

JC Raulston Arboretum

Friends of the Arboretum Newsletter

Number 22

August 1991

J. C. Raulston

Contents Page

- Notes From The Arboretum
- Notes From The Road (European Study Leave - Final Episode - Part V)
- Intimate Tales From An Exotic Bed
- Plants Distributed To Nurserymen - 1990 NCAN Summer Short Course
- Plants Displayed To Nurserymen - 1990 NCAN Summer Short Course
- Book News
- Plant Sources News
- New Plants Received In The NCSU Arboretum (now the JC Raulston Arboretum) - January to December 1990

Notes from the Arboretum

Well, 16 months without a newsletter. The reasons, excuses and explanations alone would fill a newsletter. But I will spare you all that. Suffice to say. I've had major writing block without any writing for any publication during this period. Hopefully the block is somewhat gone as I've finished 6 publications and this newsletter in the last 4 weeks and am finally enjoying my writing again. We shall attempt to get the next one out faster. Thanks for your patience in staying with us through this drought! Enjoy.

NOTES FROM THE ROAD (EUROPEAN STUDY LEAVE - FINAL EPISODE - PART V).

Saturday - June 4, 1988. Crossing from Northern Ireland to Scotland. Evening crossing from the port near Belfast across to Scotland. Eat on the ferry and work in the computer a bit on board - again thankful for a peaceful crossing with few waves on a glassy sea. Concerned about the unknown rooming situation awaiting me as the port city of Stranraer seems small to begin with (little traffic to Belfast these days - and at a far corner of Scotland not on the way to anywhere else) - and B&B's are usually difficult at best late in the evening. The town is a few miles away from the port so head that way and wander around - luckily finally getting a place to stay about 10 PM - was envisioning my first night sleeping in the car - not a pleasant prospect with it filled with "stuff" from this extended travel.

Sunday - June 5, 1988. Stranraer to Glasgow, Scotland. Breakfast and head south to explore the peninsula on the way to Logan which is on the west coast near the south end. The peninsula gradually becomes essentially treeless due to the winds which sweep across from the sea. Go all the way to the tip to see the lighthouse and dramatic cliffs at the point. Masses of *Armeria* growing on the cliffs provide bright puffs of pink against the red rock.

Back to Logan Botanical Garden as it opens at 10. The garden was originally a private garden founded by the McDouall family of Logan. It was given to the Edinburgh Royal Botanic Garden (as one of several "annex" gardens around the country) in 1968 as a site to grow tender plants which cannot be successfully grown elsewhere in Scotland. On this west coast near the warmer Gulf Coast currents which sweep down from the north, and with water on both sides of the peninsula, it is a most protected microclimate. The original garden covers about 3 acres (additional land acquisition has brought the total area to about 25 acres) and contains most of the visitor oriented plantings.

The garden is perhaps most famous for the old plantings of *Cordyline terminalis* which are used in mild areas of the British Isles to give the appearance of palms. Like those seen earlier in Cornwall, even here they were severely damaged in the recent record winter and are in a recovery stage. Several avenues of 15-20' tall Windmill palms, *Trachycarpus fortunei*, are in better shape and more impressive. The showiest flowering displays come from masses of the Blue Himalayan poppies, *Mecanopsis* and a large bed of bright pink/purple spikes of the terrestrial orchid, *Dactylorhiza foliosa* from Madera. Habitats range from south-facing stone terraces giving maximum winter cold protection for tender species (such as the rare conifer, *Pilgerodendron uviferum* from Chile - and *Arctostaphylos arguta* from Mexico) to the bog containing hundreds of specimen plants of the spectacular *Gunnera manicata* from Brazil.

Head north and on to a stop east of Stranraer at Castle Kennedy. It was begun in the early 18th century with an enormous amount of land moving, shaping, and site development (in diverted private work by government soldiers under the command of the 2nd Earl of Stair, the military man who owned the choice property located on a protected site between the Loch of Inch and Loch Crindl). An ancient castle in ruins provides a beautiful background for a large walled garden of perennials and assorted conifers. Long allees of grass give vistas through the old plantings and center on an enormous perfect circular pool (250' across?) framed by massive old rhododendron plantings. The newer (1867) Lochinch Castle is lived in by the current owners but one can walk through the plantings around the house. Perhaps the most impressive plants are specimens of *Rhododendron arboreum* grown from seed brought back from the Himalayas by Sir Joseph Hooker over a hundred years ago - and today reaching 45' in height with 28" diameter trunks.

Continue on north on the way to Glasgow debating what to do about housing. Concerned about the cost of something in the city, and the difficulty of finding it with the crowds supposedly visiting for the garden festival. Spend a long time driving around through smaller towns southwest of Glasgow hunting for B&B's to no avail, and finally stopping at a country inn/motel - out of my budget but tired and not up to fighting the city at this point so settle in.

Monday - June 6, 1988. Glasgow - Garden Festival. Sleep late in the AM as the curtains are fairly dark and the country area is very quiet. Get a shower and head down for breakfast in a lean-to conservatory at the side of the building - only one there at a beautiful table with a huge and elegant breakfast sizzling on a metal skillet on the table - very nice and a rare relaxed and luxurious time for me with the additional pleasure of enjoying two morning papers to read after the meal. Load up and head out about 10 - an extraordinarily late start for me.

Into Glasgow and to the visitor information center downtown - a long wait to get help with the room recommendation service as a couple ahead of me keeps rejecting all the rooms suggested for them. Am given a B&B room in a private home on the south side of the river in an area of fine old homes - drive out and am very pleased with the place - beautiful and elegant home with hundred-year old stained glass in the stairwell. Leave everything and head out to try to get an appointment with Renault to service the car - to one near the house first and they can't take me until Friday; then across town to the one seen Sunday when coming in and they are no better. So give up on that and go to the Garden Festival site even though the day is cloudy and not the best for photos.

The Glasgow Garden Festival is typical of the big international garden festivals held throughout Europe for so many decades - a speciality of the Dutch and Germans. This is the first to be held in Scotland and the site is an urban renewal district adjacent to the river opposite the downtown commercial district. About 150 acres are developed for the 6 month show and most will be redeveloped to public housing and parks in coming years to "upgrade" the region.

Shortly into the site I realize I've not brought nearly enough film with an enormous amount to shoot. Spend the afternoon going through the grounds with a wide variety in quality of display from inspired to tacky. Sculpture is the highlight for me - dozens of photos taken of everything from "Rolling Moon" (a metal sphere floating on an arch stretching over a pavilion) to scarecrows to a gigantic and bizarre nude woman (featured recently in the 1990 book *Eccentric Gardens*), with my favorites - "Twenty-One Spires" by George Wyllie in the five senses pavilion with stones "floating" on the surface of water and a magnificent small piece called "Season Stone" of red sandstone. Interesting display of peat digging techniques from the old hand spades to modern mechanized equipment including the use of peat blocks in making heather gardens; an "Italian" garden of mirrored walls to expand the horizons; Chinese, Japanese and other national gardens (including an embarrassing U.S. garden promoting Ameriflor '92 with nothing to see it in).

A pyramid-shaped concept home of glass available from a contracting firm was fascinating but incredibly overpriced considering the square footage. Two of my favorite displays included a beautifully mounted exhibition entitled "Lilies, Llamas and Leeches" by the Edinburgh Royal Botanical Garden on famous plant explorers (such as Douglas, Mason, Fortune, etc.) and the history of plant introductions - and a "Secret Garden" pavilion which had celebrities "design" or explain their secret or fantasy garden. For his garden, Jimmy Sairk (not quite an American household celebrity name!) had a sheet with a simple line drawing and mostly writing describing his house surrounded with concrete; a neighbor house next door surrounded with "plenty flowers" - and an arrow indicating a prevailing wind from the neighbor to his garden "allowing Jimmy to smell lovely smells without having to do anything." In the pavilion find a photo of an amazing fantasy National Trust property I was unfamiliar with called "The Pineapple House" - a three story garden house/pavilion of stone in the exact shape of a pineapple (including top foliage). Becomes a "must hunt up target" to capture - get vague directions of it being located north of Edinburgh somewhere. Finally realize that the light is just too dark for effective shots and sadly so much to go to "complete" the festival - oh well.

Finally out of the grounds about 7 PM - walked out, tired and hungry. Go back to the area of the house and drive around looking for an area to eat - finding a street where there are Chinese, Indian, Turkish, Italian, Greek, and U.S. (chicken, etc.) restaurants. Chose a Greek place which is a smoky bar that I have doubts about as I enter but the food is excellent, huge quantities, and one of my best meals - moussaka, salad, and fried rice. Back to the house - meet both husband and wife of the couple together for the first time - very nice and eager to please and serve - want me to stay and watch TV, but after visiting a bit, I retire to my cozy room and read until bedtime.

Tuesday - June 7, 1988. Glasgow - Macintosh, Glasgow Botanical Garden. Up in morning for big breakfast with the family. Head into town for a day of exploration of the arts - and specifically a quest to see works by Macintosh. Noted architect (?) who created an amazing array of profoundly contemporary-looking buildings, furniture and interior designs in the Glasgow area during his career. Recently "rediscovered" as an original genius in design and a local hero now and a "tour" of his works is available by visiting assorted museums of the area, and of buildings which still exist of his work. The prime site for visiting is the Glasgow School of Design building which he did and the library and office rooms there filled with pieces of his furniture. It is somewhat surprising to see so much of the

furniture "in functional use" by students considering its rarity and phenomenal current value on the collector market. Take the student offered and lead tour of the school building, eat downtown in one of the tearoom restaurants which he designed, see several of the homes and a couple of museum displays. Really fine work and a pleasurable day.

Then to the Glasgow Botanical Garden founded by Thomas Hopkirk in 1817 and at its present 42 acre site since 1842. Today more of a city park heavily used by sunbathers and frisby throwers than a active "garden" though there are certainly many fine things to see including a rock garden, a perennial border, a chronological border showing plants in their order of introduction, a systematic garden and a herb garden. But the highlight of the garden is the Kibble Palace - one of the largest greenhouses in Britian. It was built in 1873 and in my opinion is perhaps the most beautiful conservatory in the world. The central section is a circular domed structure featuring tree ferns and palms in a magnificent elegant and graceful structure. Wonderful.

Wednesday - June 8, 1988. Glasgow to Stirling, Scotland. Hear the kids early in the AM but sleep through them OK - awake about 7 AM and anxious to get started on the day of garden visiting as I don't know what the ferry schedule will be like and how fast I can move. Have really enjoyed the excellent shower in the circular cubicle (which she explains was installed specifically to have good water pressure which is extremely rare in Britian with legislation which prohibits many normal hookups of other western countries). Dress and pack things which is some effort as all the papers and books are out of the book bag and scattered all over the room with two nights occupancy in the same place. Can only find one shoe and hobble around like that some time until I find the other one. Down for breakfast about 8. Again a huge and wonderful breakfast - she tells about the "B&B School" where they went for "training" and at which the "authorities" told them all the cheap shortcuts to use for their guests which they refused to do. She obviously enjoys having someone to talk to.

I've really enjoyed the fire in the fireplace while here and realize that if any one feature in my new house [under construction during this trip] does happen to work correctly (very unlikely admittedly considering that everything has gone and is going wrong that contractors have touched) it will be what I enjoy most about the house - reminds me of the long fight in Raleigh on the code against open fireplace exposure and my frustration with the American system [to "protect" homeowners, fireplaces cannot have open fronts now and even gas fireplaces must be enclosed to "prevent sparks from popping out" (from gas???) to a rug]. It's so wonderful to be "involuntarily protected" by thoughtful local authorities from having the facilities used elsewhere all over the U.S. and throughout the world. (All the dreaming and worry was unnecessary - as it turned out the fireplace [the one thing most wanted] of course was the one thing most screwed up which didn't get put in for use - grrrr.).

Leave and head west on the M8 and on to Gourock where I eventually get tickets for the ferry (3 ticket girls at windows as I go in - I'm the only customer in the room and they long ignore me to continue their gossips) to cross over to the peninsula where the Younger Botanic Garden is located. Finally manage to get a ticket; get in line to wait - fast as the ferry trip cycles with 20 minute trips. Water is smooth as we cross - the day is sunny, still and beautiful. Go on upper deck to watch the scenery pass.

In Dunoon get off and go north 6 miles on the highway to the Younger Botanic Gardens. First plantings were done in the 1820's with over 6 million trees privately planted in major reforestation programs of the 1870's. The private estate developed by Mr. H. G. Younger was given to the nation in the 1930's to become a branch facility of the Edinburgh Royal Botanical Garden. Today it specializes in rhododendrons and conifers with superb collections of both - as well as a wide array of other woody plantings. With a cool, mild climate and 90" of rain a year, lush growth exists throughout the garden. The entrance to the garden through a long allee of Sequoiadendron giganteum, the California giant redwood, is spectacular with 90' tall trees planted in 1863. Thoroughly enjoy my visit - one of the best dwarf conifer displays seen with beds in open lawn with the smaller cultivars or rarer species (such as *Largostrobus franklinii*, *Podocarpus acutifolius*, and *Juniperus wallichiana*) - with larger species and tree-form materials in the surrounding woodland. Climb the hill for photo over the valley, through the grounds - perhaps the best display of the large-leaved rhododendron species I've seen as well. Everything is well labeled. Back to the car at noon.

Stop for gas, chocolate and a drink which seems to upset my stomach badly for an hour or so. Notice many U.S. cars and discover the area is a U. S. naval base. (And one that the brother of my secretary has been stationed at for the last two years - small world). A short wait for the ferry back - stay in the car this time. Should stop and try to call Tracy in Raleigh as we get to the other side but in my usual phone phobia of fearing bad news I procrastinate and don't. Easy travel by divided highway back to and through Glasgow - then on northeast on the A80 toward Stirling. Get off near the city to stop at a tourist information center - happy the woman can give me information about "The Pineapple" which is indeed apparently open to the public.

Follow instructions to the Pineapple house - make a wrong turn into an estate near the area which has a country house falling apart and a contemporary farm operation which is deserted. Stop and ask a woman in a garden for further directions which finally gets me there. The Pineapple is indeed wonderful. Read the information signs about the place and am amazed that nothing is known about the structure except the date of construction (1761) - the architect is unknown and there are no accounts in architectural or landscape literature through the 200 year period since it was built until recently "discovered" and made a part of the national trust! Pineapples were a symbol of hospitality for guests due to their great expense to produce in greenhouses of the time - and a guest house (the main estate mansion is far in the distance) shaped as a pineapple fit in with garden folly concepts of the time. Go around to the back to see that view - get caught in woodland of stinging nettles as I try to find a different way back to the front - a bog finally stops me and I have to backtrack. Apparently there was once a large walled fruit and vegetable garden with glass forcing structures for pineapples at the side of the building - but all are now long gone. The Pineapple House is available to rent for overnight accomodations from the National Trust (you'd be alone - deserted place off the beaten path!).

See a Renault dealer on the way out and stop and am able to get an appointment for servicing tomorrow morning which will be a big help. Through town heading toward Doune just north of Stirling. I think toward Castle Drummond - but when I get there I find it is the town for Doune Garden Park - end up at Doune Castle instead and I see a sign indicating that Doune Garden Park is no longer available to visit by tourists. In looking in my guide I find out Castle Drummond is only open Wednesday and Saturday 2-6 PM. It is now after 4 and if I don't get there quickly I'll miss it as I'll be gone by Saturday.

So head off that way - as I get to the gate the sign on the outside says the last admission is at 5 PM and it is 10 minutes till! A long drive up a spectacular straight entrance allee of mature beech trees very close to the road and I'm flying along the undulating road much too fast (wondering whether I'm more likely to get killed by spinning out of control while airborne from the "leaps" or by crashing into one of the blurred beeches which seem inches away from either door). Get to the gate just as the woman is closing up her money box. But it's all worth it - superb late afternoon light to see the garden - a spectacular view from the top platform looking over the 13 acre great parterre in the form of a gigantic St. Andrew's Cross. Gold from the many bright Acer japonicum 'Aureum' (15' diameter), and purples from purple beech, purple-leafed plum, and Japanese maples. Go down the hill and walk through the gardens - a complex, many faceted sundial of 1630 at the center of the garden, and huge topiaries and formal sheared hedges of yews. Back up and to the car - just as I leave the inner plaza the owner returns in his Land Rover from shutting the front gate - zoom on out by the alternative exit drive.

Drive back to a motel - just one room left. A long supplies drive with everything in town apparently closed for the evening - finally give up and am ready to head back to the motel when I go by a big supermarket which is still open - go in and get sandwich and other materials though my heart isn't in it. Return to the hotel - put up the groceries and bring in the redbud (a white-flowered *C. siliquastrum* long ago purchased at Wisley) for another watering - with the large leaf surface and the peat which dries out, it only lasts about 3 days between each watering. Lay on the bed and nap awhile - awake to watch MASH. I get the computer out for the first time in far too many days and as a result the battery is down and have to close down and change batteries before proceeding. Do today and one of the missing back days before closing down to go to bed.

Thursday - June 9, 1988. Stirling to Edinburgh, Scotland. Load up and over to the garage - early about 7:45, and they don't open until 8:15. Watch TV through the morning while the car is being worked on - watch the guy maneuver the "flymow" around out front (a wheelless, hovercraft type of mower common in England which "floats" on air like a hovercraft boat). The servicing goes fairly quickly and they take it out and have it washed as part of the service which is nice and transforms its "roadworn" looks. Head through town and north toward Perth for the two gardens I want to see in the AM - a good road and making good time when I hit a traffic backup which keeps me sitting still for a long time on the road.

On to Scone Castle which I want to see because of the association with David Douglas who was born on the estate and grew up there as an under-gardener. Not much around the house but the 1820's pinetum is wonderful with many huge specimens (*Torreya californica* 28"D, 40'T; *Picea sitchensis* 7'D; *Abies procera* 90'T, etc.) which are well-labeled and maintained - spend far more time than I expected there. The seed of Douglas Fir, *Pseudotsuga menziesii* (first discovered by Archibald Menzies in 1792) which Douglas was the first to send back to Scone Castle from his collections on the U.S. west coast (1827) have produced the oldest and largest trees of this species outside the U.S. - now 90-120' in height (reaching 270' in the U.S.). A magnificent scene of banks of pale purple *Rhododendron ponticum* in full bloom backed by a long wall of 80' purple-leafed beech.

Work my way through the town of Perth and find Branklyn Gardens - a small (2 acres) family garden created by John and Dorothy Renton from 1922 until their deaths in the 1960's and filled with choice connoisseur plants. The garden is maintained by a garden trust - it is very good and there is much to see but I race through it and only spend about 30 minutes there - a good mix of herbaceous and woody material represented. *Lewisia*s, *Mecanopsis*, and *Salix boydii* are three eye-catchers on the sprint.

Get on the M90 and head south to Edinburgh. Over the Firth of Forth suspension bridge - the first built with a center span longer than the Golden Gate Bridge in San Francisco. The route into town center is easy and am quickly at the city center and park on a tree-enveloped square just off Prince Street. I go to a phone nearby to call Tracy - goes through quickly and easily - she is cheerful and alert this time - no bargain fares available for me from NYC to Raleigh on a one-way basis and is going to be expensive getting there - my idea to rent a car and drive is not out of the question, but with time and energy likely available when I get to the country, I probably won't do it. She also has made an appointment for me to see my "finished" warehouse home the day I get back but I am indeed going to be moving back into the side of my old duplex I moved from originally instead of the warehouse as the new tenants refuse to move out; says friends are looking for a used car for me to purchase; and that Will Hooker is going west with Suzy for vacation for his sabbatical with no idea what he'll do after that.

Drive to the post office - a mess as usual to maneuver the car around - end up on Castle Hill road and drive up to the castle but can't park and must do a U-turn and leave - finally park and walk to check mail and am surprised to have one from a N. C. friend giving details about his upcoming visit and it looks like we may be able to get together for a day of garden visiting at least while he's here.

Go to the Royal Botanical Garden and park. One of the finest of gardens in Britain (800,000 visitors a year) dating to 1670 when originally founded as a Physic garden at Holyrood. It was transferred to the present 60 acre site in 1820. Although surprisingly dry for England (24"), it's mild climate (considering an east coast location) allows the growth of many unexpected plants. There are over 12,000 taxa in the living collection with especially good *Rhododendron* holdings. The rock garden constructed between 1908-14 is perhaps the finest in existence (with Kew) and the alpine plant house and display areas are outstanding (*Cypripedium californicum*, *C. macranthum*,

and *Lewisia X 'George Henley'* among the more remarkable things in peak bloom at the time of visit). Though a beautiful day with full sun - for some reason I'm not into the visit and cut it very short from my plans. Quickly circle the grounds perimeter stopping only for a few shots of the alpine house; and then also at the rock garden. Think I'm just finally worn out on gardens after the months on the road.

Go through town and out south a short distance to Dobbies Garden Center - the largest garden center in Scotland. Not a worthwhile stop - again perhaps I'm burned out [1991 - yes, yes] but it doesn't begin to compare to many of the English places I've seen on this and other trips - quality low, particularly on the plants, everything is dry and dusty - do it all in about 14 minutes and am ready to leave. (My slides do show interesting speciality departments for lawnmowers and chainsaws, a large aquatics area, sales of bedding plants as "plugs", a large childrens playground for shoppers to leave children in, and endless interior aisles of supplies in a large building).

The garden I want to see tomorrow morning is about an hour south of Edinburgh and doesn't open until 10 so debate whether to drive south and hope to find a B&B or return to the city to one of several seen on the way out. Return and go in the first one I come to. I go out again to try to find a USA Today newspaper at the train station downtown with no luck and then stop and get Chinese takeout food to bring back to the room. Settle in for an evening of TV - waiting for LA Law after missing it last week - it's wonderful as always. I move over and open up the computer and work on it again. Finish most of today and then scroll back up into the text to work on one of the missing back days. Put away the computer to charge for the night and to bed about 10:30.

Friday - June 10, 1988. Edinburgh, Scotland to Leeds. Get up about 7:45 I've been awake for some time following a bad dream about getting ready to teach nursery production in the fall to the two year students - conflicts with room and other teachers, problems with the students, etc. Down for breakfast - the new, unique item this morning is something unidentified on the plate - either bread or cheese fried but tastes like neither and never do come up with a definitive identity?

Pack and leave for hour drive to Dawyck Gardens. The present house dates from 1930 but the terraces and stonework around the house go back to 1820 when planned by Col. F. R. S. Balfour. Though a place with some wonderful old plants and probably some fine younger ones as well - it is a disappointment as there is no information at the entrance, I can't get up around the historic house, can't find the Linneaus Larch (supposed to have been planted by Linneaus during a visit in 1725) or the Dawyck Beeches (*Fagus sylvatica* 'Dawyck' originated here), and wander rather lost in the large woodland settings - so walk and photograph a few things but leave quickly.

