

JCRaulstonArboretum

AT NC STATE UNIVERSITY

Planning and planting for a better world.

Friends of the JC Raulston Arboretum Newsletter

Number 12, Fall 2000 & Winter 2001

director's letter Assistant Director.....Found!

By Bob Lyons, Ph.D. Director

The leading topic of my letter this time is a lot different than I originally planned. Sure, I've got lots to tell you about, but the recent news of hiring a new Assistant Director for the JC Raulston Arboretum has to take precedence! I couldn't be more pleased to let our readers know that **Todd Lasseigne** has accepted our offer for this position. Todd is no stranger to the JCRA. He has been a graduate student in the Department of Horticultural Science since August 1996, was a JCRA student assistant in June-August 1997 & 1998, and was particularly integral to our mission during the past 8 months as our Fellow in Plant Collection Management while our search to fill this position continued.

I am convinced that we could find no better person who is so well respected for his plant knowledge than Todd; to many, that knowledge has been described as "encyclopedic." His interest in assisting any of us with the JCRA is already proven. Both pretty good signs in my mind.

Todd's resume reveals a person and personality consumed with plants: studying them, exploring for them, writing about them, and teaching others about them at many levels. He comes from a horticultural family in Louisiana, completed his B.S. (Honors) at the University of Southwestern Louisiana, and his M.S. at the University of Georgia, and continues to pursue his Ph.D. here at NCSU where he recently passed his written and oral preliminary exams. Since April, Todd has served with us as our Plant Collections Management Fellow, an interesting "bridge" position leading up to our ability to hire a full-time person for the Assistant Director. In this capacity, Todd has been pivotal in determining the fate of existing plant materials; he has been pivotal in assisting our mammoth project of updating and standardizing our plant labeling; and I recently sent him off to the Pacific Northwest to touch base with historical contacts and acquire new plants for our collections....more on this in a moment.

Todd previously led an effort to acquire plants for the International Garden at the State Botanical Garden of Georgia <www.uga.edu/botgarden> in Athens. He had the opportunity to study and work in Great Britain at such places as Kew <www.rbgkew.org.uk> and the Royal Botanic Gardens at Edinburgh <www.rbge.org.uk>, and he interned with the City of Aiken, SC, where he participated in plant identification and interpretive efforts. He also hangs out a lot at Plant Delights



Above: Todd Lasseigne, Assistant Director and Lindera chienii - winter spicebush Photograph by Christopher Todd Glenn

Nursery <www.plantdelights.com>....now that's immersion!

Todd is no stranger to writing for a variety of genres: from the scientific to the colloquial. He is an outstanding speaker for large and small groups, and he has received numerous awards and distinctions in his relatively short career. We'll look forward to him continuing and further expanding all of these talents in his position with us. Please stop by and welcome Todd on your next visit. He'll be around, he usually is!

As you can tell, I'm incredibly excited about having Todd on board with us, as is all of my staff! As a whole, the JCRA is now lucky to have the insights of our experienced and new staff, the

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commitment of our volunteers and green industry, and the fresh look provided by our students. With the anticipation of the impending Ruby C. McSwain Education Center, we are positioned well for better serving our clientele groups and providing the best facilities for the JCRA staff to do what they do best.



And now for some more news from the recent past.....a quick correction regarding the Gala figures posted in the previous newsletter. I listed 2 different figures for the Gala contribution to the Education Center Fund; the correct one is the higher one (that's nice!): \$39,755.00, and was a major reason for reaching our campaign goal faster. Back in early October, we held the famous "FOA Annual Plant Distribution," surely one of the best reasons for becoming one of our Friends members. Mitzi Hole commandeers this event and accomplished it magnificently, again, with the invaluable help of a cadre of volunteers and staff. While I participated in the give away in 1999, it was this one where I fully understood the magnitude of its logistics. Imagine, placing hundreds of plants out in a field strategically ordered so as to provide the fairest chance for everyone to get the plant of his/her first choice.....yes, it happens. The event was flawless in organization and operation, and considering that the line represented an estimated 400+ members, everyone seemed to walk away with an armful of plants, at least! No cuts or bruises, but I was a bit amazed when I saw a parent pull their child from the stroller so as to get

a makeshift "plant cart!" Mark your calendars now for October 6, 2001, the next give away date!

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Above: Stroller does double duty loaded with plants at the Annual Plant Distribution. Photograph by Bob Lyons

This past summer I had a great chance to travel to Italy as an invited speaker in the small town of Merano, way up in the northeast corner in the Alps.....incredible. The conference was titled, "Flowers for the City" and was aimed at municipal horticulturists, arborists, and other professionals dealing with public space landscaping. With JCRA printed materials in tow and subsequently treated like "calling cards," I let everyone know about us, including during my talk. The speakers represented a diverse lot, and included folks like Adrian Bloom (one of the British perennials gurus), Ivor Stokes of the National Botanic Gardens of Wales, Clive Sorrel, an arborist from Australia, and Luc Behar-Bannelier of Disneyland-Paris. And, while I had a terrific time touring the cities of Milan, Verona, Florence, and Stresa, and all their art and gardens, I also developed a fondness (addiction) for what I believe should also be considered an Italian artform gelato! Enough said!

Contents

As mentioned earlier, I sent Todd Lasseigne out to the West Coast this past August to re-establish an aggressive plant acquisition effort on our behalf. Well, arming Todd with the concept and means to do this required virtually no effort on my part. Off he went, mission accomplished! Watch for those acquisitions to show up in our collections when ready; more to say about them later! Remember, we are now posting our accessions listing to our Web site periodically, but if you're not on-line, just drop us a note and we'll send one off to you.

Our joint sponsorship with Horticulture Magazine for the "Winter Gardening for the South" went very well, with kudos to **Nancy Margaret Brodd** for spearheading this event over a year's time for us. Over 100 attendees made it into the audience, a greater number than either of the other sites for this symposium, Charleston and Atlanta. Imagine that! The speakers were first rate, as was the response from the audience. It was great having **Doug Ruhren** speak in his own backyard amongst familiar faces, too!

The first Horticultural Photography Workshop was a terrific success, perhaps too much so! The event booked up solid within a few hours of posting to my e-mail list. However, we're doing it again in spring, and be sure to take a look the class' favorite photograph stemming from that workshop. It was chosen by the class in a tiebreaking fashion! Other photographs are posted near 162 Kilgore and at the entry to the JCRA.



Above: The class' favorite photograph from the Horticultural Photography Workshop. *Tricyrtis* sp. - toad lily Photograph by Cindy Lincoln

Thanks to all participants for bearing with a bout of some of the worst weather we had seen in a while. Hard to fault rain these days, but the timing was not good.....we rescheduled fine.

As I close this note, construction fencing is being erected around the West JCRA. The area will be off-limits to entry, but we'll do our best to keep you apprised of the progress of the Ruby C. McSwain Education Center. Over 400 attended groundbreaking; a great crowd for an historic event. Remember, tell a friend about the JCRA, encourage membership, and visit often! M

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horticulture Out with the Old...Part 1

By Todd Lasseigne Assistant Director

On November 11, 2000 I led what I described as a "farewell tour" of the West Arboretum, a chance for interested Arboretum supporters and friends to visit and learn about the plants located in a lesser-known part of the Arboretum that would soon be forever changed. As of this writing, these changes have already begun.

Now, join and walk with me through the West Arboretum of the past for a closer look at the many diverse plants that were once present there. As we walk through the "rows" as they were once laid out, and are now only "rows of the mind, "I'd like to highlight and discuss the merit, beauty, and performance of these many and wondrous plants — some known to many and others known to few. Garden Plants: or the modern florilegium, Thomas states that he wanted the title of his work to convey a meaning of "more than a catalogue"; thus, the word florilegium in the subtitle. "Florilegium," is the Latin counterpart of the Greek "anthology" which denotes "a collection of flowers," is as appropriate here as it is to Thomas' book. This then, is my florilegium of the West Arboretum.

First, though, a brief historical vignette follows. The West Arboretum was the last area of the Arboretum to be planted. In Issue No. 11 of the NCSU Arboretum Newsletter (December, 1984), J.C. Raulston wrote "we've had several hundred hours of help from the 12 (community service) people that have worked so far. This has enabled us to at long last finish bark mulching of all the beds in the four-acre west arboretum. After eight years of development, we are finally occupying all



Above: Todd Lasseigne leads a group on "The West Arboretum: A Farewell Tour."

Photograph by Nancy Doubrava

A West Arboretum Florilegium

Even my ever-handy dictionary proved inadequate when I began searching for an appropriate word to describe the "greater than simply just a <u>collection</u>" of plants in the West Arboretum. With further searching, I ultimately arrived at one of the great plant masters, Graham Stuart Thomas, for his guidance. In his classic book, Perennial

of our allotted space. Most visitors do not yet wander through this area as plants are still small, but with the extensive plantings of the last two years, there are nearly 1,000 species out there to see... Among the many things now in the west arboretum are included: the world's largest collection of Juniperus horizontalis cultivars (thanks to Lary [sic]

Hatch), two of the finest *Lagerstroemia fauriei* plants in the United States, an uncontrolled rampaging bamboo grove on the run across the farm, collections of deciduous conifers, bi-generic hybrids, contorted plants, *Pyracantha, Cercis* (seven species – brag, brag!), *Prunus mume*, deciduous hollies, and many more."

Everything that follows below thus relates information gained from 18 years of active plant introductions and evaluation.

Of all the trees I know, the sweetqums (Liquidam*bar*) remain for me in the highest rank – partially because of their neatly textured, lobed foliage, blazing with fall color even amid the Louisiana bayous of my home; partly due to the curious fruits (gumballs), despised by all mowers of lawns; and partly due to the disjunct geographic distribution around the globe, hinting at the rich Pleistocene history of our Northern Hemisphere flora. In the West Arboretum, a trio of uncommon sweetgums was found: Liquidambar orientalis, the Turkish sweetgum; L. acalycina, a Chinese sweetgum; and *L. formosana*, the Formosan (or Taiwanese) sweetgum. The latter is probably most familiar, after our native L. styraciflua.

Unlike our native species, the Formosan sweetgum displays leaves with only 3 lobes and qumballs with softer bristles. (These "bristles" are botanically termed beaks, the hardened pistils of the aged flowers of spring.) For anyone who has observed this species and contrasted it with specimens of *L. acalycina*, the differences are slight, and for me, thus far, elusive. The standard literature is of no avail in providing information on L. acalycina, either. For us, both plants prospered in our soils and climate, growing to 38' (Taiwanese) and 25' (Chinese) in 10-15 years. In certain years (like this one), early frosts spoiled the fall color, which always occurs later in deciduous plants of southern Chinese and Taiwanese origin than in related eastern U.S. species.

