W-YYR (Alex Wilson) × Ace of Diamonds 9W-R (Engleheart). Parents are unknown of both Dactyl and Ace of Diamonds. Somewhere along the line in breeding,

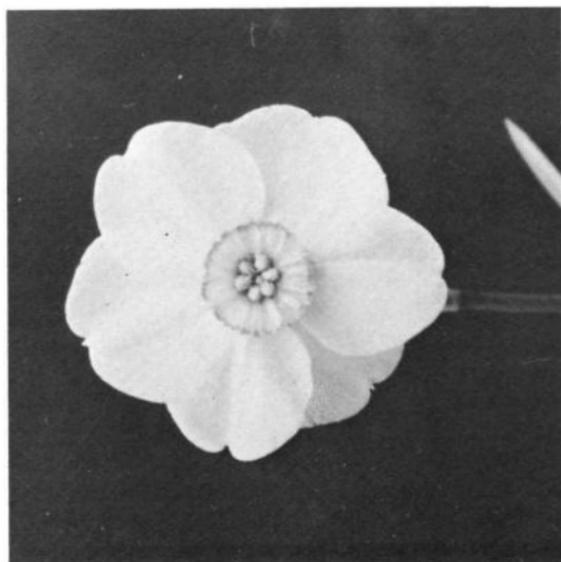
the green-eyed species must have been used as parents; however, Quetzal 9W-WGR (GYR in my garden) came from a cross of Cantabile 9W-GGR (GYR in my garden) by Cushendall 3W-GWW whose parents were Emerald Eye 3W-GGW × Dactyl 9W-YYR. According to the RHS requirements for classification at the time Quetzal was registered it should not have been registered as Division 9 because the pollen parent was from Division 3; nevertheless, Quetzal has all the characteristics of Division 9.

Sea Green has been used as a parent by other hybridizers with good results. Cotter used it as a pollen parent with Wordsworth as the seed parent for Auden; Cantata has Sea Green as the pollen parent and a seedling as the seed parent. Sea Green is also the seed parent of Masefield. Bisdee used it as the pollen parent for both Margaron and Sagana.

Some of the more recently registered green-eyed poets are exquisite. Mitsch's Angel Eyes 9W-GYO and Seraph 9W-GYR are both progeny of Quetzal × Smyrna; again the question is: did the green eye come from Cushendall by way of Emerald Eye, its seed parent?

In my garden last spring Pidget 9W-YYG (GYR in my garden) had a very intense green eye which probably came from Gourlay's Como 9W-GGR (GYR in my garden) as the seed parent. Since there is no parentage given in the *Data Bank* for Como, the pollen parent is unknown; thus ends the trail.

Regardless of where the green eyes come from in our poets, they are most attractive. With the restriction lifted that poeticus cultivars must be pure poeticus, we will no doubt see many more green-eyed beauties, perhaps with pink and peach colored rims. Harrison's Tweedsmouth and Otterburn are examples of breaks in rim color. Then the question arises: isn't one of the characteristics of the poeticus that it have a purple, red, or red-orange rim?



A new green-eyed poeticus, Lucy Jane (Link photo)

