The Trillium

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The Backbone of Southern Gardening...

Bulbs Throughout the Year

By Sandra Ladendorf

Bulbs, large and small, are the backbone of southern gardening—more important here than in any other part of the country where we have gardened, I believe. While I treasure the large golden flowers of our 'Connecticut King' lilies, the truly gigantic purple orbs of *Allium giganteum*, the pendant ivory trumpets of *Lilium formosanum* var. *pricei*, 'Mount Hood' daffodils, August's naked ladies, the architectural form of September's *Lycoris radiata* and all other large bulbs in our yard, it is the tiny ones that truly capture my heart.

Our gardening year begins with mats of *Cyclamen coum* in bloom during January and February. This cyclamen is not showy. A single plant is best appreciated in a pot held inches from one's eyes, but a sizable planting of the small pink flowers with their reflexed petals and handsome variegated foliage adds color and charm to the winter garden. To my eye, the most beautiful of all are the various *C. coum* with silver or pewter leaves that glow in the winter light. Nancy Goodwin of Hillsborough, NC, introduced us to these beauties during her Montrose Nursery years. *Cyclamen coum* grows happily in front of established azaleas, daphnes or large trees—anywhere in the garden that provides partial shade and is a place I never water. *Cyclamen* are easy from seed and will bloom in about 15-18 months.

The species crocus are other January delights. They come in a host of colors—yellow, white, purple, striped, lavender and blends. All are worthy of space in your garden. I would urge anyone to add several hundred each year. Why in such numbers? They are relatively small

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Alleviating the Winter Doldrums with...

The Little Bulbs of Spring

by Judy Glattstein

It is the little bulbs which are among the first harbingers of spring, awakening into growth before any of our native flowers (other than skunk cabbage, that is!). They rely on food reserves stored underground in bulbs, corms, or tubers. These small charmers include familiar garden occupants such as snowdrops, scillas, crocus and chionodoxa. While attractive in their own right, they will look even more appealing if planted in the right place and given suitable garden partners.

Consider, for example, the snowdrop. Its small white flowers are frost-proof, appearing when the days are still chilly and the nights even colder. I have seen the flower stalk frozen so solid that it snaps when handled. As soon as sunlight warms the air above freezing, it thaws out again, leaving the flower not much worse for wear. I do like to pick a small bouquet, enjoying their honey-scented fragrance and chaste white flowers. Stand the vase on a mirror to better appreciate the dainty flowers.

One advantage for many gardeners is that snowdrops are pest proof---being eaten neither by deer nor by chipmunks. So obliging a little bulb might be expected to

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Our February meeting of the NARGS
Saturday, February 18, 1995
10:00 am Totten Center
NC Botanical Garden, Chapel Hill, NC
"Little Bulbs"
Presented by Judy Glattstein
Writer and Designer, Wilton, CT

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flowers, the bulbs are very inexpensive—and many will be eaten each year by the voles. I find that if I plant 100 on either side of a path, the next year I may have five returning on one side and 105 on the other. The voles are unpredictable and active in my yard. Cats do help keep the population under control. If I were to plant but one early crocus, it would be one of the golden ones, like *C. susianus* or *C. chrysanthus* 'Gypsy Girl'. That mid-winter yellow gleam is such a wonderful harbinger of the colorful spring ahead.

Snowdrops and snowflakes are other bulbs that provide early beauty. I have only a few—and where I have ten *Galanthus elwesii*, I would like to have hundreds. In northern gardens, they often poke through the snow; here they hold their pristine small white bells above our brown ground cover of fallen leaves.

These earliest bulbs are followed soon by *Iris reticulata* and its named cultivars. Like the species crocuses, these irises are small, so again, I like to plant them 100 at a time, quite close to one another. The species itself has relatively narrow reddish purple petals, but some of the selections have broader petals and come in clear, light blue, medium blue, dark blue, purple, etc. The Daffodil Mart in Gloucester, Virginia, offers 15 of these named varieties this year. Sky blue 'Harmony' is one of my favorites, but you won't go wrong with any of them. These irises bloom above the early foliage and then the leaves elongate and grow for several weeks, so plan for some tall (15") rather stringy foliage for a while. In my garden, the *I. reticulatas* have not been bothered by voles or any other pests.

Depending on the scale and form of your garden, you may like to use some of the standard crocuses that bloom after the species and have larger flowers. 'Jeanne d'Arc' is a favorite of mine—pure white and glistening.

Scillas are a huge group, with flowers of widely varying sizes. In our woodland, I enjoy the wood hyacinths that are about 15" tall. For the scree, the minute, less-than-two-inches-tall, *Scilla bifolia* adds its clear blue charm. We first saw this bulb on a mountainside in the Pelion Range of Greece, high above the Aegean Sea. It was growing in combination with a cream-colored crocus and quite lovely.

If you are looking for another small, true blue flower, plant some of the chionodoxas, like *C. gigantea.* It is hardly giant, (catalogs say 5-6", but it is more like 3" in our garden), but the color is gentian blue.

Like the scillas, there are muscaris of varying sizes. Pick the ones that are of good scale for your garden, and plant them in drifts. If you select the sterile varieties, the flowers will last much longer in the garden.

While our native *Erythronium americanum* thrives and multiplies here in our woods, I have not done well with the showier varieties like 'White Beauty' or 'Pagoda'. Perhaps it is because I have never planted them in numbers. They are expensive—$5 a bulb for 'White Beauty'---and when I planted three, the deer ate the foliage to the ground; if one should survive and bloom, some pest in our woods drills holes in the flowers. I yearn for the beautiful drifts I have seen in England.

If you want a ground-hugging carpet of daisy-like flowers on ferny foliage, it is hard to beat *Anemone blanda.* I am very fond of 'White Splendour' and add another 100 to one area of our woods each year. Voles and other pests do not seem to bother these anemones. In another part of the woods, I have the variety 'Atrocaerulea' drifting beneath azaleas. It has rich blue flowers. I do not care for the 'Blue Shades' that are on the market. Most of the group I planted turned out to be pale, wishy-washy colors, and I have weeded them out. There are a number of other anemones that are garden treasures. Again, it depends on your taste and the scale of your garden. Experiment!

Some of the species tulips have interesting forms and colors for the rock garden. I particularly like the multi-flowering varieties where each bulb produces a small bouquet.

But for the springtime garden, I have left the best for last. If I could have but one genus of bulbs, it would have to be daffodils. They come in all sizes, from large, medium, small to very mini. Nothing bothers them, neither deer nor vole nor other pest. They just quietly grow and multiply each year. The flowers are gorgeous; they look equally well in formal plantings, naturalized in the woodland or grown for cut flowers in the house. The species and wild forms are wonderful plants for the rock garden. While I want 100 of every bulb in this large genus, if I could have just one, it would have to be the golden glow of *Narcissus bulbocodium* var. *conspicuus*. I have a few planted at the driveway's edge, to greet visitors to the garden, and that mass of bright yellow hoops is welcoming indeed. My only complaint is that this species grows so vigorously that a planting really needs to be divided every two years or so. Another favorite is *N. scaberulus*. Each tiny, perfect trumpet is no larger than my smallest fingernail---a gem for troughs or other small plantings.

On recommendation from daffodil expert Bill Tichnor, I now put some fertilizer under the "bulbocodiums " when planting---first the trench, then some fertilizer covered lightly with compost, place the bulb s and then fill the hole with garden soil. For garden bulbs in general, I feed with

10-10-10 twice a year, once in the late fall and again when the foliage breaks the ground. For a less economical but time-saving method, you can use the slow-release Bulb Booster just once.

There are three genera I would recommend for fall gardening. Plant and enjoy any of the fall-blooming crocuses you can find on the market. I particularly like *C. sativus* with its bright orange stigma. Saffron for our bouillabaisse soups and for the Spanish paella comes from the harvest of thousands of these tiny stigmas; thus we can well understand why saffron is so expensive.

Also plant any of the colchicums you can locate. They have relatively large, crocus-like flowers, most in a lavender hue, although there are dark purples, rose and white forms available. The double 'Waterlily' is expensive but very beautiful. Note that the colchicum foliage does not appear with the flowers, but later in the spring. It tends to be a bit large, so plan on mixing these bulbs with hostas or some other attractive perennial that will come along to hide this bulb foliage while it matures.

For a lovely sweep of gold in September, plant some sternbergias. Pure, tulip-like rich yellow flowers are held above the ground on 5 - 6" stems. Like so many other bulbs, five are wonderful but 500 are spectacular—witness Bill Hunt's long-established "Valley of Sternbergias" in Chapel Hill near the Botanical Garden.

Our garden year for bulbs ends as it begins, with a cyclamen. The showiest and easiest of these bulbs to grow is *C. hederifolium* which puts up its first flower in June and the last in December. The large bouquets are in September and October. A mature bulb is a masterpiece of floral production and perfection. After a number of years on our land, I am finding these bulbs all over the woods. The ants carry the unharvested seeds around, so I consider them my gardening allies. The bulbs are very easy to move if I find them in the middle of a path or in some other undesirable place.

While it's hard to resist spring bulb catalogs or the fall bulb displays in our garden centers, I would urge you to remember that for every bulb you purchase, a hole must be dug, so don't get carried away. Have fun each year. Plant some old favorites and experiment with some bulbs you have never grown. Bulbs are the most rewarding element of North Carolina gardening.

