

# THE AMERICAN DAFFODIL YEARBOOK

1957-58



*The American Daffodil Society*  
*Miss Estelle Sharp, Secretary*  
*Berwyn, Pennsylvania*

## FOREWORD

The 1957 Yearbook is larger, easier to read and contains a fine collection of valuable material not the least of which are advertisements from certain of our principal commercial brethren.

The items on "Growing Daffodils", on "Daffodil Breeding", on "Judging and Evaluating Daffodils" and of "Nematodes and Viruses" are to be reprinted with possible additions at a later date for issuance to new members. However, there is much in these carefully written articles that most experts will find helpful and will want to keep for ready reference.

The Symposium Committee's annual presentation on varietal performance nation-wide is better than ever and makes fascinating reading for every daffodil grower be he beginner or a crusty bug.

Grant Mitsch's review of Pinks, Harry Tuggle's survey of his beloved whites, Roberta Watrous' item on miniatures, Jan de Graaff's summary of an All-Purpose Planting, and Guy Wilson's "Looking Ahead" — these five articles alone would make any Daffodil Yearbook a fascinating and helpful gem. There are also many other valuable, if shorter, items and reports.

So it is with pride, appreciation and every good wish for a Merry Christmas and a Happy New Year that your Editor on behalf of the Publications Committee, the officers, directors and committees of the Society submit to you, the members, this Yearbook for 1957.

Carey E. Quinn,  
*Editor*

## Dedication

By Carey E. Quinn

I should like to dedicate this Yearbook to the four men who I think have contributed most to the formation of my own ideas with respect to the Daffodil. I refer to Jan de Graaff, George Heath, Grant Mitsch and Dr. John Wister.

Since I have never personally said as much to any of the men mentioned, I am sure my comments herein will come as a surprise to all of them. And because I am never greatly impressed by either biography or recitation of honors and accomplishments, let me simply give a brief word of their impact on me and dispense with their histories.

Jan de Graaff combines great intelligence and personal charm with a real knowledge of horticulture that shines thru his articulate abilities and skills as a bulb specialist and merchandiser. You almost feel like you are talking to many generations rolled into one and I always learn something when I talk to him or read things he has written.

George Heath probably knows more about daffodils than anyone I ever met, with the possible exception of Guy Wilson. George would probably rather grow and live with daffodils than merchandise them — and he gives me the amusing feeling that he is constantly thumbing his nose at his genteel Virginia ancestry. Here is a great individualist with the biggest single list of daffodils in the world.

Grant Mitsch is a lovable character with a deep affection for fine daffodils. Grant is deeply religious, always kindly and I could not imagine him misleading anyone about anything. Here we have a perfectionist and probably our greatest American hybridist with many fine things to his credit.

Dr. John Wister's book on bulbs — now some 20 years old — was my first contact with the scholarly bachelor who heads the Hoyt Scott Foundation of Swarthmore College. Dr. Wister is always thorough and always practical and when you couple these qualities with one of the best horticultural educations in the country you have a man I wish every daffodil grower could know. Everyone should see the tremendous daffodil Test Garden at Swarthmore College near Philadelphia.

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*Two views of the famous display Garden of the Little England Daffodil Farm, showing over 500 varieties of the best daffodils.*

## THE 1957 AMERICAN DAFFODIL SYMPOSIUM

By the Symposium Committee  
Charles Meehan, *Chairman*

Our third annual symposium is again the tabulation of ballots from a cross-section of the American Daffodil Society membership. Our reports have come from experienced daffodil specialists all over the country.

We hope that our Symposium will be especially valuable to our newest daffodil growers, and perhaps give the really ardent fanciers, who already grow most of the standard varieties, a rough idea of what might be worthy of trial from the lists of latest introductions of our leading daffodil hybridizers.

Last year many of our reporters recommended that our symposium be divided into four parts, each representing almost a specialty in itself. We have adopted their suggestion and called for reports under four separate categories, as follows:

**EXHIBITION:** The type of daffodil that, when well grown, stands a reasonable chance of winning that Blue Ribbon at your local flower show. Price was not a consideration, but none of our winners are so very expensive as fine flowers go.

**GARDEN DECORATION:** Health, spectacular effect when grown in clumps, and a fairly cheap price per bulb were chief requirements for this category. In addition to these specifications, some of the winners are of excellent exhibition quality, and all of them are very pretty flowers.

**MINIATURE:** These are those little fellows under twelve inches high and less than two inches in diameter. All are man-made, since Division 10 covers species and wild hybrids. This, incidentally, is the fastest growing type of daffodil in popularity. Some of these little daffodils do not exactly fit into the standard RHS classifications.

**NOVELTY:** This represents the newest daffodils being tested by our more advanced reporters. In time, many of them will take their places in our first two categories. Most of them are now somewhat in the expensive class merely due to scarcity. No attempt will be made to rate these bulbs in order of superiority — they are merely listed with the comment of the reporter.

Comment on the individual flower is necessarily very brief, if at all. However, any daffodil mentioned below is worthy of your consideration.

The daffodils are grouped under twenty-one items, following as closely as practical to the accepted classifications of the Royal Horticultural Society, London, England. In one or two instances the RHS classification has been split for clarification. In several other divisions they have been lumped where the small number of varieties grown here in America didn't seem to warrant separation. Pink daffodils are grouped into Item No. 21, regardless of the RHS classification.

The number shown in parentheses after each exhibition-type daffodil is the rating that it received in last year's symposium; i.e., 1. Kingscourt (1) — first this year and last, or 3. Ulster Prince — third this year, not rated at all last year.

ITEM NO. 1. TRUMPET, Self Yellow. (RHS Sub-division 1a)

Exhibition

1. Kingscourt (1)
2. Hunter's Moon (2)
3. Ulster Prince
4. Milanion (6)
5. Grape Fruit (3)
6. Moonstruck (4)

Garden Decoration:

1. Mulatto
2. Grape Fruit
3. Garron
4. Lord Wellington
5. Unsurpassable
6. Diotima

Miniature: 1. Tanagra, 2. Wee Bee.

COMMENT: Kingscourt, noted for the clarity of its rich golden color, and good form, is still the leading exhibition trumpet. A few reporters thought its stem too weak and too short. Vigorous, yet of first-class quality, Ulster Prince "sputniked" right into position three after mere mention as a novelty last year.

In our first year's rating for garden decoration, healthy, lemon colored Mulatto easily leads the field. In certain localities its classification might be changed to Division 1d, because the cup bleaches to almost white before the flower dies. Grape Fruit, of the popular limey shade, has good form and also draws a rating for garden use. Watch it for virus diseases.

Good miniature trumpets are very scarce. Many do not think the two rated are at all attractive. To others, they are mighty cute little fellows.

NOVELTY: King's Ransom — superb deep yellow trumpet. Royal Oak — a new glorified Crocus-type and one of the best at the Virginia Show last spring.

Arctic Gold — a much improved Goldcourt was reported to have everything, with every bloom perfect. Spanish Gold — got several good notices. Slieveboy and the very late Mahee were bragged on as being absolutely top quality. So was Golden Dollar and large, limey-colored Luna Moth by our Grant Mitsch.

ITEM NO 2. TRUMPET, Bicolor — white perianth with yellow trumpet. (RHS Sub-division 1b)

Exhibition:

1. Preamble (2)
2. Trousseau (3)
3. Content (1)
4. Effective (4)
5. Spitzbergen
6. Straight

Garden Decoration:

1. Effective
2. President LeBrun
3. Music Hall
4. Queen of the Bicolors
5. Bonython

Miniature: 1. Bambi, 2. Rockery Beauty, 3. Little Beauty.

COMMENT: Preamble regained its place at the top of this class. This daffodil requires time to settle down from newly imported bulbs; then it gives consistently perfect blooms. Trousseau is so beautiful, yet so hardy it is difficult to understand why it didn't rate as a garden flower also. Straight, Bonython and Foresight are very subject to fusarium bulb rot when out of the ground, according to complaints.

NOVELTY: Newcastle — very new and the latest rage. Zest, Balleygarvey, Tudor King and Lapford received much praise from folk who should know.



ITEM NO. 3. TRUMPET, Self White. (RHS Sub-division 1c)

Exhibition:	Garden Decoration
1. Cantatrice (1)	1. Beersheba
2. Broughshane (2)	2. Mt. Hood
3. Beersheba (3)	3. Ada Finch
4. Mt. Hood (4)	4. Roxana
5. Kanchenjunga (5)	5. Mrs. E. H. Krelage
6. Vigil	6. St. Bride

Miniature: 1. W. P. Milner, 2. Rockery Gem and Rockery White (a tie)  
3. Alice Knight.

COMMENT: Cantatrice of exquisite beauty, when well grown, continues to dominate the whites both here and abroad. Some have complained that its bulbs are awfully hard to keep, others find them extremely easy. Everyone should at least give it a trial.

NOVELTY: A host of fine white trumpets have been recently released. Since we have an excellent article about them elsewhere in this yearbook, we will list a few of the most recommended and no notes. Empress of Ireland, Rashee, Glenbush, Prestige, Glenshesk, White Prospect, Alycidon, Snowfall, Pearl Harbor, Silverdale, Fairy Dream and Ambassador.

ITEM NO. 4 TRUMPET, Reverse Bicolor. (RHS Sub-division 1d)

COMMENT: Spellbinder is the name of the only well distributed flower of this classification. It is a fairly large daffodil that opens an attractive clear luminous greeny color. On aging, the inside of the cup passes to almost white. It grows vigorously and multiplies furiously, which makes it tops for exhibition or garden use. Grant E. Mitsch's Lunar Sea, a newer flower of the same breeding, is gaining in popularity and may lead the field when more plentiful. Mitsch, incidentally, has a new one up his sleeve, called Entrancement! Watch for it.

ITEM NO. 5 LARGE CUP, Self Yellow. (RHS Sub-division 2a)

Exhibition:	Garden Decoration:
1. Galway (1)	1. Carlton
2. Carlton (2)	2. Crocus
3. Golden Torch (4)	3. St. Egwin
4. St. Egwin (3)	4. Golden Torch
5. St. Keverne	5. Velveteen
6. Crocus (5)	6. Malvern Gold

Miniature: 1. Mustard Seed, 2. Goldsithney, and 3. Picarillo.

COMMENT: Galway, the unquestioned all-time great in yellow daffodils, leads the field by many votes. St. Keverne, the only newcomer for this year, is a very worthy flower, a bit earlier and of a more formal star shape. Carlton, while not of the exhibition calibre of Galway, is without a doubt America's most vigorous garden daffodil.

NOVELTY: Cited were Mulrany, Golden Triumphator, Shanghai, Amberly and Ormeau. Cibolo merits attention as a durable garden type.

ITEM NO. 6. LARGE CUP — Yellow perianth, red or orange cup.  
(RHS Sub-division 2a)

Exhibition:

1. Ceylon (1)
2. Narvik (2)
3. Dunkeld (7)
4. Armada (3)
5. Krakatoa
6. Fortune

Garden Decoration:

1. Fortune
2. Rustom Pasha
3. Carbineer
4. Rouge
5. Aranjuez
6. Narvik

Miniature: 1. NorNor, 2. Marionette, and 3. Pepper.

COMMENT: Ceylon's deserved popularity continues. Narvik's color often burns, but it is otherwise top-flight. Armada will perhaps replace Fortune as the best garden type when more plentiful. Krakatoa's color is erratic. Dunkeld when protected can compete with the best. Rustom Pasha has no competition for sun-proofness.

NOVELTY: Masai King, Court Martial, Air Marshal and Firecracker are popular new items from Richardson. His Border Chief captured many honors this season. Home Fires and Foxhunter were crowd-stoppers at Mansfield. Kindled, Kilmorack, Paricutin and Revelry should be tried. Royal Charger's health was questioned by several.

ITEM NO. 7. LARGE CUP — White perianth, yellow cup.  
(RHS Sub-division 2b)

Exhibition:

1. Green Island (1)
2. Polindra (2)
3. Coverack Perfection (4)
4. Statue
5. Tudor Minstrel (7)
6. Daisy Schaffer (6)

Garden Decoration:

1. Brunswick
2. Polindra
3. Daisy Schaffer
4. Bodilly
5. Tunis
6. Coverack Perfection

Miniature: 1. Tweeny, 2. Ecstasy, and 3. Jane Bigglo.

COMMENT: Green Island wins hands down across the country! Polindra is usually superb, if divided frequently. Coverack Perfection is of good show form but sometimes colors improperly. Statue is a pretty and extremely husky grower. Tudor Minstrel is beginning to live up to its British reputation, but varies from year to year, but its perfection is sometimes such, that we hope any criticism is just a case of judging a new bulb too soon. Daisy Schaffer can be choice, but many accusations of basal rot were on record. Brunswick is unexcelled for early, hardy, and vigorous performance — exhibition too, if in bloom at show time.

NOVELTY: Bithynia and Madrigal, two promising newcomers from Grant Mitsch, were rated at the top. Richardson's My Love and Deodora, both predominantly white, were next. Aldergrove, well contrasted, and Festivity, of Tudor Minstrel quality, almost scored on both exhibition and garden qualities this year.

ITEM NO. 8      LARGE CUP — White perianth, red or orange cup.  
(RHS Sub-division 2b)

Exhibition:

1. Fermoy (3)
2. Kilworth (1)
3. Arbar (7)
4. Signal Light (8)
5. Duke of Windsor
6. Selma Lagerlof and Davoit (a tie)

Garden Decoration:

1. Dick Wellband
2. Selma Lagerlof
3. Duke of Windsor
4. Fermoy
5. Flamenco
6. Kilworth

Miniature: None voted for.

COMMENT: Somehow, Fermoy, a large bold type replaces highly colored Kilworth at first position. Arbar and Signal Light have made rapid strides: Arbar being of especially fine quality. Dick Wellband burns in the sun. Kilworth and Flamenco will probably rate higher in the garden, when better known.

NOVELTY: Our reporters were infatuated by Warnaar's Firegleam, Richardson's Pirate King (Porthilly form), Red April (an earlier variant on Kilworth), and Roimond (rather sunproof), but he has new and even more contrasted items on the way to introduction. Infatuation, Blarney's Daughter and Satin Queen (by Lewis from Mitsch) were among those not quite so highly colored.

ITEM NO. 9.      LARGE CUP — Self White. (RHS Sub-division 2c)

Exhibition:

1. Zero (2)
2. Ludlow (1)
3. Truth (3)
4. Ave (6)
5. Jules Verne (5)
6. Courage

Garden Decoration:

1. Jules Verne
2. Courage
3. Carnlough
4. White Nile
5. Tenedos
6. Truth

Miniature: 1. Xit, 2. Panda, and 3. Angie.

COMMENT: None, as all these are more or less covered in Harry Tuggles' article "Whither Goest Whites?"

NOVELTY: Knowehead, Castle of Mey, Easter Moon and Early Mist. This past spring, in England, Castle of Mey won the "Best Bloom of the Show" at Midland; the best at the RHS Show was Easter Moon.

ITEM NO. 10.      LARGE CUP — Yellow perianth, white cup.  
(RHS Sub-division 2d)

COMMENT: This is an unusually limited classification. The always good Binkie got practically all the votes, with Cocktail a runner-up. Some members suggested Frilled Beauty should be in this class. Handcross, a new and larger seedling of Binkie, was mentioned as a novelty, but it has not been introduced to date. Same for Mitsch's Bethany.

ITEM NO. 11. SMALL CUP — Yellow perianth, colored cup  
(RHS Sub-division 3a)

Exhibition:

1. Chungking (1)
2. Ardour (4)
3. Market Merry (2)
4. Therm (3)
5. Apricot Distinction
6. Dinkie

Garden Decoration:

1. Market Merry
2. Chungking
3. Mangosteen
4. Edward Buxton
5. Apricot Distinction
6. Alight

Miniature: Only one mentioned — Glitter.

COMMENT: Regardless of frequent roughness Chungking remains first. Ardour has scored rapid climb to second. None of the 3a's are reliably sunproof.

NOVELTY: Jezebel most mentioned newcomer, has a reddish gold perianth and a brick-red crown. It will probably rank high in years to come. Ballysillan and Doubtful got a mention.

ITEM NO. 12. SMALL CUP — White perianth, colored cup.  
(RHS Sub-division 3b)

Exhibition:

1. Blarney (1)
2. Limerick (2)
3. Mahmoud (4)
4. Kansas (5)
5. Bravura (7)
6. St. Louis

Garden Decoration:

1. Lady Kesteven
2. Limerick
3. St. Louis
4. Forfar
5. Kansas
6. La Riante

Miniature: 1. Fairy Circle, 2. Lady Bee, 3. Angeline, and 4. Ruby.

COMMENT: We had criticism here because the color-predominant and the color-nonpredominant were not separated as in Sub-division 2b. They asked where one could put the lovely Galilee, or the exquisite Fairy Tale? Blarney, the winner, is in the class mentioned as slighted. Next year, however, it might be wise to follow the separation suggested.

NOVELTY: Artist's Model — almost a 2b of Blarney coloring, Fair Coleen, Glenwherry, Mitsch's perfect formed Coloratura, Hamzali and the not yet released color-gem — Rockall.

ITEM NO. 13. SMALL CUP, All White. (RHS Sub-division 3c)

Exhibition:

1. Chinese White (1)
2. Foggy Dew (2)
3. Cushendall (3)
4. Frigid (4)
5. Bryher (5)
6. Dallas (6)

Garden Decoration:

1. Foggy Dew
2. Silver Salver
3. Hera
4. Samaria
5. Silvermine
6. Chinese White

Miniature: 1. Xit, and 2. Tiny Tim.

ITEM NO. 14      DOUBLE FLOWERS.      (RHS Division 4)

Exhibition:

1. Swansdown (3)
2. Camellia (5)
3. Cheerfulness
4. Yellow Cheerfulness
5. Mrs. Wm. Copeland
6. Daphne (6)

Garden Decoration:

1. Cheerfulness
2. Yellow Cheerfulness
3. Mary Copeland
4. Daphne
5. Twink
6. Feu de Joie

Miniature:    1. Pencrebar, 2. Kehelland.

COMMENT: When the doubles bloom as they should they are among America's most loved flowers. Regretably, the type of bloom we get seems to depend on our fickle weather. Some of the items in our novelty section bloom a bit later than our most popular selections and may supersede them when more plentiful. Perhaps their later blooming period is the answer to our Division 4 troubles.

NOVELTY: Gaytime, Pink Cloud, White Sail, Double Ming, Rose of May, and most recommended of all — Double Event.

ITEM NO. 15.      TRIANDRUS HYBRIDS.      (RHS Division 5)

Exhibition:

1. Silver Chimes (1)
2. Tresamble (2)
3. Rippling Waters (4)
4. Thalia (4)
5. Stoke
6. Shot Silk

Garden Decoration:

1. Thalia
2. Silver Chimes
3. Moonshine
4. Shot Silk
5. Tresamble
6. Niveth

Miniature:    1. Hawera, 2. Raindrop, 3. April Tears,  
4. Frosty Morn, 5. Dawn, and 6. Cobweb.

COMMENT: Here is one type of daffodil that seems to do better here than in Ireland — the elf-like home of daffodils. All are beautiful, grow well and could be joined by many more that almost made the poll. There are more exquisite miniatures in this classification than any other.

NOVELTY: Lemon Drops, Yellow Warbler, very prolific Forty-Niner, Sidhee, Cobweb, Thoughtful, Phyllida Garth and the yellow with an orange-red cup, Samba.