In contrast to the solid performance of the east Asian species, *L. orientalis* grew poorly and looked pitiful, with sun-scorched leaves and numerous watersprouts on the trunk. Since I have observed splendid specimens of Turkish sweetgum (especially at Washington Park Arboretum, Seattle, WA <depts.washington.edu/ wpa>) with its distinct foliage (the lobes are almost squared off in shape, not triangular as in the other species), I would like to grow different germplasm (perhaps, some collected by **Dan**

Another fascinating deciduous tree was *Pterocarya* tonkinensis, the Tonkin wingnut. Our specimen rocketed to 35' tall and wide in only 9 years, from seed sent to us by Kunming Botanical Garden in Yunnan Province, China. The rich compound leaves are complemented by hanging chains of many (I never counted them) winged nutlets in summer through early fall. Fall color, not always reliable, could be a good clear yellow. Wingnuts are related to hickories (Carva) and walnuts (Juglans) in the Juglandaceae (walnut family). P. tonkinensis is closely related to P. stenoptera (Chinese wingnut – see below), but is distinguished by its unwinged rachis. Chinese wingnut has winged rachises, a rachis being the axis of a compound leaf.

llex 'Calina', or 'Calina' holly, is a fascinating old evergreen holly, our plant long anchoring the exit from the Japanese Garden to the West Arboretum. Still standing, but slated for removal, 'Calina' now reaches 25' tall. Originating from the former New Bern Nursery of the late William Edingloh, 'Calina' is named as a contraction of "Carolina." For us, 'Calina' forms a tall, pyramidal hedge of medium density, with rich black-green foliage and consistent and abundant fruit set. The vivid red fruits are among the largest of any hollies in our collection, a standout in winter. 'Calina' is reputedly a hybrid between Ilex aquifolium (English holly) and I. cornuta (Chinese holly), the same parentage that gave us *llex* 'Nellie R. Stevens', now ubiquitous in North Carolina landscapes. Grand specimens of 'Calina' holly can be seen at Tryon Palace Gardens <www.tryonpalace.org> in New Bern, NC.

Near the *Liquidambars* discussed above stood a 10' tall, multitrunked specimen, our largest one, of *Aesculus californica*, the California buckeye. In late spring, dozens of 6" long panicles, each adorned with tens of white flowers, decorated the plant. Contrasted against the lustrous dark green foliage (unusual in *Aesculus*), the white flowers presented a glorious scene. Of more recent origin in the Arboretum are two newer cultivars,

'Canyon Pink' and 'Grants Ruby' with pale and dark pink colored flowers, respectively.

Perhaps the most curious feature of this plant, however, is its propensity to drop its foliage consistently in midsummer, apparently in "expectation" of the summer droughts that are the norm across this species' native range. This happened even in the overly wet summer of 1996! Until I visited the Carl S. English, Jr. Botanical Garden at the Hiram M. Chittenden Locks, located on the Lake Washington Ship Canal in Seattle, Washington <www.nws.usace. army.mil/opdiv/lwsc>, I thought that all trees of Aesculus californica behaved this way. However, on two trips to the C.S. English garden - July 4, 1997 and August 17, 2000 – I observed first with Dan Hinkley and Richard Olsen, and then later with Tom Ranney, their beautiful tall specimens of California buckeye in leaf and full flowering spectacle, 2-3 months later than our plant. Apparently, the early leaf-drop behavior is not typical for plants grown in the Pacific Northwest. Arthur Lee Jacobson (North American Landscape Trees, 1996, Ten Speed Press, Berkeley, California) relates that trees can flower in any given year between mid-May and mid-August, and can hold their leaves into October!



Above: *Aesculus californica* - California buckeye Photograph by Christopher Todd Glenn

Thus, I wonder what factor in the dry-summer Pacific Northwest allows *Aesculus californica* to retain its foliage; while in a wet-summer (especially 1996) area such as the southeastern U.S., plants are fully deciduous by August. In any regard, the fine foliage and floral qualities of California buckeye during the spring and early summer months are as good as any other *Aesculus*. After leaf-drop, the rich silvery-white twigs and bark of mature plants shine like ghostly beacons in the landscape. **Michael Dirr** (Manual of Woody Landscape Plants, 1998 ed.) remarks that this is "(m)ore of a collector plant on the East Coast," but oh what an interesting collector's plant it is!

Near the California buckeye was a mature specimen of Amur maackia, Maackia amurensis, measuring 18' tall. Although the maackias are generally regarded as trees not fully suited to the southern climate, due to purported limited heat tolerance, our specimen prospered in a hot, dry location, growing adjacent to three 30-35' tall Virginia pines (*Pinus virginiana*). As a smallstatured deciduous tree with pinnately compound dark green leaves, Amur maackia produces erect racemes of densely packed off-white flowers in early to midsummer. (In the closely related genus Cladrastis, flowers are instead borne in pendent, loose panicles.) If only as an example of an all too rare summer-flowering tree, Amur maackia should be given wider consideration. In winter, enjoy the interesting bronze-orange bark that exfoliates in diamond-shaped patterns on plants that several years old.

As with the Amur maackia, the West Arboretum contained many other small- to medium-statured flowering trees. A fine 20' tall specimen of *Cladrastis kentukea* 'Perkins Pink', the pink-flowered American yellowwood, stood next to one of the tall Chinese wingnuts (*Pterocarya stenoptera*). Most plants sold are still widely known and grown by the older, now apparently illegitimate, name *Cladrastis lutea* 'Rosea'. Pink yellowwood brings an almost impalpable air of elegance to the landscape from its smooth grey bark; highly textural compound leaves with 7-9 thin, yet large, medium-green leaflets; and the beautiful display of pendent, loose chains of pale-



Above: A view of a path between the "rows" in the former West Arboretum, now only "rows" in the mind's eye.

Photograph by Christopher Todd Glenn

pink (aging to white) pea-like flowers. In warm springs, flowers appear white, with only the faintest tinge of pink. Few plants can match this one for beauty in the garden, and yet it remains, at least in the southern U.S., almost as rare as the day it was discovered at the Perkins Institute for the Blind in Watertown, Massachusetts.

Perhaps for me one of the most pleasing plants in the West Arboretum, for "flower power" at least, was the 22' specimen of Cornus walteri (Walter dogwood) which stood near the *Nyssa* (tupelo) collection. This beautiful tree exhibited a strongly ascending spire, maintaining a central leader even after 20 years - a stark contrast to other opengrown dogwoods that become almost shrubby in appearance. Our specimen displayed rich, smooth (only slightly fissured) gray bark; although references indicate that with age plants assume the "alligator hide" bark so typically associated with Cornus florida (flowering dogwood) and *Diospyros virginiana* (American persimmon). Our plant always flowered prolifically in early June, producing terminal cymose inflorescences (= flat-topped clusters) consisting of many small white flowers. These flowers were followed by globose black fruits borne on pinkish-red pedicels (= flower stalks), these contrasting against the rich green foliage. Interestingly, the pedicels are green when the flowers are present, but change to the reddishpink color as the fruits form and ripen.

Unfortunately, Walter dogwood suffers from its common name of "dogwood," as do most other non-Cornus florida or Cornus kousa dogwoods. Perhaps if the genus ever is split, as some taxonomists suggest, and this plant becomes Swida walteri, a new common name could be coined so that plants could be appreciated and sold

on their own merits, rather than in comparison to other "normal" dogwoods. Two other specimens of *Cornus walteri* remain in the Arboretum, one in the east, and another in the Asian Valley. Walter dogwood is similar in form to a specimen of giant dogwood (*Cornus controversa*) that grows in the East Arboretum, but can readily be told apart by its June flowering period and opposite leaves. *C. controversa* flowers in April and bears alternatelydisposed leaves.

In the "row" across from the Walter dogwood grew an uncommonly encountered flowering tree, Hovenia dulcis, the Japanese raisin-tree. In actuality, two specimens grew, with one labeled as Hovenia acerba, but this is now considered to be indistinct, as a species, from H. dulcis. Seeing this plant always took me back to my first plant identification class on the University of Southwestern Louisiana (now University of Louisiana at Lafayette) campus, where a 15-20' high and wide specimen grew, somewhat happily, in front of the university's post office. Having been exposed to the plant by my undergraduate professor and Louisiana plantsman extraordinaire, Ellis Fletcher, Hovenia represented my first encounter with a "Wow, I've never heard of that before!" genus – a necessary first realization that must occur in the evolution of any plantsman.

In the West Arboretum, both raisin-trees, 34' (for "acerba") and 16' tall, produced attractive glossy, dark green foliage and early summer flowers occurring in terminal cymes, just as in the unrelated *Cornus walteri*. Although *H. dulcis* is sometimes dismissed as a potential landscape plant, I find this surprising since the plant stature (small to medium sized deciduous tree), attractive dark green foliage, and summer-produced flowers are all attributes that fit into the modern ethos of an ideal patio tree for small suburban lots.

Hovenia dulcis is called "raisin-tree" because the fruits – small, brownish drupes – are borne on swollen, contorted pedicels, resembling raisins. These twig-like stalks can be chewed, possessing a bittersweet flavor. When I traveled in Yunnan Province, China in October 1999, I spotted a basket of these for sale in a small village bordering the Yangtze River. I tried one, and it was quite tasty, if you like tart flavors, that is.

Hovenia is a member of the Rhamnaceae, and as such it is related to our native buckthorns (*Rhamnus caroliniana* and *R. lanceolata*).

Last spring, our indefatigable Arboretum Friend Vivian Finkelstein wrote a column discussing one of my (other) favorite groups of deciduous trees - the catalpas. Now, don't laugh. I know that many of you may not hold these plants in high regard. However, as textural subjects in the landscape, there are few hardy plants that can match the catalpas in foliage and floral qualities. In the West Arboretum, a 35' tall, slender tree of Catalpa bungei, Manchurian catalpa, grew "plantlocked" between the Leyland cypress (*Cupressocyparis leylandii*) hedge bordering Beryl Road and the U.S. National Arboretum <www.ars-grin.gov/ars/Beltsville/na> hybrid crepe myrtle (*Lagerstroemia indica* \times *L. fauriei*) collection on the other side. Now, based on the simple fact that our specimen of *Catalpa bungei* was able to survive these highly competitive conditions and also maintain a growth rate that matched those of its neighbors, I would rate this as a much tougher than expected plant.

However, were it not for the fact that I was working one late spring day on verifying the cultivar identities of several of our hybrid crepe myrtles and in the process came across many tubular light pink flowers, 1-1.5" long, scattered on the ground, I never would have known that the tree existed in our collection. Evidently, many (most?) plants labeled in collections and sold as *Catalpa bungei* are incorrectly identified, instead representing the umbrella catalpa (*Catalpa bignonioides* 'Nana').

Our plant, however, was true to name, with glabrous (smooth or hairless) leaves at maturity, and the classic pink flowers. (*Catalpa bignonioides* 'Nana' is a wholly juvenile mutant form that has not been known to flower, despite originating in 1848.) Having discovered this plant, its location and size were prohibitive to us

moving it out of the path of destruction. However, **Mitzi Hole** and her student crew were able to propagate it so that we can hopefully feature this bold-textured, smallstatured flowering tree more prominently in the future West Arboretum.

Now, of course, to the aforementioned U.S. National Arboretum hybrid crepe myrtles we must turn. Looking at the impact that these plants have had on southern landscapes and gardens in the past 20 years, it is difficult to imagine them ever being "new." Yet, in the early 1980s, when "Natchez" only meant

a classic southern city in Mississippi and "Tuscarora" sounded like a place in Italy ("Tuskuh-what"?!), hybrid crepe myrtles simply weren't commonplace. Rather, the classic Indian crepe myrtle (*Lagerstroemia indica*) cultivars held dominance, those that I know from my childhood from 'Near East' with its pale pink flowers to 'William Toovey' with blazing watermelon red flowers.

