# The American Daffodil Society

Summer Issue

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#### EDITORIAL

This issue of our Bulletin is as usual devoted to the culture of daffodils. Permit your editors to call special attention to the article by Dr. Neil W. Stuart of the U. S. Department of Agriculture—a great authority on the subject of nutrition. We wish also to call special attention to the article by Jan de Graaf since he is one of the few persons who can claim familiarity with cultural practices over the country as a whole.

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Beginning with the current year, we will drop the Fall Bulletin and issue the Year Book in November.

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Copy for the Yearbook is due August 15!

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The Winter Bulletin, to issue in late January, will be devoted to shows and the planning and running of shows. Please, as soon as your show dates are fixed, advise us. We would like to make the list cover every show in the country—if we can only get the information in time. The deadline for the Winter Bulletin is January 1.

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We are grieved to note the sudden passing of our friend E. Fay Pearce of Atlanta, our former regional vice president. It is a great loss and our most heartfelt sympathy goes to Fay's surviving wife, son, and many friends.

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At the same time we welcome Mrs. Ben Robertson of South Carolina as the new regional vice president of the Southeastern Region. Mrs. Robertson is a lovely person, a great daffodil enthusiast and breeder, and one with whom you will find pleasure in cooperating.

New members and all others will be listed in the Yearbook. There are now too many to list separately in the Bulletin. We wish, however, to welcome each new member and urge them to write us when they have an idea.

#### FROM THE PRESIDENT'S DESK

Coming so shortly after the Atlanta Convention, the passing of Fay Pearce has touched many of us with the feeling of intimate loss. It was fortunate that so many had that chance to meet and know such a warm and friendly man. Our affection and happy memories draw us closely to Mrs. Pearce at this time.

The Executive Committee has named Mrs. Ben M. Robertson of Taylors,

S. C., to complete the unexpired term of the late Fay Pearce as Vice President of the Southeast Region.

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Mr. and Mrs. Hubert Fischer, with an assist from Frank Winter, are building up our two collections of slides and preparing notes to accompany them. Members having top quality, original slides of specimens or garden scenes of daffodils which they are willing to donate should get in touch with Mr. Fischer, Route 3, 63rd Street, Hinsdale, Ill. Upon completion the sets may be rented from Mrs. John Moats, 5609 Harwick Road, Washington 16, D. C., for \$5.00.

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Another of our commercial members, P. de Jager and Sons, South Hamilton, Mass., has generously volunteered to distribute our membership folders without cost to the Society. As a result they will be included with all copies of the de Jager catalog which are requested in response to current advertising.

The president of the Pennsylvania Horticultural Society, Mr. George R. Clark, in expressing the lively interest of his society in the fact that we shall gather at Philadelphia for our convention in April, 1959, writes as follows:

"We would like very much to plan our show so that it coincides with yours. In fact if we could combine our shows into one major exhibit, I am sure that the community would appreciate it as well as narcissus enthusiasts. I hope you will tell the members of your society that the Pennsylvania Horticultural Society welcomes you to Philadelphia. I trust that you will avail yourselves of the many conveniences our office can provide."

Plans for a joint show are in the hands of Dr. John Wister, general chairman of the convention. Incidentally our Secretary, Miss Estelle Sharp, is a member of the executive council of the PHS.

Our library, under the direction of

Mrs. Moats, is being gradually built up. If you have duplicates or copies of useful material you are willing to donate, or even sell, get in touch with Mrs. Moats. Items wanted include the RHS Classified List, editions prior to 1955; RHS Yearbooks prior to 1935; American Daffodil Yearbooks of the American Horticultural Society for 1935 and 1942; any daffodil books prior to Jefferson-Brown.

The newly created Judges Committee consists of Mrs. Paul L. Garrett, 1710 Normal Drive, Bowling Green, Ky., chairman, and the nine regional vice presidents. Mrs. Garrett will maintain all records and keep the regional vice presidents informed of approved and student judges within their respective regions.