## THE DAFFODIL MART

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ITEM NO. 16. CYCLAMINEUS HYBRIDS. (RHS Division 6)

Exhibition:

1. Charity May (2)
2. Peeping Tom (3)
3. Jenny (5)
4. Beryl (4)
5. February Gold (1)
6. Dove Wings (6)

Garden Decoration:

1. February Gold
2. Peeping Tom
3. March Sunshine
4. Beryl
5. Le Beau
6. Charity May

Miniature: 1. Beryl, 2. Mite, 3. Golden Cycle, 4. Little Witch, and 6. Estrellita.

COMMENT: Another popular class in America. Nearly all grow well and most are on the small order —for example: Beryl, which appears in every category. Ironically enough, an expert tells me that the most attractive Cyclamineus is still Pepys which was registered by P. D. Williams in 1927 — the only catch, hardly anyone can grow it.

NOVELTY: Snipe and Jack Snipe.

ITEM NO. 17. JONQUILLA HYBRIDS. (RHS Division 7)

Exhibition:

1. Trevithian (1)
2. Cherie (3)
3. Golden Perfection (2 )
4. Lanarth
5. Shah
6. Sweetness (7)

Garden Decoration:

1. Trevithian
2. Golden Perfection
3. Lanarth
4. Cherie
5. Lady Hillingdon
6. Golden Sceptre

Miniature: 1. Lintie, 2. Sundisc, 3. Flomay, 4. Orange Wonder, 5. Kidling, and 6. BeeBop.

COMMENT: Good across the map. Trevithian unquestioned favorite. Shah, a newcomer, would be superb 2a if its distinctive jonquil odor didn't give it away.

NOVELTY: Many were mentioned. Outstanding are Sweet Pepper and Susan Pearson; both with red, red cups. Hathar, Mountjoy, Nirvana (white) and Ripple from Wallace-Barr should be tested.

ITEM NO. 18. TAZETTA HYBRIDS. (RHS Division 8)

Exhibition:

1. Geranium (1)
2. Martha Washington (2)
3. Cragford (4)
4. Glorious
5. Orange Wonder (3)
6. Scarlet Gem

Garden Decoration:

1. Geranium
2. Martha Washington
3. Cragford
4. Laurens Koster
5. St. Agnes
6. Scarlet Gem

Miniature: 1. Halingy and 2. Shrew.

COMMENT: A class that could use some improvement. Tazettas thrive in the south, but in many areas they are not reliably winter-hardy.

NOVELTY: None.

ITEM NO. 19. POETICUS HYBRIDS. (RHS Division 9)

Exhibition:

1. Cantabile (2)
2. Actaea (1)
3. Sea Green (3)
4. Smyrna (4)
5. Kentucky
6. Red Rim

Garden Decoration:

1. Actaea
2. Cantabile
3. Dulcimer
4. Sarchedon
5. Snow King
6. Smyrna

Miniature: Black Prince — the only one mentioned.

COMMENT: All are old and familiar. The reverse of Item No. 18 is true here — the farther north, the better they seem to do.

NOVELTY: Milan, Andrew Marvell and Felindre. Andrew Marvell is a new item bred by J. M. de Navarro.

ITEM NO. 20. SPECIES AND WILD HYBRIDS. (RHS Division 10)

1. Jonquilla, 2. cyclamineus, 3. triandrus aurantiacus,  
4. watieri, 5. triandrus albus, and 6. poeticus recurvus.

COMMENT: *N. jonquilla* (better known as *jonquilla simplex*) with no surprise ranks first. It grows well, is very pretty with a penetrating fragrance. All of the above would be called miniature except the ultra late and much loved *recurvus*.

ITEM NO. 21. PINK CUPS OF ANY DIVISION.

Exhibition:

1. Rosario (2)
2. Rose of Tralee (1)
3. Mabel Taylor (6)
4. Champagne (5)
5. Louise de Coligny
6. Rosy Sunrise and  
Radiation (tie)

Garden Decoration:

1. Mrs. R. O. Backhouse
2. Mabel Taylor
3. Rose of Tralee
4. Pink Lady
5. Siam
6. Pink Fancy, Pink Rim, and  
Ann Abbott (ties)

COMMENT: Well colored Rosario must be faulted for poor substance when cut. Radiation is rapidly gaining contender for top honors. The Mrs. R. O. Backhouse progeny when smooth (not frequent) are desirable.

NOVELTY: Rima, from Grant Mitsch, has been praised as the finest pink to date by experts who have seen it. Woodlea, Mrs. Oscar Ronalds, Karanja and Pink Monarch — all from down under — are being tested. Pink Monarch is reported to have superb form, but a short stem. Wilson's new Fintona arrives highly recommended, while Salmon Trout and Rose Caprice from Richardson are hailed by fans. Salmon Trout has not proved reliable in some areas; Rose Caprice has been highly rated by everyone growing it. Dunlop's Pink Isle has winning pink, color, but stove-pipe cup form. Blanchard's Roseworthy and Richardson's Debutante have not yet been introduced. Debutante as shown in London has received the highest praise.

***A NEW POLICY AT  
LITTLE ENGLAND***

Our future activities in the culture of daffodils will be devoted to importing and growing the more unusual and newer varieties.

To this end we will discontinue cultivation of some 800 varieties.

Our 1958 catalog, available early in March, will list about 400 varieties. Included will be the finest productions of leading Irish, English, Holland and American growers as well as varieties recommended by the American Daffodil Society and the Royal Horticultural Society.

As usual, our exhibition garden will be open to the public next Spring.



***LITTLE ENGLAND DAFFODIL FARM***

***BENA — VIRGINIA***



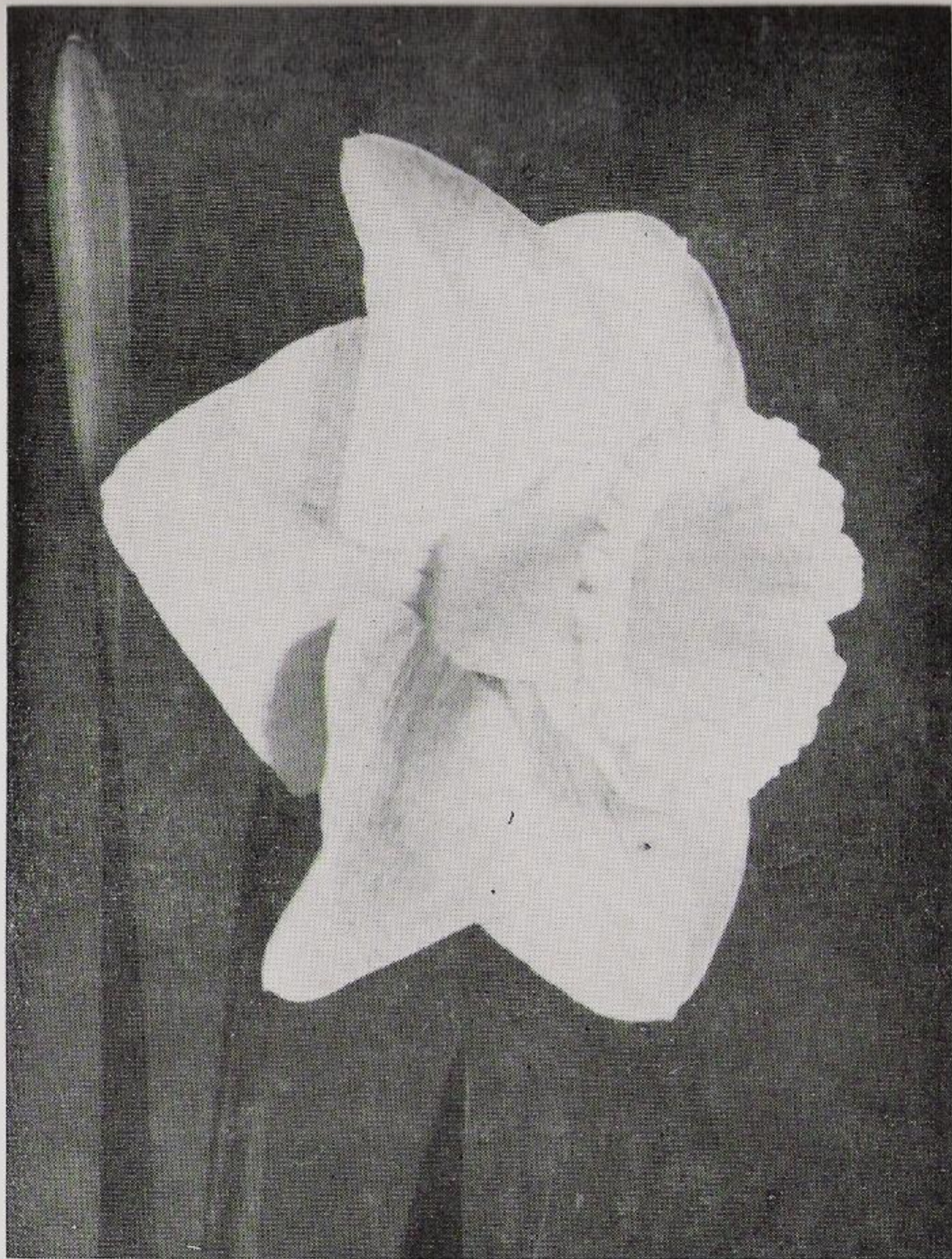
## LOOKING AHEAD

By Guy L. Wilson

When those of us who like myself have attained the allotted span of life look back to the Daffodils of our childhood days, we realize that the variety of color, form, size and habit of present day Daffodils has become well-nigh bewildering, and we know that so long as hybridists continue their work more and more developments will take place, so I feel that the time has come when amid this ever expanding choice of material our required standards of vigour and good habit of growth combined with high quality of bloom must be progressively raised. At the same time we must also guard against losing the natural grace, dignity and distinctive character of the narcissus by discouraging the propagation of badly proportioned freaks and monstrosities which are bound to appear from time to time amongst the hosts of seedlings now being raised; let us not try to develop Daffodils which no longer look like Daffodils.

When the latest issue of the British Royal Horticultural Society's Daffodil and Tulip Year Book was published at the end of September, I was particularly pleased and intensely interested to find in it several articles contributed by U.S.A. growers. Amongst these is one from Mr. John C. Wister on Daffodils in America. Mr. Wister has long experience of growing Daffodils at Swarthmore College, Pa., and his article is of peculiar value since in addition to giving many interesting facts and dates in the history of Daffodil growing in the U.S.A. from the time that bulbs were brought in by the early settlers up to the present day, he gives useful hints as to the varieties suited to the varying conditions found in the widely differing climates of the many parts of the great American Continent as well as helpful cultural suggestions, and the very important recommendation that American breeders should seek to raise varieties best suited to their various localities.

Kenneth and Catherine Smith contribute what is to us over here an exceedingly interesting short article reporting the behaviour of some of the newest British raised varieties in their Staten Island Garden; they describe how the brilliant Ceylon bred by Mr. J. L. Richardson of Waterford, Southern Ireland was "truly magnificent" this year for the first time in about ten years, which story underlines a fact that I am always pointing out, which is that bulbs moved from Britain or Holland to quite different surroundings in the U.S.A. do require a number of years to get really acclimatized though very rarely as long as ten years, four to six or seven would be more usual, and I have no doubt they also require time to acclimatise on moving from one part of the American Continent to another; e.g., from Oregon to Virginia, etc., for I have found the same thing with bulbs moved from other parts of our small country to my own nursery; after I have had them for some years they begin to thrive better and give finer blooms, while some few may perhaps never make themselves at home; so let American gardeners be patient with the bulbs that emigrate to them. In this connection people like Mrs. Theodore Pratt of Gloucester, Va., and Mrs. J. Robert Walker of Martinsville, Va., who run test gardens in which they grow sample bulbs of the newest introductions for their customers or club members to see, are rendering a most valuable service. I was immensely interested to receive a set of colored slides taken by Mrs. Walker in her test garden in spring, 1957. From these it was clearly evident that some varieties had made a better start under her conditions than others. It was surprising to see that Ave, a beautiful ice-white 2c which unfortunately usually makes a rather soft bulb had given a finer flower than we usually get



*EMPRESS OF IRELAND*

*Guy Wilson's famous white trumpet and one of the most sought after daffodils in the world today.*



*ROSE CAPRICE (Richardson)*

*One of the top ranked new Irish pinks.*

from it out of doors here. The beautiful bicolor trumpet Trousseau appeared to be doing remarkably well, while a picture of the fine vigorous growing red and white 2b Kilworth showed as good a flower as we could grow over here. Home Fires, one of our most vivid red and yellows from division 2a had also come with better color than some. The delicately beautiful 2b Daviot looked every bit as good as I grow it, while my fine strong upstanding golden trumpet "Ulster Prince" looked as though it is going to be a first-rate flower and plant over with you. I saw it looking very well in Mrs. Pratt's garden when I was there in 1956. By visiting these test gardens American amateurs will be helped to get some idea of new varieties that they might try in the future.

And what developments may we hope for in the future? Amongst trumpets the advent two or three seasons ago of a couple with orange or orange red crowns of full trumpet measurement and character indicate that at least a so-called red trumpet daffodil has been achieved, and Mr. W. O. Backhouse the raiser of these flowers, who incidentally is the third generation of a famous English Daffodil Breeding family, tells me that he has more of them coming on in his garden. It is pleasant to find that amongst our attractive orange and orange red crowned flowers in both yellow and white perianthed varieties we are now finding a number amongst our newer seedlings which are comparatively sunproof. Two years ago the first seedling I marked amongst my seedling beds was an absolutely first early fine sturdy upstanding rich yellow and tangerine 2a that is quite sunproof. I know Mr. Richardson is also finding red cups which do not fade. I believe that flowers orange red both in perianth and crown are a not very remote possibility, but I question their desirability; cool and clear colors are more becoming to Mistress Daffodil.

Pink crowned Daffodils are a comparatively recent innovation and are attracting an ever increasing amount of attention. They are intriguing and many of them very charming, though few if any could yet be said to have attained a really clear rose pink. This may yet be achieved but is a slow process. Pinks are coming in increasing numbers and very gradually strengthening color in my seedling beds. Quite a spate of them are described in an Antipodean catalogue which reached me the other day, and I begin to wonder if we may soon have too many. Up to date the pinkest pink I have yet seen is Mr. Richardson's Debutante which has a good pure white perianth and a deep pink crown, but I fear it may be a few seasons before it can be in commerce.

A color break quite as recent or more so than pink, and up to date less frequent is the most charming cool clear greeny, limey lemon tone, found in such things as Binkie, Spellbinder, Moonstruck and others. In some cases the crown in these varieties becomes paler as the flowers age, till it is nearly white, giving a reversed bicolor effect. These are most attractive flowers of great appeal and charm both for indoor decoration and in the garden. Kenneth and Catherine Smith report Binkie as thriving with immense vigour and freedom of bloom in their garden, so it may safely be tried by those who do not already know it. I understand that Grant E. Mitsch of Canby, Oregon has raised some remarkably fine seedlings in this color range of which we shall doubtless hear more.

Whites of all divisions are perhaps my first favourites: their popularity is great and rapidly increasing. They possess a special refinement of quality and character, and fortunately most of the modern varieties are very strong and vigorous plants. Really pure ice-white flowers of the finest form and largest size with cool green rather than yellow shading in the perianth tube are now available

in Division 1 and 2, and appear in increasing numbers in our seeding beds. Keen daffodil lovers may make note of such glorious flowers as Glendermot, Empress of Ireland, Vigil, Ardbane, Castle of Mey, Knowehead, Easter Moon, Colleen, etc., for acquisition when they become more plentiful.

In Division 3 we have some of the most exquisite of all Daffodils in such things as Bryher, Cushendall, and Frigid, small crowned intensely white flowers with green centred eyes but they are so late as probably to be unsuitable for the warmer U.S.A. gardens. I have a small number of bulbs of a lovely new one that I have named Shantallow (Irish for the Green Meadow) which has somewhat reflexing broad shining Poeticus white perianth and a small cup that is sometimes entirely moss green on the first day of opening, but soon changing to a green centre with a faint rim of pale green. Amongst very late flowering seedlings of Division 3b type I have seen several with eyes that are entirely grass green, but so far they have had poor constitutions; something better on these lines may yet appear.

For those who like doubles, perhaps the most outstanding recent introduction is Golden Ducat, a double sport from King Alfred which originated in Holland. It is a most striking flower which has tall stems sufficiently strong to hold it upright, in spite of the size of its massive golden flowers; it also seems to be exceptionally durable, lasting long in good condition. Mr. J. L. Richardson is turning out an exciting series of seedlings from his Falaise: amongst these I recall a really magnificent strong stemmed large fully double white and orange red.

## PROSPECTUS FOR PINKS

By Grant E. Mitsch

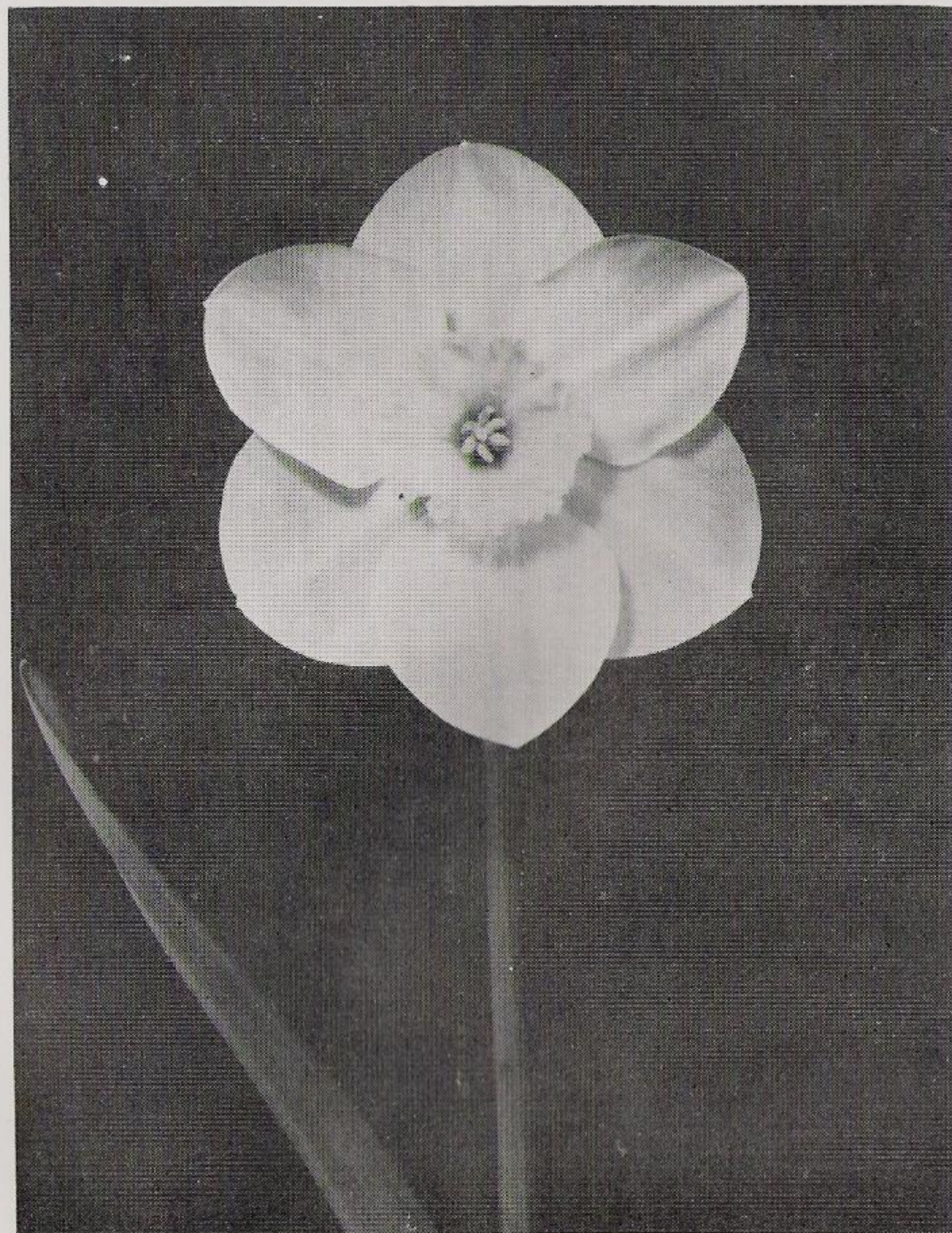
An invitation from our competent editor to give a paper titled, "Review of Modern Pinks and a Prospectus for the Future" prompts this screed with a somewhat abbreviated title, and on consideration of the definition of "prospectus", it is with some trepidation that I acceded to his request. If I may combine and condense a few definitions of the term, I might arrive at something like the following: "a preliminary or brief resume or survey by the promoters of an enterprise, designed to arouse public interest in the venture."

