

JC Raulston Arboretum

Friends of the Arboretum Newsletter

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J. C. Raulston

Spring greetings to all from another tardy newsletter; written under the competition of interests to be enjoying the magnolias, daphnes, Houstonia, daffodils, Iris aucheri and I. bucharia, early rhododendrons, quinces, cherries, etc. which plead for attention in the arboretum. Not to mention the pressure of my secretary anxiously waiting to grab this last page (as the rest is finished and run), type it, run it off and hit the mail tomorrow. Unfortunately, pressure helps me (i.e., is necessary) to action so here goes. First of all - First of all - I would ask you to flip to the announcements page now if it will take you some days to gradually read through the newsletter. Several events are in the immediate future, so check, those now.

As usual an extremely busy period in the 4 months since the last newsletter and I'll try to cover some of the plant highlights. December brought a visit to a most extraordinary individual an nursery - Mr. Don Shadow of Shadow's Nursery in Winchester, TN (wholesale only). The few hours spent were far too few - a true plantsman seeking unusual plants and variations in the wild and seedbeds since he was a child. An extraordinary array of hundreds of exceptional plants from all over the world - just a few for example - a weeping Katsura tree, a 12' wide weeping hemlock, variegated Forsythia and Magnolia grandiflora, a wonderful Cornus mas selection, many specimen Japanese maples - on and on. Happily, his mission is to produce these plants commercially and make them available in quantity and size for landscape contractors and garden centers. Sadly, however the S.E.U.S. market does not readily use superior plants and cultivars - so many do not merchandize well - e.g. a large block of specimen Acer buergeranum - a very beautiful and well adapted to N.C. maple - remains almost untouched because the landscape industry doesn't know, and therefore won't use it. But others are moving well and the nursery quite a success. Mr. Shadow is a man of many interests and talents - and one of the unusual parts of this operation is the raising of extremely rare and endangered species of exotic animals (many extinct in the wild now) for preservation and sale to zoos. Birds, reptiles and lemurs occupy the propagation house; emu's peer in the main office window, and camels chase the visitors car across the pasture. A wonderful day with a fascinating individual greatly affecting the nursery industry today.

At the arboretum this spring, undergraduate students Barbara Hansen, Robert Hays and Dana Martin are doing a special topics course in arboretum development with me working weekly in mapping plant locations, labeling, planting, writing the new self tour sheet now out, and other activities. We planned a class trip over spring break to visit a number of public gardens - and ended up taking advantage of the airlines fare - \$99 rates anywhere in the U.S. - and flew to Seattle to spend 9 days visiting gardens and nurseries in Portland, Seattle and Vancouver. Their winter was mild and Spring was early so the gardens were spectacular, highlighted by species rhododendrons everywhere. The highlights (for the limited space here): the new Sino-Himalayan hill at Van Duesen with a recently moved 15' Rhododendron calophytum in full bloom; the rock garden and Asian garden at UBC and the plant highlight of the trip - my first plant of Edgeworthia papyrifera in full bloom - white and yellow fragrant "pompoms" on leafless branches - magnificent!; the Olympic Rain Forest (in a downpour of course - they've had 45" of rain already this year!); the fine Japanese garden in Portland; a ton of books purchased at Powell's Book Store; fields of choice daffodils in bloom at Mitsch's; the ever-more wonderful Rhododendron Species Foundation; buying of many plants at a variety of garden centers (you should see a car-full of plant nuts trying to bareroot and prune plants for suitcases on the return flight. My 45 quart-gallon plants condensed to one cardboard box amazingly!); and the trip highlight - Iseli Nursery and my first meeting with Jean Iseli (the "head grunt" as his business card explains). Again, a remarkable man - working toward his goal of the world's finest and most unique nursery (again wholesale only). The primary direction is quantities of sizeable rare conifers. They've added 60 acres of specimen boxed containers in the last 6 months (on top of the 150 that existed) and plan another 150 acres next year. You can see blocks of hundreds of 8-12' Sciadopitys, thousands of 8-10' Cedrus cultivars, tens of thousands of specimen Blue Spruce cultivars, and hundreds of thousands of 3-6' dwarf Alberta spruce. The 20 minutes I had available to visit with Mr. Iseli was mid-blowing. We dashed from this block to that house, he bubbles with hundreds of "what if's?", new techniques, new plants, new forms - it was a dazzling experience and kept my mind churning for weeks - what a place! Incidentally, he called yesterday with the news that the newly formed American Conifer Society (page 14) will hold their first annual national meeting in D.C. at the National Arboretum on July 30. The national conifer specialists will all be there and those of you with interests in this area may be interested in attending.

Many other activities this spring - short courses, a Hort. Club trip to D.C. (my first time to visit the Smithsonian hort program under the dynamic James Buckler - now preparing the first U.S. garden ever in the German IGA show, and a new garden - the Hillwood Estate with excellent French parterres); talks at Longwood Gardens and the New York Botanical Garden (and trapped in the record 20" snowfall that followed my talk). But the most exciting experience has been here at home - watching our plants, adding new things. With our mildest

winter in many years (low of 8-10° F) so many unexpected things have survived (a fuller report later - after late freezes are over). April promises much excitement - planting of the perennial, a new azalea bed, and finally - construction in the Japanese garden and beginning of those plantings.