Then came along John Creech collecting a virtually unheard-of crepe myrtle (*Lagerstroemia fauriei*) from Yakushima Island of southern Japan in 1957; and Don Egolf, a plant breeder who looked to the future and saw things that no one else had seen. Marrying the wonderful assortment of flower colors from the many *L. indica* cultivars with the enhanced cold hardiness, powdery mildew resistance, and exquisite cinnamon-brown bark of *L. fauriei*, a new era of crepe myrtles was created through Egolf's breeding program. This era dawned, or more



Above: *Lagerstroemia fauriei* 'Fantasy' - 'Fantasy' crepe myrtle Photograph by Christopher Todd Glenn appropriately was realized, during the 1980s with the introduction of the so-called "Indian tribe" crepe myrtles from the U.S. National Arboretum where both Creech and Egolf had been employed. Thus, we now have 'Natchez', 'Tuscarora', 'Tuskegee', 'Muskogee', 'Lipan', and many others, adorning southern cities and gardens.

The JC Raulston Arboretum's connection to *Lagerstroemia* is significant, not only in our housing early on a collection of the hybrid seedlings and newly-named cultivars, but also in our housing two distinct original specimens of *L. fauriei*, received in the late 1950s as seed from Dr. Creech's expedition to Yakushima. One of these, of course, was named 'Fantasy' by J.C., and it is the signature plant of the Arboretum.

...On this note, we'll suspend our "West Arboretum Florilegium" for now. Next time, stay tuned for more details on the fascinating legacy of plants in Part II of "Out with the Old..."

Correction

In my last article, I erroneously indicated that "...the Moluccas (are) a group of islands in the Indian Ocean off the coast of southern India." In truth, I confused the Moluccas with the Maldives, the latter comprising an island nation that occurs off the southwestern tip of India. The Moluccas are instead part of the nation of Indonesia, and are better known as the "spice islands." The Moluccas fall between the islands of Sulawesi (formerly known as Celebes) and Irian Jaya (the western half of the island of New Guinea). If you correct this, the "discrepancy" in geographic distributions of Gynura bicolor listed in Hortus Third versus RHS Index of Garden Plants makes much more sense. And all of this from a person who prides himself on a fairly good knowledge of world geography! Argh! M

Todd Lasseigne, Assistant Director

winter gardening Winter Isn't Just for Pansies Anymore

By Andy Upshaw Plant Evaluations and Teaching Fellow & Pleasant Gardens Nursery

Plants to Get Me Through Winter

When the short days of winter arrive, I need some dependable botanic reminders that this cold season is only temporary and warmer days will surely follow. I was born on the summer solstice so I come by my love for the verdant profusion of plants in high summer naturally. And my idea of wardrobe is shorts and a T-shirt with shoes optional. I look for the beauty of flowers and foliage in winter to show me the promise of spring and summer to come.

We are usually blessed with fair weather here in North Carolina, minus the exceptions of recordbreaking heat, drought, rain, and snow we have experienced in recent years. But at least we are not in Cleveland or Buffalo, so let's go out and enjoy my winter garden.

Think Small

Don't waste your time looking for dinner plate sized flowers such as those that faded, froze, and fell from the summer hibiscus. Instead, look for the diminutive and bright blossoms that can survive our winter elements.

Cyclamen hederifolium begins blooming in late autumn with rosy pink to white flowers appearing for a month before the leaves arrive. These flowers stand up for attention like candles on a birthday cake and when pollinated are coiled down, spring-like, on their stems to ground level and tucked under the leaves for insulation and protection while the seeds ripen. It is said that ants are attracted to a sweet substance on the seeds and are responsible for scattering them about when ripe in May, so look for new plants in unlikely places next winter. The foliage is painted with unique ivy-patterned designs and will survive all winter. Plant cyclamen corms in gravely soil with good drainage, mulch with leaf litter and these gems will grace your garden for many years to come.

Another Lovely

Cyclamen coum begins flowering in December, a few weeks after its leaves appear. The dark-rose to pink to white flowers stand several inches above the rounded, pewter-etched foliage. One bonus with this species is that the leaves are dark purple to maroon underneath, beautiful in snow or against the dull browns of winter. Hardy to zone 5, this plant will never complain about our winters and will skip the heat of summer by going dormant for a few months.

Take a Whiff

The sweet fragrance in the October air comes not from a cotton candy machine at the state fair, but rather an *Osmanthus fragrans* in bloom. This wonderful evergreen shrub will flower for weeks and don't be surprised to smell some repeat performances during a mild winter. Include this one in your foundation planting or shrub border and add a few cut sprigs to a vase of fall foliage to sweeten the smells inside your home sweet home.

Pop quiz

What bulb produces giant golden yellow crocuslike flowers above daffodil type foliage in October and November? The answer is *Sternbergia lutea*, a wonderful bulb for your winter garden. Look in the rare and specialty bulb catalogs for this one, it's worth the effort.

Tropical Foliage

Arum italicum unfurls its leaves beginning in September and continues to grow throughout the winter. This is one of the plants that caught my attention years ago and turned me from a career in accounting to a life in horticulture, and I will be forever in its debt. *Arum italicum* is similar to hosta in growth habit and site preference, but it has an opposite seasonal growing cycle. This makes it a good companion plant for hosta beds and woodland or part-shade perennials. The foliage grows in clumps about 12 to 18 inches tall and is marbled with creamy variegation. Spathe and spadix flowers appear at the end of winter and signal this arums' kinship to our native Jack-in-the-pulpit. Orange to red seed candles persist through most of summer after the foliage disappears and complete the seasonal cycle.

Look for improved selections at your local garden centers: 'Legs' has tall stems and large leaves, 'Grandma' is dark green with no variegation, and 'William Lanier Hunt' has bold variegation and becomes ruffled with age.

Arum 'Chameleon' is a hybrid with more rounded foliage with a scrambled and swirled pattern of variegation inside a narrow green margin.

Arum concinnatum is a hardy species also suitable for our area. It has the distinction of being taller and providing light green foliage with pale blotches.

Draw upon arums' history in the florist industry and use the leaves in winter arrangements or as background in a vase of cut daffodil flowers. All of these arums contain oxalic acid, an ingredient not yet on the deer-food menu; so don't be concerned about feeding Bambi. Deer and rabbits do not like to eat this plant.

Arum tubers were used in Elizabethan England for starching the ruffled collars typical of the period. Don't try this at home, I promise it will chafe your neck.

Sniff Again

Daphne odora – what more can be said? I have success growing this temperamental jewel on a south foundation with some afternoon shade and

excellent drainage. The fragrance is sweet and heady, a treat in January and February.

Looking Up

Don't forget on cold winter days to look for sundogs in the winter sky. These reflections of the sun are often seen on winter afternoons when thin clouds and cold temperatures prevail. Look about a hand's width to either side of Old Sol for a rainbow-like halo, a mirror image of the sun reflected in the ice particles of high clouds. It's not horticulture, but after looking down at all these plants your neck will appreciate the stretch.

Shrubs in Winter

Among my favorite shrubs for winter are the deciduous hollies and viburnums with their ornamental berries and stores of food for birds and wildlife. *Chimonanthus praecox* (fragrant wintersweet) is exceptionally fragrant during December and January and is a good addition to

the shrub border. *Viburnum tinus* (laurel viburnum) is a neat evergreen which shows its buds all winter, maintaining a look of impending bloom for months. I like this anticipation and suspense in the garden, never mind that the flowers may be anticlimactic.

*Mahonia*s are other welcome evergreens in my winter landscape and bloom with bright yellow flowers providing honeybees with early pollen and nectar.

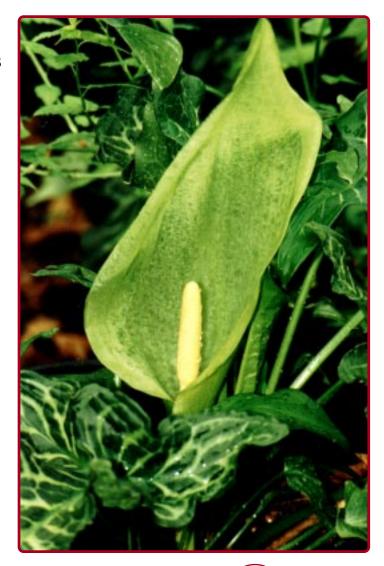
Hamamelis, or witch hazel, *Lonicera fragrantissima*, a.k.a. winter honeysuckle, and *Lindera benzoin*, our native spicebush, are all olfactory attention getters in late winter as well as ornamental.

Kerria japonica sports bright green stems all winter and *Cornus* species provide red or yellow twigs for visual interest and cutting material. Corkscrew shapes are supplied by willows and filberts and *Poncirus* yields huge green thorns and orange-yellow golf ball-sized fruit.

These woodies provide plenty of opportunities to show off your talents in floral arrangements, or just enjoy them growing in your own garden.

Design Class

Winter is a favorite time to do some basic design work. Snow cover provides an excellent opportunity to study the lay of the land and to imagine future gardens and outside projects. The busy clutter of color and texture is removed, thus enabling one to see the bare bones of an area



and to implement the basic elements of design. If the snow doesn't cooperate with the local weatherman's schedule, go out at twilight or choose a moonlit evening for this approach. Even if you don't complete your design project, you may enjoy the starry winter sky and experience the beauty of the season.

Miles to Go

We haven't even reached the hellebore bed, with many species for winter enjoyment, but the bell calls and it's time to go. There are so many good cool-season plants available for our zone 7 gardens the list could go on and on. I hope you will continue your interest in winter plants and visit your local nurseries and garden centers to find some favorites to brighten your own winter landscape.

End of Term

My fellowship ended with the 2000 calendar year and I would like to say thank you to all of the wonderful people at the JC Raulston Arboretum and NC State University who have made this experience possible. My long time admiration and appreciation for the Arboretum staff has grown even more during my term here, and I applaud the energies and dedication of all those involved.

New Directions

I now plan to take what I've learned during my fellowship here and spread the word to all those willing to hear it. Perhaps I can lead another imaginary tour someday, and I hope to continue teaching. But for now, I am off on a botanical safari to Kenya and Tanzania, seeking winter plants at elevation on the equator. I hope to return with new plant material, and would love to include some introductions among the JCRA Selections in the future.

Enjoy your winter gardens, but if our weather gets too cold for you, skip winter and head for the tropics!

Left: *Arum italicum* - Italian arum Photograph by Andy Upshaw

mitzi's musings Arboretum Plant Observations

By Mitzi Hole Research Technician

This has been another stressful summer and fall for the plants at the Arboretum. I watched the storm clouds part as they went over the Arboretum and dumped rain on the north and east sides of Raleigh on many days. In May we only had 1.05" of rain, June saw 2.22", July improved with 5.99", August had 4.37", then the deluge of 9.67" in September, and nothing in October.

I have been busily trying to propagate plants from the West Arboretum before the construction crews begin. **Todd Lasseigne** and I have been thrilled that some hard-to-root deciduous trees have rooted. We tried softwood cuttings of *Celtis choseniana, Zelkova schneiderana, Acer pilosum* var. *stenolobum*, and all the *Cercis* in our collection. I had the best luck rooting *Cercis siliquastrum* and *Cercis chinensis* 'Nana'. Some of the larger trees that I could not tree spade from the West will be saved by cuttings.

