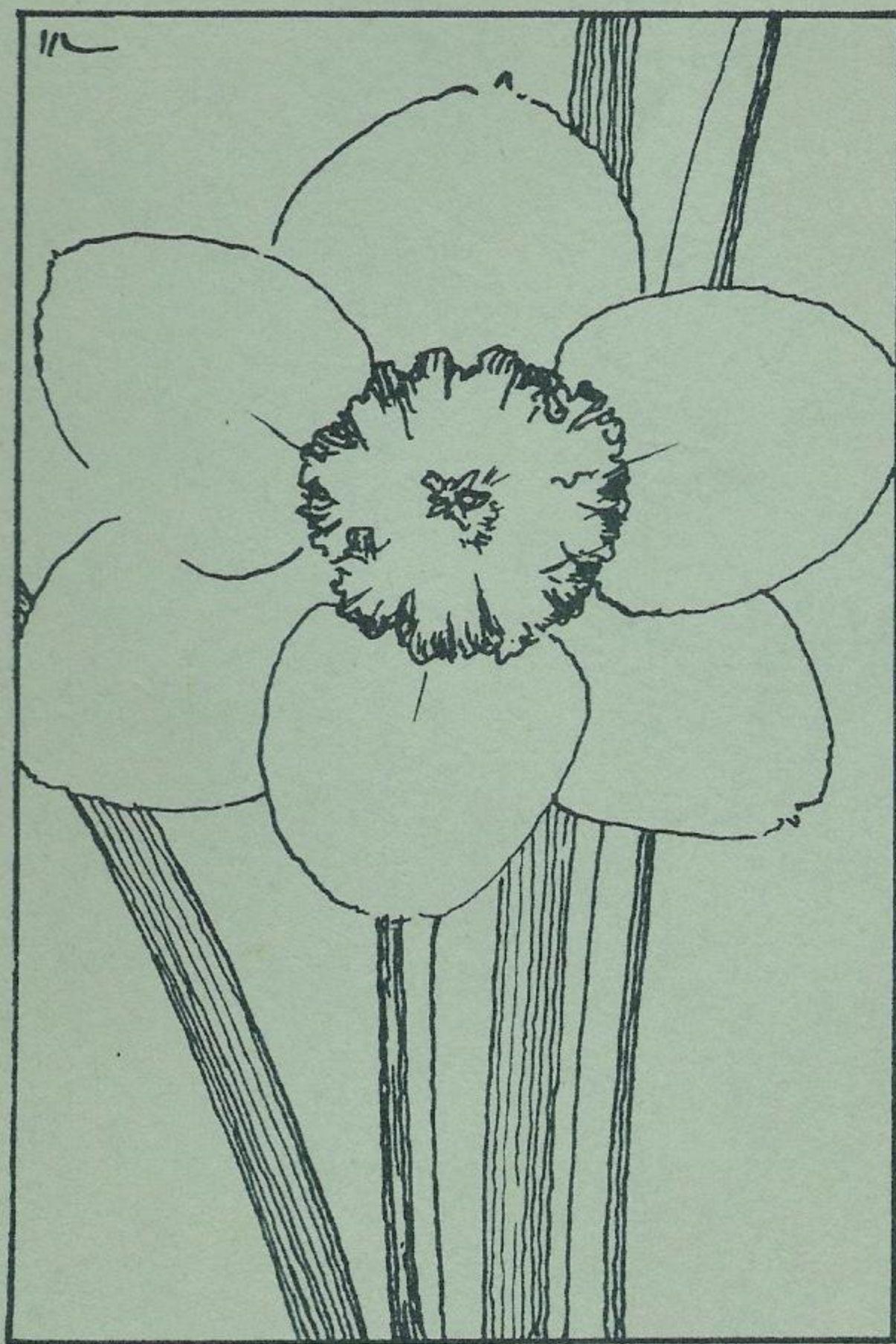


WASHINGTON DAFFODIL SOCIETY YEARBOOK

1955



Washington Daffodil Society
5031 Reno Road, N. W.
Washington 8, D. C.
1955.

WASHINGTON DAFFODIL SOCIETY

Mrs. John Bozievich, President
Mr. Willis H. Wheeler, Vice President
Mrs. George D. Watrous, Jr., Secretary
Mr. Lyles G. McNairy, Treasurer

The Washington Daffodil Society was organized in 1950 to promote the growing and enjoyment of daffodils by its members and others in the Washington Area through shows, lectures, garden visits, publications, and general services. The Society offers to its members the opportunity to meet and discuss their particular interests with fellow enthusiasts and to profit by the special knowledge of many of its members. To garden clubs it serves as a clearing house of daffodil information by offering help in locating and procuring bulbs and educational material, by helping to secure speakers for meetings, and by affording a share in the planning and carrying out of the annual National Capital Narcissus Show.

Yearbook editors: Mrs. George D. Watrous, Jr.; Mrs. John S. Moats

Greetings to the members of the Washington Daffodil Society (and the members of the American Daffodil Society who will receive copies of this publication). This, our first yearbook, is a reflection of the many interrelated daffodil interests of our members. You are a varied and most stimulating group of gardeners, and the sound growth of our Society, now almost five years old, is based on your many individual contributions. Under the initial leadership of Dr. Freeman Weiss and the inspiration of our genial Carey Quinn, both ably supported by our devoted Secretary, Roberta Watrous, we have put the daffodil on the floral "map" in the Washington area, and have had fun doing it. There is much left to accomplish, so may we continue to grow, all the while enjoying each other and our daffodils.

I would welcome the opportunity to greet each of you personally, and hope you will come visiting in daffodil time!

Marie Bozievich
President, Washington Daffodil Society

THE BEST DAFFODILS AS OF 1954

By Carey E. Quinn, Chairman,
The Symposium Committee

Each year for some seven years I have put out a summary of the best in daffodils, primarily for the use of the Washington Daffodil Society. This year I appear merely as chairman of a committee of large and critical growers and judges in the District of Columbia Area. We also included some outstanding critics from Maryland, Pennsylvania, and Virginia. The summary we present this year is a composite and is designed to represent a digest of the best in daffodils as grown and rated in the four jurisdictions above stated.

The summary is broken down this year again according to both classes and blooming periods in an effort to be as helpful as possible to the many gardeners who now ask for and appear to use the report. We have also included what we have called an "Economy List" of fine daffodils averaging less than sixty cents per bulb at retail. This we believe to be the lowest average price we can use and yet continue our policy of reporting only the best in daffodils. (Perhaps we have not included all the best because no one can have had experience with all the thousands of varieties, many of which perform differently in different regions.) Finally, we have included a list of "Garden Decoratives," whose chief characteristic is their showiness, although there are some that rate high in all categories.

The Symposium Committee consists of the following: Mrs. Howard B. Bloomer, Jr., Mrs. John Bozievich, Mrs. A. Slater Lamond, Mrs. Henry D. Ludwig, Mr. Robert C. Moncure, and Carey E. Quinn, Chairman. Associated in this year's Symposium were also: Mrs. William A. Bridges (Maryland), Mrs. Arthur Hoyt Scott (Pennsylvania), Mr. Harry I. Tuggle (Virginia), Mrs. J. Robert Walker (Virginia), and Mrs. Asa H. Watkins (Maryland).

THE BEST DAFFODILS AS OF 1954

(Figures to the left indicate classification; figures to the right indicate ratings: (1) superlative in every sense; (2) excellent, near top; (3) outstanding, one of the best.) In classes and sub-classes in which no recommendations are made no varieties were considered sufficiently good.

	EARLY	EARLY MIDSEASON	MIDSEASON	LATE MIDSEASON	LATE
1a:					
	Moonstruck (2)	Ulster Prince (3) Goldsborough (3) Likovan (3)	Kingscourt (1) Milanion (1) Goldcourt (1) Dungiven (3) Hunter's Moon (3) Moongold (3)	*Virtue (3) Cloncarrig (3) Bastion (3) Lord Nelson (3)	Golden Riot (2)
1b:					
	Preamble (1) Foresight (3)	Trousseau (2) Sincerity (3)	Killynure (3) Straight (3) Effective (3) Patria (3)	Spitzbergen (2) Glengariff (3)	Ballyferis (3)
1c:					
	White Empire (3)	Glenshesk (1) Petsamo (2) Hindustan (2)	Cantatrice (1) Alycidon (2) Vigil (2) Contour (3)	Broughshane (1) Glenbush (2) Corinth (3)	
2a: With self-yellow coloring in the cup:					
	Cibola (3)	St. Keverne (1) Castledermot (2) Golden Torch (3)	Galway (1) Mulrany (1) Amberley (3) Velveteen (3) Portmarnock (3)	Leitrim (2) Sligo (3) Kilfinnan (3) Crocus (3)	
With red, pink, or orange coloring in the cup:					
	Armada (2) Alexandria (3)	Ceylon (1) Sun Chariot (2)	Galcador (2) Firemaster (2) Aranjuez (2) Royal Mail (3) Tamino (3) Alamein (3) Saltash (3)	Narvik (1) Palestine (2) Fire Guard (2) Indian Summer (2) Revelry (3) Rosslare (3) St. Egwin (3) Garland (3)	Reserve (2) Somali (3) Prince Regent (3)
*Virtue is sometimes classified as a 2a.					

THE BEST DAFFODILS AS OF 1954 (Continued)

EARLY	EARLY MIDSEASON	MIDSEASON	LATE MIDSEASON	LATE
2b:				
With yellow coloring in the cup:				
Brunswick (2)	Bizerta (2)	Tudor Minstrel (1)	Green Island (1)	Satin Queen (2)
	Penvose (3)	Statue (2)	Lunar Rainbow (2)	Innisfallen (3)
	Rosario (3)	Polindra (3)	Tryst (2)	Rose of Tralee (3)
	Tramore (3)	Greenore (3)	Buncrana (3)	
		Coverack Perfection (3)	Sebastopol (3)	
With red, pink, or orange coloring in the cup:				
		Signal Light (2)	Arbar (1)	Roimond (2)
		Fire Gleam (2)	King Cardinal (2)	
		Daviot (2)	Nairobi (3)	
		Frivolity (3)	Kilworth (3)	
		Ann Abbott (3)	Interim (3)	
			Red Hackle (3)	
			Blarney's Daughter (3)	
2c:				
Parkmore (2)	Zero (1)	Ave (1)	Killaloe (2)	Templemore (3)
Shining Waters (2)	Truth (2)	Ludlow (2)	Gentility (2)	Pucelle (3)
Silver Bugle (3)	Carnlough (2)	Rostov (2)	Glendalough (3)	
	Tornamona (2)	Dunlewey (3)	Glenshane (3)	
	Courage (3)	Greenland (3)		
3a:				
With red, pink, or orange coloring in the cup:				
		Chungking (1)	Therm (2)	Dinkie (2)
		Ballysillan (2)	Win All (3)	Russet (3)
		Rapallo (3)	Ardour (3)	Rideau Hall (3)
		Market Merry (3)		
		Mangosteen (3)		
3b:				
With yellow coloring in the cup:				
		Angeline (2)	Fairy Tale (2)	Misty Moon (2)
		Greenore (2)	Sylvia O'Neill (3)	Reprieve (2)
		Carolina (3)		

THE BEST DAFFODILS AS OF 1954 (Continued)

	EARLY	EARLY MIDSEASON	MIDSEASON	LATE MIDSEASON	LATE
3b (continued): With red, pink, or orange coloring in the cup:			Ballycastle (2) Masaka (2) Hopesay (3)	Limerick (1) Blarney (2) Tebourba (3) Tampico (3) Isola (3)	Corncrake (1) Bravura (1) Clockface (2) Mahmoud (2) Tulyar (2) Lough Areema (3) Dreamlight (3)
3c:			White Horse Eagle (3)	Chinese White (1) Altyre (2) Foggy Dew (3) Valkyrie (3) Emerald Eye (3)	Dallas (2) Frigid (2) Cushendall (3) Alberni Beauty (3) Shagreen (3) Samaria (3)
4:				Swansdown (2) Mary Copeland (3) Daphne (3)	Double Event (2) Yellow Cheerfulness (2) Cheerfulness (2) Falaise (2) Shirley Temple (3) Pride of Heemstede (3) Holland's Glory (3)
5a:				Tresamble (2) Rippling Waters (3)	
5b:				Silver Chimes (2)	
6a:		Jenny (2) Charity May (2) Dove Wings (3)			

THE BEST DAFFODILS AS OF 1954 (Continued)