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Little Bulbs. Continued from Page 1.

have a long history of garden use. Indeed, the common snowdrop, *Galanthus nivalis,* is mentioned in Clusius' *Rariorum Plantarum Historia* published in the sixteenth century. In common with other spring-blooming bulbous plants, snowdrops are planted in the fall to flower the following spring. If, however, they are already growing in your garden and you want to rearrange the planting, or, if a generous friend should happen to offer to share, then spring is a good time to move them. Dig them after flowering, but while the leaves are still green and actively working to store new food reserves in the bulb. Move them as carefully as any other perennial; that is, loosen the soil in their new home, add some granular fertilizer, and replant. Separate congested clumps of bulbs, replanting them at the same depth at which they were growing. Add a suitable mulch of compost, leaf litter of fine pine bark chips, and water to settle them into their new site. Since snowdrops go dormant by late spring, to rest until the following year, I prefer to combine them with other plants that provide interest later in the year. Planting snowdrops beneath a ground cover of running myrtle (*Vinca minor*) is one possibility. The dark green, evergreen polished leaves of myrtle provide a tidy appearance throughout the year. *Pachysandra* is too coarse and tall to provide a suitable partner for the dainty snowdrop. Another choice would combine the little bulbs with perennials that come into growth after the snowdrops are dormant. Ferns or hosta are equally at home in the woodland conditions that snowdrops prefer, and their enlarging foliage can arch over the empty ground beneath which the snowdrops rest. Do not plant the perennials directly over the bulbs; that is too competitive a situation.

As well as the common snowdrop, you might want to grow the double-flowered form, or even the giant snowdrop, *Galanthus elwesii*, which has a larger flower and blossoms two weeks earlier. Page ahead in your calendar and make a note to order them next August.

The other herald of spring with sunny golden flowers is the winter aconite *Eranthis hiemalis.* When winter aconite is planted as wizened, dried-out tubers in the fall, success is minimal. Should twenty-five be planted, the eager gardener is fortunate if five emerge and flower the next spring. Resentful of a sojourn above ground, this tuber desiccates to the point of no return, losing life and viability. But those five survivors, ah!—they are a different story. For once the winter aconite begins its growth in your garden, you have it made. Those few will multiply both by seed and by offsets. Within a few years they will increase to a spangled carpet. And when moved "in the green" while still in leaf but after flowering,, they transplant with ease. Another ancient denizen of gardens, the winter aconite has been in cultivation for more than four centuries. I like to use this small charmer in groups of twenty or more in combination with hellebores. These woodlands perennials also flower quite early in the year.

Should you need alleviation of the winter doldrums and heading to Florida or to Cancun is not in your budget, consider a quick trip to Bronx, New York. In the autumn of 1993 with the assistance of the School of Horticulture students, the New York Botanical Garden planted one million early-flowering spring bulbs. Ten different species were selected with the intention that they naturalize and over time increase by seed and offset. Snowdrops and winter aconites will be the first in bloom when you read this. Next, the diminutive corms of *Iris danfordiae* and *Iris reticulata* will send up their flowers. Only four-to-six inches tall, the first has yellow, and the latter blue-violet blossoms both with narrow, grass-like leaves. Then in a rush will appear the clear blue bell-like flowers of the glory-of-the-snow (*Chionodoxa lucillae*), deeper blue Siberian squill (*Scilla sibirica*), and dish-water pale pushkinia (*Pushkinia libanotica*). The slate-blue, violet-blue flowers of grape hyacinths (*Muscari armeniacum*) come at the same time, along with the dainty cups of species crocus in a rainbow of cream and yellow, lilac and lavender. Windflower (*Anemone blanda*) will produce its miniature, yellow-eyed daisies in white, pink, lavender, and blue.

You need not make an expedition to the steppes of Central Asia or to Europe, because you can come to the New York Botanical Garden and see sizable drifts of bulbs in bloom along the paths of the rock garden, in the native plant garden, and in other places. These little bulbs serve as testament and usher in the spring season.

[*Judy Glattstein gardens in Connecticut and lectures on naturalistic plantings and design and on other horticultural subjects at the New York Botanic Garden. She is the author of three books---one on bulbs. Judy is our February 18, 1995, Piedmont Chapter of NARGS speaker.*]

1995 Annual Meeting. *Titled*: "**SPRINGTIME IN THE BERKSHIRES**," June 2nd thru 4th at the Berkshire Hilton Inn, Pittsfield MA. Nearest airport is Albany NY. Two days of garden tours. Speakers are Tass Kelso, Jim Archibald, Geoffrey Charlesworth, and John Spain. Gardens include Charlesworth/Singer, Smith College rock garden, Cliff Desch, John Spain, Ruth Sheppard. Special optional excursion to Mt. Greylock. **Contact Shirley Redington, Registrar, at 1169 Mohawk Rd., Schenectady, NY 12309-1607 for more information.**

Leaving a Garden Behind...

Small Jewels for the Garden's Edge

By Barbara Scott

In the November and December, 1994, issue of *Carolina Gardener,* Alice B. Russell writes about Elizabeth Lawrence's slender book, *The Little Bulbs.* The pictures and quotations in the article remind me of how much I miss the little bulbs that I planted in my first garden. I left it six years ago. I have yet to plant as many little bulbs as I did there. The paths and planting areas around the house where I live now are still developing, and I am trying to be patient. Bulbs should be planted when a garden is well established because they are so easily disturbed by digging, especially the little ones. They are the jewels of the garden, and they should be added last along the margins as delicate accents of shape and color.

I remember all of the little bulbs in my old garden. A handful of snowdrops (*Galanthus nivalis*) bulbs prospered there. When I planted them, I did not know that they often do not grow well here. Conditions must have been just right in the bed where I planted them. It was on the north side of the house on a flat terraced area at the top of a small incline by the road. It received six hours of morning sun almost year round with dappled shade in the afternoon. The clump of white snowdrops persisted for three or four years and bloomed through the month of February. I wonder if it is still there.

Iris danfordiae began blooming at the same time as the *Galanthus*, around February 1, and continued to bloom for three weeks. I planted the bulbs one fall, and the small yellow blooms with brownish-green freckles pleased me very much when they arrived the next spring. But this dwarf iris disappeared after one year. It was planted in a small rock garden on the south side of the house, where it received sun for most of the day in a sheltered spot. Maybe it is one of the temperamental small irises.

Blue stars of *Chionodoxa luciliae* welcomed March. The chionodoxa opened at the end of February and lasted through March and often the first week of April. They were beautiful with the low-growing tulips that began blooming late in March.

The Kaufmanniana tulip 'Waterlily' (*Tulipa kaufmanniana*) bloomed from year to year in my old garden. The undersides of its pale butter-yellow petals have warm coral tones that contrast well with the gray-green foliage. The blooms close at night. When they open wide in the sun, they look like small waterlilies.

Another little tulip that I grew was the species tulip *Tulipa tarda.* Its golden yellow petals are edged in white. Tarda's golden yellow is not quite as intense as that on another tulip—'Saxatilis' (*T. saxatilis*); it has pale lilac petals with a center of bright gold and big stamens with dark anthers.

Pale yellow tones can be found in the miniature daffodils. In my old garden, I grew *Narcissus cyclamineus* 'Nania.' It produced clumps of narrow foliage and pale yellow blooms. I still have a clump that I dug from my first garden and kept in a pot until I found the place where I live now. I planted it on a bank that I will dig up in a year or so to make a wall and a rock garden. I hope it tolerates another move. It has bloomed without any attention for the past four years.

The *Narcissus triandrus* 'Ice Wings' is one that I couldn't resist planting even though my garden is not well established. I found a place to stick the bulbs in a wooded area of my yard where I won't be working for another couple of years. They have bloomed dependably through three winters. Each stem produces several flowers. The center cup is barely yellow, and the swept-back petals are the color of cream.

Reading catalogs makes me want to plant all the little bulbs. The fall 1994 catalog from Dutch Gardens in Adelphia, New Jersey, has large full-color photographs of all the varieties it offers. There are also detailed instructions for planting a garden of 50 small bulbs in a 12-inch wide pot. The bulbs are planted in layers, and the pot provides bloom through March and April with *Puschkinia*, blue and white crocuses, miniature daffodils, and low-growing tulips. The garden centers usually have plenty of bulbs left after Christmas. Planting a pot of them might relieve my hunger for more little bulbs.

[*Barbara Scott is secretary of the Piedmont Chapter of NARGS and gardens at 1321 Chaney Road, Raleigh, NC 27606.*]

Signaling the Change of the Seasons...

Autumn Blooming Bulbs for Carolina Gardens

By Edith Eddleman

Planting a bulb (corm, tuber, or the geophyte of your choice) is an act of faith in the future of an uncertain world. Enduring and surprising, its cycles of flower, leaf, and dormancy signal the changing of the seasons. For me, no change is as welcome as when summer slips into the cooler nights and shorter days of autumn, and it is safe to garden once again between the hours of eight and five.

Leucojum autumnale and *Scilla autumnalis* carry the season's promise in their names. Though both bloom here in July and August, their yearly appearance is a joyful reminder that autumn is not far away. *Leucojum autumnale* is a native of the western Mediterranean region. Its dainty white bell-shaped flowers dangle like tiny snowflakes suspended just three inches above earth's surface. Threadlike green leaves accompany the flower. Planted in patches of sandy humus on the south edge of my stone terrace, these bulbs feel right at home. At Montrose, Doug Ruhren has planted a tiny blizzard of them among cyclamen at the base of a limbed-up *Cedrus deodara.*

Many years ago, I brought *Scilla autumnalis* home from England, and lost it in short order. It is native to Britain, areas of Southern Europe, and the Mediterranean region. Its eight-inch stems bear airy sprays of starry-lilac flowers which open in August. These are followed shortly by narrow grassy-green leaves. Thanks to Montrose Nursery, I have it once again in my garden, and now I find it easy to keep track of, planted against a background of chartreuse *Lysimachia nummularia* 'Aurea'.