I have moved over 100 trees, shrubs, and vines from the construction location to other areas in the Arboretum. Some not so rare plants have been dug and saved to use at the Gala auction and as FOA give aways. As luck would have it, I had to start digging in October when it was so dry. I had to water the area for at least 30 minutes before I could get the spade blades in the ground. Fortunately, I had my excellent student assistants, Jason Burris and Anne Calta, to help. The West Arboretum looked like a battle ground with all the holes, knocked down trees, and torn up turf, but we saved a lot of plants. Anne, Jason, and I are eagerly waiting for spring to see if our transplants leaf out. M

Right and above: Jason Burris, Anne Calta, and Mitzi Hole are busy moving one of many specimens from the West Arboretum. Photographs by Christopher Todd Glenn



herb corner Rosmarinus officinalis (rosemary)

By Cynthia Dowdy Volunteer Gardener

The scent of rosemary conjures up holiday scenes filled with the aroma of pine needles in the air, meat roasting, and laughter ringing in our ears. In past centuries, rosemary has also been a part of gala events such as weddings where brides wore wreaths of rosemary on their head. Shakespeare's Hamlet said, "There's rosemary, that's for remembrance, pray, love, remember." Greek scholars wore rosemary garlands or tucked sprigs of rosemary behind their ears to improve memory when taking examinations.

Rosmarinus is a genus of one or more species of evergreen shrub native to the dry, coastal areas around the Mediterranean. There are different opinions on the number of species in the genus from only one recognized species to a dozen or more species. The JC Raulston Arboretum has Rosmarinus officinalis 'Fore', Gorzia', 'Salem', 'Spice Island', 'Tuscan Blue', and a prostrate selections. 'Tuscan Blue' is known for its showy blue blooms and 'Salem' is considered one of the hardiest selections. These can be found in and around the Paradise Garden. A more in-depth rosemary collection can be viewed in the Mercer Reeves Hubbard Herb Garden at the North Carolina Botanic Gardens <www.unc.edu/depts/ ncbg> in Chapel Hill, NC. Visitors to this garden will see over 35 taxa of rosemary planted in the National Rosemary Collection for the Herb Society of America.

Cultivating Rosemary

Rosemary is an easy to grow perennial that can become 3-5' tall after several years growth. It grows best in sunny, well-drained, neutral to alkaline soil and is a good plant for groundcover or container gardening. Global shaping or training branches onto wire topiaries adds a sense of elegance to potted rosemary and hanging baskets are an option with the prostrate selections. Depending on the plant selection, rosemary will bloom late spring or around the holidays in November and December. Layering is the best method to obtain new plants; however, you can start new plants from stem cuttings. For layering, bend a branch of rosemary until an "elbow" portion sits into the soil with the tip of the branch exposed. Anchor the elbow with a stone. After several weeks the roots will be formed and the new plant can be trimmed from the mother plant and transplanted in another location or in a pot. Transplants should be set in permanent location in the spring or early fall. Prune rosemary often throughout the growing season to encourage bushy growth.

Culinary Uses

Rosemary is a staple herb in Italian cuisine. It is used on meat and baked in focaccia and other breads. Meat basted in olive oil, wine, garlic, and rosemary is oo-la-la. Herb butters added to steamed vegetables, minced rosemary in scrambled eggs or omelets, and a pot of split pea soup cooked with two tablespoons of dried rosemary adds a robust flavor. Rosemary branches can be used as kabob spears or burned over charcoal when grilling food or smoking meat to enhance the flavor of food. A sprig of rosemary in a glass of white wine adds beauty and unique flavor. To use fresh, cut rosemary 4" from the tip of the plant. To use dry, harvest just before the plant blooms. The cuttings can be airdried on a screen or hung in bunches to dry.

Medicinal and Other Uses

Herb baths have been used for centuries to soothe tired muscles and stimulate the senses. Rosemary is said to be a circulatory stimulant that improves scalp and hair health. Rosemary is often used as an ingredient in soaps and sachets, and sprigs put in clothing drawers can be used to discourage moths.

Further Reading

Culbertson, M. (Editor). 1994. Country Home: Book of Herbs. Meredith Books. Des Moines, IA.

Brown, D. 1995. The Herb Society of America: Encyclopedia of Herbs and Their Uses. Dorling Kindersley. Boston, MA.

Greer, J. 1997. Southern Living Garden Guide: Herbs. Oxmoor House, Inc. Birmingham, AL. \swarrow

Below: *Rosmarinus officinalis* 'Salem' - 'Salem' rosemary, one of many cultivated rosemaries at the JC Raulston Arboretum. Photograph by Christopher Todd Glenn



trade show Display of New or Newly Propagated Accessions

By Todd Lasseigne Assistant Director

North Carolina 2001 Green & Growin' Show and Floral Exposition Winston-Salem, North Carolina January 3-6, 2001

The JC Raulston Arboretum, in continuing its role of promoting plants and disseminating knowledge to the NC nursery industry, recently attended the Green & Growin' nursery trade show in Winston-Salem. At our booth, we exhibited a selection of 20 plants that represented either new accessions recently acquired that will soon be planted out into the Arboretum, or plants that were recently successfully propagated — sometimes in advance of any other success reports. These plants represent our efforts to continually introduce and evaluate new plants for NC and southeastern gardens and landscapes. Printed below is the text from the placards that were displayed at the trade show, with some minor modifications per comments made by visitors to our booth.

1) *Mahonia gracilis* — Mexican grape-holly — A broadleaf evergreen shrub (5-8' tall) still poorly known in cultivation, but deserving of more widespread planting in southern gardens. The attractive, soft, weakly-spined foliage consists of (5)7 shiny, medium- to dark-green leaflets all set on a petiole that flushes bright red in the late autumn to winter months. Flowers are bright yellow, produced abundantly in winter, also on vivid red stalks. We successfully propagated this plant using semi-hardwood cuttings, 1-3 nodes, with hormone (8,000 ppm IBA-talc) application.

2) *Zelkova schneideriana* — Chinese zelkova — A strong-growing deciduous tree with the same vase-shaped form but larger leaves than the commonly grown Japanese zelkova (*Zelkova serrata*). Our specimen exhibits golden-yellow fall color, although wine-red color has also been reported. Since *Z. serrata* cultivars normally must be budded onto seedling rootstocks, we are interested in learning more about producing plants from stem cuttings. Our cuttings were propagated using 8,000 or 16,000 ppm IBA-talc, followed by induction of a fall growth flush by growing rooted cuttings under high-intensity sodium lamps.

3) *Cercis siliquastrum* 'Bodnant' — 'Bodnant' Judas-tree — As part of efforts to propagate the *Cercis* collection in advance of construction of our new education center, we came across a bedraggled specimen of 'Bodnant' Judas-tree that was badly in need of reinvigoration. 'Bodnant', selected for its purplish-pink flowers that are darker than those of typical Judas-trees, displays round leaves with a distinct grey cast. Although *Cercis* are not known to be easily rooted from stem cuttings, we achieved high success using softwood cuttings taken in May, treated with 8,000 or 16,000 ppm IBA-talc, and later forced to flush by growing-on under high-intensity sodium lamps. **4)** *Cladrastis platycarpa* — Japanese yellowwood — A small-statured deciduous flowering tree, our specimens have prospered in one of the drier spots in the Arboretum with competition from a nearby large live oak (*Quercus virginiana*). Leaves have 7-15 leaflets, are green underneath, thin-textured, and turn a golden-yellow color in fall. White flowers are produced in erect racemes in late spring. Since seed set on our plants has been limited, we decided to attempt propagation by stem cuttings, and were surprised by the positive results. We used 16,000 ppm IBA-talc, and forced a growth flush after rooting using high-intensity lights.

5) *Cotinus coggygria* 'Ancot' — Golden Spirit[™] goldleaf smokebush — As one of the most exciting new woody plants to hit the ornamental market in years, the goldleaf smokebush is sure to garner high sales in the U.S. To guard against theft of our only plant, procured in the U.K. in 1999 and now planted out in the Arboretum, we decided to propagate several (hopefully unneeded) "replacements."



Above: The JC Raulston Arboretum's booth at the North Carolina Association of Nurserymen's Green & Growin' Show & Floral Exposition. Photograph by Christopher Todd Glenn

We took softwood to semi-hardwood cuttings, treating them with 8,000 ppm IBA-talc, and achieved nearly 100% rooting. Rooted cuttings were then placed under high-intensity lights, and budbreak occurred soon thereafter. (A patented plant)

6) Cercis canadensis 'Covey' — Lavender Twist[™] weeping redbud — A fabulous new weeping redbud, 'Covey' develops a strong central leader (even without staking) with lateral branches exhibiting a strong weeping habit. Since our specimen needed to be relocated due to the construction of our new education center, we decided to try stem cuttings as a precaution in case the original plant did not survive transplanting. As with 'Bodnant' Judas-tree, we achieved excellent results using softwood cuttings taken in May, treated with 8,000 and 16,000 ppm IBAtalc, and after rooting moved under high-intensity lights set for a long-day photoperiod. We received our original plant from Brotzman's Nursery (Madison, Ohio). (A patented plant)

7) Senecio 'Sunshine' — now, Brachyglottis [Dunedin Group] 'Sunshine' — shrubby senecio — As a standard landscape plant in central and southern England, Senecio 'Sunshine' is curiously absent from southeastern U.S. landscapes. Although we are unsure of its cold hardiness, this will be a fabulous evergreen flowering shrub if it proves hardy and tolerant of our climate and soils. Shrubby senecio displays gray-green leaves on a densely mounding shrub (to 3' tall and wide), all of which disappear under a smothering display of yellow daisy-like flowers in summer.

8) *Euonymus* 'Wolong Ghost' — silvervein wintercreeper — This stunning new evergreen groundcover euonymus, received by us from Heronswood Nursery in Washington <www.heronswood.com>, is unlike any we have seen. The narrow dark green leaves are set off by whitened, "ghostly" veins, creating a subtle yet conspicuous variegation. We are not yet sure of species identity, although leaves appear smaller and narrower than the common wintercreeper (*Euonymus fortunei*), suggesting a different species. Hardiness is also uncertain, but based on the collection data for this plant ("Wolong" is an area in Sichuan Province, China), we should expect Zone 6. Stay tuned!

9) *Ilex integra* 'Green Shadow' — variegated Nepal holly — This attractive variegated cultivar of Nepal holly, introduced in the 1980s by Barry Yinger to the U.S., remains obscure (almost absent) in cultivation in the southeastern U.S. The spineless foliage, green with streaks of cream to yellow variegation, combined with yellow to yellowish-green twigs creates much interest. 'Green Shadow' is a female cultivar, producing vivid red fruit, but we have seen few reports on fruiting intensity and pollinator requirements. Hardiness reports range from Zone 6 or Zone 8.

10) *Stauntonia purpurea* — Taiwanese stauntonia — An evergreen vine with attractive, palmately compound leaves consisting of 3-5 leaflets with distinctly wavy margins. We have grown the related *Stauntonia hexaphylla* for many years, and it has proven to be exceedingly hardy, exhibiting no damage at 0° F. *Stauntonia purpurea* represents only the second species in cultivation of a genus totaling 6 species. We await the introduction of the remaining 4, as these vines add that highly desired "tropical" look to our gardens. Mature plants produce purple flowers and sausage-like (*Akebia*-like) fruits, both of which can be sweetly-scented.

11) *Hydrangea quelpartensis* — Korean climbing hydrangea — A newly introduced climbing hydrangea from South Korea with tiny leaves (compared to the common climbing hydrangea, Hydrangea anomala subsp. petiolaris) only 1-1.5". This species is named for Quelpart Island, now known as Cheju Do, from where it is native. ("Do," pronounced "doe," is Korean for "island.") As this plant is new to us, we have not yet seen flowers, but expect to see the lacecaps that are familiar to those growing the common climbing hydrangea. Some plantsmen speculate that plants labeled as Schizophragma hydrangeoides 'Brookside Miniature' represent this Korean species. Korean climbing hydrangea should be hardy to Zone 6.