The development of pinks is by no means a new phase of Daffodil breeding, and to get a picture of the ideals and objectives of present day workers in this field, one should digress a bit and consider past accomplishments — and failures! Some twelve years ago there appeared a pamphlet titled, "A Genetical Analysis of Pink Daffodils", written by Dr. Edgar Anderson and Earl Hornback. Various articles appearing in the R.H.S. Daffodil Yearbooks give some of the history of our modern pinks and their derivation, one of the most interesting being that titled "Pink Daffodils" by C. E. Radcliff in the 1946 edition.

But, first of all, what constitutes a "pink Daffodil"? Generally, we class anything with any buff, apricot, salmon, or pink coloring in any part of the flower at any time in its development as a "pink". It is, of course, a practice common with the growers and breeders of any flowers to designate the closest approaches to desired colors by the shades sought after. But to the initiate this practice leads to disappointment where no explanation is given.



*BITHYNIA (Mitsch)*



*AIR CASTLE (Mitsch)*

The first pink Daffodils are not of recent origin as indicated before. The variety "Apricot" with a registration date of 1898 preceded *King Alfred* by a year. While it certainly has little to recommend it in the way of form, it has much more color concentration than many of the pinks of today. To most people, the variety, "Mrs. R. O. Backhouse" and pink Daffodils are synonymous; and this variety, registered in 1923, is more dependable in coloring than many more recent introductions, but again, the narrow, informal perianth does not conform to modern tastes. For some years, Alister Clark from Victoria, Australia and C. E. Radcliff of Tasmania were two of the foremost breeders of pinks, the former developing varieties that colored up well in the warmer climate of Southern Australia, while Mr. Radcliff worked to improve form and produced some of today's best exhibition varieties. Perhaps the best known of the two breeders' varieties are "Mabel Taylor" from Clark, and "Rosario" from Radcliff.

However, brief consideration will be given to some of those varieties with which we are familiar. To name again those already mentioned, we feel that for garden usage, "Mabel Taylor" is one of the best pinks inasmuch as it colors up quite consistently well, and is a rapid increaser, easy grower, and free bloomer. And the many who like ruffles and frills in the trumpet or crown will find them here. "Rosario" remains one of the finest exhibition pinks, having exquisitely smooth texture and good form, although the color does vary from just a suggestion of what it can be like some years, to quite rich, soft, translucent pink throughout the trumpet-like crown in most favorable seasons. The older "Pink o' Dawn" is more salmon in tone, less smooth, and smaller, and apparently the stocks are somewhat virus infected. "Dawnglow" at its best is one of the largest pinks of good form, and I have seen magnificent blooms of it, but it is badly afflicted with virus and I do not know if there are any good stocks available. Fortunately it has given good seedlings, which thus far at least, seem to be healthy. Some of the other Radcliff varieties are being grown here but have not become acclimated and no opinion of their merits has been formed yet. Although but a medium sized flower, "Hugh Dettman" is well formed and has a nicely balanced crown of pale pink. Several times it has given blooms with the stamens partially transformed into petaloids suggesting a possibility of getting doubles in its progeny. One more Australian pink should be mentioned, "Mrs. O. Ronalds", for some time heralded as the best of the lot. It has a broad, flat, white perianth, and a nicely proportioned crown of quite clear light pink. It may improve as it settles down to our climate.

While our climate is reputed to give flowers of the same quality and color as those grown in Britain, this apparently is not true for all varieties. Up to now, "Salmon Trout" has not given its best in color, but perhaps it will improve as it is grown longer. It had good carriage, and substance. "Rose Caprice" gave excellent blooms its first year here, and "Irish rose" looks promising. The older "Interim" has only a rim of salmon pink but it has much to recommend it, in that the stems are tall and strong and the flower has good form and carriage. Had it no other qualities, it would have been worthwhile for the hybridist as it has given hordes of good seedlings.

The Dutch pinks introduced at the close of World War II are apparently all seedlings of Mrs. Backhouse and they show considerable variation in form and color but for the most part they are lacking in balance.

Of the older sorts, "Wild Rose" is about as near a true pink as any we have grown, but if warm dry weather precedes its blooming period, it may forget

to color. The same might be said of "Rose of Tralee" which is a later, larger flower of more substance; however, it is only an apricot pink at best here. "Loch Maree" is rather pale with a hint of lilac in its composition but gives color more consistently than some with the normally brighter tones. One of the more vigorous growing and larger pinks, somewhat salmon toned, is "Roman Candle." And we should not forget that petite but pale jonquil, "Cherie".

Now for a few of our own. "Radiation" is doubtless the best of our up to the current year's introductions and may excel them. This year it came paler than normal but it has developed color quite consistently here. Unfortunately, it opens without pink and usually fades to nearly white before wilting. The stems and flowers form are better than most in its class. "Pink Lace" is quite as lovely at its best and is delightful at the peak of its beauty but the color is evanescent. While not a pink in the true sense of the word, "Coronado" develops to an apricot salmon with even the perianth sometimes becoming buff colored after picking. It is far from the exhibition standard in form but does make a good garden flower. In "Rose Ribbon" we have one with a wide salmon rose band on the cup. Occasional blooms come with one or more perianth segments twisted or distorted. It is one of the most striking as a garden flower and cut blooms keep well. Among the larger pinks is "Flamingo" with a white, flat perianth and large crown with most intense rosy pink coloring, while "Rima" has a large trumpet of quite solid, lilac-toned pink and well formed white perianth. "Caro Nome" resembles one of its parents, "Glenshane" in form, but is taller, and the crown is pale apple blossom to apricot. The perianth is exceptionally smooth, flat, and rounded.

Next, what does the future hold? If you read the show reports from any of the areas where many Daffodil breeders are congregated, you need not be a dreamer to envision gardens and flower arrangements filled with delectable truly pink-cupped Daffodils in years to come. They should range in size from large trumpet varieties to tiny pink jonquils; and who knows! perhaps through pink breeding, some one may develop a flower with a rosy orange trumpet! But this may be allowing our imagination to roam too far afield. Just what is in the offing? To give an adequate answer one would have to travel widely or carry on a voluminous correspondence. Falling short on both scores, one can only watch the straws in the wind and prognosticate from these and his own experiences.

It appears that pink coloring is definitely a recessive trait, and this makes it easier to develop strains that run almost wholly to pink tinted flowers. But this does not take us very far, as we want flowers with deeper but cleaner color which is developed when the flower first opens and does not fade until the flower wilts with age. Up to now we have no answer to the question as to how to get such flowers which would perform consistently under a wide range of climatic and soil conditions. But with many individuals working the field, and by intercrossing those things most nearly approaching the goal, advancements are being made. It is unlikely that anyone will achieve the goal at one fell swoop, but little improvements will come here and there, and by many utilizing these advances, constant progress is made.

One of our seedlings, AP3/1, appears to have exceptional persistence in color. It has a large, rounded, milk white perianth, and big bowl-shaped crown of rich, deep, salmon pink that develops quickly after opening and holds very well. Present indications are that it will be a profuse bloomer and rapid increaser. While in bloom, it attracted perhaps more attention than anything else we had.

NOVELTY DAFFODILS  
1958 INTRODUCTIONS

- AIRCASTLE 3b. Our most perfectly formed flower.  
BETHANY 2d. A striking, luminous, beautifully formed reverse bi-color.  
ENTRANCEMENT 1d. An early flowering reverse trumpet.  
MAUNA LOA 2a. A red and yellow with exceptional substance.  
MOONMIST 1a. Extremely early, pale sulphur yellow trumpet.  
NAMPA 1d. Another reverse trumpet; good garden flower.  
NARARETH 2d. Perfectly formed reverse with very white cup.  
OLIVET 2c. Tall stemmed white with bowl shaped crown.  
PASADENA 3b. White perianth; orange banded crown with green center.

For more complete descriptions and prices see our 1958 catalog. In it are listed our former introductions, such as:

ARDOUR	FESTIVITY	MOUNT JEFFERSON
BITHYNIA	FLAMINGO	PARICUTIN
CARO NOME	FROLIC	PINK LACE
COLORATURA	INTERLUDE	RADIATION
CORONADO	LUNA MOTH	RIMA
ESTRELLITA	LUNAR SEA	ROSE RIBBON
FAIRY DREAM	MADRIGAL	YELLOW WARBLER

and others, plus a good selection of British, Dutch, Australian, and New Zealand varieties.

If you do not receive your copy by June 1st, write us, mentioning the Daffodil Yearbook.

GRANT E. MITSCH  
Daffodil Haven  
CANBY, OREGON



A series of seedlings with "Mabel Taylor" and "Pink Lace" as their parents proved an interesting lot in that nearly all had more or less pink in their crowns, and several were of better form than might have been expected from their ancestry; but what was of greater importance, two or three had exceptional clarity of coloring, with quite rich pink, trumpet-shaped crowns, shading to white, near the base. And the color seems to be there when the flowers open and holds well compared with most others. One of the progeny of "Green Island" crossed with a "Wild Rose" seedling is similar in form to "Green Island" but slightly smaller and with a shirred and frilled border on the solid rosy pink crown.

Two other seedlings with exceptional intensity of coloring throughout their large crowns of near trumpet dimensions are Q40/1 from "Interim" x "Interlude", and Q80/1 from "Rose of Tralee" x "Shot Tower". The variety "Interim" frequently gives offspring with color running nearer to red than to pink. There has been several of near tomato red, and one with a solidly colored crown that must be nearly three-fourths the length of the perianth segments. These are, of course, by-products but could conceivably prove of as great value as the original objective. Perhaps they may find admirers from some who do not relish pinks.

May we then expect dependable, truly pink Daffodils in the future? I must admit that I do not have the answer, but I believe that much progress is being made and that great advances over present day varieties are in the offing. Doubtless some of them will come from hybridists living in the warmer sections of our country.

### WHITHER GOEST WHITES?

*(A Critical Review of White Daffodils I-C, II-C & III-C)*

By Harry I. Tuggle, Jr.  
Martinsville, Virginia

In speaking of white daffodils, the white trumpets come first to mind. A majority of growers would then think of BEERSHEBA, and perhaps justifiably, for it has only been within the past decade that new introductions have *completely* outclassed it. The ultimate of perfection in making such comparisons being based on purity of white, form, heavy substance, smooth texture, pose, good stem, size, vigor, disease resistance, and an undefinable requirement — refinement.

The reigning monarch of white trumpet nobility is EMPRESS OF IRELAND. First flowering in 1947, it was introduced in 1957, and is a large (to 5 inches), refined flower that blooms relatively early and has a good stem that tends to be short the first season only. EMPRESS OF IRELAND's beautifully flanged trumpet artistically tapers to a narrow base where it joins a paragon of a perianth. Combining majesty with elegance, it is undoubtedly the crowning achievement in Guy L. Wilson's devoted career.

What of the celebrated CANTATRICE? When well grown it is strong show competition. Appealing to many fanciers as the finest exhibition I-C, it, nonetheless, is a finicky temperamental grower, very susceptible to basal rot. However, for its unique grace and classic charm, it will continue to be nursed along, replacing whenever necessary.

COURAGE x KANCHENJUNGA has yielded two sterling whites — VIGIL and GLENSHESK. Opening pure white, VIGIL is a vigorous grower, a good increaser, and is resistant to basal rot. It is flawlessly sculptured from material resembling pure white marble. GLENSHESK, entirely different in character, is of equal merit. Its primrose trumpet soon passes to white, and the flower is exceptionally durable. GLENSHESK has a tall, strong stem, perhaps the best stem of any I-C, and only one weak point — slow increase.

In this upper echelon three others may be mentioned — PRESTIGE has a bold trumpet backed by porcelain smooth, heavy perianth, but a rather short stem; "Exquisite" aptly describes RASHEE, a connoisseur's flower of purest white with short neck, but slightly demure pose; WHITE PROSPECT is the best of a new series of large, flared or flanged trumpets whose precursors were ASKELON, KANCHENJUNGA, and BROUGHSHANE. It (WHITE PROSPECT) is considered superior to HIMALAYA, HINDUSTAN, WHITE MONARCH, MOUNT JEFFERSON, and other new Ajax types.

SIZE, SIZE, SIZE! When will daffodil enthusiasts realize that merit does not lie primarily in magnitude, but in *quality*? Size is indicative of cultural excellence, but all too often, horsey grotesqueries win on the show bench or are highly praised on basis of size alone. BEERSHEBA, when given the preferred treatment fanciers give their expensive novelties, is often superior to the largest BROUGHSHANE. This does not discount the value of BROUGHSHANE, or its short stemmed, ungainly parent KANCHENJUNGA. Their major contribution is that they have sired a new, improved race of whites. BROUGHSHANE makes a telling garden clump and is suitable for large floral decorations. It represented the major improvement in health factor of white trumpets, especially in having a strong, clean bulb.

For garden use MORAY, ARDCLINIS, MOUNT HOOD, SCAPA, PEARL HARBOUR, BEERSHEBA, BROUGHSHANE, and SNOWFALL are valued. Regretably GLENBUSH, a lovely thing, has a weak stem; ALYCIDON has a muddy tinged trumpet; and CONTOUR has a crepey trumpet (shades of ASKELON) and is very prone to virus infection.

Among the early white large cups ZERO ranks first. It opens a chaste white, and has good form and size. EARLY MIST (introduced 1957) has been observed only one season, is different in character, and is very promising. TRUTH, LUDLOW, and SHINING WATERS are fine (especially LUDLOW) but are notoriously susceptible to basal rot. Valuable for early garden use are PARKMORE and SILVER BUGLE, both creamy white. The new KNOWEHEAD promises to be the finest 2-C. It is a finely proportioned, neatly finished, heavy substantanced, smooth flower of snowy white. Promising are two recent "bests" of R.H.S. shows: EASTER MOON, beautifully modeled form, with smooth waxey texture, heavy substance, and short cup; and CASTLE OF MEY, with form somewhat reminiscent of SLEMISH, perhaps a refined and polished improvement.

Several dependable and worthwhile items of merit are GLENDALOUGH — fine, pure white; TEMPLEMORE: superb and late; COURAGE: graceful, but often floppy in warm weather; TIBET: husky, strong stemmed, TUNIS type that is standout border plant; GREENLAND: not reliably smooth, but distinctive in form and greenish base to cup; GLENSHANE: almost 2-B, large, creditable sister of CHINESE WHITE; PIGEON: high quality, requires time to acclimate; NAMSOS: milky white improvement on one trail-breaking NIPHETOS; and

DEW POND: resembling CHINESE WHITE, with slightly longer cup, only fault — long neck.

Three noteworthy items observed at Kingwood Center (1957) were BROOKFIELD: thick and waxey, said to be slow; SLOEBLOSSOM: an improved TORN-AMONA type without its weak stem; and WEDDING BELL: perianth similar to CANTATRICE, with bell-shaped crown. Regretably SNOWSHILL, GLEN-MANUS, WOODVALE, WHITE SPIRE, WHITEHEAD, and ARDBANE have neither been seen, nor flowered here, *as yet*. Three good 2-C's which are trumpet in character, if not measurement, are KILLALOE, SAINT BRENDAN, and ROSTOV.

Some 2-C offenders must be mentioned. A really white bloom of JULES VERNE has not been seen. It is a 2-B, but classification scarcely matters as it is ungainly and a bad rotter, with only size to commend it. BONNEVILLE attracts attention but is unbalanced; AVE is lovely and distinct with its rolled rim cup, but bulbs split excessively; MURMANSK is late, with *cyclamineus* hybrid form but rot badly; CARNLOUGH has unique chiseled form but edge of cup burns badly; GLEN-OCUM looks washed out.

Perhaps the most charming of all white daffodils are the small cups (3-C). Blooming relatively late, they inherit purity of whiteness from poeticus ancestry. Regretably this late flowering exposes them to climatic vagaries of American spring which in many regions would often appear to go from late winter directly into summer!

For whiteness, form, pose, stem, and dependability, BRYHER is unexcelled in this class. CHINESE WHITE with all its immaculate charm and cool dignity oftens hangs its head, and is not top notch every year, as is BRYHER. FOGGY DEW is good but occasionally has green-yellow cast to perianth. Emerald-green eyed CUSHENDALL still outperforms its offspring DALLAS and SHAGREEN, and while PORTRUSH is larger, and perhaps more vigorous, it is not as sparkling white or finished a flower. ALTYRE can be striking but often comes with nicked petals and has a rather long neck. Older SAMARIA and SILVER SALVER are still treasured. Regretably FRIGID which would grace even a bridal bouquet, blooms so late that its beauty is fleeting.

WHERE do we go from here? There is need for increased weather proofness, vigor, and resistance to basal rot and virus infection. The SILVER COIN derivatives (3-C) are prone to virus infection, and many of the finer 2-C's readily, almost anxiously, succumb to basal rot. All three classes would profit from increased vigor. We need earlier and later 1-C's as peers to EMPRESS OF IRELAND; we need earlier blooming 3-C's; we need healthier 2-C's. Such a hybridizing target would be difficult to hit and requires that work be done in areas where rigorous growing conditions make selection for vigor apparent. In this breeding program proven weaklings (TRUTH and LUDLOW) should be avoided, or at least one parent should be selected *on basis of vigor*, discounting novelty or outward appearance.

The author accedes that he is a purist in daffodil evaluation, especially in regard to whites, his favorite type. But the ultimate in white daffodils, or any daffodils, should be good, reliable, sturdy garden performers that are also outstanding show flowers. That is the challenge we must face and work to overcome.

*Jan de Graaff*

**OREGON BULB FARMS**

**Box 512 - Gresham, Oregon**

**Telephone MOhawk 5-4498**

**DAFFODILS - OLD and NEW**

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**EXCLUSIVELY WHOLESALE**

Our Daffodils are in flower from about April first to fifteenth. We invite members of the American Daffodil Society to visit us then or at any other time and are always happy to show them our fields.

