

# JC Raulston Arboretum

## Friends of the Arboretum Newsletter

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## J. C. Raulston

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### Notes from the Arboretum

With the incredible delay in getting this issue out so late I could do an entire issue on excuses alone. Suffice to simply say the past six months have been complex and I'm behind in everything - not just the newsletter. My sincere apology and I'll try to do better for the next time. The good news is that part of the complexity is that so many things are happening in and with the arboretum that it is a blur to try to even keep up with all the people and activities whirling out there. With a shortened "Notes from the Road" section in the next newsletter I still want to do a detailed discussion of our arboretum. Visit often and enjoy - more later. JCR.

### TALES FROM THE LATH HOUSE - Tony Avent 01/16/90

When last we visited with the Dead Plant Society, we were meeting once a week performing weekly rituals such as spiritous weeding, gravely careful labeling, and holy planting. Between the state fair and then an onset of chilly winter weather, work has been suspended for the winter. We did manage to begin renovation work on the front of the lath house. The two beds and the old "native mountain plants" bed just inside the lath house are to be emptied and renovated with new plantings. Work will resume as when Mother Nature quits fooling with the spring weather.

Most of the deciduous azaleas will be moved to the west arboretum, behind the Oriental garden. In the same area, we will also relocate the NCSU-released evergreen azalea cultivars. Many of the other plants are now large enough to fend for themselves in the main arboretum. A few of the choice specimens have been moved by curator Suzanne Edney to the mixed border, just south of the annual trials. We are keeping our fingers crossed that the *Magnolia ashei* and *Calocedrus decurrens* withstand the move.

One of the pleasant surprises last autumn was the flowering of the beautiful *Rhodophiala bifida*. This lovely red-flowering native of Argentina flowers for several weeks in October with dozens of flowers on spikes about 10" in height. *Rhodophila* is also listed as *Amaryllis bifida*. One of its peculiarities is producing winter foliage which disappears as it goes dormant through summer months. Although one of the very finest of bulbs for Southern gardens - it is virtually unobtainable in commercial trade.

We have also accumulated quite a collection of *Daphne* over the last year. That's the great thing about this job . . . all these wonderful plants just appear! Our collection now includes *D. odora* 'Variegata', *D. pontica*, *D. burkwoodii*, *D. burkwoodii* 'Carol Mackie', *D. tangutica*, *D. giraldii*, and *D. longilobata*. If you have other daphnes that you would like to add to our collection, please let me hear from you.

You may have also noticed that many of the mountain laurel (*Kalmia* sp. and cvs.) have been cut back severely. Since the *Kalmia* had become overgrown, we are using a stubbing technique which should result in bushier and better specimens. The stubbing is being done in stages to allow for some flowers each season.

If you happen by the lath house this month, visit the lovely *Cyclamen* collection, donated by Nancy Goodwin of Montrose Nursery . . . in addition to spectacular variegated foliage of great beauty, many are flowering this month. Also one of the rarely noticed treasures (in the little side garden to the north by the arboretum building) is the *Edgeworthia papyrifera*. This deciduous Japanese native small shrub is fabulous for its unusual clusters of white and yellow flowers during late winter. JC keeps telling me that edgeworthias are not hardy here, but that's okay as long as he doesn't tell the edgeworthia. If you have any questions, please write to me at: 9241 Sauls Road, Raleigh, NC 27603. Till next issue . . . happy gardening. Tony.

# NOTES FROM THE ROAD - European Study Leave Travels - Part IV.

## Continued from Issues #18-20. May 18 to June 4 - England and Ireland.

Wednesday - May 18, 1988. Dover to London, Chillham, Great Mayham, Sissinghurst, Leeds Castle. Good nights sleep and down for my first English breakfast for about 5-6 weeks and enjoy it it greatly. Pack and head out about 9 - the coolest weather for some time and a cloudy misty, rainy day all day - welcome back to England. Easy on to the M20 toward London - later a little confusion in getting off it as not numbered and indicated as the atlas shows it - and then the road I want is closed and I go on a diversion road.

Get to Chillham Castle and as soon as I get in I remember I was here many years ago on one of the Southland Tours - and definitely not worth a return visit at best - and even worse with the tree losses of this winter with much damage still in effect. But go in - many lambs in the flock around the parking area, assorted trees supposedly dating 400-500 years old, the Capability Brown ha-ha fence, an entire hog on a grill outside (for lunch in the restaurant), and about 10 Porsches in the parking lot at the front of the castle which turns out to be the most interesting feature (the home owner leases part of the house for auto sales - with modern day economics, estate owners must use a wide variety of measures to keep their properties). Stay a total of 10 minutes maybe and leave.

I head south hunting for Great Mayham House - listed in my guide as the house which was the inspiration for my favorite book "The Secret Garden". The author, Frances Hodgson Burnett, lived at the house for some time and the walled garden on the estate served as the model for the one in the book. On the way find a private "folk garden" along the road filled with all kinds of kitsch items displayed in a most wonderful way. Hundreds of little items and statuary all over the yard and around a garden pond. Great Mayham House remains a hidden mystery for some time - it is not signposted on any of the roads in the area and I try them all before finally driving by the place. The present house was built in 1909 to a design by Sir Edwin Lutyens. I'm 15 minutes early before they open - walk in and around the place which seems totally deserted except for a gardener scattering grass seed near the entrance. Find the walled garden - and as one should expect it does not live up to my romantic image from decades of memory and dreams (much too "nice") - but good to see it anyway for future lectures. A fine specimen of the dwarf golden honeysuckle - *Lonicera nitida* 'Baggesen's Gold' - bright gold here and 3' in diameter. Our experience with it in Raleigh is that it needs light winter shade to prevent scorching. Another 10 minute garden visit - this day is beginning to feel jinxed. Contractors are giving estimates on repairs to the the entrance gate as I leave - pity the owner.

The day is going by quickly and behind my original schedule - need to do Leed's Castle but as the road to it goes within 5 miles of Sissinghurst I feel I must stop in there for a fast skim of the things now in season - so I divert having to remind myself twice of which side of the road to drive on after going around single lane construction barriers. A misty rain at Sissinghurst - the woman at the entrance is dubious about my expired temporary permit (the permanent permit ordered in March has gone to the U.S. and I've not gotten it back in mail yet) but lets me in. Tricky holding an umbrella over me so I have a hand free to shoot as I go through the garden but a skill necessary to develop for the coming rainy weeks. Probably set a record for a visit to Sissinghurst for a horticultural professional - in and out in less than 15 minutes again just quickly capturing the things which are at peak since last visit - and still too early for the real spectacle to come later in the season. *Olearia scillonensis* is a white flowered small shrub in bloom (not hardy in NC) and the unusual perennial *Maianthemum kamschaticum* is attractive with handsome foliage and little white flower spikes. A new silver-leafed pear has been planted in the White Garden to replace the famous one lost in the storm. *Iris kerneriana* (yellow) is showy in the yellow and red garden. They are making good progress on the new restaurant and will probably have it enclosed by the time I return in a few weeks.

Sprint on to Leed's Castle and there by 4:00. Again at the entrance there is evidence of tremendous tree losses and they are still hauling them away in quantity. I fear the worst in an uninteresting visit after an expensive entrance fee - but eventually it turns into a worthwhile enough visit to justify the fees. Through the duckery, a woodland creek walk which is minus the "woodland" after the storm, then through the Dog Collar Museum (only in England! - but quite fascinating); into the castle which is indeed lovely (commercial ads tout "the loveliest castle in England - built in Norman times and palace for 8 of England's medieval queens) and the most interesting room is the recreated Medieval 15th century bedroom with fabric wallhangings and dramatic bed which was just for show and never slept in. Hunt the huge maze which turns out to be newly installed (1987) with 2,400 yews planted between wooden frames. Work my way through it and enjoy the experience - in coming years when one can't see through to other paths as one can now it will be a fine challenge. Up on the mount to overlook the maze, then down in the grotto which is also great; then back to the Aviary and look at the various parrots and other exotic birds.

It is getting late by the time I leave to head back to London - 5:30 and I am concerned about making it in time to get to the post office - very hopeful of hearing from many people. The castle is right at the entrance to the M20 - very good time up to 70 mph for much of the route. Then into the winding section of the A20 and A2 through a new section which seems opened since my earlier stay. Make a wrong choice at the Elephant and Castle roundabout which makes going directly to the post office rather impossible. An easy trip back to the King's Cross area and park - happy to be out of the traffic. Go to the California Hotel and they have now raised prices to 30 pounds - so check around and end up at a dump nearby but saving a bit of money. Carry in things and I go directly to the tube to head downtown to get the mail. Very disappointed in what I find - the same manuscript for editing I had received earlier, a few meaningless letters forwarded from the office but no notes from anyone; a note from friend Tracy saying the slides I've sent back are coming out OK for the most part; and a letter from Charlotte garden center owner, Marion Redd saying he will meet me at the Chelsea show next week - which I need as it has been so long to talk with a real person. Back to the room very disappointed with the mail situation. Make sandwiches and eat - settle in for an evening of TV with a highlight of a good episode of MASH.

Thursday - May 19, 1988. London - Kew & Chelsea. First awake about 5:00 with much traffic noise. Finally up about 7:30 - dress and head downstairs. The place is so ugly and messy with renovations going on and the old things still so bad. Breakfast is so-so and uninspired but filling and as always enjoy the coffee to get the day off to a start. Decide to stay a day in town to handle some logistical things (which turns out to never get done) - haircut, call to Tracy, purchase return air tickets, etc. Move the car back to my hiding place a half mile away for the day. Pack up and head for Kew - frustrated that the Kings Cross tube entrance is still messed up (continuing repairs from last years fire where so many were killed). The train is absolutely packed when I get on - pressed like sardines. Gradually the crowd drops off at various stations and by the time I get to Kew Gardens stop at 9:30 I'm the only one in my car.

Kew has a new brochure and map of the area which is nice - a beautiful day with mostly sunny skies during my visit. The palm house reconstruction is coming along well and will be quite beautiful when finished. *Ceanothus X lobbianus* 'Edward Stevens' is in spectacular brilliant blue flower around the lake in front of the palm house. Do a circle of the grounds - disappointed the Alpine house is closed for mechanical pump work. Ask some gardeners where the *Cercis* are and when I finally find them, there are only 4 species - very disappointed there is no *C. racemosa*. (One of my major goals of the study leave spring is to see this most beautiful of all redbud species in bloom. England is possibly the only place outside China where flowering specimens exist. Never do find a single tree after all my hunting all spring. Do they really exist?) We all hunt for our own ways of claiming "glory" - and at least in redbuds, The NCSU Arboretum (now the JC Raulston Arboretum) can top Kew (only because it is too cold in England for most species to grow well).

The herbaceous peony species are in bloom in the taxonomic garden - *Peonia veitchii* (white form) and *P. mollis* (red) particularly catch my eye. On the wall plantings around the taxonomic families display - the woody vines *Schisandra rubriflora* and *S. sphenanthera* are in showy bloom. In the bulb display plaza at the east (which many visitors never find - one of the best ways of displaying bulb collections I've ever seen - a paved plaza with irregular spaces left for planting of individual species) - the highlights today are *Iris cycloglossa* from Afghanistan, *Allium* 'Purple Sensation', *Arum italicum*, and *Iris tingitana* from Morocco. Stop for tea and a cherry cheesecake at the restaurant which hits the spot.

Then back across the grounds again to do the new Princess of Wales conservatory - long, long wait to try to get a photo of the carnivorous house when empty and finally give up and get it with some people inside. The moist tropical house is a challenge for photography with steamed up lenses. Really don't care for the whole complex somehow - but can't begin to explain why - as it is certainly the most advanced greenhouse complex in the world today with brilliant engineering, design, installation, etc. Am I that biased against tropicals? Then through the wonderful rock garden and head back to the tube after a most enjoyed visit - feet are sore from all the walking.

Decide to try to stop at the Chelsea Flower Show site since the line goes directly to the Sloan Square stop nearby - am a little surprised at the point of completion of the show and decide to try to get in to photograph it. Have to talk to four officials but to my surprise they finally let me in - I guess persistence does sometimes pay off. A great thrill to wander around to see the various stages of installation from completion of a very few displays to the bare beginning of others. Unfortunately have only about 10 shots left but could enjoy a whole day of watching it all.

Head back to the tube buying a newspaper, back to the hotel, then on to a travel agent to do some checking on the airflights for return. Find out that prices are much more than I had expected which depresses me through the rest of the day - a Paris to Raleigh ticket one-way with a month advance purchase is \$900!! Ouch!! Perhaps the best bet is a Virgin Airlines, London to Newark ticket for \$350. Go out and try to call Raleigh - no luck, get a Newsweek, chicken and drinks - back and eat and settle in for the day with TV, reading, etc. About 6, I finally break down and crank up the computer - surprised when the battery signals low as I start - so shut down and trade batteries and start off again. Really behind on my daily log - so outline all the days I'm missing on a new Log document and will work my way backwards. Get several days done. A special show on TV about the real estate escalation of England is interesting - how it is spreading far out to the country as yuppies buy out and commute in with prices soaring upward everywhere.

Friday - May 20, 1988. London to Brighton. Hike back to the car and bring it around to the hotel - pack up with the trunk getting more and more full. Head out of the city about 9:00 - heavy traffic this morning. To Wisley - go in the garden center nursery first - so many interesting plants I want if I could only figure out how to get them home safely. Into the garden and do a fast run around through it - at the awkward "between seasons" period. The most striking plant seen is a wonderful specimen of *Cercis silaquastrum* 'Rubra' in peak bloom; with other especially noted plants of *Viburnum rhytidiphyllum* 'Variegata', *Liriodendron tulipifera* 'Aureomarginata', and *Quercus rubra* 'Aurea'. The ground is bone dry with big cracks and they are trying to water in limited manner.

In the trial grounds, Pacific Coast Iris and Intermediate Bearded Iris trials are at peak with I. 'Arnold Sunrise' - a white with pale yellow flowered Pacific hybrid my favorite. Back to the bookstore and get the Chelsea tickets which they have been holding for me - probably very glad to get rid of them as they are swamped with requests for tickets and lines are jammed. I'm shocked when I realize that regular tickets for the public are \$28 and \$20 for Thursday and Friday - amazing after the low prices just a few years ago.

I stop at the office to see if they have a reference library I could use to look in Bean's to see which garden in England might have a *Cercis racemosa* I could go see - but they don't have one for public access. The new restaurant patio is about finished as they are taking the scaffolding down on the tower and putting new plantings in the patio area. Into the restaurant - go through the cafeteria lines which seem to be quite disorganized and not functioning correctly yet - even the food tray rail doesn't work with two levels and a non-functioning corner. But a good salad and soup which I eat outside on the new patio in the heavy wooden chairs.

Back to car and note on the map that Sutton Place is nearby with signs and on the map - so hunt my way in (including stopping and asking police where it is) - but it is closed to the public except for special permission so waste half an hour on that. Back to the beltway and then down the road toward Brighton. Debate stopping at Nymans - but decide why bother as I've seen the devastation already - will come back in the future when some damage begins to be covered over. On to Leonardslee Gardens - although there are many trees down at the garden - the strength of the garden in its valley plantings is still intact and quite fine. Enjoy the running hike around the garden but the light is not good at the worst time of the afternoon with heavy clouds. My most jarring image of just what kind of damage losses exist when I see a sawed-off stump 30" in diameter still labeled *Cryptomeria japonica* 'Elegans' - what a loss! Head on south to Brighton to call it quits for the day in garden visits.

Stop at the Brighton Pavilion and go through it for the first time - quite remarkable and unique. I like the banana painted dome with the dragon holding the chandelier under it. Get a room - then go to hunt for the park with the national lilac collection. Go to the tourist info office but they have just closed - luckily a woman leaving can tell me where the park is located. Drive out north - there is indeed a large collection but not a one is labeled, the ground is parched with cracks, and the planting is on a limestone rock base with many chlorotic plants - so the whole thing more or less a bust. Settle in for an evening of TV again - get a tub of chicken for dinner. An interesting show on public housing in Berlin.

Saturday - May 21, 1988. Brighton to Salisbury. Not one of the better English breakfasts but OK. Out to the park where I do some shots of the lilacs - a puppy dog wants me to play throw and retrieve with his stick which I do. Head north to the garden at Borde Hill which is listed in my guide as being a significant recipient of many of the noted plant collectors introductions. Unfortunately, the garden is now not worth the effort. The storm destroyed many of the trees, the garden is very run down with poor maintenance - weedy and full of dead wood and poor plants - there is no labeling. Even hunting to try to find something of interest to photograph is a problem - a *Magnolia delavayi* is in bloom but can't get up close enough to catch it; an interesting series of small gardens exist in the ruins of an old building. I wander through a pasture to a rhododendron dell which has some huge plants at the fence - would probably be interesting things to explore for but I decide not to. An Italianette water garden, a veiled face marble statue, an overgrown rock garden circular pit and leave. (Months later I find in a copy of Bean that the largest *Cercis racemosa* in the country is supposedly located at this garden - drats!).

Head across country toward Petworth to see the Petworth House. The house was built in the late 17th century and the park which was created by Capability Brown starting in 1751 is considered one of his finest estates - frequently painted by Turner. Get there about 10:30 and the place doesn't open until 12:00. The town is full of antique dealers and is obviously a yuppie hangout on weekends from London with both second and first homes here. I wander around trying to find a barber but none in sight - browse through a bookstore and would like an interesting book on the hurricane damage; browse one on travel survival in the U.S., one on a day in Russia, others. Into the Petworth House - beautifully done - a whole room of Turners, Van Dykes, etc. - wonderful sculpture, a room with intricately carved woodwork paneling. To me, some of the most fascinating items on display are various plans drawn by Brown, and his bills for his services (which went on for many years).

Go out to the grounds which are not that impressive from the house. I hike out to the lake where details are better seen and it turns out to be a classic Capability Brown landscape with the view from the lake pavilion, and from the hill which overlooks everything. In the house I photographed a 200 year-old painting showing a view of an annual picnic held by the owner for all the employees, their families, and poor of the community (54 table each 50' long - fed 6,000 people) - and then took a photograph from the exact point where the painting was made - remarkably little change except for the size of the trees. Unfortunately, the October storm destroyed many of the original mature Brown planted trees (mostly lindens and chestnuts) so am sorry I didn't see the estate earlier. Still quite wonderful and glad I went out in the property where I could see things better.

Head on further west - day turns dark with a cloud layer after a rather good morning - through an area where there are huge mature purple-foliaged beeches along the road. Come across a place called Hinton Ampner which is a National Trust property and since I'm there I pull in. The house is not open (only on Wednesday afternoons or something such) - the garden is small but very nice as it is based on strong formal design - rare in English gardens - strong axis with flower borders of white tulips and blue forget-me-not edged with yews, a pool, good views - very nice.

Then on to Salisbury and on a little further to Wilton House (1650). I've had this garden on my list for the noted old *Cedrus* - some of the first Cedars of Lebanon in cultivation (1630) and they are indeed wonderful - some 90'H and 70'W. Luckily just as I get to the garden - the sun shines through brightly for about 20 minutes to get (hopefully) good photos. I go out to an area fenced off from visitors to get the best photos of trees and house, also crawl under rope to get a good shot of a beautiful long-raceme wisteria in full flower on the wall. Also a stunning golden-foliaged oak *Quercus robur* 'Aurea' (55'H), a magnificent yew (60'H, 3'D trunk), and *Lonicera* standards in formal parterres at the entrance are highlights of the garden.

Head back into town to a B&B I went by which advertised TV available - and take a room in a home where they just rent out two rooms. Drive out to the plains nearby to see Stonehenge. Park and go to the site - get half around as they begin to clear out with it closing. A new series of paintings showing the stages of development are nice. Some years ago when I visited the site it was like a war zone with concertina barbed wire - troops, etc. to guard against damage by the thousands who show up to party and celebrate during the summer solstice. The concertina wire is gone now but with the solstice coming up they will probably re-erect it again. Back to town and get Chinese food takeout for the room which hits the spot great. I read through many of the garden guides, my notes and the map to try to plan tomorrow's schedule. After Dynasty I finally open up the computer which I'm avoiding and work awhile.