Scilla scilloides grown from seed collected in Korea in 1986 by J.C. Raulston produces eighteen-inch wands of tiny mauve-pink flowers in July and August. Plant height and flower color are highly variable in this wide-ranging East Asian native; some forms flower at a height of just six inches. A prolific seeder, it naturalizes well in the garden.

The broad arrowhead-shaped leaves of *Arum italicum ssp. italicum* have fascinated me since the first Thanksgiving when I discovered them growing in a raised bed of ivy (*Hedera helix*) beneath a giant maple tree in my Great-Aunt Edith's garden. The form often sold as 'Pictum' has dark green leaves broadly veined with cream, which unfurl fresh and crisp when wakened by autumn rains, remaining beautiful throughout winter. A trick observed in Pam Harper's garden: interplant the summer-dormant arum with summer-flowering, winter-dormant *Begonia grandis*. In winter the dried begonia flowers look splendid with the fresh foliage of the arum.

In September *Lycoris radiata*, the fiery red Japanese spider lily, looks as superb as my grandmother grew it, rising out of a bed of periwinkle (*Vinca minor*) at the foot of red-berried, bronze-foliaged *Nandina domestica*. Doug Ruhren and I have planted it at the NCSU Arboretum through a swath of Japanese bloodgrass (*Imperata* 'Red Baron'). In the Arboretum's Elizabeth Lawrence Border, the red *Lycoris* flowers are paired with the dark metallic bronze leaves of *Ajuga repens* 'Atropurpurea' under the red-bracted blossoms of *Polygonum cuspidatum* 'Crimson Beauty' [now *Polygonum japonicum*]. Echoes, echoes everywhere.

The oxblood lily, *Rhodophiala advena*, brought to Texas from Chile by German settlers, is now naturalized there. When August or September rains (or the sprinkler) wake it from its summer sleep, it produces deep red, green-throated drooping trumpets on 15-18"stems. Blooming continues for a period of two to three weeks. The flowers last best if grown in partial shade. Oxblood lilies are dramatic against bronze *Ajuga*, black-foliaged *Ophiopogon* 'Ebony Knight', or green-foliaged ferns and Hostas . In my garden, they are equally beautiful with the hot colors of scarlet *Dahlia coccinea* , red *Salvia coccinea*, and orange *Zinnia linearis*, tempered by the narrow copper-bronze leaves of *Carex comans*.

Flowering onions add not only foliage fragrance but color and texture to the richness of the autumn garden. *Allium stellatum* flowers in August and September. This North American native has globe-shaped heads of starry pink flowers on 15" stems. In my garden their color repeats that of the Tennessee coneflower (*Echinacea tennesseensis*) planted nearby. Another allium in my garden, *Allium thunbergii* ' Ozawas' from Japan, flowers in October and November. It grows 8" tall, with narrow dark green foliage, and its numerous heads of red-violet flowers are beautiful when seen against the chartreuse, lime, and cream foliage of *Hypericum* 'Hidcote Variegated'.

Allium virgunculae, also native to Japan, is tiny---only 5" tall with grassy foliage. Its small nodding, red-violet bell-like flowers appear throughout October. A background underplanting of woolly gray-leaved 'Longwood' thyme shows off this small jewel without overwhelming it.

Oxalis bowiei from Cape Province, South Africa produces thick-substanced, bright green, clover-like leaves in autumn. Its blooms, 1-1/2" across, are a brilliant hot pink. It is an excellent companion to *Crocus speciosus*. Frost can interrupt its flowering, but when warm days

return, new leaves and flowers continue to bring color to Indian summer's days. I first met this plant growing out of the ruined foundation of an old greenhouse in Durham, North Carolina, where its contractile roots had pulled the bulbs deep into the soil. Obviously, deep planting suits the cultural needs of this bulb.

x *Amarcrinum memoria-corsii* is also sold as x *Amarcrinum howardii* (Amaryllidaceae). It is a hybrid of *Amaryllis belladonna* and *Crinum moorei*. When Allen Lacy was reading Elizabeth Lawrence's manuscript for *A Rock Garden in the South*, he asked me if I thought there should be a section on crinums for the rock garden. I replied that their inclusion or exclusion depended upon the size of the rocks involved. Joking aside, for gardens which lack the space for the magnificent display of a five-foot-wide clump of crinums, x *Amarcrinum* offers a relatively dainty alternative. Two-foot-long, slightly pleated green leaves rise from its fist-sized bulb, and pink fragrant trumpet shaped flowers are produced throughout autumn. My clump was in bloom Thanksgiving week. This bold plant is a perfect foil in the autumn garden for shrubby lespedezas, asters, patrinias, *Liatris*, or *Eupatorium coelestinum*.

Crocus are my favorite autumn bulbs. Their flowers look like little spun-glass goblets set out by tiny garden spirits for a special party. In full sun or light shade, several autumn crocuses have persisted in my garden, growing in sandy acid soil.

Crocus speciosus, native from Eastern Europe to the Caucasus and Iran, is usually the first to bloom, with lavender blue flowers. They look best grown through a ground cover to support their long flower tubes. The delicate flowers are especially vulnerable to heavy autumn rains. But, since flowers are produced over a long period in September and October, they can always be counted upon for a good show.

October-blooming *Crocus goulimyi* from Southern Greece produces clusters of rounded lilac-pink flowers which when closed remind me of lollipops. I enjoy seeing these growing on a north-facing slope against a background of varied-leaved ivies, *Arum*, and *Rohdea*. *Crocus longiflorus* from Southern Italy and Sicily has lilac, fragrant (worth kneeling for) flowers with brilliant red branching stigmas. When grown through a carpet of narrow, black-leaved *Ophiopogon* 'Ebony Knight' beneath pink-flowered *Prunus subhirtella* 'Autumnalis', the crocus effect is lovely.

A native of Lebanon, *Crocus ochroleucus* flowers in November. Creamy white buds resembling glistening pearls rise through a carpet of red, orange and yellow fallen leaves from my crepe myrtle. *Crocus laevigatus* 'Fontenayi' has a lilac interior with deep violet stripes on the outside, It usually blooms by Thanksgiving, and continues to flower in the weeks approaching Christmas.

Crocus imperati from Western Italy is my Christmas crocus, given to me by Betty Wilson. Its flowers feature a tawny buff exterior feathered with violet, with a bright lilac interior. This crocus begins to bloom around the third week of December, just prior to winter's arrival. In my garden, early forms of a snowdrop (*Galanthus caucasicus*) bloom with it. Both are planted in front of a clump of *Arum italicum*.

By the first week of December, *Narcissus* 'Nylon', 'Taffeta', 'Tiffany' and 'Tarleton' are shaking out their hooped skirts in anticipation of a wintery garden ball. These smallhooped-petticoat narcissi (all Douglas Blanchard hybrids from crosses between *Narcissus romieuxii* and *N. cantabricus*) have thin green foliage, which appears at the same time as the flowers. Their flowers open a soft buttery-yellow, and fade to cream. They grow well in my sandy soil in sunny beds. Some are interplanted with small- flowered violet, yellow, cream, and blue-violet violas.

These last flowers of autumn are also the first flowers of winter. Soon they will be joined by the classic winter bloomers — crocus, snowdrops, and winter aconite — which sweep the Southern gardener into the new calendar year.

[*Edith Eddleman gardens in Durham, NC. She is the designer and head curator of the NCSU Arboretum's world class perennial border in Raleigh, NC.*]

Bulbs That Contribute to the Summer Garden...

The Rain Lilies: Zephyranthes and Habranthus

By Sue Lambiris

Once the massed displays of spring and early summer are past, there are not many bulbs to contribute to the summer garden. One of the exceptions is the family of rain lilies, a group of small Amaryllids now divided into two genera, *Zephyranthes* and *Habranthus*. An earlier genus, *Cooperia*, seems to have been absorbed into *Zephyranthes*. Divisions among these genera are based on minor botanical differences and intergeneric hybrids are easily made. Rain lilies earned their common name because, instead of blooming heavily for a short time, most rain lilies send up a scattering of buds after every rain from mid-summer to frost. While seldom the focal point of a garden, they provide a sequence of delightful surprises to enliven the gardener's spirits.

Zephyranthes grandiflora is the largest of the commonly available rain lilies, and can be found in most bulb catalogs and gardening centers. It is reasonably hardy in North Carolina, but farther north should probably be lifted over the winter or grown in containers. From early June to mid-October (or even later in a mild autumn) this obliging plant produces showy, raspberry-pink trumpets that open into flat, 3" flowers. An individual bloom lasts only two days (and is noticeably paler on the second day) but the clump of bulbs will usually send up buds for up to a week after a heavy rain, making an eye-catching show. *Z. grandiflora* has long, strap-like, rather untidy leaves which will die down after a heavy frost but remain nearly evergreen in a mild winter. In my garden it has tolerated heavy soil, poor drainage, competition with weeds and partial shade.

Almost equally easy to find and to grow is the white swamp-lily, *Z. candida*. This is a neater and quieter plant in every way, with tidy rush-like foliage and flowers that resemble a long-stemmed white crocus. In my garden it has consistently come into bloom in mid-August and continued steadily until frost, although after a good rain there is an extra surge of bloom. This is probably the hardiest of the rain lilies, and is very tolerant of heavy soil. Mine continued to grow (though not to bloom) in heavy shade, but it prefers sun. Used in quantity it can be very attractive in the late summer border.