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Mrs. Ferdinand M. Barthelme, Biltmore, N. C., has been elected Regional Director to succeed Mrs. Robertson.

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The Awards Committee is being organized under Mrs. Leon Killigrew, Hobart, Ind., as chairman.

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Changes of address should always be sent to our treasurer, Mrs. William A. Bridges, 10 Othoridge Road, Lutherville, Md.

GEO. S. LEE, JR.

# DISPLAY OF AMERICAN BRED DAFFODILS AT CONVENTION

A feature of the 1959 Philadelphia Convention will be a display of American-bred daffodils.

Invitations to enter are being sent to all daffodil breeders registered with the ADS, but entry is open to all. Those who do not receive an invitation need only advise Prof. L. P. Mains, Drexel Institute of Technology, 32nd and Chestnut Streets, Philadelphia, how many bulbs they wish to enter and about when they will be shipped.

All bulbs will be returned to the owner unless it is requested that they be turned over to Dr. Wister for further

trial. Larry Mains, who is co-chairman of the convention, has promised to plant and chart the bulbs personally, and later to lift, clean and return them. Only the usual bone meal will be used at planting time unless other diet is specified.

Entries for some of their youngsters have already been received from Orville Fay and Mrs. Ben Robertson. There will be room for everyone.

### MORE DAFFODIL SHOWS NEEDED

The pool of ADS judges consists of two groups. The first consists of 156 persons who have been given temporary cards as Approved Judges. These cards all expire December 31, 1959. The second has 165 individuals who have passed an examination at one of our judging schools and thus became Student Judges. The second group contains many persons from the first group who wish to earn a permanent certificate as an Accredited Judge.

The requirements for an Accredited Judge are stated in full on page 42 of the 1957-58 Yearbook.

The 165 individuals who have qualified as Student Judges will be anxious to secure their show experience and this means there will need to be many more shows with an ADS Approved Judge on each panel, so that Students can get credit needed for their permanent certificates as Accredited Judges.

Under our rules, Student Judges who do not hold a card as a temporarily Approved Judge must judge at least three daffodil shows, or the sections of garden club shows as the member of a panel containing at least one ADS Approved Judge. Student Judges should inquire whether there will be an ADS Approved Judge on the panel before accepting an invitation to judge. This should stimulate shows to use our judges.

Shows which may be counted for either judging or exhibiting credit need not be ADS approved except when ADS awards are offered. Start counting shows and exhibits the year the first course

was passed. In a few cases this will be Course No. 2.

Three sets of cards for reporting shows judged and also an application blank for an ADS Accredited Judge have been mailed to all students with instructions for their use. Students should not return the blank until all three courses have been passed and other requirements met.

When an ADS Approved Judge, who is also a Student, judges a show and is the only ADS Approved Judge on the panel, he should fill in the cards in the regular manner and ask the show chairman to sign in the space provided for the Approved Judge's signature. Note must be made on the card that signature is that of show chairman because there was no Approved Judge on panel.

If you are in doubt as to who the ADS Approved Judges are in your region, write either Mrs. Paul L. Garrett, 1710 Normal Drive, Bowling Green, Ky., or your regional vice-president for information.

Plan now to have a daffodil show next spring in your area and by all means use ADS Student Judges in combination with an ADS Approved Judge.

> Mrs. Goethe Link, Chairman, Daffodil Study Schools

# PLANTING DAFFODILS

By JAN DE GRAAFF

As I write this, in June, the daffodils in the fields here are still green and the foliage stands straight up. The bulbs are still growing and the deep cracks that appear in the soil, near the plants, indicate that the bulbs are making good size. The deep preparation of the soil before planting, the heavy crop of crimson clover that was ploughed under last summer, the use of pre-emergence sprays that have kept the weed population down, the fact that we are growing only selected, virus-free stocks-all these factors now cooperate to assure us of a bumper crop. With due allowance for climatic variations, at this time, there is no reason why the daffodils in your garden should not look equally healthy.