The following excellent article by Michael Dirr on Witch Hazels is reprinted with his permission. These grand plants are superbly adapted to N.C., but never produced or sold here. We now have 10 cultivars in our collection and they get more spectacular each year (p.s. Arnold's Promise is fantastic!). Primary mail order sources of named cultivars are Greer Gardens, Gossler Farms and Girard Nursery (all on our sources list). On the west coast we saw beautiful plants now being grown in New Zealand and shipped by boat in cold storage (2 months). What a pity the U.S. must depend on Holland and New Zealand to produce plants of exceptional quality for the U.S. markets. I want to see N.C. grown plants!

Book News

A new source of used horticultural books with many excellent titles and reasonably priced: Warren F. Broderick-Books, 695 4th Avenue (P.O. Box 124), Lansingburgh, NY 12182 (518-235-4041). In their winter '83 list I note two titles of newly published books that should be of interest to (A) design oriented "Friends" - a new edition of the Sylvia Crowe book Garden Design (the original of 1969 is a classic now, highly regarded and somewhat difficult to find) at "about" \$35 when available; and to (B) conifer "Friends" - an update of the book *Tsuga canadensis* (originally by John Swartley) by Humphrey Welch (no price yet).

For those that enjoy travel and visiting gardens - a new guide, *The Great Public Gardens of the Eastern United States* (Doris Stone, 1982, Pantheon Books, NY, 3090 p., \$12.95) will provide information about 34 major gardens on the eastern seaboard (most are within 50 miles of a direct drive from Miami to Boston; Callaway Gardens is the only one off this route). In the discussion of each garden the author gives unique features, history, hours, location, admission fees, a description coverage of the visiting experience - what one sees and encounters, and a fairly frank personal evaluation by the author of the gardens strength and weakness. Four North Carolina gardens are discussed: North Carolina Botanical Gardens at Chapel Hill, Sarah P. Duke Gardens at Durham, Tryon Palace REstoration at New Bern, and Orton Plantation at Wilmington.

For those interested in record sized trees - a National Register of Champion Trees of the U.S. is available for \$3.00 from National Registry of Big Trees, American Forestry Association, 1319 18th St., N.W., Washington, DC 20036.

Several have kidded me for putting the Empress tree, Paulownia, of my self-guiding tour of the arboretum and calling it a highly valued lumber tree when everyone "knows" it is a "trash" tree. A Friend sent me a newspaper clipping headlined Tree Poachers Afoot with the following story "BALTIMORE (AP) - Owners of Paulownia trees, large Oriental trees prized for their wood, should be on the lookout for poachers with heavy-duty lumbering equipment, police say. Police report six thefts of the trees since December, including a 60-foot Paulownia stolen from a Sykesville business last week."

In the world of ornamental horticulture and landscape design, the flow of new ideas and concepts today often follows the path of development of origination in Germany, then spread throughout Europe (particularly to Holland and England), then movement to the U.S. west coast, then across the U.S. to the east coast (generally 10-20 years from Germany to N.). With the intense interest in Germany in ornamentals use, coupled with a society wealthy enough, and committed to public and social welfare, their industry is extremely innovative and well supported by extensive research and probably has the most detailed horticulture literature in the world. Few ornamentals and landscape people in the U.S. are fluent in German, little of the material available has been translated, and so we lose the possible use of these existing resources. One of the most useful references I've seen in some time is a new translation of a German reference work I just received. *The Pocket Guide to Choosing Woody Ornamentals* - a concise manual of the correct uses of woody plants by Gerd Krussmann, translated by Michael Eppp (1982, Timber Press, P.O. Box 1631, Beaverton, Oregon 97075 - 141 p.) offers lists of landscape plants for almost every conceivable quality factor (e.g. bark effects, a flower sequence calendar, fruit ripening sequence, poisonous plants) and landscape usage (e.g. heavy clay soils, bee attracting species, cemetery plantings, impenetrable thorn hedges). Krussmann is a dendrologist at the Dortmund Botanic Garden and sums up the book with "the underlying idea of the first edition of this book has remained the same: a working reference for garden designers, landscape contractors, home gardeners and above all, young gardeners." A superb useful reference and makes one wish for further translation of other such existing books. Highly recommended. (Postscript - 2 days after writing the above review I was cleaning out files in my office and encountered the following notice: "Gerd Krussman 1910-1980. The well known German dendrologist and author Dr. h. c. Johann Gerd Krussmann died on June 5, 1980. Highlights of his professional career were his years with the nurseries of Ludwig Spath in Berlin, his work at the Botanical Garden Berlin-Dahlem where he was responsible for the development of the arboretum, and his directorship of the Botanical Garden and the National Rosarium of Dortmund. Gerd Krussmann has been the author of some 20 books on woody plants, hardy herbaceous perennial, nursery practice and related topics; he was the founder and for many years the editor-in-chief of the "Deutsche Baumschule").