EARLY	EARLY MIDSEASON	MIDSEASON	LATE MIDSEASON	LATE
7a:	Golden Goblet (3) Sweetness (3) Golden Sceptre (3)	Shah (2) .		
7b:	Trevithian (3) White Wedgwood (3)	Trim (3) Lanarth (3) Nirvana (3)	Golden Perfection (2)	Tittle-Tattle (2) Chérie (3)
8:		Orange Wonder (2)	Pride of Holland (3) Martha Washington (3) White Giant (3)	Geranium (3)
9:			Actaea (3) Sidelight (3)	Cantabile (2) Sea-green (2) Shanach (3) Smyrna (3) King of Diamonds (3)

Miniature varieties and species:

True miniatures, not more than 8 inches in height:

1a Tanagra (3)	1a Wee Bee (2)	4 Kehelland (3)	10 N. triandrus cala-	5a Raindrop (1)
6a Tête-a-Tête (3)	2c Angie (2)	7b Flomay (2)	thinus (3)	5a April Tears (1)
10 N. cyclataz (2)	2c Xit (2)	7b Sun Disc (2)		
10 N. rupicola (2)	5a Tristesse (2)	7b Pease-blossom (3)		
	10 N. watieri (2)			

Intermediates, 8 to 14 inches in height:

6a February Gold (3)	1b Rockery Beauty (3)	2a Nor-Nor (3)	3b Lady Bee (2)	3b Dosoris (3)
6a February Silver (3)	1c Rockery Gem (3)	3b Fairy Circle (1)	3b Picador (3)	3b Ruby (3)
10 N. obvallaris (3)	4 Pencrebar (3)	5b Dawn (3)	5b Frosty Morn (3)	7b Lintie (3)
10 N. jonquilla minor (3)	6a Le Beau (3)	5b Thoughtful (2)		
	7b Orange Queen (3)	6b Beryl (2)		
		6b Little Witch (3)		

"ECONOMY LIST" OF FINE UP-TO-DATE DAFFODILS
(Average retail cost below 60¢ per bulb)

	EARLY	EARLY MIDSEASON	MIDSEASON	LATE MIDSEASON	LATE
1a:	Mulatto Golden Harvest Elgin	Leinster Tintoretto	Principal Gold-digger Irish Luck Dawson City	Bastion Cromarty Virginia Wright Lord Nelson	
1b:	Foresight	Chatsworth Trostan	Effective Sincerity Patria	Ballyferis Glengariff	
1c:		Maiveroe Moray Beersheba	Samite Ardclinis Tain	Mount Hood Silver Wedding Dunluce Coolin	
2a:	Hollywood Cavaliero Fortune Rouge St. Issey	Tinker Shanghai Tashkend Ramillies Carlton	Rustom Pasha Tamino Dunkeld Aranjuez Trenoon Hugh Poate	St. Egwin Indian Summer Rosslare Carbineer Crocus Bahram	Bond Street Peiping Henna
2b:	Brunswick	Bizerta Orange Bruid Smiling Queen Penvose Jules Verne Händel	Polindra Coverack Perfection Duke of Windsor Sonnica Selma Lagerlof Flamenco	Red Hackle Buncrana Caragh Orange Festival Greeting Guardian Rubra	Innisfallen Rose of Tralee Invincible Sea Shell
2c:	Silver Bugle	Truth Carnlough	Slemish Rostov	Gentility Glenshane	Templemore Nakota

"ECONOMY LIST" OF FINE UP-TO-DATE DAFFODILS (Continued)

EARLY	EARLY MIDSEASON	MIDSEASON	LATE MIDSEASON	LATE
2c (continued):	Courage Cicely	Dunlewey Foyle Kenmare	Evening Glendalough	Pucelle
3a:	Market Merry Trevisky	Chungking	Alcida Varna Therm Goyescas Nobility	Dinkie Rideau Hall Roman Star
3b:	Amateur Elly Ney	Angeline Orange Button Kansas Carolina	Limerick Blarney Sylvia O'Neill Saturnus	Mahmoud Red Indian St. Louis Crenver John Dix Grey Lady Crete
3c:		*Hera	Distingué White Horse Eagle	Portrush Alberni Beauty Samaria

*Hera is sometimes classified as 3b, sometimes 2b.

In Classes 4 to 9, and in the group of miniature varieties and species, most of the varieties included in "THE BEST DAFFODILS AS OF 1954" come within the price range set for this "Economy List." In addition we recommend the following (classification symbols at left of name; "min." following classification indicates "miniature."):

EARLY: (6a min.) Mite.

EARLY MIDSEASON: (6a) Harvest Moon; (7a) General Pershing; (10 min.) *N. triandrus albus* ("Angel's Tears").

MIDSEASON: (5a) Shot Silk, Acolyte, Niveth, Moonshine; (7a) Aurelia; (10 min.) *N. bulbocodium filifolius*.

LATE MIDSEASON: (4) Camellia; (5a) Thalia, Stoke; (9) Ringdove, Caedmon; (5a min.) Kenellis.

LATE: (8) La Fiancée; (5b min.) Cobweb.

BEST DECORATIVES

EARLY	EARLY MIDSEASON	MIDSEASON	LATE MIDSEASON	LATE
1a Golden Harvest Mulatto	1a Lord Wellington Tintoretto	1a Burgomeester Gouverneur	1a Virginia Wright	2a Mekkeda Red Flyer
1b Zest	1b Chatsworth	Garron	1b Oklahoma	Zarah Leander
1c Ada Finch	Music Hall	1b Kalamazoo	1c Mount Hood	2b Franchot Tone Mentone
2a Armada Cavaliero Fireproof Fortune Hollywood Home Fires Rouge	1c Kanchenjunga Moray	1c Rathkenny Strongheart Thurso	2a Fra Angelico General MacArthur Redmarley Tocatta	2b Franchot Tone Mentone Pink Glory Rosy Sunrise Tuskar Light
2b Breathless	2a Carlton Fortune's Crest Scarlet Leader Shanghai Sun Chariot	2a Bay Shore Bermuda Fortune's Champion Pathan Pinwheel Red Riband	2b Caragh E. H. Wilson Fancheon Flora's Favorite Gapillion Händel Leeuwenhorst Louise de Coligny Orange Festival Rosy Diamond Siam Wodan	2c Gyr Falcon 3b Peking (de Graaff) Scandal St. Louis 4 Shirley Temple
	2b Brookville Mata Hari Milk and Cream Royal Crown Selma Lagerlof Smiling Queen Tramore	2b Duke of Windsor Green Emerald Mabel Taylor Sonnica Viotta	2c Queenie Scarva	
	2c Marmora	2c Courage	3a Apricot Distinction Parakeet	
		3a Flora Tristan	3b Hardy Johannesburg Papillon Blanche Rococo	
		3b Firewater La Riente	3c Ivorine	
		3c Bridesmaid	4 Camellia Mary Copeland	
		4 Irene Copeland		

THE RED CUPS ARE COMING

By Grant E. Mitsch, Canby, Oregon

(This paper was written for presentation at the Washington Daffodil Society Daffodil Institute of 1954, where it was read by Dr. R. C. Allen.)

Flower fanciers are given to thinking in comparatives rather than in realities, and particularly is this true where color is concerned. It is perhaps justifiable "poetic license," so to speak, to label flowers by the color they approach, if that color is one difficult or impossible of attainment. A recent visitor, nationally prominent in horticultural fields, called me and other growers to task for speaking of daffodils as having red cups, when, as a matter of fact, orange would be a more accurate description of their coloring. Not infrequently some novice gardener when viewing a display of recent novelty varieties will point to one of the most brilliantly colored ones and say "I like that one with the YELLOW center!" Much to the chagrin of the breeder who thinks he is making some progress, he comes to the conclusion that perhaps he should launch on a program of education, and forget the intriguing, but not always compensating, hobby he has chosen. Yet he may take courage in the fact that the red-cupped daffodil is certainly as realistic as is the blue gladiolus, the black tulip, the yellow delphinium, the red iris, and the pink pansy; and certainly the term is not as farfetched as the "blue" rose.

It would be superfluous to discuss the desirability of true red-cupped daffodils, particularly in combination with yellow perianths. Such flowers would bring consternation to those who see red and yellow as a garish combination, while to others this would be the ultimate attainment. A combination of these colors in trumpet varieties would certainly be a subject of controversy. Regardless of its merit or final acceptance by the public, breeders will not be deterred in their search for true red coloring. As for flowers with pure white perianths coupled with true red cups there can be little doubt of their meeting with an enthusiastic reception.

A bit of the history of the red-cupped daffodil would be appropriate, but on this point our knowledge is very limited. It appears that all red coloring may be traced back to some of the poeticus species, and doubtless this is one reason for the difficulty attached to the transferring of this color to the large-cupped and trumpet varieties. Seemingly there is a gene linkage between red color and small crowns, and when breaks occur they appear in a fusing of the characters controlling red and yellow rather than in a dominance of one color over the other. A technical explanation of this point will be left to cytologists and geneticists. From this fact that the red coloring becomes diluted as it is brought into the larger flowers we must accept a large amount of orange in our red cups. About the turn of the century, or a little before, several English breeders were working on this line, and one of the first large red cups to appear was Will Scarlett, a derivative of Narcissus poeticus poetarum. This flower was notable for its very bad form along with its large brilliant crown. Some breeders refused to use it because of its ungainly proportions, and others who made use of it found that it transmitted its faults as well as its one desirable trait. Nevertheless, one man invested one hundred pounds in three bulbs of this novelty and he is reputed to have done very well on his investment. The Rev. Mr. Engleheart, producer of Will Scarlett, raised several others of much greater value in the breeding of good flowers, but apparently it was to Will Scarlett that many of the Backhouse hybrids which are still popular today owe their striking coloring. It might be noted here that a son of Mrs. R. O. Backhouse has at present some orange or red trumpet seedlings coming on. These, I believe, have not been widely shown.

The next very notable break was the advent of Fortune. While there were many others with more color than it possessed, it had nearly

every other good quality. It is so well known now as not to need description, and its descendants, which are legion, are the backbone of present-day breeders' stock in trade. Fortune itself has been much maligned as producing mediocre and indifferent progeny. Although this is true with respect to the average of its seedlings, it has produced many worth while varieties that in turn have proved of merit for further hybridizing. Fortune and most of its seedlings do not have the high coloring that is in demand; in common with most of their class the intensity varies with season and climate. Fortune also is subject to fading. For the commercial cut-flower grower the latter item is not of great importance, as his blooms are picked before they have an opportunity to lose their color. The home gardener, on the other hand, is likely to leave many of his flowers uncut for garden decoration, and he prefers flowers that do not burn or fade. Some varieties lose color quickly but seldom burn, others are quite retentive of their color but a little sun or wind will burn the edges crisp; it is a common fault of most varieties to lose their attractiveness by one or the other of these means if not by both. Just what can be done about this deficiency?

In 1930 there was introduced the variety Rustom Pasha, which may not have been the first nearly fade-proof flower, but it was certainly one of the best offered up until then, and it remains one of the finest today. In contrast to others, it opens with comparatively little color but the orange-red tone intensifies for several days with little if any fading until it is through blooming. More recently there have been introduced numbers of other varieties carrying more or less of this tendency, including such kinds as Sun Chariot, Ceylon, and Armada. None of these is quite as near true red as some varieties attained by breeding through the less fade-resistant lines, but in due course the desirable traits of both strains will doubtless be incorporated into one flower. Even then, the intensely colored, nonfading cup will likely be accompanied by a short stem, poor form, constitutional weakness, or some other deficiency. Discounting the possibility that an outstanding complete break may appear somewhere we can only anticipate that the desired characteristics will be achieved by a long process of hybridization, approaching the goal by slow minute steps rather than by long swift strides. This should in no way discount the lovely flowers we already have, for a comparison of the best of today's varieties with the finest novelties of a few decades ago shows tremendous progress quite comparable to that wrought in the industrial world in such a field as automotive engineering and design, for instance. If our objective is the use of daffodils for exhibition or for cut flowers, fading is not an insurmountable obstacle; in the garden it does detract from the effectiveness of the display. Still, there are many varieties admirably suited to providing a colorful garden display. While we await the arrival of the better nonfading red cup we may enjoy those we now have!

Most of what has been said before pertained to the red and yellow daffodil. As for the red and white flower, the goal has been more nearly reached on the score of color, but here again a very difficult problem presents itself in the search for greater size: for either the cup coloring becomes more orange in tone or the perianth loses its purity; frequently both occur. However, in varieties such as Limerick, although the flower is only of medium size and the crown rather small, we do have very good coloring that holds up well in the garden.