Yet, it is quite possible, that daffodils can present an entirely different appearance and, frankly, we do have some with foliage that is already turning yel-These plants have gone into a stage of pre-mature dormancy. The reason is not far to seek—these were surplus bulbs, held in storage until long after their normal planting time. Since they were planted in November in a field that was hastily and inadequately prepared, the results could have been predicted—a poor stand, flowers with little substance and, of course, a crop that will be sub-standard. This again shows that early planting and deep preparation of the soil are essential-not only for bulb growth, but also for the production of good flowers.

Daffodils like a good garden soil, well-tilled and porous. They like a sunny location and must be kept free from weeds and encroaching shrubs. They should be planted with four inches of soil over the top of the bulb and, after planting, should be left undisturbed, year after year, until the plants become too crowded or the soil too exhausted to produce good flowers. Then, when the foliage turns yellow, dig the entire stock, cure them in a shady, cool and dry place; separate the bulbs when fully dry, and plant again in a new, well-prepared Fresh manure bed, border or field. should never be used. A handful of bone meal for each plant, some old, very well-rotted manure, or some leafmould worked into the soil before planting, will help you to obtain good flowers. Above all, remember that it is just as much effort to plant poor bulbs as it is to plant good ones and that small, dried-up bulbs cannot produce good flowers.

American-grown, acclimated, selected bulbs will consistently give better results than any others—a fact that is well appreciated by the commercial florists of this country. And, if they are better for greenhouse use, then these plump, carefully cured bulbs will just as surely produce better flowers for you.

# DAFFODILS, FERTILIZERS, AND DISEASES

By NEIL W. STUART†

Probably few gardeners who grow daffodils and other flowering bulbs have ideal situations of climate and soil. their desire to promote good growth in spite of unfavorable conditions, they frequently resort to quick remedies or hoped-for remedies. One of the most common of these is the application of commercial fertilizers. It is true that lack of available nutrients limits plant growth, whether it be bulbs, vines, or trees. It is equally true that various plant species differ greatly in what might be termined their "feeding power," as well as their requirements for optimum growth. The statement has been made that a book could be written on bulb fertilization—because we know so little about the subject. If we talk about farm crops such as corn or potatoes, the recommendation for a given area can usually be given in a single paragraph. To give fertilizer recommendations for growing daffodils without regard to climate and soil is well nigh impossible.

Thus, in the Eastern United States, Fusarium basal rot is probably the most important factor in daffodil bulb production. Annual losses of 50 percent of the bulbs from basal rot have been experienced. The loss varies from year to year, apparently due to climatic conditions, the level of basal rot in the stock, crop rotation, and fertilizer practice. The necessity for fungicidal treatment in order to effect some control of the disease has tended to overshadow the importance of cultural practices, including the use of fertilizers. It has been difficult to separate the effect of the various fertilizer elements on bulb growth from their effect on the disease.

It is not surprising that fertilizer tests with daffodils have produced conflicting results. The United States Department of Agriculture cooperated with State

<sup>†</sup> Physiologist, Crops Research Division, Agricultural Research Service, United States Department of Agriculture, Beltsville, Md.

workers in an extensive series of tests in the Wilmington, N. C., area more than 20 years ago. Twenty fertilizer treatments produced no significant difference in yield of bulbs. In later tests, when daffodil bulbs received the same fertilized treatment in two successive years, there were no differences in yield the first year, but treatments without sufficient nitrogen restricted flowering and bulb growth the second year. These tests were conducted in soil of relatively low fertility.

