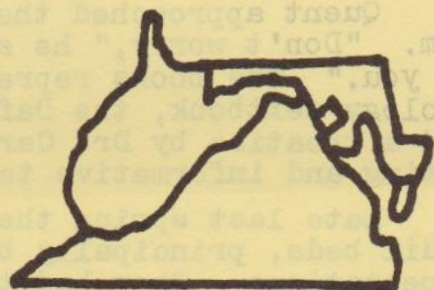


AMERICAN DAFFODIL SOCIETY, Inc.

MIDDLE ATLANTIC REGION



NEWSLETTER

January, 1982

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9 Burnbrae Road, Baltimore, Md. 21204

Regional Directors:

- (1982) Mrs. Frank C. Christian
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- (1983) Mrs. Geo. D. Watrous, Jr.
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- (1984) William G. Pannill
P.O. Box 5151 Martinsville, Va. 24112

Director-at-Large:

- (1982) Donald S. King
RFD Box 236-C, Hartfield, Va. 23071

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1500 Dogwood Rd., Staunton, Va. 24401
- Schools: Mrs. Merton S. Yerger
Box 97, Princess Anne, Md. 21853
- Symposium: Mrs. P. R. Moore, Jr.
96 Sandy Bay Dr., Poquoson, Va. 23662

Dear Friends,

Happy New Year to each and every one of you! May 1982 bring you a year of good health and happiness as well as a garden full of blue ribbon daffodils!

1981 FALL REGIONAL MEETING

The Boar's Head Inn was a good choice for our fall meeting and I think all who were there had a great time. There were 76 for our morning program and 69 for the dinner and speaker. We were most fortunate to have Helen Link teach the refresher course offered in the morning and the following judges were recertified through December 1984: Mrs. E. J. Adams, Mrs. R. L. Armstrong, Mr. and Mrs. G. H. Bragdon, Mrs. R. S. Brown, Mrs. G. W. Burton, Mrs. D. W. Corson, Mrs. R. N. Darden, Jr., Mrs. Q. E. Erlandson, Mrs. D. F. Fletcher, Jr., Mrs. W. K. Ford, Mrs. B. Gunnell, Mrs. W. J. Howard, Mr. W. Knierim, Mrs. G. Link, Mrs. J. R. Moore, Jr., Mrs. E. H. Ould III, Mrs. J. P. Robinson, and Mrs. H. Rountree, Jr..

For those of you who could not be with us I am including summaries of the three portions of the morning program. There is one change from the original schedule - because of circumstances beyond his control Raymond Lewis asked to be excused from giving his talk on twinscaling of miniatures and as a replacement I persuaded my husband to talk about the soil preparation of four beds that he dug and rejuvenated this past summer. My thanks to Donald King, Bonnie Hohn, and Frances Armstrong for writing up the summaries.

"Rejuvenating Old Daffodil Beds" by Quent Erlandson -
(summary by Donald King)

Quent approached the lectern with a number of books under his arm. "Don't worry," he said, "I am not going to read all of these to you." The books represented his reference work and included a geology textbook, the Daffodil Handbook, Alec Gray on miniatures and a treatise by Dr. Carey E. Quinn. Thus began the very interesting and informative talk.

Late last spring the Erlandsons decided to rework their daffodil beds, principally because the 1981 crop was not up to their expectations. They had three objectives in mind: first, to raise the beds using RR ties to obtain better drainage, second, to divide the clumps (throwing away the bad bulbs) and third to rejuvenate the existing beds.

Erlandson defined soil as composed of:

Minerals
Humus
Living Organisms (fungi, protozoa, etc.)
Water
Air

Minerals come from disintegrated and decomposed rock varying in physical and chemical characteristics. The physical parts are sand, silt and clay. Remembering that the common straight pin is 1/2 millimeter in diameter, sand is defined as having grains equal to or greater than 5/100 mm in diameter, silt 5/1000 to 5/100 mm and clay as having less than 5/1000 mm. The latter is not too good for daffodils and when dry is indeed "hard as a brick".

Examples of Humus are peat moss, compost and leaf mold. Fertilizer supplements but in no way replaces Humus. In addition, fertilizer is much more effective when applied with Humus.