As indicated before, new advances will likely come by slow and small steps, and whether we ever attain a large flowered daffodil with a pure spectrum-red crown is doubtful, but for all practical purposes the red cups are coming as envisaged by the present day forbears of a race of superior descendants; and even though some hybridist in search of this elusive characteristic should come up with, instead, a pure nonfading, consistently performing pink, he will have a happy alibi!

THOSE IRISH DAFFODILS

By Willis H. Wheeler, Arlington, Virginia

Once again Guy L. Wilson of Broughshane, County Antrim, Northern Ireland, outdid himself in shipping cut blooms to the Washington Daffodil Society during April 1954. So excellent were all in appearance that it was difficult to say that any one was best. They ranged from 18 to 25 inches in length, and most were over 20 inches. (Length of stem in shipping costs money so some shippers purposely remove some stem to save on air freight costs. Therefore absence of a long stem does not necessarily mean a great deal.)

Six blooms of Beaten Gold (1a) were handsome. This variety has a flared trumpet reminiscent of King Alfred, but it appears to be a much improved King Alfred, with just as fine a color. Five Sheppy (1a) were similar to Beaten Gold, but the trumpet flange was not quite so serrated. Dungiven (1a) was represented by five excellent flowers that appeared to be a little lighter in color than Beaten Gold. It looks more yellow than gold. The fine shovel-like perianth segments formed a magnificent backing for the bold, straight-sided, and well-serrated trumpet. Two Ulster Prince (1a) had fine substance. This flower looked similar to Dungiven, but the trumpet flange had a little different serration. Five Scotch Gold (1a), although near the color of Beaten Gold, did not appear to be quite as smooth in the perianth and trumpet as the latter; the flowers were larger, however. The six Moonstruck (1a) left all who saw them struck with their size, delicate coloring, and excellent proportions. This, as well as Marvel and Spellbinder, is from that remarkable cross, King of the North X Content. All three show Content influence, especially in the perianth, and all carry that glistening finish in their dark-to-light shades of what might best be described as lemon. Moonstruck as Guy Wilson can grow it almost takes your breath away, especially when you note the manner in which the lemon coloring is laid over a white base, thus reminding one of a water color painting. Marvel (1a) too is a delight to behold, being a large, beautiful flower of soft, cool, sulphur-lemon.

Two bicolors (1b) in the shipment were delightful. Preamble, with its pure white perianth and neatly turned trumpet of lemon yellow, is one of the most remarkable of daffodils. Foresight has a shorter stem but it is earlier and of first-class form. Its neatly flanged golden trumpet contrasts beautifully with the milky perianth.

The white trumpets (1c) were represented by two varieties. Six Kanchenjunga were massive, with broad perianths and wide spreading trumpet mouths. This variety suggests more informality than did the four blooms of Cantatrice, the other white. It immediately suggests an improved Beersheba, which is the best description I can offer, especially when a bloom of Beersheba was "best flower" in our 1954 show.

Spellbinder (1d), the reversed bicolor, was represented by eight magnificent blooms. The way Mr. Wilson can grow this gives us a hint as to how he found a name for it. It must have held him spellbound the first time he saw it in his seedling beds. It's a thing nearly every daffodil fan will want to add to his collection.

Next in order come the 2a's. And what a group they were! Of the whole shipment the variety that most attracted me was the gorgeous Golden Torch. This variety was so excellent in form and finish that it is difficult to see how one could find a better yellow in its class. The rich gold perianth is a fine background for a crown of nearly trumpet proportions of a deeper and even more intense gold. The flanged crown is nicely frilled.

The red cups (2a) were well represented. Eight blooms of Rouge, with intensely orange cups and apricot perianths attracted much interest because of the unusualness of the color combination. To preserve the color the flowers should apparently be cut the first morning they open. Five

Braniel were large flowers with creamy primrose perianth and deep apricot-orange crown that would please any gardener on an early spring morning. As it ages the perianth turns very light in color. Bahram, Home Fires, and Kilmorack were a striking trio with fine yellow perianths and striking orange cups. To distinguish among them it can be said that Bahram has the widest cup, Home Fires is less expanded and more serrate, and Kilmorack has the narrowest cup with lesser serration, in the manner of Bahram. Foxhunter, an improved Saltash (from which it came), carried the longest stems of all. The flowers were of refined quality, beautiful form and proportion, and good, clear colors.

The 2b of the shipment was Moylena, a striking flower with a pure white perianth and a cup of strong pink that even carries suggestions of coppery undertones.

Also present was the dainty but sturdy little Charity May (6a) in a pleasing tone of yellow. This little one from Mitylene X *N. cyclamineus* is a charming and graceful flower with broad, overlapping, much reflexed perianth segments setting off a waisted cup with a frilled and slightly expanded mouth. To keep it company was the small yellow fully-double Pencrebar (4).

All these blooms stood the long journey remarkably well as a result of Mr. Wilson's excellent packing. His secret seems to lie largely in the use of a clear plastic material with which he lines the shipping cases. The moisture thus retained in the boxes brings the flowers through in excellent condition.

Narcissus fanciers who viewed Mr. Wilson's blooms this year could hardly pull themselves away from the remarkable sight, and many a mouth watered at least figuratively. Many times the question was heard: "How does he do it? How does he get that length of stem and that brilliant color?" Seeing his blooms at least encourages us to keep trying - that those catalogue descriptions are no exaggeration. And to conclude, we wish Mr. Wilson many more years of success with his daffodils.

This year we had a second lot of beautiful flowers from Northern Ireland, which came from Mr. W. J. Dunlop, Dunrobin, Broughshane, Ballymena. His parade of Gold Medal Daffodils was led by some striking 1a's. Bangor impressed those who saw it with its evenly serrated wide trumpet and its fine, smooth finish. Blooms of Pretoria were large and carried a nicely proportioned, straight-sided trumpet, opening into a wide mouth that was distinctly rolled back and evenly serrated. It was, however, less serrated than Bangor. Dungannon completed the yellow trumpet trio and appeared excellent. It was a little smaller than the other two, but had a beautifully flat perianth standing at right angles to the straight-sided trumpet with a nicely expanded and frilled mouth.

Ballygarvey represented the bicolor trumpets (1b) and did so most ably. As its picture on the front of Mr. Dunlop's 1954 catalogue shows, it had a broad, smooth, flat, pure white perianth standing at right angles to the deep golden trumpet, which was beautifully rolled back at the brim. It looks as though meant for the show bench.

First of the 2a's to mention was Ormeau. Its broad, smooth perianth stood at right angles to a crown of excellent proportions that was very close to trumpet measurements and had a nicely rolled-back flange. The over-all color was a deep golden orange. The 2a's with red cups were really striking. Mexico and Ballymarlow were both exceptionally brilliant, with deep golden yellow perianths and well-proportioned crowns. Mexico had a crown of bright orange-red that was goblet-shaped, while Ballymarlow's was a solid crimson-red. Castlerock was similar to the other two red-cups but its crown was a little wider.

The 2b's, white perianths with colored crowns, had six representatives. Dreen had a beautifully proportioned pale pink crown set off by very smooth perianth of pure white. Pink Isle kept it company. This 1953 introduction had a broad, smooth, pure white perianth serving as a back-

ground for a pink crown of fine proportions. The pink could be described as apple-blossom pink. Crebilly was a flower with a broad overlapping white perianth and a rather flat creamy-white crown rimmed with pale lemon-green coloring. Glengormley and Irish Charm were rather similar in appearance. Both had broad, smooth, pure white perianths, and both had crowns in orange shades. The crown of the first was edged with a narrow lemon-yellow rim which suggested J. L. Richardson's Blarney. The second had a crown in a unique shade of orange, without contrasting rim. Last but by no means least was Bellevue, with broad, smooth perianth segments of sparkling white and a broad crown of bright orange.

Leading off the 2c's was Parkmore, of almost trumpet proportions. A broad, smooth, flat perianth sets off a straight-sided, neatly rolled-back cup. It is reported to be a first early in this color. Brookfield, a large flower of excellent substance and smoothness carried a rather shallow crown. Altogether it was a stunning variety. Saintfield, still another white, impressed those who saw it with its fine finish. Compared with the 2a Dreen, its cup or crown was a little narrower. Kilrea, a white of excellent form and quality, had a broad, smooth, pure white perianth and a perfectly proportioned crown showing an interesting fluting. Glenocum had even more fluting or frilling to its crown and was a larger flower. Its perianth and crown were both in excellent form.

In concluding the comments on the flowers sent by Mr. Dunlop I must not fail to mention the fine specimens of Kanchenjunga which he sent with his collection. I need not describe them here since I did so with the other flowers sent by Mr. Wilson.

All in all, these Irish blooms were a most interesting group of novelties and we who saw them were much pleased and most grateful to the kind Irish daffodil breeders who went to so much trouble and expense to send the flowers to us.

WHAT'S NEW IN KEEPING DAFFODILS HEALTHY?

By Freeman A. Weiss, Washington, D. C.

Old-timers in daffodil culture may remember when the health of these bulbs was almost a subject of national concern, for it was in 1925 that a Federal quarantine was imposed on their importation. The quarantine in turn was the stimulus that was needed to put the American daffodil industry, which had been only a half-hearted venture previously, firmly on its feet. A side effect of the quarantine was the promotion of much more active measures in the bulb-growing countries of Europe to improve the health of their product. In recent years the Netherlands and Britain have again become the most productive centers of new information on the pathology and the health of the narcissus, just as these countries have also produced many of the finest new varieties.

The problems of producing healthy commercial stocks of daffodils in the United States, which were truly formidable at first, have now been largely solved. Newcomers in daffodil culture may indeed be misled into supposing that there are no longer any serious pests of this crop. They may even find it difficult to obtain up-to-date information on the subject. To ignore or minimize the pest problems of daffodils could be as great an error as to overemphasize them so much that one misses the enjoyment of producing these flowers. A middle course is safer: keep informed about daffodil enemies but don't worry too much about them.

In this brief review the aim is to present recent developments in the field of daffodil health rather than a full account of daffodil pests and diseases. For basic information on this subject one should write to his state agricultural college or to the Department of Agriculture at Washington.

Mosaic (virus) Diseases

In the belief that the virus ailments are at present the most serious and difficult to control of all the disease problems confronting daffodil growers, they are placed at the head of this review. Actually, though, our present knowledge of the kinds of viruses that infect the narcissus, their relationship to other plant viruses, and how they spread in nature, has not increased much since Frank A. Haasis wrote a doctor's thesis on this subject at Cornell University nearly 20 years ago.

We still recognize the common mosaic (also called stripe, yellow stripe, and "gray disease") which has various manifestations in different narcissus varieties, as the most prevalent malady of this group, though several other virus diseases have been recognized. The mosaic virus can be transmitted by several kinds of aphids, most commonly the melon aphid, even though aphids are not commonly found feeding on daffodil foliage. The disease can probably be spread to some extent by root mutilation in cultural operations. Some varieties of daffodils are made utterly worthless when infected; they are greatly stunted or deformed and all their (fortunately few) progeny are as bad or worse. Plants thus affected are easy to detect and there is no incentive to preserve them. They should be rooted out and destroyed. Other varieties are much less affected though they may carry the disease. The color changes in the foliage are difficult to detect, and the flowers may appear nearly or quite normal. The tendency is to overlook them or, if they are found, to preserve them in the hope that they will cure themselves or get no worse. Because of the risk of spreading mosaic to other varieties where its effects may be serious, it seems best to regard any persistently off-colored plant with suspicion. If it is preserved at all it should be removed to a site well isolated from valuable stocks of bulbs. It may be better to adopt the rule of "nothing but the best" in your daffodil culture.

The Dutch pathologists have devised delicate and precise methods of diagnosing mosaic and other virus diseases in commercial stocks of daffodils, tulips, and hyacinths by means of a reaction between the juice from test plants and the blood of rabbits that have been artificially immunized against particular viruses. This method makes it possible to detect and eliminate virus-infected plants that show no outward symptoms, and makes for propagating and breeding stocks that are really healthy throughout.

Some of the British pathologists report that they find daffodils of Narcissus triandrus and N. pallidiflorus lineage especially reduced in size and vigor when mosaic infected, but that derivatives of N. tazetta and most white trumpet varieties are only slightly or not visibly affected. We have noticed a marked tendency in some of the miniature narcissi to go to pieces when showing mosaic symptoms, indicating that some of the species entering into the make-up of this group are extremely susceptible to mosaic. It would be wise to keep the breeding and propagating stocks of these little gems completely isolated - by means of aphid-proof cloth shelters if necessary - from all other narcissus stocks. It is so easy to lose them!