## THE ALL-PURPOSE DAFFODIL PLANTING

By Jan de Graaff

Daffodils for garden decoration, for cutting and for that highlight of the season — the spring flower show — can all be yours at only a moderate cost, provided you use good judgment in making the selection. While in Daffodils, as in most other merchandise, the laws of supply and demand govern the market, the odd fact that we encounter here is that time also plays a considerable role.

Good new varieties often go through a stage where demand exceeds supply. The price then will be high and may even rise over a period of years. Stocks are bought by growers who will increase them and keep them off the market. The stocks in the growers hands will soon be large enough to satisfy the demand at the high, prevailing prices. We then go through a period where supply exceeds the demand, yet we do not see any offerings at lower prices, as growers refuse to sell. They figure, correctly in the case of really good varieties, that any increase in the stock will more than offset any expected price drop in the future. But, eventually, the time comes when the stocks are being offered. By then there is an ample supply and the prices will find a lower level to balance the demand again.

Daffodil varieties often go through several such cycles. If the Daffodil stands up well in the garden; if it forces well or serves its purpose as an outdoor cut-flower, then every time it is offered at a substantially lower price, the visible supply is absorbed again. Varieties like February Gold, Grapefruit, Twink, Silver Chimes and Thalia have all shown this see-sawing balance — with each cycle taking many years to show its full effect. The war, which made growers abroad curtail their plantings, also had a strong influence on the variety selection. The older, less prolific, less spectacular varieties are discarded in favor of the newer, more expensive, more vigorous ones. Conversely, the shortage of good Daffodils in this country, during the war years, made growers hold on to all varieties — old, obsolescent and obsolete. Now, years later, a selection has taken place both here and abroad, a re-evaluation one might call it, that is of enormous benefit to the careful buyer.

These economic considerations may not interest the amateur gardener. They do, however, provide the explanation of rather sudden price changes. Assuming that the amateur is interested in the cost of his Daffodils, he should then know that astute commercial growers always act as a buffer and will absorb very substantial quantities of good varieties — only to release them later again at lower prices and in larger quantities. When this happens, the lucky amateur suddenly finds enormous improvements of the lower priced variety selection.

With this dry introduction, I should now like to put forward a richer fare — a Daffodil selection that, because of such special circumstances, is now both inexpensive and good. In the Yellow Trumpet class, the variety Unsurpassable is coming to the foreground among the larger, yet still well-proportioned novelties. An oldster, Dawson City, holds its own for prim and perfect form; when well-grown, Diotima has an elegance which surpasses that of King Alfred.

Among whites, Mount Hood is an absurdly good value. We grow Broughshane and many other famous whites. When we pick a flower of each, lay them in a row and, according to our Society's scoring system, award to each a number of points — then, also considering current retail prices, Mount Hood will be the

winner. Ada Finch has been a "sleeper". It is a variety that, like King Alfred, has a pleasing, informal appeal. Its price is down to where the average gardener can afford half a dozen. It may well become very popular in the next few years. Among the bicolors, Queen of the Bicolors is outstanding and a good value. President Lebrun is good and Halfa, an early, well-formed flower, should have greater recognition.

It has become customary in the trade to list the pink Daffodils separately. Of the many varieties now offered, I can say unequivocally that Mrs. R. O. Backhouse still is the best variety for the money. Pink Glory, in which I invested this year, is fair enough and I shall offer it next year at a price that will allow a larger group of gardeners to enjoy it. The real pinks, those that Grant Mitsch and I have been raising out here in Oregon, are still very high-priced. They may well stay in growers' hands for years to come, for they represent a signal advance over anything I have seen here or abroad.

We now come to the Large-Cupped Narcissi and it is here that some special values can be found. For some strange reason, these beautiful, highly colored Daffodils did not find the favor on the commercial flower markets that their sponsors expected; hence, big stocks have recently been released and varieties like Carbineer, Rustom Pasha, Damson, Fortune's Crest and Fortune's Bowl can now be bought at a fraction of their cost a few years ago. The Short-Cupped Narcissi do not offer as many obvious bargains. Lady Kesteven and Hades are fine representatives of this group. The true Firetail, if virus-free, is still a beautiful Daffodil. We pick this for our own house in preference to many others. To conclude this little review of red-cupped varieties, may I make a plea for that charming flower, Scarlet Elegance? This is an informal Daffodil and not one to meet the classic standards of a perfect flower. Yet, how lovely it is in the garden and how nicely it lends itself to arrangements! Bath's Flame is gone. Croesus is no more and hundreds of charming small flowers with inconspicuous coloring have been discarded, but the Scarlet Elegance should be in every garden, for it has a character all its own.

The Doubles — Twink, Texas, Cheerfulness and the lovely double Campernelle, the pure white and ivory Royal Sovereign — are all inexpensive and unsurpassed in their class. Swansdown is coming down in price and there are a few new doubles that may soon be popular. An old one, often overlooked, is Inglescombe, in my opinion, still a good variety to plant for both garden decorating and cutting.

Of other varieties, what remains to be cherished and planted for the purposes I had in mind? Thalia, of course, should be in every garden, for it is cheap and beautiful. Stoke, that lovely variety, is a worthy companion for Thalia; Silver Chimes, though not quite hardy everywhere, is outstanding for the South; February Gold, that harbinger of spring, is a "must" for every garden, large or small, as is Beryl. Why the last-named variety is not bought in greater numbers is a mystery to me. For every location, it is good and long-lasting, a lovely little Daffodil of charm and distinction.

Then come the Poetaz, with Geranium in the lead; Winter Pride, taking the place of the old Laurens Koster; the double Cheerfulness and its more recent sister plant, Yellow Cheerfulness. Klondike, a yellow with darker eye, can take the place of the not quite hardy Soleil d'Or. Of Poeticus varieties, Actaea is the best all-purpose one and the old — the very old — *N. poeticus recurvus*, or Pheasant's Eye, is a Daffodil of classical form. When well-grown, with other

spring flowers, it is an incomparable Daffodil and one of the best for flower arrangements. Poeticus-white, than which there is no whiter; sweetly, yet most markedly individually scented, is again a variety that is truly all-purpose.

Last, but not least, are the species. I have grown them all and I have grown innumerable hybrids, mutants and color variants. For those of you who can afford it, here is a hobby of unending interest and fun. Here is a field for the expert and the devotee. I will mention only two of them, *N. Jonquilla simplex* and *N. bulbocodium conspicuus*. These two miniatures are easily grown, quite spectacular in their own peculiar ways and so inexpensive that a few hundred here and another hundred there are well within the means of most of us.

Here then is a little group of Daffodils. I have listed but forty names—that could well form the basis of a sound display and show collection. All of these Daffodils are plants that have won recognition and certificates, here and abroad. They reach the greater heights of the breeder's skill. Beyond them are refinements — sometimes already present, sometimes only hinted at in the latest offerings. Many of us hybridizers are happily aiming at still greater heights than the pinnacles that all of us can now see and appreciate. The Kings and Queens of Daffodildom that I have mentioned are fully robed and gowned, for all to see. Study them well, so that, when their heirs-apparent are presented to you, you will be qualified to judge their raiment.

## REPORT OF REGISTRATION AND CLASSIFICATION COMMITTEE

By Mrs. J. Robert Walker

### 1. *Unregistered Varieties of Daffodils:*

A list of daffodils that have never been registered is being compiled from the catalogues listed in the A.D.S. 1956 Yearbook and other sources. These names will be forwarded to Dr. G. H. M. Lawrence, Curator Bailey Hortorium, Cornell University, who has agreed to take up with Mr. Simmonds, Registrar of the R.H.S., the matter of including these "renegade" names in the registration lists, without accompanying fees, for the purpose of making the record complete. Dr. Lawrence is Chairman of the Commission on Nomenclature and Registration of the American Horticultural Council; also representative of the A.H.C. on the International Committee on Horticultural Nomenclature and Registration — and the top-ranking authority on this subject in the U.S.A.

### 2. *Check List of All Daffodil Varieties in American Trade.*

A file of these names is being compiled, together with sources where they are obtainable. This is being done in cooperation with the Bailey Hortorium and Dr. Lawrence, Curator. When it is finished, both the Hortorium and the Registrar of the American Daffodil Society will have complete files for the information of anyone seeking it. It would help to make this list complete if all daffodil bulb dealers would send their catalogues to the Bailey Hortorium, Cornell University, Ithaca, N.Y., and to our Registrar, Mrs. Walter S. Colquitt, 487 Albany Street, Shreveport, La. Requests for catalogues to be mailed to the Bailey Hortorium for the purpose of compiling this list, were addressed to all known daffodil bulb dealers, in the 1957 season just passed.

3. *List of Daffodils in American Trade that Were Dropped from the 1955 Classified List.*

This list is being compiled. When completed, the Registrar, Mrs. Colquitt, will take up with Mr. Simmonds the matter of re-installing these varieties in the next Classified List.

4. *Confused or Duplicated Names.*

This matter is also receiving attention and some effort is being made to correct it: also with Dr. Lawrence's help.

5. *The New American Horticultural Council Handbook.*

The new American Horticultural Council Handbook for Registrars and Plant Originators (Lawrence) will be placed in the hands of the President, Registrar and Registration Chairman as soon as it is obtained.

## PUBLICITY AND PUBLIC RELATIONS

The Policy and Plan of Registration as presented and approved by the American Daffodil Society Convention in 1956 has been published in the 1956 Yearbook.

A notice regarding Registration of Daffodil Names by the American Daffodil Society has appeared in the July issue of the Bulletin. Our Bulletin and Yearbook are being sent to Mr. Simmonds of the Royal Horticultural Society; also Dr. Lawrence of the Bailey Hortorium.

Our Registrar, Mrs. Colquitt, informs me that she has received a most cordial letter from Mr. Simmonds, giving details as to how we could serve best as a National Registration Authority in cooperation with the Royal Horticultural Society, the International Registration Authority. Consequently, we may look forward to a very pleasant relationship with the registration officials of the Royal Horticultural Society. The Registrar has been asked to submit an annual report of registration by the A.D.S. for publication in the Society's current Yearbook.

The Registration and Classification Committee is greatly indebted to Dr. Lawrence for his generosity and kindness in advising and working with us. The plans submitted in this report are largely the result of correspondence and a conference with Dr. Lawrence in Williamsburg at the 1957 Garden Symposium.

## ROUND ROBIN

By Mrs. E. G. Sawyers

The Round Robin Program of the American Daffodil Society is making progress for we have four (4) Robins flying now and everyone seems to enjoy them. We wish to welcome anyone who wishes to join us and feel sure you will gain in more ways than one. We exchange ideas and information which help. We get acquainted with people who have the same hobby and this brings about some very fine friendships.

The rules are very simple and easy to follow: Each group consists of ten to twelve people with one to direct and keep track of letters. Letters are to be sent on to the next name on the route sheet within five days, with a card to



the director so that they will know at all times where the letters are, and with less chance of the letters being lost.

We hope to have a lot of excerpts from letters in the future and think this may help others to become interested.

It is interesting to know how many different daffodils perform in each section of the country. A good many will not grow but one year here in Oklahoma unless we find a special spot to their liking. For I have tried it out and know this to be true. Daisy Schaffer will rot if I do not plant it under a tree so that all excess moisture is taken up by the tree and in our case it is a mimosa tree — the same for Beersheba.

The time of digging is another item that needs careful handling, and this year with so much rain we were afraid we would lose a good many daffodils that had to be dug, but the surprising thing, even being dug out of MUD, they kept good and there was very little loss; then in August it was necessary to dig others and in the dozen varieties that we dug, only one had started their root system, and that was Jonquilla Simplex! These kept good until October 30th when, along with the June dug bulbs, they were planted.

We have one Men's R. R. and there are plans for starting another, so anyone wishing to join, drop us a line and we will put you on the list.

Anyone wanting to join a R. R. and just interested in a certain type, drop a line and tell about it, and if we can get enough interested we will have a R. R. to suit everyone.

## DAFFODILS AS THEY GROW UP MICHIGAN WAY

By Stanley H. Woleben

The State of Michigan has long been noted as an ideal region for growing Narcissus because of its favorable climate and adequate moisture. My plantings comprise 38 varieties totaling about 3500 bulbs. I am not a daffodil connoisseur; my choices are confined to the older and proven ones. Since I don't relish replacing them every other year they are planted 10 inches deep. This discourages splitting of the bulbs into smaller ones, allows for more rigid stems and, properly fed and mulched, they have flowered each year for six years. With the exception of the miniatures, Triandrus, Tazettas and Poeticus, all the others are of the DN-1 class and are planted in beds of 100 each.

The soil is of a light, sandy loam structure well fortified with organic fertilizer consisting of steamed bone meal, animal tankage, dried blood, ground fish, muriate of potash, superphosphate and a little lime — the same as used for Lilies. So far, diseases have been no problem. The beds do not require laborious digging because I use a special daffodil plunger-type planter, 5 inches in diameter and 4 feet long, which I had made. A teaspoonful of fertilizer is placed in the bottom of the hole; three inches of soil mixed with peat moss is poured in; the bulb firmed into position; then more soil added to surface level, the whole tamped down. I never use manures of any kind for fear of bulb rot and nematodes. The beds are then watered down well, after which a mulch of German peat, mixed with Driconure (25 lbs. to each bale) is spread overall to a depth of 3 inches and left on and added to year after year. This controls weeds, prevents any heaving and keeps the soil moist. The mulch

gradually works into the soil and forms humus. This is the same procedure I use for roses and lilies.

When the flowers are faded they are removed but the leaves are allowed to remain until they die down, this to allow the carbohydrate manufactured in them to return to the bulb for the next years growth. The leaves are either braided in a clump and bent or tucked under; or they can be laid on the ground with enough soil spread over them to hold in position. If one's plantings are small, any device such as wire staples made from coat hangers, small boards, pieces of brick, etc. can be used — anything which will hold the leaves down will suffice; but they should never be cut off.

The various miniatures, Tazettas, etc. are planted in the same manner as the large double-nosed, except correspondingly shallower, in borders and the rock garden.

The procession of flowers start about April 1st with the yellow TWINKS, AEROLITE, GOLDEN HARVEST, UNSURPASSABLE, DAISY SCHAFFER, FORTUNE, TUNIS, THALIA, DIANA KASNER, CAMPERNELLE, IRENE COPELAND, TEXAS, and ADA FINCH blooming in that order until early May. These varieties are hardly over with when next appear the BEN HUR, the huge KING ALFRED, SUCCESSOR, BEERSHEBA, MRS. E. H. KRELAGE, the showy MOUNT HOOD, CARLTON, E. H. WILSON, FRANCISCA DRAKE, GERTIE MILLAR, JOHN EVELYN, SCARLET ELEGANCE, ALCIDA, FIRETAIL, MOONSHINE, TREVITHIAN and the Poetaz varieties KLONDIKE and L'INNONENCE. Bringing to a close from mid-May to early June follow the beautiful pink variety MRS. R. O. BACKHOUSE, DICK WELLBAND, SCARLET LEADER, LADY KESTEVEN, CHEERFULNESS (which everyone should have) MARY COPELAND and the extra late single JONQUILLA SIMPLEX, a very charming yellow cluster type of delicious aroma. I have since added a few WINTER PRIDE, ACTAEA, RECURVUS, BULBOCODIUM CONSPICUUS and CANALICULATUS in the rock garden around a cascade pool, and along borders.

For gardeners who do not use organic fertilizers, my choice as a substitute is superphosphate in preference to bone meal. The USDA is authority for the fact that it takes nine years in the warmer states for the phosphorus in bone meal to become available. But in our northern states where melting snows afford ample moisture, phosphorus is fixed in the soil soon after it is applied and is absorbed by the plant at the point where it falls; and there is little danger of excessive application.

## DAFFODIL FAVORITES IN GEORGIA

By Margaret Tolleson

It is hard to give an overall picture of this subject. If we listed favorites of individuals, the list would be too lengthy, so will just try to show what varieties are planted in the Georgia gardens.

First, we find Jonquilla Simplex, Butter and Eggs and Paper White Narcissus in most every garden, planted more profusely in the rural sections. They may be in the cutting garden or planted in some inconspicuous place, but they'll be present. These varieties contribute but little to the garden effect, yet they are

as natural to the Georgia gardens as the red clay in its soil. After these three, comes the old standby and still favorite among many gardeners, King Alfred.

In addition to the above oldies, and next in order, we have one of our real favorites, Carlton. This Daffodil gives a most satisfactory performance year after year and is a must in all our gardens. Along with Carlton, we find Fortune, Tunis, Ada Finch, Beersheba, Mulatto and Thalia, with our two late, but popular, varieties, Geranium and Silver Chimes.

As our gardeners grow more varieties and see more flower shows, they include in their plantings such varieties as Coverack Perfection, a most popular one, Rustom Pasha, Duke of Windsor, Linn, Bodilly, Polindra, Selma Lagerloff, St. Egwin and others.

We find most of our gardeners want quantity at first, purchasing the moderately priced varieties which do well in this section. After that, they become more selective and we find them adding such varieties as Binkie, Cantatrice, Chinese White, Chungking, Green Island, Hunters Moon, Kingscourt, Galway, Ludlow, Preamble, Trousseau and others — each to his own taste. But, and this applies to them all, to grow them is to love them and to love them is to want newer varieties and the more varieties they grow, the better they can evaluate quality, by comparison, and the more critical they become, which means that at this stage they have reached the point of no return and are confirmed addicts — which is our ultimate goal.

## A BULB FROM HOLLAND

By Gustave Springer

Bulb growing in Holland is more than a business; it is a tradition. It is not accidental that Holland bulbs have a reputation throughout the world of being the finest flower bulbs obtainable. Many of the growers and exporters in operation today are descendants of families who grew and sold bulbs during the 18th Century. Generations have devoted all of their skill and effort to producing and distributing tulips, hyacinths, daffodils and scores of other types of flower bulbs.

Much has been written of the great contributions made by Dutch hybridizers in developing new varieties of daffodils and tulips; of the tremendous effort expended on detecting and combatting plant diseases and pests. Such achievements are spectacular and exciting to all who are interested in horticulture. Too little has been said, however, of the day-to-day labor and vast sums of money that go into making certain that every bulb delivered to the gardener is sound and healthy.

Should the American gardener buy a single daffodil bulb from Holland, be it a rare variety costing \$50 per bulb or a common variety for only 10c a bulb, he can rest assured that his bulb has been watched and judged by many critics. Any evidence of disease or damage and one of the critics will condemn it to destruction. There can be no compromise. Either our bulb is healthy and vigorous or it is not.

Let us follow the trials and tribulations of a daffodil bulb before it is delivered to the American gardener. The most severe critic is the Dutch grower himself.

*Greetings*

*and*

*Best Wishes*

THE  
ASSOCIATED  
BULB  
GROWERS  
of  
HOLLAND

He examines his fields daily. Any sign of disease in our bulb and he will immediately rogue it out. The grower is, of course, a member of the Daffodil Growers Society which maintains a staff of inspectors who specialize in examining fields of daffodils. No sooner has he left than an inspector of the U. S. Dept. of Agriculture stationed year round in Holland will come poking around.

Having passed all field tests and examinations our bulb is finally harvested and brought to the warehouse. It is cleaned, graded and sorted. Nice and neat, with no adhering soil, it then joins its mates in a bag. Now comes a real tough examination. Inspectors of the Netherlands Phytopathological Service examine the bulbs carefully. Our bulb is sound. But we must wait before packing the bulb because it also has to be examined by inspectors of the U. S. Dept. of Agriculture.

