

LITERATURE CITED

- Dirr, M.A.** 1998. Reference Manual of Woody Landscape Plants. Stipes Publishing, Champaign, Illinois.
- Takhtajan, A.** 1986. Floristic Regions of the World. Trans. Theodore Crovello. University of California Press, Berkeley, California.

Plants Found in My Backyard...And Yours®

Michael Hayman

2548 Seneca Drive, Louisville, Kentucky 40205 U.S.A.

All the great plants aren't in China. What follows are plants found on weekend trips to arboreta, nurseries, and hobbyists...plants I found in my own backyard...and in yours.

Any sampling of local plants has to pay tribute to the plantsmen who came before us. We stand on the shoulders of people like Buddy Hubbuch, the former horticulturist at Bernheim Arboretum, nurseryman Theodore Klein, and nurseryman Bob Simpson.

Buddy and Theodore were particularly great influences on me. When I met them about 15 years ago, I didn't know the difference between an oak and a maple, even though I had both in my front yard. Both were kind and generous mentors.

Buddy did not breed or select, but he did collect and display plants at Bernheim like the large exhibit of bottlebrush buckeyes which both Michael Dirr and J.C. Raulston have called the best in the world.

He saved the *Euonymus alatus* 'Rudy Haag', a true dwarf, found by Jeffersontown, Kentucky nurseryman, Rudy Haag. A 40-year old group of six plants at Bernheim is 6 ft tall. In 20 years a 'Rudy Haag' will be about 4 ft tall and 5 ft wide. It is nearly fruitless and non-invasive.

Bob Simpson, in Vincennes, Indiana, had a strong bias for plants that produced winter berries.

He selected deciduous holly clones decades before anyone else was interested. His *Ilex verticillata* 'Winter Red' holly is still the standard by which newer clones are judged.

Bob, Theodore Klein, and nurseryman Bon Hartline from Anna, Illinois, sent their best clones to Bernheim giving it one of the best holly collections in the nation.

Simpson introduced many good crabapples and selected *Crataegus viridis* 'Winter King', a 100-year-old wild tree growing in a fence row.

Bon Hartline found other ornamental plants including a dwarf *Ginkgo biloba* with the inflated name of 'Chase Manhattan', also sold as 'Bon's Dwarf'.

Theodore Klein displayed unusual plants at his private arboretum, Yew-Dell, in Crestwood, Kentucky. He found a weeping katsura, *Cercidiphyllum japonicum*, in the nursery of Jess Elliott in southern Indiana. Jess gave the tree to Theodore who propagated it and passed it on to Bernheim and to Cave Hill Cemetery. The tree was planted at Cave Hill in 1976. It appears to be a full-sized katsura, only weeping. Bob Hill from Hidden Hill Nursery and a columnist at the *Louisville Courier-Journal* gave this tree the name 'Amazing Grace' about a year before Theodore's death. Theodore called me out to Yew-Dell every spring when his native crabapples, *Malus coronaria* 'Fimbriata' and *M. coronaria* var. *dasycalyx* 'Charlotte' bloomed. He found the pendulous serviceberry *Amelanchier arborea* 'Silver Fountain' in a fence row

between Crestwood and Shelbyville, Kentucky. His 60-year old holly orchard near Brownsboro, Kentucky still contains 600 old trees, 200 different clones, the best of which he gave to Bernheim. One of the best red-berried is the dark-leaved, heavy-fruited holly first called 'Judy', later changed to *I. opaca* 'Judy Evans.' This clone suffered no damage when temperatures dropped to -30°F. degrees in January 1994.

From a group of seedlings, Theodore selected a dense, upright hemlock known simply as *Tsuga canadensis* 'Klein Hemlock.' The only grower producing it is Chris Summers in Brownsboro, Kentucky. Theodore collected three sugar maple witch's brooms, two upright and one globe, and grafted them to produce unusual miniature trees. Theodore named a round form, *Acer saccharum* 'Shawnee'. Theodore found and named a heavy-flowering kousa dogwood, *Cornus kousa* 'Avalanche'. Near the end of his life, Theodore called me to insist that I see an amazing smoke tree he had found at the Tumbleweed Mexican Restaurant in Louisville. The tree was going to be destroyed by a parking lot expansion so a group of us saved it by moving it to Whitehall Historic House. A year later it was inundated by an 11-inch rain, acquired verticillium wilt and had to be destroyed, but it had been propagated. A new specimen is growing in a dryer site at Whitehall and Don Shadow has a nursery row of this tree, *Cotinus coggygia* 'Pink Cloud'.