Zephyranthes citrina closely resembles *Z. candida* in form and habit, with yellow blooms on long stems, but it seems to be more difficult to please in this area (Elizabeth Lawrence wrote that it might need more lime). In any case, the best yellow rain lily is certainly *Z. flavissima* , which is available from several specialty nurseries and deserves a wider audience. It has golden flowers with recurving petals which glow brightly against the same dark green, glossy, tufted foliage as *Z. candida.* In a good year this plant will bloom heavily from mid-May to September, with further scattered blooms until frost. It is a splendid source of color when used in long swaths, as in the perennial border at the NCSU Arboretum, but even a small clump makes an effective accent. Like *Z. candida*, it is easy to grow and seems to be perfectly hardy in North Carolina.

For those who prefer a less aggressive yellow, there is a delicate pastel cultivar, *Zephyranthes* 'Valles Yellow' (sold as a selection from *Z. reginae*, but sometimes said to be a form of *Z. citrina*). Although my single bulb does not make much of a show in the garden, it seems an easy if not a vigorous grower, and the isolated blooms it produced this summer after every shower had a crisp charm I found very appealing.

Other *Zephyranthes* species include *Z. atamasca* which is native to the Southeast (but died very quickly the only time I planted it in my garden - it may require a more moist and rich soil than I gave it) and *Z. minima* a delightful dwarf with tiny red buds which open into a star-shaped flower, white with a red stripe on the back of the petals. The effect when fully open is something like a blue-eyed grass, and very different from any other rain lily I have seen, although it shares the common habit of blooming only after rain. This summer my clump of *Z. minima* bloomed for the first time in late July and sent up flowers as late as mid-November. Yucca Do Nursery in Texas offers a good selection of uncommon Mexican species which I intend to try as soon as I can afford them.

The genus *Habranthus* (Amaryllidaceae) also has several garden-worthy species which can be found with only a little difficulty. *H. robustus* has foliage and flowers similar in size and shape to *Z. grandiflora*, but a softer pale pink shading to darker pink petal tips and a luminous green throat. I have grown the cultivar 'Russel Manning' and found it very similar to the species, but without so much green in the throat. *Habranthus brachyandrus* never opens its large flowers flat, but they are to my eye even more attractive, with a glossy dark-red base shading to near-white and then to a soft pink at the tip. The petals of all these flowers have a sheen which reminds me of the "diamond dusting" on certain modern daylilies, and on a hot, humid day (after rain, of course) they look as refreshing as a bowl of lemon ice. Bloom time is from

midsummer to early fall; the plants are easy to grow and seem thoroughly hardy.

Habranthus texanus (now classified as *H. tubispathus*) or the copper lily, is a smaller plant with yellow blooms, marked with a bronzy orange on the outside of the petals. In the garden it produces an effect similar to the yellow *Zephyranthes,* although it does not bloom as heavily nor as steadily as *Z. flavissima*. On the other hand, the bronze markings help it to blend into a larger number of color schemes and make it more interesting when examined at close range. It grows willingly at the NCSU Arboretum, but died in my garden without blooming. Whether it is more sensitive than other rain lilies to heavy clay soil or simply less hardy, I am not sure.

In many ways my favorite rain lily is a hybrid of uncertain background, which I received as x *Cooperanthes hortensis*. [*Cooperanthes* is a listed name sometimes applied to hybrids of species formerly placed in *Cooperia* and *Zephyranthes*.] Its bloom closely resembles that of *Habranthus brachyandrus*, but with a lighter throat and a more subtle shading, as well as a somewhat broader spread of petal. In my garden in '93 it bloomed at intervals from mid-June to late September, but during the winter of '93-'94 all my blooming-sized bulbs died, leaving only a handful of tiny offsets. Fortunately these have grown on well, but I shall be sure to lift them for the winter in future. In my eyes, the quality and frequency of the bloom more than justifies this small labor.

There are a number of hybrid *Zephyranthes* cultivars described in books, but I have only been able to find one tentatively identified by Edith Eddleman as 'Capricorn'. Like most of its kin, it blooms after every rain, sending up shiny dark-red buds which open to a pale yellow flower, closely lined with red to give an orangish effect at a distance. This is a plant for those who appreciate subtle shadings rather than bold colors. It grows well in heavy soil, but I have never left it in the ground over the winter, so I do not know if it is hardy.

[*Sue Lambiris gardens in Raleigh She is a volunteer at the perennial border of the NCSU Arboretum and is an avid iris grower and breeder.*]

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Blooming Faithfully and Increasing Slowly...

The Quest for Fall Blooming Colchicum and Crocus

By Elizabeth Lawrence

It is unfortunate that I have chosen this time out of a lifetime of gardening to collect the fall-flowering species of colchicum and crocus for they have become increasingly difficult to obtain since I have been in search of them, and this year I could not add a single one to my collection. I have loved colchicums ever since, as a little girl, we used to bring the bulbs home from the "five-and-ten" and let them bloom on the parlor table. Afterward we planted them in a dank spot under the refrigerator drip, and they continued to bloom season after season. But it was much later in life that I learned that there are also crocuses that bloom in the fall. I acquired several kinds and planted them in the edges of the borders, where after a few years the tiny bulbs disappeared. I think they were pulled up along with the heavy roots of annuals. Anyway, the borders are no place for small bulbs, and now they are all in the rock garden along with the colchicums. The latter are practically indestructible, but they did not amount to anything in the borders either, so they are all in the rock garden with the crocuses, where they are grown under oak trees with plenty of leaf mold mixed into the stiff red clay and are fertilized only by an occasional dressing of sheep manure and bone meal. Once established, they bloom faithfully and increase slowly, and it seemed to me this year that they have been lovelier than ever.

Here in North Carolina the colchicums begin to bloom in the middle or at the end of August and continue—almost without a break—until the first fall crocuses thrust up their buds late in September. They do not always appear in the same order, so I shall describe them as they appeared in 1944, the year this article is being written.

Colchicum parkinsonii [now *C. variegatum*] was the first. It bloomed on August fifteenth, five days earlier than last year. This is an odd little flower and not nearly so striking as some of the other species, but it was the favorite of Parkinson himself; and I like it because it blooms so freely and so brightly. The small, tessellated flowers are a glowing lilac and of a very individual form, being more open than the other species and with narrow twisted segments. This one is from southern Europe, and I imagine that it does best in a mild climate.

C. bornmuelleri, usually described as the earliest, came next. A single bulb planted years ago sends up a succession of pale buds that deepen to lilac as they open. When these have at last disappeared, the ground is bare again until the wide leaves appear in early spring. This Asiatic species is very tough. It blooms yearly in a poor, dry soil in deep shade. The flowers are comparatively large and very delicately colored. I expect they would be brighter in the sun, but in these parts colchicums do not thrive in the sun.

'Premier' bloomed two days after *C. bornmuelleri.* It looks like a hybrid between that species and *C. parkinsonii*, having the form of the first and the checkered pattern of the latter. The checks are faint at first, but grow more intense as the flower matures until they are almost a Chinese lilac. The flowers are the largest I have had, three inches long. The only other horticultural form that I have tried is *C. giganteum*, which has not bloomed so far. It is supposed to be a late variety, and I am eager to see what it will do here.

Last year *Colchicum speciosum* bloomed the first of all, coming on the tenth of August, but this year it did not open until the thirty-first. *C. speciosum* 'Album,' which Mr. Craig says is the best white form, has not yet bloomed for me.

So far *C. autumnale* is the latest of the Colchicums. This year it bloomed on the fifteenth of September. It is a small, delicately colored, crocus-like species, not spectacular but very desirable for winding up the season. The white form bloomed on September twenty-fifth and lasted into October. Last year it did not begin to bloom until early in October.

This fall the first crocus bloomed on the twenty-seventh of September. It was *Crocus speciosus*, which is usually later, seldom coming before the first week in October. This species is usually described as "blue," but I have never had one that was not red-violet. The type, as I have it, is a sort of wisteria-violet with dark feathering and red gold stigmas. Then I have *C. speciosus* 'Globosus', which is similar but a little later to bloom. Both of these are good and permanent.

The lovely, pure white *C. niveus* bloomed on September twenty-eight. I could not see that it was any different from what had come to me under the name *C. chrysanthus* 'Snow Bunting,' which was in bloom at the same time but began a few days later. These white crocuses are large and free flowering, and so far have been more attractive than the white colchicums.

This season *Crocus zonatus* flowered on October first, but usually it is a week earlier and the first to appear. It is typically of a rosy color, but the form I have comes

out almost white with a grayish tinge and becomes a delicate lavender with age. In the pale autumn sunshine it looks too ethereal to be true. I keep thinking up excuses to go back in the garden when it is in bloom. The yellow zone in the throat and the delicate veining make such an intricate and lovely design that I can never look at it enough. But in spite of seeming so fragile, it is a robust sort, increasing rapidly and blooming over a long period—at least three weeks.

I used to have *C. sativus,* the saffron crocus, with its bright violet flowers blooming the second week in October. It bloomed for several years and increased, but it disappeared at last—lost, I am sure, in the roots of the weedy annual ageratum—and, of course, it cannot be replaced at this time.

The last and the least is *C. longiflorus*, with small mauve flowers darkly feathered and smelling of violets. These come with the leaves. The first one bloomed on the fourth of October, and now at the end of the month they are still coming.

Some day I hope to find still later kinds to extend the season into the late fall and perhaps even to stretch it out into the winter and until the early blossoms of *C. sieberi*, which in mild winters appear soon after the new year. It would be delightful to have colchicums and then crocuses from the middle of August until March, and the idea does not seem too fantastic.