After packing, the bulbs are sent to Rotterdam to be shipped to the U. S. Our bulb has certainly been through enough examinations but the ordeal is not over yet. The Dutch inspectors will select cases at random for inspection on the pier. As a final test an inspector of the Dutch C.C.D. will now examine and take samples to make sure that the variety is correctly named. Now, at long last, our bulb is cleared and ready to go. Nothing exciting or spectacular about any of these procedures. It's all in a day's work to make sure that the American gardener buying a Dutch daffodil bulb gets one that is sound, healthy, of blooming size and true to name.

## THE IMPORTATION OF LIVING PLANT MATERIALS

By Willis H. Wheeler

To reduce the likelihood of further introductions of foreign insect pests and plant diseases, importers of living plant materials are asked to assist the United States Department of Agriculture in its plant quarantine efforts by observing certain easily met requirements.

To do so, importers are requested to secure, in advance of placing an order, a permit to authorize the entry of the seeds, plants, bulbs, etc., they plan to bring into the country. That permit, issued without charge, may be secured by writing to:

Plant Quarantine Division N  
U. S. Department of Agriculture  
209 River Street  
Hoboken, New Jersey

In doing so (1) list the items you plan to order, using scientific names if possible, or in lieu thereof, give a well known common name; (2) name the country or countries from which your importations will come; (3) indicate whether your importations will come by mail (it is usually recommended as the simplest way of importing); and (4) state whether you plan to make one or several importations.

Permits are issued promptly. With the permit will be instructions which will help to avoid difficulties if you will follow them when placing your order. Payments should be made in accordance with instructions found in the catalogues of the shippers. For the Netherlands and the British Isles, and probably some other countries, personal checks in dollars are acceptable.

## SKERRYVORE

By John Mayer

"Skerryvore", the Greenwich, Connecticut, Estate of Mr. and Mrs. Edwin J. Beinecke has been admirably referred to as an "extravaganza" and an extravaganza it truly is during the last week in April and the first fortnight in May, when the better part of a million and a quarter Daffodil blooms double in brass with the magnificent Beinecke collection of Azaleas and Rhododendrons.

Mr. Beinecke and his superintendent, Mr. Alfred Woodger — who, Mr. Beinecke insists, deserves all the credit — commenced this large-scale planning and planting in 1945. The rocky heavily-ridged woodlands were visualized as cleared of all undergrowth, leaving the fine Hemlocks and hardwoods to provide dappled shade. The great rock ledges were to be blasted and washed free of soil to provide suitable backgrounds and to act as landscape interest. Paths and woodland roads were to sweep through glades and to open vistas, each different, each inviting, each to show to best advantage the great collections to be planted. There was one major rule; namely, that the work laid out for each particular year must be completely finished that year.

To date, some twenty-five acres have been developed, an acre or two each year as the plans were laid. A small lake was built here, a swamp filled in there. The great gray rocks to be left as backgrounds were high-pressure hosed to expose, rather than conceal, their formations. The clay and stones and vegetation were removed — Messrs. Beinecke and Woodger emphasize that they "hate stones and love rocks." Tons and tons of top soil mixed with sand and peat moss have been incorporated into the slopes to accommodate the specimen Azaleas and Rhododendrons gathered from all over the United States, as well as the great sweeps of Daffodils.

The soil is kept below pH-7, primarily for the benefit of the Azaleas and Rhododendrons and is constantly tested. The drainage is no problem due to the character of the terrain.

The Daffodils, of all classes and varieties, are planted as "Blanket Planting" rather than naturalized. Twelve to fifteen thousand bulbs have been planted annually, all being Holland bulbs of first quality and all purchased from one American distributor. About mid-September of each year, the area to be planted is laid out by triangulation based on a path, and the Daffodils, in groups of one to two hundred each, run out to the triangle's point. The varieties are, of course, planted to avert any color clashes either among themselves or with the masses of Azaleas and Rhododendrons that may bloom simultaneously.

Rarely does a variety not do well, but in such cases they are promptly removed, and those areas fattened out with other bulbs the following Fall. The Daffodils are planted six inches deep, six to eight inches apart and the work finished in mid-October before the leaves fall. "Agrinite", an animal tank fertilizer, is principally used as it neither over-stimulates nor over-fertilizes these mass plantings.

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### THE 1958 CONVENTION

Plan to attend the 1958 convention of the American Daffodil Society at Atlanta, Georgia, March 27 to 30th inclusive. There will be much to hear and enjoy. Headquarters at the Atlanta Biltmore Hotel.

# REPORT OF THE BUDGET AND AUDIT COMMITTEE

## STATEMENT OF RECEIPTS AND DISBURSEMENTS

*Period May 4, 1954 to June 30, 1957*

### RECEIPTS:

Dues — 1954	\$	861.00	
— 1955		680.50	
— 1956		1,937.06	
— 1957		2,569.00	\$6,047.56
Sales of Bulletins and Yearbook — 1955	\$	9.50	
— 1956	\$	30.00	
— 1957	\$	22.50	62.00
Gifts and Donations — 1955	\$	53.00	
— 1956	\$	129.68	182.68
Conventions — 1956 Income	\$3,528.50		
Expenses	\$3,101.19	\$	427.31
— 1957 (Net)		353.96	781.27
Miscellaneous Income — 1956			.11
Rental of Slides — 1957			15.00
Interest Income — 1956	\$	3.06	
— 1957	\$	5.60	8.66
Adjustment for Unidentified Income			277.56    \$7,374.84

### LESS DISBURSEMENTS:

Office Supplies and Stationery			\$ 514.76
Membership Cards			59.69
Secretarial Assistance			86.53
Postage			642.35
Addressograph Plates			93.59
Bulletins			1,091.73
Dues to Other Societies			30.00
Yearbooks			880.54
Constitution and By-Laws			163.20
Medical Expense — Guy Wilson			16.00
Expense a/c — 1st Vice President			50.00
Library Books			12.92
Symposium			36.82
Show Expenses			41.04
Bank Charges			19.90
Excess of Receipts over Disbursements			3,739.07 \$3,635.77

## BALANCE SHEET

*June 30, 1957*

### ASSETS

#### CURRENT:

Checking Funds — Towson National Bank \$3,123.43

#### OTHER:

First Federal Savings & Loan Association \$ 382.66  
Inventory — Color Slides 129.68    512.34  
\$3,635.77

### LIABILITIES

#### CURRENT:

None \$ —

#### NET WORTH:

Surplus 3,635.77  
\$3,635.77

During September, 1957, by authority of the Executive Committee, an audit of the records of the Society was made by McLean and Koehler, Certified Public

Accountants, Baltimore, Md. The Balance Sheet as of June 30, 1957 and Statement of Receipts and Disbursements for the period May 4, 1954 to June 30, 1957 are reproduced.

A number of recommendations were made by the auditors designed to improve the accounting practices employed by the Society and to protect its funds. These suggestions, all of which should be in effect by January 1, 1958, may be summarized as follows:

1. That all receipts be deposited and that a Petty Cash fund be established to meet cash needs.
2. That a new system of receiving and disbursing records be installed and that the general ledger work be left to a professional accountant.
3. That the Society be incorporated since, under the present type of organization, gifts to the Society do not qualify as deductible for income tax purposes by the contributor.
4. That fidelity insurance be purchased in view of the growth of the Society.
5. That checks be signed by the treasurer and countersigned by one other officer.

Copies of the complete report are available to members of the Society upon request.

Respectfully submitted,

O. B. Van Sickle, *Chairman*  
Audit and Budget Committee.

## AWARDS

*(Approved by Board of Directors, November 23, 1957)*

It is not the policy of the American Daffodil Society to dictate rules for shows. However, when American Daffodil Society Awards are offered in shows, certain regulations must be observed. This is done to maintain high standards. In order to meet varied conditions in widely separated regions, two classes of awards have been arranged: one for regional and state shows and the other for local and club shows.

Rules concerning sweepstakes, number of entries per person permitted in each class, novice classes, etc., are local problems and are the responsibility of the show management.

To improve the quality of all shows, it is suggested that the schedule include a section for seedlings if any are being grown in the area. An educational exhibit which may include bulb catalogs, books, soil preparation, etc., is recommended. Arrangement classes should feature daffodils and should not be more in number than the horticultural classes.

When American Daffodil Society Awards are offered the following rules apply:

1. Judges in the horticultural section must be approved by the American Daffodil Society. Until 1959 when the present program for training daffodil judges is completed, there may be a dearth of judges in some areas. Temporary



A.D.S. Approved Certificates have been issued to those who have been recommended as most qualified to judge in shows. All certificates expire December 31, 1959. All judges must be A.D.S. members. A judge meets the membership requirement for a show season if he was a member in good standing during the preceding year as evidenced by publication of his name as a member in the current yearbook of the society. List of judges for each region is available from either National Judges' Chairman or Regional Vice-President. In small shows a panel of three judges may be sufficient, but in large shows several panels of three should be used. A student may serve on a panel with two A.D.S. Approved Judges.

2. Exhibits that are not named or wrongly named shall be disqualified except in special classes.
3. Only one first, one second and one third award may be given in each class. Several Honorable Mention Awards may be given in large classes. Any or all awards may be withheld by judges, if in their opinion the exhibit is not worthy. The decision of the judges shall be final. All exhibits receiving A.D.S. Awards must score 90% or more, A.D.S. scale of points.
4. Collections of daffodils must be included in the schedule. Collections may not be less than 5 stems, one each of 5 different varieties or 5 stems of one variety. List of varieties should accompany collection and each variety should be labeled.
5. All blooms must have been grown in the open by the exhibitor.

#### AMERICAN DAFFODIL SOCIETY AWARDS AVAILABLE FOR REGIONAL AND STATE SHOWS

Participation of non-members in regional shows of the American Daffodil Society may be only with the approval of the regional vice-president and the local society officers. They must reside within one of the states comprising their region of the American Daffodil Society. The show must be approved by the regional vice-president and only one regional show may be held in each region in any one year.

1. The Carey E. Quinn Award, silver medal, may be awarded to a collection of 24 named varieties of daffodils, one stem each, representing not fewer than 5 divisions, Royal Horticultural Society Classification. Each stem must be labeled and must score not less than 90% by A.D.S. scale of points. Schedule must state that this class is open only to members of the American Daffodil Society.
2. The Rose Ribbon of the American Daffodil Society may be awarded to the best seedling bred by exhibitor provided the specimen scores not less than 90%, A.D.S. scale of points.
3. The Purple Ribbon of the American Daffodil Society may be awarded to the best collection of 5 stems. Schedule must state whether collection is to be 5 stems of one variety or one stem each of 5 different varieties.

In regional and state shows the schedule must provide for single stems and for three of a kind in all XI divisions, Classification of Daffodils, Royal Horticultural Society.

## AMERICAN DAFFODIL SOCIETY AWARDS AVAILABLE FOR LOCAL AND CLUB SHOWS

Since the objectives of the American Daffodil Society are educational, it is hoped that local groups will sponsor shows in which the general public is invited to participate.

1. The White Ribbon of the American Daffodil Society may be awarded to the best entry of three stems of one variety.
2. The Green Ribbon of the American Daffodil Society may be awarded to the best collection of 12 named varieties, one stem each, representing not fewer than four divisions, Classification of Daffodils, Royal Horticultural Society.

In local and club shows the schedule must provide for single stems and for three of a kind in at least 5 divisions, Classification of Daffodils, Royal Horticultural Society.

## METHOD OF APPLYING FOR AWARDS TO BE OFFERED IN REGIONAL, STATE, LOCAL, AND CLUB SHOWS

1. Chairman of show will apply to the Chairman of Awards, American Daffodil Society. Application must include a copy of proposed schedule in which it is stated that said award or awards will be offered. Approval of this schedule will confer the sanction of the American Daffodil Society and may be used as publicity for the show.
2. In shows where the Carey E. Quinn Award is offered, the cost of the medal (approximate cost \$3.50) must be paid by the show management.

When awards are not used they must be returned to the Chairman of Awards. Following the show a list of the total number of entries, both horticultural and arrangements, the name and address of the recipient of the award and the signature of the judges must be sent to the Awards Chairman. A blank for this purpose will be mailed to show chairman with awards.

## AMERICAN DAFFODIL SOCIETY STUDY AND SHOW SCHOOLS *(Approved by Board of Directors, November 23, 1957)*

It is recognized that no school in daffodil judging can insure skillful and proficient judges or take the place of actual growing, exhibiting and judging experience. Schools can, however, do much to set up standards for uniform judging and exhibiting in all parts of the country. The best judges are the best growers and exhibitors.

Rules have been established for awards offered by the American Daffodil Society in daffodil shows. It is necessary that judges be trained so that approximately the same scoring will be used over the entire country.

The following courses of study have been designed to teach the exhibitor as well as the potential judge how to grow, evaluate and properly exhibit his blooms. This is valuable information for all daffodil growers whether or not they intend to become judges. There can be no shows without the exhibitor and an informed exhibitor makes for a better show.

If you wish to become an Accredited Judge of the American Daffodil Society, you must:

1. Have been a member of American Daffodil Society for at least three years.
2. Give proof that you are now growing 50 or more named varieties including at least 5 Divisions of the Royal Horticultural Society Classification.
3. Have exhibited daffodils for at least three years in as many shows.
4. Pass the test for a Student. This test will be given at Daffodil Study and Show Schools following Course #1. Those who passed course #1 in 1957 are now Students. Schools may be held at National Conventions and in regions or states where there is sufficient demand. Schools must be held when daffodils are in bloom.
5. Judge three shows as a Student under the supervision of an Accredited Judge of the American Daffodil Society. Until 1959 Students will work under the supervision of A.D.S. Approved Judges. Your ability at the show table will be confidentially reported to the Judges Committee of the Society.

Course #1 of the show school consists of the study of the divisions and sub-divisions of the daffodil. A written examination will show whether you understand form, color, pose, and other factors considered in exhibiting and judging. You will be asked to judge a small show which has been set up for this purpose. The A.D.S. point scoring system will be used and your ratings will be compared with those of the instructors who have also judged the show. A score of 75 on both the written test and the judging of the show will give the rating of Student.

Courses #2 and #3 are designed as a continuation of study on schedule making, proper staging, etc. In both Courses #2 and #3 you will be asked to classify correctly as to varietal name and division, material which has been on display during the school.

After having passed the three courses and having met the requirements stated above, write the Chairman of the Judges Committee for an application blank. Return this with \$2.00 to the Chairman of the Judges Committee, who will issue your certificate.

#### RULES FOR CONDUCTING STUDY AND SHOW SCHOOLS

1. A National Chairman of Daffodil Study and Show Schools will be appointed by the President of the American Daffodil Society. The President in cooperation with the National Show School Chairman will appoint regional, state and local school chairmen as deemed necessary. It is essential that all school chairmen be well informed on Study and Show procedures.
2. The local chairman in cooperation with the national chairman will conduct the school. His duties will consist of securing approved instructors, sending examination papers to instructors for grading, returning same to students and conducting the small daffodil show in connection with the school. A roster of the students will be made in triplicate, one copy to remain with the local chairman, one to be sent to the national chairman, and the third to be given to the regional vice-president.  
Students will be given a number which will appear on examination papers.
3. Instructors must be approved by the American Daffodil Society. A list of instructors is available from the National Study and Show School Chairman.

4. A fee large enough to defray expenses of school will be charged each student.
5. An outline of material to be covered in each course will be furnished instructors who will send their examination questions and correct answers to National Chairman for approval at least two weeks prior to the date of the school. It is the duty of local chairman to check questions against instructor's lecture.
6. A small daffodil show for student judging will be set up in connection with each course.

### OUTLINE FOR THE COURSES

All flowers used in teaching must have been grown locally out of doors.

#### Course I

- A. Divisions and sub-divisions of the daffodil as classified by the Royal Horticultural Society 1950 1 hr.
- B. Elementary Culture.  
General characteristics of the daffodils to include color, stem, form, pose, foliage, substance and texture, size and condition. 1 hr.
- C. Identification with point scoring of ten varieties, vase of 3 and a collection of 5 stems common to the area. This is to be a demonstration with class participation. 1 hr.
- D. Written Examination — 10 questions on A, 10 questions on B and 10 specimen blooms to be identified in writing. In this course students will differentiate between divisions, varietal names not required.  
Judging of small daffodil show. Show to include 6 classes of 3 entries each; four classes for single blooms, a class for a vase of 3, same variety, and a class for collection of 5 stems. All entries to be point scored.

#### Course II

- A. Cultural practices — soil preparation, proper planting, plant requirements, fertilization, diseases and their treatments. 1hr.
- B. Judging Ethics — acceptance of an invitation to judge, comprehension of schedule, duties of a judge, fairness to exhibitor, cooperation with other judges. 1 hr.
- C. Point scoring of ten specimen blooms, with class participation covering at least 5 divisions, RHS Classification. During 1958 only Course #2 will take up point scoring vase of 3 and collection of 5. 1 hr.
- D. Written examination — 10 questions on A, 10 questions on B, identification in writing of 25 specimen blooms as to varietal name and division. These blooms are to be chosen from a display of named specimen blooms on exhibit during the school. 1 hr.  
Judging of small daffodil show. Show to include at least 6 divisions, RHS Classification. During 1958 *only* show must include a class for vase of 3 and a collection of 5. These two classes must be point scored, others need not be.

### Course III

- A. Selection of material for exhibiting in shows; to include cutting, hardening, protection, methods of advancing and retarding bloom, and transportation of specimens. 1 hr.
- B. Proper staging of cultural specimens, collections and displays. 1 hr.  
Judging of seedlings.
- C. Point scoring of 10 specimen blooms, to include as many divisions as possible, also a seedling, class participation. 1 hr.
- D. Written Examination — 10 questions on A, 10 questions on B, written identification of 50 specimen blooms as to varietal name and division. These blooms are to be chosen from a display of named specimen blooms on exhibit during the school. Judging the small daffodil show. This show must include as many divisions as possible and also a class for seedlings. Point scoring not necessary except for seedling class.

#### *Scale of Points for Judging Seedlings*

Distinction	20	
Form	20	
Substance and Texture	15	In judging seedlings one of the prime factors is distinction. Use the same scale of points for judging seedlings as is used for judging show daffodils except the 20 points for condition is replaced by 20 points for distinction.
Color	15	
Pose	10	
Stem	10	
Size	10	

#### *Judging a Vase of 3 and a Collection*

In judging a vase of 3 and a collection of 5, 7 etc., points are to be allowed for uniformity. Up to 5 points should be subtracted if collection is not uniform, use scale of points for single bloom.

#### *Garden Judging of Daffodils*

For judging gardens, the 20 points allocated for condition is replaced by 20 points for vigor and health, use scale of points for single bloom.

Committee on Awards, Accreditation and Test Gardens

Mrs. Goethe Link, Chairman, R.R. 6, Box 152, Martinsville, Ind.

Miss Gertrude Smith, Lima, Penna.

Mrs. T. E. Tolleson, 441 Langhorn St., S.W., Atlanta, Ga.

### GROWING THE MINIATURE NARCISSUS SPECIES

By Roberta C. Watrous

In growing the smaller *Narcissus* species, most of us run into one or both of these difficulties: our stock of bulbs dwindles from year to year, or the bulbs increase rapidly but with fewer and fewer flowers.

