

## 4. AMARYLLID CULTURE

[REGIONAL ADAPTATION, SOILS, FERTILIZATION, IRRIGATION, USE IN  
LANDSCAPE, DISEASE AND INSECT CONTROL, ETC.]

### DAFFODILS IN PIEDMONT VIRGINIA

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I became infected with the daffodil fever at the age of fifteen when I attended my first daffodil show. Since then I have grown over 550 varieties and have been a faithful exhibitor at Garden Club of Virginia's daffodil shows. My limited experience has convinced me that every gardener must determine for himself which daffodils are suited to his conditions—try them out for himself. It is also no startling conclusion to state that to grow daffodils well one must study his particular soil and climatic conditions. Located at the foot of the Blue Ridge, we are in the South's red clay hill region. Technically this red clay hill region is known as the "Cecil-Applying Area," and a gardener here usually has to contend with a red podzolic clay—a conglomeration of infinitesimal particles that is sticky and unworkable when wet and impenetrable when dry! If you want to grow daffodils in this red clay there is no alternative but to incorporate a copious amount of organic matter. Daffodils planted in unadulterated red clay will eventually suffocate. There seems to be no substitute for a soil well enriched with humus.

Devoting beds to daffodils exclusively has been found to be the simplest and best method of planting. Aside from organic matter, liberal quantities of sand and agricultural limestone have been added. A small amount of fertilizer has been used (chiefly 0-14-14), but fertilizers containing nitrogen have been avoided, for they encourage basal rot. Nothing, however, seems to take the place of a few inches of well-rotted manure under (not in contact with!) the bulbs. Manure makes an amazing difference in quality of bloom. After soil preparation, which is necessary primarily for aeration and drainage, or perhaps of equal importance, is mulching or planting a cover crop to keep the soil cool and moist in our hot, dry summer and fall. This may also be solved by a year-round mulch of sawdust which has additional advantages of preventing blooms from being splashed and spotted during heavy rains and eliminating the necessity of surface cultivation.

As to pests and diseases, there have been only three worth noting—virus, basal rot, and bulb scale mite. As the season advances aphids,

reported to be vectors of the various viruses (yellow stripe, mosaic, etc.) of the daffodil are in evidence. Planting as far apart as space permits is a safeguard against the spread of viruses or any other infestation, as well as means of improving quality of bulbs. I have been guilty of crowded planting and have felt it necessary to rogue and burn immediately any questionable plant. This has been expensive, but if only five healthy bulbs have been destroyed to each infected one, it has been worthwhile. Basal rot (*Fusarium*) may be a problem at times, but losses have been negligible under proper cultural and storage conditions. The only other pest noted here is the bulb scale mite (*Tarsonemus laticeps*). This mite seems to thrive in our hot summers, and is usually responsible for those bulbs which are soft when lifted. Long necked and rough, scaly bulbs seem to be particularly susceptible to *Tarsonemus* attack.

Before attempting a review of daffodils, by R. H. S. Divisions, as they grow here, I should in fairness state my prejudices. I am an exponent of the British school which prefers a smooth perianth, good proportion or balance, and clear coloring *before* size and striking color which seem to be the main qualities sought by Dutch breeders. In my teens I was fortunate in being tutored by the writing of that great Irish grower and gentleman, Mr. Guy L. Wilson, V. M. H. I was able to visit the garden of Mrs. J. Robert Walker, who now supervises the Daffodil Test Garden of the G. C. of Va., here in Martinsville, and while in college at Charlottesville, I haunted the garden of Mrs. Fletcher D. Woodward. Both of these women have incurable cases of daffodil fever and are staunch advocates of the British or exhibition type daffodil. Mr. George Heath, of Daffodil Mart, Gloucester Co., who probably grows more varieties of daffodils than anyone, is the only person I know who seems to like one type as well as the other. I forthrightly prefer the exhibition type and grow but few of the decorative kinds.

