

# JC Raulston Arboretum

## Friends of the Arboretum Newsletter

### Number 3

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### J. C. Raulston

Dear Friends of the NCSU Arboretum (now the JC Raulston Arboretum):

You may rightfully be wondering if your faithful scribe for the NCSU Arboretum (now the JC Raulston Arboretum) has abandoned you forever, never to be heard from again. You've been in my thoughts all along, but since writing the last newsletter in March my sabbatic schedule has gotten more and more hectic with meetings and travel. Of this 8 month period, I've been on the road 5 months visiting 22 states, 11 countries, and including 75 nurseries and 140 botanic gardens, arboretums, and historic gardens. Many new plants have been acquired for the arboretum and over 6,000 slides taken for future class and meetings use. The pace is slowing a bit (although I'm driving 1,800 miles this week with travel to both San Diego and Vancouver!) and little time is left as I try to do the last plant collecting and visits to things I still want to see. I do want to get this one last 1981 newsletter to you before I head back east. There have been so many horticultural highlights that it's hard to know what to include, but I will give a sampling: The Oregon nursery industry near Portland with visits to Schmidt's - the finest tree operation in the U.S., Iseli - mind boggling production of rare conifers on an enormous scale, many other; the new Rhododendron Species Foundation gardens at Seattle with the best collection in the world; the array of superb gardens in and around Vancouver making it the ornamentals leader in North America - Butcherts, Bota, Queen Elizabeth, University of British Columbia, Park & Tilson, Minter, and my favorite - Van Dueson; the Trompenburg Arboretum in Holland; a whole array of superb gardens in Germany with the highlight of the new Hamburg Botanic Garden opened in 1979 with 20,000 species and superbly done - nothing like it in the U.S.; Monet's Garden near Paris; in England, the RHS Chelsea and Great Autumn Shows, Kew and Wisley, the Great Comp Garden, and the conifer heather and perennial gardens of the Bloom's and their superb Bressingham Nursery a month in China and Japan - traveling to many cities throughout China and seeing many botanic gardens and remaining historic gardens - incredibly friendly people, fascinating sights and wonderful plants; and 4 days in Kyoto seeing as many of the 150 public gardens in the city as I could and the maple fall color and incredible chrysanthemum shows; and of course the very special treat of two brief return visits to Raleigh and the NCSU Arboretum (now the JC Raulston Arboretum) where plants had put on 2-6' of growth since my last visit in Spring.

### Get to Know Some New Plants From the Arboretum

With my current excitement over plants seen in China and Japan, I'd like to feature several plants from those regions. A large percentage of our introduced ornamental plants grown in North Carolina are from the Orient with many noted plant collectors over the last hundred years sending back seeds and plants to the U.S. and Europe for trial and introduction to the nursery industries. A number of books have been written about the experiences of these collectors and how our plants reached the west. One book perhaps most often seen that is fascinating reading is "The World of Ernest "Chinese" Wilson." The climate of major population areas such as Nanking and Hangchow in China, and Kyoto and Tokyo in Japan is almost identical to that of eastern North Carolina and almost *Magnolia grandifolia* is widely grown in the Orient).

### *Pinus bungeana* (The Lacebark Pine)

A top favorite plant of mine for over 20 years and after seeing the mature groves in The Forbidden City in Peking, I am even more impressed. A small to medium tree, generally multiple trunked with the outstanding feature of the grey-green bark flaking away on older limbs creating a patchwork of white, yellow, brown, and green. Discovered by Dr. Bunge in a Peking temple garden in 1831 and introduced to Europe by Fortune in 1846. It has long been considered one of the choicest of ornamental plants but remains relatively rare in the U.S. as seed is not available and most plants are produced by grafting on an understock, thus raising costs. Our arboretum plant is located at the north edge of the parking lot and is now about 7' and beginning to develop the flaking bark at the base. It will grow well throughout N.C. and will grow about 1'/year when young, perhaps 2'/year when established on a good soil with water and fertilizer. At this time, I know of no retail nursery in N.C. that regularly carries it. It is available from a few mail-order conifer specialists and better garden centers from Washington, D.C. to Boston - generally running \$10-35 depending on size. It was exciting to see it produced and used on a mass scale in Peking, in one case several thousand 8-12' specimen plants moved in as a new highway planting.