As an example of the "sponge effect" of Humus, it was pointed out that:

100 lbs of sand can hold 25 lbs of water
100 " " clay " " 50 " " "
100 " " Humus " " 190 " " "

With chart, Quent described the "Erlandson Soil Mixture"

	By Volume
Mineral - TOPSOIL (Sandy Loam)	60%
Humus {	PEAT MOSS 20%
	PINE NEEDLES 10%
	GROUND LEAVES 10%

(as in pepper)

He cautioned, "Do not buy topsoil by the bag or you will go broke." The soil mixture was thoroughly mixed in place by rototilling. Several times he mentioned backaches.

Also with chart was described the "Erlandson Fertilizer Mix"

	Per 100 sq. feet
5 - 10 - 5	3 lbs.
└─┬─┬─┐	
└─┬─┬─┐ Potash (potassium)	
└─┬─┬─┐ Phosphorous	
└─┬─┬─┐ Nitrogen	
Cow manure - dry (for trace elements)	30 lbs.
Superphosphate (0-46-0)	5 lbs.
Wood ashes - dry (from hardwood)	7 lbs.
Trace elements	1 cup
Epsom Salt	2 oz

Erlandson emphasized that phosphorous is essential to all forms of plant growth and that trace elements are important to plant culture. Trace elements are magnesium, iron, copper, zinc, boron and molybdenum. Epsom Salt contains magnesium sulfate plus trace elements. Magnesium is the most common trace element to be lost.

While the daffodil beds were constructed in early summer, the application of the well mixed fertilizer was withheld until 3 to 4 weeks before planting. After planting a pine needle mulch was applied to the beds.

In reply to a question on the use of bone meal, Quent replied that this is not only expensive, but could lead to dogs

digging up the daffodil bulbs.

Questioned on why he used 5-10-5, he pointed out that some nitrogen is essential and this combination is low in nitrogen and quite cheap. During the discussion of the question, it was brought out that so called "potato fertilizer", 3-9-18 is lower in nitrogen and about the same price.

To a question about the application of Top Dressing, he replied that he does this in January or February, during the winter rainy season.

 "The Significance of Chromosome Count" by Bonnie Hohn

The science of genetics had its beginning with the Austrian monk, Gregor Mendel, who discovered some of the basic concepts of inheritance by studying garden peas. Since Mendel was a pioneer in this field, he did not have the vast wealth of information available to him that the modern scientist does, so he worked mostly by trial and error in setting up his crosses. Most daffodil hybridizers, not being experts in genetics, work in the same fashion using "grape vines", personal experience and well-thought-out hunches to select acceptable pollen sources to use on seed parents to create better daffodils. What then is the significance of chromosome count to the hybridizer, to say nothing of the average daffodil grower, when one can hybridize and grow beautiful daffodils without knowing that they exist at all? I suppose it's academic for the most part. Much of what we know has no practical value. I do think it is nice to be able continually to increase your understanding of the mysteries of daffodil structure, which in essence is the structure of all life.

All plants and animals are made up of cells. Each cell has a nucleus that contains a complete set of paired chromosomes characteristic of the species. A mosquito has 6 per cell, daffodils 14, cabbage 18, corn 20, sunflower 34, human beings 46, plum 48, dog 78, and goldfish 94. All these species reproduce sexually. In order for their offspring to have the same number of chromosomes as they have, it is necessary for the chromosome number to be reduced by one-half in the production of gametes, which are sex cells made up of eggs and sperm or pollen grains. For example, a daffodil pollen grain carrying seven chromosomes will unite with a daffodil egg which carries seven, thus restoring the chromosome number to the normal 14. The type of cell division that results in these gametes is called meiosis. Each gamete produced has one each of the seven pairs and is said to be haploid (n). The designation " n " = the number of different chromosomes. The parents from which the gametes arose and the fertilized egg are diploid ($2n$). Occasionally accidents occur in the genetic machinery and gametes will be produced that have not undergone "reduction division". Thus diploid gametes are formed. When a diploid ($2n$) egg is fertilized by a diploid pollen grain, the plant that is produced will have twice the normal chromosome count, 28, and is said to be tetraploid. Tetraploids have greater flower, leaf and stem size and a more robust constitution.

It is believed that most of the garden hybrids in Div. 1-4 are tetraploids. They are supposed to be descended from wild tetraploid specimens of Narcissus pseudo-narcissus brought into cultivation. It is not unusual to see how this could happen. Early plant collectors would naturally be attracted to the large specimens in a population and would therefore be more likely to dig them up and bring them home.