Sunday - May 22, 1988. Salisbury to Bath, England. Awake about 7 - the hair just gets worse and worse each day - even with shampoo and drying it is still a disaster - got to get it cut tomorrow. Down for breakfast - a huge event like a banquet - cereal, muffin, a plate of toast, bacon, sausage, egg and tomatoes, orange juice and coffee - great! The lady is hard of hearing which makes conversation difficult; she has a pet groundhog which comes to the back door late at night; also refused yesterday to let two girls and a guy stay in a room with only a double bed! In the guest book most of their guests have been Canadian or Australian.

Pack up, leave about 9 heading south to Bournemouth on a sunny and warm day - concerned about the crowds of people I will likely see on a Sunday at this time of year with such weather. Get to Bournemouth much faster than expected and before the Clapton Court Gardens open - so wander around through town - curved glass contemporary office building downtown - a viewpoint from a cliff over the beach area; more upscale tourist area - fancier hotels than Brighton and an older clientele. On to the garden seeing and later regretting not photographing sheared rhododendrons used as a groundcover on a highway strip with Scotch pines.

Still to the garden early - browse the plants for sale (here I get the *Hydrangea macrophylla* 'Quadricolor' which has been such a hit since returning - perhaps the most beautiful variegated-foliage hydrangea with four colors of white and green shades); get in line first and people rapidly que up behind me. First in and get ahead of the two bus loads of retirees and a horde of others. Sprint through the garden trying to stay ahead of the masses and get shots before they appear in the various theme gardens. Through the fairly extensive garden in about 20 minutes - whew! Good tourist garden (something of the philosophy of Cypress Gardens without the waterskiers ) but of less interest to me. A good pair of bronze Roman style statues, but the contemporary work added recently is ugh. The Japanese garden is done about as well done as I've ever seen the English do such - but still a collectors garden with far too many different plants and too many colors of blooming things to get any Oriental serenity. The bronze flamingos with the Chinese cranes are a bit jarring also!

Go by the Ceras Giant (a huge prehistoric monument carved on a hillside famed for its [to some] pornographic aspect) and I stop to photograph on a sunny day . On to Minterne Garden - not sure it will be open but it is and I do the mile plus hike around the property. Important as the site of deposit of many of the noted collectors plants and there are many wonderful old specimens - but also disappointed in that nothing is labeled. See the owners touring friends of theirs and explaining things to them. Probably the Dove trees (*Davidia*) and some of the old *Cedrus* are the best things seen.

Head on to Stourhead - here is where the heavy crowds I expected have all gone - three fields of cars filled outside. A picnic atmosphere and bothered by families picnicing at the prime photo view spots throughout the garden - but the place is so magnificent that people ultimately can't override the plant and design splendor. Always impressed by just how fine the specimens are of so many choice plants - a huge variegated tulip tree, etc. Head on planning to do Longleat as well while in the area so close - but when I drive in and see the crowd decide to skip it for today and return tomorrow. Head back to Bath which is about 30 miles away by fairly good road and settle into the B&B used earlier. Walk downtown where a kayaking competition is going on at the cascades area of the river. Can't find any info on the contemporary maze I'm hunting in spite of an interesting new tourist guide computer button system.

Go up to the botanical garden area - beautiful late afternoon with people enjoying the parks . Thoroughly enjoy the botanical garden - each time I come here I discover new fine plants and must go back tomorrow to do more photos - a *Cornus mas* 'Variegata', and a huge specimen *Photinia serrulata* (45'H, 45'W, 28"D trunk) are the best new finds - such an amazing garden for its small size. Back to the hotel stopping to buy drinks and chips. Watch TV - a show on the Mediterranean comes on - many places I've seen in the last several months and a fine show with much information - sheep and shipbuilding destroying the trees of Europe; then a show on the 75th Anniversary Chelsea show last year - with one guy who has attended all but one show during the last 75 years! I get on the computer and catch up the last several days - still have two back in Austria/Germany that I need to do but not tonight.

Monday - May 23, 1988. Bath to London. Down for breakfast - I don't have enough money to pay for the room so tell the lady I've got to go to the bank and will pay before checkout time at 10:30. Head into town with a number of errands on my mind. Long walk hunting a bank which will accept MC - finally find one but doesn't open until 9:30 and ditto with the tourist office where I want to check on the maze garden. Find a barber shop open and go in there - a bit nervous as the first cut by a barber other than my regular in 10 years or so? But he does a good job (though a bit short) and I am pleased when finished. Then a fast run to the bank for more money, stop at the tourist office and find the maze (one of a paving pattern, not plants) was one block from the hotel - and back to the hotel where I pay and check out. Go to the botanical garden - a beautiful morning in the parks and looking out over the city. I quickly wander the garden to get notes I missed yesterday and catch a few more photos.

Return to Longleat - dismayed at the prospects as I arrive - "Myrtle Beach City" with touristy things of every imaginable kind. (The first of the large English estates to do drive-through zoos, etc. as a way of preventing the loss of the estate through excess property taxes - by now expanded to gift shops, petting zoos, on and on). Bypass all that and go around to the house - and I'm further dismayed by a big tour bus parked right at the steps of the front door of the house. Walk the 3/4 mile to the entrance gate and most of the way back before the bus tour group returns and it finally moves so I can get my photo. Certainly a magnificently beautiful site and for the most part they've managed to keep the hoopla away from the main landscape area - but still dismantling a horse jumping site from a weekend event which distracts. Go through the garden center - really terrible plants and a gift shop which goes on and on. Debate "doing" the maze with its bridges and viewtower (a new one and one of the largest and most complex in existence - they don't sell any postcards of the maze to keep people from using them as a guide when they go in).

It is now about 1:00 and head on my way to Devizes - but on the way happen across the chalk cliff outline of the White Horse - turn around and find a place to park to shoot it. Then on to Devizes to do the Pygmy Pinetum (created originally by noted conifer authority, Humphrey Welch). The Pinetum is a wonderful collection of conifers - apparently now with new owners and converted to a commercial

nursery. I do a fast tour of the nursery and the acre of plantings of 2,500 cultivars of plants.

Leave and head further north to the estate of Bowood. I go in - a good visit but unfortunately the clouds and light are bad for photography - two hours later would have been great. Interesting terraces and topiary out front with a late addition of a 20th century nude woman sculpture to replace a classic piece - at the garden focal point and she is vulgar, crude and rather obscene - so jarring out of place from the rest of everything. Not much of the house is open - but it is well displayed and interpreted by signs throughout. Particularly enjoy a display on garden history and the story of Priestley discovering the element oxygen in research in this house. Excellent espaliers of *Magnolia denudata* and *grandiflora* on the walls. Do the walk around the lake to the cascade, grotto, temple - considered one of Capability Brown's finest creations from 1760. Then through the old Pinetum with many fine trees. Much impressed with a plant of pink-flowered *Indigofera pseudotinctoria* about 6' high - need to get for trial as we should be able to grow it well. There is a noted 60 acre Rhododendron collection on a separate property nearby but belonging to Bowood - but just not possible today. Back to the car and head on the way back to London. Only about 5 miles from the M4 freeway - but in going through Chippenham to get there I get in a horrible traffic tie-up (for which I never really see a causal reason) - takes about 45 minutes to go a mile - not a happy time.

Once on the freeway I drive my wildest of the trip - up to 75 mph and I'm uncomfortable with that but want to get into a room and settled as soon as possible. The sun emerges from under the clouds as I approach the city for beautiful light on things. A heavy stream of commuter traffic heading out - ugh. Stop and photograph the wonderful 1930's deco Hoover building which I've been passing dozens of times all spring. Back to the last hotel and settle in for the evening.

Tuesday - May 24, 1988. London. Awake about 6:30 - up and work on trimming my big 5 month beard growth for awhile hacking it back to normal size. I move the car to the residential area - then open the computer and find it works well on a chair with me seated on a bed and catch up in the log. A magnificent sunny morning out making me wish I were at Chelsea today instead of tomorrow - or at least in a garden somewhere in the city. To the tube - across town and I get off to stop at the post office - have two letters from mom, a postcard from a friend, nothing from the office (as usual) and an envelop from my architect, Norma Burns - not particularly good news on the house (also as usual). I take the tube to High Kensington Street to visit the oldest rooftop garden in existence - find the office/department store building (#99) easily but learn they are having a private function at the garden and the guard tells me to come back in a half hour. Back and up to the roof - can't remember how many years ago I was last here (1973) but it was in terrible shape then, nearly closed and rumor it was to be done away with. But it has been groomed and refurbished and is in excellent shape now - 50 years after opening. Take many photos which will be useful in my course.

Then walk back toward the hotel - stop in the Natural History museum - but too tired mentally of museums at the moment to really get into it - and it has changed little since a visit a couple of years ago. Enjoy the insects, birds, and dinosaurs displays. Take the tube back to the hotel - watch a program on the problem of introduced species in Australia - and a bit on the dedication of the new Liverpool Tate Art Gallery today. To bed about 10:30.

Wednesday - May 25, 1988. London (Chelsea Flower Show). I'm wide awake at 5:30 - possibly concern on oversleeping and missing getting to the show at 8 - but more likely with mind on the house with the letter from yesterday. Juggle figures every way I can and still can't figure out any way that I can afford to live in the new house with the cost overruns going on. Shower and clean up - stop in the dining room to possibly get breakfast before going but they are jammed up and obviously no fast service so I go on.

Get to the gate about 20 minutes before 8 - already a line and I am disappointed it is a dark and cloudy day today after the fine sunshine for yesterday's opening day. The first few hours are indeed light crowds and fairly easy to get around - main problem is fighting the low light. None of the outdoor gardens really grab me - like green glass sculptures in one; the Bressingham garden is well done, as is a bee/honey garden. Shoot outside first - then inside which is very dark. Probably most impressed on this trip with various bulb dealers - wonderful daffodil, Pacific Coast Iris, and *Rhodohypoxis* displays, and several displays have fine plants of *Arisaema sikokianum* in bloom. See fine plants of the new golden-foliaged *Choisya ternata* 'Sundance' which I want for our trials (and got a year later). For those of us who laugh at the "Meadow-in-a-Can" market concept - it is taken even further here with a "Bonsai-in-a-Can" - seed and supplies - wow! Have this feeling of enormous disappointment in my failure in getting good plants back for our collections - there are so many here - why is it so impossible?

Have a fish and chips snack, spend too much money on catalogs, find many used books I would love to have including one on Conifers by Veitch, and one on Jekyll - but just too expensive; also check a copy of Bean finally and learn the largest *Cercis racemosa* is at Borde Hill which I visited last week - drats (sic)! Finally give it up about 11:30 and leave - kept thinking I would surely run into someone I knew - likely on the public days on Thursday and Friday I could.

Back to the hotel and settle into typing and get completely caught up in the log to the present. My big need is to make the airline reservations - badly procrastinating on that - also need to call home and see how things are there. Decide to go check mail, see the Chelsea Physic Garden and sit in a park and work on editing Don's thesis - pack up a bag of things needed and head out - the tube to Leicester - and disappointed that there again is no mail for me - isn't anyone of the group I asked to write going to? Decide to walk from the Covent Garden area to Chelsea - with a very mistaken idea of how much distance is involved. It is a long walk to Chelsea - by the flower show in full swing and envious of the sunshine the visitors today are enjoying.

Then on to the Chelsea Physic Garden (oldest botanical garden in England - strictly private until recent years) for my first visit - some interesting plants - the oldest and largest olive, *Olea europea* in England (25'H) the most unusual. Others - a *Lauris nobilis* (35'H), *Koelreuteria paniculata* (1850, 35'H, 50'W, 36"D), *Styrax officinalis* in full bloom espaliered on a brick wall, magnificent clump of the

perennial *Roscoea cauteloides* - a genera I've got to learn more about after this trip. One of the more interesting historic features in the garden is a "rock garden" - created by Sir Joseph Banks in 1772 with stone brought from Mt. Hecla in Iceland - considered by some to be the first English "rock garden". Then a long hike at random across town - by the time I get to the park I'm exhausted - sit on the park bench and go to sleep rather than work on the papers I've brought. A beautiful warm, sunny afternoon and a delight just to rest on the bench. Go to the Green Park tube and head back to the hotel by about 9:30. Watch TV awhile and to bed.

Thursday - May 26, 1988. London to Northwest - Hidcote and Return. Have an "empty" day of waiting around London to meet Marion tomorrow at the Chelsea show - so have decided to do a circle out into the country and return. Head out the A40 yet another time to a National Trust property called Grey's Court which has a turf maze I want to see - have to circle all around the area before finally finding a signpost which takes me into it. When I get there learn it is not open until 2 PM - hate to waste all this driving when I just want a single quick shot of the maze so go to the curators house to ask permission. The lady is uncertain - calls up to the owner for permission and he is busy with Lord Snowdon who is at the property to do a fashion shoot for Vogue magazine. In spite of the conditions - they have me come to the house and I see Lord Snowdon in the car making a phone call as I pass. The owner walks me through the entire garden telling me bits of history - showing me the oldest wisteria vine in England in a courtyard - and I finally get my shot after all - just as the gardener finishes mowing it. Most gracious people.

Head on toward Oxford - through town and to Bleinhem which is nearby. Unfortunately it is a very hazy, cloudy time - not good for the distances involved in this vast landscape. I walk all over the property getting my feet thoroughly soaked in the process. It is a magnificent property and just regret the light is so poor - low light is one thing - a misty, haze yet another. Start to leave when I see a sign for a cafeteria at the garden center so stop there to eat. A modest lunch of soup and cheesecake and hot tea - filling and satisfying. A brief run through the garden center which is not that remarkable.

Head further north looking for Sezincote - get there just as it opens. The Indian-inspired fantasy architecture is interesting in the greenhouse corridor wall - and at a bridge with a seat and steps in water under it. The garden was originally designed by Humphrey Repton in the early 19th century and features many beautiful and fine plants - with a huge weeping carpinus, *Carpinus betulus* 'Pendula' (35'H, 45'W, 36"D) probably the finest. But an *Acer griseum* (45'H, 22"D) nearby isn't bad! And a colored foliage planting of *Aralia elata* 'Variegata' and *Philadelphus coronarius* 'Aurea' is quite striking.

Again head on for Hidcote nearby - reluctantly passing up a sign in a village to the Ernest Wilson Memorial Garden - apparently this is the area he came from and a garden has been planted with his introductions - well, another day I hope. Beautiful area with numerous picturesque villages. My first visit to Hidcote and it is even more wonderful than I expected - feeling it probably surpasses Sissinghurst in many respects. Developed by American Major Lawrence Johnston from 1905 onward - it became one of the most original and influential gardens of this century. Originally an open field with no plants - it was carved up into many "rooms" by varying hedges and walls with different theme gardens in each. A superb plantsman's garden - stunning. A little difficult to shoot with so many people there - very nice.

Hungry again so go in the restaurant and have desserts and tea - good. By this time it is late afternoon - the light has gotten better and better all afternoon - and brilliant as I head back to London. Heavy traffic and slow going at times - see a major planting of specimen *Zelkova serrata* trees along the highway at the Oxford bypass I want to get shots of sometime. Back to the hotel about 7:00 - get chicken and drinks and settle in for an evening of TV - enjoy LA Law again as always - and a show on the new Tate Gallery exhibition in Liverpool which is just opening - have got to get up to see the new museum.

Friday - May 27, 1988. London to Wisley and Return. Today the day to meet friend Marion Redd at the Chelsea - want to talk to him about shipping the rugs (as he is actively involved in importing things from Europe for his Charlotte garden shop) and his sister (a travel agent) about my getting air tickets to the U.S. I get up early - leave the hotel about 6:45. Have to move the car from the hotel back to "my" residential area. Then take the tube to Sloane Square - stop for a donut and tea - then on to the Chelsea area. Concerned about how to catch him as I don't know at which of the two gates he will arrive. Wait at the north gate until 7:50 - then run to the other gate (about 4 blocks) and see that he's not there - then back to the first gate at 8:05 - and still not there. Realizing that Marion is always late for appointments (and when with his sister Barbara, he is even later) - I hang around until 9:30 circulating back and forth between the two gates until exhausted - and finally give it up and return back to the hotel. Waited around London an extra day and all the effort to try to catch him to no avail - so quite discouraged.

Back to the hotel - missing breakfast by 15 minutes. Must make a decision on what to do about the air tickets - so many alternatives - do I go from Paris (where I have to return my car) to make it easier?, or from London which is probably cheaper?, try to take plants?, which airline?, etc. So head out to a travel agent not far away. The Paris decision is easy, as the best one-way fare from there is \$900! Kuwait Airlines is cheapest but booked - finally get a ticket on Virgin Airlines - a hard decision as I would like a time to take plants through inspection at Kennedy and that just doesn't seem possible. End up with a Newark connection which means that any plants taken must now be somehow gotten back to Kennedy for quarantine inspection which adds yet one more complication to my life.

After all this I want to get out of the city today for a bit even though I had planned to edit Don's paper to get it in the mail. Head out to Wisley where I want to buy a white *Cercis*. The parking lot and garden is packed with the Chelsea season gardening frenzy and all the foreign visitors in England for the show. Spend an hour in the garden center and the bookstore and don't even get into the garden. So many things I want - but settle on just two choice items - the *Cercis chinensis* 'Alba' and *Tetracentron sinensis* (both of which are among the few losses I have on the things I hand carry back to the states at the end of the trip). Drive on down to the town of Guildford to try to

find the noted historic Jellicoe roof garden. Wander around lost - find an information office to get directions - with them I go to the store and discover the garden is now closed and falling into ruin - can see it through doors and other windows and try to photograph the best I can.

Back to London, and decide to do something different and go down to Piccadilly Square and just wander and take in the sights of the city evening life - perhaps a movie. As I'm walking along I am astonished to see Marion walking ahead of me looking in windows! So I come up behind and make some rude comment about Carolina and Charlotte and trash tourists giving the U. S. a bad name in Europe. Turns out I was right - just not patient enough as he got to the show 3 hours later than scheduled (typical "Marion time"). His sister and mother are shopping and we all visit a bit - good to see "home folks" after such a long period out of contact. They are on a zooming trip (typical of Marion) so only a little visiting and they are on their way.

Saturday - May 28, 1988. London to Shrewsbury. Breakfast and finish packing - a fairly major job after being settled in the room for so many days. I still cannot see how I can possibly get the rugs in with everything else when every bag I have is already full. Down to the car and pack - now the back seat is full as well for travel and no way to keep things out of robber sight in the trunk. Yet another drive out the M/A40. Fairly heavy traffic for this hour on a Saturday morning as this is a bank holiday weekend and the public is out in force. I seem to have a great amount of chest, lungs, nose congestion which worries me - probably nothing but after all this trip and agony I don't want to die before getting back to Raleigh to see the arboretum again. Through Oxford stopping to photo the Zelkovas seen two days ago. On west - a traffic jam waits as police and ambulance clear a truck accident on the road ahead. Through Arlington - an ancient Cotwold town of great beauty with the stone construction - all yuppyized and packed with people taking in the sights.

On to Barnsley House which Marion recommended last night - no crowds here as I go through alone. The home dates from 1697 with a modest size garden developed by noted writer and lecturer Rosemary Verey since 1960. Very well done, interesting plants, plants are well labeled, and well maintained. I'm frustrated that after a morning of sunshine in the drive - the sun now disappears under clouds. The vegetable/fruit garden is rather amazing in its unbelievably intricate detail; the Laburnum arch (at peak bloom) and alliums underneath are wonderful, the sheep sculpture carving is fine though a bit bizarre.

On west struggling a bit to get through/around Gloucester without going through the center - and then on to Westbury Court Gardens a few miles southwest of the city. A reconstructed formal Dutch/French garden of pools, parterres, and hedges - small and easy to take in quickly but very nice - little of the formal garden design history of England in the pre-1750 period still exists after Brown's rampaging transformations. Planted with only plants used before 1700 - the old fruit varieties are especially interesting. Beautiful plantings of *Lilium pyrenaicum* and *Muscari comosm* 'Plumosum' in bloom. Have a long frustrating wait to get two women out of the parterre shot - they hunt and study the guide book endlessly in an area where there is nothing to see. A spectacular old evergreen *Quercus ilex* with gnarled trunk is fascinating.