Continue on south - finally to the Threave School of Practical Gardening now run by the National Trust for Scotland. Originally created as a private garden by Major Alan Gordon following a life of government service around the world and presented to the Trust in 1948. A beautiful place with wonderful gardens all created and maintained by the students. They also have an exchange program for students to go and come from the U.S. Walk it quickly also - another bright sunny and rather warm day - very dry here as in so many places I've been visiting. An acre of walled gardens with fruits, vegetables and perennials with a large perennial border also on the outside; heather gardens, conifer collections, etc. The current big student project is a large parterre being planted. Two spectacular plants which especially catch my eye - the first plant I've ever seen of *Aesculus hippocastanum* 'Albovariegata'; and the brilliant golden foliage of *Ulmus procera* 'Van Houttei'.

I'm getting hungry and need a camera battery, more film, and food. Backtrack through Dumfries, then on to Galloway. By that time I'm fed up with city traffic and have decided not to fight the city and just forget the camera things. But as I go through see a photo shop and park in a city lot nearby so I can go back and get the things I need. Learn the complex battery changing procedure I used in Athens is not necessary as the whole battery package just pops out for changing. Try to find food - but a kabab place takes too long, the Chinese place doesn't open until 5, the first grocery store only stocks frozen food (Iceland) and the second one has a slow line with a missing price, a wino trying to crash the line with the pressure to get his one bottle out the door as fast as possible, etc. Finally just go back to the car and head on further south.

In a hurry to return to London as fast as possible - hit the road and move. Detour out of the way to see Hadrian's Wall - a coast-to-coast stone wall which the Romans built to keep northern invaders at bay (as the Chinese did). The first section is very little to see; but a little further along the road there is a better section and a new excavation site of Birdoswald Fort which is being studied. As always, the British interpretation for visitors is superb. The Roman engineering and labor management skills were phenomenal with unlikely rates of building (which I forgot to record) - something like a quarter-mile of stone wall blocks cut, hauled and installed a week.

Head back to the A69 and away I go after upsetting a trucker as I pull onto the road in confusion on driving side and he nearly runs me off the road. A long mindless drive to the A1, then the M1 - thinking of my financial strains and trying to figure out some answer to everything. More than anything, I would just like to experience one month in which I earned more than I spend which hasn't happened in two years now and cannot continue [finally achieved March 1991!]. I hope August might be like that but then the lawsuit bills will probably come in then [from property boundary dispute]. There is no hope until bankruptcy I am certain.

Continue down the road finally deciding to stop about 8:00 at a Travel Lodge - more expensive than I want but too tired to fight to hunt elsewhere so take it and just let the bills mount. Settle in for an evening of TV. I'm not in a good mood - ready to go home and have some time alone prowling the arboretum and working there. Should go back and do computer work on another day tonight but guess I will not do it.

Saturday - June 11, 1988. Leeds to London. Breakfast shows one of the major benefits of staying in B&B locations versus hotels is the additional cost of breakfast which can amount to a quarter of the hotel bill - ugh. Head on south and make a brief stop at Haddon Hall at Bakewell. The house has a section dating back to the 12th century and the most remarkable feature of unique "Bomb Glass" windows

in one section. The clear glass is cut into small pieces and installed like stained glass in lead mountings - but the unique aspect is the undulation of the surface in all directions - supposedly to give refraction and spreading of light better into the interior. Incredible windows (seen once in the U.S. on a PBS special on English Country Houses). The garden is interesting but not remarkable - with several large topiary at the entrance, walled gardens with roses and perennials.

The great estate, Chatsworth is just a mile or so away and it is tempting to do a third return visit - and if not so tired of travel I probably would - but at this point I'm eager to get back to London, check mail and continue on plans for return to the U.S. shortly. So zoom on down the highway - back to "my neighborhood", check in the B&B and move my plants up to the roof to settle in for a few days after the long trip on the road. Down to the post office but as usual on this trip - nothing waiting for me. So hungry for news from Raleigh - and none is ever available. Evening of TV and working on the computer - time is running out and I'm so far behind on my notes.

Sunday - June 12, 1988. London to Westonbirt Arboretum and Return. Up for breakfast - after all this time I do still love the English fried breakfast (for the most part - stewed tomatoes are still a challenge). Want to do a growing season return visit to Westonbirt Arboretum (seen March 12 - Newsletter #19, p. 9). So do the umpteenth drive across north London and west for a couple of hours - it is nice to be able to make good time in the country now with the M roads.

To Westonbirt Arboretum - one of the finest tree collections in the world - 1829, 250 acres, 14,000 labeled trees, 17 miles of trees. As always it is an unending treat to wander and discover remarkable plants. Perhaps the most unique part of the experience is that the contents and location of plants in the collection is best available to the visiting public here of any place I know in the world. A large, complete and effective mapping and cataloging scheme is available in the visitor center (closed earlier in the spring) in which one can look through the entire list of trees planted, find one of interest, and go directly to it. What every garden wants and shoots for - but only achieved here.

Some of the particularly noted trees on this beautiful day - *Acer davidii* 'Ernest Wilson' (20"D, 25'T); *Acer tetramerium* (20"D, 30'T); *Acer cissifolium* (20"D, 20'T and 45'W); *Magnolia acuminata* (24"D, 80'T); *Quercus pyrenaica* 'Pendula' (24"D, 50'T); bright pink flowers on *Deutzia longifolia* 'Veitchii' (7'T); and the tallest tree in the collection - *Abies grandis* at 150'. A specific "mission" of this visit is to dig some of the showy snowdrops (heavily doubled large flowers with green centers unique to my experience) I saw earlier in full bloom by the millions naturalized in the pastures. I had carefully marked a place by an old building foundation where they were in great abundance - but endless digging reveals not a single bulb. Where in the world could they have gone and why am I missing them? One of the great mysteries of the trip and most frustrating. Walk and photograph until I wear out. Do the return drive and settle into the B&B for the evening of TV and writing.

Monday - June 13, 1988. London to Beth Chatto Garden, Bressingham Nursery, and Cambridge Botanical Garden. In these last few days the schedule is to return for a last visit to the most significant gardens and to make final collections of plants and materials to carry back with me - hard to schedule to ensure the most fragile material is acquired last for most likely survival. Decide to do the "northeast circuit" with three of the great gardens which can be managed in a full running day of effort.

Getting out of London in this direction is the first and major challenge - the first 30 miles takes more time to drive than all the rest of the days circuit with no direct roads allowing easy access to the northeast. Even going against the morning traffic is slow and frustrating. But finally to Beth Chattos for the second visit this trip - the entire bloom season is new and like visiting a new garden for the first time with hundreds of things to marvel over. The nursery is also so incredible and a major plant pilgrimage as they do not ship and dozens of choice plants are only available at this nursery. A bus from France is in the drive and the occupants are rapidly filling the compartments underneath with massive purchases. If I were returning by bus I'd be doing the same - but unfortunately have to pick and chose limited materials for the airplane. Most frustrating! (But what a wonderful frustration!).

Drive on north to Bressingham Nurseries - now with a major garden center outlet (including a heliport!) at the parent production nursery as well as those scattered around the country. Huge selection of perennials, heather, and conifers the nursery is famous for - as well as a rather good selection of uncommon woodies. Good marketing displays showing small model "gardens" made of plants available for sale and how to use them. Since I don't know perennials at all (and tend to bring Edith things from my travels she has already had for a decade), and heathers are marginal for us, I focus on the conifers.

A frustrating group as Bressingham is the best source of rare cultivars in the country but many entire genera (*Abies*, *Juniperus*, *Picea*, etc.) are totally banned by U.S. quarantine regulations which limit my possibilities. My most important selection is a new golden Leyland cypress cultivar just introduced this year called *Cupressocyparis leylandii* 'Golconda'. Since 'Castlewellan' fades so badly in southern heat to be relatively useless (for color) I have hopes 'Golconda' might be more useful and want to test it out. [Postscript - back successfully with it, get it well established in a container, learn it will keep its good gold color in our summer heat and am excited about building stock to get it into the nursery trade here. But plans go astray when I plant it in the arboretum and it is almost immediately destroyed in an absolute rape by someone who cuts every possible available cutting off it - weakening it so much that 3 years later it is still barely alive when it could have been 6-8' tall with hundreds of cuttings available today. One of the worst vandalizations we've encountered over the years and I'm still outraged at the greedy, selfish destruction of such a potentially valuable new plant introduction by one individual.]

Head on to the third of the "Northeast Garden Trinity" - the Cambridge Botanical Garden, the finest University Botanical Garden in Britain. A magnificent 40 acre garden dating to 1846 with many specialized collections and educational displays (discussed in earlier issues). In addition to the usual fast runthrough overview of everything - there are two specific missions of the day, neither of which quite "work" of

course. Earlier this spring I had "discovered" a plant of *Sinowilsonia henryi* in the garden (near the front street entrance to the left as you enter) and hope to catch it in bloom to photograph - but it is already past. (Later discover it for sale from We-Du Nursery in N.C. and get it there for our collection!). For many years I've wanted to acquire *Deutzia setchuenensis corymbiflora* which I saw here once in full bloom as a stunning and quite different type of *Deutzia*. Unfortunately it has already broken dormancy so my hopes to get hardwood cuttings are dashed - and softwood cuttings are too soft for the time that remains to get back - so it awaits some future day on my "lust list" (after this many years, a few more surely won't matter).

Although a long day already, have one more extra goal to shoot for. At the beginning of the trip I studied a book of ancient and contemporary mazes of Britain with a goal of photographing various kinds for my history course. The ancient mazes were of turf (one shot earlier at Grey's Court, May 26, Issue #21) rather than the more familiar yews and other hedges - and the finest is located in Saffron Walden which is not far off my route today. So into the town and ask my way and finally to the city park where it is located. Quite an impressive scene as one of the largest and most complex patterns of any turf maze in existence. The original date of creation is unknown, but records exist of it being maintained and re-cut in 1699. It is 100' in diameter and the path (originally in chalk, but now bricked) traced within is nearly a mile in length.

Finally make the dive back into the nightmare northeast of London and back to the B&B - a long but wonderful and rewarding day. The arboretum outside my window in the gutters on the roof continues to grow.

Tuesday - June 14, 1988. London to Valley Gardens, Savill Gardens, Hilliers Arboretum, and Mottisfont Abbey and Return. Have another "killer day" lined up so get to it early as soon as breakfast is served to head out on the road. First to Valley Gardens to scout over the conifer area - an outstanding collection one could do a whole day in easily. Mainly want to photograph *Juniperus virginiana* cultivars for the Fine Gardening article I wrote in Greece earlier - and there is probably the largest collection in existence in this garden (as Americans seem to have little interest in the species as too common through familiarity). Get cuttings of *Cupressocyparis leylandi* 'Harlequin' (an English variegated cultivar much like the American 'Silver Dust'), *Cephalotaxus fortunei* 'Dragon's Plume', and *Cryptomeria japonica* 'Kilmacurragh' (a dwarf cultivar with cristate plumes - so slow that in 1991 the plants rooted from the cuttings are still in quarts too small to put out in the garden) for our collection. There is an amazing pile of cut firewood in the parking lot from tree removal from last fall's storm which is available free for visitors to carry home for heating.

Do a very brief stop at the Savill Garden Center Plant Shop to check out what is available (before going to Wisley tomorrow - Savill is normally a fraction of the price of Wisley when they carry the same item) that I may want to purchase. Make my lust list knowing I can't have it all - but what choices! Major purchase is an outstanding collection of the new English hybrid *Mahonia* which will about complete our collection (and are finally displayed to N. C. nurserymen January 1991).

Head south to do a last visit to Hillier Arboretum and see it in a different season. Still much impressed by how well their development is continuing - walk through the "new lands" purchased to expand the original collections and observe the many new plantings going in. Again - one could easily spend years studying this incredible collection - very likely the best collection of woody plant cultivars in any one garden in the world. Also check out the Hillier Garden Center at the entrance to the garden (now separate entities as the garden is public ownership property and the garden center is private enterprise leasing space for sales to the public who comes to visit the garden).

Study the map and decide I can stretch in one more thing for the day - and since roses are at peak of bloom I should go to Mottisfont Abbey to see the noted collections of old roses installed there by Graham Thomas in 1972. The grounds contains a 12th century abbey church but the present house dates to the 18th century. There are many fine old trees on the grounds including the largest London plane tree in Britain and an oak over 800 years old. One section of the garden was designed by Geoffrey Jellicoe in 1936. There is a wonderful wall of espaliered *Magnolia grandiflora*. The old roses are at their peak and the grounds are packed with visitors on a warm, sunny day. The rose of the day is a 40' wide *Rosa* X 'Lady Waterlow' trained on a brick wall and filling it top to bottom with a sheet of color. Back to London and settle in for evening.

Wednesday - June 15, 1988. London to Wisley, Sissinghurst, Nymans. Awake early again about 6:30 and lay in bed and think about problems and the complex schedule of coming days until getting up about 8. Head out the M40 yet one more time - good time today with no jams on the road - around the beltway and on to Wisley Gardens getting there about 10 minutes before it opens. Check out the garden center first and make a list of things to get later.

Then into the garden - the redbud scion wood I want (*Cercis siliquastrum* 'Rubra') isn't quite ready and feel bad that the tree has been vandalized already (by visitors breaking off the showy blooming branches for souvenirs) so skip it. The busload of French tourists I saw at Beth Chatto's two days ago are also here touring. Go up Battleston Hill intending to try to check out the *Pieris* collection, but the area is still blocked off and gardeners are everywhere so that is pretty much out. Highlights of the day are large plants of *Buddleia alternifolia* in bloom as large cascading fountains, *Cytisus battandieri* in golden bloom, the new 'Pillar' apples in the fruit area (no laterals - a pronounced pillar of growth), and outstanding *Dianthus* in the trial grounds.

Circle around the garden and back to restaurant for lunch. The lines are not bad yet as I get there a little before the lunch rush begins I have a peculiar cold soup of orange and onion (!) which tastes something like salad dressing - a bit too heavy; not truly bad, yet not good. The new restaurant building not very good or inspired from what could have been - obviously a committee decision in designing. Back to the entrance where I assemble the plants I want - more than I expected at nearly 100 pounds (\$200) and not that many plants as the exchange rate for U.S. dollars is so bad the typical plant is costing me \$25 for a quart plant.

Leave and head on toward Sissinghurst - as I head toward the garden the sun changes to cloudiness which is good to protect the plants in the sealed car from heat and better for photography. The parking lot is full and people swarming around the place. Again as the season progresses the floral display gets better and better - wonderful. Each time I go away from the garden for awhile I'm sure the reputation is overdone - but each time I return I realize anew just how magnificent things have been done there. Very taken with a plant new to me, *Paris polyphylla* - very exotic and wonderful in green and purple; and the *Geranium psiloistemon* and *G. magnificum* are outstanding.

Finish and go over to the Sissinghurst B&B next door where I left my excess suitcases before heading to Europe long ago. I ring the bell and the man comes to the door - doesn't recognize me but I remind him about the suitcase in the attic and then he does. We go up to get them - I give him 10 pounds though he says I don't owe anything. Head back over the route used in coming in. I want to stop at Riverhill House to see the trees and shrubs collection which is supposed to be so good. As I approach the area see it is on the hillside which was so heavily raked by the storm last fall and obvious major tree destruction on the property. When I get to the house learn it is only open several days a week and not today - I misread the guidebook. Perhaps for the best considering the damage.

Go on to the Orbital and then on the road south toward Brighton to see Nymans again now that they have had time to repair more of the awful damage and are open to the public (hardest hit of British gardens losing 80% of its major trees). The parking lot missing many of its shade trees, and the screening is gone where one can now look directly out into the garden now - particularly through the old conifer meadow. Though most of the downed trees are now cut out, there are still many areas under repair with tilling of beds and planting of grass and much damage remains in standing trees which have shattered branches. Walk all the areas and it is so sad to see the garden with such a small remnant of its former glory although there are certainly many fine trees remaining - with the highlight of the day a *Styrax hemsleyana* 45' tall in full bloom.

Get some cakes from the snack shop and go off to hunt gas which is needed badly - finally get it and more snacks and drinks and head back to London via the beltway and out M40 route - the last time around on this route in the Renault after so many trips. Back to the hotel about 6:30 - park and settle in the room. Getting very tired of the same food from this district but the choices are limited. I go out and buy chicken at KFC - big mixup with the waitress on getting ice in the cup - though I explain it at least 4 times and show her on the cup what I want - she just cannot understand what I am asking for (want her to fill the cup with ice, then put in the drink - the English will never understand Americans and our passion for ice - but one little cube in a large cup is not an iced drink!). Watch TV and crank up the computer to work awhile.

Thursday - June 16, 1988. London - Hampton Court, Chiswick House. I awake early and lay and think as usual about things at home and all that faces me upon return - just marking time now and anxious to get back. Down for breakfast. I work on the plants bought yesterday - move everything but the mahonias up to the room which now fill the windowsill outside completely, plus two big cardboard boxes on the floor and on the bag of rugs. Move the car to a meter near the dumpster outside - bareroot the plants and prune down for transport - still don't know what to do - try to carry them or mail them in??

[A memorable followup experience to the barerooting. When at the Edinburgh Royal Botanical Garden I saw a 30'T tree sumac of great beauty, *Rhus veitchiana* which I photographed and decided was a future "must have" plant for the arboretum. At Saville, I found *Rhus verniciflua* for sale in the nursery and confused the similiar names without checking back through my notes for accuracy and bought it. In barerooting it - the roots were cut off and the top stubbed back which got sticky sap all over my hands staining them black and which proved very difficult to remove. By the following day itching began, and two days later my hands and arms exploded in the worst rash of "poison ivy" I've ever encountered with even the center of my palms solidly broken out. When back to my reference books I learned that *R. verniciflua* is known as the "Varnish tree" and the sap is source of the famous lacquer used in Japanese arts. I also learned that "the sap will cause a very severe rash when exposed to skin" and Krussman simply says "Poisonous!". It took weeks for the lesions to crack, peel and eventually heal, and I shall always remember well the toxic Japanese Varnish Tree. I've not been able to find *R. veitchiana* in any reference book since and begin to think it merely a cosmic mimic lure to trap me into this mess.]

Head out for one last trip by car before I return to Paris tomorrow to return the car. Out the M40 again - cut through a different way by Kew Gardens and through Richmond to Hampton Court. Fewer people than my previous visit on a weekend at the peak of spring flowers - the fields of maturing grass/daffodil foliage brings memories of the magnificent display seen earlier. Through the gardens and go out to look at the long runs where they are still working on tree removal and hard to tell what future directions might be. Through the shrub area - no good scion wood on the white redbud to take as it has already broken dormancy - but get some of *Cladrastus sinensis* to try. Through all the other areas - many French there - they stare at a couple dressed for Ascot. Stop at the cafeteria for snacks and leave.

Back through Richmond to Chiswick House for a short visit. I do the garden which has little interest to me at this point in the trip. Back to the King's Cross area and go to the carwash place where 8 guys completely do the car inside and out in less than 10 minutes - looks great except for the tar I got when driving to Hilliers. Park at the row housing area and walk back. Go downtown again to check mail - a letter from mom with a cheerful newspaper clipping describing in great detail the peeled top airline disaster in Hawaii - just what I need just before getting on a transoceanic plane to return! Getting hot in Oklahoma and wheat harvest beginning; a big Hayward High School reunion. Settle into a boring afternoon by 3:30 and take a nap for awhile. At 6:30 I go get the car and return it to the hotel area and get some groceries. More TV - an interesting new program on room design - with the same room done by 3 very different designers. Get out the computer and catch up on the last two days.

Friday - June 17, 1988. Paris and Return to London. Time to finally turn in the old faithful and relatively dependable Renault so head out on yet another maniac day. Want to avoid the morning traffic around London and also don't know ferry schedules across the English Channel so leave the B&B at 4 AM. Roads are a delight for once and make excellent time. Also luckily hit a good connection with the ferry with almost no waiting. Have breakfast on the ferry and reflect on how easy travel is with an empty car and carrying nothing with me but camera and notebook (in contrast to the pack mule situation which has slowly developed over the months). Off in France and head for Paris - there by noon to my great surprise. Have two stops I want to make before turning in the car and losing my mobility.

First to Bagatelle to see the rose garden I consider the best I've ever seen. Years ago I visited it at peak bloom and was mesmerized for the first time with how wonderful roses could be when done "right". (Unfortunately the processors lost my roll of film from that visit - so a return visit has long been on the schedule). In 1777 a prince offered to build Marie Antoinette a palace in two months on the site - and did so for her amusement and at vast expense. The property changed hands many times in intervening years, and 62 acres of land was finally acquired by the City of Paris in 1904 with a master plan developed by the noted French park designer J. C. N. Forestier. The rose garden was planned by Quentin Bauchart in 1906 and today contains - 20,000 plants of 2,650 varieties grown to absolute perfection. The high graft (6-9') cascades (Rosa X 'Dorothy Perkins') and trained columns (Rosa X 'American Pillar' from 1909 is amazing) are beyond anything seen in roses in any other gardens and astonish me. Trials of new international rose cultivars are in place with judging awards having been placed on them.

Beyond the rose garden are many other fine gardens with some extraordinary plants (Aesculus hippocastanum 'Lacinata' 30'T) and landscape "Victoriana" (dramatic grottos and cascades, etc.). I finally collect cutting wood of the Calocedrus decurrens 'Variegata' I've wanted through the entire trip (which fails to root sadly) and of an unlabeled variegated Viburnum I've never seen before (eventually distributed by the hundreds to growers in summer 1989 from the three small cuttings collected).

Then on to La Villette - "the first urban park of the 21st Century" - widely praised for its design and innovations in the world landscape architecture press. In the northeast section of the city and perhaps most easily found by asking directions for the new Museum of Science (one of the big "prestige" projects of the French created to celebrate the bicentennial of the French Revolution - supposedly the best such museum in the world). Another building on the site is an 1870 market building which has been converted to an exhibition building and an international display of sculpture is being installed for opening in the near future.

A wide variety of "gardens" in the park ranging from a Children's Park with a gigantic "Chinese" dragon as a jungle gym playtoy (the "tongue" is a slide down a hill); a sunken shade garden covered with vine trellises; a bamboo garden featuring all kinds of bamboo including giant timber types (hardy here? or grown as "herbaceous perennials"?); much sculpture including large red building follies in a grid pattern across the grounds. Much to develop and needs time to age but an intriguing place.

Finally on to the Renault dealer where this all started February - 25,000 miles (with gas at an average of \$4.50 a gallon!), 20 countries, and more money than I care to think of ago. The turn-in process is far easier than expected with no waiting, no muss, no fuss - and I'm on my way in 5 minutes. Somewhat anticlimatic after all the anticipation. Walk to the subway, to the train station, catch the first train heading to London and am back there by 10PM - tired and eager to head home to Raleigh.

Saturday - June 18, 1988. Saville Gardens, Hillier Garden Center. After the frantic pace of the last several days, take it a bit easy for the morning - breakfast, nice shower, some TV. Meet up with N. C. friends who are vacationing here and have a car. We head out to Savill Gardens for the last day of "shopping" and for a leisurely look at one of the greatest of English gardens. The rock gardens and perennial border areas are cranked up in good early summer color with an endless array of treasures to wonder over. Do a last check through the new nursery (opened during the spring while here) which expands so much what they can handle for sales (and also it seems prices have now raised more in line with Wisley - perhaps to pay for the beautiful new structure?) - just to make sure no irresistible treasure one can't live without has been slipped into the inventory.