12) *Camellia euryoides* — mockorange camellia — In addition to the multitudes of cultivars of camellias that are available to southern gardeners, a host of species camellias can presently be found in cultivation, albeit infrequently. This species, which we received from Woodlanders Nursery in South Carolina <www.woodlanders.net>, is perhaps one of the most unique. With its small leaves (< 1" long), mockorange camellia would be unique enough, but when it came into flower (forced in our greenhouse), with wonderful white bells that dangle beneath the foliage, we were stunned. Stay tuned!

13) *Alnus glutinosa* 'Imperialis' — royal alder — This fine deciduous tree, with its finetextured, dissected leaves, will change the way you probably perceive alders. Although originating in mid-19th Century Europe, plants are precariously rare in the southern U.S. today. In Europe and northern U.S. states, expect a medium- to large-sized tree, but for us in Raleigh our plant is growing somewhat slowly, suggesting a smaller ultimate stature (30' tall). As in other *Alnus*, royal alder is tolerant of wet, saturated soils and infertile ones (since it can fix atmospheric nitrogen, akin to legumes). Our plants are cutting-grown, rooting readily.

14) Viburnum obovatum 'Whorled Class' compact Walter's viburnum — Viburnum obovatum, a relatively unknown southeastern U.S. native, forms an evergreen shrub in the Coastal Plain and a semi-evergreen to deciduous shrub further inland. This new cultivar was selected for its dense, compact form. Plants are valued for their small, glossy dark green leaves (1" long x 0.5" wide) with red-tinted petioles; all turning purplish in winter. Abundant white flowers, displayed in flat-topped clusters, are produced in spring. Fruits are black or red. We are excited about the landscape potential of this species. Hardy to Zone 6.

15) *Cornus sanguinea* 'Winter Beauty' bloodtwig dogwood — A truly stunning plant with possibly unmatched winter twig interest, 'Winter Beauty' dogwood (also known as 'Winter Flame') is unlike any of the red-osier or yellowosier dogwoods currently grown. Twigs display a rich and amazing gradation of yellow to orange to orange-red tints. Unfortunately, this plant is frequently confused with 'Midwinter Fire', itself a fine cultivar, which displays pinkish-red to red colored twigs. As with other twig dogwoods, 'Winter Beauty' plants should be rejuvenated every 2-3 years, since winter color is best expressed on young twigs. Our plant was received from Forestfarm Nursery (Williams, Oregon).

16) *Acer rufinerve* 'Winter Gold' — goldtwig redvein maple — We recently acquired this fine snakebark maple which originated in Australia where it has been cultivated for over 25 years. Thanks to Highland Creek Nursery (Fletcher, North Carolina) for bringing this plant to our attention. 'Winter Gold' displays rich, nearly glowing, golden-yellow bark in winter, appearing green with a whitish, waxy sheen during the rest of the year. This winter bark color is unique among all the maples. *Acer rufinerve* forms a small-statured, deciduous tree, 20-30' tall; although 'Winter Gold' will probably remain smaller.

17) *Thujopsis dolabrata* 'Aurea' — golden false arborvitae — This is the rarely seen goldleaved form of the false arborvitae. Typical (green-leaved) *Thujopsis dolabrata* forms huge trees in cool-temperate gardens, while plants in southeastern U.S. landscapes tend to be smaller, at best seen used as screening hedges. Since 'Aurea' is not widely grown, its ultimate size and performance in our warm-temperate climate remains unknown, but we expect 'Aurea' will form a dwarf pyramidal shrub. On close inspection, observe the wonderful contrast between the rich yellow-gold suffused upper leaf surface versus the striking white markings beneath.

18) Cedrus deodara 'Klondyke' — golden Deodar cedar — This superb bright yellowfoliaged cedar, cultivated only since the early 1980s, represents one of many wonderful new cultivars of Deodar cedar that we are adding to our conifer collection. Although a few dozen cultivars now exist, relatively few have been grown in the southeastern U.S., where the species prospers and enjoys popularity as an evergreen landscape tree. 'Klondyke' forms a broad pyramidal tree with pendent branch tips. Both the leaves and the young twigs are yellow. This is certainly a standout plant among conifers, but its sun-scorch susceptibility remains unknown. Our plant was acquired from the wonderful selection of conifers from Stanley and Sons Nursery of Boring, Oregon <www.stanleyandsons. com>.

19) Sedum tetractinum — Chinese sedum — This is a fabulous, low (3-4" tall), evergreen groundcover with potential for use as a mainstream plant in southern landscapes. Chinese sedum forms a dense, low mat of flat, round leaves, appearing on wiry stems. Leaves emerge bright green in spring, aging to a rich, dark green with reddish tinges, and finally turn bronze to bronzy-red in the fall and winter months. The summer foliage is topped by bright yellow flowers borne on 4-pronged spikes. For hot, dry sites where a low groundcover is desired, Chinese sedum is an excellent choice.

20) Gomphrena 'Grapes' — globe amaranth — This new vegetatively propagated annual was introduced to us by Jenks Farmer at Riverbanks Botanical Garden in Columbia, South Carolina <www.riverbanks.org>. As with all other gomphrenas, 'Grapes' is easily grown, requiring only sunlight and minimal care at time of planting. Although 'Grapes' forms looser, taller plants than the dwarf cultivars that dominate in the seed-grown market, gardeners are rewarded by an explosion of small-headed rich purple flowers on long stems, appearing like a purple baby's-breath.



Above: Anne Calta slit seeds the lawn. Photograph by Christopher Todd Glenn

collections Update

By Todd Lasseigne Assistant Director

The past six months have seen much activity at the JC Raulston Arboretum, activity that we are sure you have noticed. With the construction of the Ruby C. McSwain Education Center now fully underway, and with plants that were formerly growing in the West Arboretum now either moved or propagated (see Mitzi Hole's article), we are now turning our attention to planting many of the newly acquired plants from my collecting trips and corresponding with other "new plant gurus." Rest assured, though, that some of the older stalwarts propagated from the former West Arboretum will be replanted once they reach a plantable size. Our kudos to Mitzi and her student workers (Anne Calta and Jason Burris) for their hard, diligent, and professional work.

Reading on later in this newsletter, you will see that **Doris Honeycutt** and crew, as well as **Amelia Lane** and her crew, have all been busy revamping their gardens, the Winter Garden and Mixed Shrub Border, respectively. I am thrilled at the willingness of these dedicated Arboretum volunteer curators to take on these monumental tasks, and we are proud to showcase their efforts. Read on for more information in their own writeups on page 21.

Do also take some time when you are next at the Arboretum to view two other areas: the Lath House and the new entrance walk to the Japanese Garden. In the Lath House, **Bob Roth** and crew have been hard at work moving various plants around and removing others that are poorly documented or in bad health. The changes are refreshing and add an air of openness that the Lath House hasn't seen in years. Expect MANY more new plantings in the coming year. Behind the Lath House, Mitzi and crew have recently planned and planted a new entranceway for the Japanese Garden that looks wonderful and showcases several new acquisitions.

development A Change for the Better

By Donna Walker Development Associate

It's been a long time in the making, but the JCRA Board of Advisors' Membership Committee has been working on some changes. After careful research of similar organizations across the Southeast and many hours of internal discussions, the Board Committee and the JCRA staff are updating the structure of the FOA membership program. These changes will bring the JCRA up to a level with similar botanical gardens and arboreta and will help the JCRA to better meet its financial obligations. The new structure will go into effect as soon as we are able to make the computer updates. We are very grateful for the long-term loyalty of the Friends group and look forward to even better things in the future following these changes.

The new membership breakdowns are as follows:

Student (full-time status at 2 or 4 year accredited school) and

Senior (60 years or older) - \$10.00 (no change) One membership card, the JCRA newsletter, free member lectures, one admission to the FOA Annual Plant Distribution, reciprocal memberships (under development), garden store discounts (under development)

Individual - \$30.00 (no change) Same as Student and Senior

Family/Dual - \$50.00 Same as Individual, except two membership cards and two admissions to the FOA Annual Plant Distribution

Sponsor - \$250.00 - \$499.00 Same as Family/Dual, plus two connoisseur plants Patron - \$500.00 - \$2,499.00 Same as Family/Dual, plus five connoisseur plants, and one complimentary membership to be used as a gift at the Patron's discretion.

Benefactor - \$2,500.00 - \$4,999.00 Same as Family/Dual, plus 10 connoisseur plants, and two complimentary memberships to be used as gifts at the Benefactor's discretion

Philanthropist - \$5,000.00 and up Same as Family/Dual, plus 15 connoisseur plants, three complimentary memberships to be used as gifts, and a private Arboretum tour by the Director or Assistant Director.

It was additionally decided by the Membership Committee to separate membership payments and other donations. This is a change from the past but in keeping with similar practices at other institutions. Only donations made as memberships will be used to compute the number of connoisseur plants received by a member. Upon request, an individual donor may be sponsored for membership by the Arboretum for one year. Corporate donors will not be sponsored. This decision was made after discussions with representatives from various organizations.

Two of the benefits mentioned as under development are "reciprocal memberships" and "garden store discounts." Currently, the only organization honoring the JCRA membership cards is Smith & Hawken at Crabtree Valley Mall in Raleigh. They are giving our members 10% off purchases. An effort will be made in the near future to increase the list of reciprocal agencies and a list of those will be sent with new membership cards and will be posted to our Web site.

Volunteer hours will continue to be counted as in the past - one hour equaling one dollar - with membership beginning at the \$30.00/30 hour level, counting only those hours volunteered in the last 12-month time frame. However, a significant and positive change in this program will recognize a cumulative lifetime total of volunteer hours that will benefit those volunteers who must take time off and then return at a later date to begin volunteering again. A committee of JCRA staff members is currently planning a new brochure, which will further explain the new format.

In the near future we will also change the membership renewal reminder process. Currently, they are issued on a 15-month basis. Beginning soon, renewal reminders will be issued before the actual renewal date, with additional reminders following. We want to assist our members in keeping their memberships up-to-date.

These changes are a part of our continuing efforts to help you enjoy the many and ever increasing benefits of being a member of the JCRA Friends of the Arboretum. With more lectures, more exciting events, symposia, opportunities to enjoy other arboreta and botanical venues, our Annual Plant Distribution, the connoisseur plant program, and, of course, the beauties of our own garden, we feel the reasons for becoming and remaining a member of the FOA are well worth the contributions listed. We appreciate and value all of the JCRA members, donors, and volunteers and hope that these changes will continue to benefit everyone in the JCRA family.



Above: Over 1,000 plants were laid out for this year's Annual Plant Distribution, one of the many membership benefits of the JCRA. In less than ten minutes, all plants had a new home. Photograph by Christopher Todd Glenn

development How You Can Help Plan for the JCRA's Future

By Joan DeBruin Director of Gift Planning

Over the years, you have supported our wonderful Arboretum with generous gifts and unwavering attendance at the annual gala and other events. We greatly appreciate your ongoing commitment to making the JC Raulston Arboretum at NC State University the best in the world. With this column, we will explore using a will bequest to create an endowment to provide perpetual support for the garden.

Will bequests are the simplest type of planned gifts that can be used to support the garden. These can be created easily by establishing a provision in your will or living trust. The gift will provide you the lifelong use of your asset, as well as estate tax savings and the knowledge that your gift will continue to advance horticultural excellence at NC State.