Try to take a shortcut back to the main road by cutting through an area of tiny winding local roads - just as I'm saying to myself there wouldn't possibly be any traffic of concern on these narrow roads - a huge Lincoln Continental rounds a curve and heads for me - so much for theory! Also concerned about gas - the gauge is blinking on every curve but make it to a place OK. On to the little town of Ross on Wye (which sounds like it should be a sandwich order in a deli to me) - park and go into a little restaurant and have a fine meal - Cod, baked potato (great with butter after all the fries lately), vegetables and an honest-to-goodness pitcher of water - a rarity in England!

Drive just a little further on heading toward another garden when I see a garden center that I just have to stop at - has been difficult passing various ones by - but this is just too good not to stop - Wyedale Garden Center - one of a national chain with this one receiving awards for its excellence. A most productive stop - through the building supplies section; into the garden center itself - everything a center should have down to a restaurant. Take many photos and would like to do an article for a trade magazine on the place - but that would take an interview to get the info needed and not my style. I'm most fascinated by an area of Italian-grown topiary figures - a parasol and 4 girls of privet about 4' high for sale at \$3,500 - amazing. Excellent display gardens along the main road showing plants for sale in landscape combinations - most pleasing is the use of a white-flowering clematis growing through the branches of a *Cercis siliquastrum* tree also in flower with purple flowers.

A winding drive on to Hergest Croft Gardens - 50 acres of fine rare plants developed from 1896. Am doubtful about the visit as it has been misting/raining and is very dark - and will it be any good? Though disappointed it is too dark to really do much with photos worth anything - the plants are wonderful. Some choice plants, and so very sizeable ones as well. At the very start I'm fascinated by finding a variegated akebia at the house. Later as I'm leaving I talk to a guy who I think is running the garden plant sales - turns out to be the family owner of the property. Ask him about the akebia and he was not aware of it. Many highlights - *Castanea sativa* 'Variegata' (45'H), *Acer japonicum* 'Aureum' (14'H, 18'W), *Acer palmatum* 'Ribesifolium' (25'H), *Fothergilla major* (11'H, 8'W!), and a beautiful pink flowering *Deutzia X elegantissima* 'Rosalind'. Leave having not even gotten to the 30 acres of rhododendron woodlands adjoining the main property and really not even through the house grounds well.

Head on - very pretty country all day - in this area quite hilly to small mountains with grass and trees in intermittent patterns. Finally on to Shrewsbury where I plan to spend the night - drive all over and can't find a B&B with TV - in fact see very few of any kind. Go on past the city and pick a place on a country road - the room is fine; the couple "earthy and basic" but nice. I study the garden guides and try to plot a route/schedule for tomorrow and think I've got a pretty good one - unfortunately they call for clouds and rain throughout the 3 day holiday. Also a little concerned about film supplies now that I'm hitting 3 or 4 places a day - can't stay down to the "roll a day" schedule I've tried to keep through the trip - hope there will be enough without additional purchases. Get the computer out and work on the log.

Sunday - May 29, 1988. Shrewsbury to Wales. Awake and shower - feels good to be thoroughly clean again after several days. Go downstairs - a very fine breakfast with cereal and everything - the cheapest place I've had in England and very nice. The man is either an avid gardener that has gotten badly behind - or bought a place of someone who was - little greenhouses all over the yard - beds of all kinds, fruit, vegetables, flats of seedlings, greenhouses of fuchsias, etc. - and all going thoroughly to seed. As I load into the car I count the film and find I have only 20 rolls for my last 20 days - which means I'll probably be 20 rolls (\$150) short - yipes!

Drive perhaps 20 miles to the Stapely Water Gardens - even though a Sunday morning the cars are rolling in and an incredibly busy place. Combination garden center and entertainment vacation center. The garden center is amazing and wonderful - everything in addition to a complete range of things for pools and water gardens (considered the largest and finest display of aquatics and associated products in Europe). Pay to go in the lighted, musical fountain room - tacky, tacky, tacky with white plastic Christmas trees and a type of dancing waters display. Go through everything and enjoy it. Also go through the Palm Court - which is even more tacky - shark tanks, "man-eating" piranha, Italian water garden, etc.

Head on to Jodrell Bank - want to see the massive new tree plantings which I read about in a garden guide. The enormous radio telescope is very impressive looming over the area. The garden is less impressive with young plantings and very few things labeled - most intrigued by the model of the solar system showing relative sizes and distances of the sun and planets with the sun near the entrance (about a foot in diameter) with smaller planets hundreds of feet apart showing the vast scale of the solar system - would like to do a version of this display at the arboretum in Raleigh. Go in the science museum and wait in line for the planetarium show - delayed by an overlong lecture by the local UFO society. Show is interesting and later a quick tour of the museum and displays - some fine holographs (Mickey Mouse the best), a light mirrors/prisms display, a mirror illusion allowing you to shake your own hand, etc.

Debate a trip to Tatton Hall nearby - but the bank holiday crowds are heavy everywhere and decide with all it has to offer it will be jammed so pass it up. Go back to the main roadway and go toward Liverpool. Wind my way around and find the University of Liverpool Botanical Garden at Ness (Ness Gardens). A wonderful garden - rock garden, woodland areas, heather garden, shrub collections, azalea and rhododendron woodlands, perennial borders - unfortunately the sun is now gone and very dark for poor photos. The most interesting individual plants included the original plant of *Pieris formosa forrestii* (12'H, 14'W) grown from seed sent from Western China by George Forest; a spectacular brilliant red-flowering *Embothrium lanceolatum* 'Norquinio Valley' (if I could wish for the power to transform any plant into one adapted to use in Raleigh - this would be high at the top of the list); a bright gold sheared hedge of *Buxus sempervirens* 'Aurea'; and a plant which seems to be a variegated *Phellodendron* - which I've never hear of existing (typical of the 8th Law of Botanic Gardens which firmly states that the plant you are most interested in will not be labeled - and it isn't).

Finally begins to rain just as I reach a fine Laburnum archway with flowers in good shape. A woman with an older woman in a wheelchair take shelter under the arch as protection from the rain which gets to be quite heavy. Feel very sorry for them trying to keep the older woman dry with two umbrellas and one over her legs. The rain continues and continues and I finally give up and make my way back through the garden to the car park - where it tails off and quickly stops after I am in the car. But decide to give it up for the day and leave.

Undecided as to what to do at this point (5:00) - decide to try to go into Liverpool - find a room for the night and then see the new Tate Gallery which opened to such publicity and acclaim this week. Go north into town through a very deep tunnel under the bay. Enter further inland in the city than expected - drive around and around for a long time not seeing any hotels or B&B places - and much poverty and empty buildings. A sharp contrast to the boom seen in London and the south where everything is being renovated and selling like mad. I'm quite discouraged - don't know what to do.

Decide to head down to the waterfront - find the newly redeveloped complex and park - a combination of shops, museums, apartments, etc. in huge old warehouses around a central rectangular water harbor. Turns out the Tate Gallery is still open for the evening so I go ahead and do it - three galleries are open - the Rothko collection done specifically for the Tate, a show on Surrealism, and an exhibit of current British sculpture which has many fine pieces. The rooms of the galleries are wonderful with the slightly arched brick ceilings, the abundance of huge metal fittings, etc. Walk around the complex looking at everything - now the sun is back out in brilliant evening glory and a delight. Drive up the waterfront as I want to see what has become of the 1984 Liverpool Garden Festival Site. It seems in fine shape and I regret that it is fenced off and not available to go into - drive around and finally decide to just leave and head toward Wales where B&B accommodations will hopefully be easier to find and cheaper than I've had with my lack of success in Liverpool itself.

Back through the tunnel (passing an oval building in mirrored surface) and retrace my steps - cross over into Wales - see a sign for a B&B farmhouse - 3/4 miles off the highway via an extremely narrow and winding road - surprised to find a room still available at this very busy holiday time (an actor just canceled his reservation) - thick walls with low doorways in the house. It is high on a hill with wonderful view across the bay to Liverpool in the distance. I set up to type but last night did not have my coverter plug to recharge - so as I begin to open it up it shows low on the battery and I have to quickly close down before it collapses - frustrating as I am getting further and further behind. This far north it is still light at 9:30 PM as I go to bed.

Monday - May 30, 1988. (Bank Holiday) Wales to Dublin, Ireland. A cold night as the radiator is apparently not turned on in my room As always, the feather comforter so common in Europe is too hot for me, and too cool without it. Down for breakfast - again a large farmers meal - enjoy view through a specially constructed pair of door wall windows out over the distance and bay. Last night coming in I saw the Welsh College of Horticulture with beautiful grounds on the main highway so I backtrack a bit to see that. I walk the grounds and

enjoy the displays and marvel at what a fine facility it is - a student sees me from a dorm room, calls a secretary who checks to see what is going on - calls a faculty member who comes to greet me. We have a great talk, he takes me to meet two others - who show me through the garden center and greenhouse operations which I would have missed totally without the accidental encounter .

Very much a hands-on operation with students building and maintaining all the gardens, running commercial enterprises on the property - garden center, florist shop, fruit and floriculture greenhouses, orchards, etc. Most popular curriculum area is in garden center management with many jobs available. Students do a year of class and campus work training - then work in the industry for a year and come back for another year on campus - well trained. The most memorable part of the discussion is that of the financial pressure on the school with ever decreasing government money available - most classes must be financially self-supporting so minor crops and unprofitable items are disappearing from the curriculum. In the future it is felt that the faculty will even have to cover their own salary from student classroom economics. In many ways not that far removed from directions being experienced in American academia. The whole thing makes me very aware of just how much I have missed professionally during this trip avoiding such contact because of my shyness. Really enjoy my visit with them.

Leave and head on west - by the most picturesque and beautiful castle I've seen - then on to Bodnant and the bright sunny morning changes to clouds and it begins to rain as I arrive. An enormous crowd for the holiday - have to wait in line to get in. I'm excited as the world-famous Laburnum walkway is at peak bloom with a sheet of solid gold flowers overhead - but packed with people underneath sheltering from the rain in a replay of yesterday. Finally give up in hopes of getting a shot under those conditions and go out on the grounds - do only the three terraces in front of the house - so crowded it takes long waits to get each shot. Then back to the arch and finally settle for angled shots with people on fringes in the distance. As I leave the sun comes out yet once again - getting frustrating.

On to a little town at the entrance to Snowdonia National Park - very touristed. Have lunch, leave and go into the national park - little towns are packed with vacationers and hikers. Spectacular barren rocky peaks on the drive - but a continuous highway curb, sidewalk, and stone wall prevent pulling over for a shot. Stop at a hiking center for a bathroom and unsuccessfully try to call Tracy again - really need to reach her. Hikers all over the mountains - tiny specks in the distance. Head on west to Holyhead - as I get to the docks area - see the Sealink ferry goes at 2:45 and it is exactly that time - next one at 3:30 AM! Luckily there is another line which makes the route cheaper and I book on it for a 5:30 sailing. Back into town - get drinks, candy and a newspaper - back to the dock where I sit in the car and read until time to load.

Go to a lounge which has chairs and tables so I can work at the computer. Good place to work and I am getting along well - hoping to get completely caught up when they announce over the intercom that the bank will close in 10 minutes and I need to exchange money before we land so close down and go do that. I'm thankful that we have such a good crossing - this is a normally rough area as seas squeeze through this narrow point between England and Ireland - and I remember the crossing with my tour group several years ago with waves over the top of the ship - sick people everywhere and water coming through the doors and running down the stairwells. Out to the deck and can see land off in the distance in several directions ahead - the sun shining under the clouds creating a brilliant mirror-like spot on the water ahead. Pack up for landing - back down to the car which is so tightly squeezed by a car next to it I have to go in through the window. Easy exit - no customs stop entering Ireland and I am out in the docks area.

It is just at dusk at 8:30 with no idea where to go. Follow signs to center of town and generally try to head south - finally coming to an area of B&B's - but in a rather toney area and I'm concerned about the likely price. Would like to drive around and try to scout out a possible cheaper place but late and I'm tired. Go in one and it is more expensive than any British Isles room I've had but go ahead and take it. A crunchy/granola type of family - is being rennovated in eclectic yuppie decor of 10-20 years ago - but neat and crisp and clean. I'm on the top floor - plain white walls and brown carpet - get in and realize I've left my spare battery in the car and don't want to go down again to get it so give up the idea of typing - settle in to reading the big Sunday Examiner which I found on the boat just before getting off.

Tuesday - May 31, 1988. Dublin to near Cork, Ireland. No choice but to sleep under a comforter as it is too cool in the room to go without covers and no sheets or blankets as alternatives. Awake early in the AM with my mind busy with all the problems which I feel I face at present - wide awake and can't sleep - worry to the point my stomach hurts which continues through the morning. I finally get up about 7:15 take a shower and get around; head down for breakfast about 8. A good meal in an eclectic dining room with all kinds of art framed on the wall - a view out the window to a new garden being created there by eager urban pioneers. Get some rough directions on how to get out of town and head out on the N11 going south. A short drive on a new freeway carved through the suburbs - rock walls and new landscaping along it.

To Powerscourt and get there just as it opens - intermittently bright sunny and heavy clouds. Powerscourt is perhaps the most famous and noted of Irish gardens with spectacular views over a hillside terraced formal garden to a view of Sugar Loaf Mountain in the distance. Probably the best "borrowed landscape" garden in the world. Major building was conducted from 1840 through 1875 (sadly the home burned out and remains a structural shell today) with continual planting to the present. Outstanding specimen plants from the 1890's with magnificent Eucalyptus, Cupressus macrocarpa, Drimy winteri, and one of the finest collections of mature conifers in Europe. There is also a unique long avenue of mature bizarre Monkeypuzzle (Araucaria araucana) trees. A "Japanese" garden from 1908 really isn't - but has fine specimens of uncommon plants - many fine species Magnolia, etc. As always it is quite wonderful - walk the grounds in euphoria - few other places in my travel experience give the feeling of space and grandeur of this magical hillside.

Next goal is the Kennedy Arboretum along the southwest coast. Study the guides as I go along and decide to skip Mt. Usher Garden this time as wonderful as it is and have pangs of regrets as I go by it - but with film and time tight and two previous visits it is best to cut it this time (A 20 acre Robinsonian garden from the 1880's with magnificent collections of choice plants - the best plants garden in Ireland).

See in the guide another garden not far from the Kennedy one so head there first. Finally to Weyford - through town and follow signs to Johnstown Castle and the Irish National Agricultural Museum which is an old estate turned into a state agricultural research center. Walk the grounds - dodging around two busloads of school children about 8-10 years old during the visit. A beautiful lake with an extraordinarily long dam to create it surrounded by specimen plants. Go through the museum of the history of Irish agricultural equipment and farming techniques which is most interesting - watch the children maneuver a classmate in a wheelchair up and down the stairs - not a barrier-free area but not about to stop them - good for them for their concern for their classmate and determination. Circle the lake, unsuccessfully try to get in the noted walled garden of 1844-51 (locked), and finally leave. Many fine plants but the most noted is a large shrub Fuchsia about 10'T X 15'W in full bloom - remarkable. Back in town and I go to a grocery store and buy a roasted chicken and drinks for lunch.

To the Kennedy Arboretum which turns out far better than I had hoped for. Unfortunately, the weather doesn't really cooperate for photos - with rain and dark clouds through the entire visit. Go in for a long audiovisual presentation on the place - then do a walk around the 2.5 mile circular road featuring the main collections. It is done right - laid out with space for maturity of plants, good collections, beautifully labeled and maintained - I'm most impressed. It covers 480 acres and was founded jointly by the Irish government and Irish American interests in memory of our U. S. president. The intention is to form a comprehensive collection of all trees and shrubs that can be grown outdoors in Ireland - and they are well on their way to that goal. Surprised that the shop at the restaurant doesn't sell anything related to plants or the arboretum. I see a sign to a view point and drive up a mountain which gives a beautiful view in all directions over the surrounding countryside.

During my map study this morning I decided while here in Ireland might as well really go completely around the island and pick up most of my missing gardens - distances are not that great and with the high ferry costs to just get here it makes sense. So head southwest toward Waterford and Cork. I'm very sleepy from all the chicken at lunch and have a hardtime staying awake as I drive. As I go through Waterford pull in to the noted crystal plant - but it is 6 PM and they have already closed. Continue on my way - planning to make Cork. But I see a sign for a cheap hotel with TV and bath which takes a credit card (rare) as well so screech to a stop. Bring my plants in and water them as they are getting dry and leave them in the tub to drain. (Hotels must really love horticultural travelers!).

Wednesday - June 1, 1988. Younghai to Galway, Ireland. Cool in the night with a light cover - amazed at the extreme water pressure of the hot water shower. No breakfast as it is \$10 at the hotel and just can't afford that. Head down the road and stop in Cork about 9:30 wanting to get money at the bank and something to snack on. Head on - slower country roads as I go along with curves and narrower widths. See a home garden I like and turn around and stop to look at it and find a wonderful "folk" garden with "sculptures" of a ship and a windmill made of painted burlap - the woman is hard to understand with a heavy accent but she is surprised and happy someone stopped and noticed the garden - and apologizes for the weeds. Her husband had a medical accident and could no longer work at his job - and in forced retirement developed his hobby of creating this little garden which she is maintaining after his death. A little later at another house I see a topiary hedge sign and stop to photograph that and then find a unique and amazing topiary "hitchhiker" sitting on a wall nearby with hand and thumb out trying to "catch" a ride with "legs" dangling over the wall.

Continue on to the town of Bantry to see Bantry House there - but am running late and I am starved from the lack of breakfast -so stop downtown and go in a cafe - have a soup, tea, and apple pie with cream good. Then on to the house which turns out to be hardly worth the stop. In the Georgian house there are some very fine things but jumbled and an eclectic mixture. Nothing much in the garden worth seeing - a wisteria arbor recently replanted - an overgrown Italianesque terraced hill (created in 1840) which gives a good view out over the harbor (steep staircase of 100 steps to the top) but really no plants of any particular interest. There are attempts to restore the garden and construction crews and building materials are everywhere - so perhaps in a few years it will have different appeal.

Continue on - see Garnish Island (LInacullin) in an inlet and am tempted to stop as the sun is shining and the garden seen on an earlier visit is exceptionally fine (37 acres of choice tender plants protected by the island surrounded by water of the protected bay - with a formal 1910 Italian garden area surrounded by woodland areas) - but decide against it. Further along stop in Kenmare to ask directions to Derreen Garden but learn it is only open on Sunday, Tuesday, and Thursday afternoons - and can't wait around until tomorrow afternoon so head on. Frustrating as my guide says it contains the largest specimen of *Cryptomeria japonica* 'Elegans' (1870) in the British Isles - one of my favorite plants and would be a treat to see a specimen of 4 major trunks with one reaching 60' in height. Other features are a grove of New Zealand tree ferns thriving in this mild climate; and collections dating from the 1870's made by the owner when he was Viceroy of India. This southern Ireland circle tour is turning into a wasted effort - the two "new" (to me) gardens I planned to see were worthless or closed.

Enjoy the remembered drive over the mountain and the national park area south of Muckross - many tour buses are stopped for photos of the mountains and I do also. Interesting to see how the *Rhododendron ponticum* has naturalized so thoroughly in the area - and how hard they are fighting it with herbicides - a losing battle it seems. In bloom and showy - but it totally commands any area it gets established in. Again debate stopping at Muckross Gardens - another magnificent one but time and film cost make me decide against a

repeat visit when I already have good shots. (A huge house built in 1843; original plantings from the 1770's; magnificent specimen rhododendrons [to 40' tall X 60' wide!]; and total land of 11,000 acres given to Ireland in 1932 and today the nation's largest National Park).

The town of Killarney is a packed tourist mass which I quickly skim through. The rest of the afternoon is just a mileage drive to go as far as I can before stopping. Finally into Galway about 8:30 and stop at two hotels and check prices hoping for a TV - but prices of \$120 and \$85 are just too much so I settle for a B&B nearby.

Thursday - June 2, 1988. Galway to Dunglow, Ireland. Leave and head north - this is a day to look at remote coastline and abandoned houses on the wild, windy northwest coast of Ireland which gets all the bitter winter storms. An uneventful morning of travel - through some town where a catholic pilgrimage shrine is located - an interesting glass room on the side of a church. At Sligo I'm impressed by a huge cairn on top of a mountain by the city and would like to climb to see it someday; and a flat topped mountain which overlooks the city. Go on to the Slieve League peninsula where I spend the afternoon.