Then over to the nearby suburban area of Sunningdale for a look at a new Hillier Garden Center not seen before - lots of good things as always - but not the ultimate treasures which are listed in their catalog but never quite available somehow. Prices are high and I've glazed over on plants so just look and stagger around. Have dinner together and back to the B&B for the night.

Sunday - June 19, 1988. Kew, Crowther's of Syon Lodge, Pusey House. Meet up with my friends again and we head to Kew Gardens to explore it through the morning. My intention is to get last minute cuttings to take back for the collections - but unfortunately I'm still glazed and not that aggressive at the moment - just stroll about in an exhausted and mellow mood. There are always new things to discover in any garden no matter how many times one has been through - and certainly at Kew this is a constant given. The "new" plant of the day which instantly goes on my "lust" list is a huge and magnificent Aesculus indica 'Sydney Pearce' with thousands of candelabra of bright pink flowers - stunning!

We cross the river and make a brief visit to the garden architectural fragments firm, Crowther's of Syon Lodge and amuse ourselves with the fantasy prices of things all gardeners want (statuary, urns, walls, etc.), but no true gardener could ever possibly afford. After lengthy contemplation we decide one could probably struggle and live without the \$18,000 (plus shipping of course) 17th century wrought iron driveway entrance gate.

Browse through the garden guides trying to find another interesting garden worth visiting within easy drive of London that I've not already seen (no easy task at this point) - and pull Pusey House out at random and head out west of Oxford to try it. The house was built in 1748 and the property was originally a Capability Brown design which has been greatly altered since in several stages - most recently

by Geoffrey Jellicoe in 1937. The guidebook praises the 450' perennial border which is indeed interesting - but after all Edith does it so much better with an even bigger border at The NCSU Arboretum (now the JC Raulston Arboretum). I am indeed glazed - its time to call it quits on gardens here. We wander the grounds but nothing seems to excite any of us - so head out, eat dinner, and call it quits for the day. Back to the B&B for a last evening of British TV and an attempt to get some sleep through the jitters of worries about the day ahead.

Monday - June 20, 1988. Flight London to Laguardia to Raleigh. The big day is finally here at long last and I'm a nervous wreck wondering just how all the unknown problem areas will end up during the day. Do the last packing of "stuff" and barerooting and wrapping of the most fragile plants. Cannot imagine how I can possibly get all the suitcases and boxes accepted by the airlines without enormous fees in excess baggage - but will just have to play it by ear. With my bundles of Turkish rugs with corners flapping out, dirt-stained boxes of plants with the occasional leafy branch frantically waving as though trying to make an escape, etc. - I look something like a member of a developing nation family trying to take life's possessions on a bus for a move to a new home - all I need is a cage of chickens on my back to complete the picture.

My ride shows up right on time and we load everything into his car as he shakes his head in disbelief at what I am attempting. We maneuver through London and out south to Gatwick Airport and to the departure area with no problem. Get everything on carts and to the airline check-in desk - and to my astonishment they take and check all 5 bags, boxes and suitcases without a murmur or any penalties! (And of course I have another one stashed back in the car to hand carry on).

With that over, the rest is a piece of cake. Get my remaining bag from the car, say goodbyes and thanks and go to the departure lounge to wait for the flight. Not knowing how much traffic and airport trouble to allow for, I scheduled getting there early enough for all kinds of disasters - so now have some hours to wait for the flight. Get a good paperback and settle in to watch people, read, and think about everything waiting at home - a process in which I always plan on everything possible being a disaster.

Flight back is the usual uncomfortable mess - plane full, hard to sleep, food lousy, people grumpy - but I'm on the way home so all is right with the world. Worrying about the plants and the quarantine people in New York as this is the first time to attempt a pass through Laguardia Airport. Normally come in at Kennedy Airport, and the quarantine offices are near it for ease in the inspection process - and my permits specify Kennedy as my port of entry. My worst case senario is that they will confiscate and destroy all plants without going through any logic or attempt to help; my next level of fear is that they will require that the plants be taken across to Kennedy for inspection there, and then be shipped on to me later - almost guaranteeing major losses of many items in the process.

But once again, the gods of fate are smiling on me on this particular day (perhaps making up for the loss of two months of collection and hundreds of dollars earlier in the spring when an air express box took weeks to get back with loss of almost all the plants) and they have an inspector at Laguardia - and they smile and are nice and helpful!!! Get out my permits and we go through all the plants unwrapping and checking everything with no major hitches - repack and I'm allowed to carry them on with me.

Last stage is to buy a ticket to Raleigh (as I had no idea of schedule on how all the quarantine work might go in advance) - have time to catch the last flight after dragging all the "stuff" around the airport. Finally back safely - and the days ahead are the "adjustment to America" syndrome I always go through after being away in Europe for some time ("why is there no public transportation?", "why doesn't anything work?", "why are people so unhelpful?", etc.). Looking at the new home ("wonderful and full of headaches and problems"), contemplating my absolutely disasterous financial situation, working through the many cardboard boxes of accumulated mail, and re-adjusting to "real life" (whatever that is) occupy the next weeks. Only lose two of the many plants carried back (but perhaps the two most wanted, of course) - as the *Cercis siliquastrum* 'Alba' and the *Tetracentron sinense* finally collapse in the mist bed where things are recovering from the barerooting process.

Although the 5 month sabbatic leave (sic - officially an "off-campus scholarly leave") ends 7 months early without the initially planned India, China, Australia, New Zealand portions - it is obvious to me that even if the money had not run out, I could not have continued to travel at the intense pace I was going for a full year and still retain any ability to still "see" and absorb anything during the process. It was time to end it, and good to be home with friends and particularly to be back to the arboretum. Touring the "great" gardens of the world is a wonderful thing - but "there's no place like home" and particularly no place like your own garden. Everything had grown so much, and there were so many treasures to get reacquainted with, and so many plans to begin dreaming of again. It's nice to be home.

INTIMATE TALES FROM AN EXOTIC BED

Well, it works for The Globe and The National Enquirer tabloids - "inquiring minds want to know" and who can resist such a lead-in title? (Did you turn to this page first?) This starts a new feature of the newsletter as an attempt to talk about the many plants in the arboretum often "invisible" or non-descript to the average visitor - but which also often have wonderful stories about their sources, history or potential uses. One bed in the arboretum will be picked and selected plants will be chosen in that bed for discussion in each article. This can be yet another of my innumerable "infinity" projects to work on forever with no completion in sight. With the infrequency of my newsletters and the numbers of beds to cover - it will take 75 years to circle through the entire arboretum - and things may have changed slightly in the first bed by that time!

The first selection is a small bed with limited numbers of plants for discussion and easily found by the visitor. Bed S07 in our mapping scheme - the small bed outside the office building where the restrooms and classroom are located - under the large willow oak.

This bed contains two of the several trifoliate maples which are considered among the choicest of connoisseur plants - *Acer griseum* and *A. triflorum*. (This allied group of maples also includes *A. mandshuricum* and *A. nikoense* - not yet in our collections.) *A. griseum* was introduced from China in 1901 by Ernest Wilson and his original plants at the Arnold Arboretum are among the finest "in captivity" with 2' diameter trunks. *A. triflorum* is a more recent introduction of 1923 from Manchuria and Korea. Although magnificent plants in northern and English gardens and always admired for their beautiful flaking bark and elegant foliage - they are often less happy and beautiful in the south.

Our two paperbark maples, *A. griseum* (on the north side of the building) were originally dug by Tom Dilatash, Don Deal and myself in 1983 at the University of Connecticut experiment farm as gifts from the research plots of Dr. Sidney Waxman. They were transported to the arboretum with much excitement and anticipation to finally get such wonderful rare specimens in our collection.

The two 9' specimens were originally planted on either side of the lath house entrance at the front - and caused considerable excitement during the 1985 visit of the American Rock Garden Society when the members came through the arboretum for a pre-conference tour. Our cheerful staff in a playful moment filled the two trees with real flowers and buds of Easter lilies wired throughout the crowns of the plants to give the illusion of flowering trees - and labeled them *Acer griseum* 'Liliflora'! Rock garden people can tend to be rather serious about their plants and reactions varied considerably to our little joke. Several visitors on the tour from Japan who spoke no English were a little confused about American humor and left quite puzzled by the whole episode. (The flock of pink flamingos at the entrance and wild garlic labeled as *Allium raulstonii* which greeted tour members didn't help matters any either).

Sadly the plants slowly declined over the years with new limbs dying each year and with subsequent pruning they became smaller and smaller. With more experience and observation at other sites I now realize that the paperbark maples will not grow as well in the heat, full sun and hot, wet poorly-drained soils of the south as they do in more favorable climates. Here they need shade and better drained soils to do well. With this in mind we again dug and moved them to their present north exposure, shaded location in 1989 where they seem to be slowly recovering. The smaller *A. triflorum* was obtained in 1990 and seems happy in its location next to the building in full shade and is growing rapidly. The group of trifoliate maples are uncommon and expensive in the nursery trade as they are the most difficult of maples to propagate (seed only on a practical sense - which takes two years to germinate with 2% as a "good" stand) and are slow growing once obtained.

Also in the bed, a low spreading conifer, *Cephalotaxus harringtonia* 'Prostrata', is about to be eaten alive from a more aggressive boxwood beside it. We generally cannot grow the true yews (*Taxus* sp. & cvs.) well in the south due to problems of root rotting in our poorly aerated soils - but the closely related "plum yews", *Cephalotaxus*, are excellent and need much greater use. Eight species exist but only 2 are grown in any measure in American cultivation, and several cultivars exist of this species.

Although very well adapted and beautiful plants with many good ornamental qualities - they are seen less frequently than one might expect. This is due to their slow growth rates where they become costly to produce in any size - and the conifer market therefore goes for "industrial carpet" junipers which are easy, fast, and cheap to produce. This is the "oriental carpet" of groundcovers with dark green handsome foliage - eventually reaching 3' in height and spreading perhaps to 5'.

One of its many strong pluses is that deer do not browse on it (as they do the true yews) - a factor becoming increasingly important in northern metropolitan areas where exploding deer populations have become a major garden nuisance. All plants in the *Cephalotaxaceae* family - "yews", "plum yews", and "nutmeg yews" (*Torroya*) are the source of intense research interest these days by drug companies for the anti-cancer properties of chemicals extracted from the bark. A former NCSU faculty member, Dr. Ed Croom (who was also the first person to be married at the arboretum) is now in Mississippi with the Research Institute of Pharmaceutical Sciences and directs the largest medical research program in the country on this group of plants.

A similar and beautiful prostrate form was selected years ago from a mature plant at Duke Gardens (named such - 'Duke Gardens') and is occasionally found in commercial production. We also have a beautiful 9' specimen of the fastigate form, *C. harringtonia* 'Fastigata' in the White Garden "cove" beside the visitor center behind the large magnolias. We are also very interested in a rare species, *C. coreana*, which we collected in Korea in 1985 (7' tall, located in the lath house). It is vigorous, extremely fast growing to a tree form, and has potential for a larger, economically feasible ornamental conifer shrub/tree.

Three palms have recently been planted in this area next to the classroom door as likely "long-term sacrificial lambs" in hardiness adaptability trials. The largest plant is *Washingtonia filifera*, the California Washington Palm - one of two genera named in honor of American presidents (*Jeffersonia* as the other. Can *Bushia* be far behind? A fun name for some shrub perhaps?). I collected seed of this only native U. S. palm tree in California in 1981 while on sabbatical leave from the northern-most population in existence with hope of more hardiness on this marginal-for-us species. Gradually over the years we gave away the dozens of seedlings grown from the collection to varied individuals and collections - finally keeping this one specimen in a large container and moving it to the visitor center for display in summer and back to an overwintering greenhouse in winter. As our official arboretum mission is study of "hardy" outdoor landscape plants it was necessary to finally test it outside.

Hardiness of palms is complex and partially relating to moisture conditions in winter. With only one growing point on the plant - and no ability to regenerate another one if it is lost - many palms are susceptible to freezing of the vegetative bud when rain and freezing weather occur with ice formation around the terminal meristem. As such, palms in dry desert regions can tolerate much colder weather than those in humid climates. (In Vancouver, BC they often build umbrella shields over individual plants to keep the crowns dry in winter

- and we considered planting it in the visitor center for this reason but space limitations there prevented this more desirable action.) It should be hardy to 10F - but we usually drop below this level about one in three winters - and will likely lose the plant when we do (the last two winters it would have been fine).

The adjacent smaller palm is the Mediterranean Fan Palm, *Chamaerops humilis*. It is the only native palm in Europe and has been cultivated since antiquity. Again, about the same hardiness and the same limitations for long-term use in this area. We could perhaps call them short-lived perennials (as I've heard biennials described for marketing). Palms are often rather cheap in price when shipped in from southern growers where they are easy and fast - and understanding gardeners can install them and enjoy them while present, and just replace them when a bad winter takes them out. There is a common gardener concept that any woody plant must last absolutely forever off into eternity or not use it at all. Whereas no one blinks an eye at putting in vastly more expensive bedding plants (in terms of annual per square foot cost) that last 10 weeks. A tree or shrub that goes out every 3-6 years can still be an inexpensive investment and a valuable exotic enrichment to the garden if one just loosens up a bit on expectations. The Putt-Putt golf course in north Raleigh does this each year with a variety of palms brought in for their exotic appearance - some years they come through, some years they don't and are just replaced.

At the northeast corner of the building is the hardiest and best true tree-form palm for use in this area - a 9' *Trachycarpus fortunei*, Windmill Palm, native to central China and first introduced to western cultivation in 1830 by Siebold. In our climate with good summer heat it is dependable to 0F and older plants to 15' can be found around the eastern half of N.C. with some exploration. In my early years in N. C. I was quite fascinated by a grove of 10-15 plants by a little house in a small town west of Charlotte that were 15-20' in height and obviously had been there for a very long time. I've not been back since the record winter of 1985 (when it went to -15F in that area) and often wonder if they still exist alive. Older plants are expensive, but young seedlings can be obtained without much cost and are fun to plant in the landscape to develop a sub-tropical exotic feeling (as Tony Avent is doing with his "tropical" garden at the N. C. State Fair Grounds).

The last palm in this bed is the rarest with the least known about it or potential adaptability. *Guihaia argyrata* - a rare Asian species shared with us from the Atlanta Botanical Garden where it was grown from Chinese seed. Not listed in any of my reference books or files on palms - so it will be fun to watch it to see its adaptability and potential character if it survives.

The major collection of this bed are the Anise Shrubs, *Illicium*. We are assembling one of the largest collections of this broadleaved evergreen shrub genera in this country with species and cultivars from both the southeastern U. S. and Asia. About 40 species exist but only 2 or 3 are grown commercially in our region. We have planted collections in both shade (this bed) and full sun (west arboretum, beds W33-34) for comparison as most people feel they should be grown only in shade - whereas we feel the plant form and flowering are better in sun.

In this bed we have 5 species - *I. anisatum*, *I. floridanum*, *I. henryi*, *I. mexicanum*, and *I. parviflorum*. The *I. floridanum* (with maroon red flowers in spring, and a white-flowered cultivar) and *I. parviflorum* (with pale yellow flowers in summer) are both native to Florida and are the most commonly cultivated here. Their use increased greatly after the record winter of 1985. Prior to that time, many people felt that plants native to Florida likely had too limited hardiness to risk growing further north. After 1985 when many of our long-grown and most cherished broadleaved evergreens were being chainsawed to the ground after they died from the cold - people noticed these two Anise shrub species had tolerated the winter with no injury at all and began to produce and use them commercially on a wide scale.

The Asian species, *I. anisatum* (creamy white-yellow flowers in spring) and *I. henryi* (bright pink flowers in spring) from Japan and China respectively are less commonly seen but attractive additions to the group. The most uncommon is *I. mexicanum* (maroon red flowers from spring through fall) and obviously from Mexico. I have a lengthy article already written for a future issue of the newsletter discussing this group in detail so will let this brief introduction suffice for now.

The large-foliaged small tree with a tropical appearance from its broadleaved evergreen foliage is *Daphniphyllum macropodum* native to China, Japan and Korea. Unfortunately it has no common name for marketing and promotional use and remains virtually unavailable commercially even though it has been grown since 1879. It is completely hardy here and is growing well in Washington, DC. It can probably be safely considered a USDA Hardiness Zone 6 plant. We have numerous plants growing throughout the arboretum which resulted from seed we collected in Korea in 1985. Plants are of separate female and male sexes and we have planted them in groves for the long-range goal of producing seed crops which could be used for easy commercial propagation. The plants can eventually reach 20' in height and make a most attractive tree. We now have 5 different *Daphniphyllums* (phyllas?) including a spectacular white-variegated form from Japan and feel they have great potential for our area.

Two other broadleaved evergreen shrubs normally considered more "southern" plants are also included in this bed. *Pittosporum tobira* from China, Japan and Korea is a very common landscape plant used in sub-tropical areas world-wide. It was once common in Raleigh and I saw old 15' plants when I first arrived here. The record winter of 1985 with -7F temperatures on relatively unhardened growth killed all of them and it has taken some time for people to get over the "it died once (after 40 years in my garden) and is so undependable I'll never plant it again" song-and-dance routine to the point it is once again being planted. We replanted the following spring and that plant is now 6 years old and 10' tall from a gallon can - in heavy fruit this year.

The plants in this bed (and scattered elsewhere throughout the arboretum) are grown from seed collected in Korea in 1985 from the northern-most populations in existence as an attempt to obtain hardier germplasm for landscape use. (All those now in the trade came from far more southern Japanese populations which are likely less hardy). We've not had a bitter "sorting-out" winter since that time to

test the introduction. One important fact that should be understood in successfully using this plant in this area is that it must be grown "hard". It has no photoperiod mechanism and only responds to cold temperatures to slow its growth and "harden" for winter. If it is fertilized and watered in fall with mild weather, it will grow vigorously with far less hardiness than those on difficult, dry soils with no fertilizer. I look at nitrogen and water as effective "herbicides" to deliberately kill this species here. Put it in a hot, tough site and leave it alone.

There are dozens of other species and cultivars of *Pittosporum* with many named colored-foliage cultivars of *P. tenuifolium* grown in California and England. Unfortunately they are not hardy enough for this area. We have been successful with *P. heterophyllum* for many years (a smaller-leaved species of more graceful appearance), and have several of the *P. tobira* cultivars elsewhere in the garden (E21 in the old grasses/yucca courtyard).

The other "southern" broadleaved evergreen plant is *Podocarpus macrophylla*, the hardiest of many species of the "yew pine" - and the only one for use in N. C.. It is native to China and older plants can reach 30' in height as beautiful trees. Again, basically a dependable plant which was killed here in 1985 but certainly worthy of using in the eastern half of N.C. We have a number of cultivars around the garden, with two Japanese cultivars in this bed shared from the Brookside Gardens collections of Barry Yinger some years ago. We are particularly impressed with a self-fruitful hermaphroditic form in the White Garden. The normally separate female and male plants are propagated by cuttings in the commercial trade with all resulting plants being of one sex or the other with a resulting absence of fruit in most monoclonal plantings. This clone freely produces the attractive purple fruit for additional ornamental value to an already handsome plant.

As time and space runs out with more plants of this bed to describe - we'll switch to a brief notes format for some of them. *Ardisia japonica* 'Chirimen' - an outstanding evergreen groundcover in production by the N. C. Association of Nurserymen for near-future introduction. Planted here to become a solid groundcover to 2" tall - struggling at present for survival in constant attacks from our killer rabbit population. *Paeonia suffruticosa* - two plants of tree peonies that have been on this site for likely 25-30 years. They were beautiful 4' specimens when I first arrived here with spectacular bloom each year - and have steadily grown smaller each year to the point they are about to disappear. Don't know why - tree peonies are mysterious and tricky in this climate - they can be very happy or just die. *Persea littoralis* - a rare bay tree species from Florida which was not expected to live here - either from hardiness or roots in our summer soils - and it seems to be living down to my expectations and likely will not be with us much longer. *Rhododendron chapmanii* X *mucronulatum* - a very interesting cross which combines the evergreen *chapmanii* Florida species with the other northern, very early-flowering deciduous species to yield a tough, evergreen plant which is the earliest of all rhododendrons to flower in our collection - often in March with beautiful pale purple flowers. And finally, *Rhus lancea* - an unlikely South African evergreen tree sumac species which can reach 25'. It is widely grown in southern California and is a most beautiful plant there. It is not expected to be hardy here (likely tolerant to about 10F) and I planted it planning to add it to our lengthy "killed in the arboretum" list - but two mild winters have kept our two plants with us longer than expected. ("Birders" have their "life lists" of birds seen - it sometimes seems I have my "life kill" list with an indirect goal of killing more different kinds of plants than anyone else - and well on my way.) Enjoy your exploration of our exotic "Bed S07" on some future visit to the arboretum.

PLANTS DISTRIBUTED TO NCAN NURSERYMEN

NCAN Short Course and Trade Fair - Asheville, NC - August 11-12, 1990

(Most members who comprise the Friends of The NCSU Arboretum (now the JC Raulston Arboretum) are not in the professional nursery/landscape trade, but are serious gardeners or people who want to support the continuation of the arboretum as a state resource. Beyond the arboretum use as a university teaching resource and display garden for the public, there is also the very important outreach to the commercial industry. Each year plants are taken to the North Carolina Association of Nurserymen's meeting for display, and thousands of plants are also propagated for free distribution as an incentive to try to encourage nurserymen to grow some new crops. To allow our "Friends" to have a feel for this outreach, I am again as for many years, including here the information on plants distributed at the 1990 meeting as these may be plants which will appear in garden centers for the public in the future. Note - the supply of plants distributed at the meeting has been exhausted and these plants are no longer available by request.)

Each year a selection of plants from The NCSU Arboretum (now the JC Raulston Arboretum) is made for propagation and distribution to N. C. nurserymen at the summer short course as a means of spreading new or uncommon plants through the state for further observation and perhaps commercial production. This program has been under way since 1980 and ca. 40,000 plants of 200 different species and cultivars have been given to growers since its inception. Selection of plants is based on plant ability to be propagated when the Department of Horticultural Science propagation benches are empty, size of stock plants in the arboretum adequate to allow taking of 200-300 cuttings, and absence in the existing N. C. commercial industry. Plants will vary in commercial potential with some having great widespread potential - others merely curiosities or hobbyist, collector-type items.

These plants provided for growers represent just a sample of the 5,000 species and cultivars growing in The NCSU Arboretum (now the JC Raulston Arboretum). Commercial growers are most welcome at any time to come to the arboretum to collect (under our supervision) propagation material to provide stock plants for their operations. We do request for nurserymen collecting plants from the arboretum for the first time, an appointment be made (call 919-737-3132) to coordinate which materials may be collected and our general guidelines for collection procedures. Dozens of growers now gather many thousands of cuttings annually in this manner.