We were excited when Paul Cappiello arrived in Louisville to expand Bernheim's horticulture role, but we should never forget plantsmen like Theodore and Buddy who provided the platform we are building on.

Since Paul came he has begun research projects with *C. kousa*, *Buddleia*, *Calycarpa*, *Viburnum*, and *Hamamelis*. In the meantime, as those projects mature, the Bernheim horticulturists have begun to select plants with commercial potential that are already in the collection. *Magnolia* 'Rudy Haag', a cross of *Magnolia liliiflora* 'Nigra' and *M. stellata*, was made before the National Arboretum's little girl forms, according to Buddy. *Magnolia* 'Rudy Haag' flowers heavily over a long period of time and is fragrant. *Fothergilla major* 'Red Licorice', named by Bernheim curator John Wachter, displays brilliant red fall color. Bernheim's *Acer miyabei* has a butter-yellow fall color. One of Bernheim's zelkovas has shown excellent red fall color the last 3 years.

Gary Lanham from Lebanon, Kentucky found intriguing and unusual plants in central Kentucky. Gary died last year so we will never know how many more plants he might have found. His *Rhus copallina* 'Lanham's Purple' is being grown by Steve Hottovy at Forever Green in Dayton, Oregon. Gary also found an unnamed, yellow *Rhus copallina*. His dwarf *Cornus florida*, 'Jessica's Bouquet', was named for a niece who was hit and killed by a car. He found a group of variegated black gums at an Elizabethtown, Kentucky golf course. Gary found a narrow sassafras, a purple nandina, a beehive spruce witch's broom, a yellow sweetgum, and a yellow variegated red cedar. The beehive spruce, *Picea abies* 'Lanham's Beehive', is in production at Iseli Nursery.

Richard Fiest owns a small nursery in Burlington, Kentucky, near Cincinnati. With the permission of the horticulturist, Fred Galle, he registered *Clethra alnifolia* 'Hummingbird', found at Hummingbird Lake in Callaway Gardens. He found six dwarf forms of *Itea virginica*. Two of them are widely available, 'Little Henry' in the north and 'Merlot' in the southeast.

A group of large-flowered paw paws, *Asimina trilobata* × *A. reticulata*, are under the care of Dr. Kirk Pomper at Kentucky State University's paw paw research station in Frankfort, Kentucky.

Don Shadow in Winchester, Tennessee, found a 70-foot tall, yellow-leaved American beech in Northern Alabama. He also found two purpleblow maples, *Acer truncatum*, with orange- and peach-colored emerging foliage. I was with Don when he acquired the first couple of buds from a narrow sweetgum growing alongside a lake in Winchester. On a warm August afternoon in the early 1990s a group of five floated out to the site on a borrowed pontoon boat, and now Don and Harald Neubauer at Hidden Hollow Nursery have this tree in production. Some native witch hazels show flower densities as great as the Asian forms. Don calls his *Hamamelis virginiana* 'Tennessee Beauty'. In a farmyard near Don's nursery, a sugar maple colors orange-red almost every fall. I have planted one small graft at Whitehall in Louisville. One of the six hybrid dogwoods out of Rutgers produced a yellow-variegated sport. This clone from 'Celestial' is in Don's possession and will probably be patented by Rutgers. Other new cultivars are coming from Dr. Elwin Orton at Rutgers. A large-flowered *C. kousa* × *C. nuttallii* back crossed with *C. kousa* is a form that Orton wanted to call 'Venus' but the name was nixed by the university lawyers. A seventh hybrid, a heavy-flowering *C. kousa* × *C. florida*, Dr. Orton planned to call 'Saturn', but that, too, was nixed by the attorneys. These two promising trees have no names yet.