I'm fascinated by the peat mining for fuel which I see all day and stop numerous times to shoot it. In this cold, wet treeless area, mosses and sedges of many kinds grow and die annually. The high water table and cold temperatures stops the organic decay at the point of peat - and it accumulates over the centuries to depths of many feet. Drainage canals are dug to remove the water, then bricks of the peat are cut out with special tools and the peat bricks are bagged and taken to the villages where they are dried in the sun (what little there is in summer) and eventually burned as fuel for heating and cooking in homes.

Work my way to the far west point of Malin More where I find a spectacular tower on the point. Sunny when I park and raining 5 minutes later - catching me in it without rain jacket or umbrella on my way to a historic stone tower about 4 stories tall, square, with windows on various levels - good repair and spectacular views up and down the coast. Back to the car, stop and buy some groceries, and as I head on see another tower in the distance on an even higher and more spectacular cliff.

Stop in Glencolumbkille at a tourist information center and get guides and maps to the area - drive over to the hillside (small mountain) where it is located. I start up and when the wheels start slipping I give up and start to walk up the hill. Decide it might be driveable after all and go back to get the car - and goes up with it spinning, slipping - occasionally stopping and needing to back up and run to get over areas. As I start to hike further up the hill - discover I am on the wrong hill - so drive back down to where the road takes off to the tower and walk there in a 20 minute period of rare sun. I learned in town the stone towers formed a network of 12 stations built in 1804 as warning for a potential French attack by sea (an early version of an advance warning system - when a ship was sighted torches were to be lit. As one fire was seen from another tower the signal was passed along quickly) - so they are probably government protected as historic sites. This one is in better repair and although high on a cliff - the view from it is not as fine as from the other lower one I feel. But the entire region is spectacularly beautiful - huge cliffs; pounding waves and surf; green, green, green grass everywhere; dramatic clouds; no people - wonderful. Would be a great place to find an isolated place (with electricity of course!) to settle and write. Back to the car - rabbits bounding all over the hillside with the sheep. Carefully down the hillside as I don't want to slide over a cliff and worry the oil pan will get ripped off the bottom when I scrape rocks.

Head back across the peninsula to Carrick where I fill up with gas (and the girl can't find a MasterCard form and decides to put it on Visa instead - I wonder how that will turn out in accounting?). South to Teelin and then to Bunglas which is a viewpoint overlooking the highest seaside cliffs in Europe with nearly 2,000 feet of sheer vertical drop - see hikers on the ridge trail as tiny specks before they disappear into the mists of the hill. A spectacular view and would like to do the highly recommended hike someday. I have to bother a machine operator who is cleaning a ditch on the entrance road and he has to move for me each time we go by. Back to Glencolumbkille and then east to go over the Pass of Glengesh. As I get to the pass the light is good and I go running across a hill to try to get a photo - which I get after the clouds have shaded the valley - sink into the reed/sphagnum bog and soak my feet.

After that mainly making distance again - finally stop in Dunglow for the evening about 8:00. Stay at a hotel though it is really out of my budget - but LA Law is on tonight so that helps justify it (but I mess up on schedule and miss it after all!). I get out the computer and catch up on the last two days - will start another log file which will complete the trip - down to 18 days now. Very badly needing to get hold of someone back in Raleigh to make my U. S. airline reservations from Newark to Raleigh. Tracy seems out of town and hesitate to call the office to have them do it - but almost must do something tomorrow. Also tomorrow I head into Northern Ireland through Londonderry which is a war zone hotspot - so hope I don't have any troubles.

Friday - June 3, 1988. Dunglow through Northern Ireland to Irish border town. Up and head on east and north - decide to do a circular drive through the northern-most part of Ireland to see if there is any spectacular coastline scenery. A nice drive and as always in Ireland the greens are incredible - winding in and out of ocean views, sheep, little villages, etc. There are no fixed goals for the drive other than a stop at the northernmost point - just seeing the countryside - and wonder if I am procrastinating a bit to delay entry into Northern Ireland as much as possible with subconscious fears of potential danger in the unknown situation there.

Finally back to the border and cross over in the town of Londonderry. The most fortified border barrier I've seen in all my travels with bunkers and barbed wire. No real problems in the crossing however with relatively little paperwork and questions - but warnings and cautions about things to avoid and to exercise appropriate cautious behavior. My main goals in the country are to see probably the most famous tourist attraction in both of the nations of this island - the Giant's Causeway, and three noted gardens in the southeast section of Northern Ireland.

Stay on major highways, a fast bypass of Londonderry and on to the north coast where the Causeway is located. Today it is a National Trust Property - and as always with such properties - it is beautifully set up, good museum and interpretation, well handled. You cannot see the formation from the parking lot and visitor center on the cliff above the coastline - a nice walk (or tram is available) down a road and around a cove to the noted geological formation. Pillars of stone which crystallized in vertical formations have worn or broken off at varying heights creating a region of precisely shaped hexagonal "stairs" 1-2' wide which undulate and gradually disappear into the sea. The foremost such geological formation in the world and quite beautiful and exotic looking.

Very uncertain about what to do on accommodations - drive south looking for B&B's, take a major highway throughway through Dublin not wanting to get off into the city without information on which areas are relatively safe or not. A strange feeling throughout the two-day stay - everything looks so "normal", peaceful, beautiful - somewhat surrealistic that an area which appears so like other regions of the last several weeks can have such explosive danger hidden just under the surface. Drive and drive - never seeing any hotels or B&B - and on reflection it is logical that in an area where one doesn't know who is dangerous or when something could happen - that one would not welcome strangers into one's home. Drive all over the southern part of Northern Ireland near the gardens I want to see tomorrow and finally give up on finding a room and cross back over the southern border again back into Ireland and eventually find a room. For awhile it is tempting just to go on back to Dublin - not that far away really and just go ahead and complete the circuit of going all the way around the perimeter of Ireland on this trip.

Saturday - June 4, 1988. Northern Ireland Gardens to Scotland. Up for breakfast and again head back into Northern Ireland for the day. Go through the town of Newry (a week later shocked to see in the news the bombing murder of a group of people during a road race in a public holiday on the very city road I'm traveling on today). On to Castlewellan National Arboretum - for many, many years a major horticultural travel goal of mine - noted as "one of the most interesting arboreta in the British Isles". It was originally planted in the 1870's by the 5th Earl Annesley and today the main plant collections cover an area of about 80 acres. It much more than lives up to my high expectations - one of the finest experiences of the entire 5 month study leave.

Beautifully maintained, excellent labeling, magnificent plants - I have no complaints here except for lack of time. With recent year record freezes in Cornwall and other mild areas of England destroying or damaging marginal materials - the undamaged collections of Australian, New Zealand, Chilean, and South African woody plants here at Castlewellan are probably now the finest specimens in the world outside of their native regions. It certainly must be the best collection in the world of Southern Hemisphere rare conifer genera with both a wide range of genera present and large size of the specimen plants.

One of my goals is to see the original specimen of *Cupressocyparis leylandii* 'Castlewellan' which originated here. This bright golden cultivar of the Leyland cypress is widely grown in the British Isles - and is also produced in the southeastern U.S. - but in the heat of our region it loses the golden color and becomes a pale yellowish green plant of no particular merit. Hunt and hunt but never find a large plant - finally come across a collection of various Leyland cypress cultivars which has one in it - but the collection is recent and none of the plants are of much size (6-10').

Finally drag myself away as there is much to do in this one frantic day. A short drive of about 20 miles brings me to the second of the trio of fine gardens in this region - Rowallane. The 200 acre garden was created during this century by Hugh Armytage Moore and is noted for its exceptional collection of woody plants. A number of fine landscape plants originated in this garden - of which perhaps the best known is *Viburnum plicatum* v. *tomentosum* 'Rowallane' - and it is a thrill to encounter the original specimen in the walled garden in full bloom. The garden is also noted for the remarkable transformation which was engineered here over the decades. Looking at the densely wooded landscape with rock gardens, huge specimen plants, long allees, the lake, etc. - it is hard to imagine this as an open wind-swept plain originally described as "a wasteland of rock". That is certainly part of the miracle of horticulture with man's ability to dream of a garden and encourage plants to grow in ways to fulfill that vision.

Another 20 mile drive brings me to Mount Stewart - the third of the noted gardens of Northern Ireland. The garden is favored by the exceptionally mild climate of the peninsula it is located on - with water protection to both the east and west. A bit younger than the other two gardens - Mount Stewart was begun in 1921 by Edith, 7th Marchioness of Londonderry - and was transferred to The National Trust in 1955. She was quite a society figure of the London scene of the 20's and 30's and the interior of the house is strikingly unlike other British Isles country houses - with eccentric decor of Art Deco and her own sense of dramatic decoration (which carries over into carving and statuary in the garden areas). I didn't record acreage - but a large woodland estate probably in excess of 300 acres?

At the south front is the Italian Garden - including a sunken lawn, twin parterres, unusual stone ornaments; next to it a Spanish Garden with sunken pool and a tile roofed garden house. At the west front is a formal square garden featuring the combination of a perimeter row of 'Crimson King' maples solidly connected with masses of the brilliant orange-flowered deciduous azalea 'Gibraltar' - stunning combination and the best use I've ever seen made of the 'Crimson King' maple in garden design (so strong it is very difficult to use effectively in my opinion).

Finish the garden and though fairly worn out after a frantic day - I decide I should go ahead and try to see the Belfast Botanic Gardens since they are so close by (another 20 miles away. In fact, in a sense everything is close in a country that is only 100 miles from side to side in any direction) - it will likely be some time before I'm back to this area. Head into the city - my map is fairly good and make it to the garden without much trouble. Concerned about possible break-in of the car while in the garden so I carry my computer and most valuables with me and look like a pack mule trudging along. Later, I realize this makes me even more susceptible to being robbed by a mugger who could easily take everything I have. Luckily all goes OK - who ever gets robbed in a garden?

The Belfast Botanical Gardens were founded in 1829 and became the city's oldest public park in 1895. I particularly want to see the conservatories which are of note. The Palm House was built in 1840 - designed by Charles Lanyon and one of the last examples of 19th century cast-iron curvilinear construction. It has recently been restored and is quite magnificent glistening in the late afternoon sunlight. I also want to see The Tropical Ravine - a unique bit of "Horticultural Victoriana" of 1886. It is a glasshouse (designed by Richard Turner - who did the Great Palm House at Kew) which spans a ravine with walkways at various levels within the tropical plantings and waterfalls on the ravine walls. Although the concept was once popular in the late 1800's, supposedly this is the only one still in existence. Not much of particular note in the outdoor woody plant collections - though admittedly I did not do a very studied tour. In and out quickly with considerable nervousness. Big rose garden (too early for best show).

Drive through downtown Belfast - see the crowd control barricades where giant hinged walls can be closed to shut off streets; strange feeling about the entire place - so normal, so abnormal simultaneously. Not sure what to do on my schedule as I don't know ferry schedules - try to find a place to stay here?, go back to Ireland and try tomorrow?, what? Drive out to the port and find I can get a ferry to Scotland with little wait - not sure how easy it will be to find a place to stay there arriving after dark in the evening - but it will likely be easier than finding a place here - so book and head on my way.

The last segment (a short one) of the 1988 European Study Leave will appear in the next newsletter - covering Scotland, the International Glasgow Garden Exhibition, more English gardens, a return to Paris, and the return to the U.S. - and postscripts of the trip. Plans are to do similar travel logs of 1989 U. S. travels in future newsletters.

## **1989 NCSU Arboretum (now the JC Raulston Arboretum) PLANT DISTRIBUTION**

NCAN Short Course and Trade Fair - Asheville, NC - August 12-14, 1989

(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 in recent years, including here the information on plants distributed at the 1989 meeting. Note - the supply of plants distributed at the meeting has been exhausted and these plants are no longer available.)

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 commercial industry. Plants will vary in commercial potential with some having great 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.

\*\*\*\*\* IMPORTANT NOTE - MOST OF THE PLANTS BEING DISTRIBUTED ARE TOO SMALL TO BE PLANTED DIRECTLY INTO THE FIELD AT THIS STAGE, AND ARE TOO YOUNG TO OVERWINTER SUCCESSFULLY UNLESS POTTED (IF BAREROOT), OR SHIFTED INTO LARGER POTS, WINTER-PROTECTED, AND GROWN ANOTHER YEAR BEFORE PLANTING OUT. \*\*\*\*\*

The numbers on the tags attached to each plant refer to the identification number in the listing to follow.

1. *Akebia quinata* (Houtt.) Decne. 'Shirobana' - White Akebia (Lardizabalaceae). Akebias are twining woody vines native to eastern Asia with attractive chocolate-colored flowers in early spring, and large (3-7" long and 1-3" in diameter) fruit which turn purple in autumn and longitudinally split open to reveal seeds inside the hollow structure. In general, only *A. quinata* (meaning five-leaflet foliage) is in commercial trade in the U.S. At The NCSU Arboretum we have assembled "the world-collection" of *Akebia* (on the entrance arbor) of 7 species and cultivars. Various publications often say *Akebia* does not fruit in the U.S. - but our plants fruit prolifically and draw much attention from visitors in the autumn - possibly because of cross-pollination from so many types - or possibly because we have good pollinator insects and a hot summer climate for physiological development of the fruit. Mr. Barry Yinger collected this white-flowered and white-fruited form in Japan and introduced it in the U.S. through the introduction program of Brookside Gardens in Wheaton, MD. As our plant has developed, we have been impressed with the beauty of the white flowers (which show up better against the foliage than the dark-colored species - and also combine well with the species when grown together) and the fruit - and feel it has a place in commercial culture. It will grow throughout NC in full sun or partial shade. Propagation is by soft-wood cuttings under mist in summer.

1A. *Alnus japonica* (Thunb.) Steud. - Japanese Alder (Betulaceae). There are about 35 species of Alders from countries around the world. Although many have valuable features which commend them for commercial use, they have never entered the nursery trade in NC in spite of extensive use in other areas of the U.S., across Europe and Asia. They are generally tolerant of poorly drained and wet, marshy sites; are easy to propagate from seed or cuttings; are fast-growing; have interesting and attractive winter catkin flowers and cones (called strobiles); and fix nitrogen in the roots thus "providing" their own fertilizer in a sense. Japanese Alder was introduced in the 1870's and has long, narrow pointed foliage more handsome than most species on a tall narrowly pyramidal-shaped tree. Coming from Japan/Korea with the same latitude and climatic conditions of NC - like most east Asian species it is well adapted for growth throughout NC. Hilliers Manual calls it "a striking species" and it has been reported to grow to 80' though it will more likely be in the 30-40' range here. Plants are easily propagated by seed or softwood cuttings and it is possible to get 6-8' of growth a year on young plants. Probably the best commercial use is for flood plains, water edges, etc. where few other broad-leaved woody plants grow well - although it will also make a fine specimen in open lawn areas. Plants are in the west arboretum in the southwest corner.

2. *Carex caryophylla* 'The Beatles' - 'The Beatles' *Carex* (Cyperaceae). The many types (over 2,000 species!) of *Carex* are entering the US garden world in the perennials market as a sort of generic form of "ornamental grasses". As a group they are extremely tough plants tolerating heat, drought, cold, etc. with very few problems. This cultivar was introduced to commercial culture at the 1984 Liverpool Garden Festival in England in honor of the Beatles music group origins in Liverpool. A solid-green plant with long, narrow leaves which will reach 2' in diameter with a loose shaggy "unruly" look - it is appropriately named for a music group characterized by their "mop" hair-style. It is remarkably easy and fast to propagate and we have gone from a single plant to over a thousand pots in a year without even pushing to maximum redivision. Clumps are divided and repotted for propagation. It is evergreen and can be grown in sun through shade - and should be adapted for use anywhere in NC. Plants in the White Garden, Lath House, and Mixed Border.

3. *Caryopteris incana* NA 56588 - Blue-Spirea, Blue-Mist Shrub (Verbenaceae). The "blue-spireas" are relatively common in commercial trade and are valuable garden plants useful for their long season of bloom in summer and fall when few other woody plants are blooming, and for their blue flowers which present a relatively rare color among woody plant flowers. Last fall in its first season of bloom as a small plant, we were greatly taken with the floral beauty of this numbered accession with the deepest blue color of any *Caryopteris* we have seen and its very late bloom season - and felt it worthy of further distribution for evaluation and potential use. Plants are easily propagated by softwood cuttings under mist and grow rapidly with few pest problems (whitefly in greenhouse culture seems the worst). They can be grown in sun or partial shade; do best where ample moisture is available; will reach 2' in height; and can be grown throughout NC. Plants in the Perennial Border, Mixed Border and Lath House.

4. *Cercis chingii* - Ching's 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 1984. It has never been available in commercial nursery channels. Last year we had our first good seed crop and have decided to grow a population of plants for further distribution to evaluate and ensure preservation of it by wider cultivation. It has the typical magenta flower color and look of most redbuds - and its most unique horticultural characteristic is that of flowering earlier than any of the other 11 species - typically finishing the main bloom period before our native redbud, *C. canadensis* begins flowering. It also has unusual large stipules on stems with young vigorous growth which are not seen on other species. Its main negative feature is an irregular growth habit and multi-stem nature which few people have found attractive. Possibly more pruning or better training of young plants could overcome this characteristic. Young plants can be very vigorous with 6-7' of growth a year under field conditions with good water and nutrition. We are guessing it will mature at 10-15' height? Very easy from seed with acid scarification and cold stratification for 3 months. Hardiness is unknown - probably useful in zones 7-9 (possibly 6?). Plants are in the west arboretum near the Leyland cypress circle.

5. *Cotoneaster dammeri* C. K. Schneid. 'Stribe's Findling' - 'Stribe's Findling' *Cotoneaster* (Rosaceae). Many cotoneasters are produced in the commercial nursery trade and find use as excellent evergreen groundcovers. We collected cuttings of this cultivar from a beautiful landscape planting at the Scott Arboretum of Swarthmore College in Pennsylvania (they obtained it from Environmentals, Inc. Nursery in New York in 1981). Each year we are more impressed with its appearance in The NCSU Arboretum (now the JC Raulston Arboretum) planting and feel it worthy of trial and production for use in the landscape. Plants stay very flat with ultimate height of perhaps 5" increasing in diameter a foot or so each year. Cuttings root quickly and easily at any time of year under mist. It can be used throughout NC, and like most cotoneasters it will benefit from adequate drainage to prevent root rotting. In the west arboretum in the first walkway area just west of the deciduous holly collection.

6. *Dasylyrion longissimum* - Bear Grass, Desert Spoon, Sotol (Agavaceae - also listed in Liliaceae). About 18 species exist in this genera of Yucca-like plants from Texas and Mexico. They have never been grown commercially in the Eastern U.S. (and very little even where they are native) and as a result, very little is known of their adaptability with some references listing them as Zone 8-10 plants based on their southern desert native habitats. However, a spectacularly beautiful plant in The NCSU Arboretum (now the JC Raulston Arboretum) (unknown sp.) some 5' in diameter came through our record winter of -8F with no injury - so they are worthy of wider trial. Seed for the two species being distributed came from an outstanding plantsman, Mr. John Fairey of Waller, Texas. This species was collected at 5,800' elevation in Dv. Arroya, Mexico (Collection Number - T4M-50-112288). This species differs from others by having four-sided leaves instead of flat, and they do not have prickly edges. With age it forms a woody trunk which can reach 6' in height. The leaves reach 4-6' in length; and the flower panicles are 6-18' tall (yes, that is feet, not inches!). Where it survives, it should be a spectacular plant or it can be grown as an excellent houseplant in a sunny window (pot size will restrict potential plant size). Propagation is by seed.