01. *Agave filifera* - Frayed Leaf Agave (Amaryllidaceae). The name Agave comes from the Greek word "agauos" (admirable) - referring to the imposing appearance of blooming specimens with dramatic flowering stalks up to 35' in height. Hundreds of species exist and they are commonly used in tropical and subtropical landscapes with particular effectiveness in dry areas where their drought resistance is important. The New York Botanical Garden Encyclopedia of Horticulture describes this species as follows: "Leaves frayed into threads at their edges but without marginal teeth are typical of *A. filifera* native to Mexico. Stemless or nearly stemless and producing offshoots freely, *A. filifera* is variable. Typically it has beautiful spherical rosettes of numerous slightly upcurved, somewhat channeled, tapered-lanceolate leaves 8 to 10 inches long by about 1 1/4 inches wide. They are marked with two or three white lines on their upper surfaces, their margins are horny, and their apexes are furnished with a spine 1/2 inch to 3/4 inches long. The short-stalked, paired, greenish-yellow flowers are in stout, dense, cylindrical spikes up to about 10 feet tall." Hardiness is variable and will depend upon seed source elevation and latitude - likely ranging from zone 7 to 9. Seed for the plants in this distribution came from cultivated plants at the University of California Botanic Garden at Santa Barbara. Growers in the eastern part of N. C. can try it outside; in the west it should be grown as a conservatory/house plant. Full sun is best. Propagation is by seed, or on older clumps by division of offsets. Not yet planted out in the arboretum.

02. *Aucuba japonica* 'Rozannie' - 'Rozannie' Aucuba (Cornaceae). Aucubas are common and familiar plants in the N. C. nursery/landscape trade - grown for their evergreen green and variegated foliage, and less so for their bright red fruit. The name Aucuba comes from a modification of the Japanese name for the plant - "Aokiba". One species exists from Japan to the Himalayas (though some references further divide this into multiple species). Many selections have been made for various foliage shapes and colors. This new cultivar from Holland is based primarily on superior fruiting characteristics. Aucubas generally have male and female flowers on separate plants and plantings of a single vegetatively propagated clone will not fruit. 'Rozannie' is self-fruitful, and in addition the fruit are considerably larger than normal. The fruit is so showy, in Europe it is being grown as a decorative potted plant for the house in addition to landscape use. The foliage is solid green. Aucubas are very easily propagated by cuttings at any time of year. To speed production of this cultivar for distribution, the single small plant obtained in England in 1988 was cut into split-stem, single-node cuttings (i. e. one leaf and associated axillary bud with a small piece of stem) to obtain the maximum number of plants in the shortest time. Probably adapted for zones 7-10, possibly 6? Planted in the lath house of the arboretum.

03. *Buddleia fallowiana* - Lavender Buddleia (Loganiaceae). Many species (over 100) and named cultivars of "Butterfly Bushes" have long existed in commercial horticulture trade. This species was introduced from China more recently in 1921. It is a medium to large shrub reaching 8' in height with whitish woolly stems and leaves; and fragrant, pale lavender-blue flowers in large panicles. U. S. hardiness is not known but Hilliers Manual indicates it requires a sheltered position in England for success. With greater heat here it is likely more hardy but needs testing to establish limits - zones 7-9?. All buddleias are extremely easy to propagate from softwood cuttings in summer, and grow rapidly after potting. Not yet planted out in the arboretum.

04. *Campsis grandiflora* K. Schum. - Asian Trumpetvine (Bignoniaceae). The native N. C. trumpet vine, *C. radicans* is a familiar sight in the countryside growing on every fence row post with masses of red flowers in summer attracting hummingbirds. Although very colorful, it is rarely grown as a cultivated ornamental - and is often fought as a weed where not wanted. This Asian species was collected during the 1985 Korean Expedition and has attracted attention in the arboretum each of the two past summers with its large showy flowers of apricot-orange throughout the summer into the fall. It should be adapted for use in zones 6-9. When grown as a single vegetatively propagated clone it is self-sterile and will not set seed pods, thus further extending the bloom period without the drain of producing fruit. However, if grown in proximity to the native species they will hybridize (the origin of *C. X 'Madame Galen'*) and seed pods will be produced. Plants can be propagated by root cuttings in winter, or more easily by softwood cuttings under mist in summer. Cuttings will not store or ship well and need sticking quickly after they are taken (a major problem we encountered in trying to collect specific color forms in the field in Korea days away from propagation facilities). Planted on the fence between the two farm buildings at the arboretum parking lot. The plants on display there are grafts of the Asian trumpetvine onto the native species (winter cleft-graft) - a way to speed growth and display where native plants already exist - but the planting will develop shoots from the understock as well - eventually giving a display of both forms. This can be an attractive ornamental feature; but more fruiting will result and growers taking cuttings for propagation must be careful to get the correct species desired from the mass of vegetative growth.

05. *Cercis gigantea* - Giant Redbud (Leguminosae). The NCSU Arboretum (now the JC Raulston Arboretum) now has the largest collection of redbuds in the world and we were likely the first in the U. S. to flower this rare species from China in 1989. It is not listed in standard references - the only account seen is mention in a Catalog of Trees and Shrubs of Hunan. The NCSU Arboretum (now the JC Raulston Arboretum) obtained Chinese seed in 1983 with only one seed germinating. This seedling is now the largest *Cercis* in our young collection and is earning its name with extremely vigorous growth. In six years, it has reached a height of 17 feet. The leaves are dark green, glossy and huge - often 6-8" in diameter on vigorous shoots (shown on the cover of American Nurseryman magazine March 1, 1990). The flower buds are nearly 3/4" long - very distinctive from those of other species - and the flowers are large and somewhat bi-color in nature with two shades of lavender on the wings and keel (see photo on display plant). Hardiness is unknown but our plant weathered the record winter of 1985 (-7F) with no injury - likely for zones 6-9. A disclaimer must be made in this distribution - the plants we are giving are seedlings of our plant which may be hybrids with other redbud species growing in proximity in the arboretum. There was enormous variation among the seedlings as they grew in the greenhouse. For certainty in offering this plant commercially it would be much better to have budded plants using scion wood from our original plant (which several growers are doing - and budwood is readily available upon request). Another alternative would be to establish an isolated seed tree to collect seed from for production. Seed should be scarified and cold stratified. Planted in the west arboretum in the redbud collection on the north side of the Leyland cypress circle.

06. *Cornus mas* 'Aurea' - Golden-Leaf Cornelian Cherry (Cornaceae). The Cornelian Cherries are highly desired ornamental small trees with yellow, fragrant flowers in very early spring, handsome foliage, showy and edible fruit, and attractive winter bark. Coming from the area of Middle and Southern Europe and Asia Minor, they also have great environmental stress resistance. In Europe they were traditionally grown as a fruit crop and are still used in Russia for preserves, and in Turkey for sherbert. They deserve increased commercial culture in the U. S. - and 10 European cultivars are described in Krussmann which are essentially non-existent in the U. S. (we now have 4). The cultivar 'Aurea' has bright yellow foliage and produces red fruits. Like many other woody plant colored-foliage cultivars - in the heat of Raleigh it loses this color in summer and returns to solid green color following a spring yellow flush of growth. In cooler climates it should retain more summer color. Capable of reaching 15' in height, our plant is about 6' after 8 years of growth. Useful in zones 4-8. Plants are propagated by softwood cuttings under mist in summer - the earlier the better for subsequent growth flush and survival through the first winter; or by budding on seedling understock. Planted in the northeast corner of the arboretum - north of the row of dwarf Loblolly pines by the Leyland Cypress hedge.

07. *Crataegus aestivalis* (Seed) - Mayhaw Tree (Rosaceae). The only Hawthorns normally grown in commercial culture are introduced and northern species which rarely perform that well in the south. The excellent native species are rarely grown or used. The March 1990 issue of HortScience (Vol. 25(3)) had a cover photo and article on this species indicating very good commercial economic opportunities for both fruit and ornamental production. An old plant existed on The NCSU Arboretum (now the JC Raulston Arboretum) site before development began and it remains one of the finest plants in the arboretum with large showy white/pink flowers in spring, large red fruit ripening in May/June, and handsome glossy foliage (without the typical diseases of hawthorns) which remains attractive until falling in autumn. It is one of the few ornamental trees adapted for use in wet-area or poorly drained soils in hot climates (native to lower Texas, Louisiana, Mississippi, Alabama, and Florida marshes) yet hardy to zone 6. Fruit were harvested this summer and seed extracted for this distribution. They should be cold stratified for 3 months and sown in seedbeds. Growers wishing larger quantities for commercial production are welcome to harvest fruit next summer - or check commercial seed companies for availability. Our plant (20' tall and 40' wide) is located in the east arboretum, north of the Cryptomerias, and west of the row of dwarf Loblolly pines.

08. *Delosperma Cooperi* (Hook. f.) L. Bolus. - Hardy Purple-Flowered Iceplant (Aizoaceae). In 1986 we distributed the yellow-flowered hardy iceplant, *D. nubigenum*. *D. Cooperi* has larger foliage, grows taller, and has bright purple flowers through the summer. Both are evergreen groundcovers native to South Africa which grow best in full sun with good drainage. The original distribution has not been as commercially successful as we had expected. Although dependably hardy in trials in Denver and the upper Midwest to -15F, N. C. growers have had major cold-damage losses at 15-20F (35 degrees warmer). This relates to modern container nursery practice with daily watering and either slow-release or liquid feed fertilizer which keep the plants growing too late in ultra-lush, unhardened conditions (the same thing happens with crepe myrtles). By contrast, stressed container-grown plants with no protection setting out in the open overwintered with no injury at the Mountain Crops Horticultural Research Center nursery in Fletcher, N. C. with -15F temperatures. In addition, plants do need good drainage where planted to prevent root rotting, particularly with drenching summer rains with high temperatures. Both perform spectacularly in the lath house beds of pure bark at the arboretum and we have not had problems. At any rate, this purple-flowered species is an attractive addition worthy of garden trial throughout N. C. Very easy and fast from softwood cuttings any time of year. Planted at the arboretum lath house.

09. *Ficus nipponica* Fr. & Sav. - Hardy Fig Vine (Moraceae). This broadleaved evergreen creeping vine was collected on Sohuksan Island during the 1985 Korean Expedition (NA3532/56532). It may potentially be the hardiest of the evergreen *Ficus* species - a useful addition to the presently used *F. pumila* (repens). It is a vigorous vine which can be used as a groundcover, or it will cling to wood and masonry as a wall cover. It can also be used as an interior totem foliage plant or hanging basket. The dark green foliage is larger than *F. pumila* reaching 2-3" in length. Useful for zones 7-10 and possibly 6? Very easily propagated by cuttings at any time of year and rapid growing. Excellent commercial potential. Planted in the arboretum lath house.

10. *Helleborus lividus* ssp. *corsicus* (Willd.) Tutin. (recently renamed *C. argutifolius* in Brian Matthews new book Hellebores) - Corsican Christmas Rose (Ranunculaceae). There are about 20 species of Hellebores native to Europe (and one from Asia which has never been cultivated) which have long been grown for their handsome flowers and foliage. *H. lividus* ssp. *corsicus* is a broadleaved evergreen herbaceous perennial native to Corsica and Sardinia with showy winter flowers of greenish-white. Mature clumps can reach 2' in height and 4' in width and provide a spectacular garden show. Best in zones 7-9, and will probably not be hardy in the N. C. mountains. In N. C., *H. orientalis* and *niger* are more commonly grown. All Hellebores are grown commercially from seed (limited cultivar production is done with difficulty in England) which require warm stratification followed by cold treatment. The plants being distributed were grown from excess seed from the 1989 American Rock Garden Society annual seed distribution. In older gardens in N. C. many Hellebores naturalize with abundant seedlings appearing around old clumps and these are often gathered, potted up, and grown for commercial sale. Montrose Nursery, P. O. Box 957, Hillsborough, NC 27278 (919-732-7787) is specializing in this group with an exceptional collection planted out on the nursery estate grounds. Our plant is located in the arboretum lath house.

11. Plant withdrawn for future NCAN/NCSU Arboretum (now the JC Raulston Arboretum) Release Program.

12. *Itea chinensis* - Chinese Sweetspire (Iteaceae or Saxifragaceae). The genus consists of about a dozen species of deciduous and evergreen woody shrubs, all native to Asia except the Virginia Sweetspire, *I. virginica*. Apparently this species is rare or new to cultivation as I cannot find it listed in any of my many reference manuals. We have evaluated 5 of the evergreen species and *I. chinensis* is by far the hardiest and most vigorous of all (the only one not severely damaged by the early hard freeze of December 1989 where so many arboretum plants were hit in an unhardened condition). It appears it will be useful in zones 6-9. Our plants are 7' tall and still

vigorously growing - we don't know the ultimate height - 15'? It has typical showy racemes of white flowers about 4-6" in length in early summer. Very easy from cuttings at any time of year. We have two plants - one in the lath house, and one in the west arboretum below the Japanese garden against the Nellie Stevens holly hedge.

13. *Lonicera albiflora* var. *albiflora* Torr. & Gray - Western White Shrub Honeysuckle (Caprifoliaceae). A rare southwestern native shrub which is apparently not in European cultivation as it does not appear in Hilliers or Krussman. The best description is found in *Vines - Trees, Shrubs and Vines of the Southwest*. Native from Central Texas to Arizona, and from Oklahoma into Mexico - considered hardy to zone 6 but this would likely vary with seed provenance. Our plant came from Benny Simpson's trials in Dallas and has gone through our -7F without injury. As a young plant it is an irregular sprawling vine (and grows as a vine on a trellis or fence) which gradually forms an upright woody shrub which can reach 9 feet in height. The spring flowers are white and displayed in attractive inflorescences in the tip perfoliate foliage. Very easy from softwood cuttings through the summer. Our plant is in the west arboretum in front of the east specimen *Lagerstroemia fauriei* plant.

*** Note - Due to plant shortage - only one of the following two cultivars of banana shrub will be included in each distribution bag. Be certain to note in labeling your plants whether you have 14 A or B!

14A. *Michelia figo* (Lour.) K. Spreng. 'Port Wine' - 'Port Wine' Banana Shrub (Magnoliaceae). The "Banana Shrub" (also often listed as *M. fuscata*) is a familiar species of broadleaved evergreen large shrub to small tree (before the winter of 1985 took ancient 20' specimens back to the ground) in eastern N. C. The common name refers to the intensely fragrant spring white flowers which smell like overripe bananas - pleasant at a distance but which can be overpowering up close. Introduced from China in 1789 and long grown in the South. Winter hardiness depends upon high summer temperatures to ripen the wood - in the south it is hardy in zones 7-10 (marginal in 6) - but in cooler climates such as England or the Pacific Northwest it can be killed in the 20's. In western N. C. it will need to be grown as a tubbed plant for a winter sunporch. 'Port Wine' varies from the species in having denser, more compact growth, flowers of pale purple color, and less fragrance. Cuttings root easily at any time of year. Our 5' plant is in the arboretum lath house.

14B. *Michelia figo* (Lour.) K. Spreng. 'Stubb's Purple' - 'Stubb's Purple' Banana Shrub (Magnoliaceae). A sister seedling to the plant above and very similar in all visible characteristics. We have not seen them bloom to make comparisons. The only reference I have seen says it has very fragrant purplish flowers. Our plant located beside the one above in the arboretum lath house. Both cultivars were originally obtained from Gossler Farms Nursery, 1200 Weaver Road, Springfield, OR 97487 (503-746-3922). (Postscript Note - In various discussions it seems likely now that the two clones are identical and result from the renaming of one in New Zealand. Our plants and others I've seen seem identical.)

15. *Neillia longiracemosa* - Long-Flowered Neillia (Rosaceae). A rarely grown genera of about a dozen species of deciduous shrubs (most closely related to *Physocarpus* and *Stephanandra*) with many of the appearances of *Spireas*. *N. longiracemosa* from western China is one of the rarest and least commonly grown species, and also one of the most attractive and ornamental - receiving an Award of Merit from the Royal Horticultural Society in 1931. It was introduced to cultivation by E. H. Wilson in 1904 and has probably never been produced commercially in the U. S. It can reach 10' in height and has peach-pink, tubular flowers in slender racemes 4-6 inches long in early summer. It should be hardy for use throughout N. C. Neillias are suitable for shrub borders and informal areas; and grow and bloom best in full sun. Propagation is very easy from softwood cuttings during summer. Our plants were grown from seed obtained from the Madrid Botanic Garden in Spain. Not yet planted out in the arboretum.

16. *Paulownia Fortunei* (Seem.) Hance. - Fortune's Empress Tree (Bignoniaceae). About 6 species of plants from Asia which are considered "amongst the grandest of ornamental flowering trees" (Hillier). The violet-flowered *P. tomentosa* is commonly seen in the N. C. landscape and naturalizes along the highways in western N. C. As an extremely fast-growing species (up to 10' a year when young) with large, coarse foliage it is often considered here to be somewhat of a "trash tree". In other areas it is admired and honored (the elegant allee of them at Longwood Gardens as an example) - and as one of the most valuable of lumber trees it is now being plantation grown in the south for sale to Japan. (The wood is so valuable old trees are "hijacked" and stolen from residential properties up north!) This species, *P. fortunei* is rarely seen in cultivation. It is a smaller tree reaching 20' in height, with leaves up to one foot in length, and 3-4 inch long, fragrant, creamy-white flowers tinged with lilac on their outsides and heavily marked on their insides with dark purple. It is reported less hardy than our common Empress tree - and may be useful for zones 7-9. The plants being distributed were grown from seed collected in China and distributed by the Beijing Botanical Garden. As lush and succulent as the plants are at present, they should probably be well protected in an overwintering house this first winter. Paulownias can be easily be propagated in a variety of ways - seed germinate quickly with no pre-treatment; softwood and root cuttings are very easy - and plants grow rapidly. Not yet planted out in the arboretum.

17. *Picea purpurea* Dallim. & Jacks. - Purple Spruce (also listed as *P. likiangensis purpurea* Pritz.) (Pinaceae). A rare spruce discovered at 9-12,000 feet elevation in the Szechwan mountains of western China in 1910 by E. H. Wilson. Hilliers notes "a most ornamental, vigorous and accommodating tree of medium size . . . in April and May when loaded with its male flowers and brilliant red young cones it is spectacularly beautiful." This species (or botanical variety) is noted for smaller, violet-purple cones. It will be hardy anywhere in N. C. - and probably best in the mountains as it will likely not be heat tolerant in the eastern part of the state. The two-year old seedlings being distributed were grown from wild collected seed from the Holden Arboretum expedition to China in 1988. Not yet planted out in the arboretum.

18. *Prunus Mume* Siebold & Zucc. - White-Flowered Japanese Apricot (Rosaceae). The Japanese Apricots should not be unfamiliar to N. C. nurserymen at this point after Raulston has yelled unrelentingly about them for a decade. But for "newcomers" - they are small, deciduous trees from Japan with fragrant flowers in mid-winter to early spring. Hundreds of varieties exist in Japan and they are well adapted to use in the southeastern U. S. Plants can be propagated by seed, softwood cuttings, or by budding on purple-leafed plum understock. The plants being distributed are of a large white-flowered clone with vigorous shoots which have bright green bark. It has good potential for both landscape use and for cut branch production for the florist trade. Our plant is located in the west arboretum below the Japanese garden - the most southeastern of numerous cultivars in that bed area.

19. *Raphiolepis umbellata* (Thunb.) Mak. - Yedda Hawthorn (Rosaceae). About 14 species of broadleaved evergreen shrubs and trees from Asia, most commonly represented in U. S. landscape use by many cultivars of *R. indica*, the Indian Hawthorn. *R. umbellata* was originally introduced from Japan in 1862 and produces white, slightly fragrant flowers in spring, followed by black fruit. The plants being distributed came from cuttings of plants grown from seed from the 1985 Korean Expedition - which should potentially be hardier than Japanese provenances. The plants in our nursery have dark green foliage with none of the foliage diseases seen on other taxa in our collections, and a handsome dense growth habit. Potentially useful throughout N. C., and certainly in the eastern half of the state. Easy from softwood cuttings under mist in summer; and with not much more difficulty in winter. One plant is located in the east arboretum north of the *Hamamelis* collection; others are in the nursery.

20. *Rhododendron* X 'JBH' - 'JBH' Azalea (Ericaceae). A spontaneous hybrid of *R. chapmani* X *R. indica* 'George L. Taber' discovered by Mr. Jim Berry of Flowerwood Nursery ('JBH' = Jim Berry Hybrid) and released for industry trial and potential production (it is not patented). It is a vigorous, broadleaved evergreen shrub with large lavender-purple flowers in spring. Hardiness is unknown but *R. chapmani* can be grown throughout the state. We have found it very easy from softwood cuttings and rapid growing. Not yet planted out in the arboretum.

21. *Salix chaenomeloides* - Red-bud Pussy Willow (Salicaceae). A relatively "new" species of willow from Japan which is not yet in reference books. It is one of the handsomest of pussy willows with vigorous growth to 15', attractive shiny red winter buds, and early large catkin flower displays. It has great potential for landscape use as well as for cut branches for the florist trade. Significant numbers are being grown by the Roy Kleim Nursery in Illinois for near future sales. It will be useful throughout N. C. with possible hardiness to zone 5? Easy from softwood cuttings in summer under mist; and from hardwood cuttings in winter. Our plant is located in the west arboretum at the southwest corner just east of the bald cypress collection.

22. *Salix elaeagnos* Scop. - Rosemary-Leafed Willow (also listed as *S. rosmarinifolia* Hort.) (Salicaceae). A beautiful, medium-sized to large shrub (to 10') of dense, bushy habit from Central and Southern Europe through Asia Minor. The elegant foliage is thin and elongated much like enlarged leaves of Rosemary, green above and white below. Catkins are small but attractive in spring. It is hardy to zone 4, yet it seems heat tolerant - so potentially useful throughout N. C. Very easy from softwood cuttings under mist in summer, and probably from hardwood cuttings in winter. In about the center of the west arboretum.

22A. *Solanum dulcamera* 'Variegata' - Variegated Nightshade (Solanaceae). This plant came to the arboretum years ago from a private garden and we have not been able to put a correct species name on it (there are 1,700 different *Solanum* species world-wide!) or locate a similar plant in commercial trade. (Postscript Note - it was identified the week after we distributed it!) Many perennial growers have already begun to propagate and grow this plant, and the public response has been so favorable we felt it desirable to distribute it for more widespread use. A herbaceous plant to 18 inches tall with small purple flowers and purple fruit. It roots easily from softwood stem cuttings and is relatively stable in the variegation. Solid green or white shoots should be removed when observed - and probably the plant should be repropagated periodically as clumps age and begin to show more reversions. We have discovered that root cuttings will all come back with solid green foliage indicating the plant is a chimerally variegated form. Will grow throughout N. C. Our plant is located in the lath house. NOTE - The fruit of all nightshades are poisonous.