## **Paeonia suffruticosa (Tree Peonies)**

The tree peony has been the favorite flowering plant of the Chinese for 3,000 years and thousands of cultivars were developed and great collections assembled. Unlike the common herbaceous peonies which die to the ground each year, tree peonies produce woody stems and become small deciduous shrubs reaching 4-6' in height. Flowers are quite spectacular - appearing early in spring with single, semi-double and fully double types in white, pink, red, lavender, purple, and yellow colors from 3-12" in diameter. The singles probably display flowers best as the doubles are so heavy they may hang down in the plant, particularly when wet, and may need supportive staking. The plants are extremely cold hardy, and in N.C. are best in a good well-drained soil with much organic matter and in light shade. Take care to place them where you want them as they do not transplant readily after they re established. The flowers are fragile and deteriorate readily in full sun and wind. Plants are always scarce and expensive (\$10-35) again because they must be grafted. (Although on the west coast, the Japanese are beginning to ship in large quantities at lower prices - \$3-5 in garden centers). Louis Smirnov Nursery (on the plant sources list) sells plants by mail and has the largest collection of cultivars available in the U.S. - hundreds. Although expensive, they are choice long-lived "lifetime pleasure" plants. We have 2 old plants in the arboretum - against the east wall of the farm office building - a single purple-red of great beauty and a large double pine; and they bloom about daffodil time. Although not in bloom, in Peking I saw a garden of perhaps an acre and a half of thousands of specimen plants that must be a stunning sight in spring - have got to return!

## **Diospyros kaki (Oriental Persimmon)**

An excellent plant well adapted to North Carolina that is both a handsome ornamental tree and produces a useful crop of fruit. It grows 1-2' per year and generally is used as a small tree 10-20' although very old specimens have reached 40'. It has dark green foliage that displays good yellow to scarlet color in fall and is perhaps most showy and interesting after the leaves drop to reveal bright orange fruit 2-3" in most fruit crops, requires almost no pruning, spraying, or special care. The major problem is fruit drop, common on young plants. Avoid overfeeding with N, particularly in summer, and provide water in very dry periods to reduce drop; and as plants mature, the problem disappears. Fairly common in the nursery trade and a number of Raleigh gardens center carry Oriental persimmons. I saw them everywhere I traveled in China and Japan. The foliage had dropped and the fruit was spectacularly beautiful at a long distance. They are located to the north-west of the main farm office near the public highway.

## **Sophora japonica - Japanese Pagoda Tree or Chinese Scholar Tree**

A superb flowering shade tree - tough and adapted to almost any climate or condition. Not fussy as to soil, water, and has no special pests or diseases. On the most recommended planting lists of cities all over America and used everywhere in the Orient where it is native. Has large panicles of showy yellowish-white flowers in mid-late summer when few other trees bloom and large showy fruit clusters through the fall. Grows 1-2' per year reaching a height of 20-30'. It is an easy plant to grow from seed and superbly adapted, but for some reason has not been adopted by the N.C. nursery industry and is often difficult to find. Our fine specimen plant in the arboretum is at the north fence between the Layland cypress hedge and the crepe myrtle collection. The bark mulch we use in the arboretum makes a fine seedbed from many plants and under the Sophora are dozens of seedlings 2-5' tall - help yourself to a few and leave plants for others. They can be pulled and replanted anytime during the winter.

## **New Sources of Plants Addresses**

At the Oregon Nurseryman's Convention, I located a source of unusual Japanese maple grafted liners of very reasonable price (\$3-8/plant + shipping) and 60 cultivars are listed. Del Loucks, Del's Japanese Maples, 4691 Rive Road, Eugene, Oregon 97404 (503-688-5587).

Too late for this year, but an excellent listing of unusual small bulb species (no hybrids or new cultivars) is available from John D. Lyon, Inc. 143 Alewife Brook Parkway, Cambridge, Mass. 02140. Prices are mostly \$.20 - \$1.00 per bulb (the top price is Crocus vernus graecus at \$7/bulb!).

For those willing to take the time and effort to grow woody plants from seeds, one of the best seed lists of extremely rare trees and shrubs unavailable as plants in commercial trade is: Tree Seeds of Bamber Bridge Ltd., Lower Seed Lee Farm, Brindle Road, Bamber Bridge, Preston PR56AP, England. They have a 35-page listing of seeds and there is no import problem in ordering seeds from overseas.

I met a very nice young couple in Oregon starting a specialty nursery of "the better Western U.S. natives, selected ground covers, and the more unusual non-native trees, shrubs, and perennials.". A large list of many things not seen elsewhere in the U.S.; good quality, reasonable prices, and excellent service. List available from Ray and Peg Prag, 990 Tetherow Road, Williams, Oregon 97544 (503-846-6963).

A visit to the Rhododendron Species Foundation south of Seattle made me aware of a tremendous horticultural resource being developed there. Although in existence since 1964, most of the growth and the new garden development has occurred in the last 4 years. The goal is a comprehensive collection of world rhododendron species for preservation, research, and distribution. Already, their collection of 20,000 + plants of 475 species (no hybrids) is the most diverse and complete collection in North America and one of the best in the world. The organization can sue membership support and provides a plant distribution (for sale) of rare rhododendron plants not available anywhere else to members each year, a quarterly newsletter, use of publications, slide programs, etc. Membership is \$25 for Rhododendron Species Foundation, P.O. Box 3798, Federal Way, WA 98003 (206-927-6960). A word on rhododendrons - many people

feel it is "too hot" for them to grow in eastern N.C., but in reality the problem is heat + poor soil drainage which encourages root rots. Never dig a hole and "plant" a rhododendron down in our soil. Sit the plant on the surface and mound pine bark, or bark + peat up around the plant as a well-drained mound and you can grow a wide range of beautiful rhododendrons here.