The plot thickens. As most of us know, the red color in Div. 1-4 is believed to have been introduced by breedings of N. pseudo-narcissus (tetraploid form) with N. poeticus. In order for this cross to produce fertile offspring, the chromosome count must end up to be 28. For this to happen, the N. poeticus would have to be tetraploid form. If it were only diploid, the results of the cross would be a triploid ($2n$ gamete \times n gamete = $3n$) which is almost always sterile. One can't expect thousands of cultivars from a sterile progenitor. So early bulb collectors must have also selected a tetraploid N. poeticus by noticing them as eye-catchers from a cast of thousands. The human quest for "bigger and better" brought about the happy union between tetraploid forms of two

species which subsequently made it possible for vast hybridization efforts to occur.

Triploids are common in Div. 5, 6, and 7. This fact explains why many of these cultivars don't set seed. These cultivars are the result of crossing a tetraploid Div. 1-3 with Narcissus triandrus, N. cyclamineus, and N. jonquilla, all of which bear 14 chromosomes. The hybrid then receives 14 chromosomes from the tetraploid parent and 7 chromosomes from the diploid parent, making its final chromosome count 21.

Many wild hybrids are also sterile because of uneven chromosome number, brought about by crossing two species with different numbers of chromosomes. An example would be N. x biflorus (note: the x in front of biflorus stands for hybrid). N. x biflorus has a chromosome count of 17. It is a natural hybrid between N. poeticus ($2n=14$) & N. tazetta ($2n = 20$). N. tazetta is one of a number of species with a chromosome count greater than 14. When meiosis occurs in N. x biflorus, the chromosomes are unable to divide themselves equally in "reduction division" and the "mission is aborted".

Now consider little N. bulbocodium. Here is another daffodil with a chromosome count that varies from 14. Because it is small, one might reason that it won't have many more than 14. If little N. cyclamineus can get along with 14, why not N. bulbocodium? Some forms of N. bulbocodium do have only 14; then there are other subspecies that have 21, 26, 28, 35, 39, 42, 49, and 56. Why so many variants? A question to be answered. Small does not necessarily mean simple.

In the future when you are browsing through your Data Bank and chance to look at Column 7 "Chromosome Count", it is hoped you will have a new appreciation for the numbers you encounter.

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"Problems in Judging" by Helen Link (summary by Frances Armstrong)

The Middle Atlantic Region was indeed fortunate to have Mrs. Goethe Link of Indianapolis teach the Judges' Refresher Course at the Fall Meeting. Some pertinent points about judging were made as follows:

HONORABLE MENTION - May give more than one in a class but reserve for exhibits that are worthy. After blue, red and yellow awards are selected, award HM to anything left that might score 90. Do not award when class is poor and any of the first three awards (blue, red and yellow) have not been given.

CONDITION - Should be at perfect stage of development when the bloom's beauty is at its peak. Do not penalize too severely for nicks, etc. - two points at most. Does not matter where you take off points for faults; just don't take off twice for the same fault.

FORM - Differs widely from division to division. You must know characteristics of the different divisions.

SUBSTANCE AND TEXTURE - Substance is the thickness of the tissue structure and may be too thick as well as too thin. Thinness comes with age, starting first on the tips of the perianth segments. Texture should be smooth as satin, not rough as tweed. Fine point: sheen (glistening diamond dust). Not all daffodils have it.

COLOR - Important to know as many cultivars as possible. White should be white; colors, clean. Toned daffodils are difficult to judge. Green glow in the cup adds to beauty. In reverse bicolors lack of contrast should be penalized, but not more than five points.

POSE - Depends upon division.

STEM - Should be in proportion to bloom in strength and length. A stem too stiff lacks grace and is unnatural. Long and short necks are undesirable. Ridges should be straight. Some cultivars in Div. 5, 6 and 7 have no ridges. Don't go overboard on axis balance, another fine point.

SIZE - If bloom is refined, don't worry too much about size, which depends on climate, locality and soil.

(continued on page five)

QUESTIONS AND ANSWERS ("Problems in Judging" Cont.)

Stems showing signs of stripe - penalize heavily.

Blotching - penalize under color.

Multiple blooms - Tete-a-tete: Do not penalize for number of blooms. Cloud Nine: Cannot be exhibited if it has two blooms. Any multiple blooming daffodil should be open far enough to see if the perianth segments are of the proper number. Two or three blooms open with a bud is all right (but hope the bud does not open to embarrass you the next day). Lack of a perianth segment which often happens in multiple blooms, is abnormal. If a bloom has been removed, penalize.