There are several reasons why many of the species are short-lived in our gardens, all related to the fact that they are wild plants. In brief: (1) their resistance to disease may be low; (2) their native habitats may be specialized

and limited; (3) they may be normally short-lived, depending more on seeding than on bulb division for increase and renewal. Although seed are produced freely by members of this last group, it is not practicable for most commercial bulb growers to produce their stocks in this way. Consequently, most of the bulbs we buy have been collected where they grow naturally, chiefly in Spain and Portugal, and sent to this country either immediately or after having been grown on a year or so abroad. Inevitably many of the bulbs are collected before they have fully matured, or before they have reached blooming size. Such bulbs may have lost much of their vitality before we receive them. This is particularly true of *N. cyclamineus*, whose bulbs deteriorate rapidly when out of the ground. Yet the demand for them is so great that this species seems doomed as a wild plant in Portugal.

Let's think twice before re-ordering any of those species that have disappointed us in the past. Will we pay more to get bulbs that have been grown under cultivation instead of collected? Will we make more of an effort to give them the growing conditions that they need? And, most of all, will we form the habit of collecting a few pods of seed each year and planting them to ensure our own private future supply? If not, perhaps we'd better order the more reliable miniature hybrids instead of the species.

Cultural recommendations for the various species and wild varieties may be found in Alec Gray's "Miniature Daffodils" (and his catalogs), in J. M. Jefferson-Brown's "The Daffodil", in articles in the R.H.S. Yearbooks, and elsewhere. A few general hints are given below, but much remains to be learned of the behavior of the species under American conditions.

The soil should be gritty, well drained, not too rich. A familiar formula is one-third leaf mold, one-third loam, one-third sand. Slightly acid soil is probably best. Since the small bulbs of the species are planted only three or four inches deep, care should be taken to keep the roots from drying out during the crucial time after blooming, when the next year's flower is being formed in the bulb. Some sphagnum moss in the mixture may help regulate the supply of moisture where the climate is dry. More leaf mold or peat is usually recommended for the *N. triandrus* varieties, with decayed pine needles to make the rare *N. t. aurantiacus* feel at home. *N. cyclamineus* and some of the bulbocodiums (*citrinus*, *nivalis*, *obesus*) seem to need more moisture than most *Narcissi*, sometimes being found growing in marshy or waterlogged ground. Full sun and sandy soil for the members of the *N. jonquilla* group, but "not too dry" for *N. watieri*. Protection north of Washington, D.C., is advised for *N. watieri*, *N. rupicola*, and *N. scaberulus*.

The trumpet group includes species of all degrees of adaptability, from the tiny white *N. alpestris*, one of the most difficult species to grow successfully, to the sturdy *N. moschatius* and *N. obvallaris*. Some of the small trumpets and those of medium size have been in cultivation for centuries, and several, not known wild, may be very old garden hybrids instead of species in the strict sense. These usually increase readily by division. In general, trumpets prefer cooler conditions than jonquillas, often doing well in part shade. They will stand heavier soil, too. But give the tiny *N. asturiensis* (*minimus*) preferred treatment — plenty of moisture with sharp drainage.

Most members of the *N. bulbocodium* group increase freely both by division and by seed, seedlings often blooming in three years. They are ideal subjects

for the first attempts at growing *Narcissi* from seed. The winter-blooming North African varieties *N. b. romieuxii*, *N. b. monophyllus*, and *N. b. foliosus* are of limited hardiness; we need to learn where they will succeed out of doors in this country.

Some of the worst offenders in splitting into many small bulbs instead of blooming are the form of *N. tazetta* known as *Canaliculatus*, *N. nanus (lobularis)*, and *N. jonquilla minor*. I believe *Canaliculatus* blooms well in some southern gardens; does *N. jonquilla minor*? If frequent division, deeper planting, and heavier feeding do not produce results with these recalcitrant varieties, try discarding them and using their space for something more reliable.

This discussion has been limited to species, as the miniature varieties of garden origin, except doubles, present no special difficulties. Healthy bulbs, given ordinary good growing conditions, should thrive and increase. All doubles need constant supplies of moisture, and a protected and shady position also helps guard against blasting of buds.

## GROWING DAFFODILS

Harold S. King, *Chairman*:

Health and Culture Committee, American Daffodil Society

The American Daffodil Society is a national organization and as such has at heart the problems of daffodil growers from all parts of the country. The British writers make quite a point of the differences within their tight little island. In the United States the range of climatic conditions is much greater, resulting in special local cultural problems. Ideal conditions for optimum growth include a long moist cool spring, a warm dry summer, a moist autumn, and not too deep a frost in winter. One is fortunate if these conditions prevail but they are not necessary.

Few hardy bulbs give as large a return for minimal effort as do daffodils. If one obtains well grown mature bulbs which are free from disease and pests, he is sure to have several years of bloom in spite of what he may do or not do in growing them. They will give bloom whether they are planted deep or shallow, close or far apart, early or late. Even if they are planted upside down they rarely die, but may take several years to right themselves.

The results of haphazard culture may satisfy the beginner until he has seen what the same bulbs might have produced with expert handling. Then it is realized that good cultural methods pay dividends in superior quality blooms. It has been said that good daffodils are grown wherever there is a good grower. It is the aim of this Society to provide a digest of the factors that a grower of daffodils will find helpful in the production of superior blooms.

**BULB STRUCTURE AND CYCLE OF GROWTH**—The intelligent application of cultural procedures must be based on a knowledge of bulb structure and cycle of growth. The daffodil bulb is a specialized bud attached to a rudimentary stem, the basal plate, from which the roots develop. From this bud in the spring the leaves emerge, their ends forming a spearhead capable of forcing a passage through the soil to the surface. Bloom follows. The vigor of the leaves

and flower is derived from the nutriment stored in the fleshy scales and from water and additional nutrients absorbed by the roots. After the flower fades, the leaves continue to manufacture food which is stored in the leaf bases. These swell to form new fleshy scales. The spent scales dry out and form the outer skin covering the bulb. As hot weather approaches, the leaves turn yellow and die down. Though the bulb appears to be dormant, activity does not stop. Embryo leaves are developing within the bulb. This year's foliage was initiated two years ago, the embryo flower bud about nine months after the leaves. A new bud may develop in the axil of a leaf. This bud eventually forms a "chip" which, when the outer scales shrivel, becomes exposed and finally forms a separate bulb. In late summer with the advent of rain a new root system is produced and these roots are active through the winter storing food for the spring display.

**SITE OF PLANTING** — The site should be selected with an eye to the sun. The flowers tend to face in the direction of most sunlight. This phototropism should be reckoned with in designing a planting. Though for the most part daffodils like plenty of sunshine, they are easily injured by wind. Some daffodils, particularly the redcups, burn in strong sunshine, so should be given light shade. In the South and Southwest all daffodil plants need protection from the hot noonday sun throughout the growing season. The planting should be away from competing roots of trees and bushes. If a particular daffodil is favored, its season of bloom can be extended by planting some with a north exposure and some in a spot facing the sun. The former will hardly be out of the ground when the latter are in bloom. Certain of the dwarfs are more readily appreciated if they are planted along the top of a terrace so that the dainty blooms are at eye level.

**SOIL** — Daffodils will grow in a wide range of soils. They are native on hillsides, with gritty soils high in humus, light in texture, and with very good drainage. In Holland they are grown commercially in almost pure sand with generous addition of organic matter, and with water table only a few inches below the roots. Optimum garden soil seems to be a fine porous sandy loam containing well rotted leaf mold and slightly on the acid side. Alkaline soils should be corrected by the use of sulfur. Manure must not be allowed to come into contact with the bulbs. It and hormones promote basal rot, particularly in the South. Heavy soils are inferior, possibly due to difficulty in drainage. Daffodils prefer a soil structure that permits ample aeration in the root area. Poor drainage can be circumvented in two ways: the texture of the soil can be improved by the use of a soil conditioner, such as Krilium, or the surface of the bed can be raised above the general level. In a daffodil bed, the soil should be prepared to a good depth, at least 18 inches, to provide for a long healthy root system. For naturalizing it is usually sufficient to drive an 18 inch hole in the ground with a crowbar, fill part way with sand, set the bulb, and cover with sand to the surface level. Daffodils naturalize effectively at the edge of the running streams where the soil moisture is not stagnant.

**TIME OF PLANTING** — Daffodils should be planted early enough to form roots before cold weather sets in. In the North this means as early as possible. In New England, early August is not too early; in the South planting should be delayed until the soil temperature is down to about 50° F, usually late fall. The deeper the roots penetrate the better the bloom and the longer the stems. The time of planting often depends on the delivery of the bulbs by the dealer. Usually purchased bulbs do not do as well the first year as the second. Therefore,



they should not be judged on their first year's performance. Before planting, bulbs should be treated like eggs to avoid rot caused by bruises. If they cannot be planted immediately on receipt, the package should be opened and the bulbs spread in a cool dry place out of direct sunshine to prevent heating. However, it should be emphasized that the bulbs should be in the ground plenty of time to make a good root growth before freezing. In an emergency, daffodil plants may be transplanted even while blooming, though it may take a year or two for them to recover. This is preferable to abandoning valuable bulbs.

**DEPTH OF PLANTING** — Daffodils tolerate a wide variation in depth of planting. They have been known to penetrate two feet of compact soil; on the other hand in pot culture the necks of the bulbs extend above the surface. For most of the country a general rule is to set the top of the bulb about four inches below the surface. In heavy clay they do better planted a little less deeply; in sandy soil may be set a couple of inches deeper. In the South deep planting in part offsets the dangers due to high surface temperature; in the North the bulbs should be deep enough to avoid heaving by frost. Planted deeply in a mixed bed, they are not damaged by annuals, chrysanthemums and other plants put in on top for summer and fall display. Deep planting, up to seven inches, slows down the division of bulbs, so this is preferable for bulbs that are to be left in place for a term of years. Variation in depth of planting affects the time of blooming, so that bulbs of one variety should be set uniformly deep to bloom together.

**SPACING** — In bed culture where bulbs are to be left in place for several years they may be planted as much as 12 to 15 inches apart. For massed effect, or where bulbs are lifted more often, the spacing can be reduced to 6 or 8 inches. The small bulbs of miniature daffodils may be spaced as closely as 3 inches or even closer. In a naturalized planting the spacing should not be uniform but varied to give an informal appearance.

**FERTILIZING** — Daffodils do not need heavy fertilizing, a good garden soil usually contains plenty of nutrient. However, it is good practice when planting to work in compost or well rotted manure together with a handful of bone meal well below each bulb. In the South omit the manure. Fertilizing at about the time the plants appear above ground will improve next year's bloom. If the fertilizer is dusted on the ground about like sugar on a doughnut, or at the rate of about half a pound per square yard, and scratched in, the fertilizing becomes part of the spring clean up. A satisfactory fertilizer can be made by mixing 100 pounds of the standard 5-10-10 potato fertilizer with 100 pounds of superphosphate and 10 pounds of Epsom salts. The application of wood ashes in the fall is beneficial.

**WATER** — Plenty of water at the right times is necessary for the development of large solid bulbs and superior bloom. Keep the plants growing in the spring as long and as vigorously as possible. The amount of watering depends on the rainfall but, as previously stated, a plentiful supply of water is essential from the time the bulb starts growth in the spring to early summer when the leaves begin to yellow, and again from early fall to cold weather when the new root system is developing. In watering, the soil should be wet down to root level. In the South and Southwest where the transpiration through the leaves is high a great deal of watering may be required. This has the added function of lowering the soil temperature.

**REMOVAL OF FOLIAGE AND FLOWERS** — Never cut off the foliage unless absolutely necessary. The leaves manufacture carbohydrate which is stored in the bulb for next year's flowers. If there are eight leaves on the plant, each leaf removed will reduce the amount of food stored by about one-eighth. If leaves are needed in flower arrangements, it is preferable to take them from some common variety rather than from an expensive new introduction. When the flower has begun to wither, the seed pod should be snapped off immediately, unless seed is desired. The developing seed pod requires nutrients that otherwise would be stored in the bulb. The flower stalk, like the leaves, contains chlorophyll and acts as an additional leaf in the synthesis of carbohydrate.

**MULCHING** — Mulching saves much labor in weeding and improves the appearance of the bed. During flowering time it prevents splashing of the bloom with mud — later it extends the life of the leaves. It keeps soil moisture and temperature more constant. In the South it keeps the soil cool. Where winters are severe it protects the rooted bulbs from heaving. Half-rotted sawdust, chopped straw, buckwheat hulls, pine needles are among the many substances suitable for mulch. In the North where a heavy winter protective mulch of straw, hay or evergreen boughs is used, it should be removed in the spring as soon as the shoots poke through the ground. It can be replaced by a thin mulch after the spring clean up. If sawdust is used, there may be a nitrogen deficiency which can be compensated for by mixing in 100 pounds of ammonium sulfate per ton of sawdust as it is being unloaded. After storing in the open for a year the partially rotted residue makes an effective and attractive mulch. In regions infested with termites, soft-wood sawdust is not recommended.

**DIGGING, DIVIDING AND STORING** — Daffodils under naturalized conditions may be left in the ground for many years without dividing, forming clumps which are an attractive characteristic of this flower. In beds, however, the quality and quantity of bloom may decline after a few years. When this is noticed it is time to move them. It depends somewhat on the variety. As soon as the leaves become yellow but before they dry up is the proper time for digging. Then they can be located readily. Loosen the soil around the clump and lift, being careful not to bruise the bulbs. Tag the bulbs of each variety with their name. After a few days of drying in a well aired spot in the shade, the bulbs should be ready for cleaning. Any loose outer layers that come away naturally should be removed and loose offsets separated from the mother bulb. Next year these "chips" will develop into good round bulbs. In the South, and it is a good precaution elsewhere, the bulbs, not more than three days after digging, should be placed in a solution made by dissolving a scant teaspoonful of Mersolite W in 8 gallons of water. After soaking for from 2 to 5 minutes until the surfaces of the bulbs are well wet, they should be allowed to dry spread out in a shallow tray in a cool well-ventilated basement or shed. They may be replanted immediately or stored in small onion bags in a cool dry location until planting time.

**HEALTH** — Daffodils present few health problems if the bulbs are obtained pest and disease free. Reputable growers are conscientious about selling only healthy bulbs.

In certain sections of the country the narcissus fly is troublesome. Its larva is a worm that burrows in the bulb. It can be controlled by adding 5 fluid ounces of 25 per cent Heptachlor emulsifiable concentrate to 8 gallons of the above recommended Mersolite W solution. Established plantings may be protected by spraying oil and foliage (particularly the bases of the leaves) with an emulsion

of 5 fluid ounces of the above Heptachlor in 8 gallons of water. This should be done when the fly has just emerged. In Oregon this is just after the blooming season.

Another parasite is the eelworm or nematode, a microscopic worm that reveals its presence by twisted foliage with small swellings along the margins. When these symptoms appear, the bulb must be destroyed. Since the nematodes may also be in the surrounding soil, they should be killed before lifting the infected bulb. Loosen the soil with a prong to below the depth of the bulb. Wet with a solution of V-C13 (one tablespoonful to one and a half gallons of water). Work in the solution with the prong until the soil is saturated. Then remove the bulb and burn. The manufacturers state that V-C13 used in this way will not injure surrounding bulbs.

Several diseases may attack daffodils, of which the most important are basal rot and virus infections. Basal rot often develops during storage, especially in warm weather, and is identified by decay in the base of the bulb. It often can be prevented by dipping the bulbs in Mersolite W as previously described. All bulbs showing basal rot should be burned. Probably the commonest of the four diseases is known as "mosaic," a disease spread by aphids. It can be detected by light green or yellow streaks in the foliage. Any plant showing this symptom should be immediately burned. An additional precautionary measure is to control the aphids not only on the daffodils but also on neighboring plants. In the Pacific Northwest under prolonged periods of high moisture, botrytis may have to be controlled by a copper spray to which Grasselli's spreader-sticker has been added.

In summary: purchase only healthy bulbs, treat them like eggs until they are in the ground and then, if abnormalities occur, rogue unmercifully.

**INDOOR CULTIVATION AND FORCING** — Those interested in indoor cultivation or forcing of daffodils are advised to refer to "Handbook on Bulb Growing and Forcing" by Northwest Bulb Growers Association, "The Daffodil" by M. J. Jefferson-Brown, and "Miniature Daffodils" by Alec Gray. In addition to chapters on the above subjects, these books have much additional information of interest to all daffodil growers.

## OF NEMATODES AND VIRUSES\*

By Freeman A. Weiss

By the time this appears in print outdoor grown daffodils will all be under ground, seemingly resting, though all the while undergoing those internal transformations that, come spring, eventuate in glorious bloom. The parasites of daffodils — the nematodes, mites, insects, fungi, perhaps even the viruses — are quiescent too. They are also beyond the reach of the gardener now, however much he may wish to bring destruction upon them. As far as the crop from bulbs now planted is concerned, the die is cast; what will be, will be.

Then why not wait until spring, when one can see these hidden enemies in action to discuss their ways of life and effects on daffodils; why not spend the winter just dreaming of that golden rebirth of flowers next spring instead of reading — or writing — about pests?

\*For more complete information regarding these and other pests of daffodils, together with control recommendations, the handbook on *Bulb Growing and Forcing*, published by the Northwest Bulb Growers Association, should be consulted. Available at \$2.50 from R. L. Nowadnick, Skagit Valley Junior College, Mt. Vernon, Washington.

A practical answer to this question is a somewhat perverted inversion of that old adage about the early bird getting the worm: the early worm may get the thickened bases or bulb scales. There they cause pockets of discolored dead manifestations, and especially in his early and usually most vulnerable stages of development. The winter is a good time to study his habits, and become prepared.

## NEMATODES

We are not thinking of "worms" in the ordinary sense of the gardener, since worms to him mean either earthworms or insect larvae such as grubs and caterpillars which, thankfully, are minor pests in most daffodil plantings. If you put "eel" before the "worm", making "eelworm" — also translated as nematode — we have a proper terminology. Nematodes are mostly minute, all but invisible to the naked eye, even when they are not working underground or buried in the plant tissues in which they feed. They are known to the plant grower chiefly by their effects, which are often highly destructive.

In daffodils, the most familiar kind of nematode infestation begins as the shoots push up through the ground in spring, and first appears as a few small swellings, not more than two or three times pinhead size, in the leaves. These swellings, or by their Dutch name "spikkels", are easier to detect by feel than by sight, but looking for them in diffuse light or under shade instead of in bright sunlight is helpful because they turn white or yellowish green as they mature. There are other similar discolorations in daffodil foliage that result from other causes, so the "feel" test of leaves between thumb and fingers is more reliable. As the leaves become more heavily infested they may twist, curl, and lie prostrate.

Once inside the leaves, the nematodes migrate downward, finally invading the daffodil if you don't get him first. There they cause pockets of discolored dead tissue, typically in the form of rings, as one or more scales are invaded. Of course the bulb must be dug up, and cut in transverse slices from the neck to the base to observe this symptom, but if one finds evidence of spikkels in the leaves it is worth sacrificing a few bulbs to determine whether nematode infestation is really present. Neglected infestations, even though few and slight, will gradually contaminate the soil and make successful daffodil culture impossible except after prolonged disuse for growing daffodils (or other host plants that may perpetuate the nematodes) or will require chemical fumigation to eliminate. Bulbs in which the infection is light enough to escape detection will, when planted elsewhere, contaminate other stocks of bulbs and new planting sites.