Recently, a rose fancier included a provision for the Arboretum in her estate plans. Her gift will establish an endowment that will provide perpetual support for the Finley Rose Garden. Each year after the gift matures, the Arboretum will spend a portion of the income earned on the endowment to help expand and maintain the Finley Rose Garden. The remaining income will be added back into the endowment. By returning a portion of the annual income to the endowment, the Arboretum will enable the fund to grow and will preserve the endowment's purchasing power over time.

Named endowments can be established to benefit any area of interest that you might have. In all cases, the donor, working with the Director of the Arboretum, decides how the endowment will be named and what area or areas the funds will benefit. An endowment is a wonderful way to provide a lasting legacy or to create a memorial in honor of a loved one.

When an endowment is established, we create an agreement that outlines the terms and conditions of the fund so that the endowment is adminis-

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. Below: Signs, in this case an actual sign, of impending construction on the Ruby C. McSwain Eudcation Center began to appear at the JCRA in early December. Photograph by Christopher Todd Glenn



tered according to your wishes in years to come. We will be happy to draft an agreement for your review at any time, and we will work closely with you and your legal and financial advisors to assure that your wishes are documented properly.

When you make a bequest to any charitable organization, it is very important to include the correct legal name of the organization in your legal documents. For example, if you want your gift to support the JC Raulston Arboretum, the designation in your will or living trust should be to: The North Carolina Agricultural Foundation, Inc., of Raleigh, North Carolina for the JC Raulston Arboretum at NC State University. This wording will ensure that your bequest will specifically benefit the Arboretum.

We are always available to help you and your legal advisors with the wording of a beguest and to provide suggestions about how your gift can be used to promote and expand the JC Raulston Arboretum. Please feel free to contact **Donna** Walker at (919) 513-3826 or myself, Joan DeBruin, at (919) 515-9076 if you have any questions.

Wedding Photographs Wanted

If you or someone you know held a wedding at the JCRA, please share with us a picture of the happy couple. We are putting together a Brides Scrapbook to be placed in the office area of the new Ruby C. McSwain Education Center. Send your pictures to **Donna Walker**, JC Raulston Arboretum, Department of Horticultural Science, Box 7609, Raleigh, NC 27695-7609. Please include the names of the couple and the date of their wedding. We're also looking for a "curator" for this scrapbook. Interested? Please call Donna at (919) 513-3826. \$

in the arboretum Moonlight in the Garden of Good and

By Donna Walker Development Associate

On Friday and Saturday nights, November 3 and 4, 2000, over 150 guests came to see the JCRA gardens dressed in the finest luminary garb available. John Garner of Southern Lights in Raleigh put together and installed a collection of over 400 beautiful night lighting fixtures. Beginning at the Visitors Center entrance, the attendees were met by Bob Lyons, Director of the JCRA, and John Garner. Each gave a welcome and a short introduction to the event. Tour guides, all volunteers from the NCSU Horticulture Club, led each group on a tour of the Arboretum. At locations along the way, the evening's curators met each group. Curators in place for the evening were:

Klein-Pringle White Garden - Susan Cheatham Garden of Winter Delights - Doris Honeycutt The Necessary - Claude and Mary Caldwell The Finley Rose Garden and Wisteria Collection -

Harvey Bumgardner

The Paradise Garden - Frankie Fanelli The Townhouse Gardens - Alicia Berry The Perennial Border - Jan Wilson and Heidi Miller

The curators gave the groups information about their garden and nearby plants and a brief rundown of the lighting fixtures. The beautiful fixtures and how the lighting complimented the natural beauty of the plants fascinated everyone. Lighting was used to show the soft drift of pine needles, the shadow of a curious goldfish in the Klein-Pringle White Garden pond shown against the bark of a crape myrtle, a puddle of light on a garden path, the reds and yellows of the roses, and the twists of the wisteria vines. The Perennial Border grasses were majestic in their special lights and so were the orange cosmos. The statue of the Dancing Ladies came alive and seemed to almost move to their own silent song. The bright lights on the statuary near the wisteria collection recreated a shadow ball on one of the upright structures. The groupings of glass flowers (tulips, daffodils, and snowdrops) the only colored lights used, were especially enjoyable. The Paradise Garden is a treat for the senses of taste, smell, and touch and John added sight by crossing submerged lights through the fountain spray, causing the lights to dance in the corners of the latticework. The whole garden came alive becoming more friendly and softer.

After the tours were completed, guests were treated to hot beverages and trays upon trays of homemade cookies made by numerous volunteers.

When first meeting with John Garner he indicated his plans would include approximately \$30,000.00 worth of lighting fixtures. John returned several times and put together a schematic. Soon the amount had increased to \$40,000.00. Before the event, John admitted he had included \$75,000.00 worth of lights. The list of the types of lighting used is too long to list here. If you have questions or would like to have John come by for a consultation, be sure call him at (919) 755-0380. And plan to join us for "Moonlight" in the Garden on September 28 & 29, 2001.

Corporate Sponsors

Please join us in thanking the following for their support of this event:

Garden Supply Co. Keith & Deborah Ramsey 1421 Old Apex Road Cary, NC 27513 (919) 460-7747

McGinnis Farms Joe Smith 12660 Highway 64 E Apex, NC 27502 (919) 303-7290 Custom Brick Co. Tom Fisher 1613 Old Louisburg Road Raleigh, NC 27604 (919) 832-2804

M.C. (Mac) Newsom Landscape Architect 1912 Stone Street Raleigh, NC 27608 (919) 839-1188

Swift Creek Nursery Lanny Thomas 6090 Cleveland Road Clayton, NC 27520 (919) 934-7764

Z Enterprises Tony Zajovits 113 Padgett Court Cary, NC 27511 (919) 363-3007

"Moonlight" in the Garden. Photographs by Bob Lyons

"Moonlight" in the Garden Committee:

Mary Edith Alexander Mark Armagost Harriet Bellerjeau Caroline Campbell Susan Cheatham Shelley McCain Harley Mudge Charlotte Presley Kathleen & Walt Thompson Steve Walker Dee Welker Bill & Libby Wilder



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people Volunteering News

By Nancy Margaret Brodd Volunteer Coordinator

Big Thanks to the Weekend Waterers

Thanks to Wayne Friedrich, his daughter, Donna Moffett, Jennette King, and Sandy Reid for their help in keeping the plants at the JCRA watered during this past hot and dry summer. Although additional irrigation has been added since the summer of 1999, additional watering is always needed, especially for the potted plants. Thank you all!

T-shirt Sales

Don't forget to stop by the Volunteer Office to buy your JCRA 2000 apparel. More were ordered in December for the North Carolina Association of Nurserymen's Green & Growin' Show and Floral Exposition, so if we didn't have your size before, check back with us now.

Past Events

Volunteer Potluck Dinner August 31, 2000

The Volunteer Potluck Dinner was blessed by Mother Nature. The ground was drenched and the sky remained black throughout the day. Mitzi Hole and her assistants set up the tent, tables and chairs around the brick house, staying optimistic. I came to the JCRA later, in the pouring rain, and with the help of Mary Edith Alexander, rearranged everything into tight clusters under cover, expecting the worst scenario. Susan Cheatham arrived with clippers in hand and sunny smile and went out in the rain to the gardens cutting flowers and foliage for the tabletops. Susan, Doris Huneycutt, and Gail Harris transformed the dark classroom into a sunny, picnic atmosphere. With only 15 minutes to spare before party time, the black clouds rolled away, making room for the bright, warm sun.

Our volunteers began arriving, arms full of plants and food to share. The weather remained calm for the feast and **Todd Lasseigne**'s tour.

The next event was an awesome private slide show of **Tom** and **Marie Bumgarner**'s garden and **Bob Lyons**' trip to Italy. When the lights were dimmed for the slide show, Mother Nature began her show of torrential rains, again. We all snuggled closer together, inside the cozy classroom, OOOing and AAHHing over the slides as if we were children watching fireworks. The excitement continued as we drew tickets for the plant give away. Everyone went home around 10:00 PM, stuffed with delicious food, happy memories, and heavily watered plants from the JCRA and fellow volunteers.

The following is a recipe of one of the many delicious dishes from the Volunteer Potluck Dinner, requested by many and shared by Laurie Cochrane.

Nutty Wild Rice Pilaf

cup uncooked wild rice, rinsed
 cups water
 teaspoons instant chicken bouillon granules
 cup butter or margarine
 cups slivered almonds
 4 cup sliced green onions
 4 cup golden raisins
 teaspoons grated orange peel

In a 2-quart saucepan, combine rice, water, and chicken bouillon. Cook over high heat until mixture comes to a full boil (6 to 10 minutes). Drain. In same pan with wild rice, stir in all remaining ingredients. Cook over medium heat, stirring occasionally, until heated throughout (5 to 6 minutes). Makes 8 servings. Calories=180, Protein=5 g., Carbohydrates=21 g., Cholesterol=16 mg., Sodium=155 mg.

Horticulture Magazine Symposium October 28, 2000

The Horticulture Symposium, "Winter Gardening in the South," at the RTP Sheraton Imperial, was a huge success both personal and professional for the JCRA! It was a great honor when **Nan Sinton**, Director of Horticultural Programs at Horticulture Magazine <www.hortmag.com>, contacted **Bob Lyons** asking us to co-host this event. Accepting this offer allowed the JCRA to learn the process of co-hosting such an event, to share this opportunity with our friends, and earn a few extra, much needed dollars!

We knew it was going to be well worth the effort when we saw that among the fabulous lineup of speakers was one of our own, volunteer Cocurator of the Perennial Border, **Doug Ruhren**. Many of our volunteers came just to see him and were happy they did!

This event could not have succeeded without the help of Horticulture Magazine and the following staff and volunteers: Anne Calta, Janice Dunham, Chris Glenn, Mitzi Hole, Jennette King, Todd Lasseigne, Bob Lyons, Heidi Miller, and Jan Wilson. With their help the JCRA registered more guests than the other two hosting cities, sold \$565.00 worth of apparel (great idea to lower thermostat in lecture room), and sold over \$2,000.00 worth of books. I would also like to thank Quail Ridge Books for sharing their knowledge and for supplying us with the books to sell.

Encore

September 21-October 26, 2000

JCRA volunteers and volunteer curators generously shared their knowledge and time with the students of the NCSU Encore program. This is a course offered to people in retirement, mostly new to the area, who want to learn about their new "zone." One curator, **Frankie Fanelli**, went all out by placing chairs about her garden and serving hot apple cider to her guests. Is that southern hospitality, or what?

I loved the inquiries this generated among many of you as you prepared. A lot of hard work went into this and again, I would love to schedule another "class," but this one to be for other JCRA volunteers. Get in touch with me and let's set up dates for this spring!

Thanks to the following for your participation in Encore and supporting the JCRA's involvement with the University: Chris Allen, Harvey Bumgardner, Anne Clapp, Susan Cheatham, CJ Dykes, Frankie Fanelli, Vivian Finkelstein, Doris Huneycutt, Amelia Lane, Guy Meilleur, Bob Roth, and Doug Ruhren.

Annual Plant Distribution October 7, 2000

The plant give away is probably the most popular reason people become involved with the JCRA. This is the annual event in which members get to grab all the plants they can in about 10 minutes. Sound like fun? Well, it is!

It is also a lot of hard work. The whole week prior to this day is spent in preparation. This could not be done without the expert in FOA Annual Plant Distributions, **Mitzi Hole**, her assistant, **Anne Calta**, and the many committed volunteers. For five days, two groups of at least five volunteers, one group in morning and the other in the afternoon, meet at the Arboretum to help Mitzi and Anne label plants and set them out into specific areas. Volunteers also help the day of the event by verifying and updating membership status, selling apparel and by just answering general questions.