Bugs on entry - Should not be penalized. May have come from foliage provided by show committee. Every show should see that foliage is bug free by spraying or turning hose on it.

Unnamed and unnumbered seedlings - do not exhibit. They must be identified by hybridizer's number. It is dishonest to put your own number on someone else's seedling.

Best standard bloom - May come from any class including a collection with no ribbon.

Best seedling - May come from regular classes as well as seedling classes. If it scores 90 or above, even though it won less than blue in a standard class, it may still be awarded Rose Ribbon.

Color coding - If required by the show schedule, it must be correct or else the entry must be put aside and not considered.

We thank Helen Link for coming so far to share her vast knowledge of judging and her good common sense with us.

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"Companion Planting to Enhance Your Daffodils" by Mr. Andre' Viette

Our evening speaker, Mr. Andre Viette was both informative and entertaining. Following a slide presentation he provided us with many helpful horticultural tips - the need for humus in the soil, the advantages of a deep soaking infrequently over a shallow watering frequently (the wet-dry method) and many more. Also - "Oak leaves are not acid!"

COL. REGINALD F. C. VANCE

On October 27 we lost one of our most enthusiastic members of the Middle Atlantic Region. Reggie Vance was not only an avid grower and exhibitor but also a dedicated judge. He was meticulous in his records and could be seen at show time carrying his file box - his daffodil Bible - wherever he went. Reggie was especially thoughtful in keeping me posted on the activities of the Tidewater Daffodil Society, a job he volunteered to do. His death is a great loss to the Region and to all of us who were fortunate enough to know him as a friend. Our deepest sympathy to Susan and her two daughters.

MINIATURES

Peggy Macneale has asked me to remind you that Icicle has been added to the Approved List of Miniatures. Also, in the December Journal there is an up-dated Approved Miniature list; please cut it out now and insert it in your copy of Daffodils to Show and Grow. This will prove to be a big timesaver come spring.

MEMBERSHIP

We welcome the following new members to the American Daffodil Society and the Middle Atlantic Region:

Mrs. Patricia M. (Joel R.) Crenshaw, 1215 Delta Glen Ct.,
Vienna, Va. 22180
Mrs. T.A. Duncan, 213 Mill Harbor Dr., Arnold, Md. 21012
Mr. W. Thomas Fountain, Box 516, Easton, Md. 21601
Mrs. T.L. Haynes, 5000 Ashton Creek Rd., Chester, Va. 23831
Mr. Albert H. Huntington, Jr., 6621 Gordon Avenue,
Falls Church, Va. 22046
Mrs. Moncure N. Lyon, Rt. 2, Box 153, Black Oak Ridge,
Purcellville, Va. 22132
Mr. David F. Patching, 8801 Beauchamp Dr., Alexandria, Va. 22309
Mr. Andre' Viette, Route 1, Box 16, Fishersville, Va. 22939

Please note change of address for the following:

Mrs. David E. Simms 3709 Sherwood Place, Lynchburg, Va. 24503
Ron Aaron Eisenberg, 2230 Benedictine Court, Vienna, Va. 22180
1982 SHOW DATES

- April 3 - Somerset County Garden Club Daffodil Show,
Princess Anne, Maryland
April 3,4 - Tidewater Virginia Daffodil Society Show,
Hampton, Virginia
April 7,8 - Garden Club of Virginia Daffodil Show,
Portsmouth, Virginia
April 10,11 - Garden Club of Gloucester Daffodil Show,
Gloucester, Virginia
April 10,11 - Washington Daffodil Society Show, Washington, D.C.
April 17,18 - Londontown Publick House Daffodil Show,
Edgewater (Annapolis), Maryland
April 21,22 - Maryland Daffodil Society Show, Baltimore, Maryland

This is my last newsletter as your Regional Vice President.
Please accept my very sincere thanks for all of the cooperation
you have afforded me - because of it my responsibilities have come
easy. I wish my successor the best of everything and know she will
do an excellent job. Meanwhile, I hope to see many of you in
Nashville at the Convention. If you haven't been to one, I can't
think of a better city in which to become indoctrinated. Try it,
I know you will like it!!!

Happy New Year ~
Mary Lynn

90230

Given City

11831

Mrs. Moulton of these



Mrs. Quentin E. Erlandson
9 Burnbrae Road
Baltimore, Maryland 21204