Reading about individuals associated with plant studies is as fascinating as the plants themselves. The story of Aven Nelson in the fall '82 issue (Vol. 45(3): 27-31) of the University of Washington Arboretum Bulletin is a good example. He joined the faculty of the University of Wyoming as an English teacher in 1887. Because of his interest in natural history he was asked to teach a course in elementary botany - of which he later stated "I assure you it was elementary indeed. I discovered....that in the absence of knowledge, enthusiasm will do much to cover up the deficiency." He later studied at Harvard to acquire the technical material needed. Upon returning to Wyoming he was expected to prepare a plant collection for the 1893 Chicago World's Fair Wyoming exhibit. In doing so he found most species he was collecting to be new to science and he began a lifetime study of collecting Rocky Mountain area plants. Each summer his family went with him in a big camp wagon as he collected. He lacked funding and had to pay his own way by

collecting plants to sell to other herbaria - "in no sense were these field trips primarily pleasure trips - we labored like harvest hands, for all expenses had to be met from our sales." (and we think funding is tight in universities today!). The article contains many stories; he was the first to collect in the Yellowstone National Park area, founded the Rocky Mountain Herbarium, wrote floras, became president of the university, taught farmers and ranchers about planting orchards and gardens, and planned campus tree plantings (and did much of the planting himself). After 44 years of marriage his wife died, an two years later at the age of 762 he married his graduate assistant and spent another 21 years in plant-hunting expeditions with her throughout the U.S., Canada and Europe. His concepts on education remain valid (and perhaps even more needed today). "Our system...has become so complicated that even an educated laity has been unable to follow. Other interests and pastimes - notably athletics, motoring and the movie - have bidden with the insistent publicity for recognition. The results have been a deadening indifference to the charms of the living world and we as a people have lost the cultural value of a science that co do so much to promote that type of happiness that comes from a sympathetic contact with and an adequate understanding of that part of our environment that brings re-creation to our bodies, joy to our minds and peace to our souls - the world of life about us." He partly blamed the academic world for the indifference of the public and felt many professionals were unwilling to talk to the public, or be able to communicate with them at a simple and understandable level. He felt public ignorance could result in bad legislation, as it was the responsibility of scientists to share their knowledge. He believed that natural science courses should be offered to students of all ages; that courses should be challenging and interesting; and that students should be exposed to and work first with plant, an only later use books (my emphasis) after the interest in plants had been kindled and the desire for more knowledge was present. Sadly far too few of our NCSU horticulture students have ever gardened or had any actual experience of involvement with plants in an active manner.

Incidentally the ARboretum Bulletin is one of the 2 or 3 bet such publications put out by U.S. botanic gardens or arboretums - very readable with much useful information on landscape plants that will grow in N.C. Available from Arboretum Foundation, University of Washington XD-10, Seattle, WA 98195 (206-325-4510) for \$10.00 a year.

I got a new view of the origins of botanical gardens in reading *The Garden of Eden: The Botanic Garden and the Re-creation of Paradise* by John Prest (1981, Yale University Press, 123 p.). "Throughout the middle ages the peoples of Europe believed that the original home of mankind had lain in a garden, where the climate was always mild and the trees flowered continuously. The Fall and the Expulsion were held responsible for the differences between the seasons, and for the disordered world which lay between the frozen wastes to the North and the scorching deserts to the South; for the need to toil in the fields, for pain, for sorrow, and for death. Nobody knew for certain whether the Garden of Eden had been swept away by the Flood, and it seems to have been generally assumed that an earthly paradise still existed. With the fifteenth-century voyages of exploration hopes ran high that the Garden might yet be rediscovered, and Columbus believed that he had identified its location in the New World. As the sixteenth century wore on, and no authentic Paradise was found, men began to think, instead, of searching the globe for the scattered pieces of the creation, and collecting them together into Botanic Gardens. In this way the best hopes of mankind in the late sixteenth and early seventeenth centuries came to rest, not in 'progress' or in some foreshadowing of the industrial revolution, but in the recovery of the original home, in a 'Garden of Re-Creation'".

It was felt that if all existing plants could be collected together that the Garden of Eden would exist again. After a while it became apparent that more and more plants were continually being discovered and that they were getting further and further away from the possibility that they could ever get all plants in one garden at one time. The next "phase" or attempt at creating Paradise concerned extending the season (since it was eternally spring and plants flowered and fruited all year in Eden) - first by hunting and using fall, winter and spring blooming plants, and later with heated protected structures.