This year over 3,000 plants were given to members. Volunteers sold 33 memberships and \$730.00 of apparel! Thank you to the 30 volunteers who put in over 100 hours of their time to assure the success of this event. You go, JCRA Volunteers!

Moonlight in the Garden November 3 & 4, 2000

Thanks to all the volunteers who helped **Donna Walker**, JCRA Development Associate, with this special event. The number of volunteers who baked goodies for this was astounding. The treats that remained were donated to Saint Andrews Catholic Church, who were providing shelter for the area's homeless that week. Kathleen Thompson suggested the donation in the name of the JCRA Volunteers. Great idea, Kathleen! We all look forward to doing it again September 2001.

Upcoming Events

The 2001 Volunteer Appreciation Luncheon

The staff of the JCRA look forward to showing you our appreciation for all that you do for the JCRA. The luncheon will be held at the NC State University Club during National Volunteer Week, on Tuesday, April 24, 2001, so please mark your calendars!

Trip to Daniel Stowe Botanical Garden to See Doug Ruhren

Did you know that **Doug Ruhren**, Co-curator of the Perennial Border, is now at Daniel Stowe Botanical Garden in Belmont, NC <www. stowegarden.org>? Well, he is, and he loves the idea of the JCRA volunteers visiting him at his new job. We could also tour the gardens!

We are thinking May or June. It will be a day trip with lunch included. The means of transportation and cost will depend on the number of volunteers interested in going. I will need help organizing this first time event so give me a call and let's get this ball of fun rolling!

Volunteer Program Planning Committee

With all the changes taking place at the JCRA, it seemed only natural that I seek advice from the volunteers on how to improve and update our volunteer program. I was grateful to rally a small, selective group of volunteers, who, I feel, represent the volunteer group as a whole. The number has been kept small, at first, for the purpose of moving quickly to keep the foundation firm. The committee currently consists of Laurie Cochrane, Mixed Shrub Border gardener and part-time Volunteer Coordinator at the Arc of Wake County; Susan Cheatham, Curator of the Klein-Pringle White Garden; and Nancy Simonsen, Paradise Garden gardener, JCRA Wedding Coordinator, and volunteer reader for the

JC Raulston Arboretum Volunteer Curators & Coordinators

Chris Allen Butterfly Garden Curator

Pam Baggett Entry Garden Curator

Alicia Berry Water Garden Curator

Harvey Bumgardner Finley Rose Garden Co-curator

> Tom Bumgarner Labeling Curator

Mary and Claude Caldwell JC Raulston Archives Co-curators

> Anne Calta Aquatic Gardens Co-curator

Susan Cheatham Klein-Pringle White Garden Curator

> Anne Clapp Finley Rose Garden Co-curator

Diane Cutler Japanese Garden Co-curator

CJ Dykes Wisteria Garden and Vines Curator

> Edith Eddleman Perennial Borders Co-curator

Frankie Fanelli Paradise Garden Curator

Doris Huneycutt Winter Garden Co-curator

> Susan Hyte Tour Guide Coordinator

Amelia Lane Mixed Border Curator

Pat McCracken Magnolia Collection Curator

Patrick Pitzer Aquatic Gardens Co-curator

> Bob Roth Lath House Curator

Douglas Ruhren Perennial Borders Co-curator

Bill Satterwhite Bluebird Houses Curator

Andrew Tiedman Japanese Garden Co-curator

Dick and Judith Tyler Garden of Winter Delights Co-curators blind. Not only do these ladies bring forth much experience to the table; they are also already at the JCRA on Wednesdays when we meet!

Our first objective is to update the volunteer database, which currently lists 439 volunteers. Out of those 439 volunteers, in the past 12 months, 145 have 0 hours and only 66 have 30 or more hours. What this means to us, is that much time, thus money, is wasted on inactive volunteers. That is not to say their inactivity is all their fault. It simply means that there are too many records in the database for me to manage properly.

Our future goals are to update the volunteer interest form, create other volunteer program literature, thus creating volunteer information on the JCRA Web site, and plan group activities for the volunteers like trips to area gardens. This should keep us busy for a while.

Currently, volunteers Frankie Fanelli, Elaine Pace, Nancy Simonsen, Ann Stellings, and Kathleen Thompson are calling upon the volunteers with 0 hours to update their records. We are hoping that cleaning the database of inactive volunteers will allow for more quality time to spend on those who are actively volunteering with us. Ultimately, this will make us a better and more connected volunteer team.

Just holler if you want to help with telephoning our fellow volunteers. We will need more help because the next step is to call on those volunteers who have volunteered in the past 12 months. M

Membership Cards for Volunteers

Have you received your current JCRA membership card yet? If you currently have 30 or more volunteer hours and have not received a membership card in the past 12 months, chances are you will soon. Thanks to Donna Walker and Val Tyson, I now have the tools to get volunteers the membership card you deserve. Thanks for volunteering with us and becoming members at the JCRA! M

Volunteer Opportunities

The following are volunteer positions that need to be filled as soon as possible. Volunteer Interest Forms are available in room 162, Kilgore Hall and at the JCRA Volunteer Office for new volunteers. If you are interested or have any questions, please contact me at (919) 515-3132 or <nancy_margaret@ncsu.edu>.

Digital Image Database Assistant – These individuals will assist Chris Glenn in maintaining two digital image databases, one for our digital photographs and the other for J.C. Raulston's slides. Willingness to use a computer is necessary. Tasks will be performed on a Macintosh using FileMaker Pro and Photoshop software. After training, volunteering will be done independently and/or with Chris in room 162 Kilgore Hall, NCSU. Hours are flexible and parking is free.

Field Trip Planning Committee to Daniel Stowe Botanical Gardens – I need 3 or 4 volunteers to help plan this trip for fellow volunteers. It will require meeting a couple of times a month and making telephone calls to gather facts and make reservations. This will be fun!

FOA Lecture Assistants – Two volunteers are needed to help setup refreshments and sign in quests at our FOA lectures. These are held on campus, in Kilgore Hall or Bostian Hall, once a month, on Thursday evenings. It requires about 2-3 hours. This is a great way to see the lectures and meet other JCRA members and volunteers!

Tour Guides – Our tour season will be in full swing again soon and we need volunteer tour quides to help fill the demand. If you enjoy informing others and leading groups, becoming a JCRA Tour Guide is for you. Since our tours are given to a wide range of the public (horticulturists, residential gardeners, newcomers, school groups, etc.), we need a wide range of guides. All guides are required to attend three training sessions in the spring. Come join the fun and learn along the way!

Volunteer Office Volunteers – We need volunteers to cover the hours 1:00 AM to 4:00 PM on Monday and Wednesday afternoons and 10:00 AM to 1:00 PM on Thursday at the JCRA Volunteer Office. Duties include light office work, answering questions, directing visitors to different parts of the Arboretum, selling apparel, keeping maps and other informational material throughout the Arboretum filled, answering telephone, and calling other volunteers for various tasks. This is a weekly commitment. \mathcal{M}

Welcome to the New JCRA Volunteers





Susan Andrews







Donna Moffet



Ann Stellings

Jim Hardin



Judith and Dick Tyler

M

Winter Garden Activity

By Doris Huneycutt Garden of Winter Delights Co-curator

As winter draws upon us more visitors are coming into the Winter Garden and looking about. Those familiar with the Arboretum may have noticed that large areas are being cleared and now replanted within this garden. It's time for an explanation.

When the Arboretum staff began to clear areas of the East in preparation for moving plants out of the West for the construction, each area was assessed for plants that had outgrown their space and/or usefulness to the Arboretum mission of testing and evaluating new plants.

In the Winter Garden, the list was headed by a mammoth *llex cornuta* 'Dwarf Burford'. This "dwarf" 'Dwarf Burford' holly had been measured in February at 15' tall. That was also its diameter; the space that its removal left behind for the 'Little Gem' magnolias was awesome. It did illustrate that "dwarf" may not mean small.

Such a planting space sets gardeners to planning and so it has been with the Winter Garden crew (Susan Andrews, Doris Huneycutt, Harley Mudge, and Dick and Judith Tyler). With removal fever running high, the variegated *Euonymus japonica* 'Chollipo', infested with scale and now common in the trade, was next to go.

Near the dwarf Burford holly is an old *Osmanthus armatus* that had been severely damaged by the holly growing under it. Harley and Doris performed dead limb removal and limbing up for half a day and the plant has new life.

The osmanthus is one of the few shrubs in the maps marked as a pre-Arboretum plant. Most of those are trees such as the two big evergreen oaks, *Quercus phillyraeoides* and *Quercus glauca* that overhang the benches in this garden.

Quercus phillyraeoides, the one with the multiple trunks, and neighboring hollies along the back of

the garden have also had limbing-up cosmetic surgery to give Bed 21w enough light for the hellebores, primulas, arums, carexes, and other small plants to thrive.

Other removals included two well-worn specimens of *Yucca recurvifolia*, as well as a large *llex cornuta* 'Rotunda' beside the path on the Necessary end.

Now there were holes to be filled. A large contorted willow, *Salix alba* 'Dart's Snake' came up from the West to take the center of the cleared area. Combined with the nearby *Poncirus trifoliata* 'Flying Dragon' and the contorted *Corylus avellana* 'Contorta', commonly called Harry Lauder's walking stick, there is now a small contorted garden within the garden.

With lots of backbone and a vertical come-along, Dick and Harley removed the 'Dwarf Burford' holly stump and roots in order to plant the willow. Then, the crew excavated a four by four-foot hole. Since they didn't plan to bring the tree spade all the way to the hole this was a hand-dug hole. Harley left in the midst of all this work for a dental appointment he was suddenly appreciating.

When the willow proved too large to move by hand, the tree spade had to deliver it, after all, causing another spate of removal and replacement. Now there is space to walk around 'Flying Dragon' and a path back into the "new" area of the Winter Garden.

Come by, admire the "remodeling," and watch for other changes in this garden. Winter vegetables are showing up well now; primroses and arums are coming into their own and soon the bulbs will be showing. Winter truly is another gardening season at JC Raulston Arboretum.

Mixed Shrub Border Activity

By Amelia Lane Mixed Shrub Border Curator

We have had a good fall planting season in the Mixed Shrub Border. With my most able gardeners, Jean Andrus, Laurie Cochran, Cynthia Dowdy, and Beth Jimenez, we removed lots of unnamed and nursery available shrubs and perennials. Todd Lasseigne had lots of new plant goodies for us from which to choose replacements and we're looking forward to getting new groundcovers this winter.

Our bog bridge is in a "deconstructive" phase, so bear with us until we get new supports and planking built. Meanwhile, have a look at our new shrubs and trees and appreciate the winter interest in the garden.

Other Activity at the JCRA

By Nancy Margaret Brodd Volunteer Coordinator

Come visit the JCRA. Along with the work in progress in the Winter Garden and the Mixed Shrub Border as mentioned above, there is, as always, continued activity in the Model Gardens, the aquatic gardens, the Paradise Garden, and the Lath House continues on course to perfection.

Below: While pruning hollies, Harley Mudge, Doris Huneycutt, and Susan Andrews (left to right) posed for a photograph. Photograph by Nancy Margaret Brodd



programs Calendar of Events

JC Raulston Arboretum Programs

Please call (919) 515-3132 or visit our Web site at <www.arb.ncsu.edu> for more information concerning any of the Arboretum's events listed below.