## Arboretum Happenings:

Some of you that frequently visit the arboretum are undoubtedly better acquainted with what is happening there than I am with only 3 brief visits during the year. When you are in a garden frequently, changes go relatively unnoticed sometimes, but I was astounded by the total amount of growth many of our plants had put on in the 3-4 months between visits. My technician and the farm staff have done a beautiful job in my absence of continuing programs, maintenance, and adding new facilities. The biggest job and addition has been the complete rebuilding of the lathhouse with raised beds of pine bark to allow addition of so many plants to the collection that will not survive our acid, poorly-drained, clay soils - rhododendrons, heathers, kalmias, native N.C. mountain plants, and many other. Another major accomplishment has been the development of a new maintenance program through the research assistance of Dr. Tom Monaco that has kept the arboretum far more weed-free than in previous years. While in Raleigh recently, I prepared plating plants for the many plants accumulated this year and you will begin to see new things all throughout the grounds soon. Major "groups" of plants acquired this year include - wisterias, flowering quince, Japanese apricots, Arctostaphylos, Ceanothus, hollies, tree peonies, maples, Stewartias, magnolias, conifers, nandinas, birches, tulips, daffodils, and many assorted plants, probably between 400-500 new species and cultivars. The area west of the lathhouse has been filled and leveled in preparation for building our too long delayed Japanese Garden. The west half of the arboretum is being cleared, graded, and prepared for the next major expansion of the shade tree collection which will bring to completion the occupation of the entire arboretum site. During the winter, a holly hedge will be planted at the south edge of the arboretum to provide screening from the rest of the farm plantings and programs. Although not "visible" to the arboretum visitor, a major new resource has been the addition of a large concrete slab for equipment and media storage at the back of the farm to compliment the new lathhouse and container nursery built in 1980. Thankfully, the ornamentals program is about the complete its building and growing phase of the last 4 years and enter a period where more "steady" work can process and less effort in building. As always, our personnel continues to evolve and 1981 changes have included the loss of Ms. Carol Margolis (moved back to Vermont with her husband in a job move) who was full time teaching in ornamentals and has been replaced by Mr. Bryce Lane from Ohio State University; the departure of Dr. Dan Weatherspoon, our nursery crops extension herbicide specialist, to begin a nursery operation in Tennessee and who has been replaced by Dr. Walt Skroch, a longtime member of the department in herbicide research who switched from fruit and vegetable to ornamentals; and the creation of a new position in teaching of landscape design yet to be filled.

## Future Dates and Events to Remember

### Current

For those of you bored with the same self-guiding tour sheet for the arboretum, I've finally written a new one which is now at the center. So make a visit and make "new tour" and see some "new plants." I promise better service and more frequent changes next year as I'm more settled in one place.

### Course Available

During the spring semester, I will teach a course on Monday nights 7:00-10:00 PM in Room 159, Kilgore Hall on the NCSU campus entitled "Physiology of Landscape Plants." The course is taught at night specifically to make it available to industry professionals and others interested as well as the regular university students. Although you would likely not want to take it for credit and thus be required to go into all the reading and detail necessary; you can enroll to take it without credit and you would likely find it of great interest and a help to understanding the behavior of plants in your gardens. The course covers a wide variety of information - from garden history to problems from heat, drought, freezing, insects and diseases, soil problems, and such special landscape situation as interiors, containers, artificial lighting, etc. Registration is \$70 (I think - that was it last year at least) and you can register at the continuing education office at the McKimmon Center or at the first class on Monday, January 11, 1982.

### January 22 - Friday - 8:00 PM

A slide show on highlights of gardens of Europe seen in the 1981 will be presented in Room 159 of Kilgore Hall on the NCSU Campus. Bring a friend. Each member will be given a plant of Jasminum polyanthum - a very fragrant flowering vine for indoor culture as a hanging basket plant (listed in White Flower Farms catalog).

### Next Newsletter

In February with more information, announcement of China Gardens lecture and a spring garden tour, arboretum walks, etc.

In considering the continuation of the arboretum plant listing begun in the last newsletter, I've decided that the plants have grown so much our list is so incomplete without the new addition to not continue it until I can return and revise the whole thing. Sorry.

I most sincerely thank each of you for your support of the NCSU Arboretum (now the JC Raulston Arboretum) during 1981 and hope that you have a very Merry Christmas and a most wonderful gardening year in 1982.

(P.S. - An Arboretum membership would make a wonderful Christmas gift for a gardening friend - not to mention what it would do for my spirits - we need the support! Thanks!)