Prest's research is detailed and thorough giving hundreds of examples of how religious leaders felt about Eden, plants and animals over a several hundred period. One interesting one was that God had imprinted on plants the "signatures of their virtues" - so that one could tell the "intended" use by looking at the plant. For example - the walnut fruit has a husk like the top of a skull and the kernel inside is convoluted like the brain - therefore, it should provide some benefit for the head. Although this is not a book for all interests, it does provide interesting new insights into why and how our botanic gardens were first begun and details of the philosophy behind the significant early gardens at Padua (the first - in Italy), Leyden (Holland), Uppsala (Sweden), Oxford (England), and Paris.

"To get maximum attention, it's hard to beat a really good mistake." Pat Hall

As mentioned in the last newsletter in the article on native azaleas and their use, there are many fine native plants available for use in our landscapes. Most books on native plants landscaping were written for the west coast or New England, and it is a delight to find an excellent new guide published in N.C. for use in our area. *Landscaping with Native Plants* by Cordelia Penn (1982, John f. Blair, Publisher, 1406 Plaza Drive, Winston-Salem, N.C. 27103 - \$14.95 - 226 p.) is well written; full of valuable information on the complete spectrum of making a landscape - from preparation and design ideas, through the range of plants to use, various habitats and kinds of gardens, to care and maintenance; and is well illustrated with some color photographs and many beautiful drawings by Dot Wilbur of the UNC Botanical Garden.

Zen questions of the poet, artist, philosopher Sadoskichi Hartmann. 1967-1947

"A thousand years may pass "If all year round

Till this fir bends to decay. With blossoms the hills were white,

Fair morning-glory, Would they seem as bright?"

Content with a single day,

Do you mourn your shorter stay?"

I hate to repeat myself - but with new members continually joining the Friends I want to share highlights and a book that is a must for pleasurable reading is *The Essential Earthman* by Henry Mitchell (Indiana University Press 1981, 244 p. \$12.95). I've read it 3 times and I still do not dare keep it on my desk for an idle moment I'll casually pick it up, flip to a page anywhere - and suddenly realize 2 hours are gone. Wonderful writing, great humor, careful personal gardening observation and experience, and a wealth of philosophy. A quote: "Now the gardener is the one who has seen everything ruined so many times that (even as his pain increases with each loss) he comprehends - truly knows - that there yet can be a garden so that all who see it say, "Well, you have favorable conditions here. Everything grows for you." Everything grows for everybody. Everything dies for everybody too. There are no green thumbs or black thumbs. There are only gardeners and non-gardeners. Gardeners are the ones who ruin after ruin get on with the high defiance of nature herself, creating, in the very face of chaos and tornado, the bower of roses and the pride of irises. It sounds very well to garden a "natural way". You may see the natural way in any desert, any swamp, any leech-filled laurel hell. Defiance, on the other hand, is what makes gardeners."

"Mollison's Bureaucracy Hypothesis: If any idea can survive a bureaucratic review and be implemented, it wasn't worth doing."

"Second Law of Gardening": Fancy gizmos don't work.

New Catalogs and Plant Sources of Interest

Interested in trying something really exotic and rare that won't take much space or cost much? Get a copy of the catalog (\$1.50) for the SISKIYOU RARE PLANT NURSERY, 2825 Cummings Road, Medford, Oregon 97501 (503-772-6846), read all the fascinating descriptions, and order something you've never heard of before to experiment with. A very helpful plant culture code is given for each plant for its cultural requirements - sun, shade, wet, dry, well drained, etc. Roughly 1,000 different plants from all over the world, mostly dwarf things less than 1' in height for a woodland or rock garden, and a real treat - mostly priced at \$1.50-2.00 per plant. (Though I ran into a real one of those—" Oh-Oh, how did that add up to \$500! Now where to cut-?). Just a few examples of choice plants listed that are often difficult to find: 7 heathers, 8 cyclamens, 8 daphnes, 7 genistas, 14 gentians! (wanted all but restrained to 2 - sigh!), 22 groundcover phlox, 70 saxifragas, 13 trilliums, 15 dwarf conifers (several quite choice and all very reasonable at \$2-4 @), and a wonderful list of 55 different ferns. Rock gardening is perhaps the "ultimate" gardening experience. Play with a few plants this year and you may become fascinated enough to decide to experience the grand opportunity of attending a national convention and tours of the American Rock Garden Society which will be held in Asheville, NC June 6-10, 1984 (more about that with registration details and information as the time approaches). Incidentally, membership in the ARGGS is \$9 per year with a quarterly bulletin and seed exchange - Donald Peach, Rt. 1, Box 282, Mena, Arkansas 71953.

I received a most fascinating 194 page seed catalog from England listing seed of an extraordinary wide range of plants - annuals, perennial, woodies; many extremely rare. Chiltern Seeds, Bortree Stile, Ulverston, Cumbria LA127PB England (I don't know if there is a cost but it would be nice to slip a dollar bill in your request letter - the information in the catalog is easily worth that much and more.) It is great fun to read and has everything from Baobab trees from Africa, to American Saguaro cactus, to the Widdringtonia conifers (as well as morning glory, marigolds and geraniums). Again, a hundred more things that I can afford tempt me! One of the more fascinating ones is *Desmodium gyrans* in which the leaves move and resolve in a jerky orbit at temperatures between 72°-95°F. Their comments about the Venus Fly Trap from "Carolina" include" - the trap snaps shut -- the rest is too painful to describe -- macabre lottle plants." Fascinating trivia throughout - e.g. - I had long heard of *Disa* a South African orchid and one of the most beautiful and famous ones in the world, but I had never heard the derivation of the name - which came from a mythical Queen Disa of Sweden who as a challenge was ordered to appear before the king neither naked nor clothed - and she solved the challenge by appearing wrapped in a fishing net. Now who says horticulture is dull!?