AMERICAN DAFFODIL SOCIETY, INC.  
INCOME AND EXPENSES — YEAR ENDED DECEMBER 31, 1978

INCOME:		\$ 7,573.00
Dues Paid in 1978		500.00
Life Memberships Paid in 1978		500.00
Contributions		500.00
Sale of Books, Supplies, etc.:	Income      Expenses	
R.H.S. Yearbooks	\$ 344.10	\$ 409.32
A.H.S. Daffodil Handbooks	166.20	—
Daffodils to Show and Grow	2,642.89	2,007.20
Handbook for Judging	338.93	—
Binders for Journals	135.00	—
Jefferson-Brown Book	15.00	—
Allen — E. A. Bowles Book	45.90	—
Out of Print Books	94.25	34.00
A.D.S. Membership Pins	1,037.05	815.27
A.D.S. Publications	106.38	—
Data Bank Printouts and Binders	1,008.45	648.24
Show Entry Cards	330.25	385.05
Medals, Ribbons and Trophies	48.50	150.48
Registration Fees	85.50	28.50
Miscellaneous	31.50	—
	\$6,429.90	\$4,478.06
Advertising		415.00
Judges' Certificate Fees		20.00
Slide Rentals		156.40
Interest Received		1,653.33
Judging School Surplus		18.56
Return of Convention Advance		400.00
Convention Surplus (Columbus)		2,065.36
Lillian M. Meyer Memorial		36.00
George S. Lee Memorial		1,087.95
L. P. Dettman — Donation for Trophy		65.00
TOTAL INCOME		\$16,442.44
EXPENSES:		
Daffodil Journal — Printing, Envelopes and Mailing		\$ 7,512.93
Office Expenses:		
Printing and Supplies	\$ 530.17	
Postage	818.16	
Executive Director	1,875.00	
Social Security Tax	37.83	
Bank Service Charges	27.40	
Move Expense to Tyner, North Carolina	125.00	
Miscellaneous	149.96	3,563.52
Regional Vice Presidents (Newsletters)		567.93
Secretary		62.76
Committees		42.61
Daffodil Data Bank		1,291.50
Contribution to New York Botanic Garden*		1,000.00
Fall Board Meeting Deficit		83.79
TOTAL EXPENSES		\$14,125.04

\*George S. Lee Memorial Scholarship

AMERICAN DAFFODIL SOCIETY, INC.  
BALANCE SHEET — DECEMBER 31, 1978

ASSETS:		
Cash in Bank — Bank of North Carolina		\$ 983.68
Cash in Savings Account — Bank of North Carolina		2,350.90
Savings Certificate, 6 $\frac{1}{2}$ %, expires 5-1-79, New Canaan Sav. Bank		2,247.90
Savings Certificate, 6 $\frac{1}{4}$ %, expires 5-1-80, New Canaan Sav. Bank		2,412.59
Savings Certificate, 6 $\frac{1}{4}$ %, expires 3-1-81, New Canaan Sav. Bank		2,903.69
Savings Certificate, 6 $\frac{1}{2}$ %, expires 5-1-82, New Canaan Sav. Bank		2,141.64
Ford Motor Credit Corp. 8 $\frac{1}{2}$ % Bonds due 3-15-91		10,575.00
Accrued Interest not due		247.90
Inventory of Publications:		
Royal Horticultural Society Yearbooks (136)	\$266.65	
A.H.S. Daffodil Handbooks (1143)	273.45	
Handbook for Judging (788)	234.82	
Binders for Journals (40)	56.00	
Lawrence — Lob's Wood (1)	1.06	
Show Entry Cards (9000)	139.50	
Daffodil Data Bank Printouts (19)	190.00	
Data Bank Binders (63)	75.60	
Daffodils to Show and Grow (407)	870.98	
A.D.S. Membership Pins (56)	224.00	2,332.06
Inventory of Medals and Trophies:		
Medal Dies	15.00	
Gold and Silver Medals	216.16	
Maxine M. Lawler Sterling Cups (1)	45.00	
Larry M. Mains Sterling Trays, min. replicas (6)	270.00	591.16
TOTAL ASSETS		\$26,786.52
LIABILITIES:		
Dues Paid in Advance (in whole or in part)		\$ 6,570.61
Life Memberships		9,300.00
Net Worth		10,915.91
TOTAL LIABILITIES		\$26,786.52

#### AUDIT STATEMENT

The above balance sheet and income statement for the year 1978 were prepared using the cash receipts and disbursements records maintained by the Executive Director. The cash balances were verified with the bank statements and the savings certificates of the banks indicated. The inventory of publications is shown at cost except that no value is included for surplus ADS publications. In addition to the assets shown, the Society has a substantial library of books on daffodil culture, many of which are rare and valuable, and several colored slide collections. It also has a number of memorial silver trophies awarded at convention shows. The books, slides and trophies were mostly contributed by members and no value is included.