Friends of the Arboretum Lecture Understanding Pruning and Pruning Techniques April 19, 2001 (Thursday) 7:30 PM

Free for members - \$5.00 for non-members Room 3712 Bostian Hall, NCSU Campus Philip Hunter Crump of Hunter Tree and Landscape Company in Raleigh, NC will present a hands-on lecture about proper pruning practices. Have you ever wondered how or when to prune a certain plant? If so, this is your lecture.

Joslin Garden Open Garden April 21, 2001 (Saturday) 9:30 AM to dark

Free

Mr. & Mrs. William Joslin are opening their beautiful garden for everyone to visit. The garden will be open from 9:30 AM to dark, however, guides will be available from 10:00 AM to 6:00 PM. Enjoy a walk through the Joslin Garden and view their native and exotic plants and garden structures all set in a lovely North Raleigh garden. The Joslin Garden is located at 2431 West Lake Drive, Raleigh, NC 27609. For more information, please visit <www.arb.ncsu.edu> or call (919) 515-3132.

Japanese Maples at the JC Raulston Arboretum April 26, 2001 (Thursday) 1:00 PM to 2:30 PM

Free

The JC Raulston Arboretum holds a major collection of Japanese maple (*Acer palmatum*) cultivars. This ever-popular deciduous tree holds favor with almost anyone who has ever gardened. Join Todd Lasseigne, Assistant Director,

on this first targeted tour focusing on the diversity inherent in the collections at the JC Raulston Arboretum. Discover the joys of Japanese maples, ranging from dissected-leaved weeping shrub-like trees to full-sized trees that can blaze with glorious fall color and delight in their winter twigs. Pending interest in this tour, other "collections" targeted tours will follow.

Please meet at the brick building education building at the Arboretum. The tour departs at 1:00 PM and is free and open to the public.

Gala in the Garden May 6, 2001

Don't forget to mark your calendar for Sunday, May 6, 2001 for the annual Gala in the Garden. This is a very special event that's not to be missed. Get your friends together and come to the party that starts the spring social calendar. For more information or an invitation, please call Donna Walker at (919) 513-3826.

Friends of the Arboretum Lecture The Natural Water Garden May 17, 2001 (Thursday) 7:30 PM

Free for members - \$5.00 for non-members Room 159 Kilgore Hall, NCSU Campus Karen Harris of Foothills Nursery in Mount Airy, NC will present a two-part presentation on water gardening the natural way. Topics include understanding and working with the biological cycle and herbal uses of traditional water garden and bog garden plants.

2001: A Plant Odyssey September 28 & 29, 2001 (Saturday & Sunday)

Keep your calendars open for the 4th JC Raulston Arboretum Symposium. Many of the details are not finalized, however, we are proud to announce that Harlan Hamernik, Pamela Harper, Sean Hogan, and Todd Lasseigne are confirmed speakers and that Bob Lyons will serve as emcee. More details will be included in the next newsletter and posted on the Arboretum's Web site <www.arb.ncsu.edu> as they are finalized.

"Moonlight" in the Garden September 28 & 29, 2001 (Saturday & Sunday)

Be sure to make your calendars for September 28 & 29, 2001. The JC Raulston Arboretum will be open both evenings to showcase the gardens in a new "light." We've arranged for John Garner of Southern Lights in Raleigh, NC, a garden lighting expert, to again exhibit his wares and allow us to enjoy a rare, after-dark visit to the Arboretum. Don't miss this chance to learn new ideas for your garden and to see the JCRA in its evening glory. Specific details will be in the next newsletter and posted on the Arboretum's Web site <www.arb.ncsu.edu> as they are finalized.

Annual Plant Distribution

October 6, 2001 (Saturday) Registration begins at 7:30 AM Give away begins at 9:00 AM

Other Horticultural Programs

This listing includes other horticultural events that may be of interest to our members. To list your event on future calendars, please send the information to Christopher Todd Glenn at <chris_glenn@ncsu.edu> or mail to the JC Raulston Arboretum, Department of Horticultural Science, Box 7609, Raleigh, NC 27686-7609.

Pi Alpha Xi's Annual Plant Sale April 7 & 8, 2001 (Saturday and Sunday) 8:00 AM to 4:00 PM & 10:00 AM to 3:00 PM, respectively

The horticultural extravaganza returns: the semiannual Pi Alpha Xi Plant Sale. Come one, come all, come early, for this gathering of hard-to-find plants and special picks that will enliven your garden. As always, this event never fails to amaze us and you, its customers. For more information, please call (919) 515-3178 or (919) 515-1220 and ask for a PAX member or visit their Web site at <www2.ncsu.edu/unity/ lockers/project/pialphaxi/sale.html>.

The Shenandoah Valley Plant Symposium - A Gardener's Palette April 12, 2001 (Thursday) 8:00 AM to 3:30 PM

The City of Waynesboro, VA is hosting a unique event this coming spring.....The Shenandoah Valley Plant Symposium - A Gardener's Palette. This year's speaker list includes Mr. Richard Bir (NC State Extension, Fletcher Research Station), Mrs. Clara Curtis (NC Arboretum), Mr. Brent Heath (Brent and Becky's Bulbs, Gloucester, VA), and Dr. Michael Dirr (University of Georgia). Topics include: The NC Tree Evaluation Program, Noble Trees: The Aristocrats of the Woodies, Bulbs as Companion Plants, Herbaceous Hayday: Creative Designs that Complete Your Garden, and Broadleaf & Needle Evergreens: The New Frontier. All proceeds will benefit the Ridgeview Park Botanical Garden Project. Cost: \$95 (before March 23, 2001). For more information, please call (540) 942-6735 or visit <www.waynesborova-online.com>.

Elizabethan Gardens 50th Anniversary Celebration

April 21, 2001 (Saturday)

The Elizabethan Gardens in Manteo, NC will be celebrating its 50th Anniversary. The public is invited to visit free of charge between 9:00 AM and 5:00 PM. Special free activities include:

• A Tour of English Gardens by Todd Lasseigne 10:00 AM & 3:00 PM

• Theatrical Performance of "Elizabeth R" starring Miss Barbara Hird 11:30 AM

• Our Slippery Mother Tongue: A Light History of the English Language by Elliot Engl - 1:30 PM

• Hourly guided tours and music in The Gardens

For more information and directions, please call (252) 473-3234 or send an e-mail to <egardens@inteliport.com>.

HANDS (Home and Neighborhood

Development Sponsors) Herb and Perennial Sale

April 28 & 29, 2001 (Saturday and Sunday) 9:00 AM to 4:00 PM and 1:00 AM to 4:00 PM, respectively

Great perennials and herbs will be for sale along with a raffle for wonderful prizes. The HANDS

plant sale is in Historic Oakwood on the corner of East Street and Boundary Street two blocks east of the Krispy Kreme Doughnuts on Person Street, Raleigh, NC.

American Hosta Society Annual Convention 2001...A Hosta Odd-yssey

June 12-16, 2001 (Tuesday-Saturday) The Carolinas Hosta Society would like to welcome our friends from around the world to 2001...A Hosta Odd-yssey, the annual convention of the American Hosta Society. For more information, visit the American Hosta Society's Web site at <www.hosta.org>.

American Association of Botanical Garden & Arboreta Annual Conference July 11-14, 2001 (Wednesday-Saturday)

Denver Botanic Garden, Denver, CO For more information, visit AABGA's Web site at <www.aabga.org>.

SNA 2001...The World's Showcase of Horticulture ${}^{\textcircled{}}$

August 3-5 (Friday-Sunday)

Georgia World Congress Center, Atlanta, GA For more information, visit SNA's Web site at <www.sna.org> or call (770) 953-3311.

North Carolina Nurserymen Association's Summer Green Show

August 17 & 18, 2001 (Friday & Saturday) Charlotte, NC

For more information, visit NCAN's Web site at <www.ncan.com> or call (919) 816-9119.

International Plant Propagatorss Society - Eastern Region Annual Meeting

September 30-October 3, 2001 (Sunday-Wednesday)

Lexington, Kentucky For more information, contact Margot Bridgen, Executive Director, at 26 Woodland Road, Storrs, CT 06268, (860) 429-6818, or <mbippser@neca.com> or visit the IPPS Web site at <www.ipps.org>.

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Extension's Successful Gardenersm Regional Seminars 2001

Extension's Successful Gardener team of horticulture agents will offer its second annual regional Successful Gardenersm seminars throughout the state this spring. Learn about annuals, perennials, lawns, trees, and more from Extension horticulture experts and guest lecturers! The regional seminars tie in with the awardwinning Successful Gardenersm newsletter, which is available at garden centers and nurseries throughout the state and helps Carolinians increase their knowledge of gardening, manage their landscape investment, and protect the environment. Access <www.ncstate-plants.net> to find out where you can pick up your free copy.

Saturday, March 17

8:30 AM to Noon 11th Annual Spring Symposium Wilson County Agricultural Center, Wilson, NC Details: (252) 237-0113

Thursday, March 29

9:00 AM to Noon N.C. Arboretum 100 Frederick Olmsted Way, Asheville, NC Details: (828) 697-4891 or (828) 255-5522

Saturday, March 31 & Sunday, April 1 10:00 AM to 5:00 PM & Noon to 5:00 PM, respectively Currituck Flower & Garden Show Currituck County High School, Rt. 158, Barco, NC Details: (252) 232-2262

Saturday, April 21 10:00 AM to 9:00 PM, various times Southern Ideal Home Show State Fairgrounds, Raleigh, NC Details: (919) 560-0525

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top ten Reasons Why the Newsletter is Late...

10) The Japanese rice-paper plant (*Edgeworthia papyrifera*) was not big enough to make enough paper for this enlarged newsletter.

9) The original draft was accidentally shredded and shipped off in a Connoisseur Plant order. Thanks to Landis Hall for meticulously gluing it back together for us.

8) An anonymous employee accidentally mailed the second draft to Will Hooker on sabbatical in the Samoas.

7) A wind gust from Tropical Storm Helene blew away the third draft. FOA members living in Bermuda should have already received their copy.
6) Bob's dogs, Rudy and Becky, accidentally consumed the fourth draft. (This copy was irrecoverable.)

5) The fifth draft mysteriously vanished and will be the subject of an upcoming episode of either the X-Files or America's Most Wanted.

4) The sixth draft was accidentally placed in the time capsule under the new Ruby C. McSwain Education Center.

3) The newsletters were actually mailed on time, but due to a postage increase, they were returned to sender.

2) We had to conduct a recount of our Florida FOA members.

1) It's tradition!

...but it won't be again!

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International Plant Propagators' Society -Southern Annual Meeting October 18-21, 2001 (Thursday-Sunday) For more information, visit the IPPS Web site at <www.ipps.org>.

Membership Application

- □ Student/Senior \$10.00
- □ Individual \$30.00
- □ Family/Dual \$50.00
- □ Sponsor \$250.00-\$499.00
- Patron \$500.00-\$2,499.00
- Benefactor \$2,500.00-4,999.00
- Department Philanthropist \$5,000.00 and up
- My company matches gifts.

I have enclosed a matching gift form.

name

address

city/state/zip

telephone/fax/e-mail

□ Check here if you'd rather read our newsletter via our Web site and not receive a hard copy. Save us postage and printing costs!

Make checks payable to: The NC Agricultural Foundation with Friends of The JC Raulston Arboretum on the memo line.

Mail to: The JC Raulston Arboretum at NC State University Department of Horticultural Science, Box 7609, Raleigh, NC 27695-7609

The JC Raulston Arboretum is a 501(C)3 organization. All membership contributions over \$30.00 are tax deductible.



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