A interesting nursery specializing in west coast native plants (primarily CALifornia) is LAS PILATAS NURSERY, Star Route Box 23X, Santa Margarita, CA 93453 (805-438-5992) (Catalog \$1). An extremely wide ranging list with the most interesting feature to me of considerable description of the cultural conditions required to grow various plants. Within California climatic conditions vary enormously even with short distances and to grow a plant from 2 countries away may require considerable environmental manipulation. And 3,000 miles away in N.C., these requirements are even more essential to understand. Our two main limitations here are often winter hardiness for the Southern and coastal California species, and summers with too much water for the dry summer desert plants (overhead shelter and raised well drained planters with no watering can handle this). A unique feature I've not seen elsewhere is the listing of each plant by both Sunset and USDA hardiness zones. The majority of plants listed would be for the specialist requiring knowledgeable culture for success in N.C. However, one of the most promising plants from the list that we have on trial in the N.C.S.U. Arboretum in *Yucca whipplei* - Our Lord's Candle - spectacular narrow blue-leaved yucca with 8' spikes of flowers when it blooms. Ours has been through 2 winters (to 2°F) and seems to be growing well.

A noted public garden has begun to sell plants featured in the garden by mail order and they offer a number of fine unusual plants. Write for the Winterthur Plant List available from Winterthur Plant Shop, Winterthur Museum and Gardens, Winterthur, Delaware 19735 (302-656-8591). Plants are priced at \$3.25-\$15.50 (+20% shipping). There are a number of fine *Rhododendron* species and cultivars, 9 fine *Viburnums*, and such novelties as *Quercus cerris* and *Leptodermis oblonga* (which I've never seen or heard of - 4' shrub with lavender flowers in autumn and hardy to -10°F; sounds interesting).

A small leaflet from Southmeadow Fruit Gardens, lakeside, Michigan 49116 (616-469-2865) lists choice and unusual fruit varieties for home garden connoisseurs. They list over 200 apple varieties - many very old types dating to the 16th and 17th centuries - with such intriguing names as Black Gilliflower, Late Strawberry, Pitmaston Pineapple, and Westfield Seek-No-Further. How about an apple with clear green skin and bright red inner flesh (names 'Surprise' appropriately enough)? Pears, Medlar, Peaches, Plums, Apricots, Cherries and other fruits are also listed. The price leaflet just lists varieties for sale - for those interested in more information a 112 page catalog with the history, descriptions and illustrations of most varieties listed is available from the firm for \$8.00.

A wonderful list of relatively inexpensive plants is available for \$1 from Daystar, Litchfield-Hallowell Road, R.F.D. 2, Litchfield, ME 04350 (207-724-3369). This was in my original nursery list as The Rock Garden and has recently changed names. I was particularly excited by their listing of 71 different heathers at \$1.50-\$3.50@. These plants are rarely seen in N.C. but individual people from the coast to the mountains have had good success and the 35 cultivars in the NCSU Arboretum (now the JC Raulston Arboretum) are doing well so far. Keys to success in N. C. - treat like rhododendrons - raised beds of peat or pine bark giving good drainage and acid soils, best flowers in full summer sun, do not fertilize; in the mountains protect from drying winter reason (like Daphnes) - but they do that at Longwood Gardens, in the Pacific N.W., and Europe - plant a bunch and accept the occasional losses (easily propagated by cuttings once plants are established). Other "goodies" in this catalog include 101 dwarf conifers, rhododendrons, a wide variety of unusual trees and shrubs, primulas, saxifraga, hosta, phlox (23 groundcover types), sempervivums, sedums, and many garden perennial.

A truly unique group of plants is offered in the catalog from The Banana Tree, 715 Northampton St., Easton, PA 18042 - 28 different species and cultivars of banana plants ranging from 4-1/2-80' in mature size and priced at \$4.25-\$22.00. They could be an interesting summer foliage accent (as we're going to try in the arboretum this summer, or the smaller ones as a tubbed sunporch plant. The catalog also lists seed of a wide array of unusual tropical plants.