The campaign against nematode infestation in commercial daffodil stocks has been so drastic and persistent, both in the United States and abroad, that there is now little risk of acquiring this disease in bulbs produced under official inspection and purchased from reliable dealers. It is neglected "old plantings", where the soil has become contaminated, or from which bulbs may be taken as planting stock for naturalizing, that the danger from this kind of nematode still exists. It is still a serious enough hazard in home garden plantings to warrant great care to exclude, or prompt remedial measures if found present.

The so-called "bulb nematode", technically named *Ditylenchus dipsaci* and known in other hosts than bulbs to infest various plant parts, is the principal but not the only nematode pest of daffodils. One of the other kinds, known as "root lesion nematode" (*Pratylenchus*), is an omnivorous feeder on the fine roots of many plants. In daffodil planting it causes shrivelled and blackened roots, sometimes resulting in so much root destruction that the bulb fails to grow at all.

This pest is almost self-eliminating in planting stock because it is confined to the roots, which are removed when the bulbs are dug and cleaned for re-planting. It is a persistent soil inhabitant, however, and where abundantly established it can seriously reduce the performance of good planting stock under otherwise good cultural conditions. It is undoubtedly a factor in the decline of daffodil plantings that stand too long without periodic harvesting and soil renovation.

Until recently, thorough roguing of daffodils showing the slightest evidence of infestation by the bulb nematode, together with a long crop rotation or bare fallowing for three years of any site contaminated by this nematode, was the only recourse of the daffodil grower afflicted by this pest. Now, there is good promise of successful control by chemical soil fumigation. As the subject is still in an experimental stage, no definite recommendations for the use of soil fumigants will be attempted here, but those interested in this problem are referred to the manufacturers of these materials, as listed at the end of this article.

For the home gardener control of the bulb nematode consists of three steps: (1) exclusion, as far as possible by careful selection and inspection of planting stock; (2) thorough and repeated plant inspection, with roguing and destruction of infected or suspected materials; (3) change of planting site or chemical fumigation of infested sites. The hot water treatment of infested planting stock is too exacting as to equipment and operation to be practicable for amateurs unless they can have it done by someone who is equipped for it. As to the second step, it must be emphasized that destruction of suspected material means that it must not be left in the garden nor added to the compost pile; it must be thoroughly incinerated or buried deeply (2 feet) in a part of the yard that is not to be used for bulbs.

## VIRUS DISEASES

When addressing ourselves to the subject of the virus diseases of daffodils we are probably all on common ground, for doubtless all of us have some of them, and this goes for the amateur, the specialist, and the commercial grower. The causes of their ubiquity are first, the still prevailing ignorance among laymen and scientists alike of all the kinds of virus diseases and all their effects that may attack daffodils; and second, the innocuous character of some of these diseases so that they do not arouse us enough to make a real effort to get rid of them. In the aggregate, however, the virus diseases of daffodils probably deplete the vitality of whole plantings or ruin the performance of individual varieties more than any cultural mistake of which we are commonly guilty. Their effects are likely to be cumulative from year to year, so that neglect to deal with virus infections in their incipiency finally builds up to troublesome proportions.

Fortunately, none of the daffodil infecting viruses have been shown to be transmitted by contact of plant parts, including roots, nor by juice that oozes onto the hands in picking the flowers. The only demonstrated means of spread is by the occasional, and usually late-season, feeding of various kinds of aphids on daffodil foliage. And aphids, as a rule, do not take to daffodils enthusiastically. Enough of them seem to get around each season and in most localities so that at least an occasional daffodil will come down with yellow stripe, which we can detect readily, or with mosaic and "decline", which are more difficult to recognize until the whole stock of some choice variety is found to be affected. As the whims of aphids in feeding on daffodils are unpredictable, so that direct control measures against them have not been worthwhile, the prevention of virus spread depends on the prompt recognition of infected plants, and their removal and

destruction. We do not believe that it pays, in the long run, just to remove the invalids to some other part of the garden, though they may survive with only slightly impaired vigor and though there may be no provable spread to healthy plants. There are enough fine varieties and healthy planting stocks so that virus infected daffodils can be rigidly destroyed and replaced with others above suspicion.

The careful work of Dutch pathologists, using aerological methods for identifying viruses in daffodils, and the observations of American pathologists, have now shown that at least five different virus diseases may occur in daffodils. They are now distinguished as yellow stripe, mosaic, white streak, chocolate spot, and tip blight or "decline". By far the commonest are yellow stripe and mosaic. They can be differentiated by the degree of color change — loss of normal green — as well as the pattern, whether in stripes or a diffuse mottle. The time of maximum symptom expression also differs: early in the season and in cool weather for stripe; later, and usually after flowering, for mosaic and the others. The precise distinctions are minor, however; the important thing is to recognize *any* departure from a normal healthy green color and smooth surface of the foliage, and an even distribution of color and texture in the flowers. Examinations should be made both early and late in the season, and always in diffuse light or under shade, so that reflections and shadows do not interfere. Not every leaf that shows a minor color change should be regarded as evidence of virus, for these diseases are systems and pervade the whole plant. But when *all* the leaves of a plant have an "off color", are flaccid and mature early, and especially when *all the plants of any variety*, or those in a particular planting group, betray these symptoms, it is time to get busy with the roguing spade.

Only in this way will we constantly improve the health and vigor of daffodil stocks and increase our satisfaction in growing them.

Partial list of manufacturers of soil fumigants for nematode control:

California Spray-Chemical Corp., Richmond, California.

Dow Chemical Co., Midland, Michigan.

E. I. du Pont de Nemours & Co., Inc. Agricultural Chemicals Divn., Wilmington, Delaware.

Larvacide Products, Inc., 117 Liberty St., New York 6, N.Y.

Niagara Chemical Divn., Food Machinery & Chemical Corp., Middleport, N.Y.

Shell Chemical Corp., Agricultural Chemicals Divn., 460 Park Ave., New York 22, N.Y.

Stauffer Chemical Co., 380 Madison Ave., New York 17, N.Y.

Virginia-Carolina Chemical Co., Richmond, Virginia.

## DAFFODIL BREEDING

Willis H. Wheeler, *Chairman*  
Breeding and Selection Committee

An intensely interesting part of gardening is plant breeding. Unfortunately, many gardeners think it is something impossible for them to do. Except for the careful judgment required in deciding which originations should be discarded and which should finally be offered for distribution, this work requires little skill beyond the ability to grow plants from seed. In this article I will deal briefly with the subject of plant breeding to enable the novice to make his start on a fascinating hobby.

To accomplish the production of seed carrying the characters of the two plants the pollen of one variety must be placed on the stigma of the flower chosen to be the seed parent. When that bloom begins to open, the anthers should be removed. Tweezers with curved points accomplish this easily. If this same variety is to be used as a pollen parent, save the anthers in a small receptacle which should in turn be kept in a larger container over a drying agent such as silica gel or calcium chloride. The larger must, of course, have a tight lid to exclude air. Admirably suited for such pollen storage are the larger covered polyethylene or other plastic containers. They are light, unbreakable, and in most cases large enough to hold all the little pollen receptacles the ordinary gardener will need in a season.

On the second day after removal of the anthers, or when the end of the stigma (the round flat end of the stalk in the flower's center) is expanded and appears to be sticky, touch it with pollen. Then tag the bloom, showing the name of the seed parent first and the name of the pollen parent second, thus: *Kanchenjunga* x *Spitzbergen*. If pollen did not appear to remain on the stigmatic surface the first time it was applied, make a second application the following day. A bloom probably remains receptive to pollen for a week or more, depending somewhat upon weather conditions. The general opinion is that the middle of a warm day is the best time to do pollinating, but a succession of cloudy cool days should not discourage the accomplishment of the work. The flowers must be used when they are available.

Six to eight weeks after pollination the green pods will begin to show a *faint yellowing* and the faded blooms will fall away at a touch. *Then* is the time to pick the pods. At that time it will be noted that the seeds rattle in the pods, which is still another sign of their maturity. The ripe pods may be placed in a paper bag or envelope until dry, when the seeds can be removed for planting.

Experienced breeders recommend planting daffodil seed soon after harvest, which would not be later than the date when bulbs can first be lifted. Plant the seeds one or one and one half inches deep in good loamy garden soil to which a little bone meal has been added. With the seed from each cross there must be a label carrying information as to the parentage of the seed. That label should follow its lot of seedlings until they finally bloom several years later. For that reason I cut labels, one inch by three inches, from substantial sheets of aluminum and stamp the parentage thereon with steel dies. That information on the label in the garden saves a lot of record carrying some years later when the bulbs begin to bloom and the breeder wants to know the parentage of the new things. The labels start out by being pushed into the soil of the flat when the seed are first planted. Later, when the small bulbs are planted four inches apart in beds where they are to bloom, the labels are placed in their proper positions on aluminum wire stakes.

Should it be necessary to postpone planting until later, some of the seed can be expected to remain dormant a season before germinating. Such delayed germination means that if two year seedling bulbs are to be harvested from the flats the seeds of any one year's crosses will have to remain in the flats three years. Experimental results evidence obtained during the past two years indicates that it may be possible to plant seed in the fall and still avoid dormancy by a summer cold treatment. To do this, mix the seed with damp sphagnum moss and place it in a covered jar in a refrigerator at 40 to 50° F. Germination of seed so handled, when compared with the same number of unrefrigerated seed from the same cross, has given significantly higher germination the following spring.

To facilitate the finding of the small two year bulbs, it is suggested that the seed flats be filled with soil sifted through a 1/8 inch mesh screen. At the end of the second growing season when it is time to harvest the small bulbs, dump soil and bulbs into the same screen. The soil will go through and the bulbs will remain on the screen. Only in rare instances will any two year old bulbs pass through the 1/8 inch mesh, and you can watch for that as the soil goes through the screen.

The choice of the parents to be used in daffodil breeding is of course a very important thing, and will be dealt with at length in another article. However, it can be said here that the breeder, in choosing daffodil parents, should ordinarily use the best of the thoroughbreds. There will of course be occasions when this rule will be disregarded since the breeder will want to go back to the old varieties or even the species to secure some desirable character. For additional suggestions on this point see the resume of Jan de Graaf's talk on the subject, carried in the July 1, 1957 issue of *The Daffodil Bulletin*.

Last year's chairman of the committee, Mr. William H. Wood, conducted a poll to determine if the Society members were engaged in narcissus breeding. Twenty-four persons replied. Of that number seven indicated they were doing breeding work.

Without doubt others are also pollinating blooms and planting the resultant black seeds but we have not heard from them. Therefore, this is an open invitation to others who may also be raising daffodils from seed to send the Committee on Breeding and Selections an account of their experiences. If you have flowered certain crosses, or even open-pollinated seed, tell us what your results have been. Name your crosses or the self-pollinated varieties from which your seed came and let us have your comments on the results. If certain crosses have failed to set seed, name them so others may profit from your experience. As an example. I have been unable to set seed on Scarlet Leader, and its pollen has never produced seed on other varieties. On the other hand, Mrs. R. O. Backhouse yields good pollen but I have never secured seed from it. If anyone reading this has had success with these two varieties where I have failed, please give us the story.

To offer assistance to American daffodil breeders, some of our friends, both in this country and across the seas, have sent us information on some of the daffodils they have recently been using in their breeding work. The first list was sent by Mr. J. A. O'More of the North Island of New Zealand. He listed for us the crosses and what may be expected from them. They follow:

Ardclinis x Sincerity	1c. 1b.
White Sentinel x Scotch Rose	2b. 2b pink cup.
Silver Coin x Jonquilla	7b.
Sincerity x Trousseau	1b. 2b.
Eva x Ivo Fell	2b red cup.
Vasey x Dawnglow	2b pink cup.
Mitylene x Ivo Fell	2b red cup.
Seraglio x Ivo Fell	2a. 3a red cup.
St. Egwin x Golden Hind	2a.
Goldcourt x Kingscourt	1a.
Carbineer x Tamino	2a red cup.
Seraglio x Indian Summer	2a red cup.
Vasey x Pink Dawn	2b pink cup.
Vasey x Pink Ray (Awatea)	2b pink cup.



Dunkeld x Indian Summer	2a red cup.
Suda x Dawnglow	1b. 2b pink cup.
Nelly x Chinese White	3c.
Samite x Broughshane	1b.
Principal x Goldcourt	1a.
Narvik x Krakatoa	2a red cup.
Assini x Trousseau	1b. 1c. 2b. 2c.
Vasey x Moylena	2b pink.
Dunkeld x Rustom Pasha	2a red cup.
Dunloe x Pink Dawn	1b. 2b pink cup.
Cotterton x Kanchenjunga	1c.
Beersheba x Carnlough	1c.
Vasey x Rosario	2b pink cup.

Mr. Grant E. Mitsch of Daffodil Haven, Canby, Oregon gives the crosses he believes would be of interest to our members and the results to be expected. They are:

Kanchenjunga x Zero	1c's of excellent quality
Polindra x Ludlow	2c's of fine form and great purity.
Kingscourt x Galway	1a's and 2a's of good form and color
Ardour x Narvik	2a's of brilliant red and yellow
Armada x Paricutin	2a's of high coloring and good form
Interim x Mabel Taylor	2b's in richly colored pinks
Rosario x Radiation	2b's of well formed pinks
Green Island x Glenshane	3b's of polish and refinement
Green Island x Chinese white	3b's and 3c's of perfect form
Green Island x Bithynia	3b's and 3c's of perfect form and fine finish
Rubra x Tinsel	3b's with beautiful cups
Rubra x Jonquilla Simplex	7b's, jonquils with white perianths and possibly colored cups
Binkie x Jonquilla Simplex	7b's, lemon colored jonquilla
Fermoy x Signal Light	2b's with good red cups
Preamble x Effective	1b's of contrasty colors and good form
Festivity x Tudor Minstrel	2b's. high quality yellow and white flowers
Zero x Ludlow	2c's, snow white

Broughshane, County Antrim, Northern Ireland, is the home of two well known daffodil breeders, Mr. Guy L. Wilson and Mr. W. J. Dunlop. Mr. Wilson kindly took time to give us the following suggestions:

Broughshane x Guardian, Glenbush, or Cantatrice	Should give good large 1c's and possibly a few 1b's.
Guardian x Kanchenjunga	1c's of fine form; this cross produced Empress of Ireland.
Guardian x best quality 1c's; i.e., Glenbush, Vigil, Cantatrice, etc.	Should give 1c's and pale 1b's of very good habit, form and quality.
Ardclinis x Kanchenjunga, Broughshane, and Killaloe.	Should give large 1b's and 1c's.
Moonstruck x Cromarty, Goldcourt and Kingscourt.	I would hope for large 1a's of good form and quality.
Scotch Gold x Goldcourt, Ulster Prince and Kingscourt.	I would expect deep golden 1a's.

Greenland x Killaloe, Broughshane,  
Vigil, etc.  
Greenland x Tornamona and Ave.

Tryst x Greenland.

Tryst x Tornamona, Vigil, etc.  
Well-born x Broughshane, Kanchen-  
junga, and best large pure whites.  
St. Brendan x Greenland.  
Principal and Leinster x Spellbinder  
and Moonstruck.

Interim x Evening.

Interim x Rosario and other pinks  
Rose of Tralee x Rosario and  
other pinks.  
Lunar Rainbow x Irish Rose,  
Roseyards, Rosario, etc.  
Kilworth x Arbar, Mahmoud,  
Matapan, etc.  
Kilmorack x Home Fires and  
other good yellow-reds.  
Green Island x Chinese White

Home Fires x Kilmorack, Foxhunter,  
and other good yellow-reds.

I would hope for good large pure white  
2c's.

I would hope for some high quality  
pure white 2c's.

Very good 2c's. This cross gave Easter  
Moon, best flower in London show,  
1954.

Should give good 2c's.

I would hope for good quality large 2c's.

Good large 2c's.

Would probably give some 1a's showing  
the beautiful limey-lemon tone of the  
pollen parents.

Would expect nice pink cupped 2b's.

This was the cross that gave Irish Rose  
and Roseyards.

Should give some pink cupped 2b's.

Should give some nice flowers with pink  
tinted crowns.

Should hope for good sized pink crowned  
flowers.

Good red and white 2b's and 3b's.

Should breed other good red and yellow  
varieties.

This cross will give a proportion of large  
high quality shallow crowned white  
flowers or whites with the crowns  
daintily rimmed with delicate color.

Should give some good red and yellow  
flowers.

Our other friend in Northern Ireland who is gaining a fine reputation for the  
excellence of the things he is introducing is W. J. Dunlop. He has offered the  
following suggestions for our guidance.

#### Parentage

Ballymarlow x Sun Chariot  
Ballymarlow x Ceylon  
Cragywarren x Narvik  
Enniskillen x Mahmoud  
Kilworth x Enniskillen  
Glenwherry x Kildrum  
Kildrum x Corncrake  
Gala x Corcrake  
Ormeau x Kingscourt  
Golden Dollar x Ormeau  
Goldcourt x Kingscourt  
Ballywalter x Aldergrove  
Woodvale x Broughshane  
Wedding Bell x Kanchenjunga  
Wedding Bell x Ave

#### Expected Results

Brilliant colored yellow-reds.  
Brilliant colored yellow-reds.  
Very perfect exhibition 2a's.  
Brilliant show red and white 3b's.  
Improved Kilworth type 2b's.  
Fine late 3b's of very high quality.  
Extremely late large 3b's.  
Very late 3b's and 2b's.  
Deep gold 1a's and 2a's.  
Perfect exhibition 1a's.  
First class exhibition trumpets.  
Brilliantly contrasted bicolors.  
Whites of best form and quality.  
Large whites of good form and size.  
Flowers of most perfect quality.

Brookfield x Wedding Bell  
Courage x Brookfield  
Kilrea x Kanchenjunga  
Pink Isle x various new pinks

Flowers of most perfect quality.  
Very white flowers of good substance.  
Exhibition flowers.  
Large flowers with Pink Isle color and form.

Portrush x Chinese White

Improved Chinese White.

Group-Captain C. Osborne Fairbairn of Banongill, Skipton, Victoria, Australia, sent information which he received from some of his associates in daffodil breeding. The first notes are from Mr. Arthur Overton of Wandin North, Victoria, They are:

For pinks:

Grayling (Clark) twice crossed with Birdie (Clark) pollen.  
Swanley Peerless (Fell) first crossed with Mabel Taylor (Clark) then with Carnlough. This produced Pink Carn, Lowearn, and Pink Delight.

For 1a's:

Gold Salute x Gold Coin, both ways.

For 1b's, 1c's, and 2c's:

Bonnington x Carnlough.  
Bonnington x Oliver.

For 2a's and 3a's:

Chungking x Gibraltar.  
Aranjuez x Chungking.

For 2b's:

Monaco x Sir Heaton Rhodes.

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Kanchenjunga	Kingscourt	Moonstruck
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Another friend of Captain Fairbairn, Mr. Smart, offered the following comment on breeding:

"Glenara Caromel was the most successful seed parent for the production of pinks of all Mr. Alister Clark's flowers. Mabel Taylor he thinks the best pollen parent."

Captain Fairbairn furnished the following notes as a result of his own breeding work:

*Pinks*: Better Half (Clark) has been by far the best both as seed parent and pollen parent. It has produced satisfactory results from twenty-eight different varieties as a pollen parent. It has been just as successful as a seed parent. The best pinks that I have produced have been from Better Half x Salmon Trout and Better Half x Carnlough. The best seed parents are Better Half (Clark), Coralie (Clark), Kenmare (Richardson), Swanley Peerless (Fell) Coralie seedlings, and Swanley Peerless seedlings.