[*The late Miss Lawrence wrote this article in 1944 for the* Bulletin of the American Rock Garden Society. *It was originally titled* "In Quest of Autumn-Blooming Bulbs" *and appeared in the September/October 1945 issue. Although Miss Lawrence writes in this article of having spent a life time of gardening, she was 40 years old at the time. She lived another 41 years after this article was written and died in 1985. Used by permission of the ARGS (now NARGS).*]

Remaining NARGS Piedmont Chapter Speakers' Program for 1994-1995 Season

February 18, 1995
Judy Glattstein
Author and Designer, Wilton, CT
"Little Bulbs"

March 18, 1995
John Elsley
Wayside Gardens, Hodges, SC
"Perennial Promise: A Peak into the Future"

A Few of My Favorite Bulbs

by Bobby J. Ward

Snowdrops 'mid oak leaves and Cyclamen dancing,
Hyacinths sunning and Lycoris prancing,
Blue Scillas shivering late in the spring—
These are a few of my favorite things.

Bulbs in brown tunics with roots pushing downward,
'Ice Wings' that hover and leave me spellbound-ward,
Crocuses smiling and having a fling—
These are a few of my favorite things.

When the sleet gels,
And the snow mounts,
And I hide away.
I simply remember my "fleurs favorites"
And then I become—Monet.

Lumpy fat tubers and lilies 'Formosa',
Mauve Colchicums, also corms amorosa.
Ixia's 'Mabel' all purple without—
These are a few of the 'stars' that I tout.

Stormy rain lilies that bloom like confetti
Move me to write operatic libretti.
Sternbergias shout on autumnal days—
All of these would make for handsome nosegays.

When the clouds gray,
When the frost nips,
And I'm in bad moods,
Then I count up all of my favorite bulbs
And wish I could play—etudes.

Crinums and Cannas and Callas consorting
'Rembrandt' and 'Darwin' and 'Parrot' cohorting.
Daffodils named after Alfred the King—
Guess it seems that I like 'most ev'rything.

Dog's-tooth bright pendant, 'Pheasant's-eye' and hoopskirt
Join in the geophytes' seductive group-flirt.
Joyfully brings me to chant praise en masse:
O santi bulbas beatissimas!

When the ice falls,
When the sky's dark,
And I'm staring, crazed,
I always remember my favorite bulbs.
Then I become—upraised.

[Metrical structure parodied from "The Sound of Music."]

Tender Bulbs from Africa's Cape...

Winter-Blooming Bulbs For The Greenhouse Or Cold Frame

By Sue Lambiris

Each winter my attention shifts from my outdoor garden to a glassed-in south-facing porch which I use as a cool greenhouse. By far the most successful and enjoyable group of plants that grow on this porch has been an assortment of slightly tender bulbs from the Cape of Africa or similar "Mediterranean" climates elsewhere. They have been pest-free, undemanding, and reliable, but their greatest charm is a heavy crop of blooms at a time when little else is growing.

All the bulbs I will describe share a need for a cool, moist winter and a completely dry summer. Probably most could be kept happy in a well-drained bed outdoors, shielded by a bulb frame from summer rain and excessive cold in winter, but it is easier to grow them in pots instead. I use deep 3 - 4" pots for single large bulbs, or 8" planters, about 4 - 5" deep, for larger groupings. To ensure good drainage I like to add bonsai soil to my potting mixture (2 parts commercial topsoil, 2 parts bonsai soil, and 1 part each perlite and sharp sand), but any well-drained mixture will probably suit these bulbs well. Pot them up while dormant and do not water at all until late September or October. In the fall, water once and not again until the foliage has emerged. After the plant is in growth, allow the pot to dry out between waterings, and fertilize lightly every four to six weeks with a balanced plant food. When the foliage begins to die down in spring, ease back on the watering; once the bulb is fully dormant, put the pot somewhere convenient and leave it alone until fall. In general the bulbs will continue to grow and bloom for several years in the same soil; repot only when the plants seem to have become very crowded or are blooming less abundantly.

Of all the "Mediterranean" bulbs I have grown, *Cyrtanthus mackenii* (Amaryllidaceae) has been the most dependable and vigorous. The foliage is long, narrow, and floppy, from which rise sturdy stems bearing clusters of long-tubed, slender, creamy-white flowers endowed
with a sweet fragrance which reminds me of orange-flowers. The We-Du catalog lists this among their hardy bulbs, but I prefer to grow it on my porch, where I can bring it inside from time to time to enjoy its grace and fragrance. The single bulb I obtained in the fall of '92 has bloomed regularly from Thanksgiving to late February. Meanwhile, it has divided and re-divided, and will need to be repotted when it eventually goes dormant next spring. An orange cultivar, *Cyrtanthus* 'Orange Gem', is also available; it is described as being smaller than *C. mackenii*, and may not be as fragrant. Elizabeth Lawrence describes other interesting species in her book *The Little Bulbs*, but I have not yet found a commercial source for any of them.

There is more choice available among the "Cape Cowslips," or *Lachenalia* (Liliaceae). Despite their common name, they resemble a refined hyacinth. Graceful spikes crowded with slender flowers rise from succulent strap-shaped leaves, often spotted with red. The flower colors vary from a garish yellow tipped with red to a pristine white, and include several in swirling shades of green, turquoise, blue, and lavender which remind me of Chinese enamel work or Tiffany glass. The We-Du catalog recommends giving these plants occasional moisture in the summer, and I water them lightly about once a month in obedience. No other authority suggests this is necessary but my bulbs are certainly healthy. The foliage comes up in November, later than some other genera, and most of the species I have grown bloom for about three weeks in late March and April. An exception seems to be *L. viridiflora*, whose buds came up with the emerging foliage and began to bloom in early December. This is the first year I have grown the plant, so it may be a freak occurrence. As a group Cape Cowslips are easy to grow and reliable bloomers, and I can recommend them all with enthusiasm.

Another genus I enjoy growing is *Geissorhiza* (Iridaceae) which has the smallest corms I have ever seen - some smaller than peppercorns and easily overlooked while potting! From these tiny corms rise a few flimsy-looking leaves and an astonishingly large number of flowers with six equal-sized petals, usually very glossy and eye-catching. The two species I grow both bloom for about three weeks in March. *G. bracteata* covers itself with white flowers, lined in red, each about a half-inch across. *G. aspera* is taller (up to 9") and produces fewer but larger blooms in a striking shade of rich purple. Other species exist and are certainly worth seeking out.

I have had less success in blooming *Babiana* species (Iridaceae), although the leaves come back every year stronger than before. The foliage itself is quite attractive, with ribbed leaves standing out at an angle from short, stiff stems. Unlike many bulbs, the stems show no tendency to flop. The blooms (according to the catalogs) come in a wide range of colors and markings, and several of them are fragrant. The only one I have seen for myself

is *Babiana pygmaea*, which in mid-February produces creamy yellow flowers with a dark red center, each over an inch across, borne on 3" stems among tufts of short, neat foliage. It has all the innocent charm of a primrose, and makes an exceptional pot plant. Perhaps this year some of its relatives will have regained blooming size, and I will be able to enjoy them as well.

None of the bulbs I have grown seems to suffer much from insects or pests, although a few have attracted occasional mealybugs. Mites and aphids leave them strictly alone. The only losses I have had were caused by improper watering. They are as close to self-sufficient as any plants I have ever had, and watching the buds swell and open gives me constant pleasure during a period when the outdoors garden demands much work, but provides very little bloom.

[*Sue Lambiris gardens in Raleigh at 5701 Crutchfield Road. She is a volunteer in maintaining the perennial border at the NCSU Arboretum and she breeds iris.*]

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Refreshments & Hospitality: Gwen Farrier, 4205 Arbutus Dr., Raleigh, NC 27612; (919) 787-1933.
and
Connie Buchanan, 634 Arbor Rd., Winston-Salem, NC 27104; (919) 723-8060.

Spring Garden Tour Chairperson: Rebecca Zinn. Call her at 919-967-9974 to volunteer your garden.

Spring Picnic and Seedling Sale: Saturday, April 8, 1995 at 12:00 Noon at Duke Gardens, Durham, NC. Call Paul Jones for information at 919-732-8656. Meet at main parking lot on Anderson St. Someone will meet you.

A *Reminder on* Refreshments and "Goodies"

Refreshments for our February 18, 1995 "Little Bulbs" meeting of the NARGS should be brought by persons with **last names beginning "I" through "O"**. Others are welcomed as well.

Anticipating a Long Season of Flowers...

From Fall to Christmas with the Smaller Narcissus

by Nancy Goodwin

Just about the time I think I can no longer bear waiting for the cool nights of fall, buds of *Narcissus serotinus* break through the soil and I know another summer in the South is nearing its end. It is late September and the sight of this flower is more exciting than a field of them in spring for its appearance marks the beginning of a long season of narcissus "events." Although "serotinus" means late flowering, it is, for me, the earliest flowered one and the signal that another narcissus year has begun. This is when new roots begin to grow on other species in the garden and greenhouse. One year I potted on as many *N. serotinus* as I thought I might sell through the nursery and left the remaining bulbs in a sack on the potting bench. When the temperature dropped, they grew just as the potted ones did, proving that it is temperature rather than moisture that stimulates growth.

The cup or corona is extremely short and bright orange. I have to turn the flower sideways to see it at all. The petals (perianth segments) are brilliant white. By mid-day when the temperature has risen, the flowers perfume the entire greenhouse with a delicious fragrance. Its leaves are slender and dark green with longitudinal white stripes on some forms. It is happy in hot, dry areas around the Mediterranean where it is native. I keep it happy here by drying it off completely in summer and keeping it in a cool, but frost-free greenhouse in winter. The week before Christmas I still have a few perfect flowers.