The last "new" catalog received before this newsletter goes to press is also one of the most exciting. It has been on the catalogs list at the visitor center for several years but the newest catalog is greatly expanded. For a catalog send \$1.50 to Forest Farm, Ray and Peg Prag, 990 Tetherow Road, Williams, OR 97544. Their basic philosophy is to offer smaller plants at very low prices (41.75-\$2.75 for most, a few at \$3.75) for people who would like to save money and take the time to grow the plants to larger sizes. They list about 500 unusual species, mostly woody but also some perennial and vines - with many extremely rare things hard to find for sale anywhere (e.g. Cyrrilla, Eucommia, Glyptostrobus, Hovenia, Idesia, 36 pines, Symplocos). Their list of 34 Eucalyptus is intriguing but I would want to explain to N. C. readers a bit about the hardiness ratings given in the catalog. They are accurate for that area (Oregon) - but the weakness of Eucalyptus adaptability in the S.E. U.S. relates to the fact that they will all grow rapidly when temperatures are warm and moisture and nutrients are available. In areas with a consistently distinct cooling fall (Pacific N.W., British Isles) to slow growth, the plants harden to greater frost resistance. In the S.E. U.S. - they may do this some years - but a mild, wet fall will stimulate active growth which can be severely damaged by an early hard freeze. The culture for best Eucalyptus survival in N. C. is to keep the plants hardened and in as little growth as possible - no fertilizer or water. (Now having said this, of course I'm ordering 12 to try!). Many, Many wonderful plants in this delightful list. One last interesting note - they are the first I've seen to list the native American chestnut which was destroyed by the infamous Chestnut Blight epidemic. However, in several isolated areas in the western U.S. mature groves still exist where the blight has never appeared (I saw a large specimen on the UBC Campus this spring) and they are apparently getting seed from these. The seedlings would likely grow here in N. C. 1-5 years before dying (generally becoming infected when the first flowering occurs - there is no chemical control).

New Plants Received in the NCSU Arboretum (now the JC Raulston Arboretum) - January-March 1983

Hybrid roses - Love, White Lightnin, Fascination, Honor, Mon Cheri, Smoky, Sudden Surrender, Interama, Apricot Nectar, Redgold, Evening Star, Razzle Dazzle, Sun Fire, Viva, Tribute, Sunbright, Golden Masterpiece

Cornus florida cultivars - Sweetwater, Fragrant Cloud, Broadview Red, Cherokee Chief, Jr. Miss, Prosser, Super Red, Weeping, Welch's Bay Beauty, Sachet

Liriope - Reigel's Big Blue, Tidwell's Big Blue, Blue Cushion, Blue Spire, Border Gem, Christmas Tree, Curly Twist, Gold Banded, Grandiflora, Green Midget, Hawk's Feather, John Burch, Lilac Beauty, Majestic, Majestic Variegated, Minor, Monroe's White, Monroe's White Variegated, Purple Bouquet, Sheffield, Silver Dragon, Silvery Midget, Superba, Webster Wideleaf, Wonder Evergreen

Anemone - vitifolia robustissima, japonica alba, japonica Margarete, japonica September Charm, pulsatilla alba, pulsatilla rubra

Syringa vulgaris - Alphonse Lavalle, Belle de Nancy, Charles Joly, Charles X Ellen Willmott, Ludwig Spaeth, Marie Legraze, Michael Buchner, Mme. Casimir Perier, Pres. Grevy, Rhum von Horstenstein

Lagerstroemia indica - Byers White, Regal Red, William Toovey

NCSU Azaleas - Adelaide Pope, Carror, Elaine, Emily, Jane Spalding, Pink Cloud, sunglow, Autumn Sun, Cochran's Lavender, Pink Camellia, Wolfpack Red

Cytisus - Dukaat, Kirkland, Goldfinch, Zeelandia, St. Marys, Moonlight, Kewensis

Calluna vulgaris - Mrs. Ronald Gray, Valorian, minima Smith's variety, Humpty Dumpty, Dainty Bess

Trillium chloropetalum, viridiflora, ovatum, cernuum

Gentiana sino-ornata, *verna*, *asclepidea*, *calycosa*

Genista villarsii, *horrida*, *pilosa procumbens*, *dalmatica*, *tinctoria flora-plena*

Selaginella watsonii, *kraussiana* Chartreuse form, *rupestris scopulorum*

Sisyrinchium douglasii, *albiflorus*, *macouni alba*, sp. Andes Mts.

Gardenia jasminoides - August Beauty, Mystery, *radicans*, *veitchii*

Juniperus horizontalis - Bar Harbor, Blue Chip, Emerald Spreader, Hughes, Huntington Blue, Prince of Wales, Turquoise Spreader, *Wiltonii*, Youngstown, Yukon Belle

Juniperus sabina - Arcadia, Broadmoor, Buffalo, Calgary Carpet, Scandia, *Tamariscifolia*, *Tamariscifolia New Blue*

Juniperus scopulorum - Cologreen, *Cupressifolia*, Gray Gleam, Medora, Pathfinder, Table Top Blue, *Welchii*, Wichita Blue

Pyracantha - August Gnome, *Coccinea Kasan*, *Lalandei Monrovia*, *Coccinea Lowboy*, *Coccinea Wyattii*, Fort Graberi, Hybrid Mohave, Hybrid Red Elf, Hybrid Ruby Mound, *Koidzumi Santa Cruz*, *Koidzumi Victory*

Raphiolepis - Majestic Beauty, *Indica Charisma*, *Indica Enchantress*, *Indica Spring Rapture*, *Indica Springtime*, *Indica White Enchantress*

Crocasmia Lucifer *Photinia parvifolia*

Heuchera Mt. St. Helen's *Decaisnea fargesii*

Lamium maculatum Beacon Silver *Polygala chamaebuxus*

Lithocarpus dnesiflorus f. *attenuato-dentatus* *Hoheria lyellii*

Kirengeshoma palmata *Comptonia peregrina asplenifolia*

Mahonia japonica *Hebe* sp.