Of the other diseases proved or suspected to be of virus nature, white streak and chocolate spot are widely distributed though nowhere prevalent, and they usually appear only in certain few varieties. Although some spread is evident, it is slow, and elimination of these diseases by careful roguing should not be difficult. The far more prevalent "virus decline" is serious in some varieties, especially King Alfred and seedlings having it as a parent. It is regarded as the most difficult disease to cope with in some of our commercial producing areas, because it is impossible to detect except in the aging foliage, and the manner, rate, and time of spread are unknown. The possibility that certain root-feeding nematodes (not the more familiar bulb nematode) may be implicated in this disease,

either as the direct cause or as a carrier, has been suggested, and requires further investigation. At any rate, these nematodes are known to be the cause of a "decline" disease that occurs in certain portions of fields whenever they are planted to daffodils.

The relation of the daffodil viruses to other plant viruses has not been fully elucidated, but the common mosaic virus shows many similarities to the cucumber mosaic group of viruses. Some of these have a very extensive host range, and might be carried in a variety of other plants. In some instances viruses that are infectious to tobacco and to potatoes have been isolated from daffodils, but there is no evidence that the common mosaic diseases of these crops have any connection with narcissus mosaic.

Foliage Blights

The several foliage diseases grouped under names such as "fire" and leaf scorch are all of fungus origin, and may be carried as latent infections on the outer bulb scales, or perpetuated from year to year on infected leaf debris. They have usually been of little or no consequence in commercial bulb culture in this country, where careful cleaning and periodic disinfection of bulb planting stock is the rule and where frequent rotation of planting sites is practiced. The leaf spots and blights sometimes become troublesome in garden plantings when the bulbs are left too long in one place without digging and resetting. In exceptionally wet seasons they may devastate naturalized daffodil plantings, but in general nothing more is required than destruction of diseased foliage and renovation of the planting, preferably on another site for a few years. Commercial growers sometimes resort to spraying with Bordeaux mixture or other copper-containing fungicides for the control of "fire," leaf scorch and white mold. Successful spraying of daffodil foliage demands the use of an effective wetting agent, such as Dreft or Santomerse, in order to get even coverage of the leaves.

Bulb Rots

Basal or *Fusarium* (from the name of the causal fungus) rot continues to cause some trouble in both commercial and garden culture of daffodils, but is by no means the ruinous enemy that it appeared to be when daffodil culture began in this country. This is due to the regular practice in commercial culture (in regions subject to this disease) of treating the planting stock with a mercury fungicide, and often the harvested bulbs also within a few days after digging. Furthermore, the simple hot-water treatment for the control of animal pests such as nematodes, fly larvae, and mites, has now been universally modified by including an antiseptic in the water, or following the hot-water treatment with a fungicidal dip. The preferred material for simple dipping of the bulbs, whether for preplanting or post-harvest application, is phenyl mercury acetate, which is sold under the trade name Mersolite. A dipping solution is made by mixing one ounce of the chemical in 50 gallons of water (or smaller quantities in the same proportion) and dipping the bulbs for 5 minutes, then draining and drying or planting.

The Brown-Ring (eelworm) Disease

The notorious bulb nematode, or eelworm, which was the principal pest against which the narcissus quarantine was aimed, has been very largely eliminated in commercial narcissus stocks. This very creditable accomplishment is due to the rigid system of inspection, both in the field and in post-harvest handling, applied to all commercial daffodil production, both domestic and foreign. Purchasers of bulbs now can be reasonably confident of receiving nematode-free stock from any source subject to

such inspection. If they will exercise similar care in the management of their own plantings they should have no trouble from this once dreaded pest. Proper care means a thorough inspection of the foliage when it first reaches full size for the tell-tale "spikkels" or small yellow galls, sometimes felt by running the leaf between one's fingers more easily than seen. The planting stock also should be examined for the presence of brown rings in the bulb scales, when a thin slice is cut across the bulb just below the neck. If either of these symptoms of nematode infestation is found, one should submit a specimen to the nearest agricultural adviser or experiment station. If nematode damage is confirmed, all affected bulb stocks should be isolated and advice sought on how to treat it. Usually it will be best to destroy it outright. Any planting site that may have been contaminated should be avoided for narcissus culture for at least two years, or preferably longer.

GROWING DAFFODIL SEEDLINGS AS A HOBBY

By Charles W. Culpepper, Arlington, Virginia

There are several things that tend to deter a person from selecting daffodil hybridizing as a hobby. The first is the long wait from time of seed sowing to the time of flowering of the seedlings, which is from four to seven years. However, in most cases this is not the greatest obstacle. Anyone contemplating such a project as this may feel that to be successful he must acquire many of the latest varieties being introduced. To be strictly up to date would require an annual expenditure of a considerable amount, and even then he would remain from five to ten years behind the introducers of these new varieties.

Yet very interesting and worth while results may be expected without heavy expenditure of funds. There are now many moderately-priced varieties that have potential value as parents, and a few of these each year should be sufficient to make a very interesting program.

The realm of daffodil hybridizing is so great that no hobbyist could expect to work extensively in all fields. By concentrating our efforts on a single field there is a better chance to accomplish the objects sought. There are many desirable objectives. At present there is a great rage to produce pink varieties. Also the desire to produce red-cupped varieties continues. But there is a great need for better early varieties in all color classes, particularly in whites. Also better late trumpet types are needed. There is much that can be done with the poets and with miniature varieties. What our membership needs most is varieties that are better adapted to our growing conditions. Most of the present varieties were developed in England, Ireland, Holland, and in our own country on the West Coast, and do not thrive for us as they do in the climates in which they were developed. The need for improved varieties adapted to our area is so great that a project of this kind would be a most worth while undertaking, and useful work could be carried on by a number of individuals in this area. A daffodil hybridizing project should appeal particularly to younger persons, because they would have a better chance to continue the work into second and third generation crosses.

If the object should be better early white trumpets for our area one might use Silverine, Cantatrice, Trouseau, Ada Finch, Kanchenjunga, Stresa, and Silver Bugle as parents, all of which are now moderately priced. This early variety might be expected to be of good size, form, and substance, with a tall stem. It should be uninjured by late spring frosts and hold up well under the beating rains that often occur in our locality at this season.

If the object should be late white trumpets one might use Broughshane, Cantatrice, Trouseau, Truth, Beersheba, and Mount Hood. The late character should be accompanied by an ability to hold up well on hot days and the flower should be good in other respects as well.

For early yellow trumpets one might use Sundance, Cibola, Golden City, Malvern Gold, and Golden Harvest. Each of these has some good quality that might be desired in the improved form. It might be expected that a plant with a long stem and large, deep yellow flower would be popular if it remained in good condition for a long period at this season when cold winds and rain mar many of our present varieties.

If a very late yellow trumpet is sought one might have a chance with such varieties as Virginia Wright, Peerless Gold, Goldcourt, Galway, and Late Sun. Here, as with the white trumpets, a most desirable character would be an ability to stand up well at the high temperatures that frequently prevail at the end of the season.

So are the opportunities with all of the more than twenty classes of narcissus, and there are moderately priced varieties in all the classes which may have potential value as parents. The varieties to be used may change as the years go on and the present expensive introductions reach a price level that is within one's reach. Then when one's own seedlings begin to flower the most outstanding of these may be used in further work. In this locality there is often an opportunity to obtain pollen of the very latest outstanding varieties from other growers or friends. This opportunity should not be overlooked.

When only a limited number of crosses can be made a very careful study should be made in choosing the varieties to be used. It is therefore apparent that interesting and profitable work could be carried on in this area by a larger number of individuals than our entire membership at the present time.

The most important factors that affect the growth of the plants and the quality of the flowers in this or any other locality are susceptibility to disease and insect attack, soil conditions and fertilizer treatment, and climatic conditions. Nearly every locality has its own peculiar complex of climatic conditions. Here we are plagued with acute variations in temperature, humidity, and rainfall. The most frequent unfavorable weather condition is a cold driving rain when the plants are in flower. There are occasional late freezes which sometimes may be very disastrous. Several years ago there was a season with above normal temperatures during the early and middle part of the winter. About the middle of March a cold wave descended from the north and the temperature dropped to 9° F. A number of early varieties were in flower and many had flower stalks two to four inches above ground. Very severe injury occurred to the flowers and in some cases to the foliage. It was remarkable that some varieties could endure such a low temperature while in active growth. February Gold was notable in this respect, showing little injury, while the flowers of The First were almost completely ruined. Among other varieties there were considerable differences in the amount of injury.

Some characteristics of narcissus flowers are more affected by weather variations than others. It is commonly observed that there are differences in the behavior of varieties under conditions of high temperature. Notable in this respect is the behavior of the red-cupped flowers, most of which lack brilliance under high temperatures. Many hybridizers are working to improve this behavior in future introductions. Apparently varieties that will hold up well in one locality may not be equally good in another. The local hybridizer thus has an opportunity to find types that are particularly suited to his conditions. There are almost innumerable features where improvement might be worked for by the hybridizer. I sometimes feel that in our haste to produce flowers of superior show table quality we are neglecting the outdoor behavior of the plants and flowers.

The editor of the Yearbook suggested that I tell the members of the Society at least something about my own efforts in hybridizing. This suggestion may be readily understood when it is realized that most of our members, like myself, are very busy with their own garden problems and have little time to visit other gardens to learn what is being done. Only a few of our members have seen my plantings and consequently an account of my efforts may not be inappropriate.

My first pollinations were made more than 25 years ago and at least a few crosses have been made every year since. The efforts have been rather haphazard because they had to be squeezed in between many other activities. In some years only a hundred or so seedlings were started on their way; in other years as many as 2,000 were started. In the early crosses such varieties as Fortune, Dick Wellband, Hades, Red Cross, Firetail, Lovenest, and John Evelyn were used. The object of the crosses was to secure larger, nonfading red-cupped flowers suited to this locality. Every year a few other varieties were obtained as the prices of the newer introductions reached a level at which I felt justified in buying them. These were used where they seemed superior to the first varieties obtained.

About the time the first seedlings began to flower crosses were made using the large yellow trumpet varieties which included Statendam, Lord Wellington, Robert Sydenham, and Dawson City. Crosses among these varieties were continued for four or five years. Very few of the seedlings seemed worth saving when they came into flower. A little later, but overlapping considerably, a number of crosses among the white trumpet varieties were made. Such varieties as Ada Finch, Kantara, Beersheba, Stresa, and Mrs. E. H. Krelage were used. Daisy Schäffer, Gertie Millar, and Mme. van Waveren were also used with the whites. Among these seedlings there were several that appeared to be useful for further crosses.

When my own seedlings began to flower the best of these were intercrossed or pollinated with the latest varieties I was able to obtain. This procedure is continuing at the present time. Curiosity has now gone wild and pollinations may be made with any varieties I grow. If nothing more is realized than the joy and satisfaction of attempting to produce something better than existed before, I feel the efforts expended have not been worthless.

APRIL WILL REMEMBER

By Lucille Agniel Calmes, Washington, D. C.

Brown bulbs I planted here
In bleak and cold November -
I may forget this spot
But April will remember

To bring forth golden daffodils
With jonquils, shy and fragrant -
When loud the mating redbird trills,
That jaunty, ardent vagrant.

I may be far away...
When these miracles appear
But April will remember
Should I forget next year.

SOME EXPERIMENTS IN DAFFODIL CULTURE

By Serena S. Bridges, Towson, Maryland

Growing Daffodils in Water

Having for many years grown the usual narcissus varieties, Paper-white Grandiflora and Soleil d'Or, in water during the winter months, and being in search of something different, I decided last year to try some of a number of different types of this bulb in the same medium. As a result fifteen varieties were selected and tried, using the same technique for each, with varying results.

The varieties selected were: President Lebrun, Beersheba, Aranjuez, Grayling, White Nile, Govert Flink, La Riente, Daphne, Moonshine, Thalia, Cragford, Geranium, Silver Chimes, Laurens Koster, Rosy Trumpet, and Albus Plenus Odoratus. All bulbs were refrigerated, with the exception of Albus Plenus, and kept at a constant temperature of 50° for six weeks before being placed in regular hyacinth glasses. After being set in the glasses with water they were again placed in a temperature of 50°, and kept there until the roots were well developed.

There was a marked difference in the time that elapsed before roots appeared. Those that developed roots earliest were Beersheba, Grayling, and White Nile. The others followed at more or less regular intervals of four to five days. When the roots were about one inch long the bulbs were gradually brought toward the light. Regardless of the time lapse in root appearance all bloomed practically simultaneously, with the exception again of Albus Plenus Odoratus. This bloomed in about five weeks, the flowers being well formed and better than the usual garden bloom.