For several years my main purpose in growing daffodils was to show them, but my interest in breeding daffodils now outranks showing them. Although there are many fine varieties that do well here, there is a distinct need for daffodils bred to meet the trying conditions of the red clay hill belt. I *hope* to be able to duplicate some of the foreign beauties in editions which will thrive here without extensive soil preparation and care. Now to the daffodils themselves—

KING ALFRED, GOLDEN HARVEST, and UNSURPASSABLE were among the first varieties I planted, but I remained unimpressed by yellow trumpets until I came across CROMARTY, a smooth, shapely deep gold. GARRON, a large, pale lemon with splendid stem and foliage makes a vigorous garden clump. HUNTERS MOON looks and performs better than either parent—BRIMSTONE and MOONGOLD. BASTION, BRAEMAR—said to have "jonquil" blood, MILANION—outstanding, and ROYALIST all do well here. Sulfur toned MULATTO wouldn't be exceptional later, but coming extra early it is valuable. A new Warnaar introduction, JOSEPH MACLEOD, has excellent form, carriage, and coloring—not like the somewhat typical Dutch trumpet which I had come to expect to have an

overly large trumpet in relation to the perianth. GRAPEFRUIT is promising, and PEKING, though smoothly colored, has poor balance. TINTORETTO is distinguished by a glimpse of pink in the base of its large sulfur trumpet. Large and vigorous, MOONSTRUCK has probably the most entrancing coloring of any daffodil—a symphony in cool lemonade tones. KINGSCOURT has been a good grower and increaser and is a superior exhibition flower, although our judges prefer the extra large 1-A's. KINGSCOURT could not have finer lines, or finish, but I must select GOLDCOURT as my favorite yellow trumpet. When well grown GOLDCOURT is only of moderate size. It is a precisely styled deep gold of leather like substance, the petals are tipped green and there is a suggestion of green at the base of the perianth segments. It is short necked, has a tall strong stem and superior carriage, and has a solid, clean bulb. What more could one ask?

There are few distinctly Bi-colored trumpets. Most of them have pale lemony coronas that fade almost to white in our sun—BRIDAL ROBE, GLENRAVEL, TROSTAN, etc. The earliest bicolor is BONYTHON which has good color, nice form, and is vigorous. It is followed by PREAMBLE and TROUSSEAU, the two finest. PREAMBLE is still in the settling stage here but has already exhibited fine form, good color contrast, and exceptional durability. TROUSSEAU is an entirely different type flower in form and color. Smoothly finished, TROUSSEAU has been a vigorous grower, and this spring as it aged displayed buffy cream coloring in the trumpet for the first time. EFFECTIVE has the most striking color contrast of them all—trumpet is bright chrome yellow. KILLYNURE, BALLYFERIS—with a white rim, CHATSWORTH, FORESIGHT—very short stem, GLENGARRIFF, and GREGALACH have all performed well. CONTENT really belongs in a class to itself,—a greenish tinted lemonade color on opening, but as it ages a whiteness suffuses the trumpet until only a lemon rim remains. In form it is a glorified BEERSHEBA, and it has a tall, strong stem, a factor lacking in SPITZBERGEN which could be termed squat as it grows here. DAWNGLOW has been lost twice which is regrettable, for it was better than PINK O'DAWN. OKLAHOMA has been described as a "smash hit" by one grower. It is to me, in the eye! It, like PRESIDENT LEBRUN, has what I once heard Mr. B. Y. Morrison call a "megaphone trumpet."

The white trumpets (and their close kin, the 2c's) are my favorites, but unfortunately they are not the best constituted to our conditions. Since BEERSHEBA there has been only one daffodil that surpasses it in every way—CANTATRICE. When in top form it can not be beaten on the show bench, and it would be difficult to imagine a daffodil with more grace or refinement. ARCLINES and SAMITE are worthwhile, and DUNLUCE is a fine pure white that has not received its due on either side of the Atlantic. COOLIN is first rate (from NEVIS X BEERSHEBA), and just recently Grant Mitsch introduced an even finer flower named FAIRY DREAM with the same parentage. The dwarf stature of KANCHENJUNGA is inappropriate for its large, heavy blooms. It is eclipsed in every way by BROUGHSHANE which does not have the frilled trumpet, is just as

large, and has a much better stem. BROUGHSHANE often comes rough, but when in fine form is a magnificent thing. It hasn't reached the size here that it does in Ireland, but I like them smaller anyway. MOUNT HOOD is large and useful in the border, but is seldom fit for showing. CONTOUR is promising, and I'm looking forward to VIGIL (which has apparently inherited grace of its parent COURAGE) and PETSAMO this spring. HINDUSTAN, WHITE PROSPECT, WHITE MONARCH, and some of the other new, high priced KANCHENJUNGA or BROUGHSHANE offspring have not been too interesting from their pictures (a little *too much* "Ajax"!), but the photos of Mr. Guy L. Wilson's new EMPRESS OF IRELAND look like this master has come up with a pure white of size that still has style. I am going to find it hard to wait for that one!