Gaultheria sp. (purple fruited) *Rhododendron radicans*

Calocedurus decurrens - Dwarf Witches Broom *Cassiope mertensiana*

Akebia X (*trifoliata* X *quinata*) *Xerophyllum tenax*

Akebia quinata - White flowered *Daphne retusa*

Juniperus communis 'Jackii' *Dicentra spectabilis* Pantaloon

Berberis calliantha *Rogersia sambucifolia*

Photinia villosa *Veronica spicata* Red Fox

Epimedium pinnatum *Deutzia gracilis* - variegated

Epimedium alpinum rubrum *Callicarpa dichotoma*

Astilbe - Deutschland, Red Sentinel, *Ribes sinanense*

Taquetic Superba, Rheinland *Meliosma myriantha*

Tricyrtis hirta *Magnolia sieboldii* - yellow stamens

Filipendula rubra venusta *Pittosporum* sp.

Adonis amurensis Fukujii-Kai X *Cupressocyparis ovensii*

Prunella webbiana Loveliness *Stewartia* sp. 'Issai'

Sedum spectabile aura variegata *Rhododendron mucronulatum*

'Album'

Sedum spectabile Meteor *Rhododendron kiusianum* 'Otome

No-Mai'

Sidalcea X William Smith Elix serrata 'Koshobai'

Veronica virginica alba *Viburnum dilatatum* - yellow fruit

Camellia X Ackscnt Ilex serrata 'Gempei'

Camelia X Cinnamon Cindy Stachyurus praecox 'Issai'

Ilex X Clusterberry Skimmia japonica - red flowered

male

Ilex X attenuata Sunny Foster Osmanthus heterophyllis 'Furi

Goshiki'

Ilex crenata Twiggy Ilex pedunculosa - prostrate

Lagerstroemia X Tuscarora Suchsia magellenica

Hibiscus syriacus Helene Fuchsia magellenica pumila

Magnolia X Galaxy Prunus persica Peppermint

Ardisia virens Prunus persica Red

Castanopsis cuspidata Thuja occidentalis Smargard

Cotoneaster rugosus Magnolia X Woodsman

Distylium myricoides Imperata cylindrica rubra

Euptelea polyandra Cyclamen coum

Hosta tsushimensis Cassiope X Edinburg

Koelreuteria bipinnata Antennaria dioica Nyewood

Pinus yunnanensis Hosta tardiflora

Pittosporum heterophyllum Picea breweriana

Pyracantha crenulata Phyllodoce empetriformis

Pyracantha fortuneana Blechnum penna marina

Quercus muhlenbergii Asarum kartwegii

Quercus myrsinaefolia Arctostaphylos thymifolia

Rhamnus crenatus Anthyllis hermannise pompacta

Rhododendron japonicum Daboecia cantabrica alba

Rosa helenae Tanacetum haradjanii

Rosa longicuspis Cyathodes colensoi

Rosa rubus Asplenosorus ebenoides

Stachyurus chinensis Dryopteris dilata recurvata

Viburnum rhytidophyllum Hebe X Carl Teschner

Acer platanoides Crimson King Mesembryanthemum sp. Basutoland

Rhododendron Bureavia Fabia, Lori Eichsler, Salix hylomatica

Unique, Elizabeth Aethionema Warley Rose

Picea orientalis nigra compacta Pleione bulbocodioides

Picea sitchensis Papoose Rubus articus

Picea abies pumila Gaulnettya wisleyensis Wisley Pearl

Juniperus communis Berkshire Phyllododse breweri

Aesculus glabra Daphne tangurica, arbuscula

Sorbus tianshanica Anemonopsis macrphylla

Viburnum cheanulti Dryopteris filix - mas cristata

Buxus Vardar Valley Dicentra oregana, cucullaria

Hamamelis mossis brevipetala Polysticrum setiferum rotundatum

cristatum

Lamium maculatum Beacon Silver Tricyrtis puberula

Smilax biflora - dwarf Arbutus occidentalis

Pieris amamiana Acaena argentea

Coronilla valentina Clematis spooneri

Ceanothus pumulus Clematis macropetala

Ribes sanguineum alba Clematis Niobe

Osmarea burkwoodii Clematis henryi

Magnolia acuminata var. subcordata Clematis jackmani

Clematis texensis Duchess of Albany Clematis Duchess of Edinburgh

The list totals roughly 313 new accessions of species of cultivars added to the arboretum collections from January through March 1983.