7. *Dasyilirion* sp. (likely *D. texanum* Sheele) - Bear Grass, Desert Spoon, Sotol (Agavaceae - also listed in Liliaceae). Taxonomy of the various species in this genera is difficult, and at time of seed collection (with flowers long gone) it was impossible to absolutely verify the exact species. As above, this seed came from Mr. John Fairey from the same location given above. As the plant grows, the grass-like leaves will change to typical wide-bladed foliage with the appearance of a long, narrow Yucca leaf with toothed edges. If indeed *D. texanum* - the species has leaves to 3' in length with bloom spikes to 15' tall. As above, it can be used as a house plant. Propagation is by seed. Located in the desert plants collection at the southwest section of the west arboretum - and a large plant in the old grasses/desert plants area of the east arboretum.

8. *Dianthus superbis* var. *longicalycinus* - Korean Dianthus (Caryophyllaceae). An extremely wide-ranging species of *Dianthus* growing from Italy north to Scandinavia across Russia to Japan. The seed of this botanical variety being distributed was collected from the wild in South Korea by the Morris Arboretum in Philadelphia. It is a very beautiful garden perennial to 1' in height with pale orchid/lavender flowers with deeply fringed petals. Plants may be grown from seed or rooted from cuttings under mist. It should be useful throughout all areas of North Carolina in either sun or light shade. Located in the Perennial Border and Lath House.

9. *Hydrangea tiliaefolia* - Dwarf Climbing Hydrangea (Hydrangeaceae - also listed as Saxifragaceae). During the past year, The NCSU Arboretum (now the JC Raulston Arboretum) has suddenly, and without deliberate attempt, acquired an exceptional collection of various types (9) of "Climbing Hydrangeas" for trial. These are deciduous woody vines which climb wood and masonry surfaces by means of aerial roots - and generally produce showy white "flowers" (sepals) in summer. (Dirr - "The best vine!"; Wyman - "there is no better clinging vine".) The "common" commercial type grown in the U.S. is *Hydrangea anomala* ssp. *petiolaris*; with slowly increasing interest in the several forms of *Schizophragma* as even better potential replacements. This summer while at Brookside Gardens in Wheaton, MD, I encountered this "species", *H. tiliaefolia*, and obtained propagation wood for trial and distribution. Brookside originally obtained the plant from a nursery in Holland under this name - which does not exist in my literature except for a mention in Krussmann of *H. tiliifolia* which he says is the same as *H. petiolaris*. It appears to be a dwarf form of *H. anomala* ssp. *petiolaris* rather than a true separate species. It is a handsome plant as grown on the trees at Brookside with finer texture than the normal species. Cuttings have rooted much faster and easier than our previous attempts with the normal species. All climbing hydranges seem to have the habit of being slow to establish with little or slow growth the first year or two after planting - with rapid growth following establishment. Can be grown in sun or shade, and will be useful throughout NC. On a post in the first aisle of the Lath House.

10. *Hydrangea heteromalla* D. Don - No Common Name (Hydrangeaceae - also listed as Saxifragaceae). Seed of this plant was received as *H. xanthoneura* Diels. from the Mlynany Arboretum in Czechoslovakia; and subsequent reading revealed the correct botanical name is now *H. heteromalla*. As a species it is native to the Himalayas, N. India, Tibet and China. It is a shrub to 8' in height (to 20' in some native forest habitats) with 12" wide, flat-topped inflorescences of white flowers in summer. Hardiness will undoubtedly vary with the native habitat of seed sources - with most references saying Zone 5/6 indicating it could be grown anywhere in NC. Little is known about cultivation of this species in the U.S. but most hydrangeas do best in partially shaded locations with moist, well-drained soils where possible. Located in the Lath House.

11. *Juniperus conferta* Parl. 'Silver Mist' - 'Silver Mist' Shore Juniper (Cupressaceae). Shore juniper is one of the most widely produced and used landscape plants in NC as an outstanding conifer groundcover. More recently the cultivars 'Emerald Sea' and 'Blue Pacific' have achieved popularity for their uniform growth characteristics with compact form and better color than the species. 'Silver Mist' brings a "new" color to this species with a beautiful silvery-blue foliage quite different than other cultivars. This cultivar was discovered in the commercial nursery trade in Japan by Mr. Barry Yinger (under the name 'Shiro Toshio' - meaning white or silver shore juniper) and introduced to the U.S. market through the plant introduction program of Brookside Gardens in Wheaton, MD. Brookside formally registered the cultivar under its present name of 'Silver Mist'. (On the west coast - Mitsch Nursery and Iseli Nursery are also marketing it under the name, 'Blue Tosh' - likely a derivation of the original Japanese name). It will undoubtedly be a very popular commercial cultivar once numbers can be built up for mass sales. Cuttings will root most any time of the year under mist. It can be grown throughout NC and is best in full sun. 'Silver Mist' is perhaps more intolerant of poorly drained soils than other shore juniper cultivars and will benefit from correct siting and handling. Located at the east end of the Hamamelis collection and in the Mixed Border.

12. *Koelreuteria integrifolia* Franch. - Giant Autumn Goldenrain Tree (Sapindaceae). The Goldenrain Tree,

*K. paniculata* is commonly grown in NC and is a wonderful landscape plant with yellow summer flowers and brown seed pods which persist into the winter. *K. integrifolia* is a larger, and in some ways showier, species which has probably never been grown commercial in the U.S. at this point. Hortus Third indicates it is the same species as *K. bipinnata*; but Krussman separates them as different species - and the observation of our single plant indicates considerable difference in the two as I have seen them. *K. bipinnata* is (very rightfully so) often recommended for production and use as a landscape tree as the showy pink/purple seed pods in autumn add a most valuable extra feature to a fine genera already grown for the summer flowers. Considerable confusion exists with the hardiness of *K. bipinnata* as the commercial seed trade often imports *K. elegans* (which looks much like *bipinnata*, but is much less hardy) seed from Asia and sells it under the wrong name. True *K. bipinnata* is hardy throughout NC, with beautiful specimens in Washington, DC.

*K. integrifolia* (as seen in The NCSU Arboretum (now the JC Raulston Arboretum)) is like a larger version of *K. bipinnata* (with mature heights reported as 50' and 20', respectively) - with inflorescences as much as three feet in diameter and as high, and with the same showy, autumn fruit color. Typically our tree blooms in August with fruit display in September and October. As a young tree it has been so vigorous (6-9' per year) it appears "gangly and awkward" (as Ginkgo often does) - but eventually it slows, fills in, and looks quite

attractive. *Krussman* reports *K. integrifolia* to be as hardy as *K. paniculata* - so it has potential for use throughout the state, and certainly in the eastern half. Plants should bloom the 3rd or 4th year from seed. Seed germinate easily in high percentage with scarification and cold stratification. Located in the west arboretum - just west of the Japanese garden near the Nellie Stevens holly.

13. *Ligustrum japonicum* Thunb. 'Korea Dwarf' - Dwarf Korean Privet (Oleaceae). This broadleaved evergreen shrub species was introduced to cultivation from Japan by Siebold in 1845 and until recent years was one of the most widely planted broadleaved evergreen shrubs in the Southeastern U. S. Over planting has made it less desired in the last decade (Dirr - "a green meatball"), and the large scale of the plant near homes and in hedges meant frequent shearing necessary to keep it to desired size in the landscape. During the 1985 U. S. National Arboretum expedition to South Korea - we found a population of genetically dwarf plants on Taehuksan Island off the south coast which have promise for providing a smaller "meatball" with less shearing necessary. The foliage and growth rate are half to a third of normal for the species. Though not considered a "quality" plant in the nursery industry - it is still a good functional workhorse "bread-and-butter" item and this dwarf form should have potential for commercial use. Easy from cuttings at any time of year - but slower to root than the normal species. (Note - this plant was listed for distribution in last year's list - but at the last minute was not included as the plants had not rooted well enough). Located in the Southall Garden at the front of the farm west of the main building - along the chain link fence behind to large white oak tree.

14. *Manfreda* sp. - False-Aloe (Agavaceae - also listed in Amaryllidaceae). Botanically complex plants of about 20 species with placement in two different families and three different genera (also *Agave* and *Polianthes*) by various authors. They could be considered basically herbaceous perennial agaves with above ground growth dying to the ground each winter with regrowth from fleshy underground roots and rhizomes. The NC native "rattlesnake master", *Agave virginiana*, is also listed in this genera as *Manfreda virginiana*. Seed for the unknown species being distributed (possibly *M. longiflora* or *maculosa*) was collected by plantsman Mr. John Fairey of Waller, TX in Chipinque, Mexico at 2,000' elevation. We know nothing of its hardiness or adaptation at this point, but it should definitely be hardy at the coast, likely through the Piedmont, speculative in the mountains. Most *Manfreda* have handsome fleshy leaves and send up annual bloom stalks ranging from 2-6' in height with greenish-white flowers. They will grow in sun or light shade, and are probably best with good drainage. Unlikely to be a viable commercial plant but offered as an interesting botanical novelty with interest in learning more of its adaptation range. Plants are propagated by seed or division of clumps. In the desert plants collection in the southwest section of the west arboretum.

15. *Philadelphus brachybotrys* Koehne. var. *laxiflora* H. H. Hu. - China Mockorange (Saxifragaceae - also listed as Philadelphaceae). Succinctly described in Hilliers Manual as "an elegant, medium-sized to large Chinese shrub with delicately fragrant, creamy-white flowers". It was introduced to cultivation from Kiangsu Province in China in 1901 (Also listed as *P. pekinensis* var. *brachybotrys*) - but I have not yet found a listing or description of this botanical variety. It is not for sale in commercial channels in the U. S. Our plants being distributed were grown from seed received from the Hangzhou Botanical Garden in China and will thus show some variation. (We saved out several potentially interesting dwarf seedlings). It should be grown in full sun and is listed as Zone 7 in hardiness - so it may not be dependable in the western half of the state (yet it has been grown so little it is worth testing to verify). Most *Philadelphus* can be easily propagated by both softwood cuttings under mist in summer and by hardwood cuttings in winter (as well as by seed on the species). Not yet planted out into the collections.

16. *Pieris japonica* (Thunb.) D. Don ex G. Don. 'Little Heath Green' - 'Little Heath Green' *Pieris* (Ericaceae). Few people will need introduction to *Pieris* which has become one of the most widely grown of small broadleaved evergreen shrubs. Hybridizers are working this species very heavily and numerous cultivars (probably too many) are entering the marketplace. This cultivar was brought back from England last year as one of many things collected during my 5 months study leave in Europe. Another cultivar there which is variegated is called 'Little Heath' - and it would seem this cultivar is likely a mutant variant from that and named for its solid green foliage. 'Little Heath Green' has been exceptionally vigorous and easy to propagate and grow in our experience when compared with many other cultivars we've grown over the years. And although it has something of a dwarf growth habit in comparison to the species - it "produces" quickly in comparison to other compact *Pieris* cultivars like 'Bisbee Dwarf' and 'Pygmaea'. It will be useful throughout NC, and like all *Pieris* - it should have moist, well-drained organic soils with shade to perform best. Also - all *Pieris* are very susceptible to herbicide damage and if possible such chemicals should not be used in these plantings. Located in the Lath House.

17. *Platanus orientalis* f. *digitata* - Kashmir Sycamore (Platanaceae). There are many times when I would almost like to chainsaw a given plant in the arboretum rather than deal with the taxonomic problems which arise in trying to promote it - this is certainly one of those cases. Our plant was originally obtained from a plant pathology disease evaluation program in Texas as *P. cashmeriana* - the name which we have used and distributed it under since. After rooting 500 cuttings - in preparing an information sheet for this NCAN distribution and reading every reference in my office - I now learn there is no such species (help!). As best I can now determine - this plant is likely *P. orientalis* f. *digitata* (also referred to at various times as *P. digitata*, *P. nepalensis* and *P. orientalis lacinata*). Several references talk about the plane trees of Kashmir (NY Bot Garden Encyclopedia of Horticulture - "The famous Chenar trees, of Shalimar garden and so abundant elsewhere in Kashmir, are Oriental planes. In North America this species is little known. Few if any authentic specimens occur.") - which is likely where the original tag of *P. cashmeriana* came to be on this tree. It is one of the oldest of ornamental plants with excellent documentation of its use for over 2,000 years in the Mediterranean - Herodotus wrote of it, and Pliny and Aristotle taught under it.

At any rate, the arboretum plant has shown excellent ornamental potential as a shade tree with smaller size and more dense branching and growth - and a handsome cut-leaf foliage that is less coarse than the sycamores presently in commercial trade - and likely more suited to residential use. One of the unexpected plus features is the reduction in litter when leaves fall in comparison to the normal

sycamore commonly grown. Most sycamore fall like big plate and blow around badly requiring collection. When the leaves of this species drop - the "fingers" curl up like a little ball - and the leaves "lock" together forming a tidy mass which do not blow and need less raking maintenance. It is readily rooted from soft-wood cuttings under mist but care must be taken to use greater frequency and more mist for the first week after cuttings are stuck than is common for most nursery crops as the leaves desiccate rapidly. It will be adapted for use throughout NC. It is very long lived ("it may be the longest lived of European tree"; "specimens may persist for many centuries"). Large quantities of cuttings are available at the arboretum for growers seeking to add it to their trials or production. In the west arboretum toward the southwest corner - across from the big contorted mulberry.

18. *Pterocarya stenoptera* C. DC. - Chinese Wingnut Tree (Juglandaceae). One "use category" of plants often asked for is "fast-growing trees". Unfortunately, this is often translated into "trash trees" by horticulturists if the growth is too fast - and they are discarded without consideration that there may be appropriate places for such plants. The Chinese Wingnut is the fastest growing tree in The NCSU Arboretum (now the JC Raulston Arboretum) with our largest tree reaching 28' in height with an 14" caliper in 4 years! In China where it is native, I have seen ancient trees over 100' in height; and it is commonly used in Europe as a parks tree where its large mature size can be accommodated. The compound foliage is handsome as are the foot-long chains of green seeds which fill trees in summer like ornaments. The seed matures and is shed in August; with 3 weeks of cold stratification at that time they will germinate 100% very easily - or they can be stored for later stratification and spring germination. If seed is germinated in the greenhouse in early spring, and a liner transplanted to a 7-10 gallon container in May - growth of 7-10' with a 2" caliper can be achieved in a single season. Certainly not for enclosed inner city curb plantings or small residential properties - but a very useful tree for parks or highways where adequate space for future growth is available. We have thousands of seedlings germinated we will be happy to provide to growers on request. Located in the west arboretum in the third bed down the hill at the west end (biggest tree near the Leyland Cypress circle).

19. *Rosa* X 'Snow Carpet' - 'Snow Carpet' Groundcover Rose (Rosaceae). A groundcover hybrid rose from Europe (obtained from Wisley Gardens, England) which will grow to 6" in height and spread slowly by layering where shoots touch the soil. White flowers cover the plant in early summer. Very easy and fast from cuttings at most any time of year. Planted on either side of the entrance driveway by the wooden fence.

20. *Serissa foetida* (L. f.) Lam. (Longwood Gardens Clone) - (Rubiaceae). A small, broadleaved evergreen shrub native to Southeastern Asia which deserves much greater use in the nursery/greenhouse industry. Although listed by Krussman as a zone 9 plant, and by the NY Bot Garden Encyclopedia of Horticulture as "nonhardy" (whatever that means) - we have had plants in the arboretum for over a decade (including the record winter of 1985) with little to no injury. References do not list them - but there are at least a half-dozen different cultivars circulating among gardeners and speciality nurseries - most of which probably originated in the speciality plant nurseries of Japan (where it is used as sheared hedges) and gradually "escaped" to the West. They vary in plant growth form, flower color and petal number, foliage variegation, and flowering performance. Perhaps the most spectacular form is 'Kowloon' (newly acquired and shown in our trade show plant display) - with large, almost pure-white, highly variegated foliage. It is sweeping through the bonsai and houseplant markets of Europe at present after importation from Hong Kong. I would guess it will likely not be as hardy as other cultivars.

The form being distributed was received from Longwood Gardens and it seems to be the most profuse and everblooming of all the types we have - particularly when grown as a floriculture pot plant in the greenhouse. Serissas will grow to 2-3' in height in the eastern half of the state; and have potential as bedding plants and house plants in the western part of NC. They make excellent additions to the perennial border and are very popular with bonsai specialists with the small leaves, abundant flowering, and ability to grow year-round under home conditions without dormancy control. Propagated very easily by cuttings at any time of year. Located in the Lath House.

21. *Sinojackia rehderana* H. H. Hu - No Common Name (Styracaceae). A very rare, styrax-like, small deciduous tree with white flowers in spring native to China. It was only discovered and introduced to cultivation in 1930 and has likely never been offered for sale commercially in the U. S. at this point. In The NCSU Arboretum (now the JC Raulston Arboretum) trials it has exhibited several qualities which show promise as both a handsome garden plant and as a commercial production item. It can be kept under extended photoperiod lights in the greenhouse for year-round growth and propagation; softwood cuttings root quickly and easily under mist; the plant grows off readily with strong straight trunks and good branch angles; the foliage remains dark green, glossy and without scorch until late into fall; and the white flowers are attractive and showy. It should grow well throughout NC and will grow in full sun or light shade (with heavier flowering in full sun) reaching 8-14' in height (good potential as a small tree for under highline wires). Bean's Manual states - "It is perfectly hardy and flowers well, but is horticulturally too similar to the Halesias to have become popular and is rarely seen outside collections." Located in the west arboretum directly west of the Japanese garden.

22. *Sorbaria sorbifolia* (L.) A. Braun - Ural False Spirea (Rosaceae). A wonderful, white-flowering deciduous shrub which was introduced to cultivation from northern Asia in 1759 as one of about 10 species in the genus. It grows 3-6' feet in height and blooms with masses of spirea-like flowers in July. It will grow in sun or part shade and tolerates a range of soil conditions - but is at its best in moist areas where it will tend to root sucker and spread into informal colonies. It would be an excellent waterways or road bank plant for naturalizing. Easy to propagate from seed, softwood cuttings, or division of clumps; hardy to zone 2 - and so useful throughout NC it is somewhat hard to imagine why this beautiful plant has never entered the commercial trade here.

23. *Syringa amurensis* Rupr. var. *japonica* (Maxim.) - Japanese Tree Lilac (Oleaceae). (Also listed in Dirr and Hortus Third as *S. reticulata* (Blume) Hara). A large-growing (to 20-30') deciduous flowering shrub or tree from Japan which has potential use as a small, multi-stemmed tree in the landscape. White flowers are produced in large showy panicles in early summer but unfortunately they have a privet

smell rather than the expected lilac smell. The plants being distributed were grown from seed (from the Mlynany Arboretum in Czechoslovakia) and will show the great genetic variation which exists in this species. Dirr mentions total failure with repeated attempts to grow this species from seed - we were lucky with over 400 plants produced (following cold stratification and sowing) from the tiny packet of seed the garden sent us. It can also be rooted from softwood cuttings in early summer under mist. (We took cuttings from our small juvenile plants which rooted very easily as expected). Probably best for use in the western part of the state with less potential as one goes to the coast.

Located in the lilac collection north of the crepe myrtle border in the east arboretum.]

24. *Syringa josikae* Jacq. f. ex Rchb. - Hungarian Lilac (Oleaceae). A lilac species introduced to culture in 1830 and very rarely grown in the U.S. - but a very beautiful one with fragrant, deep violet flowers of great appeal. We are interested as it may possibly be one which has some heat tolerance for use in our region. As above, the seed came from the Mlynany Arboretum and we had great success with our first seed trial (we also grew masses of *S. sweginzowii* for trial). The Hungarian lilac will reach 8-12' in height and is hardy to zone 4. Not yet planted in the collection.

25. *Viburnum plicatum* var. *tomentosum* 'Summer Snowflakes' - 'Summer Snowflakes' Doublefile *Viburnum* (Caprifoliaceae). The doublefile viburnums are almost universally admired in the ornamentals world (Dirr - "possibly the most elegant of flowering shrubs") with great beauty from the white flowers on layered branches. Many cultivars have been selected and the University of British Columbia Botanical Garden (Vancouver) recently introduced this outstanding cultivar which will likely become a major landscape plant wherever it can be successfully grown. 'Summer Snowflakes' has as its most unique and desirable characteristic - an exceptionally long flowering period with blooms produced in Raleigh from May until killing frosts (usually November). It should mature at about 6' in height and perhaps 4-5' in width. In Canada, they are also finding it a good flowering pot plant for florist use. Plants introduced by the UBC Botanical Garden are licensed to producers who pay a per plant fee (like U.S. patented plants) to help support the cost of their outstanding research and development program. Growers interested in propagating and selling this plant should write to Mr. Bruce MacDonald, Director, UBC Botanical Garden, 6501 N.W. Marine Drive, Vancouver, BC V6T 1W5, Canada (604-228-4186) for information on licensing and permission. Located in the viburnum collection in the east arboretum and in the Mixed Border.