SPELLBINDER, the only 1D, is also in a class to itself from the standpoint of quality. The only other reverse, BINKIE, a 2D, is the most reasonably priced of all the sulfur-limey-green types and should become a popular garden flower. It withstands the elements, multiplies rapidly, and is most telling in the border.

The solid yellow large cups (2 A's) have some fine daffodils in their ranks, but unfortunately they have little or no chance on the show bench if they must compete with the yellow-reds. A judge will almost invariably select a variety with a highly colored cup over a yellow cupped variety in sections A & B of both the large and small cupped daffodils. Here might be as good a place as any to comment on my pet peeve about daffodil shows-judging. There are many excellent judges, but I feel that there are too many men and women judging horticultural classes in present day flower shows who do not have an intimate or first hand knowledge of the flowers they are judging. No short course at any college or judges' school can take the place of the school out in the back yard,—garden experience in growing the flowers they judge. Often in looking at some classes at daffodil shows in which I feel there has been an injustice committed, I figure that the judge may be well qualified as far as points on his or her diploma or certificate is concerned, but he or she has quite a limited knowledge of the fine points of the daffodil!

Back to the 2A's—almost of trumpet proportions GALWAY is among the daffodil elite. ST. ISSEY is a large, strong, tall stemmed, deep gold that blooms early and lasts. GOLDEN TORCH after settling down is proving to be another topnotcher, and I am still not prepared to give up BALMORAL, CROCUS, TRENOON, or ST. EGWIN.

Yellow-red large cups are legion, but I could never become enthused over them until I gazed in awe at the daffodils flown over by Mr. J. Lionel Richardson of Waterford, Ireland for the 1952 Garden Club of Virginia Daffodil Show in Staunton. I, like others I'm sure, had read the glowing catalog descriptions of these "flame-red, blazing orange-red, intense cadmium orange-red, etc." cupped flowers only to grow them and be disappointed with their color. I had begun to doubt the reliability of catalog descriptions, until I helped unpack those Irish beauties. Their color stunned me to such an extent that I was almost prepared to move to Ireland! After 30 hours in air transit, they were veritable

jewels! The large blooms, carried on stems up to two feet in length, had startling color. All the raving over **KRAKATOA**, **FIREMASTER**, **CEYLON**, **SUN CHARIOT**, etc. is justified, and if you are skeptical come to the 1953 show (to be held in Williamsburg in April) and see for yourself, for Mr. Richardson is honoring us with another exhibit.

Among the best of the yellow-red 2A's here are: **ARANJUEZ**—nearly every bloom of show quality, **BAHRAM**—good about every other year. **CARBINEER**—superior form but seldom colored, **COTOPAXI**, **CORNISH FIRE**—early, brilliant, and sunproof, **DUNKELD**—superb, but fades, **DERVISH**, **DIOLITE**—cool yellow except for red rim on cup, **GARLAND**—round perianth segments, **INDIAN SUMMER**, **NARVIK**—perhaps the best of the whole lot here, **MEXICO**, **MAGHERALLY**—small, brilliant almost ruby red cup at times, **SALTASH**, **SUN CHARIOT**—improves with age, and **TAMINO**. In four years **KRAKATOA** has had fair color once. Many more have been tried and discarded in this group which has a wide range of selection. **ARMADA** and **CEYLON** are looked forward to this spring.

Class 2B now serves as a repository for many different types which I subdivide white-buff, white-red, white-yellow, and white-pink. In the first group **BIZERTA** is on the order of **POLINDRA** only it has an apricot crown. It has exceptional durability. **BUNCRANA**, **BREAD AND CHEESE**, and **PENVOSE** are dependable. **MONACO** after four years was unusually good last season. **RUBRA** is hard to surpass for cutting. Its small size makes it unsuitable for showing, but it couldn't have finer form.