Fertilizer tests over a three-year period at Beltsville, Md., of the effects of various combinations of nitrogen, phosphorus, and potassium on bulb growth showed that nitrogen in the fertilizer increased the amount of basal rot and reduced the weight and number of bulbs and the number of flowers. The same effect, although to a lesser extent, was obtained with phosphorus. The presence of potassium in the fertilizer had the opposite effect, increasing yields of bulbs and flowers and decreasing the amount of basal rot. However, the differences in vield due to fertilizer treatment were small in comparison with those produced by fungicidal treatment. Half of the bulbs in each fertilizer treatment were dipped in a fungicide twice annually. The crop of bulbs that were not dipped in the fungicide showed a net loss in weight for the three-year period while those that were double dipped annually vielded nearly four times as much as the undipped ones. Fungicides obviously were more important than fertilizers in this test.

It should be remembered that the basal rot fungus requires nutrients and grows more vigorously when they are supplied. The fungus also grows faster under warm temperature conditions of eastern United States as compared with the cooler Pacific Northwest.

In the "Handbook of Bulb Growing and Forcing," J. H. Crossley states that daffodils do not thrive under high alkaline soil conditions. He recommends

supplying calcium carbonate (ground limestone) to a previous crop to produce a pH of 6 to 6.5. In Washington and Oregon the following fertilizer materials and rates per acre are recommended:

"Apply 30 to 50 pounds of nitrogen; 100 to 120 pounds of phosphorus  $(P_2O_5)$ ; 60 to 80 pounds of potash  $(K_2O)$ ; 30 pounds of magnesium (Mgo).

"The last should be in the sulfate form. There are two ways in which this material can be applied:

"(a) side dress early in the spring with 500 to 600 pounds per acre of 6-24-10-6 (the last 6 refers to Mgo, and should be in the sulfate form);

"(b) put under the bulbs in the fall 500 to 600 pounds of 0-24-10-6 and side dress in the spring with nitrogen.

"Additional nitrogen might be required if growth slows up while there is still good moisture in the soil. Use calcium nitrate as a source of supplementary nitrogen if such an application is needed."

What should the home gardener do with his daffodils? Put them in as good a site as possible considering drainage, exposure, etc., and move to a different area as often as possible, unless they are naturalized. Be content with a little less than maximum growth—if your soil will grow good grass, flowers, and vegetables it will grow good daffodils without supplemental fertilizer. If the bulbs are left in place for several years, it is probably best to side dress in the spring with a complete garden fertilizer. Remember that two pounds of fertilizer per 100 square feet is just under 1,000 pounds per acre. Finally, you may get more benefit from dipping your bulbs in a fungicide for controlling basal rot than from using fertilizers. Current recommendations by C. J. Gould of the Western Washington Experiment Station are for dipping the bulbs in phenyl mercuric acetate at the rate of one pound in 500 gallons of water for five minutes. See the bulb growers handbook referred to above for details.

#### THE TEST OF DISTINCTIVENESS

On the theory that the test of whether a daffodil is distinctive is whether one remembers it clearly after the season is over, your editors wrote a few people who saw a lot of daffodils over the past season and asked them, "Without reference to your notes, what daffodil names pop into your mind first when you think of the ones you saw this year?"

Frank Winter of Hinsdale, Ill., says, Pink Monarch, Roselands, Bryher, Exclusive and Rose Ribbon.

Mrs. Edith Walker of Martinsville, Va., who operates the test garden for the Garden Club of Virginia, says, Flamingo, Bethany, Festivity, Tudor Minstrel, Ceylon, Lapford, Galway, Ludlow and Cantatrice.

Carey Quinn says, Bethany, White Spire, Beleek, Artic Gold, Empress of Ireland, Rockall, Masaka, Bravura, Lapford and Raindrop.

Mrs. Serena Bridges, our treasurer, waves the flag for Beleek, Rosario, Carnlough, Blarney's Daughter, Beirut, Bizerta, Greenland, Cathedral, Forty-Niner, Ulster Prince and Albus Plenus Odoratus.