Within a stone's throw of Don Shadow's nursery is Harald Neubauer and his Hidden Hollow Nursery where he grows the hottest new redbuds such as Brotzman's weeper, *Cercis canadensis* 'Covey'; a blush-flowered form, 'Pauline Lily', from West Virginia; 'Appalachian Red'; 'Tennessee Pink', Harald's selection; 'Silver Cloud', Theodore Klein's old variegated selection; 'Sally Brown', a new variegated redbud found by Richard Wolford in Louisville; and an unnamed, compact, blue-leaved form from North Carolina. Harald grows a black gum I found near Tell City, Indiana, *Nyssa sylvatica* 'Hayman Red'. It grows straight in the nursery, the leaves are dark and glossy and, so far, resistant to leaf spot. The fall color is usually brilliant red-orange. J. Frank Schmidt Nursery has trademarked the name Red Rage™ tupelo and will be licensing the name on this tree to other growers. Steve Hottovy from Forever Green in Dayton, Oregon, found a burgundy-tipped *Nyssa sylvatica*. Harald is probably 2 years away from offering this new cultivar.

I received a small *Liriodendron tulipifera* 'Ardis' from Gary Handy in Summer 2000. Harald has budded a small number of this Joe McDaniel tree. Harald produces *Liquidambar styraciflua* 'Silver King', the white-variegated sweetgum. It was already in this country when I brought back three buds from Savill Garden the Spring 1996. From those three buds, Harald now has hundreds of trees in his field. Harald used to make fun of variegated trees, but he is laughing at himself now because, in his nursery, he has variegated *Diospyros virginiana*, variegated *Hamamelis virginiana*, variegated *Ginkgo biloba* 'Autumn Gold' — all three are his discoveries — *L. tulipifera* 'Aureomarginatum', an old variety; *C. kousa* 'Wolf Eyes'; *C. mas* 'Variegata' from the National Arboretum; a group of variegated *Cladrastis lutea*; and a variegated *M. acuminata*.

Rick Crowder, Hickory, North Carolina, found a promising *Stewartia* seedling in his nursery which grows upright and tolerates heat and full sun.

A new cream-variegated sweetgum at Gilbert Nursery in Chesnee, North Carolina, is creating a buzz. This tree is beautiful, but should be planted out in a landscape to determine its strengths and weakness. At this point, there is no name and only Gilbert is producing it.

We reach out in all directions for new plants, including the severe plains of western Oklahoma. Steve and Sherry Bieberich at Sunshine Nursery in Clinton, Oklahoma, suffer through severe heat, drought, and temperatures that can change 80°F in one day. Trees that come from them are tough. The Bieberichs grow *Maclura pomifera* 'White Shield', a fruitless and thornless form. It tends to grow straight up like a beanpole unless, as a young tree, it is topped and the terminal bud re-formed to force side branching.

The *Ulmus parvifolia* 'Aurea', also known as 'Golden Rey', has a yellow leaf that holds up even in their dry heat. It looks best set off against a contrasting dark background. The oddest graft I have ever seen was a large version of this cultivar grafted too high onto a Siberian elm at the Oklahoma State Fairgrounds.

Dr. Bill Gustufson from the University of Nebraska has taken plant expeditions to some of the most inaccessible places in the world such as Mongolia and Tibet, but growing in his own backyard for the last 25 years is an upright oak that deserves commercial consideration. The oak, *Q. petraea* 'Columna', has not suffered from -30°F in Lincoln, Nebraska. The tree sailed through an early fall ice storm that destroyed or damaged nearly every tree in Lincoln a couple of years ago. Bill bought the tree from Pete Girard in Geneva, Ohio, who probably got it from the specimen trees at the Holden Arboretum.