23. *Sorbaria altaica* Hort. - False-Spirea (Rosaceae). Another of our "mystery" plants which we periodically distribute just to confuse things. These plants were grown from seed by this name received from the Mlynany Arboretum in Czechoslovakia. After we had 500 plants growing - we discovered in reference manuals that no such name exists in any of our literature (or even close). All *Sorbarias* are attractive, and since we distributed perhaps the best one last year, *S. sorbifolia* - just plant this one out as a garden plant to watch and enjoy. The genus consists of 10 species from Asia - deciduous shrubs with cut-leaf foliage and showy white flower panicles in summer. Excellent for moist spots in full sun. Seed germinate readily without treatment; and softwood cuttings are exceptionally easy to root. Will grow throughout N. C.

24. *Taiwania cryptomeriodes* - Taiwania (Taxodiaceae). A very rare conifer from Taiwan related to *Cryptomeria*. It was only introduced to cultivation in 1920 and is rarely seen even in arboreta conifer collections. Although it has been measured at 150' in the wild, it is rarely seen above 15' in cultivation. It survived our -7F record low and will likely be hardy throughout N. C. We have noted that it is very sensitive to low temperature with bright sun and will easily winter-scorch. Planted where it receives winter shade there seems to be no problems. We have had good luck with cutting production in the past, but apparently our timing was off as we found very poor rooting when we pulled the cuttings to prepare for this distribution. We apologize but most of you will not receive satisfactorily rooted cuttings - if you have mist available you may want to restick them to see if they will continue rooting. Large quantities of cuttings are available for collection this winter (please take them, as we are moving the plant this winter) if you want to collect for trial. We also distributed quantities of cuttings to ForestFarm and Mitsch Nurseries in Oregon, and Woodlanders Nursery in South Carolina last winter so they will likely have them in production for sale next year. Like many conifers rooted from cuttings (e.g. *Cunninghamia*), newly rooted cuttings

will sprawl with awkward "viney" growth for several years until a sufficiently large root system has developed to push up a strong central leader. Our two large plants are located in the lath house (growing through the roof), and in the Magnolia area south of the Cryptomerias.

25. *Ulmus carpinifolia* 'Gracilis' - Hedge Elm (Ulmaceae). (I have not found a listing of this name in my literature and wonder if it could be what Krussman lists as *U. carpinifolia* 'Cornubiensis' - an ancient cultivar grown for its fastigate form). This tree was first noted in the University of Washington Arboretum, Seattle, WA in the winter of 1989 (WA60239) - the 30' plants somehow overlooked in my previous 25 years of visiting the plantings even though beside the major road through the grounds (near the new visitor center). I was much impressed by the dense twiggy growth and tightly fastigate form. Although a deciduous plant - the dense growth would provide adequate visual barrier for an excellent hedging or screening plant. Several root suckers were brought back and subsequent repropagations have yielded large quantities of plants for distribution. It roots easily and quickly from softwood cuttings and it should grow at least 2' per year in production. The species is hardy to zone 5 and it should grow throughout N. C. We have planted a hedge in the west arboretum on either side of the first walkway just beyond the deciduous holly collection.

26. *Ulmus parvifolia* Jacq. (Small-leaf Form) - Little-Leaf Chinese Elm (Ulmaceae). The true Chinese elm is one of the most variable tree species in existence with virtually every imaginable size, form, foliage character, bark texture, and even hardiness character available in the species genes. Many dwarf cultivars have been developed for use as bonsai plants by the Japanese - but their slow growth rate also limits the speed and character of plants that can be developed in a practical commercial sense. This clone has exhibited rapid growth in the arboretum while maintaining the tiny leaf character so desired in bonsai. An 8 year-old plant in the arboretum is now 9' tall and has a 12" basal trunk with rough furrowed bark which would be perfect for digging, cutting back and training to pot culture. We would propose a speciality plant nursery production schedule of field growing this plant (2-5 years) for later sale to commercial bonsai nurseries for detailed training. It is also a handsome deciduous shrub/small tree with excellent fine texture. Softwood cuttings root easily under mist in summer and plant are photoperiodic so they can be maintained in year-round propagation by maintaining stock plants under long day conditions. It should be hardy for outdoor culture anywhere in N. C. Our plant is in the west arboretum below the Japanese garden.

27. *Viburnum* sp. 'Variegata' - Variegated Viburnum (Caprifoliaceae). One of the basic rules of any good arboretum is that the plant you are most interested in will not have a label on it. This cultivar was discovered as a 10' specimen at the Bagatelle Garden in Paris (without a label) and a single cutting was brought back and built up in numbers for this summer's distribution. A very striking plant with the white and gold flecking and striping on the green foliage - it will be loved by those who like variegated plants; and hated by those who don't - with very few people not having a strong opinion on it on way or the other. It has not flowered for us - likely because it has been kept in continuous growth with photoperiod lighting with cuttings taken each time a shoot is 4" long. Softwood cuttings are very easy to root. It should have white flowers in spring. It should be hardy throughout N. C. Planted in the planter west of the Japanese garden in the west arboretum.

PLANTS DISPLAYED TO NCAN NURSERYMEN

NCAN SHORT COURSE AND TRADE SHOW - ASHEVILLE, NC - AUGUST 11-12, 1990

In the year since the 1989 Asheville NCAN Short Course, nearly 1,000 different new plants have been added to the collections of The NCSU Arboretum (now the JC Raulston Arboretum). The collections currently hold over 5,000 different ornamental plants. The individual plants on display represent some of the current sources, diversity and types of plants of present interest which have been acquired in the past year. These will now begin their trials and evaluation in The NCSU Arboretum (now the JC Raulston Arboretum). Many will not be adapted to our climate or growing conditions and will pass from the scene. Others may prove adaptable and useful - and may eventually show up in future distributions and enter commercial production. (Note - The original descriptions were written in summer 1990 to accompany the display of plants at the trade show. "Postscript Notes" below accompany many descriptions telling what has happened to them since that time or where they may be found in the arboretum if planted out.)

Acer elegantissimum (*A. henryi*?) (Aceraceae) - Henry's Maple. A beautiful small tree from China with compound leaves similar to the trifoliolate maple series (*griseum*, *triflorum*, *nikoense*, etc.) but unlike those of ease in cutting propagation and fast growing. Acquired from Mr. Barry Yinger who grew it from Chinese seed. Zones 5-8? (Postscript Note - Now planted in the west arboretum at the south side near the holly hedge.)

Acer pentaphyllum (Aceraceae) - Five-Leafed Maple. A rare and very elegant maple with beautiful leaves divided into 5 thin, linear leaflets. Introduced to cultivation from China in 1929. Acquired from Western Hills Nursery in Occidental, CA - where one of the few fruiting size trees in America exists. Zones 7-9? Seed. (Postscript Note - This has been a most frustrating tree in our trials. Highly desired as a beautiful ornamental and it should grow in our area - but many trials have always met with failure. At first I thought it was winter cold - and could have been in the bitter winters of several years ago. Then I learned it was one of the very latest of plants in the garden to leaf out in the spring and thought I might be giving up too quickly after a winter and was discarding them when they might still be alive. Then I thought it might be our constant problem of summer root rot in hot, wet soils - so the spring of '91 plants were set out in our raised bark beds after the last frost [as well as several other places] - and all are now gone again. I've lost a dozen plants in widely varied trials over many years - and am about to reluctantly decide we just can't grow this one. But it is so beautiful - what is one to do but continue trials? And it should go here.)

Arbutus X 'Marina' (Ericaceae). The "Strawberry Trees" are a magnificent group of about 6 evergreen tree species of the Mediterranean and Western U. S. with white flowers and beautiful bark. In N. C. their limitations are winter cold and summer rains when hot causing root rots - and we've killed all of the species at this point at one time or another. (*A. unedo* has been the best with a well-drained site). This is a new hybrid being evaluated by the Saratoga Horticultural Foundation in California. In trials there it grows vigorously and will get to be a large tree probably to 25'+, with large panicles of showy white flowers beloved by butterflies, beautiful red peeling bark, and this one roots from cuttings (a rare trait in the genus) making commercial production possible. Parentage is unknown but theorized to be possibly *A. canariensis* X *unedo*? It is extremely vigorous and we have hopes for it here - likely a zone 7-9 plant. (Postscript Note - now planted in front of the lath house in the north bed where it is growing vigorously and beginning to show the beautiful red bark characteristic of most of these plants. It came through last winter [there was no '90-91 winter however] and we await a more rigorous season to show us what it will really do. Hope springs eternal.)

Asarum magnificum (Aristolochiaceae) - The Magnificent Ginger. The evergreen "gingers" are among the finest of herbaceous groundcovers. This species recently introduced to cultivation from China through the Arnold Arboretum is considered the finest of all with 6" long, dark green leaves. It ultimately makes a plant 12" tall with beautifully patterned foliage. Photos of solid stands in Chinese botanic gardens reveal a stunning garden plant. Propagated by division - and as it slowly becomes available it will become one of the choice garden connoisseur plants. Zone 5-9. (Postscript Note - Taxonomic problems spring eternal as well. Within months after this plant was first described in print in the U. S. by Arnoldia to promote its use - the taxonomists changed the name to *A. splendens*. Sigh!)

Boehmeria megaphylla (Urticaceae) - Large-Leaved Chinese Silk Plant. A shrub to small tree from western China with leaves up to a foot in length with panicles of whitish flowers. More an oddity than a potential ornamental - we want to plant it out to determine potential hardiness (doubtful here) which is not recorded in literature. This plant grown from seed provided by the Beijing Botanical Garden.

Chamaecyparis obtusa 'Torulosa' (Cupressaceae) - Contorted Hinoki Cypress. One of a half-dozen different conifers which have twisted or contorted growth. Cultivated since 1930 - propagated by cuttings. We'll add this plant to our contorted plant collection in the west arboretum. Some love these odd plants - others consider them an abomination and refer to them as our "Hiroshima collection" (of nuclear distorted origin - which they aren't.)

Choisya ternata 'Sundance' (Rutaceae) - Sundance Mexican Mockorange - *Choisya* was introduced to European cultivation from Mexico in 1825 and is widely used in warmer climates as a 3-7' broadleaved evergreen shrub with white fragrant flowers. Gertrude Jekyll wrote about it many times and greatly admired it in her garden. This English cultivar was first introduced by Bressingham Nursery in 1988 and was instantly popular with its bright gold foliage. Very easy and fast from cuttings (we'll have for distribution next year). Zones 7-9. (Postscript Note - it will indeed be a distribution plant at NCAN in '91 - and we'll have many plants for our members distribution day October 19. Planted in front of the lath house near the entrance and it came through the non-existent winter of '90-91 with no problems. But *Choisya* is a marginal plant which will be lost in the Piedmont in more severe winters. Good to carry over a few cuttings each year "just in case".)

Cornus uncinata [also *C. florida* var. *Pringlei* or *C. Pringlei*] (Cornaceae) - Mexican Flowering Dogwood. Classified by some as a botanical variety of *C. florida* - this plant has bracts which fuse at the tips in the bud and as the bracts expand they form a remarkable "balloon" shaped flower. Our seed collected in mountains of Mexico as one of the major plant sources of current interest at the arboretum. Unknown hardiness at this point. Planned for a distribution plant for 1991. (Postscript Note - will be distributed at both NCAN and members distributions. One likely potential problem as a part of its hardiness will be the photoperiod change in its move north. Photoperiod sensitive plants [i.e., those which use photoperiod as a timing clue on triggering slowed growth and dormancy to prepare for winter] moved north of their native range often grow too late in the fall before beginning their hardening and the unacclimated tissue is damaged with the first early freezes. My guess is that this may happen in this case - but the only way to learn is to plant them out to see. It would be a magnificent plant if we should be able to grow it.)

Daphniphyllum teysmanii 'Marginata' (Daphniphyllaceae) - Variegated *Daphniphyllum*. One of the showiest of numerous rare plants ordered this spring from a Japanese Rare Plant Nursery specializing in variegated plants. It has white margins and white streaks through the green foliage in a most striking and attractive manner. A grafted plant and with the current yen:dollar relationship - a much more expensive plant than we care to think about. The *daphniphyllums* have been excellent in our trials and we look forward to field trials for this one - after we have produced a greenhouse backup plant in case of reduced hardiness or bad winter. (Postscript Note - first attempts to propagate this plant by cuttings have failed - probably the reason the Japanese had produced the plant we received by grafting. It has continued growth and is even more spectacular and desirable now that it is two feet tall - very eager to build it up for outdoor trial. Current efforts are to root cuttings of *D. macrophylla* for understock plants and try grafting this winter.)

Echinosophora koreensis (Leguminosae). An extremely rare, endemic tree native to Korea which is nearly extinct, and which we are told had never been propagated successfully until we managed to germinate a few seeds. Related to *Sophora*, *Maackia*, etc. - a small tree with whitish flowers which has possible ornamental potential. Will probably only be grown from seed - but we will try cuttings and grafting on *Sophora japonica* as possibilities of increasing plants for survival safety. Hardiness unknown but coming from Korea likely OK for Raleigh.

Fokienia hodginsii (Cupressaceae). An extremely rare, monotypic conifer genera native to Fokien Province of China (origin of the genera name) first discovered in 1908. This plant grown from Chinese seed. Reported hardiness lead me to think it unlikely to grow in Raleigh - but I recently discovered a hobbyist who has had a garden plant in upper Virginia successfully for several years - so we proceed with

more hope. (Postscript Note - planted in the lathhouse last fall and came through the non-test of winter with no injury, and is now nearly 3' tall.)

Gordonia lasianthus 'Variegata' (Theaceae). One of the most beautiful broadleaved evergreen trees native to the southeast with showy white flowers in summer. There have never been any selections or named cultivars. This showy, white-variegated foliage form showed up as a seedling variant in a Florida nursery seedbed in 1989 and the owner kindly shared one of the first propagations with us. Hardiness of this selection is yet unknown but the species is fine in Raleigh if grown with good drainage as it will easily root rot in hot, wet heavy clay soils. (Postscript Note - We've now started buildup from our first small plant. It has rooted well from cuttings and as a broadleaved evergreen plant we can keep it in growth in the greenhouse through the winter under extended photoperiod lighting. It will probably be '93 before we have enough for distribution to nurserymen [and a few for the member's day] - but with great potential.)

Haloragis micrantha (Haloragidaceae). A herbaceous perennial collected by The U. S. National Arboretum during the 1984 Korean Expedition. It's growth habit in our nursery suggests possibilities for use as a fine textured groundcover or as an interior hanging basket. Very easy from cuttings. Hardiness unknown.

Hydrangea seemanii (Hydrangeaceae). One of the several different "climbing hydrangeas" which can be shrubby plants or when in contact with wooden or masonry wall will climb to considerable heights by aerial rootlets. White flowers in summer. This plant from Mexico is not in any of my references and nothing is known on hardiness but we will be trying it. Easy from cuttings. Obtained from the spectacular plantings on trees in the Strybing Arboretum in San Francisco. (Postscript Note - Again, came through the non-existent winter - but then died from root rots when the summer heat hit in July - even though it was in our lath house bark bed. Haven't quite given up as I must kill another one or two before I fully understand its behavior - but it will likely be a difficult or impossible plant for us.)

Ilex vomitoria 'Will Fleming' (Aquifoliaceae). The holly equivalent of the 'Skyrocket' juniper with tightly fastigate growth. Plants 9' tall can be only a foot in diameter. Grown commercially in Texas and relatively common in garden centers in Houston - but not yet seen in N. C. markets. Propagated by cuttings. (Postscript Note - our plant now about 3' in height and this fall it will be planted in the Yaupon holly collection by the street at the road entrance to the farm. Dwarfs, small-leafed, weeping, and yellow-fruited forms are among the 10 cultivars already on display.)

Loropetalum chinensis var. *rubrum* (Hamamelidaceae). *Loropetalum* is a white early-spring flowering broadleaved evergreen shrub/tree from China grown throughout the southeast U. S. in zones 7-9. It is normally seen at about 4-7' in height but can go up to 30' in native habitats. A decade ago I learned of this purple-flowered botanical variety which had never gotten out of China and have actively hunted it since that time. Dr. James Waddick, a plant-collector friend obtained it for me in China in the fall of '89 and I hand carried it back from Kansas City in January '90. After blooming in spring it collapsed and nearly died - but repotting, fungicide soak treatment of the roots and holding the repotted plant under mist allowed it to finally recover with good growth at present (as well as my own recovery from severe nervous shock over the potential loss). We will begin cuttings soon and hopefully will be able to get it out in the trade as soon as possible. In addition to the purple flowers, it also has purple foliage - it is so showy in flower it also has potential for use as a florist potted plant or cool conservatory plant.

(Postscript Note - The plant just gets more and more spectacular as it gets larger - now up to 2' in diameter. The flower buds seem to have a low dormancy requirement and the plants have been sporadically flowering all summer as well - which would be a nice garden trait something like the behavior of *Prunus subhirtella* var. *autumnalis* in winter. The flower color is a stunning purple shade - very appealing. We are now on our third generation of propagations and will be able to seriously bulk up the numbers of this plant during the '91-92 winter. The N. C. Association of Nurserymen has selected this plant for a future industry promotion and it should first appear in commercial markets in '94-95. It has been very difficult to control my desire to distribute this plant to "selected" people and places as we had a few - but I've learned that it is necessary to not do so on slower materials if we ever hope to get significant numbers built up. Only two plants have "gotten away" through weak-willed moments [to good deserving places who share readily with us - The U. S. National Arboretum and Longwood Gardens] - plus one that was stolen from our nursery. I've recently learned of another clone which has green foliage and purple flowers now in the U. S. which I hope to somehow acquire for our collection, trials, and industry distribution.)

Magnolia grandiflora 'Variegata' (Magnoliaceae). Dozens of cultivars of Southern Magnolia exist with most selected for flower character, plant habit, or foliage lower-leaf pubescence. Although described in literature - this variegated cultivar is rarely seen - and in fact it had to be obtained from a Japanese rare-plant collector through an Ohio variegated plant specialist. Probably no "commercial" value - but a good addition to our expanding collection of Southern Magnolia cultivars. (Postscript Note - A year later watching the plant as it grows, I'm beginning to rethink my comment of no commercial value as it is quite showy and most who see it seem to like it. The plant is now about 3' in height and we will probably continue to grow it in the greenhouse to accelerate its growth. I want to get scion wood to commercial speciality grafters for possible industry introduction. We will probably plant it in the arboretum in spring of '92 for the public to see.)

Melia azedarach 'Jade Snowflake' (Meliaceae) - 'Jade Snowflake' Chinaberry. Although an attractive tree, the Chinaberry is generally scorned as a "trash tree" due to its prolific seedling production and rapid growth. No cultivars have been selected. This variegated form was found in a farmyard near San Antonio in fall '89 and this is one of the three or four plants which have been propagated from it. Again, likely no commercial value - but for those few (Raulston and maybe one other) who admire both Chinaberries and variegated plants - it is an interesting addition. Rooted from softwood cuttings. (Postscript Note - Now planted in the lath house and about 3' tall. The variegation seems stable and astonishingly more than one visitor has shared my admiration for this plant. The new flush of growth

in the heat of summer emerges without the clear spring variegation so we will have to watch to see how it develops and displays its variegation pattern through the year. We have noted a wide variety of "behavior" patterns on various variegated plants in our collection - they are hard to predict.)

Pachysandra terminalis 'Green Sheen' (Buxaceae). *Pachysandra* is as basic a groundcover in northern landscapes as *Liriope* and *Shore Juniper* would be in the south. This new cultivar was found as a mutation in a landscape planting in Connecticut - notable for its very lustrous shiny green foliage. It is quickly entering the trade there (through Dale Chapman Nursery, Hampton, CT - the originator) and is presently selling for four times the price per plant of normal *pachysandra*. The originator did not patent it - and growers are free to grow and sell it with no special agreement. We are building numbers and will distribute it next year. (Postscript Note - will be distributed both to NCAN in August, and to members in October - super plant.)

X *Phylloopsis hillerii* 'Pinnocchio' (Ericaceae). A rare bi-generic hybrid from the Hillier Arboretum in England created through a cross of *Phyllodoce* and *Kalmiopsis*. Relatively new and little is known about it - but will likely be something like a *Daphne* X *burkwoodii* in texture with flowers something like *Kalmia*. Propagated by cuttings and difficult to grow - needs moist, shady peat beds. Hardiness unknown - zone 6-8? (Postscript Note - As expected, since past experience has shown we can't grow either of the two parents, *Phyllodoce* or *Kalmiopsis* successfully here - the hybrid has also since gone on to the gigantic deceased repository "fed" by our Dead Plants Society under the direction of Tony Avent.)

Pieris polita (Ericaceae). *Pieris* are quite familiar broadleaved evergreen shrubs with white (and pink) flowers. Most references list about 5 species and innumerable cultivars (mostly of *P. japonica*). This new species came from a Chinese Botanic Garden Index Seminum seed exchange - nothing known about it at this point. (Postscript Note - We have 3 plants in the lath house up to 2' in height - but none have reached blooming age yet - for continued observation.)

Punica granatum 'Nana' (Punicaceae). The pomegranate fruit crop is also grown as an attractive ornamental with orange-red flowers and large colorful fruit. They are useful in eastern N. C. and large plants existed in the landscape in Raleigh until the record winter of 1985 when most were killed to the ground (and later resprouted). The Japanese have developed many ornamental cultivars (which we had obtained from Brookside Gardens and planted out just months before the record freeze - losing the entire collection) which should be grown more. This dwarf cultivar gets about 1-2' in height and blooms for a long time in the summer with reddish-purple fruit in fall. Very easy from cuttings.

Quercus risophylla (Fagaceae). A major group of new plants in our testing program are the accessions coming from the mountains of Mexico through a Texas collector (e.g. *Cornus uncinata* above). This is one of the most beautiful of evergreen oaks with mature foliage up to 6-8" in length and has good potential for use in N. C. Seed source has always been a barrier to uncommon oak species production but recent work by Durr on cutting propagation shows promise - and would be the way this plant may eventually be produced.

Rhododendron (Azalea) X 'Little John' (Ericaceae) - 'Little John' Azalea. The unusual striking red foliage of this azalea caught my eye while visiting Evergreen Nursery in Sebring, FL and I brought back a plant for trial. Fred Galle's book, *Azaleas* describes it (p. 165) as a Southern Indian Hybrid - originating as a second-generation sport of 'Ray's Ruby'. It produces reddish-purple flowers - and is listed as a zone 9-10 plant - so unlikely to survive for us - but will test it in both Raleigh and Wilmington to see.

Salvia coccinea (Variegated Pink Form) (Labiatae). A stable variegation which occurred recently in the garden of Scott Ogden of New Braunfels, TX and given to us for trial. A herbaceous perennial with pink flowers in fall. Very easy from cuttings. Hardiness is unknown at this point.