Mrs. Helen Link, our Midwest Regional V.P., remembers most clearly Firebird, Lemondrop, Snowflake, Duke of Windsor, Aurelia, Kilworth, Autowin, Cathedral, Horn of Plenty, and two of her own seedlings.

Charles Meehan, our Symposium chairman, remembers most clearly Rockall, Empress of Ireland, Vigil, Mrs. O. Ronalds, Lunar Sea, Snow Gem, Roseworthy, Arctic Gold, Rashee and Pirate King.

C. R. Wooten, member, Daffodil Committee, RHS, was greatly impressed in England and Ireland with Arctic Gold, King's Ransom, Empress of Ireland, St. Keverne, Border Chief, Farewell, Pirate King, Arbar, Castle of Mey, Rockall, Double Event, Susan (Jonq.), Felindre, Passionale (Pink), Carinthia (3b) and Andrew Marvell (poet).

George Lee, our president, could recall most clearly White Spire, Coloratura, Ardour, Bithynia, Tittle-Tattle, Snipe, Watieri and Atlanticus.

Willis Wheeler, our second vice-president, says, Bethany, White Spire and Snow Line are his sharpest recollections.

Mrs. Theodore Pratt of Little England remembers best from her tremendous novelty collection the following: Inver, Fine Gold, Ulster Prince, Lapford, Effective, Empress of Ireland, Glenshesk, Lunar Sea, Coppersmith, Armada, Foxhunter, Arakan, Border Chief, St. Keverne, Pirate King, Tudor Minstrel, Blarney's Daughter, Woodlea, Karanja, Easter Moon, Early Mist, Jezebel, Algeciras, Hamzali, Bryher, Double Event, Yellow Warbler, Dove Wings, Tittle-Tattle, Cragford, Cantabile, Raindrop, Halingy, Cyclataz, Peaseblossom, Pencrebar, Xit and Bobby Soxer.

Mrs. Howard Bloomer's immediate reply was: Lapford, Ulster Prince, Bethany and White Spire.

Dr. John C. Wister, chairman of the 1959 ADS Convention in Philadelphia, particularly mentioned February Silver, March Breeze, Fahan, Moonstruck, Armada, Altyre, Bryher, Silver Princess and Ballintoy.

#### NEW TENNESSEE SOCIETY

In April of this year the Middle Tennessee Daffodil Society was organized and at this time has the healthy membership of 112. The officers are Mrs. Donald Linton, chairman; Miss Arlene Ziegler, vice-chairman; Mrs. Robert Cartwright, secretary; Mr. Dan Eadie, treasurer.

The advisory committee is composed of Mr. Sam Caldwells, Mr. Clarence Connell, Mrs. Geddes Douglas, Mrs. J. W. Napier and Mr. Jesse Wills.

#### SUCCESSFUL ST. LOUIS SHOW

The second Daffodil Show, held this spring in St. Louis at the Missouri Botanical Garden, produced some beautiful blooms. An interesting display was brought by Dr. Edgar Anderson from the Arboretum where much emphasis

has been placed on the growing of daffodils for that particular climate.

Spellbinder, judged the most perfect bloom in the show, won the Elizabeth Davis Bolt trophy for Mr. George T. Pettus.

Trousseau won a trophy for Mr. Clifford W. Benson as the most beautiful bicolor on display, and Mr. Benson was also the sweepstakes winner with Mrs. Grover F. Roennfeldt as runner-up for sweepstakes.

Other Blue Ribbon winners were Cantatrice, Armada, Parkmore, Beersheba, Lough Maree, Binkie, Narvik, Peeping Tom, Chinese White, Green Island, Chungking, Yellow Warbler, Broughshane, Orange Queen, and some seedlings.

The interest in this show was evidenced by the fact that attendance records at the Botanical Garden were larger for the week-end of the show than any corresponding week-end for the past five years.

## OTHER WAYS TO GROW BULBS IN RED CLAY

By DUNCAN BURNET

There are other procedures for growing bulbs in Georgia red clay besides those followed by Messrs. Harris and Thompson of Atlanta and Stone Mountain.