Announcements and Coming Events

On Tuesday, April 26 at 7:30-9:30 a WRAL-Gardens Azalea Culture Symposium will be held at the Athens Drive High School Auditorium in Raleigh. WRAL-Gardens are bringing Mr. Fred Galle from Callaway Gardens to assist with their garden development program and are very generously inviting the public to hear him speak. Mr. Galle is one of the nation's most distinguished and honored horticulturists and the national authority on garden azaleas, which he will discuss at this program. The symposium is sponsored by Capital Broadcasting Co., Inc., Wake County Agricultural Extension Service, and the NCSU Horticultural Science Department. There is no charge.

Attention Conifer Crazyies! Two notes of interest for you. (A) In the fall a gathering of 32 conifer specialists was held at the home of Joel Spingarn in NY and from this meeting a new plant Society has developed - The American Conifer Society - with a goal to popularize dwarf conifers. To become a charter member one can send a check for \$25 made out to The American Conifer Society to Editor, Dwarf Conifer Notes, P.O. Box 458, Little Compton, RI 02837. (B) On the local scene there is an ever increasing interest in dwarf conifers in N.C. and to serve this interest a trial "Dwarf Conifer Day" will be held April 9 for a limited number of people and if the response warrants we will repeat it later. This will be an all-day program consisting of a slide lecture and visiting for 4 excellent dwarf conifer collections. REGISTRATION for the day is \$15 which includes transportation and lunch. Since little time will exist between arrival of this newsletter and April 9 - please call in to me (J. C. Raulston - 919-737-3132) to reserve your spot and obtain information on where to meet - registration will be limited to not overcrowd the gardens to be visited.

Slide Show. On Wednesday night May 4 at 8:00 in Room 159 Kilgore Hall I'll present a slide show on plants and gardens of North Carolina to give ideas of places to visit during the summer months - either on major trecks or weekend jaunts. Too often (for me) its easier, or perhaps more likely to travel across country or overseas, than to see local things (Raulston's 3rd law of travel: "the closer something is to home, the more unlikely one will ever see it"). North Carolina has so much to offer and I'll try to stimulate your interest in some new areas to seek out.

The Magnificent Mammoth Perennials Plantout - announced last fall and postponed is now moving forward again. The rose plantings have been moved (for the second time in 2 years) to their final location opening up the 15' x 250' bed for planting of the perennials. The "Plantout" will occur on Sunday, April 17 from 9:00 AM-4:00 PM and those wishing to donate perennials divisions from their gardens should get them to the arboretum before or at that time, and all help will be appreciated.

Arboretum Workdays. We have far more development work to do than possible with our limited resources and volunteer help has been invaluable in the past. We are scheduling student volunteer workdays on April 9-10, 16-17, 23-24 and May 7 and all others interested in helping are certainly welcome as well. Hours are 9 AM-4 PM and major projects we are trying to complete are relocation of the grasses collection redoing of the groundcover beds, development of the beds in front of the lath house, construction and planting of the Japanese Garden (the BIG job ahead), and a wide array of planting, pruning, weeding and labeling jobs. Any help from an hour to a day helps us along in our development just that much more.

Annual Spring Trip for HS 531. Although scheduled for class members we always have room and welcome outsiders for this superb trip to the D.C.-N.Y.C. area. The tour leaves May 14 at 3:00 and returns May 21 at 10:00 PM; and includes Brookside Gardens, Dumbarton Oaks, National Arboretum, Behnke's Garden Center, Longwood Gardens, Swarthmore College and the late Dr. Wister's home garden, Tyler Arboretum, Duke Estate Gardens, Princeton Nursery, Paley Park, Ford Foundation Plantings, Old Westbury Estate, Plantings Field Arboretum, and an evening in NYC. Cost for the trip is about \$200 (depending on room situation desired and number going on the chartered bus) which includes hotels, transportation, garden admissions, and some meals. I need reservations in by May 3 at latest.

Early Summer Garden "Event". We're going to try another social at the arboretum - on Saturday evening June 4 about 5:00 PM till dark. Bring a blanket and a picnic basket of food for a group pot-luck picnic; bring extra plants, cuttings, divisions from your garden to trade or give away; or plants you'd like for others to see; and we'll walk, talk and look at things.

The summer landscape/nurseries/gardens tour to Germany, Austria, Switzerland, and Italy will be July 19-August 2 and will have many highlights including the IGA show in Munich (a world's fair of horticulture held once each 10 years in Germany), Mainau Island, Zurich Botanic Gardens, Villa Taranto, Isola Bella, Isola Madre, many other gardens, beautiful Alps and lakes, and all the superb pastry we can squeeze in. Contact me if interested in trip details and cost.

Next Newsletter (hopefully - since I've yet to make a scheduled announced time!) in August. Enjoy the summer - visit the arboretum often and take someone who has never been there - it's still almost completely unknown to the public.