I have grown *N. viridiflorus* for years hoping for a flower but thus far have not produced one on my plants. The first year I had the nursery I received a package of *Iris unguicularis* from a satisfied customer. Tucked in with the iris was a vial containing flowers of this narcissus. They were small and green (as the name implies). This was one of the nicest things that happened during the life of Montrose Nursery and I will never forget it. I have plants grown from seed and am treating them just as I do the previous species. They are dried off completely in summer and given abundant water when in growth. Every fall I wait with optimism for a flower and some year I will have one.

The first of the hoop petticoat narcissus is *N. romieuxii* with pale yellow flowers. Because they are native to Morocco, I haven't tested them outside. Even if the bulbs survive I fear a loss of flowers for they bloom from fall through early winter. *N. romieuxii* ssp. *albidus* var. *zaianicus* is easier to enjoy than to spell! Mine are grown from seed and have considerable variation in color and form. I have never found a pure white one but they go from creamy white to pale yellow sometimes with a green tinge. The corona may be widely flared like a hoop petticoat or a narrow cone. The yellower ones are known as *forma lutescens*. I have selected a form with a relatively large, flared corona and isolated it in order to increase it. It is a simple matter to prick out special bulbs when in flower and plant them in isolation in another pot. This narcissus begins blooming in November and makes a fine show throughout December. Often you can find these plants listed as *N. albidus* in seed lists. The ones with this species or subspecies name should be whitish yellow. I am also growing *N. romieuxii albidus tananicus*. But *N. romieuxii albidus kesticus* has nearly white flowers that are larger and more widely flaring than most *N. romieuxii* forms. They bloom in mid-December. I have also seen them listed as a variety of *N. cantabricus*. I have two excellent cultivars: *Narcissus* 'Atlas Gold,' with golden yellow flowers and 'Treble Chance,' with pale cream, flared flowers. Both of these are selections from stock originally collected by Jim Archibald and both are listed as *N. bulbocodium romieuxii*.

Narcissus mesatlanticus is something of a mystery to me and to others. I believe it to be a variety of *N. romieuxii* bearing the current name of *N. romieuxii* var. *mesatlanticus*. You will find it in seedlists under several headings and it is worth requesting. Expect a pale yellow flower in very late fall and early winter. The flowers vary tremendously in size. I have selected several distinctive ones to increase vegetatively. I haven't grown this outside but suspect it may prove hardy in protected places in Zones 7-9.

Narcissus cantabricus also blooms at this time with white to pale yellow, fragrant flowers. Many of our plants are descendants of the variety *foliosus* and are creamy white with frilled cups. These are very satisfactory garden plants beginning to bloom in Hillsborough in late October and continuing into December. I always keep a few pots in the greenhouse for insurance and for seed production.

Many years ago I grew seeds from *Narcissus* x 'Nylon' and *Narcissus* x 'Taffeta.' The original plants properly called 'Taffeta' were selections of crosses between *N. romieuxii* and *N. cantabricus*. After many generations of seedlings I have plants that flower very early and are most like *N. cantabricus* with pale yellow, fragrant flowers. *N.* x 'Nylon' never was a clonal name but was given to a batch of seedlings from this cross.

Among my seedlings I have a wonderful plant that blooms much earlier than either of the species parents. As always, with the first bloom of any species, I have forgiven its lack of real beauty because it anticipates a long season of flowers from its cousins.

N. bulbocodium is another of the hoop petticoat types with great variation in form and blooming time. A year ago I would not have included it in a discussion of fall-blooming narcissus for their main display is in late winter and early spring. The primary distinction between *N. bulbocodium* and *N. cantabricus* is the color of the flowers. *Narcissus bulbocodium* is yellow and *Narcissus cantabricus*, white. *N. bulbocodium* also prefers growing in a more open situation while *N. cantabricus* wants more shade. And finally, the flowers of *N. bulbocodium* aren't as fragrant as those of *N. cantabricus*. This fall I had my first *N. bulbocodium* open in November. It is clear yellow with a widely flaring corona distinct from any other I have grown in both its size and time of flowering. I grew it from seed collected in Morocco and since I have only one bulb I have it in the greenhouse where it will stay until I have a pot full and some seedlings coming along. *N. bulbocodium* grows easily and increases rapidly in the garden or greenhouse where it often blooms as late as March or even April. It naturalized in my Durham garden at the top of my sunny rock garden. *N. bulbocodium* var. *graellsii* has paler, greenish yellow flowers and it is about the latest member of this species to bloom. The smallest variety of *N. bulbocodium* is *nivalis*. *Narcissus obesus* is my favorite of the later blooming forms. It is sometimes listed as a subspecies but has now been given separate species status. As one might expect, it has a fat, relatively showy flower and prostrate foliage. There are many other varietal forms.

Before Thanksgiving I can find the first trumpet narcissus blooming in the rock garden—*N. minor* 'Cedric Morris.' I spent years in search of it. It is clear yellow, visible at a distance, and is a great treasure. I have grown hundreds of seedlings of *N. minor* hoping to find another early flowering one but all of the others bloom in late winter and early spring. They are extremely desirable and suitable for the rock garden or a woodland garden. A double form of *N. minor* formerly known as variety *pumilus plenus* is more correctly known as 'Rip Van Winkle' and is a bright, clear yellow. It is readily available. It looks a bit frazzled to me.

I have grown almost all of my species plants from seed. It is easy requiring only patience. I sow the seeds in a gritty mix just as soon as I can, which is as soon as the seed ripens on my plants. When I receive seeds from a seed exchange, I sow them immediately. Pots of seeds sown in spring are then placed on the seed bench outside, where most will germinate the following fall or early winter. Winter sown seeds are given about 6 weeks of warmth in the basement before they are put outside. I leave the plants growing through the summer waiting to transplant the tiny bulbs until they are in growth the following fall. It takes eyes younger than mine to tell the difference between a bit of perlite or grit and a tiny dormant bulb! They require two to three years to bloom but it is a thrill when they do. I dry off most potted bulbs for the summer by placing them under the benches in the greenhouse and then during those hot, humid days in July I revel in the discovery of their increase in size and number. I pot them in fresh, rapidly draining soil, water them again and watch for the emerging leaves. I fertilize them throughout their growing season with a good, well-balanced water-soluble fertilizer.

By Christmas I can find the tips of many narcissus species in the garden. Winter has arrived but the excitement of another season to study this genus is just beginning; I begin to remember the names once again and there are always new bulbs to flower. The greenhouses are filled with pots of green leaves with fat flower buds just emerging.

Beware. Books on narcissus species--- as well as the plants themselves---can become an addiction!

[*Nancy Goodwin gardens at Montrose in Hillsborough, NC. She formerly operated Montrose Nursery and now holds gardening symposia with Doug Ruhren at Montrose. She is an avid gardener.*]

Adding Color and Pizzazz with...

Potted Bulbs for the Garden and Terrace

by Richard W. Hartlage

Bulbs are a group of plants I continue to be interested in. Crocuses have been a passion and I am beginning to assemble a collection in my new home here in New Jersey. And alliums and arisaemas have recently caught my attention. In my new position as Superintendent of Horticulture for the Morris County Park Commission I was charged with generating more interest for the visiting public at Frelinghuysen Arboretum. My primary mode for accomplishing this was to initiate an ornamental pot display of magnitude and impact. We planted 200 containers this past season and will add 100 more next year where we hope to stabilize. The pots contained a wide range of plants from Annuals to tender and temperate perennials, to trees and shrubs, and also tender bulbs.

Since the intent of the display was to create interest I chose a dramatic approach. I will start by making excuses----nothing in these displays was less than six inches, i.e., no rock garden plants. I used terracotta and glazed ceramic pots because I do not like the aesthetic of plastic. The soil mix used was two parts garden loam, two parts professional potting mix like Promix, and one part course grade perlite. The pots were planted in late May and a top dressing of slow release fertilizer (Osmocote) was applied according to package directions. The slow release fertilizer was applied again in early August in conjunction with a biweekly application of water soluble fertilizer like Peter's 20-20-20. Watering was daily and twice a day in extreme heat. All this may sound like a lot of work and it was but the results were nothing less than spectacular.

So what were some of the bulbous plants I used in some of these pots? The plant that got the most comments in the entire garden this past season was *Oxalis triangularis* --- a shamrock which is vigorous and extremely handsome with leaves of a rich, sumptuous purple. Pink flowers are an asset but not the main interest; the foliage is extraordinary and works well with any color from the pastels to the hottest of the hot. I used it in combination with purple-leaved, white-variegated and silver foliage plants. It was exciting to see such a dynamic combination utilizing foliage without relying on flowers.

Still in the same color range another purple foliage plant on a different scale is *Canna* x *generalis* 'Wyoming'. I planted this in a 48" bowl with an underpinning of a creeping variegated flowering maple, *Abutilon megapotamicum* 'Variegata'. I particularly liked the drama of the scale of this pot. Another canna I used was 'Pretoria' with orange flowers and acid yellow striping in the leaves. Not a subtle plant at all! I underplanted it with *Petunia violacea*, (now known as *P. integrifolia*) with little violet trumpets that are heat resistant and bloom all summer. What a wonderfully garish effect they made in combination. Next year I will be adding a new canna to the ranks of the container plants called 'Durban'. It is not to the six feet of the previous two but more manageable at four feet; but it is equally striking in foliar effect. Scarlet flowers are borne against red and silver-streaked leaves. I can imagine using this plant with a range of crimsons, corals and oranges with maybe a little blue and yellow for good measure.

A plant of curious flower I am very fond of is *Eucomis bicolor* or the pineapple lily (Liliaceae). Whirls of green foliage send up a spike of flowers in mid summer that look amazingly like the fruit. Green florets arranged tightly around the stem with a tuft of tiny leaves on top stupefy the visitors to the arboretum. Comments like, '"Oh, so that's how they grow," was commonly overheard. I do not suspect that they understand what the 'they' is that they are referring to. *Eucomis* are about 18 to 24" tall and are very easy to grow and would be hardy in NC if planted in the garden; however, they would not survive the winter in a pot in an exposed location. The pot of bulbs can simply be bought in and stored dormant and dry at 40 F.