26. *Weigela* 'Rubidor' - (Caprifoliaceae). Weigelas are easy, showy-flowering deciduous shrubs reaching 4-8' in height with masses of flowers in early summer. Many cultivars exist with white, pink, purple, and red flowers and various foliage types. 'Rubidor' is a new cultivar released by Bressingham Nurseries in England in 1988 which received much attention and sales with its bright gold and green variegated foliage combined with red flowers. It will grow to 4-7' in height and is best in full sun. Propagation is extremely easy on all weigela from softwood cuttings in summer under mist. It should be useful throughout NC. Located in the west arboretum in the top bed on the hill - just west of our noted specimen *Lagerstroemia fauriei* plants.

## BOOK NEWS

In an article in Urban Forest Forum on the massive project of North Dakota to plant 100 million trees in the next 10 years to celebrate the centennial of statehood - they quoted Elton Youngblood: "A person has at least a start at discovering the real meaning of human life when they plant a shade tree under which they will never sit."

*Shading Our Cities: Resource Guide for Urban and Community Forestry* edited by Gary Moll and Sara Ebenreck contains essays from 40 authors on how to enhance urban forests. It is published by Island Press and is available at a pre-publication price of \$16.95 paperback or \$29.70 hardback plus \$2 shipping from: *Shading Our Cities*, P. O. Box 2000, Washington, DC 20013.

The Brooklyn Botanic Gardens Record 45(1) Spring 1989 Handbook #119 is *Gardening With Wildflowers and Native Plants*. As with all Brooklyn Botanic Garden publications, a wealth of information from many authors is included (with "local" plant authorities Richie Bell, Ken Moore, and Edith Eddleman being represented). It comes with membership in the garden (\$20 per year) or for individual purchase from: Book Sales, Brooklyn Botanic Garden, 1000 Washington Ave., Brooklyn, NY 11225.

*Landscape Rejuvenation - Remodeling The Home Landscape* - by Dr. Bonnie Lee Appleton (130 pages, softbound) covers the widespread need of taking an older property and converting it into a "new" landscape. There are dozens of home remodeling and renovation books for building structural changes - but little information on landscape needs for a homeowner who purchases or wants to work with an old property. Everyone else assumes beginning with a bare tract lot and a new house. How to decide which materials to remove, how to transform older plants by limbing up or rejuvenation, designing for the new needs and look - very useful and recommended. Available from: Garden Way Publishing, Schoolhouse Road, Pownal, VT 05261 for \$10.95 plus \$2.50 postage.

"People have a way of becoming what you encourage them to be, not what you nag them to be." *Pacific Coast Nurseryman*, Sept. 89, p.20.

For those who enjoy travel throughout N. C. - a new 86 page edition of "Guide to NC Science Centers" - edited by Susan Stephenson lists dozens of parks, museums, etc. throughout the state. Published for use by school teachers in planning trips and educational opportunities, it also is a fascinating listing of dozens of varied places most readers of this newsletter would enjoy visiting as individuals. Single copies are available for \$5.00 (+ \$1 mailing) from: N. C. Academy of Science, Inc., c/o N. C. School of Science and Mathematics, P. O. Box 2418, Durham, NC 27715 (919-286-3366) - discount wholesale quantity rates are available also.

One of the most extensive set of woody plant reference books is W. J. Bean's *Trees and Shrubs Hardy in the British Isles* - first published in 1914 and reprinted in many editions and revisions with the last (8th) occurring from 1970 (Vol. I) - 1980 (Vol. IV). Today the set comprises over 3,200 pages of solid information in tiny print and with none of the "fluffing" of modern publishing where 5 good pages of information can be made into a 400 page treatise with lots of photos, white pages, quadruple spacing and acres of margins (any good college senior knows all the tricks). In 1988, a Supplement to the 8th revised edition edited by D. L. Clarke was published by John Murray, London. It includes new taxonomic changes, new cultivars (57 pages of *Rhododendrons*, 4 pages of *Chamaecyparis lawsoniana* cultivars, etc.), two new chapters on insects and diseases, etc.

A "different" garden book seems available in *Meanings of the Garden* (Center for Design Research, Dept. of Environmental Design, Univ. of California, Davis, CA 95616 - \$27.25 including shipping - checks payable to Regents of the University of California). It is a proceedings of a working conference to "explore the social, psychological and cultural dimensions of gardens" held at Davis in May of 1987. The papers address psychological, sociological, historical and design dimensions of gardens and are based on personal accounts, empirical studies, historical analysis and garden fantasies.

Another mail-order new and used book dealer specializing in Natural History Books: Patricia Ledlie, P. O. Box 90, Bean Road, Buckfield, ME 04220 (207-336-2778). The last catalog was 33 pages with 571 books for sale (of which I only wanted 92 - sigh!)

From ASHS Newsletter 5(7):8, July 1989:

"A real garden where one can enter in and forget the whole world cannot be made in a week or a month or a year. It must be planned for, and waited for, and loved into being." Chinese Proverb.

"Experience is a wonderful teacher. Perhaps professional horticulturists are not the best practitioners or students of the art of garden making." Michael Dirr.

A thought for life from the final paragraph of *Candide* by Voltaire: "From time to time Pangloss would say to Candide: 'There is a chain of events in this best of all possible worlds: for if you had not been turned out of a beautiful mansion at the point of a jackboot for the love of Lady Cunegonde, and if you had not been involved in the Inquisition, and had not wandered over America on foot, and had not struck the Baron with your sword, and lost all those sheep you brought from Eldorado, you would not be here eating candied fruit and pistachio nuts.' 'That's true enough,' said Candide: 'but we must go and work in the garden.'"

My favorite newsletter from any arboretum in the country is from the Friends of the Stephen Austin State University Arboretum (subscribe from Dr. David Creech, Department of Agriculture, Box 13000, Stephen F. Austin State University, Nacogdoches, TX 75962 - 409-568-3705). The last issue detailed the agony and trials of developing an arboretum logo symbol for use and concluded with: "The decision to go with *Ilex opaca*, the American Holly, as the "emblem" for the arboretum was based on the vision that the plant represents the character and mission of the SFASU Arboretum. This hardy native is slow to get going, doesn't need much, is tolerant of the abuses that life throws its way, and once well-established, the tree is stubborn and long-lived. Through all the seasons it scatters plant interest: red berries, evergreen, glossy leaves, and great bark color and pattern diversities. The American Holly can thrive in wet and dry soils, in shade and in sun." They've had tough going in getting started - but are doing amazing things and deserve all the support possible.

Propagation of plants is always one of the favorite and most mystical of the activities of gardeners - coming closest that we can to the process of creation. There are many information sources in the marketplace from single sheet "how to" handouts to infinitely detailed treatises on minute areas of specialization. A new book *Creative Propagation* by Peter Thompson is just available from Timber Press (220 p.; \$32.95 + \$3 shipping; 9999 S. W. Wilshire, Portland, OR 97225; 503-292-0745) and looks of good use for the average home gardener. Mr. Thompson spent 20 years on the staff at Kew Gardens and now teaches propagation in The Garden School. The book reads easily and the clear line drawings are useful in explaining various techniques and concepts. The book covers about 600 different kinds of plants from annuals to alpiners to bulbs; ferns to perennials to conifers. A 14 page table at the end lists each plant genera and gives timing and technique guidelines to follow. As with most English publications - there are numerous plants not suitable for our area; and notable omissions of our plants which are not grown there - and the timing recommended in the book may certainly vary with our different seasons, and the reality of our summer heat.

I like the introductory "Prelude" chapter which begins: "It's a pretty good bet that all who pick up this book will, sooner or later, be infuriated by something they read in it; some description of a technique, or an opinion expressed, will produce a snort of derision or the conviction that the author must be an idiot. Propagation affects most of us like that. . . . The mistake we all incline to make is to suppose that the difference between successfully and unsuccessfully growing seedlings, or persuading cuttings to produce roots, just depends on knowing facts. It doesn't; it depends much more on getting to know plants. . . . It depends on being able, almost instinctively, to see to their needs so that they are able to do all the things they are capable of. Nobody ever yet rooted a cutting or germinated a seed; those are things that only plants can do and the propagator's job is to find the best ways of letting them get on with it."

I was given a sheet of paper with the following on it - which I love - so true!

LIFE IS A TEST

It is only a test

(If this were your actual life, you would have been given better instructions)

## PLANT SOURCES

We sent a letter to Horticulture Magazine (which was published in the August 89 issue, p. 8) about our experience with *Abelia chinensis* as a fragrant, butterfly-attracting shrub. Such public exposure always elicits interesting mail and one of the best things to come from this experience was learning about The Fragrant Path - a mail-order nursery which specializes in "seed for fragrant, rare and old-fashioned plants" (they requested plants to propagate from to add to their listing). The 30 page catalog (\$1.00) is available from: The Fragrant Path, P. O. Box 328, Fort Calhoun, NE 68023. It contains a phenomenal range of fascinating plants - from Variegated Japanese Hops (*Humulus japonicus variegatus*) to Cinnamon-Vine (the true yam, *Dioscorea batatas*) to prairie flowers to traditional herbs to a variety of uncommon woody plants such as *Picea schrenkiana* and *Xanthoceras sorbifolium*.

In the summer 1989 (#30) issue of News and Notes from The Indoor Citrus and Rare Fruit Society - they reviewed a mail-order catalog new to me: Tripple Brook Farm, (Mr. Stephen Breyer) 37 Middle Road, Southampton, MA 01073 (413-527-4626). "PLANTS - Small nursery with good selection of Northeastern native plants, hardy bamboos, fruiting mulberries and hardy kiwi, iris, flowering shrubs and more - catalog full of information, as well as pix of plants and the nursery house, cow, cat and dogs - a delight! Catalog free."

Stealing from yet another excellent source of information (HortIdeas) - a nursery which specializes in west coast native bulbs and seeds is: Robinett Bulb Farm, P. O. Box 1306, Sebastopol, CA 95473. (Send self-addressed business size envelope with your request).

And in the same issue - a source for antique iris cultivars: Adamgrove, Rt. 1, Box 246, California, MO (fascinating address!) 65018. \$1 for a catalog.

A new catalog came in the mail for water garden specialities - not only supplies for building and maintaining pool gardens and water lilies, but also moisture-loving perennials (10 cultivars of *Iris ensata*, 5 *Ligularia*, etc.) and grasses. Maryland Aquatic Nurseries, (Richard J. Schuck), 3427 N. Furnace Road, Jarrettsville, MD 21084 (301-557-7615).

I constantly hunt and add sources of temperate zone woody plant seed (rare in comparison to annual and perennial seed sources) to a listing which is available to nurserymen. A new source to me is Dean Swift Seed Co., P. O. Box B, Jaroso, CO 81138 (719-672-3739). They list mostly source identified conifers for Christmas tree production, but also have a few wildland and shrub seed as well as wildflowers. They are wholesale with the smallest order of one pound of any one type of seed.

In a past newsletter I promoted the use of the Andersen Horticultural Library's Source List of Plants and Seeds - published by the Minnesota Landscape Arboretum. The new 1989 edition is just out - and definitely worth purchasing as a source guide even if one has the first edition. The price is still \$29.95 from: Andersen Horticultural Library, Minnesota Landscape Arboretum, 3675 Arboretum Dr., Box 39, Chanhassen, MN 55317. Although this issue is the same price - there are twice the number of listed plants, twice the number of firms and over 50 more pages - all newly compiled from 1988 and 1989 catalogs of over 400 firms. This issue passes the 28,000 different plants listed in the English The Plant Finder with some 40,000 different plants and their U. S. sources covered. I've always said that Americans have had an unnecessary inferiority complex thinking that English gardeners have access to vastly more plants than we do here - we have just as many if not more (just look at the vast variety of climates in the U.S. as a clue to that) but they are scattered across a few more miles with less information on where to find them. If you're looking for treasures (aren't we all?) - consider this guide.

We've long listed Coenosium Garden among our sources for mail-order plants. Some may have not kept track of their move in recent years from Pennsylvania to Oregon. The new catalog just received with a vastly expanded listing reminds me that it is time to again recommend this fine source for dwarf conifers; as well as grafted named cultivars of *Acer*, *Fagus*, *Ginkgo*, *Liriodendron*; and many *Kalmia*. Catalog #4 (36 pages, August, 1989) is available for \$3.00 from: Robert L. Fincham, 6642 S. Lone Elder Rd., Aurora, OR 97002 (503-266-5471).

A new southern mail-order source for a wide variety of plants has just appeared this year. After years of selling only from the nursery directly - Homeplace Garden (Harden Bridge Road, P. O. Box 300, Commerce, GA 30529 (404-335-2892) has issued their first mail-order catalog. They offer a large listing of rhododendrons, evergreen azaleas, conifers, Japanese maples, and companion plants (including such choice rarities as *Emmenopterys henryi*, *Magnolia ashei*, *Osmanthus delavayi*, and *Sarcococca humilis*). To visit (March 15-May 15 and October without appointments; by appointment anytime) - they are 60 miles northeast of Atlanta - exit I-85 at U.S. 441 and go north 2.7 miles; turn right on GA 164 and go 1.2 miles to crossroads; turn right and go 1 mile to the nursery.

The November 1989 issue of GrowerTalks featured an article on a remarkable perennials nursery in Clarkson, Nebraska ("If they'll grow in Nebraska, they'll grow anywhere!" is their motto) and by strange coincidence the same day that appeared in my mail - a catalog from the nursery also appeared. Though primarily a wholesale producer - they do handle quantity orders by mail order (\$100 minimum - but it doesn't take a very enthusiastic gardener to reach that level - and perhaps several could combine orders). A fascinating catalog with many uncommon perennials - particularly with some of the native prairie species they have researched for garden use. Also, anyone crossing the plains on a summer vacation should plan a stop to see their acre trial and display garden which sounds fascinating - even including a "Bohemian National Garden"! For catalog (\$1) write to Harlan F. Hamernik, Bluebird Nursery, Clarkson, NE 68629 (402-892-3457).

While attending the Mid-South Native Plants Conference in Memphis in October I discovered several interesting "Source" materials. For anyone within travel distance of Memphis (or travelers heading there) - the West Tennessee Nursery & Landscape Association (P. O. Box 241 689, Memphis, TN 38124) compiled a list of hundreds of native plants available from 8 nurseries in the Memphis area cross-indexed to specific nurseries carrying each plant. A great resource - and something every state or region could certainly use - congratulations to them for their effort. Write for a copy if you have use for such material.

Normally these source listings are for mail-order or local N. C. firms - but our membership is getting wider and so many travel extensively (and it's so close) I want to add another new firm to me this summer. Swell Azaleas (Nancy & Leon Swell), 505 Baldwin Rd., Richmond, VA 23229 (804-288-7873). They issue a catalog but they are not mail order, and one should make arrangements in advance before visiting the nursery. They carry over 1,000 different varieties of azaleas, an extensive list of hardy ferns, and an interesting assortment of other woody and perennial garden plants. A good place for N. C. residents to pop into on the way to D. C.

Another in this category of no mail order - and even further afield - yet excellent is Geraniaceae - a specialist in true geraniums (not the common flowerpot plant, *Pelargonum*) and other members of the geranium family. When perennials enthusiasts visit the San Francisco bay area - you may want to make an appointment for a shopping spree. Robin Parer, 122 Hillcrest Ave., Kentfield, CA 94904 (415-461-4168). An amazing list in the catalog.

## **NEW PLANTS IN THE NCSU Arboretum (now the JC Raulston Arboretum) - JULY-DECEMBER 1989**

89/0341 - *Ilex verticillata* 'Bright Horizon' - Barnard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0342 - *Ilex verticillata* 'Earlibright' - Bernard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0343 - *Ilex verticillata* 'Quansoo' - Bernard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0344 - *Ilex verticillata* 'Quitsa' - Bernard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0345 - *Ilex verticillata* 'Shortcake' - Bernard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0346 - *Ilex verticillata* 'Tiasquam' - Bernard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0347 - *Rhododendron* (Azalea) 'Eiko San' - Bernard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0348 - *Rhododendron* (Azalea) 'Late Love' - Bernard's Inn Farm - Vineyard Haven, MA - Cuttings - 07/10.

89/0349 - *Spiraea X bumalda* 'Anthony Waterer' - Brown's Nursery - Rockwell, NC - 1 Gal - 07/13.

89/0350 - *Stewartia pseudocamellia* 'Variegata' - LaDew Topiary Garden - Monkton, MD - Cuttings - 7/14.

89/0351 - *Cupressocyparis leylandii* 'Leighton Green' (?) - Catalpa Nursery - Easton, MD - Qts. - 07/14.

89/0352 - *Tetracentron sinensis* - Morris Arb (Shanghai Bot. Garden Seed) - Philadelphia, PA - 2' - 07/15.

89/0353 - *Opuntia erinacea* - White Mountains, CA - Division - 07/19.

89/0354 - *Yucca schidigera* - White Mountains, CA - Division - 07/19.

89/0355 - *Acer pentaphylla* - Western Hills Nursery - Occidental, CA - 1 Gal - 07/21.

89/0356 - *Hydrangea mariesi* (Golden Variegata) - Western Hills Nursery - Occidental, CA - 3" Pot - 07/21.

89/0357 - *Sambucus nigra* 'Pulverulenta' - Western Hills Nursery - Occidental, CA - 3" Pot - 07/21.

89/0358 - *Trachelospermum* ? - Western Hills Nursery - Occidental, CA - 1 Gal - 07/21.

89/0359 - *Abies pinsapo* 'Glauca' - Sumigawa Nursery - Sebastapol, CA - 1 Gal - 07/21.

89/0360 - *Agapanthus campanulatus* 'Flora Plena' - Sumigawa Nursery - Sebastapol, CA - 3 Gal - 07/21.

89/0361 - *Agapanthus inapterus* 'Major' - Sumigawa Nursery - Sebastapol, CA - 3 Gal - 07/21.

89/0362 - *Hedera helix* (Adult Form) - Sumigawa Nursery - Sebastapol, CA - 1 Gal/3' - 07/21.

89/0363 - *Pittosporum tobira* 'Turners Dwarf Variegated' - Sumigawa Nursery - Sebastapol, CA - 1 Gal - 07/21.

89/0364 - *Podocarpus nivalis* - Sumigawa Nursery - Sebastapol, CA - 1 Gal - 07/21.

89/0365 - *Ruscus hypoglossum* - Sumigawa Nursery - Sebastapol, CA - 1 Gal - 07/21.

89/0366 - *Sequoiadendron giganteum* - Sumigawa Nursery - Sebastapol, CA - 1 Gal - 07/29.

89/0367 - *Cleyera japonica* var. *grandiflora* - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0368 - *Distictis buccinatoria* (Red Vine) - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0369 - *Punica granatum* 'Nana' - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0370 - *Eleagnus* 'Coral Silver' - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0371 - *Euchrypha* X *nymansensis* 'Mt. Usher' - Strybing Arb. - San Francisco, CA - Cuttings - 07/21.

89/0372 - *Exbucklandia populnea* - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0373 - *Hydrangea macrophylla* (Mutant) - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0374 - *Hydrangea seemanii* - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0375 - *Ligustrum massalongianum* - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0376 - *Loropetalum chinensis* - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0377 - *Viburnum farreri* 'Pink' - Strybing Arboretum - San Francisco, CA - Cuttings - 07/21.

89/0378 - *Aucuba japonica* 'Borealis' (Female) - Berkeley Bot. Garden - Berkeley, CA - Cuttings - 07/21.

89/0379 - Ginger?

89/0380 - *Wikstroemia indica* - Berkeley Botanical Garden - Berkeley, CA - Cuttings - 07/21.

89/0381 - *Gardenia radicans* 'Variegata Nana' - Berkeley Hort. Nursery - Berkeley, CA - 1 Gal - 07/29.