Noteworthy white-red large cups are scarce, and good early ones are virtually non-existent. The best one I've grown so far is **KILWORTH**, but it unfortunately sags its head. **RED HACKLE** is an exemplary late bloomer, becoming deeper with age. **FLAMENCO** had a bright orange-red crown last season, previously it was only orange. These three are valuable for they do not fade in our sun. **FERMOY** is good, but takes time to develop for it opens almost as a 2A. **DICK WELLBAND**, **FRANCISCUS DRAKE**, and most of the Dutch and Backhouse strain of highly colored red cups fade or burn badly. Reliable reports indicate that **SIGNAL LIGHT** is a milestone in this group. I must state an emphatic distaste for the whole series of **JOHN EVELYN** hybrids. They may be striking garden plants from a distance, but on close inspection they are coarse and ill proportioned.

The white-yellow large cups include many former Leedsii, one of the best of them for either cutting or the garden being **BRUNSWICK**. It opens with a pale lemon cup, but gradually fades to almost pure white. Tall stemmed, vigorous, a long laster, good increaser, fine bulb—for everything but showing **BRUNSWICK** is tops. There isn't enough contrast to make it a good show flower. Several daffodils have been rather hopefully described "improved **POLINDRA**" but it has been only wishful thinking! It would be hard to imagine an improvement on **POLINDRA**. **STATUE** is larger, and similar, but is by no means a replacement. **GREEN ISLAND**, after four years, has settled down and has faultless blooms. I was admonished by visitors for not saving several for the show, but this spring was the first full length daffodil season I'd enjoyed for five

years (a four year lapse for college), so I selfishly kept my favorites. CARAGH has a pretty apricot rimmed flat cup, and GREETING is another that will be hard to surpass. Its perianth tends to reflex, which only serves to set off the goblet shaped primrose cup. GUARDIAN is a near trumpet and a prolific seeder. It is the progenitor of the beautiful new white trumpet EMPRESS OF IRELAND. Special recognition is due TRYST which bloomed late during an 80 degree spell and seemed impervious to the heat! GENTILITY is a vigorous improvement on WHITE SENTINEL which has done miserably here. Incidentally I have yet to come across a clean (virus-free) stock of either WHITE SENTINEL or MITYLENE.

The pinks are *à la mode* these days. I wonder about the advisability of this public favor since few of them are of top quality—if you still demand other requisites before pink coloring. I have grown the whole lot of Dutch-bred Mrs R. O. BACKHOUSE derivatives—ANTIBES, BIARRITZ, CANNES, CHAMPAGNE, PINK FANCY, PINK FAVORITE, PINK GLORY, PINK RIM, PINK SELECT, SIAM, etc. After several years' trial I did not plant any of them back last fall, for they are uniformly poor formed flowers—distorted cups, excessive frills, twisted perianths, etc., and their color has been poor here. The best of the Dutch pinks that I've come across are LADY BIRD and ROSY SUNRISE, but they leave much to be desired. ROSY DIAMOND is a small one with a real rosy-pink cup, a gem. MABEL TAYLOR is usually rough but has an intensity of pink in its trumpet-like crown that is seen in no other. LISBREEN, ANN ABBOTT, PICTURE, FOYLE, and WILD ROSE are good off and on. ROSE OF TRALEE is perhaps the best formed pink, but this late bloomer has a poor bulb and is temperamental here. MOYLENA and INTERIM show promise, MOYLENA being the best of the MITYLENE X EVENING series of pinks.

Opening the 2-C season is ZERO, of clarion quality, a faultless pure white. NAMOS has been a poor grower, as has its parent NIPHETOS. NAXOS is reported to be "touchy," but it thrives. CLEENA—a white FORTUNE, COTTERTON—an immaculate icy white on short stems, COURAGE—very graceful, GLENDALOUGH, MORNING WINGS—charming, JUSTICE, KILLALOE—semi-ajax, MURMANSK—good off and on, St. BRENDAN—almost of trumpet proportions, PARKMORE, SHINING WATERS—early and durable, and TEMPLEMORE are all noteworthy. LUDLOW is sometimes spoken of as an improvement on TRUTH, I wouldn't give up either. GREENLAND is attractive from the breeding standpoint for its triple substance and almost green-white color. MOVILLE has been weak, and SLEMISH has succumbed twice. TIBET should make a stunning border plant. A shapely white from Barr that is as good for showing as in the garden is SILVER BUGLE. There are many invalids in this group, and there should be a demand for vigorous 2C's bred to take our growing conditions.