All the others bloomed approximately seven weeks from the time they were taken from the refrigerator, although they were kept in the temperature of 55°. Those that were most satisfactory were: Silver Chimes, Cragford, Geranium, Laurens Koster, Daphne, Rosy Trumpet, and Thalia. All these bloomed, had excellent texture and sufficient length of stem. The other varieties tried, with the exception of Beersheba, were very disappointing. Even Beersheba had rather thin petals, and did not last well. Two bulbs of Beersheba were given nutrient feedings of Rapid-Gro, and these did exceptionally well, having excellent texture and length of stem. In the other bulbs many came with distorted blooms and twisted stems. None of these, however, was given any supplementary feeding. I plan to try some of these varieties again this winter, trying various types of nutrients.

Increasing Bulbs by Cutting

Another experiment with narcissi that has been carried on for many many years is the cutting up of the bulbs. This procedure started by way of an accident more than ten years ago. While planting some bulbs of Silver Chimes one was accidentally cut into many pieces. Remembering that scales from lilies rooted readily when planted in a suitable medium, I decided to try this with these pieces of Silver Chimes. A few of the pieces were planted in sand; a few more in vermiculite, and then the telephone rang. The remaining pieces were tossed into a clay flower pot, and a handful of oak leaves thrown over them. The telephone call was a long one, and put the bulb pieces completely out of my mind. Several weeks later I noticed the flower pot still standing, and decided to put it in place with other pots of the same size. Turning the pot over and spilling the pieces out, I was amazed to find that many small bulblets had formed along the pieces. I immediately dug the ones that had been planted, and found that the pieces that had not been planted had produced many more

small bulblets than those that had been planted in soil or vermiculite.

Since that time I have cut up many bulbs, with a most pleasing result as to increase. Now all pieces are put in clay pots and covered with excelsior or some light covering to shade the scales. They are allowed to remain approximately six weeks, and then planted. As a usual thing about 90 percent of these bulbs bloom the second year.

Occasionally a cone-shaped scoop is taken from the base of a bulb, and the space usually is filled with small bulblets in a relatively short time, but this is not as satisfactory a method as cutting up the bulbs, although it has been most successful with hyacinths.

GLIMPSES OF SOME DAFFODIL GROWERS AT HOME (In England and Northern Ireland)

By Robert C. Moncure, Alexandria, Virginia

A sunny afternoon in the first week of May 1953 found me fulfilling a long cherished hope — visiting with Mr. Alec Gray in Camborne, Cornwall, not far from Penzance. His garden and plantings are hidden in a little nook which is at the head of a typical narrow lane and is partially protected from the Atlantic winds. Although it was too late in the season for most of Mr. Gray's unique collection of miniature daffodil species and hybrids, Xit and a few stray blossoms of other varieties were still in bloom in the field planting. His new cool greenhouse, which was still under construction, contained pots of numerous small seedlings, with the promise of many new hybrid miniatures for the future.

The afternoon afforded me a brief opportunity to meet the creator and preserver of so many charming miniature daffodils which are worth the extra care sometimes needed to grow them to perfection. His own introductions include the starlike four-inch Raindrop, dainty yellow April Tears, exquisite Tanagra, Sun Disc, Flomay, Sidhe, and many others, some of which were seen in Mr. Gray's air-expressed display at the National Capital Narcissus Show in April 1954. Among the many small species grown by Mr. Gray are many forms of *N. bulbocodium* and *N. juncifolius* and closely related species. One of the latter is the charming white mite from Morocco, *N. watieri*. This is best grown in a cold frame in good soil mixed with sand (without clay) and given ample moisture during the growing season. Pencrebar and Sea Gift are varieties discovered in old gardens in Cornwall. Another unusual variety, the butterfly-like triandrus-poeticus hybrid, Dawn, produced by the late Rev. Engleheart early in the century and long out of commerce, has been rescued by Mr. Gray and one other grower and is now available in small quantity again. I recall vividly how much enjoyment I received from this dainty gem during the war years, and its survival under neglect — although I do not recommend neglect.

Those delightful miniatures are excellent for a choice and special place in the rock garden and also for pots in a coldframe. A good companion for them in the rock garden would be *Phlox stolonifera* Blue Ridge, A very soft blue creeping gem, which I saw for the first time at the Chelsea Show in 1953. It is now being offered in the United States, in small quantity.

The next day I was able, through the courtesy of Mr. and Mrs. Gray, to visit the garden of Capt. and Mrs. T. A. V. Wood on the south Cornish coast on the outskirts of St. Austell, where a few daffodils were still in bloom amongst azaleas, primroses, and other plants. The area surrounding their beautiful old stone house had once been a copper mining section, but former owners by judicious planting of rhododendron, conifers, deciduous trees, and shrubs had obliterated all trace of mining debris and works,

and completely closeted the place from the nearby highway, while leaving a most restful view of the surrounding hills. Captain and Mrs. Wood, whose love of daffodils is so great that they grew them in window boxes and pots in London during the war years, acquired the place a few years ago and now hope to have time and leisure for developing more beautiful hybrids and to collaborate with Mr. Gray in his work. Their most gracious hospitality will long be remembered.

In mid-June another dream was fulfilled — a most restful and heart-warming visit with the dean of daffodil breeders, Guy L. Wilson, in Broughshane, County Antrim, Northern Ireland, whose daffodils are known for their faultless form, substance, and superb quality wherever they are grown. I can always go into a good daffodil show and without looking at the names pick out Mr. Wilson's varieties because they have a unique coolness, quiet dignity, and sturdiness found in few others. Choice of names as well as the fine qualities of his flowers reflect the taste of the man who has bred and selected such superior daffodils as Foggy Dew, Chinese White, Cantatrice, Broughshane, Chungking, Misty Moon, Effective, Pin-keen, and Truth. Cantatrice will long remain one of the very top white trumpets and it has now stood a number of years trial under rather unfavorable conditions in partial shade in my small Virginia garden. Mr. Wilson's yellow trumpets are easily the finest ones I have seen and promise superb performance as show flowers and also for commercial use and garden display.

I will long cherish the memories of the long cool twilight in the Northern Ireland garden filled with lupines, iris, peonies, pansies, and roses, with Slemish Hill in the distance, where, according to tradition, St. Patrick tended sheep as a boy, and an evening in front of an open fire listening to old operas and discussing plants and ideas with an individual whom I felt as though I had known for many years. Other pictures I will preserve are of drives and walks along the nearby coast of the Irish Sea, where fuchsias and other exotic plants grow as luxuriantly in the cool climate as though in their native habitat. Another picture is that of a beautiful and well-filled village kirk on Sunday morning.

THE 1954 BULB ORDER

By Lyles G. McNairy, Chairman

The 1954 bulb order was the largest and most diversified in the history of the Society. The value of the bulbs delivered was one thousand dollars, plus one dollar and twenty cents. Bulbs were ordered from four dealers: Warnaar & Co. in the Netherlands, J. Lionel Richardson in Ireland, and Guy L. Wilson and W. J. Dunlop in Northern Ireland.

In addition to the bulbs ordered by individual members, several lots were ordered for cooperating clubs. The latter orders were in each case for single varieties in quantity. One club ordered 80 bulbs of Chungking, another 120 bulbs of Foresight. The most expensive single bulb ordered was priced at \$23.00. A number of five and ten dollar bulbs were ordered. At the other extreme the small species were popular in dozen lots for less than a dollar a dozen. The 1955 show should be much richer in all classes as a result of the order.

Many thanks are due to Mrs. Willis H. Wheeler, who allowed her recreation room to be abused for sorting and packaging the individual orders.

RANDOM OBSERVATIONS

By Willis H. Wheeler, Arlington, Virginia

Narcissus von Sion

This old narcissus, listed by the Royal Horticultural Society as *Telamonius* var. *plenus* (synonym, Van Sion), is apparently of unknown origin and date. Today it may be seen in many a garden or former garden where it continues to bloom year after year with no attention of any kind. In this country it is seldom a handsome flower, since it usually resembles a cabbage, and its yellow color is frequently marred by an overcast of green.

Having heard that such a condition of the flower is not necessarily true of the variety as it flowers in Europe, I imported a few bulbs from the Netherlands in the fall of 1953. When they bloomed in the spring of 1954 the color in most was a good clear yellow, and the six parts of the perianth were sufficiently distinct so as to prevent the cabbage-like appearance of the flower produced by American-grown bulbs. How long the better form and color will remain will be shown by blooms of the succeeding years.

(Editor's note: In the first great garden book in English, John Parkinson's "The Garden of Pleasant Flowers," published in 1629, appears a little story about this variety. After describing it as "Pseudonarcissus aureus Anglicus maximus. Mr. Wilmers great double Daffodil," Parkinson goes on to say "...we first had [it] from Vincent Sion, borne in Flanders, dwelling on the Bank side, in his lives time, but now dead; an industrious and worthy lover of faire flowers, who cherished it in his Garden for many yeares, without bearing of any flowers untill the yeare 1620, that having flowred with him, (and hee not knowing of whom hee received it, nor having seene the like flower before) he shewith it to Mr. John de Franqueville, of whom he supposed he had received it, (for from beyond Sea he never received any) who finding it to bee a kinde never seene or knowne to us before, caused him to respect it the more, as it is well worthy. And Mr. George Wilmer of Stratford Bowe Esquire, in his lives time having likewise received it of him (as my selfe did also) would needes appropriate it to himselfe, as if he were the first founder thereof, and call it by his own name Wilmers double Daffodil, which since has so continued." I do not know when the name Van Sion replaced that of Wilmer.)

Labeling

The labeling of any garden subject presents a problem. The chief difficulty seems to be lack of permanence. As the seasons pass white-painted wooden labels lose their paint and lettering unless they are given considerable care. Zinc tends to darken with age and lettering wears away. Thin aluminum labels now sold for garden use can be written on with a pencil, ball-point pen, or other smooth point, and they last. However, they are so thin they bend very easily and sometimes tear loose from the wire or other means used to attach them to stakes or other objects.

An idea tried the past two seasons may be of value to some gardeners. Labels made of a thicker aluminum strip will not easily bend or tear loose from stakes. On such metal either names or identification numbers can be stamped by using steel stamping dies. To make such impressions stand out clearly, dark paint may be spread over the lettering and immediately wiped off; the paint remaining in the letters makes a good clear label.

A second labeling problem involves the stake to which the label must be attached. Wooden stakes soon rot or are devoured by termites, unless made of cedar (*Juniperus* sp.), locust, or chemically treated wood.

(Some chemically treated flats have been shown by experiments to have a serious toxic effect on plants grown therein.) Stakes of iron or even galvanized iron sooner or later rust into uselessness. But stakes made of heavy gauge aluminum wire will apparently last the proverbial "lifetime." Wire of the size now commonly sold for clotheslines can be cut into lengths to meet the gardener's needs. A small tight loop bent in one end serves to hold the label, which may be attached by thin copper or aluminum wire of the kind commonly sold in dime stores for making radio aerials.

Varieties I Especially Liked In My 1954 Garden

Dean (2a), originated by R. V. Favell and introduced by Trenoweth Valley Flower Farms, Ltd., in 1946, made a very good impression during its first year here. It has excellent substance, form, and finish, and will probably be quite early when acclimated.

Content (1b), an origination of P. D. Williams, offered in 1927, comes near being a 1c after being open for a short time, but misses that classification since the brim of the trumpet retains a dainty frill of lemon yellow. When first opened the flowers are a soft pale lemon throughout, but soon begin their color change. Unlike some of the short-stemmed whites it has a fine tall stem that bears a flower shaped something like a larger Beersheba. Content has proved itself to be a remarkable pollen parent when used with certain other varieties.

Spellbinder (1d), one of Guy L. Wilson's remarkable seedlings from King of the North x Content, is termed a reversed bicolor since the trumpet becomes almost white when fully developed, while the perianth remains a luminous chartreuse.

Martha Washington (8), originated by A. Frylink & Sons of the Netherlands and introduced by that firm in 1948, was the most impressive of the poetaz group that I have grown. Its very tall stems bear several large flowers of cool orange and white. Only a few stems are needed to make a full bouquet.

Trousseau (1b), another of P. D. Williams' originations, was introduced in 1934, and is deservedly popular. The tall, strong stems bear flowers that certainly leave little to be desired in finish, form, and substance. The flowers are large, with a fine white perianth and a trumpet that takes some time to pass from a soft yellow to a beautiful rosy cream that is rich yet delicate in effect. If I had to choose five daffodils this would certainly be one of them.