89/0382 - *Santolina chamaecypariss* 'Nana' - Berkeley Horticultural Nursery - Berkeley, CA - 1 Gal - 07/29.

89/0383 - *Sequoia sempervirens* 'Woodside Blue' - Berkeley Hort. Nursery - Berkeley, CA - Cuttings - 07/29

89/0384 - *Solidago sphacelata* 'Golden Fleece' - Mt. Cuba Center - Greenville, DE - Division - 07/30.

89/0385 - *Spirea japonica* (Unk. NC Mts. - White) - Chuck Marsh - NC - Cuttings - 07/30.

89/0386 - *Agapanthus umbellatus* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0387 - *Arbutus* X *andrachnoides* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0388 - *Callistemon lanceolatus* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0389 - *Callistemon salignus* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0390 - *Callistemon speciosus* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0391 - *Chamaecytisus glaber* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0392 - *Chamaecytisus leiocarpus* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0393 - *Chamaecytisus ratisbonensis* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0394 - *Chamaerops humilis* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0395 - *Clethra fargesii* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0396 - *Cytisus elongatus* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed -08/01.

89/0397 - *Cytisus heterochrous* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0398 - *Cytisus hillebrandtii* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0399 - *Cytisus reverchonii* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0400 - *Iris musulmanica* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0401 - *Jasminum fruticans* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0402 - *Jasminum pubigerum* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0403 - *Juniperus phoenicea* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0404 - *Mahonia japonica* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0405 - *Nellia longiracemosa* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0406 - *Pittosporum heterophyllum* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0407 - *Ruscus hypophyllum* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0408 - *Sarcococca saligna* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0409 - *Syringa tigerstedtii* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0410 - *Syringa wolfii* - Real Jardin Botanico-CSIC - Madrid, Spain - Seed - 08/01.

89/0411 - *Agapanthus praecox* ssp. *orientalis* - Hortus Botanicus - Coimbra, Portugal - Seed - 08/03.

89/0412 - *Agapanthus praecox* ssp. *praecox* - Hortus Botanicus - Coimbra, Portugal - Seed - 08/03.

89/0413 - *Callitris rhomboidea* - Hortus Botanicus - Coimbra, Portugal - Seed - 08/03.

89/0414 - *Colchicum lusitanum* - Hortus Botanicus - Coimbra, Portugal - Seed - 08/03.

89/0415 - *Leucojum autumnale* - Hortus Botanicus - Coimbra, Portugal - Seed - 08/03.

89/0416 - *Tetraclinis articulata* - Hortus Botanicus - Coimbra, Portugal - Seed - 08/03.

89/0417 - *Vinca difformis* - Hortus Botanicus - Coimbra, Portugal - Seed - 08/03.

89/0418 - *Ilex crenata* 'Cherokee' - Coles Nursery - Furlong, PA - Qt. - 08/10.

89/0419 - *Ilex crenata* 'Glory' - Coles Nursery - Furlong, PA - Qt. - 08/10.

89/0420 - *Prunus sargentii* 'Sir Edwin Mueller' - Coles Nursery - Furlong, PA - Liner - 08/10.

89/0421 - *Prunus yedoensis* 'Perpendens' - Coles Nursery - Furlong, PA - Liner - 08/10.

89/0422 - *Pyracantha atlantoides* - Coles Nursery - Furlong, PA - Liner - 08/10.

89/0423 - + *Sorbocotoneaster* - Coles Nursery - Furlong, PA - Liner - 08/10.

89/0424 - *Juniperus virginiana* 'Blue Mountain' - Midwest Groundcovers - St. Charles, IL - 1 Gal - 8/12.

89/0425 - *Arisaema iyoanum* (#203) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0426 - *Celtis jessoensis* (#173) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0427 - *Corylopsis gotoana* (#83) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0428 - *Daphniphyllum teijsmannii* (#63) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0429 - *Hemerocallis littorea* (#208) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0430 - *Hemerocallis longituba* (#209) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0431 - *Ilex geniculata* (#17) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0432 - *Ilex serrata* (#21) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0433 - *Meliosma tenuis* (#148) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0434 - *Myrica rubra* (#112) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0435 - *Podocarpus chinensis* (#7) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0436 - *Podocarpus nagi* (#9) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0437 - *Symplocos coreana* (#165) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0438 - *Symplocos myrtacea* (#166) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0439 - *Torreya nucifera* (#11) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0440 - *Trochodendron aralioides* (#171) - Hiroshima Bot. Garden - Hiroshima, Japan - Seed - 08/15.

89/0441 - *Arisaema urashima* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0442 - *Cautleya spicata* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0443 - *Erythronium japonicum* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0444 - *Erythronium umbilicatum* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0445 - *Hymenocallis occidentalis* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0446 - *Hypericum* ? - We-Du Nursery - Marion, NC - Seedling - 08/17.

89/0447 - *Mitchella repens* f. *albofructus* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0448 - *Roscoea purpurea* v. *procera* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0449 - *Sauromatum guttatum* - We-Du Nursery - Marion, NC - Division - 08/17.

89/0450 - *Trollis chinensis* - We-Du Nursery - Marion, NC - Seedling - 08/17.

89/0451 - *Cupressocyparis leylandii* 'Leighton Green' - Catalpa Nursery - Easton, MD - 1 Gal - 08/20

89/0452 - *Agapanthus* X 'Bressingham Blue' - Hines Nursery - Santa Fe, CA - 1 Gal - 08/24

89/0453 - *Agapanthus* X 'Bressingham White' - Hines Nursery - Santa Fe, CA - 1 Gal - 08/24

89/0454 - *Amphelopsis brevipedunculata* 'Elegans' - Hines Nursery - Santa Fe, CA - 1 Gal - 08/24

89/0455 - *Bergenia* 'Bressingham Salmon' - Hines Nursery - Santa Fe, CA - 1 Gal - 08/24

89/0456 - *Bergenia* 'Bressingham White' - Hines Nursery - Santa Fe, CA - 1 Gal - 08/24

89/0457 - *Buxus microphylla* 'True Spreader' - Hines Nursery - Santa Fe, CA - 1 Gal - 08/24

89/0458 - *Deschampsia caespitosa*? 'Vivipari' - Hines Nursery - Santa Fe, CA - 1 Gal - 08/24

89/0459 - *Festuca ovina* 'Elijah's Blue' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0460 - *Geranium* 'Bevan's Variety' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0461 - *Geranium* 'Russell Pritchard' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0462 - *Geranium* 'Shepherd's Warning' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0463 - *Hedera colchica* 'Sulphur Spray' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0464 - *Hedera helix* 'Buttercup' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0465 - *Hedera helix* 'Telecurl' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0466 - *Kniphofia uvularia* 'Little Maid' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0467 - *Kolkwitzia amabilis* 'Pink Cloud' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0468 - *Rosa* 'Alba Meidiland' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0469 - *Rosa* 'Pearl Meidiland' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0470 - *Rosa* 'Red Meidiland' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0471 - *Salix alba* 'Snake' - Hines Nursery - Santa Fe, CA - 1 Qt - 08/24

89/0472 - *Acer elegantissimum* (Chejang Prov., China) - Barry Yinger - Cuttings - 08/29

89/0473 - *Helleborus lividus* - ARGS Seed Exchange - Potted Seedlings - 08/30.

89/0474 - *Helleborus lividus* var. *corsicus* - ARGS Seed Exchange - Potted Seedlings - 08/30

89/0475 - *Boehmeria megaphylla* SAS020 - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0476 - *Cardiocrinum cathayanum* SASNN - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0477 - *Clematis heracleifolia* SASEE - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0478 - *Decaisnea fargesii* SAS014 - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0479 - *Emmenopterys henryi* SASL - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0480 - *Schizophragma glaucescens* SASQQ - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0481 - Stewartia gemmata SASB - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0482 - Styxax sp. SAS001 - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0483 - Viburnum hengshanicum SAS043 - Holden Arboretum - Mentor, OH - Seed - 09/01

89/0484 - Narcissus 'Aspasig' - The Daffodil Mart - Gloucester, VA - 40 Bulbs - 09/12

89/0485 - Narcissus 'Bali Hai' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0486 - Narcissus 'Boforla?' - The Daffodil Mart - Gloucester, VA - 35 Bulbs - 09/12

89/0487 - Narcissus 'Butea' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0488 - Narcissus 'Caracas' - The Daffodil Mart - Gloucester, VA - 30 Bulbs - 09/12

89/0489 - Narcissus 'Chapeau' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0490 - Narcissus 'Enterprise' - The Daffodil Mart - Gloucester, VA - 100 Bulbs - 09/12

89/0491 - Narcissus 'Estrellita' - The Daffodil Mart - Gloucester, VA - 25 Bulbs - 09/12

89/0492 - Narcissus 'Flicker' - The Daffodil Mart - Gloucester, VA - 15 Bulbs - 09/12

89/0493 - Narcissus 'Furbelow' - The Daffodil Mart - Gloucester, VA - 35 Bulbs - 09/12

89/0494 - Narcissus 'Gay Time' - The Daffodil Mart - Gloucester, VA - 20 Bulbs - 09/12

89/0495 - Narcissus 'General Pershing' - The Daffodil Mart - Gloucester, VA - 40 Bulbs - 09/12

89/0496 - Narcissus 'Golden Goblet' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0497 - Narcissus 'Harmony Bells' - The Daffodil Mart - Gloucester, VA - 30 Bulbs - 09/12

89/0498 - Narcissus 'King Craft' - The Daffodil Mart - Gloucester, VA - 40 Bulbs - 09/12

89/0499 - Narcissus 'Klondyke' - The Daffodil Mart - Gloucester, VA - 20 Bulbs - 09/12

89/0500 - Narcissus 'Lafinancee' - The Daffodil Mart - Gloucester, VA - 100 Bulbs - 09/12

89/0501 - Narcissus 'Leongina' - The Daffodil Mart - Gloucester, VA - 35 Bulbs - 09/12

89/0502 - Narcissus 'L'Innocence' - The Daffodil Mart - Gloucester, VA - 60 Bulbs - 09/12

89/0503 - Narcissus 'Loch Hope' - The Daffodil Mart - Gloucester, VA - 60 Bulbs - 09/12

89/0504 - Narcissus 'Masked Light' - The Daffodil Mart - Gloucester, VA - 30 Bulbs - 09/12

89/0505 - Narcissus 'Medusa' - The Daffodil Mart - Gloucester, VA - 25 Bulbs - 09/12

89/0506 - Narcissus 'Mrs. Alfred Pearson' - The Daffodil Mart - Gloucester, VA - 30 Bulbs - 09/12

89/0507 - Narcissus 'Nancegollan' - The Daffodil Mart - Gloucester, VA - 25 Bulbs - 09/12

89/0509 - Narcissus 'Parcpat' - The Daffodil Mart - Gloucester, VA - 75 Bulbs - 09/12

89/0510 - Narcissus 'Polnesk' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0511 - Narcissus 'Pride of Cornwall' - The Daffodil Mart - Gloucester, VA - 20 Bulbs - 09/12

89/0512 - Narcissus 'Red Sunrise' - The Daffodil Mart - Gloucester, VA - 75 Bulbs - 09/12

89/0513 - Narcissus 'Richard Tauber' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0514 - Narcissus 'Sacajawea' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0515 - Narcissus 'Sierra Gold' - The Daffodil Mart - Gloucester, VA - 85 Bulbs - 09/12

89/0516 - Narcissus 'Tintorette' - The Daffodil Mart - Gloucester, VA - 35 Bulbs - 09/12

89/0517 - Narcissus 'Trifine' - The Daffodil Mart - Gloucester, VA - 100 Bulbs - 09/12

89/0518 - Narcissus 'White Pearl' - The Daffodil Mart - Gloucester, VA - 50 Bulbs - 09/12

89/0519 - Narcissus 'Xenophon' - The Daffodil Mart - Gloucester, VA - 45 Bulbs - 09/12

89/0520 - Narcissus 'Xerxes' - The Daffodil Mart - Gloucester, VA - 25 Bulbs - 09/12

89/0521 - Eucryphia X 'Mt. Usher' - Wayside Gardens - Hodges, SC - 1 Gal - 9/18

89/0522 - Sinarundinaria murieleae - Wayside Gardens - Hodges, SC - 1 Gal - 9/18

89/0523 - Juniperus virginiana 'Blue Mountain' - Midwest Groundcovers - St. Charles, IL - 3 Gal - 9/18

89/0524 - Asarum lemmoni - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0525 - Buxus 'Unk. Silver Tipped Cv.' - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0526 - Chamaecyparis obtusa 'Nana Argentea' - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0527 - Chamaecyparis obtusa 'Nana Argentea Sport' - Arnold Arb. - Jamaica Plain, MA - Cutting - 9/23

89/0528 - Colutea arborescens 'Bullata' - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0529 - Convallaris montana - Arnold Arboretum - Jamaica Plain, MA - Division - 9/23

89/0530 - Cotinus coggygia 'Daydream' - Arnold Arboretum - Jamaica Plain, MA - Cuttings - 9/23

89/0531 - Cotinus X 'Grace' - Arnold Arboretum - Jamaica Plain, MA - Cuttings - 9/23

89/0532 - Cotoneaster 'Tom Thumb' - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0533 - Farfugium japonicum - Arnold Arboretum - Jamaica Plain, MA - 3" pot - 9/23.

89/0534 - Genista germanica 'Prostrata' - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0535 - Iberis tenoreana - Arnold Arboretum - Jamaica Plain, MA - Cuttin - 9/23

89/0536 - Juniperus chinensis 'Dropmore' - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0537 - Juniperus communis 'Saxatilis Nana' - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0538 - Jun. horizontalis 931-68A (Wild Maine Form) - Arnold Arb. - Jamaica Plain, MA - Cutting - 9/23

89/0539 - Kalmia angustifolia 'Alba' - Arnold Arboretum - Jamaica Plain, MA - Cuttings - 9/23

89/0540 - Leucothoe grayana oblongifolia (1600-77) - Arnold Arb. - Jamaica Plain, MA - Cutting - 9/23

89/0541 - Symplocos paniculata - Arnold Arboretum - Jamaica Plain, MA - Seed - 9/23

89/0542 - Taxus hibernica (431-79) - Arnold Arboretum - Jamaica Plain, MA - Cuttings - 9/23

89/0543 - Vaccinium koreanum - Arnold Arboretum - Jamaica Plain, MA - Cutting - 9/23

89/0544 - Actinidia polygama (D88-1136) - The Dawes Arboretum - Newark, OH - Qt - 9/25

89/0545 - Amelanchier ovalis (D88-965) - The Dawes Arboretum - Newark, OH - Qt - 9/25

89/0546 - Aronia prunifolia (D88-024) - The Dawes Arboretum - Newark, OH - Qt - 9/25

89/0547 - Berberis concinna (DBB-936) - The Dawes Arboretum - Newark, OH - Qt - 9/25

89/0548 - Clematis rehderiana (DBB-362) - The Dawes Arboretum - Newark, OH - Qt - 9/25

89/0549 - Cotoneaster nitens (DBB-1066) - The Dawes Arboretum - Newark, OH - Qt. - 9/25

89/0550 - Cotoneaster dielsianus (DBB-1067) - The Dawes Arboretum - Newark, OH - Qt. - 9/25

89/0551 - Arbutus X 'Marina' - Saratoga Hort. Foundation - ?, CA - 3" pot - 9/28

89/0552 - Arctostaphylos 'Pacific Mist' - Saratoga Hort. Foundation - ? - Qt. - 9/28

89/0553 - Laurus (nobilis X canariensis) 'Saratoga' - Saratoga Hort. Foundation - ? - 1 Gal - 9/28

89/0554 - Raphiolepis umbellata 'Minor' - Saratoga Hort. Foundation - ? - Qt. - 9/28

89/0555 - Decumaria sinensis - Strybing Arboretum - San Francisco, CA - Cuttings - 9/28

89/0556 - Iris foetissima 'Citrina' - Jim Walker - Portland, OR - Division - 9/30

89/0557 - Hakonechloa macra 'Aureola' - Tsugawa Nursery - Woodside, OR - 1 Gal - 10/01

89/0558 - Ternstroemia gymnanthera 'Variegata' - Tsugawa Nursery - Woodside, OR - 1 Gal - 10/01

89/0559 - Abies ? - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0560 - Agapanthus campanulatus 'Alba' - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0561 - Agapanthus 'Headbourne Hybrid - White' - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0562 - Arctostaphylos uva-ursi 'Vancouver Jade' - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0563 - Lindera obtusiloba - Wells-Medina Nursery - Medina, WA - 2 Gal - 10/02

89/0564 - Myrica californica - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0565 - Philadelphus 'Silver Shower's - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0566 - Quercus robur 'Concordia' - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0567 - Salix repens 'Boyd's Pendulous' - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0568 - Sequoia sempervirens 'Prostrata' - Wells-Medina Nursery - Medina, WA - 1 Gal - 10/02

89/0569 - Abies koreana - Molback's Nursery - Woodinville, WA - 5 Gal/3' - 10/02

89/0570 - Agapanthus campanulatus 'Alba' - Molback's Nursery - Woodinville, WA - 1 Gal - 10/02

89/0571 - Choisya ternata - Molback's Nursery - Woodinville, WA - 1 Gal - 10/02

89/0572 - Cupressus sempervirens 'Stricta' - Molback's Nursery - Woodinville, WA - 1 Gal - 10/02

89/0573 - Leucojum 'Gravetye Giant' - Molback's Nursery - Woodinville, WA - 1 Bulb - 10/02

89/0574 - Lycoris sanguinea - Molback's Nursery - Woodinville, WA - 3 Bulbs - 10/02

89/0575 - Narcissus 'Irish Moss' - Molback's Nursery - Woodinville, WA - 5 Bulbs - 10/02

89/0576 - Narcissus 'Joseph McLeod' - Molback's Nursery - Woodinville, WA - 5 Bulbs - 10/02

89/0577 - Narcissus 'Mega' - Molback's Nursery - Woodinville, WA - 5 Bulbs - 10/02

89/0578 - Narcissus 'Pencrebar' - Molback's Nursery - Woodinville, WA - 5 Bulbs - 10/02

89/0579 - Eremurus 'Shelford Hybrid' - U. WA Arb Sale - Seattle, WA - Plant - 10/02

89/0580 - Narcissus 'Bobby Soxer' - U. WA Arb Sale - Seattle, WA - 5 Bulbs - 10/02

89/0581 - Narcissus campernelles odorus - U. WA Arb Sale - Seattle, WA - 5 Bulbs - 10/02

89/0582 - Narcissus 'Charity May' - U. WA Arb Sale - Seattle, WA - 5 Bulbs - 10/02

89/0583 - Narcissus 'March Sunshine' - U. WA Arb Sale - Seattle, WA - 5 Bulbs - 10/02

89/0584 - Narcissus 'Rippling Waters' - U. WA Arb Sale - Seattle, WA - 5 Bulbs - 10/02

89/0585 - Narcissus 'Shot Silk' - U. WA Arb Sale - Seattle, WA - 5 Bulbs - 10/02

89/0586 - Pinus kwangtungensis - U. WA Arb Sale - Seattle, WA - 3" Pot - 10/02

89/0587 - Tsuga heterophylla 'Iron Spring' - U. WA Arb Sale - Seattle, WA - 3" Pot - 10/02

89/0588 - X Phylliopsis hillieri 'Pinochio' - Rhododendron Species Foundation - WA - Cuttings - 10/02

89/0589 - Acer stachyophyllum - Heronswood Nursery - Kingston, WA - Qt. - 10/03

89/0590 - Actinidia melanandra - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0591 - Adluma fungosa - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0592 - Agave desertii - Heronswood Nursery - Kingston, WA - Seedling - 10/03

89/0593 - Aquilegia atrata - Heronswood Nursery - Kingston, WA - Seedling - 10/03

89/0594 - Aralia californica - Heronswood Nursery - Kingston, WA - Seedling - 10/03

89/0595 - Aristolochia heterophylla - Heronswood Nursery - Kingston, WA - Seedling - 10/03

89/0596 - Berberis gylaica - Heronswood Nursery - Kingston, WA - Seedling - 10/03