One of the nicest trees to come out of Gustufson's and Todd Morrissey's program in Nebraska is a white-variegated lacebark elm. It has no name and no producer except a few plants I saw at Harlan Hamernik's Bluebird Nursery in Clarkson, Nebraska. Harlan grows plants from all over the world, but he does not overlook the plants in his backyard, such as *Ipomea leptophylla*, a prairie plant with bright purple flowers. He sells *Melinis nerviglume* 'Pink Crystals' (syn. *Rhynchelytrum nerviglume* 'Pink Crystals') which comes from Colorado State. Early in the spring it looks like blue fescue, but the real beauty comes midsummer when bright, pink seed heads form. The dwarf *Morus rubra* 'Blair', from Blair, Nebraska, grows like a bush unless pruned vigorously.

The first year I grew the prairie plant, *Callirhoe alcaeoides* 'Logan Calhoun', in my garden, it looked like a weed, but now it sprawls beautifully among other plants like *Dianthus* 'Horatio'. It was found by Texas collector Logan Calhoun who passed it onto the Bieberichs in Oklahoma who passed it to Harlan to produce in Nebraska.

The *Baptisia australis* var. *minor* I grow was introduced to the trade by the Nebraska Statewide Arboretum. Its small size fits nicely into small gardens, and its ornamental black seed pods last for months after the flowers are gone.

If you like black, you will love the new *Pennisetum glaucum* × *P. americanum* which comes from the University of Nebraska.

The Fleming brothers in Lincoln, Nebraska, bred *Hibiscus* and *Dianthus*. The last surviving brother, Dave, died last week. A sampling of their hibiscus include 'Fireball', 'Strawberries and Cream', 'Old Yella', 'Dark Loveliness', and 'Crown Jewels' which displays purple foliage, a white and red flower, and tops out at 2½ ft. In 2003, three of Dave's hardy tropical cultivars will be introduced. Gretchen Zwetzig, who cared for the brothers in their declining years, is handling the licensing and release of the remaining plants.

Platanus ×hispanica 'Yarwood' (syn. *P. ×acerifolia* 'Yarwood') comes from the Saratoga Horticulture Foundation. We get excellent white bark at a young age and, so far, the leaves have been much more anthracnose resistant than our native sycamores.

Cottonwoods thrive anywhere from standing water to parking lots. The clone 'Colmar', from western Illinois, came out of Joe Jokela's forestry program at the University of Illinois. It is a male and the leaves are disease-resistant, hanging on long enough to produce a pleasing yellow fall color.

Earl Cully is another product of the plains. Earl is most famous for selecting *Betula nigra* 'Cully', Heritage™ riverbirch. In addition, Earl has selected a lacebark elm, a wonderful group of hybrid oaks, a fruitless sweetgum, a sweetbay magnolia, a Turkish hazelnut, a bald cypress, and red maples. His *Acer rubrum* 'Burgundy Belle' from Kansas, shows brilliant burgundy-red fall color. In the 4 years I have had young trees, they have colored better than *A. rubrum* 'Franksred', Red Sunset® red maple.

Earl and Richard Jaynes found a blue-needed, dense hybrid of American and Mexican white pines, *Pinus strobus* × *P. ayacahuite*, at the forestry grounds of the University of Connecticut.

It is hardy to Wisconsin where Roy Klehm grows it. None of the five trees I have were watered during the drought of 1999, yet they all survived. This clone has no name.

To the north, in Minneapolis, Harold Pellett has been breeding tough urban trees through the Hardy Plant Development Center. The nicest of his experimental pears is *Pyrus* #4, not for flowers but for its architecture and its silvery leaves.

Halesia carolina 'Uconn Wedding Bells' was found in Columbus, Ohio, and introduced by Mark Brand through the University of Connecticut. It was selected for flowering heavily at a young age, and it roots easily.

Brotzman's *Acer* 'White Tigriss' has been spectacular for us when kept in the shade. Sunlight can scald its thin bark.

Acer saccharum 'Wright Brothers' from Siebenthaler's in Dayton, Ohio, has given us consistently beautiful, yellow-orange fall color.

Spring Grove Cemetery in Cincinnati has a wonderful display of *Abies cilicica*. Seeds of this species germinate in the nearby wooded areas of the cemetery. That is where I acquired small numbers of this tree, after getting permission of the horticulturist.