Dues received in the current year covering periods beyond the end of the year were prorated and amounts covering such future periods are shown as a liability as are payments for life memberships.

The receipts for dues and other income were verified with the deposit slips and the disbursements were verified with the suppliers' invoices and the cancelled checks signed by the Treasurer and Executive Director.

Based on this review, it is my opinion that this balance sheet and income statement present an accurate report of the financial condition of the Society and that the records are being maintained in a sound and orderly manner.

—Wells Knierim

*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 \$7.50      Write to:

**B. L. MARKHAM**

2612 Beverly Blvd. SW

ROANOKE, VA 24015

**"Schultz-Instant"<sup>®</sup>**  
**LIQUID PLANT FOOD**  
10-15-10

Concentrated, High Analysis — All Purpose — 10-15-10 "Starts and Feeds" all Plants Indoors and Outdoors.

Available at your store or send \$1.25 for 5½oz, \$2.50 for 12oz (includes mailing).

7 DROPS PER QUART WATER

**"Schultz-Instant"<sup>®</sup>**  
**SOLUBLE FERTILIZER**  
20-30-20

Concentrated, High Analysis — All Purpose — 20-30-20 crystals. Grows Vegetables, Flowers, Roses, Trees, Shrubs, Lawns, Etc., in Yards, Gardens, Greenhouses.

Available at your store or send \$7.95 for 5 lb (includes mailing).

SCHULTZ CO. — St. Louis, MO 63043

**SEND FOR OUR FUND RAISING OFFER**

## SERVICES AND SUPPLIES

### Slide Sets:

1. Show Winners
2. Symposium Favorites
3. Novelties and Newer Varieties
4. Daffodil Primer (Garden Club Special)
5. 107 from Grant Mitsch
6. Miniatures
7. Arrangements of Daffodils
8. Daffodils in Britain
9. Species and Wild Forms
10. Classification and Color Coding

Slide rental \$5.00 per set. Confirm dates well in advance. Address all correspondence concerning slides to:

Mrs. Harold E. Stanford, Rte. 2, Lebanon, Tenn. 37087

---

Membership application forms. No charge.

Publications in the ADS library may be borrowed by members. Incomplete list will be found in *Daffodil Journal* for September, 1965, p. 21. Correspondence invited on items not listed.

### ITEMS FOR SALE

Daffodil Pin (tie back, pin back, or ring back) .....	\$ 7.50
Daffodils — To Show and Grow, 1977 .....	3.50
Handbook for Exhibiting and Judging Daffodils, 1974 ....	2.25
The Daffodil Handbook, 1966 .....	
.....Paper Cover, \$3.40; Cloth	4.90
Print-out of Daffodil Data Bank .....	\$15.00; with binder 18.00
Binder for 12 numbers of Daffodil Journal .....	3.40
Set of at least 15 numbers of Daffodil Journal .....	5.00
Single copies of Daffodil Journal .....	1.50
ADS Yearbooks for 1957/8, 1964 .....	2.00 ea.
ADS Approved List of Miniatures, 1979 .....	two 15-cent stamps each.
RHS Yearbook, Daffodils 1978 .....	4.25
RHS Yearbooks on Daffodils (as copies become available)	
write for years on hand with prices.	
Show entry cards .....	500 for \$11.00; 1000 for \$20.00

Make checks payable to American Daffodil Society, Inc. Prices include postage. Correspondence is invited concerning out-of-print publications on daffodils. Copies of these are sometimes available or names will be placed on want list.

AMERICAN DAFFODIL SOCIETY, Inc.

Tyner, N.C. 27980

Tel. (919) 221-8388