89/0597 - Berberis koreana - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0598 - Buddleia fallowiana - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0599 - Callicarpa japonica 'Leucocarpa' - Heronswood Nursery - Kingston, WA - Qt. - 10/03

89/0600 - Carex testacea - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0601 - Chrysanthemum weyrichii - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0602 - Clematis cirrosa - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0603 - Cornus capitata - Heronswood Nursery - Kingston, WA - Seedlings - 10/03

89/0604 - Cotoneaster 'Rothschildianus' - Heronswood Nursery - Kingston, WA - 1 Gal - 10/03

89/0605 - Eccremocarpus scaber 'Rubra' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0606 - Enkianthus campanulatus 'Variegata' - Heronswood Nursery - Kingston, WA - Cutting - 10/03

89/0607 - Forsythia suspensa atrocaulis 'Nymans' - Heronswood Nursery - Kingston, WA - Qt. - 10/03

89/0608 - Hoboellia fargesii - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0609 - Lavatera thuringiacea - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0610 - Leucothoe racemosa - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0611 - Lonicera syringantha - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0612 - Mahonia pumila - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0613 - Oenothera berlandieri - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0614 - Periploca sepium - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0615 - Pittosporum undulatum - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0616 - Podocarpus nivalis (Female) - Heronswood Nursery - Kingston, WA - Qt. - 10/03

89/0617 - Podocarpus nivalis (Male) - Heronswood Nursery - Kingston, WA - Qt. - 10/03

89/0618 - Primula pruhoenciana - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0619 - Prunus laurocerasus 'Camellifolia' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0620 - Rhus lancea - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0621 - Ribes sanguineum 'Poulsborough' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0622 - Rodgersia pinnata - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0623 - Rubus ichangense - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0624 - Rubus szechuanensis - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0625 - Rubus spectabilis 'Olympic' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0626 - Rubus tridel 'Benedon' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0627 - Silene maritima 'Flore Plena' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0628 - Sorbus prattii - Heronswood Nursery - Kingston, WA - Qt. - 10/03

89/0629 - Stranvaesia davidiana 'Palette' - Heronswood Nursery - Kingston, WA - Liner - 10/03

89/0630 - Stranvaesia davidiana 'Undulata' - Heronswood Nursery - Kingston, WA - Liner - 10/03

89/0631 - Tsuga canadensis 'Spingarn Littleleaf' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0632 - Ulmus X elegantissum 'Jacqueline Hillier' - Heronswood Nursery - Kingston, WA - 3" Pot - 10/03

89/0633 - Weigela hortensis - Heronswood Nursery - Kingston, WA - Qt. - 10/03

89/0634 - Rhodochiton atrosanguineum - Heronswood Nursery - Kingston, WA - Cuttings - 10/03

89/0635 - Picea chihuahuana - Red Oak Landscaping - Manchester, CT - 1 Gal - 10/05

89/0636 - Vinca minor 'Alba-Variegata' - Montrose Nursery - Hillsborough, NC - Qt. - 10/08

89/0637 - Albizia distachia - Brooklyn Botanical Garden - Brooklyn, NY - 5 Gal/5' - 10/08

89/0638 - Festuca ovina 'Glauca' - Iseli Nursery - Boring, OR - 1 Gal - 10/09

89/0639 - Juniperus squamata 'Holger' - Iseli Nursery - Boring, OR - 3 Gal - 10/09

89/0640 - Nandina domestica 'Woods Dwarf' - Iseli Nursery - Boring, OR - 1 Gal - 10/09

89/0641 - Pinus mugho 'Paul's Dwarf' - Iseli Nursery - Boring, OR - 3 Gal - 10/09

89/0642 - Ilex crenata 'Muffin' (M) - Barnard's Inn Farm - Martha's Vineyard, MA - Cuttings - 10/10

89/0643 - Ilex opaca 'Martha's Vineyard' - Barnard's Inn Farm - Martha's Vineyard, MA - Cuttings - 10/10

89/0644 - Ilex opaca 'Nelson West' (M) - Barnard's Inn Farm - Martha's Vineyard, MA - Cuttings - 10/10

89/0645 - Ilex opaca 'Villanova' (Yellow Berry) - Barnard's Inn - Martha's Vineyard, MA - Cuttings - 10/10

89/0646 - Ilex rugosa (F - from Rokuyo, Japan) - Barnard's Inn - Martha's Vineyard, MA - Cuttings - 10/10

89/0647 - Camellia sasanqua 'Maiden of Great Promise' - Quality Nurseries - Montville, OH - 2 Gal - 10/12

89/0648 - Colchicum (Double White) - Quality Nurseries - Montville, OH - Bulb - 10/12

89/0649 - Iris X 'Baby Blessed' (rebloomer) - Quality Nurseries - Montville, OH - 3 Qt. - 10/12

89/0650 - Iris X 'Golden Encore' (rebloomer) - Quality Nurseries - Montville, OH - 3 Qt. - 10/12

89/0651 - Iris X (White Rebloomer) - Quality Nurseries - Montville, OH - Division - 10/12

89/0652 - Iris X (Blue Rebloomer) - Quality Nurseries - Montville, OH - Division - 10/12

89/0653 - Iris X (Dwarf, Pale Blue Rebloomer) - Quality Nurseries - Montville, OH - Division - 10/12

89/0654 - Pulmonaria longifolia - Quality Nurseries - Montville, OH - 2 Qt. - 10/12

89/0655 - Vinca minor 'Variegata' (Pink Flowers) - Quality Nurseries - Montville, OH - Qt. - 10/12

89/0656 - Chamaecyparis lawsoniana 'Kongn's Silver' - ? - ? - 2 Gal. - 10/12.

89/0657 - Aster noivi-belgi 'Countess of Dudley' - Dominion Arboretum - Ottawa, Canada - Division - 10/14

89/0658 - Bergenia X smithii 'Pugsley Pink' - Dominion Arboretum - Ottawa, Canada - Division - 10/14

89/0659 - Buxus sempervirens 'Welleri' - Dominion Arboretum - Ottawa, Canada - Cutting - 10/14

89/0660 - Euonymus bungeanus - Dominion Arboretum - Ottawa, Canada - Seed - 10/14

89/0661 - Juniperus horizontalis 'Weberii' - Dominion Arboretum - Ottawa, Canada - Cutting - 10/14

89/0662 - Lonicera prolifera - Dominion Arboretum - Ottawa, Canada - Seed - 10/14

Mexico Seed Collections Following:

89/0663 - Cornus sp.? (T15M-38S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0664 - Cornus urbiniana (T15M-7S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0665 - Cornus urbiniana (T15M-12S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0666 - Quercus polymorpha (T15M-18S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0667 - Quercus polymorpha (T15M-2S-092389) - Yucca-Do Nursery - Waller, TX - Seed.

89/0668 - Quercus polymorpha (T15M-5S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0669 - Quercus polymorpha (T15M - 20S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0670 - Quercus polymorpha (T15M-19S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0671 - Quercus sp. (T15M-26S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0672 - Quercus sp. (T15M-27S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0673 - Quercus sp. (T15M-30S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0674 - Quercus sp. (T15M-34S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0675 - Quercus sp. (T15M-14S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0676 - Quercus sp. (T15M-35S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0677 - Quercus sp. (T15M-23S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0678 - Quercus sp. (T15M-36S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0679 - Quercus sp. (T15M-37S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0680 - Quercus sp. (T15M-50S-091789) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0681 - Quercus sp. (T15M-51S-091789) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0682 - Quercus sp. (T15M-52S-091789) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0683 - Quercus sp. (T15M-32S-092489) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0684 - Taxus globosa (T15M-8S-092389) - Yucca-Do Nursery - Waller, TX - Seed - 10/15.

89/0685 - Lyschmachia pseudo-henryi - Brooklyn Botanic Garden - Brooklyn, NY - Qt. - 10/16

89/0686 - Ilex ciliospinosa X aquipernyi (NA28371) -- 1 Gal/2' - 10/16.

89/0687 - Ilex serrata 'White Profusion' - ? - Cuttings - 10/16.

89/0688 - Catalpa duclouxii (NA53522) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0689 - Maesa japonica (NA59939) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0690 - Tutcheria hexaloucalaria (NA59997) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0691 - Staphlea bumalda (NA60016) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0692 - Acorus gramineus (Var. Sel.) (NA56968) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0693 - Acorus gramineus 'Masamune' (NA58433) - U. S. National Arb. - Qt. - 10/17

89/0694 - Actinodaphne lancifolia (NA56765) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0695 - Allium taquetii (NA56560) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0696 - Alnus sieboldiana (NA58304) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0697 - Anemone hupehensis (NA49014D) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0698 - Angelica sp. (NA60448) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0699 - Clematis patens (NA55257) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0700 - Codonopsis lanceolata (NA56460) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0701 - Cymbidium goeringii (NA55269) - U. S. National Arb. - Washington, DC - 6" Pot - 10/17

89/0702 - Deutzia chunii (NA60206) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0703 - Dipelta yunnanensis (NA40116) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0704 - Gymnocladus chinensis (NA59201) - U. S. National Arb. - Washington, DC - I Gal. - 10/17

89/0705 - Schizophragma integrifolia (NA61084) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0706 - Ilex X wandoensis (NA56757) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0707 - Neillia sinensis (NA49343) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0708 - Philadelphus schrenkii (NA55943) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0709 - *Salix chaenomeloides* (NA57189) - U. S. National Arb. - Washington, DC - 3 Gal. - 10/17

89/0710 - *Sorbaria sorbifolia* (NA55946) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0711 - *Stachyurus praecox* 'Magpie' (NA59559) - U. S. National Arb. - Washington, DC - Cuttings - 10/17

89/0712 - *Staphlea holocarpa* (NA60684) - U. S. National Arb. - Washington, DC - Qt. - 10/17

89/0713 - *Eucryphia glutinosa* - Greer Gardens - Eugene, OR - 1 Gal/3' - 10/17.

89/0714 - *Eucryphia* X *nymansensis* 'Nymansay' - Greer Gardens - Eugene, OR - 1 Gal/3' - 10/17.

89/0715 - *Ligustrum* (Unk. Variegated Cv.) - Swift Creek Nursery - Clayton, NC - 1 Gal - 10/23

89/0716 - *Canna* 'Endeavour' (86-0867) - Brooklyn Botanical Garden - Brooklyn, NY - Division - 11/03

89/0717 - *Canna* 'Erebus' (88-0494) - Brooklyn Botanical Garden - Brooklyn, NY - Division - 11/03

89/0718 - *Canna* 'Ra' (88-0595) - Brooklyn Botanical Garden - Brooklyn, NY - Division - 11/03

89/0719 - *Canna* 'Taney' (88-0596) - Brooklyn Botanical Garden - Brooklyn, NY - Division - 11/03

89/0720 - *Tsuga canadensis* 'McDade' - Jim Todd - Lenoir, NC - Cuttings Original Wild Plant - 11/06

89/0721 - *Magnolia denudata* 'Japanese Clone' - Otto Eisenhut - San Nazzaro, Switzerland - 18" - 11/07

89/0722 - *Magnolia* X 'Firefly' - Otto Eisenhut - San Nazzaro, Switzerland - 6" - 11/07

89/0723 - *Magnolia* X 'Ruby' - Otto Eisenhut - San Nazzaro, Switzerland - 12" - 11/07

89/0724 - *Abies concolor* 'Glenmore' - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0725 - *Alnus rubra* 'Amazon' - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0726 - *Betula utilis* (Jade Dragon Mt./Yunnan/China/11,000 ft) - Buchholz & Buchholz - 1 Yr. Graft

89/0727 - *Chamaecyparis nootkatensis* 'Green Arrow' - Buchholz & Buchholz - 1 Yr. Graft - 11/09

89/0728 - *Corylus avellana* 'Lacinata' - Buchholz & Buchholz - 1 Yr. Graft on 4' standard - 11/09

89/0729 - *Felicia amelloides* 'Variegata' - Buchholz & Buchholz - Gaston, OR - Liner - 11/09

89/0730 - *Picea brachytyla* - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0731 - *Picea likiangensis* - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0732 - *Picea maximowiczii* - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0733 - *Picea schrenkiana* - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0734 - *Picea schrenkiana* 'Nana' - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0735 - *Pinus greggii* (*P. sylvestris* understock) - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0736 - *Pinus ponderosa* 'Klickitat Creeper' - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0737 - *Pinus sylvestris* 'Cutty Sark' - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0738 - *Pinus sylvestris* 'Helms' - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0739 - *Pinus* X *Hunnewelliana* - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0740 - *Pinus* X *schwerinii* - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0741 - *Pseudotsuga menziesii* 'Skyline' - Buchholz & Buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0742 - *Thuja koreana* X *standishii* - Buchholz & buchholz - Gaston, OR - 1 Yr. Graft - 11/09

89/0743 - *Boehmeria biloba* - Birmingham Botanical Garden - Birmingham, AL - Cuttings - 11/11

89/0744 - *Ilex cornuta* 'Anicet Delcambre' - Birmingham Bot. Garden - Birmingham, AL - Cuttings - 11/11

89/0745 - *Ilex opaca* 'William Hawkins' - The Garden Shop Garden Center - Birmingham, AL - 3 Gal - 11/11

89/0746 - *Narcissus* 'Aflame' - The Garden Shop Garden Center - Birmingham, AL - Bulbs - 11/11

89/0747 - Narcissus 'Touch of Lemon' - The Garden Shop Garden Center - Birmingham, AL - Bulbs - 11/11

89/0748 - Ternstroemia gymnanthera 'Burgundy' - Garden Shop Garden Center - Birmingham - 5 Gal - 11/11

89/0749 - Juniperus virginiana 'Essex Weeping' - Barnard's Inn Farm-Vineyard Haven, MA -Cuttings - 11/13

89/0750 - Juniperus virginiana (?) 'Slender' - Barnard's Inn Farm - Vineyard Haven, MA - Cuttings - 11/13

89/0751 - Ptelea isophylla - Martin Luther University Bot. Garden - Halle, East Germany - Seed - 11/20

89/0752 - Quercus libani - Martin Luther University Bot. Garden - Halle, East Germany - Seed - 11/20

89/0753 - Syringa oblata - Martin Luther University Bot. Garden - Halle, East Germany - Seed - 11/20

89/0754 - Syringa pinetorum - Martin Luther University Bot. Garden - Halle, East Germany - Seed - 11/20

89/0755 - Syringa villosa - Martin Luther University Bot. Garden - Halle, East Germany - Seed - 11/20

89/0756 - Syringa yunnanensis - Martin Luther University Bot. Garden - Halle, East Germany - Seed - 11/20

89/0757 - Narcissus 'Dick Wilden' - A. A. DeHertog Research - Raleigh, NC - Bulbs - 11/30

89/0758 - Narcissus 'Ice King' - A. A. DeHertog Research - Raleigh, NC - Bulbs - 11/30

89/0760 - Narcissus 'Madam Elizabeth Grullemanus' - A. A. DeHertog Research - Raleigh, NC - Bulbs - 11/30

89/0761 - Narcissus 'Petit Four' - A. A. DeHertog Research - Raleigh, NC - Bulbs - 11/30

89/0762 - Narcissus 'Pink Pride' - A. A. DeHertog Research - Raleigh, NC - Bulbs - 11/30

89/0763 - Narcissus 'Unique' - A. A. DeHertog Research - Raleigh, NC - Bulbs - 11/30

89/0764 - Cupressocyparis leylandii (Narrow columnar form) - ? - ?, GA - Rooted cuttings - 12/05

89/0765 - Abies bornmuellerana - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0766 - Abies coahuilensis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0767 - Abies homolepis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0768 - Abies nordmanniana - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0769 - Abies sachalinensis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0770 - Acer acuminatum - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0771 - Acer argutum - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0772 - Acer caesium - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0773 - Acer henryi - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0774 - Arctostaphylos uva-ursi 'Big Bear' - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0775 - Ceanothus 'Julia Phelps' - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0776 - Ceanothus americanus - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0777 - Convolvulus mauritanicus - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0778 - Cryptomeria japonica sinensis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0779 - Cupressus macrocarpa - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0780 - Euonymus europaea 'Red Cap' - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0781 - Fagus orientalis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0782 - Ilex verticillata 'Nana' - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0783 - Jamesia americana - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0784 - Maackia chinensis (hupehensis) - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0785 - Magnolia acuminata - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0786 - Magnolia tripetala - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0787 - Myrica hartwegii - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0788 - Picea brachytyla - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0789 - Pinus greggii - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0790 - Pinus johannis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0791 - Pinus koraiensis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0792 - Pinus kwangtungensis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0793 - Pinus peuce - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0794 - Pinus pinceana - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0795 - Pistachia vera - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0796 - Rhus lancea - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0797 - Sorbus pohuashanensis - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0798 - Tamarix parviflora - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0799 - Tamarix X ramosissima 'Summer Glow' - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0800 - Thermopsis montana - ForestFarm Nursery - Williams, OR - Liner - 12/07

89/0801 - Tropaeolum tuberosum - Heronswood Nursery - Kingston, WA - Tubers - 12/10

89/0802 - Acer truncatum - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0803 - Adina pilulifera - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0804 - Adinandra millatti - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0805 - Aesculus flava - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0806 - Aesculus glabra (Ohio Shrub Form) - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0807 - Aesculus sylvatica - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0808 - Aesculus turbinata - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0809 - Albizzia kalkora - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0810 - Amsonia hubrectii - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0811 - Bumelia tenax - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0812 - Callicarpa mollis - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0813 - Camellia X 'Donation' - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0814 - Carpinus japonica - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0815 - Castanopsis cuspidata - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0816 - Chimonanthus nitens - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0817 - Cliftonia monophylla - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0818 - Cyrilla arida - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0819 - Dirca palustris - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0820 - Ehretia anacua - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0821 - Elaeagnus pungens 'Hosoba Fukerin' - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0822 - Erythringa flabeliformis - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0823 - Euonymus chibae - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0824 - *Garrya lindhameri* - Woodlanders Nursery - Aiken, SC - Cuttings - 12/15

89/0825 - *Grevillea rosmarinifolia* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0826 - *Hedychium coccineum* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0827 - *Ilex chinensis* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0828 - *Ilex vomitoria* 'Will Fleming' - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0829 - *Ilex X attenuata* 'Alagold' - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0830 - *Illicium henryi* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0831 - *Juniperus pinchoti* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0832 - *Koelreuteria paniculata apiculata* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0833 - *Lindera subcoriacea* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0834 - *Lithocarpus chinensis* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0835 - *Lithocarpus glaber* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0836 - *Lycium carolinianum* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0837 - *Magnolia virginiana* 'Santa Rosa' - Woodlanders Nursery - Aiken, SC - 3" RC - 12/15

89/0838 - *Melia toosenden* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0839 - *Michelia compressa* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0840 - *Myrica cerifera pumila* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0841 - *Myrica inodora* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0842 - *Myrospermum sousanum* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0843 - *Nolina atopocarpa* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0844 - *Nolina brittoniana* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0845 - *Nolina georgiana* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0846 - *Nolina lindheimeri* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0847 - *Nolina microcarpa* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0848 - *Nolina texana* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0849 - *Osmanthus megacarpa* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0850 - *Persea humilis* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0851 - *Persea littoralis* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0852 - *Poliothrysis sinensis* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0853 - *Quercus chenii* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0854 - *Sabal etonia* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0855 - *Sabal louisiana* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0856 - *Sabal minor* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0857 - *Sabal texana* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0858 - *Sageretia minutiflora* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0859 - *Sarcococca saligna* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0860 - *Serenoa repens* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0861 - *Wisteria floribunda* (White with Blue Eyes) - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0862 - *Yucca pallida* - Woodlanders Nursery - Aiken, SC - ? - 12/15

89/0863 - *Pyrus* ? - Old Pasture Tree from Germany? - 4 Miles south of Lucien, OK - Scions - 12/26

89/0864 - *Iris* ? - Old German Cemetary - Potter Community/Lucien, OK - Division - 12/26

89/0865 - Unk. Perennial (*Hemerocallis*?) - Old German Cemetary - as above - Division - 12/26

89/0866 - *Juniperus virginiana* (Hyco Lake, Roxboro, NC) - Shaub Dunkley - Cary, NC - Cuttings - 12/28