Asta Nielsen (3b), an origination of J. W. A. Lefeber, came into commerce in 1941 and first bloomed in my garden in 1954. It was a gift and I knew nothing of it, but when it opened it was so good I immediately looked for the label to see what this newcomer might be. A beautiful white overlapping perianth makes a fine background for a small bright yellow cup edged with red.

THE USE OF DAFFODILS IN FLOWER ARRANGEMENTS

By F. Irvin Finch, Chevy Chase, Maryland

If there is one natural art it is flower arrangement. Almost any natural growing flower composition that you find in a garden, and particularly in the early spring, can be the inspiration of a flower arrangement.

When a gardener thinks of spring he usually visualizes an array of bright yellow daffodils. DAFFODILS! The ever-young, dancing joy of spring flowering bulbs! Contrary to the trend of informality in arrangement of early spring blooms the daffodils fall into a formal pattern unless

combined with appropriate companions such as primroses, pansies, and other spring flowers. This is due to the structure of the stems which have very little pliability or curving irregularities. While they vary greatly in form and size they do not possess a wide color range. Yellows and whites predominate, with orange and subdued pinks offering occasional variation. Their flower forms include those with large trumpets and those with cups so shallow they suggest nothing so much as crinkled caps of pop bottles.

Daffodils look well in almost any type of container, provided that the shape, size, and color are suited to the arrangement. They are most effectively used in a low container featuring water, or in a jug or bottle, or simple pottery, not too highly glazed.

A pleasant discovery in flower arranging is using one to seven flowers — buds don't count. It's wonderful to have flowers in profusion, of course, but it is not at all a necessary requirement in making exciting or impressive arrangements. The fun of arranging flowers centers in making the composition, and there is no satisfaction quite like that which comes from creating a flower picture with three or seven blooms, or even one bloom, using the three stages of development: bud, half-open bud, and flower. Remember to use good varieties and perfect blooms. In arrangement, however, daffodils are valuable not alone for their flowers but also for their clean, luxuriant foliage. They lend themselves most attractively to the vertical type of arrangement in three parts. For instance:

Use a shallow pottery bowl, oblong in shape and pastel green in color. Select six large solid yellow trumpets. Take six leaves to establish the three basic levels, one leaf and one tributary at each level. Anchor all the leaves at the back of the needle holder. Place the first three flowers at the primary and secondary levels. The three lower level flowers should face out, partially concealing the holder. Though simple in design the effect is very attractive.

Another vertical arrangement could feature three large, long-stemmed daffodils. A round bowl in jade green, deeper than the oblong one featured above, would be suitable. Use five strong leaves placed to accentuate the strong vertical lines of the daffodils, which are graduated in height. This is quite effective.

For another simple, colorful spring picture choose a jade green Chinese porcelain vase with a teakwood base. Use seven or nine white trumpets, the stems of different lengths, from tight buds to full bloom arranged with foliage to form well-considered voids. The Goddess of Mercy in white would add a gracious touch and be an attractive complement to the whole.

And lastly, a more elaborate and pleasing design could be built around budding branches of dogwood and some pine. A pewter-washed Chinese bowl and a bamboo raft would be well-suited to this oriental spring arrangement. Feature the white and pale yellow double, Irene Copeland, in a cluster of some bronzy material such as huckleberry, with rocks to suggest an earthy base.

So one could go on and on if willing not to worry over breaking "rules." Just remember, there is nothing so "unruly" as nature. Self-expression in arrangements of any type is what counts, and creative efforts offer their own very special rewards.

FLOWER SHOW HANDBOOK: The Chairman of the Library Committee reports that the Society now owns a copy of *The Handbook for Flower Shows; Staging, Exhibiting, Judging*. Edited by Esther C. Grayson. Published by National Council of State Garden Clubs, Inc., 1954. 128 p.

MINIATURE DAFFODILS

By Eleanor R. Bolton, Fairfax, Virginia

One boundary of our garden living area is a terraced slope with a low stone retaining wall. Stone steps through the sharpest angle of the slope lead to the shady garden beyond. I call this slope my "wall garden" and selected it for the location of my miniature daffodils. A few of the eight-to-ten-inch varieties and species are established along the shady garden path, but all of the tiny treasures like Wee Bee, Little Witch, Flomay, April Tears, *N. watieri*, and *N. juncifolius* are planted in the little wall garden. In bleak weather they may be viewed from the kitchen and dining room. When visitors come it isn't necessary to call attention to them because their situation is quite strategic.

I have been growing daffodils through only three blooming seasons and seek much knowledge about their culture. I certainly have none to impart. Out of a dozen bulbs planted the first season there were only four flowers and foliage from only five others. My disappointment was so great that I thought the exquisite miniatures were just too difficult for the novice to grow. Then I learned one important lesson: they should not be planted too deeply. I will not suggest the proper planting depth because my experience is too short to qualify me as an expert. But after lessening my planting depth with the new varieties I purchased the second year I watched with alarm what happened in my wall garden after a severe storm: mulch and soil from the higher level of the garden were carried down the slope in a veritable gully-wash, and, settling in the rock crevices of my little wall garden, doubled or nearly trebled the soil covering over the tiny bulbs. No wonder some of them never found their way to the surface at all and that many others seemed unable to push through more than a thin blade or so of foliage!

In the fall of 1953, my third planting year, I tried an experiment with such success that I would like to share it with anyone who may have a similar problem. As I prepared the soil in each wall pocket for new varieties I set in a number 2 grocery can, from which both top and bottom had been removed, for each bulb. After planting the bulbs in their individual cans the rims were covered with a bit of peat moss to conceal them. After storms I was able to determine whether or not a wash had deposited additional soil atop each planting by merely feeling under the peat moss for the rim of the can. Bulbs of the miniatures are so very small to begin with that I am confident the number 2 cans will accomodate a three or four-year increase. And how much easier they will be to lift for division without damage with their protective metal walls!

Results last spring, following the planting in cans, seemed to indicate the success of this experiment. Nearly every variety bloomed, the few exceptions being the capricious ones which, I have since learned, prefer a different exposure. Furthermore, those little lovelies won for me the Watrous Trophy for the best collection of miniatures at the National Capital Narcissus Show.

SUGGESTIONS FOR PLANTING NARCISSUS

By J. S. Cooley, College Park, Maryland

How deep should I plant my narcissus bulbs? This question is asked many times each year. The depth of planting is dependent on a number of conditions — depth of good friable and fertile soil, the soil drainage, the aeration quality of both the top soil and the subsoil, also whether slow or rapid multiplication is desired. After a narcissus plant sheds its seed, Mother Nature is able to get the seedling bulbs down into the soil. As

soon as the seeds germinate, heavy contractile roots grow into the soil and begin to coil, thereby pulling the seedling bulb into the soil. It is always interesting to me when I transplant seedlings, to note that although the seed was sown on the surface (covered with a sprinkling of soil) the 2 or 3 year old bulbs are found near the bottom of a 6-inch deep flat. The depth a bulb can pull itself into the soil is dependent to a large extent on the looseness and wetness of the soil.

The roots of narcissus bulbs for the most part must go downward. If the soil at the bottom of a planting furrow is a heavy infertile clay, one cannot expect good results. A good practice is to make a furrow about a foot deep, fill it with about 6 inches of compost, and cover this with about one inch of good garden soil. The bulbs are then planted from 6 to 10 inches apart, and the trench filled. If one's good top soil is only about 6 inches deep and he has no compost or peat available, it is better to plant the bulbs only 4 inches deep, carefully preparing and enriching the planting bed, instead of planting them directly on the subsoil. This will pay in the long run. Small bulbs such as those of small species and species hybrids may be planted nearer the surface than the large ones of trumpets and large-cupped varieties. When narcissus bulbs are planted deep, the rate of multiplication by bulb division is much less rapid than when planting is more shallow; therefore digging and replanting can be less frequent. Under some conditions and with certain varieties, for instance, *N. obvallaris*, shallow planting may result in the bulbs splitting into a number of small bulbs, (sometimes called "horses teeth"), that are too small to bloom.

Under the heading of proper planting might well be included the selection of the site for the bed. An open place is preferred, that is, one that is free from competition with the roots of trees or even shrubs or perennial plants. Narcissus in such locations often eventually result in sparse blooming and generally unsatisfactory returns. By skillful handling it is possible, however, to grow narcissus about the shrubbery border or even in proximity to deciduous trees.

COMMITTEE ON LANDSCAPE AND NATURALIZATION

By Margaret C. Lancaster, Chairman

The purpose of this Committee is to study and record information on the various kinds of daffodils best suited for naturalization and general landscape use, and to observe the effect of their presence in gardens.

There is an obvious distinction between growing specimen daffodils, either for exhibit or for hybridizing, and planting them as part of the landscape picture. Several members of the Committee have contributed the following suggestions on the selection for the latter use, and the Chairman has on file detailed lists of suitable varieties, which Society members may consult.

From the thousands of daffodils now in trade, it is not too difficult to select varieties suitable for landscaping, for the perennial border and rock garden, for edging along woodland paths or in front of shrubs, and for naturalizing. Many varieties named in this report have been in trade a long time but are still excellent in form, color, and increase; a few newer ones are also listed.

The desire of the garden maker is to select the best location for his plants, not only for shade or sun, but to display them to advantage during their blooming period. This requires some knowledge of landscape principles, a study of materials, related and contrasting colors, soil and light requirements, and the relative blooming periods for all the plant material the gardener wants to combine for a satisfying landscape plan.

Hence, consider the following principal points: design (of paramount importance), proportion and scale, interesting material and its relative suitability, and color combinations. First, plan the location of your daffodils; second, plan for strong groups of given varieties for each selected spot. Keep in mind desirable combinations of background and companion material with these bulbs.

In general, for formal effect in borders and for facing certain kinds of broad-leaved evergreens use the large trumpets and large-cupped types, a single variety each in a group of at least five or seven bulbs, and enough groups to make their use distinctive. Consider size of bloom in scale with the width and length and design of the entire border. Plan for a prolonged blooming season by a selection of early, midseason, and late varieties. In the vicinity of Washington the flowering period is usually from about March 20 through April 30. We suggest the following: Early: Ada Finch, Brookville, Carlton, Ceylon, Fortune, Fortune's Crest, Kanchenjunga, Lord Wellington, Moray, Mulatto, Music Hall, Tintoretto; Mid-season: Aranjuez, Bay Shore, Bermuda, Burgomeester Gouverneur, Duke of Windsor, Garron, Kalamazoo, Kingscourt, Mrs. R. O. Backhouse, Mount Hood, President Lebrun, Rathkenny, Sonnica, Spring Glory, Tunis, Viotta; Late: Flora's Favorite, Gapillion, Lord Nelson, Scarva, Tinker, Virginia Wright.

The background broadleaved evergreens may be leatherleaf viburnum, Berberis julianae, Mahonia bealyi, rhododendron, osmanthus, Ligustrum lucidum, English laurel, or eleagnus, all of sturdy texture, dignified form, and in scale with the foregoing varieties of daffodils.

For informal effect, in small borders or for use in front of azaleas, Pieris japonica, camellias, boxwood, Berberis verruculosa, or leucothoe, select some of the small-cupped or double varieties, or from the triandrus hybrid and poetaz groups: Limerick, Johannesburg, Chinese White, Chungking, Mangosteen, Rideau Hall, Orange Button, Blarney, St. Louis, Portrush; Twink, Yellow Cheerfulness; Acolyte, Silver Chimes, Tresamble, Thalia, Rippling Waters; Geranium, Martha Washington, Orange Wonder.

Rock gardens and rock borders require the use of the miniatures to add their intimate charm to this type of gardening. Be sure to set the bulbs in small informal groups. Their individual beauty can be enhanced by companion planting of some minor bulbs such as snowdrops, muscari, chionodoxa, winter aconite, Scilla nutans, triteleia, trillium, and tulip species, and, of course, many of our small native plants and ferns.

There are so many attractive miniature varieties now available that it is difficult to limit our selection. There are the sturdy small trumpets: Narcissus obvallaris, N. lobularis, Tanagra, and Wee Bee. The triandrus forms and hybrids include some of the daintiest and most graceful of small daffodils; among these N. triandrus albus ("Angel's Tears") is best known, while Hawera is perhaps the most generous bloomer. The intensely fragrant N. juncifolius, the straw-colored N. tenuior, and the many forms of N. bulbocodium are pleasing in small colonies. Somewhat larger, but still suitable for rock borders, are Cobweb, Dawn, Beryl, and Fairy Circle.