Karl Klein from Crestwood, Kentucky, brought *Quercus serrata* (syn. *Q. glandulifera*) to my attention. There are at least six of these vase-shaped oaks at Cave Hill, but Lee Squires, the director at the cemetery, says there are no records for its source. Hortus Third describes it as an Asian oak which grows to about 50 ft. Two years ago I collected 50 lb of the tiny acorns, sent them to Mark Krautmann in Salem, Oregon, and he now offers them in his catalogue, Heritage Seedlings.

We also have no records on the Asian oak, *Q. dentata*. A stand of seven large trees grows off University Avenue at the University of Kentucky. The trees have the texture of our native bur oak and produce an acorn with a cinnamon-red cap.

A few of us are fringe enough to pursue clones among our native red cedars, *Juniperus virginiana*. They probably do not have a lot of commercial potential, but the collector half of our brains still seek out the intriguing individuals. A dramatic windbreak in southeast Nebraska is made up of 200 locally found narrow red cedars. Unfortunately, every one of them turns a dirty brown color in February. A narrow red cedar called 'Washington Monument' by its owners in Santa Claus, Indiana looks better in the dead of winter than the Nebraska trees. Gary Lanham found his yellow-variegated cedar, *J. virginiana* 'Goldilocks', in Campbellsville, Kentucky, at the city's reservoir. *J. virginiana* 'Glaucua' is an old, but nice blue form.

An unnamed weeping cedar is growing at Fred Shadow's nursery in Winchester, Tennessee. Don Shadow said that the tree was a gift from a Louisville area nurseryman, so it's probably originally a Kentucky tree.

I found a variegated *Carya* by walking the rows at the Vallonia Indiana State nursery where they grow about 5 million seedling trees every year. It is now planted at Bowman Springs in Seneca Park in Louisville.

In this golden era of plant exploration, it seems that horticulturists are examining the natural beauty in every corner of the world, but we should remember to appreciate and plant our grand natives that lived here for centuries before us — the great bur oaks, *Q. macrocarpa*, that dominated Kentucky's bluegrass savannas; swamp chestnut oaks, *Q. michauxii*, growing in the lowlands of the Ohio River near Fort Knox; blue ash *Fraxinus quadrangulata*; chinkapin oak *Q. muehlenbergii*; and white oak *Q. alba*.

Let's also remember the plantsmen in our own backyards — people like Buddy Hubbuch, Gary Lanham, Dave Fleming, and Theodore Klein. They were kind and generous souls whose greatest joy was to give away their plants.

Seed Propagation — The Lost Art[®]

Dennis P. Niemeyer

WE-DU Nurseries, 2055 Polly Spout Road, Marion, North Carolina 28752, U.S.A.

INTRODUCTION

We at WE-DU Nurseries grow several thousand different plant types that necessitates a wide range of propagation techniques. We grow over 50% of these plants from seed, most of which were collected from our own stock. Of our seed-propagated plants, 60% to 75% are native to the eastern United States. Our main reason for growing from seed is to promote genetic diversity in the species and to produce plants not commonly offered in the trade.

Our native phlox, lobelia, asters, azaleas, and others offer great opportunities for selecting superior and unique cultivars from wild-collected seed. *Trillium*, *Helonia*, *Chamaelirium*, and *Cymophyllus* are good examples of plants not readily available in the commercial trade. We must produce the seed of these plants to use in our finish production facilities.

Current commercial seed production has allowed thousands of species to be available for growers. In perennials especially, many species have become available through many seed houses. Along with the proliferation of seed species available, plug production grew dramatically in the last 20 years causing fewer nurseries to grow and produce their own seed. This change in commercial production has lead veteran growers to view seed propagation as a “lost art”.

One of the problems of seed production of unusual species is the lack of good reference material. Norm Deno has produced some data on many obscure plants. Books by Dick Bir on native trees, Jan Midgley on Southeastern native wildflowers, William Cullina on native wildflowers among others have given some light to these topics. Not only growing these rare plants from seed, but production and harvesting the seed presents a great challenge.

SEED STOCK PRODUCTION

Producing seed for harvest requires more than simple collection of mature seed from the production blocks. Many species will cross pollinate if grown too close to related