Sinocalycanthus sinensis (Calycanthaceae) - Chinese Wax Shrub. A new genera recently discovered in China related to our southern "sweetshrub", *Calycanthus*. Only the fruit show the genetic relationship - as the flowers are large-petalled and white, looking something like a single *camellia*; and the foliage is broad with a crinkled texture. Likely hardy to zone 5 or 6. It was first grown in America by the University of British Columbia Botanical Garden and at present few plants exist in the U. S. Propagated by seed or cuttings and planned for future distributions. (Postscript Note - Our original 5' plant from UBC is at the northwest corner of the Japanese garden on the outside between the black bamboo and the raised planter bed. This is one of those examples mentioned under *Loropetalum* above where I never quite get enough to do widespread distributions as it propagates slowly for us and I keep giving them away about as fast as I produce them. A weak spine and low will-power is sometimes a handicap. A review by Dr. Gerald Straley of UBC discussing this new plant recently appeared in *Arnoldia*, .)

Stewartia monodelpha 'Aureo-Variegata' (Theaceae) - Variegated *Stewartia*. Another spring shipment plant from the Japanese rare plant nursery specializing in variegated plants (see *Daphniphyllum* above). One of four different species/cultivars of variegated *Stewartia* ordered - but the other three were lost unfortunately - as is so often the case, killed in shipment and USDA quarantine fumigation treatment trauma. Doubly unfortunate as this was the last year for the nursery to export and it may be difficult to ever get these plants out of Japan again in the future.

Styrax calvescens (Styracaceae). The "Snowbells" are white flowering trees of great ornamental beauty. The NCSU Arboretum (now the JC Raulston Arboretum) collection of *Styrax* species and cultivars is becoming quite good - but many species exist in Asia which are not yet in cultivation. We have tried many times with seed from Chinese Botanical Gardens but they rarely germinate. It was an exciting day when a single seedling came up this spring of this very rare species. After the trade show display we will attempt cuttings under

extended photoperiods this fall to see if we can get multiple plants for safety. (Postscript Note - now planted in the planter west of the Japanese garden and it has reached 3' in size. We've begun to propagate it and await likely flowering in a year or two to see what it looks like. We have a review of *Styrax* coming in a future issue of the newsletter.)

Taxus chinensis (Taxaceae) - Chinese Yew. The true yews do not do well in the heat of much of N. C. - and where they do grow, the rate of growth is so slow it limits economic production. This species from China is larger and more vigorous (reportedly becoming a large shrub to small tree) - and likely more heat tolerant. Container grown plants have produced 2' of growth for us in a year. We are eager to follow landscape performance and begin to build these up for distribution. (Postscript Note - now planted in the front of the lath house in the north bed - and up to 5' and growing rapidly. A beautiful plant with interesting potential).

Taxus globosa (Taxaceae) - Mexican Yew. A very rare species of yew from the mountains of Mexico which we were excited to acquire this spring. *Taxus* in general are an extremely hot research topic at present as anti-cancer drugs are found in the bark and there is the possibility of the need to grow them in plantations for potential chemical extraction. (Postscript Note - now planted inside the lath house, sadly not very happy with its present situation and apparently wishing it were back in the mountains of Mexico).

Thuja plicata 'Filifera' (Cupressaceae) - Threadleaf Western Cedar. The western red cedar is a massive forest tree (used for lumber and shingle) from the Pacific northwest - but a number of cultivars have been selected for varied foliage colors and growth rate. This odd threadleaf form is a recent new addition to the list. The species itself deserves much greater use in N. C. as an outstanding large conifer; and particularly for adding to the list of plants for hedges as a Leyland cypress replacement. It has been an unexpected and surprising success as one of the very few west coast woody plants which seems to handle our soils and summer rains without root rot problems.

Tsuga canadensis 'Minuta' (Pinaceae). There are so many cultivars (dozens, hundreds?) of the Canadian hemlock, and new ones appear so rapidly that no reference can even keep up with all of them. They vary enormously in the range of characteristics for which they have been selected. This one is probably the slowest growing one in "commercial hobbyist" production at present. This 2" diameter plant was obtained from Siskiyou Rare Plant Nursery, 2825 Cummings Rd., Medford, OR 975401 (503-772-6846) on a recent visit and is about 5 years old. Definitely not for use as hedge screening! (Postscript Note - Now planted inside the lath house and with its small size requiring some patient hunting to find among the 1,400 larger plants in the house.)

Ulmus X elegantissima 'Jacqueline Hillier' (Ulmaceae) - 'Jacqueline Hillier' Dwarf Elm. A natural hybrid of *U. glabra* X *U. plottii* occurring in England; with this cultivar discovered in a garden in Birmingham, England in 1966 and named in honor of Mr. Harold Hillier's mother (of Hillier's Nursery fame). A beautiful dense, dwarf shrub which has use as a small specimen plant or for low hedges and bonsai. Very easy from softwood cuttings Planned for next year's distribution (we would have made it this year except for a frenzied attack of the killer rabbits in the nursery). [Now ready and we have abundant plants ready for both distributions.]

Wikstroemia sp. (Thymelaeaceae) - Golden Daphne. A large genera of shrubs and trees related to *Daphne* with some 70 species in Southeast Asia - most of which are tropical or sub-tropical. This very plant on display (unknown species) was collected from a hillside in western China in fall '89 by Dr. James Waddick (on an iris collecting expedition for the Iris Society). It looks much like a yellow-flowering form of *Daphne X burkwoodii* from a distance and has been in flower continuously since January in our greenhouse. From the location where it was collected we can estimate it will probably be hardy as a landscape plant here; and even has potential as an interior flowering house plant. We are very excited about this plant - and plan to begin propagation attempts following this show. (Postscript Note - Our first propagation attempt was successful with some 20 rooted cuttings resulting. However, as is often the case in this temperamental family containing *Daphne*, all promptly died when overwatered one day in the nursery - and we are back to the scary situation of having only one original plant. Wood on the plant is about ready again and we will try to repeat the propagation success and avoid the growing failure.)

BOOK NEWS

(From an American Airlines travel magazine article on the Irish home of the poet Yeats) "The poet was very thoughtful to have provided posterity with a house of stone steps and stone walls, which can take a limitless number of pilgrims without the least wear and tear. For aside from what they might contribute to culture, the main economic value of poets and authors comes after they are dead, when their homes are restored for public viewing, employing masons and joiners, roofers and gardeners, professors and college students."

From *Bonsai Clubs International* July/August 1990, Vol. XXIX(4):27-29 "Japanese Aesthetics and Bonsai Appreciation". I would like to reproduce the entire article which discusses four basis elements central to the Japanese sense of beauty - Suggestion, Simplicity, Irregularity, and Perishability - but of course cannot. I was particularly intrigued by the section on Simplicity - with most quotes from a book by a priest, Kenko. "It is excellent for a man to be simple in his tastes, to avoid extravagance, to own no possessions, to entertain no craving for worldly success. It has been true since ancient days that wise men are rarely rich . . .". "Simplicity is more expensive than ornateness, a 'luxury concealing luxury'." Spending a great deal of money in order to achieve an appearance of bare simplicity is quite in keeping with Japanese custom. "The intelligent man, when he dies, leaves no possessions. If he has collected worthless objects, it is embarrassing to have them discovered. If the objects are of good quality, they will depress his heirs at the thought of how attached he must have been to them. It is all the more deplorable if the possessions are ornate and numerous. . . . Some things are probably indispensable to daily life, but as for the rest, it is best not to own anything at all." Doesn't sound quite like the American Acquisition 80's!

"Never lend books, for no one ever returns them; the only books I have in my library are books that other folks have lent me." Anatole France (from Native Plants Newsletter).

In the Summer 1990 issue of the Indoor Citrus and Rare Fruit Society Newsletter (one of the very best and most fascinating publications I receive - \$15/year from IC&RFS, 9823 Mason Ave., Chatsworth, CA 91311) they devoted several pages to memorials to Walter L. Doty who died at age 94. He was involved with Sunset Magazine for some 50 years and as editor for 15. He was actively involved in creation of the Sunset Western Garden Book (which I consider probably the best plant adaptation information manual in the world), with the Ortho Books series, and was the founder of IC&RFS. He received honors from virtually every horticultural and landscape organization in existence. Among the various quotes and memorial contributions I particularly liked the following:

The saddest sight I will ever see a teacher with nary a teachee. Today I'm okay more or less my telephone bill is less my gardening bills are more I would rather bemoan than less.

From one of the (many, many) books he wrote: "Don't accept the recipes and directions in this book or any other with blind faith. Only the plants in your garden can tell you the truth and the plant is always right, no matter what an authority has said. Dr. Frits Went says it this way:

'Once the amateur has realized that he himself is master of the situation in his garden, and that he is not the slave of a set of recipes, a great deal is gained. Gardening comes out of the realm of mystic beliefs, and becomes an adventure in adaptation. Each plant grown becomes an experiment, instead of a routine performance. That plant becomes the test whether the applied principle was right. If the plant does not grow well or dies, the application of the principles was not right, or the conditions were such that the principles did not work. If, on the other hand, the plant behaves well, it shows the applicability of the principle.'

By looking at the plants in this way, a garden becomes immensely interesting, it becomes the testing ground of ideas, and it frees the mind from dogmatism. The gardener becomes aware of the fact that experiments can be carried out anywhere, and are not restricted to highly specialized laboratories. Science is not a cult, it flourishes where these observations are faithfully recorded."

Arrival of the June 1990 issue of The Plantsman from England once again reminds me how superb this publication is - and the need to introduce it again to new members. This issue contains detailed articles (among others) on Iris unguiculares cultivars, breeding of Nerines, and taxonomic articles on Shortia (who knew there were 6 species, many subspecies and hybrids in this exotic genera with its famous origin of a detective hunt in North Carolina involving Torrey, Gray, and Michaux?), Celtis, and Trilliums of eastern North America. An annual subscription for 4 issues is 13.50 Pounds (check current exchange rate to make check out to The Royal Horticultural Society) - and mail to: The Plantsman, RHS, P. O. Box 313, Vincent Square, London SW1P 2PE. Back issues of the previous 44 volumes are available at 4 Pounds apiece.

While working in the English translation of Ohwi's Flora of Japan (1984) looking for information on a specific plant, I discovered a most readable and enjoyable introduction chapter summarizing the geography, plant communities, and plant explorers significant in Japanese botanical studies. In the NCSU Arboretum (now the JC Raulston Arboretum) we proudly show off our magnificent Japanese crepe myrtles, Lagerstroemia fauriei (one of which we believe to be the largest in the U.S.) which has been so important in the breeding work of Dr. Egolf at the U. S. National Arboretum in creating the many superb new hybrids entering the U. S. market. This plant was named in honor of Urbain Faurie (1847-1914), a French missionary who came to Japan in 1874 at age 27. The chapter discusses him as follows: "Faurie must be extolled as perhaps the most energetic of 19th century collectors of Japanese plants. His collections of flowering plants and cryptogams, amounting to several hundred thousand herbarium sheets, remain as a monumental legacy of his many energetic years spent in the country. Faurie first took up residence at Niigata in 1874. In 1883 he moved to Hakodate in Hokkaido and began a tour of that part of Japan (note - the northern island similar to New England in climate). In 1897 he lived in Aomori on Honshu. By this time Faurie had collected extensively over much of the country as well as the adjoining areas of the South Kuriles, southern Korea, and Amani-oshima. He died from illness in Formosa in 1914. His collections were sent mostly to the Museum of National d'Histoire Naturelle in Paris. A nearly complete set of Faurie's collections is also kept in the herbarium of the University of Kyoto. Duplicates were widely dispersed to the leading herbaria of Europe, and large sets exist also in the older herbaria of America." Dr. John Creech, former director of the U. S. National Arboretum (who now lives in Hendersonville, NC and served as the first director of The N. C. Arboretum) was responsible for introducing this magnificent plant, Lagerstroemia fauriei named in Faurie's honor to U. S. culture in the 1950's.

From Snow's always-enjoyable column in the Raleigh News & Observer Newspaper: "The great journalist William Allen White left behind these four rules for reporters: 1. Never call a man doctor unless he can set a broken leg. 2. Always capitalize the name of the paper and of the deity. 3. Never call a man professor unless he is selling snake oil off the back of a wagon. 4. Never use the word very; always substitute the word 'damn'."

Another N&O quote much enjoyed in a column on computer accessories which described a program package to eliminate desk clutter: "As in most small offices, desk space in our workroom is at a premium. By eliminating the need for paper calendars and note pads, gives us back nearly 2 square feet of prime real estate. (That space cannot stay empty long, of course. Spiegel's Law of Horizontal Spaces holds that any uncluttered horizontal space exerts an attractive force on papers, knick knacks and other effluvia, because nature abhors an empty desk.)" How true, how true!

"No area is boring in itself. Boredom merely represents our lack of understanding of what is around us." From - Blue Highways by William Least Heat Moon.

My favorite book review of all time appeared in the last HortIdeas [Vol 7(10):120] - The Cottage Garden, by Christopher Lloyd and Richard Bird, Prentice Hal, New York, 1990, 192 pp., \$29.95, ISBN 0-13-181231-9. "Sure, this is another oversized, seemingly-meant-for-the-coffeetable, British- published-and-Singapore-printed-then-republished-in-the-U.S., full-color-throughout, witty, super-trendy, upscale, showy, practical-details-in-the-back, geared-to-British-not-American-growing- conditions, cutsie, nostalgic, and, above all, romantic volume. That doesn't mean we can't review it here."

I'll try for a distinctive review of my own (a review shorter than the book title in counterpoint to my usual rambling hyperbole!) for a book I've waited for years to get and want to write a glowing page about. The 4th Edition of Dr. Michael Dirr's Manual of Woody Landscape Plants - Their Identification, Ornamental Characteristics, Culture, Propagation and Use is now out. "Simply the best U. S. woody plant reference book - absolutely essential" (Raulston). Published by Stipes Publishing Company, 10-12 Chester Street, Champaign, IL 61820. Available in both paperback () and hardback (\$45.95) but buy the hardback as you'll quickly wear out the paperback through constant use. I might mention that in the preface to the above book, Dr. Dirr announced a new Plant Introduction Newsletter which he planned to write to keep readers more current on new plants and news about them than waiting for the next edition of the Manual. This has been cancelled (to my great disappointment) so save yourself and Dr. Dirr correspondence problems and don't order it.

A "new" publication created in N. C. has recently come to my attention through Dick Bir's kindness - an eloquent magazine devoted to the aesthetics and philosophy of gardening. Green Prints - Chasing the Soul of Gardening is a 40 page issue published quarterly from: GreenPrints, P. O. Box 1355, Fairview, NC 28730 for \$10 a year (if you hurry - going up to \$13 with next issue). The editors state - "if we shared a definition of what GreenPrints is . . . our basic goal is to cover the human, not the how-to, side of gardening. The relationship, not the recipes." I'm impressed with its good quality printing and format - and for the diversity and interesting thoughts expressed by the multitude of writers. Try it, you'll like it.

Another new publication which appeals greatly to me - Hardy Enough - "Simply put, Hardy Enough identifies hardy exotics for gardeners who live where winters are cold." Subscriptions are \$24 annually (sample issue \$3) from Suite 259, 351 Pleasant St., Northhamptom, MA 01060. "Join us as we discover plants no one ever dreamed possible in the northern landscape." These people are growing palms, camellias, live oaks, and Southern magnolias in New England - useful ideas for every region to "stretch plant zones."

From the Sunday paper Parade section in an article on life cycles and changes: "Ever helpful, Neuharth even outlines a timetable to the seasons of life. Although it may vary, he says, this is his strongly recommended agenda for your seasons:

- * In your teens, play all you can.
- * In your 20's, take all the risks you can.
- * In your 30's, learn all you can.
- * In your 40's, earn all you can.
- * In your 50's, lead everything you can.
- * In your 60's, leave with all the style you can.
- * Thereafter, or in the hereafter, enjoy all you can."

Sounds good to me.

"The person who wants to make it (i.e. achieve major success) has to sweat - you've got to have the guts to be hated. That's the hardest part." Actress Betty Davis

Another list of out-of-print books (mostly botanical items) is a new U. S. branch of an international firm which intends to produce a periodic (possibly monthly) list of their offerings. For a list, contact: Koeltz Scientific Books, USA, RR7, box 39, Champaign, IL 61821 (217-355-1704/9331). Some example of current listings would include: The Botanical Treasures of Tutankhamum, The Shell Guide to the Gardens of England and Wales, The Pictorial Book of Iris Laevigata, and Illustrated Grasses of Japan (759p, 360 plates - \$238!). In ironic timing - I received the list the week war started and noted their listing of Flora of Eastern Saudi Arabia - a new issue to be released March 1.

"America is the only nation in history which miraculously has gone directly from barbarism to degeneracy without the usual interval of civilization." Georges Clemenceau - two-time premier of France. N&O 4/28.

"The man who follows the crowd will usually go no further than the crowd.

The man who walks alone is likely to find himself in places no one has ever been before." William C. Burkhardt

I have a major pile of new books to list and review, and many, many other clippings. But it's 10PM on the night I set as the deadline that this issue of the newsletter is finished - and as I am out of both space and time, they shall wait until the next issue.

PLANT SOURCES NEWS

I deal daily with an endless stream of requests to my office on how or where to find assorted plants (this is not an authorized activity of my office - please don't join the list!) - but it reached a new level of bizarre absurdity recently when I got a message in my office box with a phone number and note which said - "Could you tell me a source for the purple sedum growing in the urn in front of the Palmhouse at Kew Gardens in London? The gardener there told me to contact you when I got back to the states to find out where to buy it." !!!! I don't know anyone at Kew and have no idea of how this came about. (addendum - I have no idea what purple sedum is growing in the urn at Kew so no one else should contact me after this notice.)

Many institutions obtain seed for their programs through an international Index Seminum program of exchanged seed lists - but such programs are rarely available to the public. The mail has brought two lists which invite public participation as ways to earn money for the gardens. A seed collectors list for 1991 is offered by Van Dusen Botanical Garden, 5251 Oak Street, Vancouver, British Columbia V6M 4H1, Canada with a diverse listing of everything from annuals to trees. Please be aware that the many named cultivars listed will not come true from seed and if grown from such sources they should be labeled as the species and not the cultivar - and that many genera (e.g. *Betula*, the birches, etc.) hybridize readily from close proximity of varied species in collections and also should not be considered the true species. Seeds are fifty cents a pack.

A bit more exotic location is represented by the seed list from the Botanical Garden, PL-95-200 Pabianice, ul. Wyspianskiego 1 m. 5, Plaskota Roman, Poland. Again, a very diverse listing with the greatest specialization in lily species. Seed comes 20 to a packet with 10 packets of seed priced at \$8. Send a U. S. dollar for a copy of their interesting list (which makes you realize when you receive it that our assumption of ready access to computers and good copywork is not shared worldwide).

Perhaps the most remarkable first issue mailorder catalog ever put out in this country has recently appeared from: Heronswood Nursery, 7530 288th NE, Kingston, WA 98346 (206-297-4172). This rather incredible listing of rare exceptional plants has been developed by Mr. Dan Hinkley (while also teaching a zillion horticultural courses at a community college, running a landscape design and contracting business, writing, lecturing, working in volunteer horticultural activities in Seattle, and developing a fabulous home arboretum of all kinds of display beds - such people make me feel guilty at doing so little with life in comparison and I'm in total awe of their activities).

The catalog first appeared at the eastern winter meeting of the American Rock Garden Society and the few catalogs available there were quickly being battled for among the hordes wanting them when they saw the lists of plants included. Within the catalog you'll find such goodies as *Abeliophyllum distichum* 'Rosea', Monkeypuzzle Trees, *Gunnera*, 6 *Corylopsis*, 5 *Itea*, *Lindera obtusiloba*, *Mahonia* X 'Arthur Menzies' (a real treasure), *Parrotiopsis*, *Persea yunnanensis*, *Ulmus* X 'Jacqueline Hillier', 13 uncommon *Viburnums*, the white flowered and fruited *Akebia*, 2 *Holboellia*, 5 *Schizophragma*!, 13 *Carex*, black liriopse, (a whole bunch of those flowering things that die to the ground every winter - you know, the P-word), and a host of other treasures. Although this year has been rough coping with the aftereffects of the record disastrous cold winter in history there which damaged much of his stock - his future listings from things in production now will continue to be extraordinary. Highly recommended!

An unusual new catalog which deals with wild gardening strategies and native plant conservation comes from: Nor Kingdom Gardens, P. O. Box 9, Bowdoinham, ME 04008 (207-729-5642) Gavin Keeney. It includes northern seed lists and a wide array of perennials.

Again with short time and space and an array of catalogs I'd like to cover - I'm going to take a short-cut here and just present a recent compilation of other source compilations I've done as a handout to send out to nurserymen and other professionals - which within their ranks probably cover some 50,000+ different kinds of ornamental plants and their sources.

PLANT SOURCES REFERENCES - DR. J. C. RAULSTON - THE NCSU Arboretum (now the JC Raulston Arboretum) - 1991

U. S. SOURCES

Andersen Horticultural Library's Source List of Plants and Seeds is a 214 page book of commercial sources for 45,000 different ornamental plants. It is available for \$29.95 from: Andersen Horticultural Library, Minnesota Landscape Arboretum, 3675 Arboretum Drive, Box 39, Chanhassen, MN 55317. I use it every day in my office - invaluable!

Hortus Source List is a book of U. S. nursery sources for 2,000 species and 8,000 cultivars of ornamental plants. Send \$11.50 check or money order payable to "Cornell University" to: Hortus Source List, L. H. Bailey Hortorium, 462 Mann Library, Cornell University, Ithaca, NY 14853.

CANADIAN SOURCES

The Canadian Plant Sourcebook lists more than 10,000 hardy plants available at 80 nurseries across Canada. It is available for \$13 + \$2 shipping from: A&P Ashley, 93 Fentiman Avenue, Ottawa, ON, Canada K1S 0T7.

ENGLISH SOURCES

The Plant Finder - 1991/92 Edition lists more than 50,000 plants available from over 500 specialist nurseries (18,000 plants are available from only a single source). Completely revised and considerably expanded it now includes fruit crops, the national collection holders, biography of source material and current correct nomenclature with some 3,000 cross-referenced synonyms. A full-time professional taxonomist now works year-round preparing for the next edition researching nomenclature changes in literature. It is rapidly becoming the standard reference on current correct names of plants and I find it an invaluable resource for this use alone. It is available for 9.99 pounds ("all overseas customers must supply a cheque in UK Sterling negotiable at a UK Bank or a Sterling Eurocheque.") from: The Hardy Plant Society, Worcester WR2 4BR England or Moorland Publishing Co. Ltd., Moor Farm Road, Airfield Estate, Ashbourne, Derbyshire DE6 1HD, England.

NEW PLANTS RECEIVED IN THE NCSU Arboretum (now the JC Raulston Arboretum) - JANUARY-DECEMBER 1990

90/0001 - *Ilex crenata* 'Gold Digger' - Dan Milbocker - Va Beach, VA - Rooted Cuttings - 01/03.

90/0002 - *Ilex opaca* 'Jersey Prince' - Dan Milbocker - Va Beach, VA - Rooted Cuttings - 01/03.

90/0003 - *Ilex opaca* 'Jersey Princess' - Dan Milbocker - Va Beach, VA - Rooted Cuttings - 01/03.

90/0004 - *Loropetalum chinensis* v. *rubrum* (China) - Dr. James Waddick - Kansas City, MO - Liner - 01/08.