Daffodils are particularly adapted for naturalizing because of continued bloom year after year with little care, and, since they bloom largely before tree leaves appear, they can be planted along woodland paths, among birch or dogwood trees, under high shade trees, or in fields. Plan the entire space first, considering different varieties for a long period of bloom; plant in drifts of natural curves; and use only varieties adapted for naturalizing, planting only one variety in each rather large drift. In general, use one of the jonquil hybrids, such as Trevithian or Golden Perfection, or some of the poets, such as Actaea, Cantabile, Dactyl, Minuet, Smyrna. Or put in some of the "old trusties" of other types: King Alfred, Emperor, Sir Watkin, Croesus, Hera, Queen of the North, Louis Capet. In grass or fields use the various cyclamineus hybrids or species, such as February

Gold and Little Witch; or *N. jonquilla simplex*, *N. gracilis*, and *N. odorus*.

Following are some suggestions for companion plantings: Kings-court, Gold-digger, Virginia Wright, Aranjuez, or Scarlet Elegance in front of *Berberis julianae*. Facing *Mahonia bealyi* and its silver-gray foliage, use big white trumpets: Beersheba, Mount Hood, or the bicolor Music Hall, or John Evelyn; or the gorgeous Ceylon, Tinker, California Gold, or Tunis. *Pieris japonica* with its waxy-white blossom heightens the glistening whiteness of Cantatrice, Ada Finch, Hera, and Chinese White, especially with blue muscari in front. Try Bread and Cheese, bordered by clear yellow primroses, as a facing to *Berberis verruculosa*. Plant large groups of Fortune, Rustom Pasha, Virginia Wright, Golden Harvest, Ross-lare, or Copper Bowl at the base of rhododendron or leather-leaf viburnum. In front of osmanthus plant white daffodils: Beersheba, Roxane, Ada Finch, Zero, Rostov, Green Emerald, or White Tartar. The undertone of dark red in the foliage of leucothoe or *Photinia serrulata* blends harmoniously with the pink daffodils, Mrs. R. O. Backhouse, Tintoretto, Cameo, Pink Glory, or some of the doubles, Shirley Temple, Insulinde, Twink, Yellow Cheerfulness.

We welcome any information from members on their use of these or other varieties in their gardens. If interested in learning of effective combinations of daffodils with other garden materials, the reader may consult the Committee Chairman. The Committee hopes to report later on experiments in color effects in sun and shade plantings.

COMMITTEE ON MINIATURES, SPECIES, AND MINOR CLASSIFICATIONS

By Roberta C. Watrous, Chairman

Before discussing the activities and plans of this Committee it might be well to consider just what "miniatures, species, and minor classifications" are, and why their interests are combined in one Committee.

Species, of course, are those narcissi that have grown wild in some part of the world, regardless of size. (Incidentally, the word is "species" for both singular and plural.) It is customary to refer to these wild types by their Latin scientific names, consisting of the genus name (*Narcissus*) and the species name (*triandrus*, for instance), often followed by other names indicating smaller units, such as subspecies, forms, varieties, and by the abbreviated names of the botanists who established the names. The genus name is often abbreviated after the first time it is mentioned, and both, or all parts of the scientific name are usually printed in italic type or underscored.

As botanists have had different ideas as to what constituted a species, and have named and renamed the members of the genus *Narcissus*, there is considerable confusion in the nomenclature of the species and lesser forms. Sometimes a single species may be known by two or three names, while the same name may be used to refer to two different species or forms. Listings in the 1954 edition of the Royal Horticultural Society Classified List of Daffodil Names show many changes from earlier listings, and reflect the most up-to-date informed study of the subject. As dealers frequently are slow to change the names under which they offer these bulbs, however, it is still difficult at times to know exactly what is being offered.

There is no generally accepted size limit for "miniature" daffodils. Some catalogs and show schedules fix the maximum height at twelve inches, some at six. For the present the Washington Daffodil Society considers eight inches the limit in height, and calls for "flower in proportion."

The smaller daffodils, whether wild forms or garden hybrids, are frequently referred to indiscriminately as "miniature daffodils" or simply "miniatures," and to the casual eye they have the same appeal, based

on their small size and graceful habit. To the botanist and to the hybridizer, however, the distinction is important. The botanist is interested in the wild plant as it is found in its natural habitat, whether it grows high on a rocky mountain or in a moist lowland; he studies it carefully to differentiate it from similar kinds, consulting the descriptions handed down by earlier botanists; he notices the size and shape of the bulb, the leaves, the seed pods, as well as the flower. Rarity lends enchantment; beauty may be only incidental. The hybridizer considers most of these factors, too, but for special reasons. He sees the species as raw material, looking for characteristics that may produce new effects when combined with the material already at hand. Garden varieties may interest him chiefly as examples of results obtained by combining certain parents. For many gardeners who are neither botanists nor hybridizers the fact that certain varieties are "species," that is, wild in origin, adds to their appeal, just as other gardeners may take an interest in the pedigree of an outstanding show variety.

Most gardeners beginning to be interested in the species will not attempt to grow many of the slightly varying forms, or those that lack good garden qualities, but will be satisfied with one or more examples from each of the distinctly different groups. Among the trumpets they may choose *N. asturiensis* because it is the tiniest yellow trumpet, and the earliest. Here it may bloom late in February. *N. minor* and *N. pumilus* are somewhat larger and a little later. *N. obvallaris* is popular because of its smart form and bearing; this grows about nine inches tall. The white *N. pseudonarcissus moschatus* is also of medium size, its flowers nod, and it blooms with February Gold and the early single blue hyacinths, with which it may be grouped for an early picture. *N. cyclamineus*, the only species in its group, is also early, and its tiny yellow flowers with the completely reflexed perianth segments are jauntiness personified. It is said to grow best in damp situations, where it may seed itself.

The two favorites of the triandrus group are the well-known *N. triandrus albus* ("Angel's Tears") and *N. triandrus calathinus*. While the former is a milky white, the latter has the gleam of white satin, and is larger. Those who love the familiar *N. jonquilla* "simplex" will want one or more of its smaller kin. *N. juncifolius* and *N. rupicola* are similar in having very tiny, well-formed flat flowers on three-inch stems; *N. juncifolius* has several flowers to the stem and is intensely fragrant; *N. rupicola* has little fragrance and only one flower to a stem, but this is beautifully poised and very perfect in form. *N. watieri* is like a white *rupicola*. All of these like sharp drainage and a good baking in summer.

The wild members of the tazetta group prefer a warmer winter climate than ours, but occasionally a hardy form appears. *Canaliculatus* is a dwarf form in this group; it has the reputation of being a very poor bloomer. Except for the variety *N. poeticus recurvus*, much used for naturalizing, the poeticus species are of interest chiefly to specialists, the garden hybrids providing the distinctive poeticus form and coloring with better garden performance.

The flowers of the bulbocodium, or "hoop-petticoat" group, with their assymetrically arranged, curving pistil and stamens within the funnel-shaped cup, which is surrounded by narrow, strap-like perianth segments, are strikingly different from those of other narcissi. There are both yellow and white forms, some flowering during the autumn and winter, and they range from two to seven inches in height. *N. bulbocodium conspicuus* is the best known. Most of the bulbocodiums are easily grown from seed, blooming in about three years.

The large flowers of today's garden and show table were developed through many generations of hybridization from the larger species, chiefly several large yellow and white trumpets and two or three forms of *N. poeticus*. The improved varieties are so superior to their wild ancestors that there is little interest in the original species, and they do not often appear in commerce. Certain species of medium and small size, such as

N. jonquilla, N. cyclamineus, and N. triandrus, have also been crossed with larger varieties, resulting in flowers showing some of the special characteristics of these species, but usually of intermediate size and height. It is these latter groups, Classes V, VI, and VII of the classification, that are sometimes referred to as "minor classes," and the varieties within them described as "close to the species," since most have one of the species as one parent, although the other parent may be many generations removed from its wild ancestors. Because of the comparatively small size of many of these flowers, as well as their close kinship to the species concerned, these classes are of particular interest to people who specialize in miniatures and species.

What can and should our Committee do?

There are various fields of activity within the scope of this Committee. Several members have served on the Symposium Committee to select the best varieties in the various categories, including miniature species and varieties. Other members may make recommendations for future lists. I should like to see a number of specialists, one for each of the various classes or types, to whom all matters relating to their specialty might be referred. To ensure comprehensive displays of early and late varieties at shows we want some members on the southern edge of our territory to concentrate on late varieties, and some on the northern edge to concentrate on early varieties. Some of our members might give special attention to the problems attending the use of the smaller daffodils in gardens and in the landscape, comparing various companion plants and ground covers. We want to know our members' cultural methods: who uses the various mulches, and with what success; which varieties succeed under certain conditions of exposure and moisture; who can make the shy bloomers produce flowers, and how?

One of the projects of the Committee should be to encourage the growing of the smaller species from seed. This is the best way to build up stocks of some of these. Every real daffodil enthusiast should watch the progress of at least one pod of seeds through the years to blooming size. Many of the smaller species will bloom in three years, although the large varieties may take five years or longer. Seed of some types may be purchased, or you can save seed from your own flowers. Although the usual practice is to break off all faded flowers, I avoid this in the case of all small species and varieties, and welcome any chance seed that develop. (Last year I gathered 25 seed in two pods from the bulbocodium hybrid Nylon, and small lots from N. bulbocodium tenuifolium, N. pumilus, N. triandrus albus, N. triandrus calathinus, and N. triandrus concolor.) I go so far as to leave flowers on Beryl, Dawn, and other slightly larger varieties "close to the species" whose progeny might be interesting, although I have not yet obtained productive seed in this way.

This collecting and planting of naturally-set seed is not the same as hybridizing, which requires more attention. This, too, is an activity our Committee hopes to encourage, so far as hybridizing with the small species is concerned. N. juncifolius, N. rupicola, and N. watieri have been used very little in hybridizing. The triandrus forms and N. cyclamineus have been used chiefly with much larger varieties, and could be exploited further by combining with the small trumpet species, the smaller members of the jonquilla group, and each other. Other possibilities will occur to hybridizers who begin to work in this very promising field.

In short, anything concerning the species and their closest relatives, especially the small ones, is of interest to this Committee, and all members of the Society whose interests coincide are invited to take part in Committee activities.

SUGGESTIONS TO EXHIBITORS

By Members of the Show Committee

These suggestions are of a general nature and are intended for the inexperienced exhibitor. They are followed by several paragraphs of detailed directions for preparing daffodils for exhibition by the eminent grower, Mr. Guy L. Wilson.

For the novice exhibitor let us say that it is of the utmost importance to plan ahead. First, read the schedule carefully, look over your flowers and plan which classes to enter. Be sure you understand the rules for exhibitors, which sometimes limit the number of entries or make special requirements as to the manner of setting up exhibits. Flowers should be cut at least 24 hours in advance, placed in water, and allowed to harden off in a cool, dark room. When you go into the garden to cut your flowers bring along some tags for the variety names. (Small strung price tags, obtainable at any stationery store, are handy, but a small strip of paper pinned or clipped around the stem will do.) As you cut each flower, label it as to variety, and place it in a bucket of water. A new school of thought recommends putting the flowers into lukewarm water instead of cold, as the plant tissues can more readily absorb the warm water. In this case only two or three inches of stem should be under water. The end of the stem should be cut on a slant to allow maximum contact of the internal stem tissues with the water. Do not crowd your flowers in the bucket, as some of them will continue to develop after being cut. Of course only perfect flowers should be selected, and absolute freshness is essential. Specks of dirt on the petals can be removed with a dry camels hair brush or piece of cotton.

If you are planning to make many entries it is wise to secure entry slips beforehand and have them already filled out before going to the exhibition hall. Take a small box or basket with pencils, cotton, paper clips, and anything else you may need in setting up your entries. Allow yourself ample time to set up your exhibits, then you will be sure they are placed in the right classes. It always takes longer than expected.

The following excerpts from "Hints on Preparing Daffodils for Exhibition" by Guy L. Wilson, V.M.H., are reprinted by permission from The Royal Horticultural Society Daffodil and Tulip Year Book, 1954.