One of these is to try to achieve what in England is called a soil of good tilth, by digging in heavily and deeply any of a number of humus formers. Among them are: decomposed (preferably by nature) leaves, sweepings or cotton seed hulls, perhaps peanut hulls, decomposed vegetation (which Mr. Thompson warns against), well rotted pine needles, finely pulverized peat moss, or —at some risk—extremely old sawdust.

This aims at manufacturing a soil which will not bake in burning summer heat, and a soil in which beneficial soil bacteria will live, as well as one in which soil atmosphere and soil solution will circulate. This preparation should pre-

cede bulb planting by some weeks.

As to fertilizing, use natural, not commercial, fertilizer. Humus in red clay releases its inert potash. Bone meal dug in deeply furnishes phosphate and is longer-lasting that superphosphate. A late fall dressing, raked in lightly, of Milorganite will add the trace minerals absent in soils from Virginia on south.

A writer in a previous Bulletin has told why so many of the high priced and long inbred novelties do not thrive in trying climates. In your 25-cent list in the May Bulletin are many fine kinds covering a wide range. Many were bred by Percival Williams, a hybridizer who never introduced a variety without long testing its virility. This comment may interest those who cannot afford kinds which prove to be *les nieges d'antan*.

#### "YELLOW TIP" OF DAFFODIL LEAVES

The accumulation on daffodil beds of leaves of oak, maple, tulip tree, or similar large leaved trees can cause injury to the tips of daffodil foliage as it comes through the ground at the beginning of the new season. Those fallen leaves, packed thickly on the beds, can exclude nearly all light. That results in a bleaching of the tips which does not disappear even after removal of the old leaves.

Such bleaching, while not causing the injury done by some true diseases, does reduce the amount of leaf surface capable of producing starch, the principal compound made by the leaf for the production of a satisfactory bulb. So, remove the autumn leaves before the daffodils begin to push through the ground. This does not mean, however, that the beds can not be protected by a mulch. Porous materials such as hay, straw, pine needles, excelsior, or anything of a similar nature, can be used.

The principal requirement is that the mulch shall be one that does not completely exclude light and will permit the leaves to push up through it.

The Breeding and Selection Committee.

Miss Anne C. Sangree 201 Lansdowne Ave. Wayne, Pa.

BULK RATE

Washington, D. C.
Permit No. 41132

The American Daffodil Society
10 Otho Ridge Road
Lutherville, Maryland

### COMPANION BLOOM FOR DAFFODILS

By Mrs. Webster Barnes
Special Uses Committee

Of all the spring flowering bulbs, daffodils look best when naturalized in long drifts. There are three locations which are ideal: a hill side, a meadow land, and along a woodland path. When planted in meadow land, allow them to grow along with the meadow grass, cutting only that grass which would obstruct the pathway.

Groups of daffodils under a few trees with grass all cut away from around each plant, as if it had just returned from the hairdressers, is not natural. Daffodils enhance long grasses under trees where one can stroll and enjoy their beauty. Patch planting shorn around by snips is no substitute.

In good planting schemes, the color and interest at any one season should be well distributed: low, medium and tall. Since all daffodils except miniatures fall into the medium group, we must cast about for edging and background companions for them.

Cornelian cherry and spicebush are a welcome change from the ever-present forsythia, and more in keeping with the illusive atmosphere of April days. Shadblow, amelanchier canadensis, or a white flowering quince, chaenomeles, are ideal when working with pink daffodils. Our native laurel looks well when used freely in deciduous shrub planting with daffodils in front.

Edging plants should be kept within bounds, because it is the individual clumps or groups of daffodils which should predominate. Periwinkle makes an admirable evergreen edging, with just enough bloom to add interest. Native bloodroot, white grape hyacinths, or violas, add interest and are particularly good with the pink daffodils.