A choice and very rare bulb which I purchased at Plant Delights Nursery, is *Polianthes tuberosa* 'marginata' (Agavaceae) looking much like the common variegated airplane or spider plant we see as a house plant so frequently. My plant has not flowered but I grow it for its wispy, silvery effect in a lovely cobalt glazed bowl for a cool, soothing picture. *Nerine filifolia* (Amaryllidaceae) is another bulb of quiet charm. Spidery, crystalline pink flowers are produced in October from tufts of grass-like foliage and are very lovely. This one needs to be kept growing with bright light and cool temperatures through the winter to ensure flowers next autumn. It is a truly delightful flower from the southern hemisphere---more specifically from South Africa.

A whole range of bulbs I grow in pots hails from South Africa. *Agapanthus* make a splendid pot plant with its mops of blue. Crocosmias are a fine choice as a pot plant in shades from dusty gold to flame scarlet but the Giant Chincherinchee is a favorite. More properly called *Ornithogalum saundersiae* (Liliaceae), it grows to three feet plus and blooms in September here in central New Jersey. It has stars of white with green centers and flat heads. I used it in pots with *Argyranthamum frutescens*

'Vera' (Compositae) which makes mounds of blue- gray and the tall stems of the Chincherinchee piercing these balls of foliage were very attractive. This bulb can be successfully used in the garden as well. It is tender and must be dug in late fall. Gladiolus could be used in this same manner. The spiky foliage and inflorescence of glads make for dramatic contrast used in combination with tightly mounding plants like coleus.

Many of these might not be appropriate for the rock garden but they will add a great deal of color and pizzazz to your garden or terrace. I hope if you are visiting in the Northeast you make a point of stopping and saying "hello", and seeing the displays at the Frelinghuysen Arboretum. I have had a lot of fun with this concept of the "potted garden" and plan to have more fun next season. So find some nice pots and fill them full of bulbs and trees and shrubs and perennials and whatever else moves you.

[*Richard Hartlage is Superintendent of Horticulture for the Morris County Park Commission in New Jersery. Richard was formerly Vice President and President of the Piedmont Chapter of the NARGS.*]

Book Review...

Garden Bulbs for the South

A wonderful bulb book that sneaked quietly into area bookstores before the winter holidays is **Garden Bulbs for the South** by **Scott Ogden** (Taylor Publishing Company, Dallas; 250 pages, 200 color photographs, $22.95). This is an excellent reference book for gardeners in the South since Mr. Ogden includes the old-fashioned, often neglected historic bulbs that don't often get coverage in other books that are pitched to a wider audience. In all some 200 plants are described. I was amazed to learn (and he proves it with photographs) that there are a score or more of forms of rain lilies (*Zephryanthes* and *Habranthus*). The range of coverage extends beyond the "Troika of Bulbs"—Amaryllis, Lily, and Iris—and includes "bulb-like" plants that grow from corms, tubers and rhizomes. Best of all he includes a detailed taxonomic listing of all plants he describes and organizes them by family. He provides growing techniques and includes recommended plants for typical garden soils and for the perhaps not-so-typical space in your Piedmont yard---a hog wallow! No, this is not a typo. (You'll have to get the book to find out the answers that are, by the way, on page 220!)

This is a rare book that is highly recommended for the southern bubba-phile (er, "bulbo-phile").

---BJW

Why they disappear...

Geophyte Ghosts in the Garden

by Bob Wilder

In past years I have planted some bulbs of various species which bloomed the first year and then failed to bloom again. I am not sure whether my memory serves me right when I say that some just disappeared altogether. With certainty I can say that *Crocus sativus* and *Iris danfordiae* did not disappear but produced more foliage but no flowers. Grape hyacinth, *Muscari*, also tended to make large clumps of foliage with little bloom. When reading Brian Mathew's writings I learned that many bulbs have a tendency to behave in this manner when grown away from their native land. He says that the bulbs have a tendency to produce many small bulblets instead of flower buds. His suggestion as a solution to the problem is to plant the bulbs deeper (at a depth of 5 - 6") than you normally think you should.

This recommendation of deeper planting certainly deserves experimentation by members of the Piedmont Chapter. I suggest that all members interested in small bulbs try this in the fall of '95: select a location and plant three bulbs at the traditional depth and in proximity plant three more at the 6" depth. Mark the planting and report the results to the newsletter editor in the coming years. If your budget allows a larger purchase, it would be interesting to try more bulbs at various depths. If there is enough interest, I suggest we all go together and purchase the bulbs from the same source to make this more scientific.

Perhaps in the future we can add many more desirable bulbs to our garden with assurance that we will have recurring blooms every year.

[*Bob Wilder is past President and the current Treasurer of the Pidemont Chapter of NARGS. He gardens at 1213 Dixie Trail in Raleigh, NC.*]

Annual Spring Picnic & Seedling Sale

Our Piedmont Chapter of NARGS annual spring picnic and seedling sale will be held this year at Duke Gardens in Durham, NC, on **Saturday, April 8, 1995, beginning at 12:00 Noon.** Paul Jones is coordinating the activities. Give him a call at 919-732-8656 and volunteer your time in helping plan and in "running" the activities. And plan to bring potted seedlings for donation at the sale.

Old Treasures that "Volunteer"...

Naturalized Bulbs in My Raleigh Garden

By Ollie Adams

A plant can pay you no greater compliment than to begin seeding itself about. In the South the resulting offspring have the charming name "volunteers". When bulbs volunteer they let you know that you have chosen well—that they have the proper situation and soil. Many bulbs increase their clump size; but to reseed is a greater compliment.

There are four varieties that reseed with abandon in my garden and they are all treasures to me. Three of the four were here when I arrived; the fourth, saffron crocus (*Crocus sativus*) was planted by me some 15 years ago. I remember that I first bought the bulbs from Wyatt-Quarles Seed Company in Raleigh on its downtown Wilmington Street store as an "autumn crocus". How fortunate that it proved to be the most desirable autumn crocus. These crocus are happy under deciduous trees with a year 'round mulch and also in a sunny raised bed.

Saffron crocus was a bulb much prized in the Middle Ages for seasoning and as a strewing herb. The bloom is a pretty lavender with great lolling tongues of red-orange styles that are collected as saffron. It grew well in Spain and was much attempted in England without success due to the cool, damp climate. Saffron Walden in Essex (England) got its name from one failed attempt at growing saffron in quantity. In fact, I had my crocus positively identified by an Essex native—Beth Chatto, the famous nursery owner and garden writer. She was here in Raleigh to give a talk and was photographed under an oak in my garden holding a bunch of saffron crocus blossoms.

When I visited Kashmir in 1984 I saw fields of saffron crocus which were grown as a cash crop. Since it was April during my visit, I saw only the persistent foliage because bloom occurs in the autumn (early November for me). However, the lovely *Tulipa clusiana* (the lady tulip) was in bloom in these fields. Here it was considered a weed since it was growing where it wasn't wanted. You recall that "a weed is a wild flower in the wrong place!"

My late-spring, naturalized bulb is a large blue "scilla" as it was called by the Cheshires when we bought the house in 1969. It is taller and more vigorous than *Scilla campanulata* and was once known as *Scilla hispanica*; now it is called *Endymnion hispanicus*. (Even that name has changed now to *Hyacinthoides hispanica*). It grows in great sheets in the quarry garden at Winterthur and prefers an organically enriched shady location. I have my own little bluebell wood here when it blooms with the George Tabor azaleas. It increases at such a frightening pace that I have begun to snap off all the bloom stalks after bloom is finished. I have dug countless clumps for friends while it is in bloom—for that is the way to be sure of getting it. I never see it for sale.

In early spring (that's February in Raleigh), snowflake (*Leucojum aestivum*) is another abundant reseeder probably planted in the 1920s. I have never had any luck with snowdrops (*Galanthus* sp.) increasing so I must make do with this charming look-alike; snowflake is much larger and showier than snowdrops. It has white-green tipped flowers that hang down like snowdrops and they make a wonderful combination with my fourth garden "naturalizer"—the early single blue Roman hyacinth (possibly *Hyacinthus orientalis*). The wonderful fragrance of this hyacinth makes up for the lack of it in the *Leucojum*. It, too, transplants best when in bloom, but the hyacinth has been here so long that its bulbs have "gone to China". When it is dug, stems often break before I reach them.

I sometimes envy people who can start their gardens from scratch. How nice to be in control and have plantings the way you visualize them. But, oh, what they miss in not getting these old treasures that already like the place.

[*Ollie Adams is a Raleigh realtor and gardener. She has been a columnist for the* Raleigh (NC) Times *and, as former curator for Mordecai House in Raleigh, planned and planted its gardens. She has also led garden tours to England.*]

The following are new members that have joined the Piedmont Chapter since May, 1994:

Bean, Billie
Burns, Stephan
Burton, Sally Day
Cammack, Betty
Carr, Jean E.
Cullina, William
Davis, Ann
Fiess, Natalie
Geer, William M.
Harmon, Judy and Frank
Horst, Ethel and Bob
Liner, Elsa
Lober, Lois
Oliver, Nancy
Post, Joanna and Jeffrey
Reeder, Jane T.
Ruhren, Doug
Smith, Louise G.
Spencer, Dorothy and Kit
Steffek, Jr. Edwin
Stump, William W.
Tremaine, Patricia W.
Tulloch, Judy and Bill
Wood, Mary

"Things as helps themselves...."