90/0005 - *Wikstroemia* sp. (China) - Dr. James Waddick - Kansas City, MO - Liner - 01/08.

90/0006 - *Cacalia* (*Synelesis*) *aconitifolia* (Jilin Prov., China) - Dr. Jim Waddick - Kansas City, MO - Seed - 01/08.

90/0007 - *Manglietia fordii* - U. of Wash. Arb. - Seattle, WA - Cuttings - 01/10.

90/0008 - *Prunus* hybrid (Peach X Apricot) - San Antonio Botanical Garden - San Antonio, TX - 1 gal. - 01/12.

90/0009 - *Trecoma* 'Orange' - San Antonio Botanical Garden - San Antonio, TX - qt. - 01/12.

90/0010 - *Tecoma* 'Stars' (Devine, TX) - San Antonio Botanical Garden - San Antonio, TX - qt. - 01/12.

90/0011 - *Cupressus glabra* 'Golden Pyramid' - Aldridge Nursery - Von Ormy, TX. - qt. - 01/12.

90/0012 - *Cupressus sempervirens* (Spreading Form) - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0013 - *Dasyllirion texanum* - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0014 - *Hesperaloe funifera* - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0015 - *Juniperus flaccida* - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0016 - *Poncirus* X *Citrus* Hybrid (Mandarin) - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0017 - *Yucca johnsonii* - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0018 - *Yucca reverchonii* - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0019 - *Yucca rostrata* - Aldridge Nursery - Von Ormy, TX - 3" - 01/12.

90/0020 - *Bignonia violaceae* - Garden Center (Hines) - Houston, TX - 1 Gal - 01/13.

90/0021 - *Ligustrum lucidum* 'Marble Magic' - Garden Center (Hines) - Houston, TX - 1 Gal - 01/13.

90/0022 - *Acer rubrum* 'Drummond' - Yucca Do Nursery - Waller, TX - qt. - 01/14.

90/0023 - *Agave* sp. - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0024 - *Amelanchier denticulata* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0025 - *Asimina parvifolia* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0026 - *Celtis palida* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0027 - *Clerodendron speciosum* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0028 - *Clethra macrophylla* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0029 - *Condalia hookeri* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0030 - *Dalea greggii* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0031 - *Heimia salicifolia* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0032 - *Lindera benzoin* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0033 - *Lonicera pilosa* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0034 - *Michelia maudae* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0035 - *Mahonia fortunei* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0036 - *Mahonia gracilis* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0037 - *Mahonia swaseyii* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0038 - *Pavonia lasiopetala* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0039 - *Pinus hartwegii* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0040 - *Prunus texana* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0041 - *Quercus gravesii* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0042 - *Quercus pungens vaseyana* (Dwarf, Sonora, TX) - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0043 - *Quercus* sp. (Rugose-like) - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0044 - *Severina buxifolia* - Yucca Do Nursery - Waller, TX - 3" - 01/14.

90/0045 - *Taxus globosa* - Yucca Do Nursery - Waller, TX - qt. - 01/14.

90/0046 - *Acer palmatum* 'Green Star' - Red Maple Nursery - Media, PA - Scions (8) - 01/22.

90/0047 - *Acer palmatum* 'Hubb's Red Willow' - Red Maple Nursery - Media, PA - Scions (9) - 01/22.

90/0048 - *Acer palmatum* 'Red Baron' - Red Maple Nursery - Media, PA - Scions (13) - 01/22.

90/0049 - *Acer palmatum* 'Yellow Bird' - Red Maple Nursery - Media, PA - Scions (8) - 01/22.

90/0050 - *Agapanthus praecox* ssp. *minimus* (ARGS 112) - ARGS Seed Exchange - Seed - 01/23.

90/0051 - *Agapanthus praecox* ssp. *orientalis* (ARGS 5516) - ARGS Seed Exchange - Seed - 01/23.

90/0052 - *Dierama* sp. (Tall White) (ARGS 1775) - ARGS Seed Exchange - Seed - 01/23.

90/0053 - *Eryngium bourgatii* (ARGS 2150) - ARGS Seed Exchange - Seed - 01/23.

90/0054 - *Helleborus argutifolius* (ARGS 2657) - ARGS Seed Exchange - Seed - 01/23.

90/0055 - *Helleborus* X *sternii* (ARGS 2672) - ARGS Seed Exchange - Seed - 01/23.

90/0056 - *Ilex verticillata fastigata* (ARGS 2825) - ARGS Seed Exchange - Seed - 01/23.

90/0057 - *Ilex verticillata tenuifolia* (ARGS 2826) - ARGS Seed Exchange - Seed - 01/23.

90/0058 - *Juniperus phoenicea* (ARGS 2979) - ARGS Seed Exchange - Seed - 01/23.

90/0059 - *Paris polyphylla* (ARGS 3772) - ARGS Seed Exchange - Seed - 01/23.

90/0060 - *Roscoea humeana* (ARGS 4530) - ARGS Seed Exchange - Seed - 01/23.

90/0061 - *Schisandra chinensis* (ARGS 5601) - ARGS Seed Exchange - Seed - 01/23.

90/0062 - *Sisyrinchium patagonicum* (ARGS 5604) - ARGS Seed Exchange - Seed - 01/23.

90/0063 - *Sophora nuttallii* (ARGS 5606) - ARGS Seed Exchange - Seed - 01/23.

90/0064 - *Symplocos chinensis leucocarpa* f. *pilosa* (ARGS 5107) - ARGS Seed Exchange - Seed - 01/23.

90/0065 - *Thermopsis divaricarpa* (ARGS 5174) - ARGS Seed Exchange - Seed - 01/23.

90/0066 - *Zephyranthes mesochloa* (ARGS 5504) - ARGS Seed Exchange - Seed - 01/23.

90/0067 - *Pachysandra terminalis* 'Green Sheen' - Dale Chapman Nursery - Hampton, CT - 2" Pots - 01/31.

90/0068 - *Arisaema sikokianum* - Judy Glattstein - Wilton, CT - Seed - 02/05.

90/0069 - *Arisaema thunbergii* - Judy Glattstein - Wilton, CT - Seed - 02/05.

90/0070 - Rhododendron X "JBH" (R. chapmanii X R. indica 'George L. Taber') - Flowerwood - Loxley, AL - Gallons - 02/08.

90/0071 - Ilex opaca 'Pearle Leclair' - ? - ? - Cuttings - 02/10.

90/0072 - Acer campestre 'Queen Elizabeth' - Schmidt & Son Co. - Boring, OR - 7' BR - 02/12.

90/0073 - Acer grandidentatum 'Rocky Mt. Glow' - Schmidt & Son Co. - Boring, OR - 6' BR - 02/12.

90/0074 - Acer nigrum 'Greencolumn' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0075 - Acer rubrum 'Armstrong' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0076 - Acer rubrum 'Autumn Blaze' - Schmidt & Son Co. - Boring, OR - 8' BR - 02/12.

90/0077 - Acer rubrum 'Autumn Flame' - Schmidt & Son Co. - Boring, OR - 6' BR - 02/12.

90/0078 - Acer rubrum 'Bowhall' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0079 - Acer rubrum 'Morgan' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0080 - Acer rubrum 'Northwood' - Schmidt & Son Co. - Boring, OR - 8' BR - 02/12.

90/0081 - Acer rubrum 'Red Sunset' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0082 - Acer rubrum 'Schlesinger' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0083 - Acer saccharum 'Bonfire' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0084 - Acer saccharum 'Commemoration' - Schmidt & Son Co. - Boring, OR - 6' BR - 02/12.

90/0085 - Acer saccharum 'Fairview' - Schmidt & Son Co. - Boring, OR - 6' BR - 02/12.

90/0086 - Acer saccharum 'Legacy' - Schmidt & Son Co. - Boring, OR - 6' BR - 02/12.

90/0087 - Acer truncatum 'Norwegian Sunset' - Schmidt & Son Co. - Boring, OR - 6' BR - 02/12.

90/0088 - Acer truncatum 'Pacific Sunset' - Schmidt & Son Co. - Boring, OR - 6' BR - 02/12.

90/0089 - Betula platyphylla japonica 'Whitespire' - Schmidt & Son Co. - Boring, OR - 8' BR - 02/12.

90/0090 - Phellodendron amurense 'Macho' - Schmidt & Son Co. - Boring, OR - 8' BR - 02/12.

90/0091 - Prunus sargentii 'Columnaris' - Schmidt & Son Co. - Boring, OR - 8' BR - 02/12.

90/0092 - Zelkova serrata 'Halka' - Schmidt & Son Co. - Boring, OR - 5' BR - 02/12.

90/0093 - Acer pentaphylla (NA60790) - U. S. National Arboretum - Washington, DC - 2' - 02/13.

90/0094 - Codonopsis lanceolata (NA 56460) - U. S. National Arboretum - Washington, DC - HV - 02/13.

90/0095 - Haloragis micrantha (NA55240) - U. S. National Arboretum - Washington, DC - HP - 02/13.

90/0096 - Lindera salicifolia (NA55221) - U. S. National Arboretum - Washington, DC - 1' - 02/13.

90/0097 - Quercus glandulifera (NA56611) - U. S. National Arboretum - Washington, DC - 2' - 02/13.

90/0098 - Cephalotaxus sinensis (Rehd. et Wils.) (#74) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0099 - Cupressus funebris Endl. (#116) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0100 - Eucommia ulmoides Oliv. (#132) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0101 - Ilex purpurea Hassk. (#24) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0102 - Juniperus rigida Sieb. et Zucc. (#117) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0103 - Kalopanax septemlobum (Thunb.) Koidz (#29) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0104 - Lindera glauca Bl. (#189) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0105 - Lithocarpus glabra Rehd. (#150) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0106 - Lycoris aurea Herb. (#14) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0107 - Poliothyris sinensis Oliv. (#154) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0108 - *Phoebe sheareri* (Hemsl.) Gamble (#191) - Nanjing Botanic Garden - Nanjing, China - Seed - 02/14.

90/0109 - *Argemone mexicana* L. (#318) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0110 - *Boenninghausenia albiflora* Meiss. (#174) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0111 - *Buxus sinica* Cheng. (#418) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0112 - *Castanea sequinii* Dode (#75) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0113 - *Chimonanthus nitens* Oliv. (#419) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0114 - *Chimonanthus praecox* Link. (#420) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0115 - *Chimonanthus zhejiangensis* M. C. Liu (#421) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0116 - *Clerodendrum cyrtophyllum* Tures. (#216) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0117 - *Clerodendrum kaichianum* Hsu (#217) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0118 - *Dalbergia hancei* Benth. (#102) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0119 - *Dendropanax chevalieri* Merr. (#18) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0120 - *Ilex bioritsensis* Hayata (#232) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0121 - *Ilex kwangtungensis* Merr. (#398) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0122 - *Ilex wilsonii* Loes. (#16) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0123 - *Illicium lanceolatum* A. C. Smith (#86) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0124 - *Indigofera cooperi* Craib (#104) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0125 - *Myrica rubra* Sieb. et Zucc. (#558) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0126 - *Ophiopogon bodinieri* Levl. (#110) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0127 - *Pittosporum sahnianum* Gowda (#135) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0128 - *Quercus fabri* Hance (#492) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0129 - *Quercus glandulifera* var. *brevipetiolata* Nakai (#76) - Shanghai Bot. Garden - Shanghai, China - Seed - 02/14.

90/0130 - *Rhamnus davurica* Pall. (#150) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0131 - *Rhamnus globosa* Bunge. (#151) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0132 - *Rhamnus utilis* Decne. (#152) - Shanghai Botanical Garden - Shanghai, China - Seed - 02/14.

90/0133 - *Juniperus occidentalis* 'Silver Falls' (840242) - Longwood Gardens - Kennett Square, PA - RC - 02/15.

90/0134 - *Ilex* ? (76-778) - Longwood Gardens - Kennett Square, PA - RC - 02/15.

90/0135 - *Baptisia tinctoria* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0136 - *Callitris rhomboidea* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0137 - *Daphne oleoides* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0138 - *Daphne tangutica* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0139 - *Helleborus odorus* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0140 - *Libertia grandiflora* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0141 - *Osteospermum hyoseroides* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0142 - *Paradisica lusitanica* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0143 - *Schizophragma integrifolia* - RHS, Wisley Gardens - Woking, England - Seed - 02/16.

90/0144 - *Aesculus flava* - W. J. Beal Botanical Garden, MSU - East Lansing, MI - Seed - 02/16.

90/0145 - *Iris reichenbachii* - W. J. Beal Botanical Garden, MSU - East Lansing, MI - Seed - 02/16.

90/0146 - *Jeffersonia diphylla* - W. J. Beal Botanical Garden, MSU - East Lansing, MI - Seed - 02/16.

90/0147 - *Opuntia vulgaris* - W. J. Beal Botanical Garden, MSU - East Lansing, MI - Seed - 02/16.

90/0148 - *Opuntia humifusa* - W. J. Beal Botanical Garden, MSU - East Lansing, MI - Seed - 02/16.

90/0149 - *Hippeastrum papilio* - Wayside Nursery - Hodges, SC - 5 Bulbs - 02/27.

90/0150 - *Cercis racemosa* - Hidden Hollow Nursery - Belvidere, TN - 1' Graft - 03/01.

90/0151 - *Cladrastis lutea* 'Rosea' - Hidden Hollow Nursery - Belvidere, TN - 2' Graft - 03/01.

90/0152 - *Cornus florida* 'Andy Hart' - Hidden Hollow Nursery - Belvidere, TN - 2' Graft - 03/01.

90/0153 - *Hamamelis mollis* 'Early Bright' - Hidden Hollow Nursery - Belvidere, TN - 2' Graft - 03/01.

90/0154 - *Agave filifera* - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0155 - *Agave xylonacantha* - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0156 - *Bomarea carderi* - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0157 - *Dierama pendulum* v. *robustum* (pink) - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0158 - *Dierama pendulum* v. *robustum* (white) - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0159 - *Kniphofia galpinii* - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0160 - *Manfreda brachystachys* - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0161 - *Rauhia multiflora* - UC Santa Barbara - Santa Barbara, CA - Seed - 03/02.

90/0162 - *Vinca minor* 'Ralph Shugert' (PP#6960) - Hortech - Spring Lake, MI - Divisions - 03/07.

90/0163 - *Ilex decidua* 'Red Cascade' - Simpson Nursery Company - Vincennes, IN - 18" BR - 03/15.

90/0164 - *Ilex decidua* 'Sentry' - Simpson Nursery Company - Vincennes, IN - 24" BR - 03/15.

90/0165 - *Ilex verticillata* 'Stop Light' ('Hopperton') - Simpson Nursery Company - Vincennes, IN - 6" BR - 03/15.

90/0166 - *Abies ernestii* (27N;99E, 2800M) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0167 - *Alnus cremastogyne* (30N;104E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0168 - *Alnus nepalensis* (25N;99E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0169 - *Cryptomeria fortunei* (30N;103E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0170 - *Cunninghamia lanceolata* (30N;107E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0171 - *Glyptostrobus pensilis* (22N;108E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0172 - *Liriodendron chinense* (30N;119E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0173 - *Melia toosendan* (30N;104E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0174 - *Metasequoia glyptostroboides* (30N;108E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0175 - *Paulownia fortunei* (28N;113E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0176 - *Platycarya strobilacea* (30N;119E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0177 - *Pseudolarix amabilis* (30N;119E) - Prof. Pan Zhigang - China - Seed - 03/21.

90/0178 - *Hedera helix* 'Filigram' - Glasshouse Works - Stewart, OH - Liner - 03/26.

90/0179 - *Hydrangea macrophylla* 'Aureo-Variegata' - Glasshouse Works - Stewart, OH - Liner - 03/26.

90/0180 - *Magnolia grandiflora* 'Variegata' - Glasshouse Works - Stewart, OH - Liner - 03/26.

90/0181 - *Metrosideros* 'Red & Gold' - Glasshouse Works - Stewart, OH - Liner - 03/26.

90/0182 - *Poncirus trifoliata* 'Flying Dragon' - Glasshouse Works - Stewart, OH - Liner - 03/26.

90/0183 - *Trachelospermum asiaticum* 'Chirimen II' - Glasshouse Works - Stewart, OH - Liner - 03/26.

90/0184 - *Vinca major* 'Aureo-Variegata' - Glasshouse Works - Steward, OH - Liner - 03/26.

90/0185 - *Amyris madrensis* - Scott Ogden - New Braunfels, TX - Liner - 03/27.

90/0186 - *Casiminoa pringleri* - Scott Ogden - New Braunfels, TX - 1' liners - 03/27.

90/0187 - *Hymenocallis imperialis* - Scott Ogden - New Braunfels, TX - Bulb - 03/27.

90/0188 - *Iris* X 'Golden Cataract' (*I. X kochii*) - Scott Ogden - New Braunfels, TX - Division - 03/27.

90/0189 - *Origanum sypileum* - Scott Ogden - New Braunfels, TX - Liners - 03/27.

90/0190 - *Quercus gravesii* - Scott Ogden - New Braunfels, TX - 5" Liners - 03/27.

90/0191 - *Abelia serrata sanguinea* (Japan) - Dr. James Waddick - Kansas City, MO - 5" - 03/27.

90/0192 - *Clethra barbinervis* (Japan - Variegated; Y-Spl.) - Dr. James Waddick - Kansas City, MO - 6" - 03/27.

90/0193 - *Daphniphyllum teijsmanii* 'Marginata' (Japan) - Dr. James Waddick - Kansas City, MO - 10" - 03/27.

90/0194 - *Ophiopogon japonica* 'Hakuryu' (Japan) - Dr. James Waddick - Kansas City, MO - Division - 03/27.

90/0195 - *Ophiopogon japonica* 'Hakuryu' (Dwarf Form) (Japan) - Dr. James Waddick - Kansas City, MO - Division - 03/27.

90/0196 - *Ophiopogon japonica* 'Hakuryu Ko' (Japan) - Dr. James Waddick - Kansas City, MO - Division - 03/27.

90/0197 - *Ophiopogon japonica* 'Shiro Tama Hime' (Japan) - Dr. James Waddick - Kansas City, MO - Division - 03/27.

90/0198 - *Ophiopogon japonica* 'Tamaryu Nishiki' (Japan) - Dr. James Waddick - Kansas City, MO - Division - 03/27.

90/0199 - *Ophiopogon planiscapus* (Y-Spl.; ex. Mt. Fuji) (Japan) - Dr. Waddick - Kansas City, MO - Division - 03/27.

90/0200 - *Stachyurus praecox* 'Maculata' (Japan) - Dr. James Waddick - Kansas City, MO - 4" - 03/27.

90/0201 - *Stachyurus praecox* 'Marginata' (Japan) - Dr. James Waddick - Kansas City, MO - 5" - 03/27.

90/0202 - *Stewartia monodelpha* 'Aureovariegata' (Japan) - Dr. James Waddick - Kansas City, MO - 7" - 03/27.

90/0203 - *Stewartia monodelpha* 'Variegata' (Japan) - Dr. James Waddick - Kansas City, MO - 6" - 03/27.

90/0204 - *Rosa* X 'Belle Story' - Wayside Gardens - Hodges, SC - Plant - 03/28.

90/0205 - *Rosa* X 'Mary Rose' - Wayside Gardens - Hodges, SC - Plant - 03/28.

90/0206 - *Rosa* X 'Mediland Alba' - Wayside Gardens - Hodges, SC - Plant - 03/28.

90/0207 - *Rosa* X 'Othello' - Wayside Gardens - Hodges, SC - Plant - 03/28.

90/0208 - *Rosa* X 'Topaz Jewel' - Wayside Gardens - Hodges, SC - Plant - 03/28.

90/0209 - *Rosa* X 'Windrush' - Wayside Gardens - Hodges, SC - Plant - 03/28

90/0210 - *Cinnamomum japonicum* - Osaka Botanical Garden, Katano Univ. - Osaka, Japan - Seed - 03/29.

90/0211 - *Lagerstroemia amabilis* - Osaka Botanical Garden, Katano Univ. - Osaka, Japan - Seed - 03/29.

90/0212 - *Trachycarpus wagnerianus* - Osaka Botanical Garden, Katano Univ. - Osaka, Japan - Seed - 03/29.

90/0213 - *Acer lobelii* (#88/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/30.

90/0214 - *Cercis siliquastrum* f. *alba* (#109/90) - Seattle, WA - Seed - 03/30.

90/0215 - *Cladrastis platycarpa* (#112/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0216 - *Libertia ixioides* (#79/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0217 - *Lindera obtusiloba* (#143/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0218 - *Maackia amurensis* var. *buergeri* (#145/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0219 - *Magnolia sieboldii* (#146/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0220 - *Magnolia wilsonii* (#148/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0221 - *Meliosma dilleniifolia* ssp. *tenuis* (#154/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0222 - *Phellodendron sachalinense* (#159/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0223 - *Stewartia ovata* var. *grandiflora* (#188/90) - U. Wash. Arb. - Seattle, WA - Seed - 03/90.

90/0224 - *Indigofera pseudotinctoria* - Berheim Forest Arboretum - Clermont, KY - Seed - 04/05.

90/0225 - *Agapanthus campanulatus* (#33/90) - Strybing Arb. - San Francisco, CA - Seed - 04/10.

90/0226 - *Canna warscewiczii* (#10/90) - Strybing Arb. - San Francisco, CA - Seed - 04/10.

90/0227 - *Eucomis autumnalis* (#35/90) - Strybing Arb. - San Francisco, CA - Seed - 04/10.

90/0228 - *Libertia ixioides* (#25/90) - Strybing Arb. - San Francisco, CA - Seed - 04/10.

90/0229 - *Stachyurus himalaicus* (#54/90) - Strybing Arb. - San Francisco, CA - Seed - 04/10.

90/0230 - *Halesia monticola* 'Rosea' - Klehm Nursery - South Barrington, IL - 2' - 04/15.

90/0231 - *Salix alba* 'Britzensis' - Klehm Nursery - South Barrington, IL - 2' - 04/15.

90/0232 - *Aesculus turbinata* (#90/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0233 - *Carpinus laxiflora* (#37/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0234 - *Carpinus tschonoskii* (#38/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0235 - *Cephalotaxus harringtonia* var. *nana* (#1/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0236 - *Ilex geniculata* (#20/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0237 - *Ligularia fischeri* (#64/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0238 - *Meliosma myriantha* (#150/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0239 - *Meliosma tenuis* (#151/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0240 - *Rhus javanica* (#16/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0241 - *Rubus hakonensis* (#141/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0242 - *Schisandra repanda* (#160/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0243 - *Torreya nucifera* (#8/89) - Hiroshima Botanical Garden - Hiroshima, Japan - Seed - 04/16.

90/0244 - *Rosa* X 'American Spirit' (Tree) (1) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0245 - *Rosa* X 'Brandy' (3) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0246 - *Rosa* X 'Las Vegas' (3) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0247 - *Rosa* X 'Mister Lincoln' (6) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0248 - *Rosa* X 'Red Masterpiece' (Tree) (1) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0249 - *Rosa* X 'Shreveport' (3) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0250 - *Rosa* X 'Sunbright' (3) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0251 - *Rosa* X 'Sunsprite' (3) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0252 - *Rosa* X 'Touch of Class' (1) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0253 - *Rosa* X 'White Magic/Class Act' (3) - Jackson & Perkins - Medford, OR - #1 Bushes - 04/18.