1.a. 1.b., & 1.c.

Halfa has been the most successful seed parent. Other good ones are Cromarty, Renwon, Principal, Kingscourt and Halfa seedlings.

Kingscourt (Richardson), Inca (Clark), and Balmoral are the most successful pollen parents.

1.c., & 2.c.

Seed parents: Slemish, Ludlow, Sincerity and Slemish seedlings.

Pollen parents: Nautilus, Beersheba, Kanchenjunga, and Brussels.

The two best flowers came from Slemish x Ludlow and Sincerity x Slemish.

2.a.

Seed parent: Stoic stands alone. It is followed by Mawnan, Killigrew, Marksman, Damson, Chungking, and Market Merry.

Pollen parent: Carbineer stands alone. The next is Aranjuez. Then follow Fortune, Rustom Pasha, Rosslare, Militant, and a Carbineer seedling.

The five best crosses were: Market Merry x Carbineer, Stoic x Aranjuez, Stoic x Carbineer, Marksman x C.R.F. (Carbineer seedling) and Stoic x Militant.

2.b.

Seed parents: Kilworth best, then Forfar, Jean Hood, Rubra, and Seraglio.

Pollen parents: Forfar, Jean Hood, and Blarney's Daughter.

Best flowers from: Forfar x Jean Hood, Jean Hood x Forfar, Rubra x Forfar, and Kilworth x Blarney's Daughter.

The third member of the Irish triumvirate of daffodil breeders is Mr. J. Lionel Richardson of Prospect House, Waterford, Ireland. His records show that the crosses listed below have in recent years given worthwhile flowers:

Kingscourt x Goldcourt	Fine 1a's.
Goldcourt x Kingscourt	Fine 1a's.
Pretoria x Goldcourt	Fine 1a's.
Ardclinis x Kanchenjunga	1b's.
Kanchenjunga x Spitzbergen	1b's.
Spitzbergen x Broughshane	1b's and 1c's.
Spitzbergen x Kanchenjunga	Unusually productive of 1b's of value.
Royal Mail x Bahram	2a's of high color.
Narvik x Ceylon	" " " "
Carbineer x Malta	" " " "

Narvik x Bahram	2a's of high color.
Bahram x Ceylon	" " " "
Narvik x Sun Chariot	" " " "
Aranjuez x Bahram	" " " "
Carbineer x Ceylon	" " " "
Green Island x Greenore	2b's.
Kilworth x Nairobi	2b's.
Templemore x Green Island	2b's.
Rose of Tralee selfed	This produced Salmon Trout.
Glenshane x Waterville	2b's.
Kilworth x Arbar	2b's and 3 b's.
Fermoy x Arbar	2b's, unusually good.
Siberia x Petsamo	2c's.
Spitzbergen x Killaloe	2c's.
Broughshane x Ludlow	2c's.
Glendalough x Ardclinis	2c's.
Altyre x Chinese White	3b's.
Falaise x Limerick	This produced one of the best doubles.
Falaise x Arbar	Doubles.
Falaise x Ceylon	Doubles.

Mr. Bram Warnaar of the firm of Warnaar & Company, N. V., Lisse, The Netherlands, has been breeding daffodils for a good many years. His Golden Harvest has become known as one of the better commercial yellow trumpets. For our information he has listed the following crosses:

Parentage	Expected Results
Golden Marvel x Burgomeester Gouverneur	1a's of good size and refinement.
Golden Marvel x Golden Harvest	1a's; early, large, and refined.
Adventure x Golden Marvel	1a's with tall, refined flowers.
Bahram x Fortune	2a's with good red cups.
Aranjuez x Scarlet Elegance	2a's; good show flowers.
Rustom Pasha x Scarlet Elegance	2a's of good color.

Mrs. George D. Watrous, Jr., 5031 Reno Rd., N.W., Washington, D.C., has been for some years carrying on an interesting breeding program, using some of the species and their varieties. As a result of her work she offers this suggestion:

"Based on results, if my experience has any value, it is to suggest that people whose hybridizing activities must be on a small scale should limit their crosses to those most likely to produce flowers of types not already common. This would include, for instance, crosses between species, and crosses using a species as one parent and aimed to produce such things as yellow or bi-color short-cupped triandrus hybrids, non-yellow, short-cupped cyclamineus hybrids, or non-yellow jonquilla hybrids."

The five crosses that have produced results of significance for Mrs. Watrous are the following:

Crosses	
<i>Narcissus cyclamineus</i> x <i>N. Jonquilla</i>	Flowers resemble both parents in perianth and trumpet; some fragrant.
<i>N. Triandrus albus</i> x <i>N. Jonquilla</i>	Resemble April Tears or Hawera. Usually between yellow and white.

Tunis x <i>N. Jonquilla</i>	Creamy white flowers suggestive of Trevithian; some fragrant.
Odessa x <i>N. cyclamineus</i>	Medium size flowers with reflexed yellow perianths.
Odessa x <i>N. triandrus albus</i>	Flared creamy cups and an occasional strong neck.

The Breeding and Selection Committee trusts this listing of daffodil varieties used for breeding purposes by experienced workers will prove to be of value to the members of the Society who are just beginning their adventure in growing narcissus from seed.

## ON JUDGING AND EVALUATING DAFFODILS

By Carey E. Quinn

A proper state of mind is as important as the most profound knowledge of the technical rules. No examination of the usual kind can discover these things — but each individual knows and if he does not have this quality he should not judge. With this warning, the following suggestions are made for those who evaluate Daffodils:

1. Judge all flowers on just what you have before you, *not* what it can be, *not* on a basis of your personal preferences. In short, free your mind of prejudices and just call the shots as *you* see them.
2. Learn to relax and keep your perspective. A bit of common sense is still the best maid of honor for both the judicial frame of mind and sound technical training.
3. You must learn to use your eyes — practice it.
4. Learn all you can about your flowers, their history, how to grow them, what the various varieties and types look like. In fact I doubt if you can ever become a good judge of flowers you don't grow and live with. How else can you know if the variety before you is rightly marked? How can you know otherwise what is a normal flower?

### TO THE SHOW TABLE

**FIRST.** You check over any given class in an Exhibit as a whole — eliminating all entries mis-named or mis-classified, all entries too old, faded, or too young or not of reasonably normal status generally.

**SECOND.** Group all entries in condition to show. If you don't have good light or can't see, have them set over on a card table where you can see. Just look at them, don't fondle or re-arrange or look behind tags — but look.

**THIRD.** Regroup the very best for closer study. Each judge does the same thing altho in practice the ones to be really re-grouped this second time, are usually rather obvious.

**FOURTH.** Now consider and weigh each entry dispassionately for normalcy for freshness, texture, color, balance, poise, etc. Generally you try to find entries

not over 25% deficient in any one of these qualities and you rate as No. 1 the one closest to 100% in all the items to consider.

FIFTH. Ethics between judges dictate a few rules:

Discuss simply the facts as you see them with fellow judges on your team, but never criticize another judge's judgment or indulge in a diatribe on your likes and dislikes. In short, state simply what you see, listen to the other fellow do the same — sometimes the other fellow saw something you missed. Then indicate your evaluations until you have a majority for each ribbon. Never split hairs, and give the exhibitor the benefit of any reasonable doubts.

## CLASSIFICATIONS

Because of the great numbers of variances in form, color, and sizes in daffodils it has been necessary to group them into certain classes for purposes of orderly presentation in catalogues and on show tables. This makes it possible to judge like against like, i.e., yellow trumpets against yellow trumpets — and the net results is a fairer competitive basis.

Some years ago the Royal Horticultural Society of England grouped all daffodils into eleven divisions or classes and also provided sundry sub classes. The American Daffodil Society concurs with the English altho we are considering certain sub class additions as the show table need becomes apparent, i.e., a separate class for miniatures. We will define these classes or divisions.

These classes are:

### DIVISION I

TRUMPETS. One flower to stem, trumpet *as long* or *longer* than the perianth segments. There are four sub classes.

### DIVISION II

LARGE CUPS. One flower to stem, cup more than one third, but less than equal, to the length of the perianth segments. This division has the same subdivisions in both number and definition as trumpets above, but in practice on the show table we usually break up (a) into self yellow and yellow perianth with red or orange cups and (b) into white and yellow cups and white with red or orange cups.

### DIVISION III

SMALL CUPS. One flower to stem, cup not more than one third the length of the perianth segment. There are three sub classes.

### DIVISION IV

DOUBLES. Perianth and/or crown double or semi-double.

### DIVISION V

TRIANDRUS. Flowers with the distinguishing characteristics of N. Triandrus — which is to say: three or more pendant or drooping reflexed pure white flowers to a stem. There are two sub classes.

### DIVISION VI

CYCLAMINEUS. With the distinguishing characteristics of N. Cyclamineus, which is to say one yellow pendant trumpet flower to stem, completely reflexed perianth and straight narrow trumpet. There are two sub classes.

## DIVISION VII

JONQUILLA. With characteristics of any of the N. Jonquilla group, which is to say 6 to 8 starry, sweet scented, small cupped flowers to a stem with rush-like leaves and flower stems. There are two sub classes.

## DIVISION VIII

TAZETTA. With characteristics of any of the N. Tazetta group, which is to say 4 to 8 many-colored, small cupped, uptilted flowers grouped in a head in umbrella outline per one stem.

## DIVISION IX

POETICUS. With characteristics of N. Poeticus, which is to say, single, sweet scented flowers, gently recurving white petals, red rimmed yellow flat eyes, rather than cups.

## DIVISION X

Species and Wild Forms and Wild Hybrids

## DIVISION XI

MISCELLANEOUS. Items not falling into any of above divisions. This division has sometimes been used also to group miniatures, intermediates and a special pink group.

## RATING DAFFODILS ON SHOW TABLE

For the purpose of securing uniformity and encouraging careful detail appraisal of daffodils the American Daffodil Society has adopted the following scale of points to be used by judges at Daffodil Shows.

Condition .....	20%
Form .....	20%
Substance & Texture.....	15%
Color.....	15%
Pose .....	10%
Stem .....	10%
Size .....	10%
Total	100%

No flower should be judged that is more than 25% deficient in any one of the above qualities. The point system can make a fool out of you otherwise.

*Condition* is very important on a show table. The flower should be neither very young or old. It should be fresh without fading of color, dirt or splits in petals or crown. Tips of petals show age first. 20% perfect score. (Special show rules may sometimes enter into condition.)

*Form.* Altho the form of a flower is dependent on its shape and the balance between crown and perianth, yet in all cases (1) the petals should generally be broad enough to overlap well (2) the perianth should be flat, altho slight reflexing (except where reflexing as in *Triandrus* and *Cyclamineus* is part of the basic definition of the division) is allowable. If petals incline in a lazy haphazard manner, it is a fault. 20% perfect score.

*Substance and Texture.* Texture should be smooth and substance on the heavy side. Ribbiness or crinkles must be faulted. 15% perfect score.



*Color.* Whatever the color of the flower, it should be pure and without mixture of any color *if the effect is muddy*. All other things being equal, the best colored flower will win. If colors are badly faded — this factor will be rated off under *condition*. 15% perfect score.

*Pose.* The pose of a flower should be such that the flower can be easily seen (except in triandrus and cyclamineus). Pose depends on the neck, if it is too long it gives the flower a drooping effect, and if too short, it gives a squat hunch-back effect. 10% perfect score.

*Stem.* The stem should be free of twisting or distortions, and not thick and clumsy or spindly. In short, it should be in proportion to the flower. 10% perfect score.

*Size.* Everything else being equal, the largest flower of any given variety should win. 10% perfect score.

### JUDGING SPECIAL EXHIBITS

*First:* Be sure you know the exact definition and purpose of the Exhibit. Most mistakes in judging special exhibits grow out of some misunderstanding on this point.

*Second:* Be sure the Exhibit meets the definition, right number of entries, properly named.

*Third:* Check condition of Exhibit, eliminate or fault depending upon degree groups containing flowers in bad condition.

*Fourth:* Check balance as to color, size, etc. Since you are usually not judging special exhibits as individual specimens, your rating is usually based on 2, 3, and 4 above. If the exhibit has a choice of items to go into a given exhibit, then the judges may give value to the individual point ratings of items in an exhibit against individual items in the competitive exhibits.

Miniature daffodils are to be judged comparing miniatures with miniatures and according to classes as is the case with their big sisters, giving some weight to grace and airiness.

Seedlings are to be judged as all other specimens except more carefully and in more detail. It is customary to use written scoring sheets — scoring each of its qualities in the points set forth, then adding up the points for total score. Normally judges do not pass on originality in seedlings unless same is specified in schedule.

### JUDGING IN TEST OR DISPLAY GARDENS

There is as of now no official rule as to points for garden judging. But generally it is suggested that the same point system used on the show table should be used, *with the exception of condition*.

For condition (20%) should be substituted "Health, Vigor and Floriferousness" when judged in the garden.



*LUNAR SEA (Mitsch)*  
*One of the few good reverse bi-color trumpets.*



*FESTIVITY (Mitsch)*  
*A very fine 2B on the order of the famous "Tudor Minstrel"*

## DAFFODILS IN CENTRAL OTAGO, NEW ZEALAND

My interest in your Society was aroused through a notice in the Flower Grower, listing a number of different American Flower Societies. Unfortunately the eternal dollar problem precludes me from becoming a financial member.

As some small form of compensation for your Secretary's generosity, I thought that with a common love for the daffodil, some of you may perhaps be interested in varieties, conditions, etc., in this part of the Southern Hemisphere.

First of all let me state that I am only a comparatively small amateur grower—but nevertheless a most enthusiastic one. My collection numbers some 130 ordinary hybrids, plus approximately 50 miniature species and hybrids. These latter are my special pride and joy, as most of them had to be imported from the Northern Hemisphere and acclimatised by me as no one catalogues them in this country.

We are situated 45 07' S. and 169 38' E. at an altitude of 1000 feet above sea level. We are about 130 miles from the coast on East and 250 from the West Coast. Hills up to 6,000 feet close us in on all sides. These allow us an annual rainfall of 13 inches (average) and a temperature range of from 30 degrees of frost in the winter up to 100 degrees in the shade in the summer.

Varieties—The season commences with me in late autumn and early winter with *Narcissi Bulbocodium Romieuxii* bravely displaying its pale blooms in April and May. With luck these continue right through the winter and are a constant reminder of things to come when one sees them standing fearlessly after a hoar frost. In August the come-

dian of the genus *N. Cyclamineus* reflexes its golden yellow petals in the first warmth of spring. Two of its really charming hybrids follow it very closely, *Minicycla*, and *Cyclataz*.

About this time the first of the big daffs, *Magnificence*, bursts forth and almost illuminates the garden with its golden yellow glow. From then on it is rather a rush with the mid-season following the earlies, and, in turn being followed by the late season varieties. We are very lucky to be able to pick any blooms after the middle of October. *Silver Chimes* and the *Poets*, with luck will last until then.

The following is a brief list of some of the varieties and species that I grow: *Triandrus albus*, *Dawn*, *Hawera*, *Tresamble*, *Beryl*, *February Gold*, *Peeping Tom*, *Little Gentleman*, *Bulbocodium citrinus*, *B. Nivalis*, *B. Tenuifolium*, *Austuriensis*, *Nanus*, *Obvallaris*, *Wee Bee*, *Lady Bee*, *Pepper*, *Fortune*, *Cotopaxi*, *Spellbinder*, *Ludlow*, *Duke of Windsor*, *Chinese White*, *Armada*, *Ceylon*, *Kingscourt*, *Dactyl*, *Preamble*, etc.—very much the same, I gather, as you people grow, as we apparently rely on the same sources to a large extent.

While there are quite a number of hybridists in this country none of them have reached the prominence of the Irish breeders, for example, and so we must import our stock from abroad, with one big difference, our stock has to be acclimatized to allow for the inverted seasons!

I would, incidentally, be only too pleased to correspond with miniature narcissi enthusiasts with a view to exchanging ideas, seed, perhaps even colour slides, etc.

R. E. BELL  
Schoolhouse, Ophir,  
Central Otago, New Zealand

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## ON NUTRITION

The Department of Agriculture is presently running some tests on nutrition that appear to indicate (1) that all bulbs and plants are selective and only use what they need, (2) that plants use mostly certain elements at a certain cycle in their growth year, and (3) that the many nutritional failures may be ascribable to malnutrition or shortage of one element when needed.

## ON GROWING DAFFODILS IN THE SOUTHWEST

LABORATORIUM VOOR  
BLOEMBOLLENONDERZOEK

LISSE

August 24, '57

Dr. Willis H. Wheeler  
3171 North Quincy Street  
Arlington 7, Virginia, U.S.A.

Dear Willis:

Your letter of July 16th is still unanswered. Partly this is due to the fact that I cannot give any comment better than yours. I could not find exact data about the temperature of Tulsa, but Oklahoma must be very warm and I think the data in the letter have been mixed a little, just as you did suppose.

3171 North Quincy Street  
Arlington 7, Virginia  
September 16, 1957

Mr. Philip Klarnet  
c/o Edward Gottlieb & Associates  
2 West 45th Street  
New York 36, New York

Dear Mr. Klarnet:

I apologize for the long delay in replying to your earlier request for information on a daffodil problem. On August 25th I left on an official trip to the west coast and only returned a few evenings ago. When I did so I found the enclosed letter awaiting me from my good friend Prof. Dr. E. van Slogteren.

In my letter to him I indicated that I feared the conditions in our southwestern states were not conducive to good performance by many of our daffodil varieties, and especially the trumpets. I also pointed out that it would be an

If the bulbs are lifted after the foliage has died down and stored at a not too high temperature, where it is dry enough to prevent too early root-development, I cannot see why the daffodils would not give good flowers next year. They must not be planted before the soil-temperature is down to about 10° C. and I am afraid this will be very late in the fall. We did not experiment with daffodils along this line. Last year we had some good results with tulips, that had been colled here before shipment and planted in the far south in December.

With kindest regards to you all,

Sincerely yours,

DR. E. VAN SLOGTEREN

unusual plant of any kind that would thrive from Maine to Oklahoma, the state referred to in your letter. Few if any of the cactus plants native to our southwest would do much in Maine. In spite of that some gardeners expect that trumpet daffodils which prefer a climate like that of Northern Ireland or the Pacific Northwest, should do equally well in Oklahoma.

I believe Prof. van Slogteren's suggestions for the handling of daffodil bulbs in the warmer climates should help and should be tried by those who want to grow daffodils under the hot dry conditions of our southwest country.

Sincerely yours,

WILLIS H. WHEELER

*Second Vice President*

*Americal Daffodil Society*

Enclosure: 1

P.S.—The Professor has been in the U. S. on several occasions.

## THE 1958 AMERICAN DAFFODIL SOCIETY CONVENTION

The Georgia Daffodil Society under the leadership of Fay Pearce and the combined membership of the South East Region have a fascinating program developed for the 1958 Convention of the American Daffodil Society March 27 to 30th inclusive that will feature a tremendous display of specimen daffodils, an extensive garden tour of beautiful Atlanta, and an authoritative symposium on all phases of Daffodil culture and problems.

## MEMBERSHIP ROSTER of the AMERICAN DAFFODIL SOCIETY

Membership roster as corrected to December 1957.

Please advise us of any omissions or errors.

The names of Life Members are preceded by (L), Contributing Members are preceded by (C), and Sustaining Members are preceded by (S). These designations indicate that members have contributed in varying amounts from Life to Sustaining to the important Research and Test Fund.

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