The Editor tells me that someone in the U. S. A. has asked for advice on the secrets of preparing flowers for show. Well it is not very easy to prescribe for conditions with which one is not familiar. I have never been in the U. S. A., but I understand that in spring over there fluctuations of temperature are often more sudden and violent than we get here, and that very hot spells can occur which greatly shorten the lives of flowers and cause rapid shriveling if accompanied by wind. In such circumstances I should suggest giving the beds as much shade as possible even to the extent of trying to prevent the sun striking the cover that is directly over the flowers. If extreme changes of temperature are likely to occur when the show date is near, it may be best to cut the flowers and bring them indoors to a cool airy room or cellar where the temperature can be controlled. If the flowers are young and only partly opened, atmospheric humidity will help good development, whereas if they are fully out, fairly dry and freely circulating air will be best. I understand that in Australia, New Zealand, and Tasmania, exhibitors sometimes have access to cool store conditions such as those used for storing apples for export. Flowers have often been quite successfully kept fresh for considerable periods of time in such stores: it is possible, however, that flowers removed from cool store would collapse on being transferred to a high temperature and dry atmosphere.

Flowers will develop best on the plants, provided conditions are favourable; they continue to grow in size and substance and to improve in smoothness after first opening, and if they can be given sufficient protection to accomplish this development on the plant they will be larger and much longer stemmed than if they have to be cut very young. Red-and-orange cupped and rimmed varieties and any of the small crowned varieties that have delicate green eyes must of course always be well protected from direct sunlight so that their colour may be fully developed without burning, fading or damage. Whites, on the other hand, are all the better for sunshine, or if the sun is too hot they may be protected by white cotton sheeting. Red cups, on the other hand, benefit from protection by some dark-coloured material.

Flowers should of course be carefully watched as they are opening to see that they are developing smoothly and normally. It is frequently found that a petal is caught on the edge of the frill of the crown: if noticed in time as the bud is bursting this can usually be released by very gentle manipulation with the fingers or with the help of a sable water-colour brush, before the crown gets torn or the petal pulled out of position. Everything humanly possible should of course be done to help the flowers to develop comfortably, naturally and undamaged. If you are a real Daffodil lover you will soon become very sensitive to their feelings and moods.

Should the weather be very severe as show date draws near, it may be wise to cut your flowers with as long stems as possible and place them in water indoors. If they are backward you can even cut well-developed buds that are nearly ready to burst and they will open quickly if you place them in slightly tepid water in a greenhouse where the temperature is not too high, say around 60°... If you have not got a greenhouse, put them in an airy room in your house where you can keep them gently sprayed if the air is dry. Do not be afraid to wet the floor or the carpet. Your flowers are, or ought to be, more important.

An important point to remember is that flowers should stand in water for at least 24 hours before being packed for transport to the show. Should young flowers of any variety seem inclined to keep their heads too much in a drooping attitude, they can usually be easily made to lift their heads to a right-angled pose by placing them face downwards in an almost prostrate position in a shallow bowl of water overnight.

...Always handle your flowers with the most gentle care and consideration. Provide wooden boxes of suitable size and stout enough to eliminate danger of breakage. Line the boxes with clean paper, or cellophane if the weather is very dry. Pack the flowers gently and carefully one layer deep in rows face upwards: make a little pillow of soft tissue paper to support the first row, at the back of the flowers, placing a second pillow under their chins; place the next row of flowers against this, close enough to the first row, and to each other to provide some steadying support without crushing or bruising the petals. When you have placed three rows in the box, fasten their stems firmly to the bottom of the box with tape and drawing pins before proceeding with the next three rows, and so on until the box is full. Cover with a sheet of grease-proof paper or cellophane to exclude dust before putting on the lid.

When you unpack your flowers cut a thin slice off the ends of the stems with a sharp knife as you place them in water, and get them all into water in buckets or large jars before you begin the slow business of arranging in the show vases.

Someone has asked if we give flowers any beauty-parlour treatment. Well, having got them to the Show in as good condition as possible, one can dress them up a little by gently smoothing out petals with a fairly large-sized sable artist's water-colour brush, and straightening them out by very gently pressing them back from the crown. This if carefully and gently done can very much improve the appearance of flowers of show type which ought to have smooth erect perianths.

The flowers should of course be very carefully arranged to face the judge and display themselves to best advantage. If there is a group of six, twelve or more varieties, vases may be changed around to see which look best on the top row, or what is the most effective colour grouping. Where your group is staged in tiers as a general rule it is best to keep your larger and taller flowers on the top row, and avoid putting any that tend to droop or look downwards in the bottom row. When you are satisfied that every bloom is placed to best advantage, make sure that your vases are clean and polished and the stage on which your group is standing is clean and tidy so that your group has a well-groomed appearance.

FIFTH NATIONAL CAPITAL NARCISSUS SHOW, 1954

By Mildred C. Benton, Show Chairman

The fifth National Capital Narcissus Show was presented by the Washington Daffodil Society on Saturday and Sunday, April 10 and 11, 1954, in the auditorium of the Woodward & Lothrop Chevy Chase Store, Chevy Chase, Md., with the generous cooperation of Mrs. Julia Lee, Public Relations Director of Woodward & Lothrop, and the following garden clubs and horticultural organizations: American University Park Garden Club, Bethesda Community Garden Club, Chevy Chase, D. C. Garden Club, Forest Hills Garden Club, Kenwood Garden Club, Men's Garden Club of Montgomery County, Perennial Garden Club, Silver Spring Garden Club, Takoma Horticultural Club, Woodridge Garden Club, and National Association of Gardeners, Washington Branch. Members of these organizations not only assisted on all committees but exhibited specimens and arrangements.

The schedule provided for sixty-nine classes, in six sections. As the season was at its peak the 78 exhibitors who entered over a thousand blooms were able to select their very best. Many flowers were of exceptional quality. Of the exhibitors 37 were members of the Washington Daffodil Society (of whom 29 were also members of garden clubs mentioned above); 23 were members of cooperating clubs but not members of the Washington Daffodil Society; 8 were members of clubs not represented in the list of cooperators; and 9 had no garden club affiliation. The Alliance Garden Club of Alliance, Ohio, was also represented by one specimen bloom.

Blue, red, and white ribbons awarded in 63 classes were won by 41 exhibitors. Special awards were as follows:

Washington Daffodil Society Trophy, for best flower in show,
to Mr. Bert Randall, with "Beersheba."

Powell Trophy, for best flower in seedling classes,
to Mrs. George D. Watrous, Jr., with Cyclamineus x
Jonquilla No. 4.

Quinn Trophy, for best collection of newer varieties,
to Mrs. Henry D. Ludwig.

Woodward & Lothrop Trophy, for best collection of pink
narcissi, to Mrs. Henry D. Ludwig.

Weiss Trophy, for best collection of white narcissi,
to Mrs. Channing M. Bolton.

Watrous Trophy, for best collection of miniature narcissi,
to Mrs. Channing M. Bolton.

Bozievich Trophy, for best arrangement featuring an out-
standing show variety of narcissus, to Mrs. J. Mar-
shall Wilhelm, with "Mrs. R. O. Backhouse."

Novelty bulbs were awarded for the following:

Best single specimen in Section A, to Mr. Bert
Randall, with Beersheba.

Best vase of three stems, Section B, to
Mrs. Henry D. Ludwig, with Tain.
Best collection, Section C, to
Mrs. George D. Watrous, Jr.
Novice Class, to Mrs. Channing M. Bolton.
Best arrangement in show, to
Mrs. W. D. George.

The commercial exhibits were a popular feature. They were contributed by The Daffodil Mart, Oregon Bulb Farms, and Grant E. Mitsch, of the United States; and Alec Gray, Guy L. Wilson, and W. J. Dunlop from England and Northern Ireland. Non-competitive exhibits were also presented by Mr. C. W. Culpepper and Mrs. E. C. Powell.

A distinctly decorative spot during the show was the daffodil garden entitled "Narcissus Reflections," arranged on the stage of the auditorium by Mr. Frank Crampton and members of the National Association of Gardeners, Washington Branch.

The following varieties won ribbons in their respective classes:

1a: Kingscourt, King Alfred, Garron, Orange Triumph, Scotch Gold, John Cairnes; 1b: Foresight, Straight, President Lebrun, Trousseau; 1c: Beersheba, Tain, Silver Wedding, Mount Hood, Mrs. Ernst H. Krelage; 1d: Spellbinder.

2a: Saltash, St. Egwin, Aranjuez, Rustom Pasha, Velveteen; 2b: Franchot Tone, Polindra, Deanna Durbin, Dean, Grayling, Duke of Windsor, Sun-kist, Frivolity, Gertie Millar; 2c: Ludlow, Truth, Pucelle, Dunseverick; 2d: Dinkie.

3a: Therm, Mangosteen, Cordova, Alcida; 3b: Sylvia O'Neill, Blarney, Mrs. Walter Brewster, Firetail, White Lady, Picador, Orange Button, Ina, Lady Kesteven; 3c: Hera, Silver Salver, White Horse Eagle.

4: Inglescombe, Irene Copeland, Mary Copeland, Cheerfulness.

5a: Thalia, Pearly Queen, Rippling Waters, Niveth; 5b: Raindrop, Rosedown, Hawera, Agnes Harvey.

6a: Charity May, Dove Wings, Estrellita, Mite, Little Witch; 6b: Beryl.

7a: Aurelia, General Pershing, Sweetness, Topaz, Golden Sceptre; 7b: Golden Perfection, Trevithian, Chérie, Lady Hillingdon, Lanarth.

8: Martha Washington, La Fiancee, Xenophon, Orange Queen, Halvose.

9: Cassandra, Actaea.

10: Cyclataz, N. intermedius, N. watieri, N. tenuior.

FERTILIZING DAFFODILS

Since daffodils are usually left in place undisturbed for several years, thorough preparation of the deep zone in which the roots grow is a long-term investment that pays good returns in superior flowers and more rapid increase of bulbs. The addition of superphosphate or bone meal to the lower part of the bed, at the rate of 2 cupfuls to the square yard, is advised. Some gardeners apply a light side dressing of commercial fertilizer around but not over the bulbs in early spring; however, nitrogen fertilizer must always be used sparingly, as it has been found to stimulate the growth of basal rot. A second light application of fertilizer after flowering will increase the size and weight of the bulbs, to the benefit of the next year's flowers.

RETAIL NARCISSUS CATALOGS OF THE WORLD

By Willis H. Wheeler
Secretary, American Daffodil Society
3171 N. Quincy St., Arlington 7, Virginia

To assist daffodil enthusiasts we are listing the names of all narcissus specialist firms known to us who issue a catalog of daffodils offered for retail sale. Most of the names have come from the catalog file of the United States Department of Agriculture Library. While we have endeavored to make the list complete, we may have inadvertently omitted some firms because we were unable to learn of their existence. Such omissions are completely unintentional and will be corrected when next a list is published if all concerned will help us with additional names. Send catalogs to the address shown above.

The firms follow in alphabetical order:

Barr & Sons, 11-13 King St., Covent Garden, London W. C. 2, England.
The Daffodil Mart, Nuttall Station, Gloucester, Virginia.
P. de Jager & Sons, Inc. 188 Asbury St., South Hamilton, Massachusetts.
W. J. Dunlop, Dunrobin, Broughshane, Ballymena, Northern Ireland.
David W. Gourlay, The Down House, Tockington, near Bristol, England.
Alec Gray, Treswithian Daffodil Farm, Camborne, Cornwall, England.
J. Heemskerk, c/o P. van Deursen, Sassenheim, Netherlands.
Alexander Irving Heimlich, Woburn, Massachusetts.
J. Jefferson-Brown, Over, Cambridgeshire, England.
Little England Daffodil Farm, Bena, Virginia.
Peter Lower, Teignmouth, South Devon, England.
Grant E. Mitsch, Daffodil Haven, Canby, Oregon.
Nellis Nurseries, Inc., Holland, Michigan.
H. J. Ohms, Inc., "Arnhemia," P. O. Box 222, Stamford, Connecticut.
J. Lionel Richardson, Prospect House, Waterford, Ireland.
River's Edge Flower Farm, Gloucester, Virginia.
Swayne's Gardens, P. O. Box 109, Puyallup, Washington.
Trenoweth Valley Flower Farm, Ltd., St. Keverne, Cornwall, England.
C. G. van Tubergen, Ltd., Zwanenburg Nurseries, Haarlem, Netherlands.
M. van Waveren & Sons, N. V., 101 West 31st Street, New York 1, New York.
van Zonneveld Bros. & Philippo, Inc., 1270 Broadway, New York 1, New York.
Waltz Brothers, Route 1, Box 150, Salem, Virginia.
Warnaar & Co., N. V. Sassenheim, Netherlands.
Guy L. Wilson, The Knockan, Broughshane, County Antrim, Northern Ireland.
Zandbergen Bros., Inc., "Tulipdom," Oyster Bay, Long Island, New York.