90/0254 - *Gentiana asclepiadea* - Plant Science Laboratory - Univ. of Reading - England - Seed - 04/19.

90/0255 - *Helleborus odoratus* - Plant Science Laboratory - Univ. of Reading - England - Seed - 04/19.

90/0256 - *Hemerocallis* X 'Stella D'Oro' - Pine Knot Farms - Clarksville, VA - Divisions - 04/19.

90/0257 - *Lavandula angustifolia* 'Hidcote' - Pine Knot Farms - Clarksville, VA - Divisions - 04/19.

90/0258 - *Lavandula latifolia* (spica) - Pine Knot Farms - Clarksville, VA - Divisions - 04/19.

90/0259 - *Rhododendron* (Azalea) X 'Little John' - Evergreen Nursery - Sebring, FL - Plants - 04/26

90/0260 - Liriope (Ophiopogon?) 'Evergreen Giant' - Windmill Farms - Sebring, FL - Div. - 04/26.

90/0261 - Liriope (Ophiopogon?) 'Variegated Evergreen Giant' (Aztec Grass) - Windmill Farms - Sebring, FL - Div. - 04/26.

90/0262 - Agave salmaniana ferrox - Scott Ogden - New Braunfels, TX - Plants - 04/30.

90/0263 - Anisostichus capreolata (Wayside Form) - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0264 - Cercis chinensis 'Nana' - Aldridge Nursery - Von Ormy, TX - Cuttings - 04/30.

90/0265 - Cercis mexicana (#1 - Small leaf) - Aldridge Nursery - Von Ormy, TX - Cuttings - 04/30.

90/0266 - Cercis mexicana (#2 - Bicolor 1) - Aldridge Nursery, Von Ormy, TX - Cuttings - 04/30.

90/0267 - Cercis mexicana (#3 - Bicolor 2) - Aldridge Nursery - Von Ormy, TX - Cuttings - 04/30.

90/0268 - Cercis mexicana (#4 - Large Leaf 1) - Aldridge Nursery - Von Ormy, TX - Cuttings - 04/30.

90/0269 - Cercis mexicana (#5 - Small leaf) - Aldridge Nursery - Von Ormy, TX - Cuttings - 04/30.

90/0270 - Cercis mexicana (#6 - Large Leaf 2) - Aldridge Nursery - Von Ormy, TX - Cuttings - 04/30.

90/0271 - Crinum X herbertii 'Carol Abbot' - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0272 - Crinum ssp. affine 'Erubescens' - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0283 - Hesperaloe Mamulique ('Loweri')(H. funifera X H. parviflora) - Scott Ogden - Plant - 04/30.

90/0284 - Hymenocallis X 'Tropical Giant' - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0285 - Malvoviscus arboretus var. Drummondii 'Fiesta' - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0286 - Melia azedarach (Variegated Form) - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0287 - Poncirus trifoliata X Citrus ? - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0288 - Salvia coccininea (Variegated Pink Form) - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0289 - Scuttileria subfrutcosa - Scott Ogden - New Braunfels, TX - Plant - 04/30.

90/0290 - Zephyranthes X 'Aquarius' - Scott Ogden - New Braunfels, TX - Bulbs - 04/30.

90/0291 - Zephyranthes X 'Grand Jax' - Scott Ogden - New Braunfels, TX - Bulbs - 04/30.

90/0292 - Zephyranthes X 'Libra' - Scott Ogden - New Braunfels, TX - Bulbs - 04/30.

90/0293 - Zephyranthes X 'Sarah Margaret' - Scott Ogden - New Braunfels, TX - Bulbs - 04/30.

90/0294 - Leucaena retusa X gregii - Lone Star Growers - San Antonio, TX - Seed - 04/30.

90/0295 - Rhododendron (Dec. Azalea) X 'Sunrise' - Magnolia Nursery - Chunchula, AL - 1 Gal - 05/03.

90/0296 - Hamamelis X intermedia 'Luna' - Behnke's Nursery - Greenbelt, MD - Gallon - 05/06.

90/0297 - Jeffersonia diphylla - Behnke's Nursery - Greenbelt, MD - Qt. - 05/06.

90/0298 - Abies nephrolepis (Korea 89) - Longwood Gardens - Kennett Square, PA - Seed - 05/08.

90/0299 - Phygelius X rectus 'Devil's Tears' - Longwood Gardens - Kennett Square, PA - Plant - 05/08.

90/0300 - Phygelius X rectus 'Moonraker' - Longwood Gardens - Kennett Square, PA - Plant - 05/08.

90/0301 - Phygelius X rectus 'Salmon Leaf' - Longwood Gardens - Kennett Square, PA - Plant - 05/08.

90/0302 - Pinus koraiensis (Korea 89) - Longwood Gardens - Kennett Square, PA - Seed - 05/08.

90/0303 - Stewartia koreana (Korea 89) - Longwood Gardens - Kennett Square, PA - Seed - 05/08.

90/0304 - Magnolia globosa - Magnolia Soc. Exchange #8 - Van Veen, Carlson - Seed - 05/12.

90/0305 - Magnolia sieboldii - Magnolia Soc. Exchange #21 - Miller, Wild Collected - Seed - 05/12.

90/0306 - Magnolia wilsonii - Magnolia Soc. Exchange #32 - Carlson - Seed - 05/12.

90/0307 - Pinus nelsoni - Magnolia Soc. Exchange #A39 - (Schoenfeld - Wild coll Mexico) - Seed - 05/12.

90/0308 - *Styrax officinalis* var. *californica* - Magnolia Soc. Exchange #A56 - Barnard - Seed - 05/12.

90/0309 - *Tilia mandshurica* - Magnolia Soc. Exchange #A57 - Miller - Seed - 05/12.

90/0310 - *Dasyilirion* sp. (T20M-8s-042190) - Yucca-Do Nursery - Waller, TX - Mexico Seed - 05/19.

90/0311 - *Dioon edule* (T20M-2s-042090) - Yucca-Do Nursery - Waller, TX - Mexico Seed - 05/19.

90/0312 - *Mahonia gracilis* (T20M-15s-042290) - Yucca-Do Nursery - Waller, TX - Seed - 05/19.

90/0313 - *Mahonia gracilis* (T20M-16s-042290) - Yucca-Do Nursery - Waller, TX - Seed - 05/19.

90/0314 - *Crataegomespilus* X *dardarii* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 05/22.

90/0315 - *Jasminum fruticans* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 05/22.

90/0316 - *Sibiraea laevigata* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 05/22.

90/0317 - *Xanthoceras sorbifolia* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 05/22.

90/0318 - *Mahonia gracilis* (T21M-12S-051690) - Yucca-Do Nursery - Waller, TX - Seed - 06/03.

90/0319 - *Carpinus turczaninowii* - Arboretum Kalmthout - Kalmthout, Belgium - Seed - 06/03.

90/0320 - *Styrax japonica* var. *fargesii* - Arboretum Kalmthout - Kalmthout, Belgium - Seed - 06/03.

90/0321 - *Abies nordmanniana* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0322 - *Carpinus orientalis* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0323 - *Crataegomespilus* X *dardarii* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0324 - *Jasminum fruticans* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0325 - *Pinus griffithii* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0326 - *Pinus koraiensis* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0327 - *Rhus potanini* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0328 - *Securinega suffruticosa* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0329 - *Spartium junceum* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0330 - *Torreya californica* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0331 - *Viburnum buddleifolium* - Arboretum Mlynany - Slepčany, Czechslovakia - Seed - 06/05.

90/0332 - *Buxus sempervirens* 'Elegantissima'? - Siskiyou Rare Plant - Medford, OR - 4" - 06/19.

90/0333 - *Chamaecyparis obtusa* ? - Siskiyou Rare Plant - Medford, OR - 2" - 06/19.

90/0334 - *Chamaecyparis obtusa* ?(Golfball) - Siskiyou Rare Plant - Medford, OR - 2" - 06/19.

90/0335 - *Daphne* X *mantensiana* - Siskiyou Rare Plant - Medford, OR - 4" - 06/19.

90/0336 - *Delosperma* sp. - Siskiyou Rare Plant - Medford, OR - 4" - 06/19.

90/0337 - *Juniperus horizontalis* 'Curly Bell' - Siskiyou Rare Plant - Medford, OR - 3" - 06/19.

90/0338 - *Juniperus horizontalis* 'Grey Forest' - Siskiyou Rare Plant - Medford, OR - 3" - 06/19.

90/0339 - *Juniperus horizontalis* 'Pancake' - Siskiyou Rare Plant - Medford, OR - 3" - 06/19.

90/0340 - *Picea glauca* 'Gnome' - Siskiyou Rare Plant - Medford, OR - 4" - 06/19.

90/0341 - *Picea glauca* '(dwarf)' - Siskiyou Rare Plant - Medford, OR - 4" - 06/19.

90/0342 - *Thuja occidentalis* 'Tiny Tim' - Siskiyou Rare Plant - Medford, OR - 5" - 06/19.

90/0343 - *Tsuga canadensis* 'Minima' - Siskiyou Rare Plant, Medford, OR - 2" - 06/19.

90/0344 - *Salix fargesii* - UBC Botanical Garden - Vancouver, BC - Qt. - 06/24.

90/0345 - *Azara microphylla* - Wells-Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0346 - Calycanthus occidentalis - Wells-Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0347 - Ceanothus X 'Marie Simon' - Wells-Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0348 - Chamaecyparis obtusa 'Tortuosa' - Wells- Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0349 - Cotinus obovata - Wells-Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0350 - Forsythia X intermedia 'Minigold' - Wells-Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0351 - Ptelea trifoliata - Wells-Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0352 - Thuja plicata 'Filifera Nana' - Wells-Medina Nursery - Seattle, WA - 1 Gal - 06/25.

90/0353 - Tritoma sp. - Kendall Gambrell - Sumner, WA - 1 Gal - 06/26.

90/0354 - Rehderodendron macrocarpum - ? - OR - 1 Gal - 06/29.

90/0355 - Acer cappidocium 'Aureum' - Hersonswood Nursery - Kinston, WA - Seedling - 06/30.

90/0356 - Acer pseudoplatanus 'Prinz Handjery' - Heronswood Nursery - Kinston, WA - Seedling - 06/30.

90/0357 - Actinidia polygama - Heronswood Nursery - Kingston, WA - Seedling - 06/30.

90/0358 - Arisaema candidissimum - Heronswood Nursery - Kingston, WA - Seedling Bulb - 06/30.

90/0359 - Bassela rubra - Heronswood Nursery - Kinston, WA - Seedling - 06/30.

90/0360 - Carpinus cordata - Heronswood Nursery - Kinston, WA - Seedling - 06/30.

90/0361 - Fortunaria sinensis - Heronswood Nursery - Kinston, WA - Seedling - 06/30.

90/0362 - Indigofera geraldiana - Heronswood Nursery - Kinston, WA - Seedling - 06/30.

90/0363 - Indigofera kirhowlii - Heronswood Nursery - Kinston, WA - Seedling - 06/30.

90/0364 - Paderia scandens - Hersonswood Nursery - Kingston, WA - Seedling - 06/30.

90/0365 - Persea yunnanensis - Heronswood Nursery - Kingston, WA - Seedling - 06/30.

90/0366 - Podophyllum hexandra - Heronswood Nursery - Kingston, WA - Seedling - 06/30.

90/0367 - Styrax shirwasii - Heronswood Nursery - Kingston, WA - Seedling - 06/30.

90/0368 - Trollus yunnanensis - Heronswood Nursery - Kingston, WA - Seedling - 06/30.

90/0369 - Viburnum farrerii 'Nana' - Heronswood Nursery - Kingston, WA - Qt. - 06/30.

90/0370 - Vitix prewaskii var. prewaskii - Heronswood Nursery - Kingston, WA - Seedling - 06/30.

90/0371 - Zelkova serrata 'Prostrata' - Heronswood Nursery - Kingston, WA - Rooted Cutting - 06/30.

90/0372 - Zelkova schneideriana - Heronswood Nursery - Kingston, WA - Seedling - 06/30.

90/0373 - Berberis sp. (T22M-23S-060790) - Yucca Do Nursery - Waller, TX - Seed - 07/02.

90/0374 - Oenothera sp. (Apricot) (T22M-15S-070690) - Yucca Do Nursery - Waller, TX - Seed - 07/02.

90/0375 - Panicum 'Heavy Metal' - Kurt Blumel - Md - 3 gallon - 08/12.

90/0376 - Quercus alnifolia - Univ. of Wash. Arb. - Seattle, WA - Cuttings - 08/29.

90/0377 - Quercus porphyrogenita - Univ. of Wash. Arb. - Seattle, WA - Cuttings - 08/29.

90/0378 - Cornus sp. (T24M-4S-081990) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0379 - Cornus sp. (T24M-7S-081990) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0380 - Lonicera pilosa (T24M-25S-082290) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0381 - Lonicera pilosa (T24M-28S-082290) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0382 - Lonicera pilosa (T24M-37S-082290) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0383 - Nectandra salicifolia (T24M-1S-081890) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0384 - Quercus sp. (rugose) (T24M-36S-082290) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0385 - Rhamnus sp. (T24M-34S-082290) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0386 - Senna wislizenii (T24M-3S-081990) - Yucca Do Nursery - Waller, TX - Seed - 08/30.

90/0387 - Symphoricarpos microphyllus (T24M-17S-082290) - Yucca Do - Waller, TX - Seed - 08/30.

90/0388 - Liquidambar styraciflua 'Golden Treasure' - Bob Ticknor - Aurora, OR - Scions - 09/06.

90/0389 - Hypericum androsaemum 'Variegatum' - Rock Garden Sale - Chapel Hill, NC - 3" pot - 9/08.

90/0390 - Quercus sp. (T25M-02S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0391 - Quercus sp. (T25M-07S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0392 - Quercus sp. (T25M-08S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0393 - Quercus sp. (T25M-12S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0394 - Quercus sp. (T25M-13S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0395 - Quercus sp. (T25M-23S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0396 - Quercus sp. (T25M-24S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0397 - Quercus graciliformis (T25M-29S-090290) - Yucca Do Nursery - Waller, TX - Seed - 09/10.

90/0398 - Abelia X grandiflora 'John Creech' - Cummins Garden - Marlboro, NJ - Rooted Cuttings - 09/28.

90/0399 - Incarvillea sinensis (Inner Mongolia - China) - Jim Waddick - Kansas City, MO - Seed - 10/07.

90/0400 - Baptisia minor - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0401 - Callicarpa mollis - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0402 - Citrus ichangensis - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0403 - Citrus ichangensis hybrid 90 - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0404 - Citrus reticulata hybrid 90 - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0405 - Citrus sulcata 90 - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0406 - Illicium floridanum var. 90 (pink flowered) - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0407 - Indigofera gerardiana - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0408 - Itea virginica 'Sarah Eve' - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0409 - Magnolia ashei - Woodlander's Nursery - Aiken, SC - Qt. - 11/04.

90/0410 - Magnolia grandiflora 'Coppertop' - Woodlander's Nursery - Aiken, SC - Qt. 11/04.

90/0411 - Poncirus sulcata 90- Woodlander's Nursery - Aiken, SC - Qt. 11/04.

90/0412 - Wisteria macrostachys 'Clara Mack' 90 - Woodlander's Nursery - Aiken, SC - Qt. 11/04.

90/0413 - Quercus graciliformis (T26M-26S-100890) - Yucca Do Nursery - Waller, TX - Seed - 11/06.

90/0414 - Quercus sp. (T24M-36S-082290) - Yucca Do Nursery - Waller, TX - Seed - 11/06.

90/0415 - Quercus sp. (T26M-21S-100890) - Yucca Do Nursery - Waller, TX - Seed - 11/06.

90/0416 - Quercus sp. (T26M-39.5S-101090) - Yucca Do Nursery - Waller, TX - Seed - 11/06.

90/0417 - Quercus polymorpha (T26M-49S-101290) - Yucca Do Nursery - Waller, TX - Seed - 11/06.

90/0418 - Quercus sp. (T26M-50S-101290) - Yucca Do Nursery, Waller, TX - Seed - 11/06.

90/0419 - Quercus sp. (T26M-75S-101490) - Yucca Do Nursery - Waller, TX - Seed - 11/06.

90/0420 - Quercus gracilisformis (T26M-48S-122990) - Yucca Do Nursery - Waller, TX - Seed - 11/06.

90/0421 - Cercis occidentalis 'Alba' - Saratoga Hort Foundation - San Martin, CA - 1 gal - 11/07.

90/0422 - *Dicliptera suberecta* - Saratoga Hort Foundation - San Martin, CA - Liners - 11/07.

90/0423 - *Acer fabrii* (Shanghai Bot Garden) - James Waddick - Kansas City, MO - 1 gal - 11/08.

90/0423 - *Acer (oblongum) paxii* - James Waddick - Kansas City, MO - 1 gal - 11/08.

90/0424 - *Ampelocissus rugosa* (Edinburgh KEKE Nepal Exped) - James Waddick - Kansas City, MO - Seed - 11/08.

90/0425 - *Diospyros wilsonii* (Amer. Mag. Soc. Dist.) - James Waddick - Kansas City, MO - Seed - 11/08.

90/0426 - *Taraxacum albidum* (Japan) - James Waddick - Kansas City, MO - Seed - 11/08.

90/0427 - *Acanthopanax trifoliatum* (Shanghai Bot Garden) - James Waddick - Kansas City, MO - Liner - 11/08.

90/0428 - *Hypericum forrestii* (NA49231) - Scott Arboretum - Swarthmore, PA - 3-1 gals. - 11/11.

90/0429 - *Hippeastrum* X 'Barotse' (1) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0430 - *Hippeastrum* X 'Basuto' (2) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0431 - *Hippeastrum* X 'Blushing Bride' (3) - De Hertogh NCSU Research Program - Bulbs - 11/15.

90/0432 - *Hippeastrum* X 'Bold Leader' (4) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0433 - *Hippeastrum* X 'Candy Floss' (5) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0434 - *Hippeastrum* X 'Carnival' (6) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0435 - *Hippeastrum* X 'Cocktail' (7) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0436 - *Hippeastrum* X 'Desert Dawn' (8) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0437 - *Hippeastrum* X 'Final Touch' (9) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0438 - *Hippeastrum* X 'Intokazi' (10) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0439 - *Hippeastrum* X 'Milady' (12) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0440 - *Hippeastrum* X 'Miracle' (13) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0441 - *Hippeastrum* X 'Noel' (14) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0442 - *Hippeastrum* X 'Safari' (15) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0443 - *Hippeastrum* X 'Sundance' (16) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0444 - *Hippeastrum* X 'Springtime' (17) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0445 - *Hippeastrum* X 'Summertime' (18) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0446 - *Hippeastrum* X 'Wedding Dance' (19) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0447 - *Hippeastrum* X 'Zanzibar' (20) - DeHertogh NCSU Research Program - Bulbs - 11/15.

90/0448 - *Cautleya huneana* - Willis Harden - Commerce, GA - Division - 11/17.

90/0449 - *Roscoea cautleoides* - Willis Harden - Commerce, GA - Division - 11/17.

90/0450 - *Carpinus laxiflora* 'Variegata' (Watenabe, Japan) - James Waddick - Kansas City, MO - 4" liner - 12/05.

90/0451 - *Corylopsis spicata* 'Variegata' (Watenabe, Japan) - James Waddick - Kansas City, MO - 4" liner - 12/05.

90/0452 - *Illicium anisatum* 'Variegata' (Y:B Marg. - Watenabe, Jap.) - James Waddick - Kansas City, MO - 4" liner - 12/05.

90/0453 - *Illicium anisatum* 'Variegata' (y:Spl - Watenabe, Japan) - James Waddick - Kansas City, MO - 4" liner - 12/05.

90/0454 - *Enkianthus campanulatus* 'Variegata' (Watenabe, Japan) - James Waddick - Kansas City, MO - 4" liner - 12/05.

90/0455 - *Viburnum japonicum* 'Variegata' (Watenabe, Japan) - James Waddick - Kansas City, MO - 4" liner - 12/05.

90/0456 - *Euonymus japonica* '?' - Greenleaf Nursery - El Campo, TX - Liners - 12/05.

90/0457 - *Ilex (cornuta X pernyi)* 'Lydia Morris' - Harold Elmore - Knoxville, TN - 1 gal - 12/05.

90/0458 - *Vitex trifoliata* 'Variegata' - Logan Calhoun - Dallas, TX - 12/07.

90/0459 - Berberis ? - Logan Calhoun - Dallas, TX - 4" liner - 12/07.

90/0460 - Mahonia aquifolium X gracilis - Logan Calhoun - Dallas, TX - 4" liner - 12/07.

90/0461 - Hemiptelea davidii - Sunshine Nursery - Clinton, OK - 2' - 12/08.

90/0462 - Maclura pomifera 'White Shield' - Sunshine Nursery - Clinton, OK - 2' - 12/08.

90/0463 - Ulmus parviflora 'Aurea' - Sunshine Nursery - Clinton, OK - 2' - 12/08.

90/0464 - Ulmus parviflora 'D. B. Cole' - Sunshine Nursery - Clinton, OK - 2' - 12/08.

90/0465 - Ulmus parviflora 'Red Fall' - Sunshine Nursery - Clinton, OK - 2' - 12/08.

90/0466 - Ilex sp. (T27M-35S-111890) - Yucca Do Nursery - Waller, TX - Seed - 12/12.

90/0467 - Osmanthus salicifolia (T27M-34S-111890) - Yucca Do Nursery - Waller, TX - Seed - 12/12.

90/0468 - Picea martinezii (T27M-47S-112090) - Yucca Do Nursery - Waller, TX - Seed - 12/12.

90/0469 - Pinus arizonica (T27M-37S-111890) - Yucca Do Nursery - Waller, TX - Seed - 12/12.

90/0470 - Pinus ayacahuite (T27M-37S-111890) - Yucca Do Nursery - Waller, TX - Seed - 12/12.

90/0471 - Myrica heterophylla - Jesse Perry - Raleigh, NC - 1 Gal - 12/18.

90/0472 - Bergenia X 'Silberlicht' - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0473 - Geranium X 'Bevans' - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0474 - Geranium X 'Birch Double' - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0475 - Geranium X 'Claridge Druce' - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0476 - Geranium grandiflorum - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0477 - Geranium sanguineum - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0478 - Iris setosa - Wayside Gardens - Hodges, SC - 1 Gal - 12/18.

90/0479 - Leucothoe X 'Scarletta' - Wayside Gardens - Hodges, SC - 1 Gal - 12/18.

90/0480 - Nepeta 'Dropmore' - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0481 - Polygonatum falcatum - Wayside Gardens - Hodges, SC - 3" pot - 12/18.

90/0482 - Rhododendron X 'Hotei' - Wayside Gardens - Hodges, SC - 1 Gal - 12/18.