When smooth, CHUNGKING is outstanding, but it is inconsistent. It is a rapid multiplier and has to be lifted every year or planted deeply to secure bloom. Superbly formed, late, small, with greenish yellow perianth, DINKIE couldn't be overlooked. CARRIGART is a fine decorative type, as is popular MANGOSTEEN, and THERM has a small, intense red cup.

With 20 inch stems, MISTY MOON is the best of the MYSTIC X DACTYL tribe of charming flowers now classified as 3-B's. SYLVIA O'NEILL and TINSEL are members of the deservedly famous SILVER COIN series. ANGELINE is white except for the penciled rim of copper on the small cup. There are many outstanding white-red 3-B's, but they have to be watched closely for all of them burn. The following are of ideal show quality, but judges lately seem to prefer larger flowers of the KANSAS type to these more polished ones: BLARNEY—flat salmon-orange crown, BRAVURA, CRETE, FORFAR, LADY KESTEVEN, LIMERICK—with cherry red crown, a refined and improved edition of HADES, MAHMOUD—superior in every way except that it has inherited SUNSTAR's long-necked bulb, Mr. JINKS, MOINA, PERA, QUETTA, etc.

The 3C's aren't too vigorous here. CHINESE WHITE is of paramount importance in this group, in fact it is one of the notable daffodils of the century. FOGGY DEW is larger and more vigorous, but its form and color can't approach CHINESE WHITE. ALTYRE is a notable addition, and CUSHENDALL with its moss green eye is one of the most captivating of daffodils. PORTRUSH appears to be an enlarged edition of CUSHENDALL but is not as refined a flower. FRIGID blooms so late here that heat will not allow it to develop properly.

DAPHNE is one of the few doubles I ever cared for, but it is not easy to grow. SHIRLEY TEMPLE is a fine newcomer.

It is gratifying to see interest increasing in *N. triandrus* hybrids to such an extent that a stalk of SILVER CHIMES was selected as best flower in 1952 G. C. of Va. show. Its foliage is often bitten back here, but it blooms well. The charming APRIL TEARS (*N. jonquilla* X *N. triandrus concolor*) has retained some of the "jonquil" odor; HAWERA is similar to it. RAINDROP is a delightful midget but is tender. TRESAMBLE—an improved edition of ACOLYTE, THALIA, and RIPPLING WATERS are dependable. COBWEB is similar to one of my favorite daffodils—Rev. Engleheart's incomparable DAWN—flat cupped with petals pertly reflexed and waved, it looks ready to fly away. Unfortunately the *N. triandrus* hybrids, which are so admired by arrangers, are particularly susceptible to stripe.

The sensation among the *N. cyclamineus* hybrids is justly Mr. C. F. Coleman's fascinating series from MITYLENE X *N. cyclamineus*. JENNY and DOVE WINGS both have white perianths and limey-yellow cups, and CHARITY MAY is different from usual type of solid yellow *N. cyclamineus* hybrid. I am fortunate to be growing these and hope they will show more vigor when settled.

SHAH is a new, large cupped jonquil hybrid that looks like a smaller, yellow edition of DAVA. It will be hard for anyone to excell TREVITHIAN. A clump in the garden has had foliage and blooms almost waist high, and little trouble is experienced in selecting stalks to show. CORA ANN, HESLA, and TRIM are different types from the average 7-B and are usually single flowered. No collection would be complete without the unique, pink cupped CHERIE.

I have grown few tazettas or poetaz, and relatively few poets. Old ACTAEA is dependable (unusually long necked), and smaller SHANACH, CANTABILE, DACTYL, and SMYRNA are fine if planted deeply and not disturbed, but a combination of round perianth segments and a flat, deep green eye edged red make SEA GREEN about the finest poet.

Talking daffodils is apparently as engrossing as growing them. Just what is it that makes growing these patricians so fascinating? I think A. M. Kirby back in 1907 gave an admirable answer in his little book on the daffodil: "It is not alone the individual and collective beauty of their flowers that endears them to our hearts but the bravery of their advent, for 'the time of the daffodil' closes the gates on bleak winter and ushers in, with trumpets of gold, longed-for spring."