A Bulb by Any Other Name

by Bobby J. Ward

It's probably a bit of a bugbear to bog down in bulb anatomy and morphology and nasty definitions when all the average flower gardener really wants to do is to enjoy the sight, smells and sometimes tastes from his/her gardening efforts. Thus, it's rather convenient to group all the assortment of plants that have lumpy and fleshy swollen underground storage organs into the single utilitarian moniker, "bulbs". Actually distinguishing botanically between bulbs and their botano-allies such as tubers, corms, rhizomes, and perhaps fleshy roots is of little interest or consequence anyway except as further knowledge in the cultural aspects of the plant.

Nurserymen's catalogues lump as bulbs almost anything that can be dug up, dried, packaged, sold and shipped. As well as their sometimes wizened look, these various bulbs have additional characteristics in common. They all have specialized storage organs. Too, they are all herbaceous perennials that go through a period when their foliage and root system die back and the vital processes are held to a minimum (they are said to be resting) in an underground invisible portion; this subterranean part contains the food and structures that will produce an above-ground plant following this dormancy. The rather wide latitude in the vernacular definition includes all those plants that produce so-called bulbs in order to survive the cold of winters or the dry and heat of summers. Thus the handy, all-embracing term used and the one most readily understood is bulb. But trying to be broad-brush in definitions also leads to inevitable confusion and hilarity: edibles such as Irish ("white") potatoes (a tuber) and sweet potatoes (a root) could therefore be bulbs according to some authorities. (However, I've never seen a catalog touting spring-blooming "Eye-sh" potatoes; with modern horticultural genetic engineering, who knows what's possible!)

What *is* a bulb then? *Hortus Third*, while sorely in need of updating, speaks authoritatively of bulbs as follows: "When defined as a horticultural class, bulbs are ornamental, partial-season, mostly simple-stemmed plants arising from bulbs, corms, tubers, or thickened rhizomes. The term is used more loosely and imprecisely in horticulture than it is in botany". Thus, in brief and circuitously reminiscent of Gertrude Stein's writings, *Hortus Third* says a bulb comes from a bulb!

Getting down to the nitty-gritty

The various underground storage organs called bulbs *do* differ widely in terms of their plant anatomy and plant morphology. Since there's little help from *Hortus Third* on the confusion of what's a bulb and what isn't, the following is an attempt to sort out the rather tedious miasma of bulb nomenclature and to show that bulbous plants are not always grown from bulbs.

A *true bulb* is the swollen fleshy base of leaves called scales or leaf-scales or "separate scales attached to a fleshy basal core" (Brian Mathew). A familiar example is the onion. These fleshy modified leaves contain stored food for the new growing plant. Beebe Wilder says a true bulb is "a subterranean bud consisting of fleshy leaves closely packed round a woody core, whence roots proceed downward and stems upward". If you cut through it, she goes on, you'll find firmly compressed within it the infant flower and leaves concentrically arranged. A *true bulb* will survive year after year, typically increases in size and produces offsets called *bulblets* or "children". (These offsets are not to be confused with *bulbils* which are small vegetative "bulbs" produced in the axils of leaves, of such species as lilies, from which a new plant can grow.) Most bulbs are covered in an external tunic of scales or coat. The tunic is often a husk that is dry and papery but tough. Examples of true bulbs include daffodils, snowdrops, amaryllis, true lilies, tulips, narcissus, and hyacinths.

A *corm* is a swollen, fleshy stem base, as in the crocus, "usually surrounded by the dry bases of old leaves" (Roger Phillips & Martyn Rix). It is solid and squatty but non-scaly (i.e., not layered in leaves). Unlike a bulb, it is replaced each year—the old corm dies. Before it dies it produces a new corm(s) from its top or sides at the expense of the old one; the old corm gradually shrivels away as the new leaves continue to grow above ground. Flowers typically arise from the top of corms but from within the base in true bulbs. Corms are usually covered, according to Brian Mathew, with a protective "series of fibrous coats" or tunics. The tunic is a modified leaf, thin and papery. The diversity of markings on the corm tunic are usually sufficient to identity the species by the corm alone. Examples of corm producers include crocus, gladiolus, colchicums, and brodiaeas. In short, a corm is solid; a true bulb, scaly (or leafy-layered).

A *tuber* is a solid, swollen, fleshy underground stem (sometimes called stem-tubers and also rhizomes) without any covering according to Brian Mathew. They are usually bigger than true bulbs and corms. Because they are stems, they have internodes or nodes, buds or "eyes" from which a new plant grows. To further add confusion,

the term tuberous roots is sometimes applied somewhat imprecisely to tubers. There are different types of tubers based on plant tissue differentiation; thus you'll see references to rhizome-tubers, tuber-corms and root tubers (Judy Glattstein). And she notes that tubers are perennials and persistent like bulbs. A tuber is also considered an enlarged or swollen rhizome. Examples of tubers include cyclamen, winter aconites, and some anemones, the Jerusalem artichoke, begonias and the familiar Irish potato.

A *rhizome* is a solid, elongated horizontal creeping stem that is often enlarged with stored food. It is normally underground or at the surface as in some irises. According to Brian Mathew rhizomes usually creep horizontally forming clumps. They are capable of producing roots and shoots with lateral buds also sometimes developing. A clearcut distinction between tubers and rhizomes for the gardener is not always obvious. Rhizomes are sometimes called rootstock and may be described as root-like. Examples include irises, cannas, gingers, trilliums, and aroids.

Lastly there are large fleshy, often edible, *roots* that store starchy food reserves. Strictly speaking, roots differ from stems, rhizomes, and corms in *not* having nodes, buds, or leaves. These roots would generally not be thought of as bulbs except when they have been dug and dried and a casual inspection might easily mistake them for rhizomes or tubers of the unfamiliar species. Examples include sweet potato, carrot, radish, beet and turnip. In Britain, I am told, and certainly in parts of the southern United States the latter two plants are also called beet "bulbs" and turnip "bulbs".

Geophytes I have known and loved

Now that we've more or less survived Botany 101 with a lesson on bulbous plants, you should know that a new term has begun to creep into contemporary "bulb" books: it's *geophyte*. It's a word that's intended to be a short hand for the duke's mixture and somewhat cumbersome expression "bulbs, corms, rhizomes, ...etc." and for the term bulbous plant which as you saw above isn't precisely botanically correct. At its linguistic root (pardon the pun) its name means "earth-plant" which is rather poetic and mellifluous I think. It has also been used to mean plants that are the color of the earth. However, the word has been around for nearly a century (since 1896) in describing a plant that produces buds underground, according to the Oxford English Dictionary. Further, it is now listed in several American unabridged dictionaries with similar definitions. It may assume greater use in the future.

The Big Three—the Troika—of bulbs are monocotyledonous plants in the families Amaryllidaceae, Iridaceae, and Liliaceae which contain the familiar amaryllis, iris, lily and their allies. Within each of these three families are genera that contain various underground storage organs that may be either bulbous, cormous, or rhizomatous. Thus in these families as well as others that contain bulbs, it is wrong and misleading to assume that the distinguishing characteristics of these families are based on the kind of plant storage organ it has. According to Scott Ogden, within the genus Iris alone there are true bulbs, corms, rhizomes, and fleshy roots. Other well-known families that have bulbs as their "resting stage" include Ranunculaceae (anemone and winter aconite), Cannaceae (canna lily), and Primulaceae (cyclamen).

So what *is* a bulb?

I might respond to this question by asking, "What's in a name then?" And I'd paraphrase Juliet by saying that which we call a bulb by any other name would look and smell as sweet. Gertrude Stein might weigh in with, "A bulb is a corm is a tuber is a rhizome is a ..." But perhaps Frances Hodgson Burnett summed up the answer best for all of us when the Yorkshire housemaid in *The Secret Garden* responded to Mary Lennox about bulbs: "They're things as helps themselves. That's why poor folk can afford to have 'em."

Perhaps that's all we need to know about "bulbs".

[A bibliography of authorities cited here and other selected bulb references is provided on page 9 of this issue.]

[*Bobby J. Ward gardens at 930 Wimbleton Dr. in Raleigh, NC.*]

The Back Page...

Chairman's Comments by Norman Beal

Although the soil is still cold to the fingers, it's warm to the bulbs. So why not start planting them in advance of our February 18th talk on "Little Bulbs"? Actually I remember planting daffodils on Washington's birthday (the real one, the 22th of February) and having them bloom only a week or two later than their already—established kindred varieties. Today (December 28) as I write this, flower buds of a mass planting of *Narcissus* 'Early Sensation' are ready to open in my birch grove. These and Florida jessamine, *Prunus mume,* and a host of other winter bloomers make us realize anew how lucky we are to live in a temperate area.

Our **Spring Picnic and Plant Seedling Sale** will be held on Saturday, April 8, 1995 at 12:00 noon at Duke Gardens in Durham, NC. Plan to meet at the main parking lot to the garden on Anderson St.; some one will meet chapter members. Call Paul Jones for directions (or to volunteer to help) at 732-8656; you may also call the Garden's office during normal work hours at 684-3698 for directions.

A reminder, contact **Rebecca Zinn** at 967-9974 to volunteer your **garden for touring this year.**

And, **refreshments for the February meeting should be brought in by persons whose last names begin with "I" through "N"**. Anyone else is free to bring "goodies" as well.

Please bring **seedlings or plants for our Tony-Avent-One-Man-Show-Plant Auction** at our January meeting of NARGS.

Let's make February "the Month of the Bulb" and celebrate it by planting some new and some old ones. My new ones will be nerines which I saw in full bloom on December 10 and was told that they are perfectly hardy here.

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